



**MASSACHUSETTS GAMING COMMISSION
PUBLIC MEETING #276**

September 12, 2019
10:00 a.m.

Massachusetts Gaming Commission
101 Federal Street
Boston, MA



Massachusetts Gaming Commission



**NOTICE OF MEETING and AGENDA
September 12, 2019**

Pursuant to the Massachusetts Open Meeting Law, G.L. c. 30A, §§ 18-25, notice is hereby given of a meeting of the Massachusetts Gaming Commission. The meeting will take place:

**Thursday, September 12, 2019
10:00 a.m.
101 Federal Street, 12th Floor
Boston, MA**

PUBLIC MEETING - #276

1. Call to order
2. Approval of Minutes
 - a. August 15, 2019 – **VOTE**
3. Administrative Update – Ed Bedrosian, Executive Director
 - a. General Update
4. Legal Division – Catherine Blue, General Counsel
 - a. Region C – Motion for Reconsideration – Todd Grossman, Deputy General Counsel – **VOTE**
 - b. Initial Draft Versions of 205 CMR 134.01 and 134.06 Re: Licensing and Registration of Employees, Vendors, Junket Enterprises and Representatives, and Labor Organizations and Small Business Impact Statements – **VOTE** to begin the promulgation process – Carrie Torrisi, Staff Attorney
5. Ombudsman – John Ziemba
 - a. Encore Boston Harbor Quarterly Report – Robert DeSalvio, President and Jacqui Krum, Senior Vice President and General Counsel – Encore Boston Harbor
6. Plainridge Park Casino License Renewal Process Discussion – Commission O'Brien, Commissioner Zuniga and Todd Grossman Deputy General Counsel



Massachusetts Gaming Commission

7. Licensee Policies on Switching Jackpots – Commissioner Stebbins and Bruce Band , Assistant Director – Gaming Agents Division Chief
8. Investigations and Enforcement Bureau – Karen Wells
 - a. Modificaton of Massachusetts Supplemental Form –**VOTE**
 - b. Modification of Criminal History Section in License/Registration Application Forms –**VOTE**
9. Research and Responsible Gaming – Mark Vander Linden, Director
 - a. MA Gaming Impact Cohort Study Wave 3 – Rachel Volberg
10. Commissioner’s Updates
11. Other business – reserved for matters the Chair did not reasonably anticipate at the time of posting.

I certify that on this date, this Notice was posted as “Massachusetts Gaming Commission Meeting” at www.massgaming.com and emailed to: regs@sec.state.ma.us, melissa.andrade@state.ma.us.

09.09.19
Date

Cathy Judd-Stein
Cathy Judd-Stein/Chair

Date Posted to Website: September 10, 2019 at 10:00 a.m.



Massachusetts Gaming Commission



Massachusetts Gaming Commission Meeting Minutes

Date/Time: August 15, 2019 – 11:00 a.m.

Place: Massachusetts Gaming Commission
101 Federal Street, 12th Floor
Boston, MA 02110

Present: Chair Cathy Judd-Stein
Commissioner Eileen O'Brien
Commissioner Bruce Stebbins
Commissioner Enrique Zuniga
Commissioner Gayle Cameron

**Time entries are linked to the
corresponding section in the
Commission meeting video.**



Call to Order
See transcript page 1

[11:02 a.m.](#) Chair Cathy Judd-Stein called to order public meeting #275 of the Massachusetts Gaming Commission.

Encore Boston Harbor Update on Suitability Decision Condition –Independent Monitor RFP

See transcript pages 1 - 39

[11:03 a.m.](#) The Chair updated the Commission on the status of the conditions imposed on Encore Boston Harbor to procure an independent monitor. The Chair thanked the procurement team that was convened for the purpose of selecting this entity for their work on the task. Specifically, she thanked Commissioner O'Brien; Todd Grossman, Deputy General Counsel; Loretta Lillios, Chief Enforcement Counsel and IEB Deputy Director; Derek Lennon, Chief Financial and Accounting Official; and Agnes Beaulieu, Finance and Budget Office Manager and Chief Procurement Specialist.

Mr. Grossman described the Commission's decision on April 30, 2019, relative to the suitability of Wynn MA, LLC, to include a condition that required the

Commission to appoint an independent monitor at the company's expense and with the company's full cooperation. He described the Commission's expectations of the independent monitor assigned to Encore and the tasks they would perform. He stated that the law firm of Miller & Chevalier was the presumptive successful bidder to be appointed as the monitor and that the team would be led by Alejandra Montenegro Almonte. He described the criteria and process of choosing the candidates.

Mr. Grossman then asked, on behalf of the procurement team, that the Commission ratify the review team selection of Miller & Chevalier and to authorize the execution of a contract so that the monitorship may commence.

Commissioner Stebbins asked if there is an opportunity to work out some details within the scope of the contract relative to reporting requirements and a reporting schedule. Mr. Grossman stated that the procurement team is working on including language that would require the successful bidder to submit a work plan to the commission for approval within 30 days of the execution that would articulate all of the proposed elements of the monitorship.

The Chair noted for the record that she enjoyed working with everyone and choosing the candidates in this process. She added that they were all outstanding. She then thanked all those who participated in this process.

[11:15 a.m.](#)

Alejandra Montenegro Almonte, Vice-Chair of the International Department at Miller & Chevalier, introduced herself, thanked the procurement committee for providing such a smooth review process. The team members introduced themselves and gave a brief description of their credentials.

Ms. Almonte then explained how their evaluation process will work with Encore Boston Harbor, noting that her team understands that there has been alleged misconduct that has given rise to them being before the Commission today. She stated that they will have that in the backdrop, but more importantly, they are going to look at what the compliance structure of the company has in place today for its risk profile, its business reality, and the Commission's expectations.

[11:28 a.m.](#)

Preston Pugh, Executive Committee Member of Miller & Chevalier, provided a high-level overview of their proposed work plan with Encore Boston Harbor.

Ms. Almonte stated that they would provide a baseline report in six months that would outline the team's initial findings, and like with any monitorship and compliance review, there would be a number of recommendations that they would make at that point.

Commissioner Stebbins stated that if a situation arises that is timely and that the Commission needs to know about, he would expect that the team would not wait for a prescribed reporting period, and would report the matter immediately so that the Commission can try to address it. Ms. Almonte replied that this would

be something they would commit to and would also be asking from the company.

Commissioner Zuniga noted that the public is aware that the costs of this monitorship are going to be born by the company, and the costs by the Commission are born by the licensees, and the Commission takes that freedom very seriously and responsibly. He requested that Ms. Almonte speaks about any scenarios where they may reassess their cost estimate.

Ms. Almonte stated that as the team has so much collective experience, they are able to discern true areas of concern that need to be investigated from areas that do not, which will ultimately ensure that funds are being spent appropriately. However, she added that if a need were to arise to change the scope of their work, potentially impacting the budget, they would come to the Commission well beforehand.

[11:50 a.m.](#) *Commissioner Cameron moved that the Commission ratify the selection by the procurement review team of Miller & Chevalier Chartered as the independent monitor of Wynn MA, LLC as described in the Commission's April 30, 2019 suitability decision, and that the Commission enter into a contract with the firm outlining the terms of the engagement. Commissioner O'Brien seconded the motion.
The motion passed unanimously.*

The Chair asked that Mr. Grossman explain the position of Contract Manager to the Commission. Mr. Grossman explained the contract manager serves as a conduit between the vendor, in this case, Miller & Chevalier, and the Commission.

[11:56 a.m.](#) *Commissioner Cameron moved that the Chair be designated by the Commission as the contract manager for purposes of providing supervision over the monitorship. The contract manager shall be authorized to make decisions necessary to ensure that the monitoring activities remain fluid, but will utilize her best judgment to determine whether any particular issue should be brought before the Commission for review. Commissioner Zuniga seconded the motion.
The motion passed unanimously.*

*Commissioner Cameron further moved that the Chair be authorized to execute the contract between the Commission and Miller & Chevalier after consultation with the legal department. Commissioner Zuniga seconded the motion.
The motion passed 4 - 1 with the Chair abstaining.*

Ombudsman

See transcript pages 39 - 77

[12:04 p.m.](#) **Town of Plainville Presentation**
Ombudsman John Ziemba introduced Jennifer Thompson, Plainville Town Administrator; Jeff Johnson, Chairman of the Board of Selectmen; Mark

Bertonassi, Building Commissioner; James Alfred, Chief of Police; and Justin Alexander, Fire Chief, to provide the Commission with a presentation regarding the Town of Plainville's recently completed municipal complex.

Ms. Thompson invited the Commission to visit the new complex in person to see it. She then reviewed PowerPoint slides with the Commission, describing how the Plainridge Park Casino has, since its opening, created over 500 jobs in the region. These jobs were specifically created from the facility, and from the construction of the casino and municipal complex. She noted that the community hosting agreement has benefited the town 2.5M per year in real estate and property tax, and goes up 2.5% every year.

Next, Ms. Thompson noted the benefit of community impact fees, detailing that in the first through the fifth years after the casino's opening, they pay Plainville \$2.7M per year. In years six through ten, it will shift to a payout to the town of 1.5% of Gross Gaming Revenue (GGR), and after eleven years and beyond, it will then shift to a payout to the town of 2% of the GGR.

She presented slides that illustrated the new, existing conditions to the previous conditions of the town hall and the public safety building.

Next, Ms. Thompson described the Town of Plainville's 2016 presentation entitled, "Visions for our Future." She stated that in 2016 they appeared before a town meeting for an appropriation for a feasibility study and a design for the renovation of the Old Wood School that had been vacant for 12 years. She stated that they received the appropriation at that town meeting to move forward with the feasibility and new construction in the study and they used the funds from the host community agreement to fund it.

Ms. Thompson then presented the town's 2017 slide presentation to the Commission where they presented at town meeting a plan and a rendering of what the buildings might look like, and had proposed a new municipal complex at a cost of \$34M which included demolition of the old school.

She then displayed slides depicting the groundbreaking celebration, the construction, and then the finished municipal complex. She described the open houses that took place in March 2019, and the ribbon-cutting in April 2019.

Ms. Thompson thanked the citizens of Plainville, the Commission, and everyone that supported them in their efforts.

12:37 p.m.

Commissioner Zuniga asked if there is a prospect of any further economic development or additional commerce coming to Plainville. Mr. Johnson replied that they have seen an uptick in interest by the public in the area around the casino. He noted that the horse racing business is doing much better now, which is also doing positive things for the area.

[12:39 p.m.](#)

Plainridge Park Casino (PPC) Quarterly Report

Ombudsman Ziembra presented to the Commission the PPC quarterly report for the second quarter that ended on June 30th, 2019. With him was Lance George, General Manager; Mike Mueller, VP of Operations; and Michele Collins, VP of Marketing.

The Ombudsman provided a brief status update regarding the potential extension of bus service to the PPC facility, stating that whole the service has not been established, PPC continues to work with local partners on this.

Mr. George and his team reviewed with the Commission a slide presentation showing gaming revenue and taxes for all four quarters of 2018 and for the first and second quarters of 2019. They reported on the categories of lottery sales, spend-by-state, local spend, vendor diversity, employment, and compliance.

[12:44 p.m.](#)

Commissioner Stebbins voiced concern that the Massachusetts spending trend, over time, has been going in the wrong direction. He noted that this may be on account of national contracts. He then stated that this might warrant having a meeting to understand where the trends are going to get a clearer picture of how this is unfolding. Mr. George answered affirmatively.

Ms. Collins provided an update on the Women Leading at Penn program to the Commission. She then reported on local community projects, sponsorships, and marketing highlights.

Investigations and Enforcement Bureau (IEB)

See transcript pages 77 - 102

[12:59 p.m.](#)

Junket Licensing and Reporting Requirements

Karen Wells, IEB Director, stated that she worked with Carrie Torrisi, Associate General Counsel on junket licensing and reporting requirements. Junkets are described (see memo entitled "Junkets" in the [Commissioners' Packet](#)) as an arrangement intended to induce a person to come to a gaming establishment to gamble, where the person is selected or approved for participation on the basis of the person's ability to satisfy a financial qualification obligation related to the person's ability or willingness to gamble or on any other basis related to the person's propensity to gamble and pursuant to which and as consideration for which, any of the cost of transportation, food, lodging, and entertainment for the person is directly or indirectly paid by a gaming licensee or affiliate of the gaming licensee.

Ms. Wells stated that Encore Boston Harbor requested some movement on using junkets to bring customers into their casino. She clarified that when the IEB is referring to junkets in this context, they are specifically referring to junkets and Macau.

She stated that the IEB is requesting from the Commission a determination on the level of licensure required for what she calls an “Independent Operator” or a “Solo Practitioner Junket Operator”.

The IEB is also requesting feedback from the Commission on the junkets regulation. Ms. Wells stated that Attorney Torrasi has been working on the regulation and would like to present a draft of it at the next meeting to start the promulgation process.

Jacquie Krum, Senior Vice President and General Counsel of Encore Boston Harbor, explained that it would be an independent contractor relationship where they would be bringing in people. She explained that they would not allow junket operators to give credit. So they would be essentially bringing in people and introducing them to the Encore team, effectively hosting them, but as independent contractors and not as employees.

Commissioner Stebbins asked how Nevada deals with some of these independent contractors, such as professional athletes with followings. Ms. Krum stated that she would get back to the Commission with an answer, and said that she doesn't think it is as highly regulated as some other jurisdictions.

Commissioner Cameron asked that Ms. Wells elaborate on why the IEB believes the Key Gaming Standard employee designation is the right designation for junket enterprise operators. Ms. Wells stated that the type of information that the IEB would request in the screening process for a junket representative would fit the Key Standard form.

[1:18 p.m.](#)

Regarding fees for licensure, Commissioner Stebbins stated that being a part-time sole proprietor does not rise to the level as a junket enterprise and should not be held to that standard concerning fees for licensure.

Ms. Wells clarified that someone who does not incorporate who chooses to take the risk not to be an LLC who could still function as an individual representative would be a Key Gaming Standard license.

[1:22 p.m.](#)

Commissioner Zuniga moved that the Commission approve the recommendation of the IEB and Legal Department that individuals operating as independent junket representatives be licensed as Key Gaming Employees as more fully described in the memorandum from IEB Director Karen Wells and Associate Counsel Carrie Torrasi dated August 8, 2019 included in the Commission packet and further that the IEB begin to accept license applications from independent junket representatives while the Commission is promulgating regulations regarding independent junket representatives and junket reporting requirements. Commissioner Cameron seconded the motion. The motion passed unanimously.

Ms. Wells then addressed junket reporting requirements and recommended that the licensee be required to submit copies of the junket requirements to the IEB for review. The IEB is also recommending that the regulations prohibit junkets

from extending credits to patrons, and marketing to specific Voluntary Self-Excluded persons (VSEs).

Ms. Wells concluded by asking the Commission for any further input regarding the draft regulation that they would like to provide. If they have nothing further, the IEB and Legal division will proceed with the draft, and present it at the next Commission meeting for a vote and public comment.

Research and Responsible Gaming

See transcript pages 102 - 126

2:06 p.m. **Gaming Research Update and FY20 Plan**

Mark Vander Linden, Director of Research and Responsible Gaming, reviewed the FY 20 gaming research agenda. He stated that he would be asking the Commission for guidance and hope for a vote on the agenda.

Mr. Vander Linden outlined the proposed agenda, describing its initiatives entitled, "Social and Economic Impacts of Gaming in Massachusetts (SEIGMA)", "Social and Economic Research", "Massachusetts Gaming Impact Cohort (MAGIC)", "Public Safety Research", "Community-Engaged Research", "Data, Transfer, Storage and Access Project", and "Research Peer Review."

2:19 p.m.

The Chair noted that she would like to better understand any economic impacts on the employees with a follow-up employee survey, after them being employed for a period of time. This way, any anticipated impacts will have actually come to fruition, and baseline studies conducted from the initial surveys would be used for comparison. She noted that she is aware that there may be some legal barriers (concerning privacy, etc.) to obtaining that information, based on a previous discussion with Mr. Vander Linden.

Mr. Vander Linden answered that he would follow up on finding out what any potential legal barriers may be, and perhaps the follow-up surveys can be implemented and focused on through the next phase of the research.

2:40 p.m.

Commissioner Stebbins suggested that information from Mr. Vander Linden's studies could be shared with the number of stakeholders who would like to see it. He stated that he believes there is a lot of information that would be of value to the local tourism bureaus and economic development officials. He noted that the public safety data that Commissioner Cameron tracked could be shared with the community advisory committees so they can think of steps to take with the community mitigation funds.

The Chair asked for a more definite timeline for Mr. Vander Linden's deliverables. Mr. Vander Linden stated that he anticipates having the Public Safety report to the Commission by late October. He will then immediately begin work on the next report specifically for MGM Springfield and Encore Boston Harbor, which will be the initial three-month report (MGM will actually be a four-month report).

[2:43 p.m.](#) *Commissioner Stebbins that the Commission approves the FY20 research plan as described in the memo from Director of Research and Responsible Gaming Mark Vander Linden dated August 15, 2019 included in the commission packet. Commissioner Zuniga seconded the motion. The motion passed unanimously.*

Administrative Update

See transcript pages 126 - 135

[2:44 p.m.](#) **General Update**

Executive Director Bedrosian provided an update on Racing. He reported that on August 1st, the legislature passed Chapter 47, the acts of 2019 which extended the current horse racing and wagering statutes until January 15, 2020. However, he noted that the requirement for Suffolk Downs to hold between 1 and 50 live racing days in order to simulcast was deleted.

He also anticipates that racing applications for the next year will be due on October 1, 2019, with action by the Commission by November 15, 2019.

Mr. Bedrosian stated that in the meantime, he will work with the Commission and the staff to think about how the Commission can help the legislature and their responsibilities in the fall.

[2:52 p.m.](#) Commissioner Zuniga stated that following up on the impact of simulcasting would be a great way to provide information to the benefit of the lawmakers to make the appropriate decisions. He also noted that the Commission is tasked with recommending improvements to both the live racing and the simulcasting statutes, per , and asked about the status of 128D that was proposed previously. He does not know if the original proposal that would allow the discretion to fix all of the moving pieces of the history of the racing statutes is getting enough attention.

Mr. Bedrosian suggested staff bringing an updated proposal back to the Commission in September or October. Commissioner Zuniga agreed, stating that there are definitely revisions to be made.

The Chair requested updates on a regular basis as to status in terms of timeline.

Approval of Minutes

See transcript pages 135 - 137

[2:58 p.m.](#) *Commissioner Stebbins moved to approve the minutes from the Commission meeting of July 18, 2019, subject to correction for typographical errors and other nonmaterial matters. Commissioner O'Brien commented that she would like it to be emphasized that she stated that she wanted a meeting with the MA District Attorney's Association (MDAA) and various DA office stakeholders to work together when they're developing a system for tracking the cases. Also, check for*

*accuracy of her quote regarding a motion on pages 12 and 13. Commissioner Zuniga seconded the motion.
The motion passed unanimously with requested edits to be made.*

Legal Division

See transcript pages 137 - 154

3:01 p.m. **Final Draft Version of 205 CMR 6.35: Pick (n) Pools and Amended Small Business Impact Statement**

The Commission reviewed the final draft version of the amendment to this regulation, which adds an additional set of wagers to the racing regulations.

Catherine Blue, General Counsel reminded the Commission that as this is a racing regulation, it will be sent to the legislature upon the Commission's approval, where they will have 60 days to provide any comments.

3:03 p.m. *Commissioner Cameron moved to approve the final draft version of 205 CMR 6.35: Pick (n) Pools and permit staff to take the necessary steps to complete the promulgation process. Commissioner Zuniga seconded the motion.
The motion passed unanimously.*

*Commissioner Cameron moved further moved to approve the Amended Small Business Impact Statement for 205 CMR 6.35: Pick (n) Pools.
Commissioner Zuniga seconded the motion.
The motion passed unanimously.*

Final Draft Version of 205 CMR 102.02: Definitions and Amended Small Business Impact Statement

The Commission reviewed the final draft version of amendments to this regulation to add the terms and define "Minority Business Enterprise (MBE)," "Veteran Business Enterprise (VBE)," and "Women Business Enterprise (WBE)". By these amendments, the same definitions will now apply to post-construction casino operations as well as to the construction phase.

Jill Griffin, Director of Workforce, Supplier and Diversity Development, stated that she received feedback from Plainridge Park Casino (PPC), who stated that they are interested in the Commission considering using other jurisdictions' practices of accepting all diversity certifications and affidavits from all states.

Ms. Griffin recommended that the Commission follow the Massachusetts State Supplier Diversity office procedures, consistent with the practice during construction with the exception of an update to the VBE category because now the state Supplier Diversity Office certifies VBEs.

3:19 p.m. *Commissioner Cameron moved that the Commission approve the Amended Small Business Impact Statement for 205 CMR 102.02 Definitions included in the packet. Commissioner Stebbins seconded the motion.*

The motion passed unanimously.

Commissioner Cameron further moved that the Commission approve the version of 205 CMR 102.02: Definitions as included in the packet and authorize the staff to take all steps necessary to finalize the regulation promulgation process.

Commissioner Stebbins seconded the motion.

The motion passed unanimously.

Final Draft Version of 205 CMR 143.02: Progressive Gaming Devices and Amended Small Business Impact Statement

The Commission reviewed the final draft version of amendments to this regulation which describe an update to progressive controller security provisions.

Todd Grossman, Deputy General Counsel stated that specifically, the amendment pertains to the physical security of progressive gaming devices, to now consider that an as a progressive gaming device could be integrated into the software of a slot machine, it is considered secure if it is either integrated into the software or housed in a dual key-controlled environment.

Commissioner O'Brien stated that this comes from when she had raised concern previously, and wanted to add a provision to the regulation directing the licensee to notify the Commission of a breach of security.

[3:23 p.m.](#)

Commissioner Stebbins moved that the Commission approve the Amended Small Business Impact Statement for 205 CMR 143.02 Progressive Gaming Devices included in the packet. Commissioner Zuniga seconded the motion. The motion passed unanimously.

Commissioner Stebbins further moved that the Commission approve the version of 205 CMR 143.02 Progressive Gaming Devices as included in the packet and authorize the staff to take all steps necessary to finalize the regulation promulgation process. Commissioner Cameron seconded the motion. The motion passed unanimously.

Final Draft Version of 205 CMR 152.00: Individuals Excluded From a Gaming Establishment and Amended Small Business Impact Statement

The Commission reviewed the final draft version of amendments to this regulation which first confirm the hearing process that was originally in the section with the Commission's overall hearing process in 205 CMR 101.00: M.G.L. c. 23K Adjudicatory Proceedings, as well as now allowing an appeal by both parties. Lastly, there has been new language added to allow the Commission to revoke conditional or suspend the license of a licensee who does not take an excluded person out of the gaming establishment.

[3:26 p.m.](#)

Commissioner Obrien moved that the Commission approve the Amended Small Business Impact Statement for 205 CMR 152.00 Individuals Excluded from a

Gaming Establishment included in the packet. Commissioner Cameron seconded the motion.

The motion passed unanimously.

Commissioner O'Brien further moved that the Commission approve the version of 205 CMR 152.00: Individuals Excluded from a Gaming Establishment as included in the packet and authorize the staff to take all steps necessary to finalize the regulation promulgation process. Commissioner Stebbins seconded the motion. The motion passed unanimously.

Commissioner's Updates

See transcript pages 154 - 158

[3:27 p.m.](#) Commissioners Cameron and O'Brien met with law enforcement about an initiative to conduct problem gaming surveys with inmates and then they collaborated and shared information. Ways to collaborate on the research that the sheriff has conducted were also discussed. Commissioner Cameron stated that the sheriff was open to working with Mr. Vander Linden on this.

Commissioner O'Brien stated that the purpose of the meeting was to get a baseline before Encore opened. Mr. Vander Linden would potentially follow up with the sheriff regarding impact, as we do not have online sports betting yet and can analyze the market as it is now.

[3:34p.m.](#) *With no further business, Commissioner Stebbins moved to adjourn the meeting. The motion was seconded. The motion passed unanimously.*

List of Documents and Other Items Used

1. Notice of Meeting and Agenda dated September 12, 2019
2. Draft Commission Meeting Minutes dated July 18, 2019
3. Memo Re: Independent Monitor of Wynn MA, LLC dated August 15, 2019
4. Memo Re: Procurement Process for Wynn Monitoring RFR dated August 9, 2019
5. Wynn Final RFR Re: Independent Monitor for Wynn License Conditions
6. Miller & Chevalier RFR Response Letter
7. Miller & Chevalier RFR Response Letter Re: Fiscal Terms
8. Miller & Chevalier Summary MGC Monitorship Overview dated August 15, 2019
9. Town of Plainville Presentation dated August 15, 2019
10. Plainridge Park Casino Quarterly (Q2 2019) Report Presentation
11. Memo Re: Junkets dated August 8, 2019
12. Memo Re: FY20 Gaming Research Agenda dated August 15, 2019
13. Report Re: A Research Strategy for Gaming In Massachusetts dated May 2019
14. Draft Amended Small Business Impact Statement for 205 CMR 6.35: Pick (n) Pools
15. Final Draft of Amended Regulation 205 CMR 6.35: Pick (n) Pools
16. Draft Amended Small Business Impact Statement for 205 CMR 102.02: Definitions

17. Final Draft of Amended Regulation 205 CMR 102.02: Definitions
18. Public Comment Re: 205 CMR 102.02: Definitions
19. Draft Amended Small Business Impact Statement for 205 CMR 143.02: Progressive Gaming Devices
20. Final Draft fo Amended Regulation 205 CMR 143.02: Progressive Gaming Devices
21. Draft Amended Small Business Impact Statement for 205 CMR 152.00: Individuals Excluded from a Gaming Establishment
22. Final Draft of Amended Regulation 205 CMR 152.00: Individuals Excluded from a Gaming Establishment
23. Regulation Review Checklist for 205 CMR 102.02: Definitions
24. Regulation Review Checklist for 205 CMR 152.00: Individuals Excluded from a Gaming Establishment
25. Regulation Review Checklist for 205 CMR 6.35: Pick (n) Pool
26. Regulation Review Checklist for 205 CMR 143.02: Progressive Gaming Devices

/s/ Catherine Blue
Assistant Secretary



REGION C

RECONSIDERATION OF A LICENSING DECISION

SEPTEMBER 2019



NARROWING THE ISSUE

The question presently before the Commission

1. Can the Commission reconsider or reopen a previous decision relative to the award of a gaming license?
2. If the Commission can reconsider or reopen a previous decision, what are the appropriate grounds upon which to base such a decision?

THE THRESHOLD ISSUE

The threshold issue presently before the Commission is whether the Commission can reconsider or reopen a previous decision relative to the award of a gaming license.

Specifically, Mass Gaming & Entertainment (“MG&E”) has requested that the Commission reconsider its August 11, 2016 decision to deny its application for a gaming license to construct a gaming establishment in Brockton, MA.

MG&E is not (and has not) appealing the prior decision or asserting that it was incorrect as a matter of law or based on facts not supported by the record.



AUTHORITY

The Commission has broad discretion as to whether to reconsider or reopen a previous licensing decision, but there are limitations.

- “In the absence of express or perceived statutory limitations, administrative agencies possess an inherent power to reconsider their decisions.” Stowe v. Bologna, 32 Mass.App.Ct. 612, 615 (1992).
- “[T]he power [to reconsider] must be sparingly used if administrative decisions are to have resolving force on which persons can rely.” Stowe v. Bologna, 32 Mass.App.Ct. 612, 616 (1992).
- The exercise of the authority to reopen, or not to reopen, rests in the sound discretion of the Commission, and is reviewable only for an **abuse of discretion**. See Soe v. Sex Offender Registry Bd., 466 Mass. 381, 396 (2013).
- “[A]dministrative agencies have broad discretion over procedural matters before them. We defer to an agency's procedural rulings and review them for error of law or abuse of discretion.” Brockton Power Co. LLC v. Energy Facilities Siting Bd., 469 Mass. 215, 219 (2014)(internal citations and punctuation omitted).



DISCRETION

The Commission was expressly afforded broad discretion by statute, particularly when it comes to the award of a gaming license. For example:

- “[T]he power and authority granted to the commission shall be construed as broadly as necessary for the implementation, administration and enforcement of this chapter.” G.L. c.23K, §1(10).
- “The commission shall have all powers necessary or convenient to carry out and effectuate its purposes including, but not limited to, the power to: ... develop criteria, in addition to those outlined in this chapter, to assess which applications for gaming licenses will provide the highest and best value to the commonwealth and the region in which a gaming establishment is to be located” G.L. c.23K, §4(12).
- “Gaming licenses shall only be issued to applicants who are qualified under the criteria set forth in this chapter, as determined by the commission. Within any region, if the commission is not convinced that there is an applicant that has both met the eligibility criteria and provided convincing evidence that the applicant will provide value to the region in which the gaming establishment is proposed to be located and to the commonwealth, no gaming license shall be awarded in that region.” G.L. c.23K, §19(a).



ABUSE OF DISCRETION

“When reviewing an agency's decision for abuse of discretion, we look to see whether the decision was reasonable.” Doe, Sex Offender Registry Board No. 209081 v. Sex Offender Registry Board, 478 Mass. 454, 457 (2017).

“While each agency's decision to reopen a proceeding must be considered in the specific context of the circumstances presented and statutory scheme involved, factors generally to be weighed by the agency include the advantages of preserving finality, the desire for stability, the degree of haste or care in making the first decision, timeliness, and the specific equities involved.” Id. at 458.



SECTION 17(G)

“In the absence of **express or perceived statutory limitations**, administrative agencies possess an inherent power to reconsider their decisions.” *Stowe v. Bologna*, 32 Mass.App.Ct. 612, 615 (1992).

In this context, what, if any, is the significance of G.L. c.23K, §17(g)? The statute provides that:

“The commission shall have full discretion as to whether to issue a license. Applicants shall have no legal right or privilege to a gaming license and shall not be entitled to any further review if denied by the commission.”

STATUTORY LIMITATION

Is G.L. c. 23K, §17(g) an **express or perceived statutory limitation** of the sort that would preclude reconsideration of a licensing decision by the Commission?

No. Though the Commission has never formally opined, it seems clear that section 17(g) was intended to preclude **judicial review** of the award or denial of a gaming license. It was not intended to prevent the Commission from reviewing its own decision as to whether to award such a license.

Though not intending to resolve this specific issue, the SJC did comment on the statute in this fashion: “[T]he language in § 17 (g) evinces a clear legislative intent to expressly preclude **judicial review** of commission licensing decisions within the meaning of G. L. c. 30A, § 14, first par.” City of Revere v. Massachusetts Gaming Commission, 476 Mass. 591, 596-597 (2017) (internal punctuation omitted). “§ 17 (g) reveals a clear legislative intent to sharply curtail judicial review of commission licensing decisions, and thereby avoid the costs and delays of protracted litigation” Id. at 608.



GROUNDS FOR RECONSIDERATION

Examples of appropriate ground for an administrative agency to reconsider a decision:

- to remedy a fraud or mistake;
- to address changes in regulation;
- if governing decisional law has changed;
- if there is a change to the applicable on-the-ground facts; or
- to prevent a miscarriage of justice.

Mere availability of additional evidence is insufficient. Soe v. Sex Offender Registry Bd., 466 Mass. 381, 395 (2013).

“[I]f the evidence the board substantially relied on in reaching its final classification decision were subsequently demonstrated to be false, inaccurate, or utterly unreliable, the board would retain the discretion to exercise this inherent authority to prevent or mitigate a miscarriage of justice.” Soe v. Sex Offender Registry Bd., 466 Mass. 381, 396 (2013).



TIMELINESS

Is there an express timeline for the exercise of this inherent authority?

No. Reopening a matter is distinct from an appeal where there are typically firm time limitations. However, timing is clearly a factor to be considered, as “[a]n administrative agency’s decision to reopen a case is reviewed for an abuse of discretion.” St. Paul Fire & Marine Ins. Co. v. Department of Industrial Accidents, 86 Mass.App.Ct. 1108 (2014).

For example- In St. Paul Fire the Appeals Court found that the Department of Industrial Accidents abused its discretion when it reopened a case 5 years after the final decision in a circumstance where the aggrieved parties were aware of certain evidence of fraudulent behavior shortly after the initial agency decision was made.

“[I]t may be desirable to prescribe reasonable time limits for reopenings. . . . We suggest that the question of time limits should be thought of as initially for decision (or adoption of regulations) by the agency itself.” Aronson v. Brookline Rent Control Bd., 19 Mass.App.Ct. 700, 708 (1985).



MASS GAMING & ENTERTAINMENT: REQUEST FOR RECONSIDERATION OF LICENSING DECISION

Presentation to the Massachusetts Gaming Commission

David J. Apfel
Roberto M. Bracerias
Goodwin Procter LLP
September 12, 2019



GOODWIN

NARROW LEGAL QUESTION

- Q: Can the Commission reconsider MG&E's application for a gaming license?
- A: Yes. We're 100% in agreement with the Commission's staff regarding the Commission's broad discretion to reconsider.

APPROPRIATE GROUNDS FOR RECONSIDERATION

- Q: What are appropriate grounds upon which to base a decision to reconsider?
- A: Test = Reasonableness
 - MGC has broad discretion.
 - “When reviewing an agency’s decision for abuse of discretion, we look to see whether the decision was reasonable.” *Doe v. Sex Offender Registry Bd.*, 478 Mass. 454, 457 (2017).
 - Per the SJC, non-exclusive grounds for reconsideration include “a change to the applicable on the ground facts.” *Soe v. Sex Offender Registry Bd.*, 466 Mass. 381, 395 (2013).

CHANGED CIRCUMSTANCES

- The Mashpee Wampanoag: From “land in trust” and breaking ground in Taunton to no realistic chance of ever building a casino in Reg. C:
 - July 28, 2016 Federal Court Decision: *Littlefield v. U.S. Dep’t of the Interior*, 199 F. Supp. 3d 391, 396 (D. Mass. 2016) (Young, D.J.): Holds that basis for Interior’s decision to grant the Mashpee land-in-trust status was clearly wrong: “With respect, this is not a close call.”
 - September 7, 2018 DOI Decision: On remand from Judge Young, DOI rejects alternative ground advanced by the Mashpee for a land-in-trust finding.
 - September 3, 2019: In a court filing the Mashpee acknowledge that its current challenge to DOI’s 2018 decision “could possibly require additional years of litigation.”
 - The Mashpee currently owe their casino partner, the Genting Corporation of Malaysia, approximately \$440 million.
 - It has been widely reported that there is an ongoing extensive federal grand jury investigation into the financial workings of the Mashpee.
 - A recall election for Mashpee Chairman Cedric Cromwell is scheduled for September 15, 2019.
- Opening of Twin Rivers Casino in Tiverton, RI: The loss of tens of millions of dollars to RI.
- Opening of MGM and Encore: Region C, the neediest region in the state, is left further behind.

THE REASONABLENESS OF RECONSIDERATION

- MGC's Mission Statement: The "Commission strives to ensure that its decision-making and regulatory systems . . . provide the greatest possible economic development benefits and revenues to the people of the Commonwealth."
- Reconsideration and granting of license to MG&E would mean:
 - 2,000 construction jobs;
 - 1,800 well-paid permanent jobs;
 - Approximately \$55M in net annual tax revenues to the Commonwealth;
 - Repatriation of more than \$100 million annually from RI and CT back to Massachusetts;
 - Revitalization of Brockton.

THE WORDS OF FORMER COMMISSIONER LLOYD MACDONALD

- “So, we’ve got a city [Brockton] that desperately needs economic development, workforce development, and the infusion of capital in order to be able to serve its citizens. And then we have in the form of Rush Street, a private party, not a government entity, a private party that is committed to invest almost \$700 million into the community with a proven track record in three other highly competitive urban areas. So, I go back to the question let’s look at what a no vote means. A no vote means Brockton we’re sorry, you can’t have it. . . .”

Commissioner Lloyd MacDonald
April 28, 2016

MG&E/RUSH STREET: PROVEN COMMITMENT TO AND PROVEN TRACK RECORD OF COMMUNITY REVITALIZATION

- Faneuil Hall
- Copley Place
- Fallsview Casino & Resort, Niagara Falls, Ontario
- Rivers Casino, Pittsburgh, PA
- Sugarhouse Casino, Philadelphia, PA
- Rivers Casino, Des Plaines, Ill.
- Rivers Casino, Schenectady, N.Y.
- [Brockton, MA]

FANEUIL HALL – BOSTON, MA

BEFORE



AFTER



- JMB provided equity and was 50% owner

COPLEY PLACE – BOSTON, MA

BEFORE



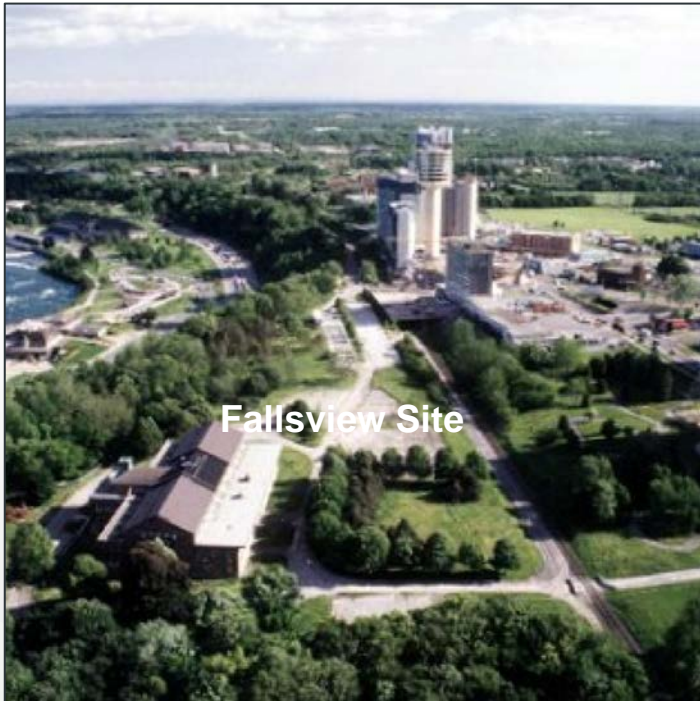
AFTER



- JMB was a development partner and became the 100% owner.

FALLSVIEW CASINO & RESORT – NIAGARA FALLS, ONTARIO

BEFORE

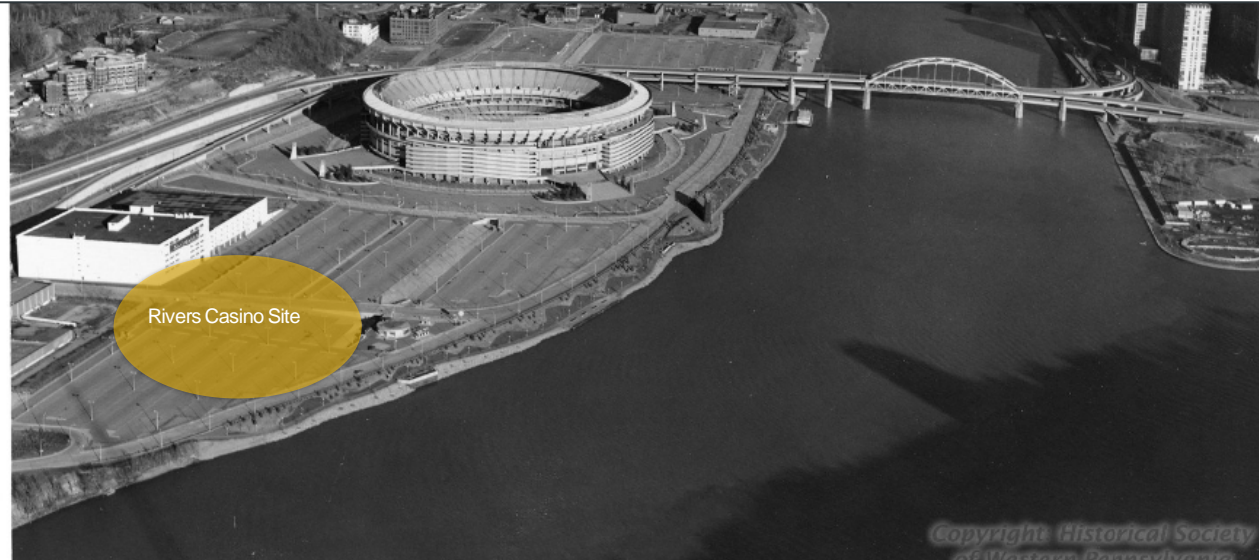


AFTER



RIVERS CASINO – PITTSBURGH, PA

BEFORE



AFTER

AFTER

- Opened: August 2009
- 2018 GGR: \$357M
- Team Members: 1,600
- Annual Direct Labor: : \$66M
- Annual Gaming Taxes: \$163M
- Annual Vendor Spend in PA: \$26M



SUGARHOUSE CASINO – PHILADELPHIA, PA

BEFORE



AFTER



SUGARHOUSE – REVITALIZATION OF PHILADELPHIA NEIGHBORHOOD

“Over the last five to 10 years, Fishtown has exploded with bars, restaurants, amenities and new construction to accommodate an increasingly younger, artistic base of residents.” *Billy Penn*

Business Insider, an international news magazine, recently published a list of “The Eight Hottest Housing Markets in America Right Now.” Fishtown was #1.

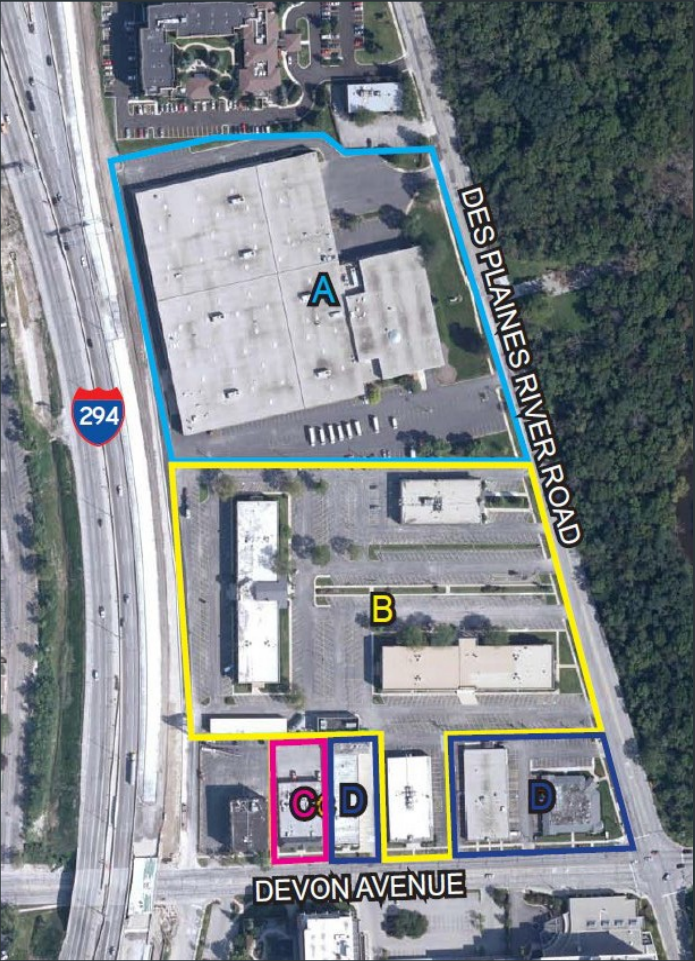
Next City, a nonprofit that studies urban development, ranked SugarHouse Neighborhood as “making greatest advantages” in 2017 five-year study showing:

- Crime down 20%
 - Income up 12%
 - Population up 25%
 - Home prices up 23%
-
- Community Impact of 2,500 jobs (1,590 direct employment)
 - \$134 million annual gross output in local economy
 - \$800+ million gaming taxes to local government cumulatively
 - \$6 million annual property and other local taxes
 - ~\$5 million annually from employment tax (Commonwealth & local)
 - ~\$1 million annually in local share of sales tax



RIVERS CASINO – DES PLAINES, ILL

BEFORE



AFTER



Opened:	July 2011
2018 GGR:	\$442M
Team Members:	1,460
Annual Direct Labor:	\$68M
Annual Gaming Taxes:	\$193M
Annual Vendor Spend in IL:	\$42M

RIVERS CASINO – SCHENECTADY, NY

BEFORE



AFTER



BROCKTON

BROCKTON – THE FAIRGROUNDS TODAY



2015 PLAN – MG&E HAS LISTENED



2015 PLAN – MG&E HAS LISTENED



CURRENT PLAN – MG&E HAS LISTENED



BROCKTON – THE FAIRGROUNDS AFTER \$700M+ INVESTMENT



CURRENT PLAN



CURRENT PLAN



CURRENT PLAN



CURRENT PLAN



CURRENT PLAN



CURRENT PLAN



LESSONS LEARNED

- MG&E heard the Commission loud and clear.
- MG&E is ready to partner with Brockton and the Commission.

ALL ALTERNATIVES TO RECONSIDERATION ARE UNREASONABLE

- Do nothing
- Further market research
- Further waiting for the Mashpee
- Change in current gaming legislation
- New competitive process

Common Denominator: Years and years and years of further delay while the money of Massachusetts residents continues to flow to Rhode Island and Connecticut, and while Brockton continues to be left behind.

MASS GAMING & ENTERTAINMENT: READY, WILLING AND ABLE

- Already found suitable by the Commission
- MG&E has already:
 - Received requisite referendum support in Brockton;
 - Entered into host community agreement;
 - Entered into eight surrounding community agreements;
 - Completed traffic study, including proposed traffic and pedestrian improvement package;
 - Completed economic impact study;
 - Completed community services impact analysis;
 - Performed environmental impact studies and received appropriate clearances under the Massachusetts Environmental Policy Act.

NEIL BLUHM

- Market is not saturated
- MG&E would generate approximately*:
 - \$351M in annual revenue
 - \$55M in net new gaming taxes
 - \$126M of repatriated MA resident revenue
 - \$30M of new non-MA resident revenue
- We are committed to Brockton
- Signed host agreement assures city of:
 - At least \$10M per year
 - \$3M upfront community enhancement fees
 - Hiring preference for construction and permanent jobs
 - Local vendor/contractor preferences
 - Mitigation of traffic (~\$10M), infrastructure (~\$1M upfront), public safety (\$2M upfront + an annual payment), and more.



*Source: Innovation Group, September 2019 Market Assessment;
Projections are for 2024, anticipated to be Rivers Brockton's second year of operations (assuming favorable, prompt reconsideration).



**THE
INNOVATION
GROUP**

**Gaming Market Assessment:
Brockton Fairgrounds Casino**
Brockton, Massachusetts

Prepared for:

Rush Street Gaming, LLC

September 2019

Prepared by:

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Gaming Market Assessment, Brockton, MA

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INTRODUCTION

The Innovation Group was retained by Rush Street Gaming, LLC to update a Gaming Market Analysis for the proposed casino in Brockton. Specifically, this analysis includes top-line gaming revenue projections for the first five years of operations. The casino is to be developed at the site of the Brockton Fairgrounds. The findings and conclusions in this report are based, in part, on the following major assumptions:

- The proposed property will be developed as a quality facility with 250 hotel rooms and complementary amenities;
- The Brockton casino is planned to feature 2,100 Class III slots, 100 house-banked games and a 24-table poker room;
- The level of competition in the local gaming market will remain static with no new developments anticipated to come online throughout the projection period unless otherwise noted in this report;
- An aggressive marketing program will be employed at the proposed casino targeting certain-appropriate gamers in the region;
- An experienced and professional management team will operate the gaming facility; and
- Economic conditions remain stable in line with current trends as discussed herein.

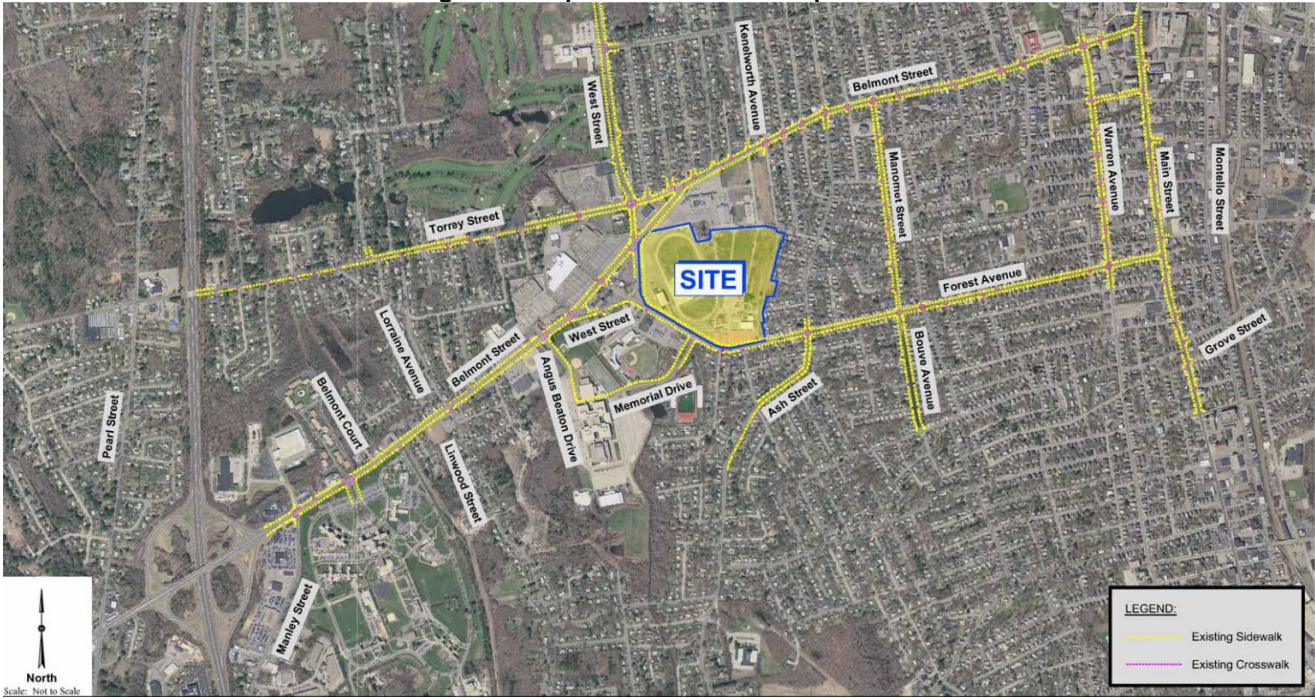
As detailed in the Competitive Environment Trends section, recent openings of new casinos in the New England region have led to a combination of market growth and impacts on existing operators, and those impacts have been lower than expected. Market growth has accompanied all openings, suggesting that public concern in recent industry news articles over market saturation has to a large degree been overwrought.

Site Analysis

The proposed casino site is in Brockton, approximately 25 miles south of Boston in southeastern Massachusetts. The site is situated along Belmont Street, West Street, and Forest Avenue at the Brockton Fairgrounds on the outskirts of the city.

The development is 1.5 miles from Route 24, a six-lane expressway connecting to south Boston via I-93 in the north and the Cape Cod via I-495 in the south. The casino will be situated on a 45-acre property facing the intersection of Belmont and West Streets. There are other commercial developments adjacent to the property including shopping centers and a few stand-alone restaurants.

Figure 1: Proposed Casino Site Map



COMPETITIVE ENVIRONMENT TRENDS

Competition for the proposed casino in Brockton will come mainly from casinos in Rhode Island and Connecticut and Plainridge and Encore in Massachusetts. The Twin River and Tiverton Casino casinos in Rhode Island are less than an hour from Brockton. Foxwoods and Mohegan are twice the distance but are two of the largest casinos in the U.S. More distant competitors include casinos in New York and Maine.

In this section we review recent gaming revenue trends in Massachusetts, Rhode Island and Connecticut, focusing on the impact of the opening of new facilities. Gaming revenue described in this section is net of free play.

The introduction of Plainridge into the local gaming market (in late June 2014) caused only a 5.7% decline in slot revenue at Twin River and led to a \$85 million increase in total market revenue, which shows considerable market elasticity given the fact that Plainridge is only approximately 20 miles from Twin River. Further, this market increase is likely understated since the decline at Foxwoods and Mohegan Sun, which had been occurring since 2007, also involved other competitors to the west for New York-area markets, including Resorts World Aqueduct, BethSands, and Yonkers.

Table 1: Impact of Plainridge on Slot Revenue at Two Main Competitors

	FY2014	FY2015	Change	%
Twin River	\$470,766,020	\$443,747,069	(\$27,018,951)	-5.7%
Newport	\$45,496,379	\$44,943,766	(\$552,613)	-1.2%
Mohegan Sun	\$587,679,265	\$586,512,179	(\$1,167,086)	-0.2%
Foxwoods	\$507,881,723	\$467,970,116	(\$39,911,607)	-7.9%
Subtotal	\$1,611,823,387	\$1,543,173,130	(\$68,650,257)	-4.3%
Plainridge	\$6,137,976	\$159,908,961	\$153,770,984	NA
Market Total	\$1,617,961,363	\$1,703,082,091	\$85,120,727	5.3%

Source: Connecticut Gaming Board; MGC; Rhode Island Lottery; The Innovation Group

In late summer 2018, two new casinos opened in the region: MGM Springfield (MA) on August 23 and Tiverton (RI), also in late August. Tiverton replaced a license that had been operating in Newport. The following table shows the impact on slot revenue, since that is the only full public reporting for both Connecticut casinos. Tiverton led to a slight decline at Plainridge and Twin River, while MGM hit Foxwoods and Mohegan Sun. It should be noted that MGM and Tiverton's number do not include a full month of revenue for August. Even so, the total slot market increased by \$143.5 million or 8.3%. Another factor that may have affected Connecticut revenue is the opening of the Resorts World Catskills casino in Monticello, New York in February 2018.

Table 2: Impact of MGM and Tiverton on Regional Slot Revenue

	FY2018	FY2019	Change	%
Twin River	\$434,838,027	\$431,880,432	(\$2,957,595)	-0.70%
Newport/Tiverton	\$46,534,495	\$90,874,193	\$44,339,698	95.30%
Mohegan Sun	\$605,791,956	\$567,492,867	(\$38,299,089)	-6.30%
Foxwoods	\$477,215,419	\$443,207,246	(\$34,008,173)	-7.10%
Plainridge	\$170,016,148	\$168,675,538	(\$1,340,610)	-0.80%
<i>Subtotal</i>	<i>\$1,734,396,045</i>	<i>\$1,702,130,276</i>	<i>(\$32,265,769)</i>	<i>-1.90%</i>
MGM	\$0	\$175,729,635	\$175,729,635	NA
Market Total	\$1,734,396,045	\$1,877,859,911	\$143,463,866	8.30%

Source: Connecticut Gaming Board; MGC; Rhode Island Lottery; The Innovation Group

Only one full month of data is available for Encore, which opened on June 23. The combined impact in July of Encore, MGM and Tiverton was a total slot market increase of 12% or \$18.75 million.¹ The vast majority of the 17% impact at Plainridge and Twin River in July can be attributable to Encore, based on the small impact from MGM and Tiverton in FY 2019. However, it appears that the July declines at Mohegan Sun and Foxwoods are roughly half attributable to MGM and half to Encore.

Table 3: Impact of Encore, MGM and Tiverton on Regional Slot Revenue

	July 2018	July 2019	Change	%
Twin River	\$38,603,691	\$32,169,171	(\$6,434,520)	-16.7%
Newport/Tiverton	\$4,145,038	\$8,400,414	\$4,255,376	102.7%
Mohegan Sun	\$55,037,319	\$46,700,138	(\$8,337,181)	-15.1%
Foxwoods	\$42,832,217	\$38,049,467	(\$4,782,750)	-11.2%
Plainridge	\$15,149,926	\$12,535,761	(\$2,614,165)	-17.3%
<i>Subtotal</i>	<i>\$155,768,191</i>	<i>\$137,854,951</i>	<i>(\$17,913,240)</i>	<i>-11.5%</i>
MGM	\$0	\$15,508,689	\$15,508,689	NA
Encore	\$0	\$21,154,550	\$21,154,550	NA
Market Total	\$155,768,191	\$174,518,189	\$18,749,999	12.0%

Encore has had a larger impact on Twin River table revenue, which declined by 33.6% in July, to \$7.6 million in 2019 from \$11.5 million in 2018. (Twin River is the only casino with a relevant table game comparison; Newport did not have table gaming and the Connecticut Gaming Board does not report table revenue).

¹ Note: in many recent news reports, the July 2019 impacts have been erroneously attributed solely to Encore, when in fact neither MGM or Tiverton was in operation in July 2018.

In summary, recent openings of new casinos in the New England region have led to a combination of market growth and impacts on existing operators, and those impacts have been lower than expected. Market growth has accompanied all openings, suggesting that public concern in recent industry news articles over market saturation has to a large degree been overwrought.

GAMING MARKET ANALYSIS

Methodology

In developing this analysis, a gravity model was employed. Gravity models are commonly used in location studies for commercial developments, public facilities and residential developments. First formulated in 1929 and later refined in the 1940s, the gravity model is an analytical tool that defines the behavior of a population based on travel distance and the availability of goods or services at various locations. The general form of the equation is that attraction is directly related to a measure of availability such as square feet and inversely related to the square of the travel distance. Thus the gravity model quantifies the effect of distance on the behavior of a potential patron, and considers the impact of competing venues.

The basic formulation is that the interaction between two or more gaming venues is based on Newton's Law of Universal Gravitation: two bodies in the universe attract each other in proportion to the product of their “masses” – here, gaming positions – and inversely as the square distance between them. Thus, expected interaction between gaming venue i and market area j is shown as:

$$k \times \frac{N_i \times P_j}{d_{ij}^2}$$

where N_i = the number of gaming positions in gaming venue i , P_j = the population (21+) in market area j , d_{ij} = the distance between market area j and gaming venue i , and k = an attraction factor relating to the quality and amenities to be found at each gaming venue in comparison to the competing set of venues. When this formulation is applied to each gaming venue gaming trips generated from any given zip code are then distributed among all the competing venues.

The gravity model included the identification of 16 discrete market areas based on drive times and other geographic features and the competitive environment. Using our GIS software and CLARITAS database², the adult population (21 and over), latitude and longitude, and average household income is collected for each zip code.

Each of these market areas is assigned a unique set of propensity and frequency factors. Gamer visits are then generated from zip codes within each of the areas based on these factors. The gamer

²The GIS software used was MapInfo. This software allows for custom data generally in a tabular format with a geographic identification code (census tract, zip code, latitude and longitude, or similar identifier) to be mapped or displayed and integrated with other geographic census based information such as location of specific population or roadways. MapInfo is one of the most widely used programs in the geographic information systems industry. Nielsen Claritas is a vendor of demographic information located in the United States. Nielsen Claritas provides census demographic and psychographic data on a variety of geographic levels of detail ranging from census block groups and counties to postal zip codes. Their information is updated every six months and includes a current year estimate and provides a five year forecast for the future. The Innovation Group has utilized this data for inputs to its models for the last six years and has purchased full access to their demographic database for the entire United States.

visits thus generated are then distributed among the competitors based upon the size of each facility, its attractiveness and the relative distance from the zip code in question. The gravity model then calculates the probabilistic distribution of gamer visits from each market area to each of the gaming locations in the market.

Each travel distance/time is evaluated to determine the likely alternative gaming choices for residents of the region. The model is constructed to include only those alternative venues that are considered to be within a reasonable travel time. These include competing casinos that have the potential to attract patrons, or siphon off visits from the market. Travel distances and time have been developed through use of our GIS system.

The following section provides a description and definition of the various components of the model.

Gamer Visits

This measure is used to specify the number of patron trips to a gaming market, where an individual can make any number of separate visits in the course of a year. In order to estimate the gamer visits, market penetration rates, made up of the separate measures of propensity and frequency, are applied to the adult population in each zip code. A gamer visit can include more than one visit to a casino.

Propensity

Propensity measures the percentage of adults who will participate in casino gaming within the zip code. This varies based upon a number of factors, which includes the number of gaming venues, their type (i.e. landbased versus cruising riverboat versus dockside riverboat), games permitted, availability of other entertainment and leisure options, and most importantly distance from a gaming venue. Propensity in the inner market areas from 0-50 miles can vary between the high thirty per cent range in a single cruising riverboat market to the fifty percent range, or more, for multiple land based casinos with a well developed array of amenities.

Frequency

This measures the average number of visits that an adult will make annually to casinos in the subject market. Frequency is a function of annual gaming budget as indicated by income variations, the number of venues in the market, the type of gaming facility and most importantly distance from a gaming venue.

MPI (Market Potential Index)

Propensity also varies as a function of each market's average market potential index (MPI) score. MPI scores are generated by Simmons Survey, a respected consumer research firm that conducts a nationwide survey of consumer behavior, including propensity to gamble at a casino. This score is an indication of the degree of likelihood that a person will participate in gaming based upon their lifestyle type. The MPI score inflates or discounts the participation rate of each zip code. For example, if a market area has an overall participation rate of 4.0 (propensity of 40% times frequency of 10), an MPI score of 120 for a particular zip code would effectively inflate the participation rate of that zip code to 4.8 (4.0 times 120%). The overall MPI score for the market area is a weighted average of all the zip codes within the area.

Win per Visit

Win per visit varies not only by gaming jurisdiction, but also in some cases by individual facilities. Normatively, win per visit is a function of distance and income. Gamers traveling greater distances tend to spend more per visit, typically making fewer gamer visits on average.

Attraction Factors

Attraction factors measure the relative attraction of one gaming venue in relation to others in the market. Attraction factors are applied to the size of the gaming venue as measured by the number of positions it has in the market. Positions are defined as the number of gaming machines plus the number of seats at gaming tables. A normative attraction factor would be one. When this is applied to the number of positions in a gaming venue there is no change in the size of the gaming venue as calculated by the model and hence its attraction to potential patrons. A value of less than one adjusts the size of the gaming venue downwards and conversely a value greater than one indicates that the gaming venue has characteristics that make it more attractive. Attraction factors can be based on a number of components including branding, the level and effectiveness of marketing efforts, and the level of quality and amenities of a facility. Attraction factors are also adjusted to model the presence of natural and man-made boundaries which impact ease of access and convenience of travel in the market area.

The sensitivity of the model to changes in these factors is not in the nature of a direct multiplication. For example, a doubling of the attraction factor will not lead to a doubling of the gamer visits attracted to the site. It will however cause a doubling of the attractive power of the gaming venue, which is then translated via non-linear equations into an increase in the number of gamer visits attracted to the gaming venue. This is based upon the location, size and number of competing gaming venues and their relationship to the market area to which the equation is applied. The variation of these factors is based upon The Innovation Group's experience in developing and applying these models, and consideration of the existing visitation and revenues. The latter represents the calibration of the model and has been accomplished by adjusting attraction factors to force the model to recreate the existing revenues and patron counts. In this case attraction factors have been adjusted for each casino for each market area. This is based upon known visitation patterns.

Market Carve-out

The Brockton market has been carved into 16 distinct market areas, from which it could be expected that different participation rates may be expected depending on the level and location of competition that is present in the market currently and in the future. The following map and table show the market areas and their respective adult population (21 and over) and average household income.

Figure 2: Brockton Market Carve with Casino Competition

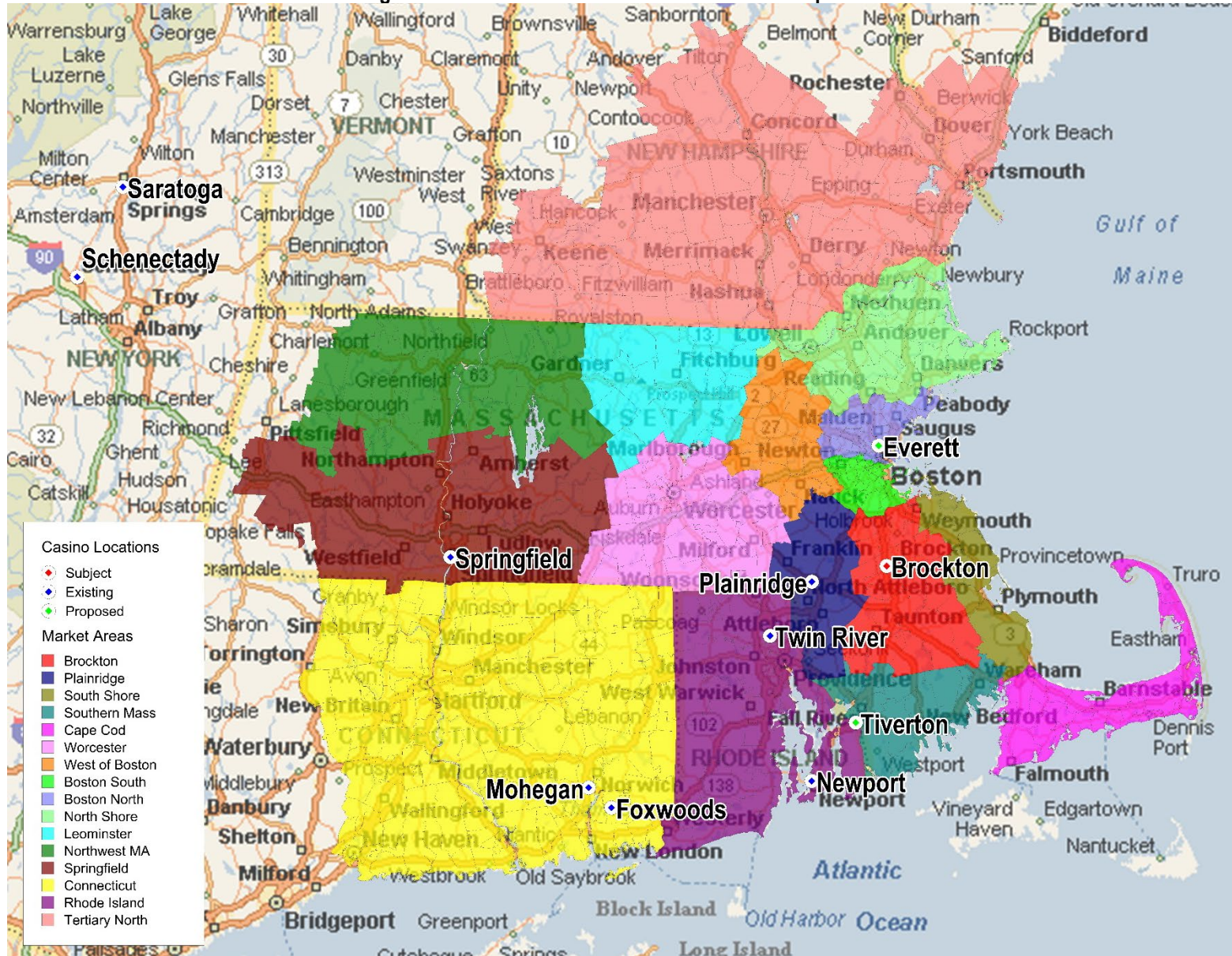


Table 4: Market Carve Area Demographics

	Adult (21+) Population			Average Annual Household Incomes		
	2018	2023	C.A.G.R. 2018-2023	2018	2023	C.A.G.R. 2018-2023
Brockton Primary	437,855	457,374	0.9%	\$100,078	\$111,306	2.1%
Plainridge	253,009	265,885	1.0%	\$142,112	\$159,587	2.3%
South Shore	154,351	163,022	1.1%	\$136,879	\$150,085	1.9%
Southern Mass	262,451	270,177	0.6%	\$76,462	\$85,829	2.3%
Cape Cod	176,839	179,565	0.3%	\$94,521	\$104,502	2.0%
Worcester	476,631	496,726	0.8%	\$108,822	\$120,034	2.0%
West of Boston	316,588	333,018	1.0%	\$166,100	\$183,514	2.0%
Boston South	638,642	671,171	1.0%	\$110,263	\$122,852	2.2%
Boston North	888,202	920,751	0.7%	\$116,264	\$130,318	2.3%
North Shore	681,586	715,698	1.0%	\$111,721	\$122,832	1.9%
Leominster	196,828	205,378	0.9%	\$101,935	\$112,665	2.0%
NW Mass	81,065	82,680	0.4%	\$80,107	\$89,429	2.2%
Springfield	493,646	509,212	0.6%	\$81,681	\$91,382	2.3%
Connecticut	1,571,305	1,587,550	0.2%	\$101,857	\$112,566	2.0%
Rhode Island	796,603	809,100	0.3%	\$86,941	\$95,939	2.0%
Tertiary North	817,785	843,341	0.6%	\$106,359	\$119,693	2.4%
Average/Total	8,243,386	8,510,648	0.6%	\$106,162	\$118,110	2.2%

Source: iXPRESS, Nielsen Claritas, Inc.; MapInfo: The Innovation Group; CAGR=Compound Annual Growth Rate

The 2-hour market area contains nearly 8.2 million adults (21 and over). Population growth, although estimated to be marginally lower than the national average, is projected to be 0.6%. At \$106,162, household income is significantly higher than the national average, and has a projected annual growth of 2.2%.

Model Calibration

The following table shows the rates for propensity, frequency, MPI, and win per visit by market area that were used to re-create the actual conditions in the Base FY 2019 model. Win has been varied based on differences between market areas in average household income and travel time.

The following table shows gravity model gaming visits and revenues for the base calibration. These revenues reflect the total potential gaming revenue from the defined market area in FY 2019.

Table 5: Gravity Model Calibration Base FY 2019

Market Segment	Gamer Pop.	Propensity	Frequency	MPI	Gaming Visits	WPV	GGR (MMs)
Brockton Primary	441,681	31.2%	11.0	103	1,563,860	\$84	\$130.9
Plainridge	255,530	32.2%	12.6	101	1,037,990	\$90	\$93.7
South Shore	156,047	26.3%	9.4	98	377,079	\$93	\$35.0
Southern Mass	263,971	35.2%	12.4	101	1,159,467	\$77	\$89.8
Cape Cod	177,377	22.1%	7.9	93	288,172	\$86	\$24.8
Worcester	480,566	28.1%	10.0	100	1,351,015	\$87	\$117.1
West of Boston	319,799	22.4%	10.0	101	719,725	\$99	\$71.2
Boston South	645,002	23.9%	10.6	109	1,778,906	\$88	\$155.8
Boston North	894,608	21.7%	9.7	109	2,044,944	\$90	\$183.3
North Shore	688,264	18.1%	8.1	103	1,040,189	\$90	\$93.7
Leominster	198,501	22.5%	8.1	99	355,548	\$87	\$31.1
NW Mass	81,383	25.9%	9.2	94	182,616	\$82	\$15.0
Springfield	496,711	35.1%	12.4	100	2,165,195	\$78	\$169.9
Connecticut	1,574,514	28.7%	10.2	101	4,662,332	\$85	\$396.8
Rhode Island	799,065	33.5%	11.8	107	3,399,312	\$80	\$272.6
Tertiary North	822,808	16.8%	6.1	98	821,501	\$90	\$73.9
Total	8,295,828				22,947,850	\$85	\$1,954.7

Source: The Innovation Group

FY 2020 Forecast with Encore Year One

The next step in the analysis was to create a model for FY 2020 to estimate the first-year impact of Encore Boston on the market.

Table 6: Gravity Model Forecast- FY 2020 Encore Impact

	Gamer Pop.	Propensity	Frequency	MPI	Gaming Visits	WPV	GGR (MMs)
Brockton Primary	445,546	31.2%	11.0	103	1,577,421	\$84	\$132.6
Plainridge	258,078	32.2%	12.6	101	1,048,272	\$91	\$95.0
South Shore	157,761	27.5%	9.8	98	418,489	\$93	\$38.8
Southern Mass	265,504	35.2%	12.4	101	1,166,152	\$78	\$90.7
Cape Cod	177,919	22.1%	7.9	93	289,057	\$86	\$25.0
Worcester	484,543	28.1%	10.0	100	1,362,092	\$87	\$118.6
West of Boston	323,047	26.9%	9.5	101	832,336	\$99	\$82.0
Boston South	651,434	31.2%	11.0	109	2,434,585	\$86	\$209.4
Boston North	901,065	34.6%	12.1	109	4,116,922	\$85	\$352.0
North Shore	695,014	26.4%	9.4	103	1,765,986	\$88	\$155.9
Leominster	200,193	25.1%	9.0	99	445,340	\$87	\$38.7
NW Mass	81,703	25.9%	9.2	94	183,330	\$82	\$15.1
Springfield	499,799	35.1%	12.4	100	2,178,543	\$79	\$171.7
Connecticut	1,577,743	28.7%	10.2	101	4,671,712	\$85	\$399.2
Rhode Island	801,546	33.5%	11.8	107	3,409,419	\$81	\$274.6
Tertiary North	827,874	18.9%	6.8	98	1,032,897	\$90	\$92.7
Total	8,348,769				26,932,553	\$85	\$2,292.1

Source: The Innovation Group

The year-over-year increase on total market revenue with Encore added to the model is projected to be 17% or \$337.5 million. This projected growth represents 60% of Encore’s projected gravity model revenue of \$563.7 million. Encore is estimated to repatriate nearly \$155 million in gaming revenue that would otherwise have gone to out-of-state casinos. However, the Encore gravity model estimates that Massachusetts residents would still spend \$705 million at out-of-state casinos in FY 2020.

Table 7: Encore Impact Summary (\$MMs)

FY 2019	\$1,954.7
FY 2020	\$2,292.1
\$ Change	\$337.5
% Change	17%
Encore Forecast	\$563.7
% Growth	60%
Encore Repatriation	\$154.8

FY 2024 Baseline

The next step in the analysis was to create a baseline model for FY 2024 using projected population and income growth and looking at historical revenue trends, including allowing for ramp up at MGM Springfield and Encore. The following table therefore details the local market gaming revenue projected out to FY 2024 and segregated by market segment assuming *without* the subject Brockton property.

Table 8: Gravity Model Forecast- FY 2024 Baseline

	Gamer Pop.	Propensity	Frequency	MPI	Gaming Visits	WPV	GGR (MMs)
Brockton Primary	461,396	31.2%	11.0	103	1,633,028	\$87	\$141.6
Plainridge	268,543	32.2%	12.6	101	1,090,499	\$93	\$101.7
South Shore	164,815	27.5%	9.8	98	437,137	\$95	\$41.7
Southern Mass	271,760	35.2%	12.4	101	1,193,434	\$80	\$96.0
Cape Cod	180,121	22.1%	7.9	93	292,657	\$89	\$26.1
Worcester	500,873	28.1%	10.0	100	1,407,567	\$90	\$126.3
West of Boston	336,419	26.9%	9.5	101	866,460	\$101	\$87.7
Boston South	677,900	31.2%	11.0	109	2,534,582	\$89	\$224.8
Boston North	927,419	35.0%	12.3	109	4,330,327	\$88	\$380.8
North Shore	722,741	26.4%	9.4	103	1,836,149	\$91	\$167.0
Leominster	207,144	25.1%	9.0	99	460,741	\$90	\$41.3
NW Mass	83,011	25.9%	9.2	94	186,246	\$85	\$15.8
Springfield	512,399	35.1%	12.4	100	2,232,990	\$81	\$181.9
Connecticut	1,590,859	28.7%	10.2	101	4,709,813	\$88	\$415.0
Rhode Island	811,655	33.5%	11.8	107	3,450,594	\$83	\$287.1
Tertiary North	848,587	18.9%	6.8	98	1,058,703	\$92	\$97.8
Total	8,565,644				27,720,927	\$88	\$2,432.5

Source: The Innovation Group

Ramp up of marketing and market penetration by MGM and Encore by FY 2024 would be expected to repatriate more spending by Massachusetts, but the model estimates that Massachusetts residents would still spend \$687 million at out-of-state casinos.

Table 9: Summary Gravity Model Through Baseline FY 2024 (MMs)

	Plainridge	MGM	Encore	Subtotal MA	Out-of-State	Total
Total Model NGR						
FY 2019	\$158.8	\$248.6	\$0.0	\$407.3	\$1,547.3	\$1,954.7
FY 2020	\$131.4	\$240.9*	\$563.7	\$936.0	\$1,356.2	\$2,292.1
FY 2024	\$131.7	\$286.8**	\$673.0	\$1,091.5	\$1,341.1	\$2,432.5
Massachusetts Markets						
FY 2019	\$152.4	\$165.6	\$0.0	\$318.0	\$893.4	\$1,211.4
FY 2020	\$125.3	\$159.7	\$535.3	\$820.2	\$705.4	\$1,525.6
FY 2024	\$125.4	\$183.8	\$636.7	\$945.9	\$686.7	\$1,632.7
Out-of-State Markets						
FY 2019	\$6.3	\$83.0	\$0.0	\$89.3	\$654.0	\$743.3
FY 2020	\$6.1	\$81.3	\$28.4	\$115.8	\$650.8	\$766.6
FY 2024	\$6.2	\$103.0	\$36.3	\$145.6	\$654.3	\$799.9

Source: The Innovation Group; Notes: *annualized estimate; **does not include a year 2 ramp up, ramp up for MGM is bundled into 2024

FY 2024 Forecast with Brockton

Finally, the subject property in Brockton, Massachusetts was added to the gravity model. The following table shows the total market factors for FY 2024 assuming that Brockton opens by the start of FY 2023.

Table 10: Gravity Model Forecast with Brockton- FY 2024

	Gamer Pop.	Propensity	Frequency	MPI	Gaming Visits	WPV	GGR (MMs)
Brockton Primary	461,396	35.7%	12.6	103	2,128,947	\$85	\$180.0
Plainridge	268,543	35.7%	12.6	101	1,211,666	\$92	\$111.8
South Shore	164,815	30.7%	10.9	98	541,784	\$94	\$50.8
Southern Mass	271,760	35.2%	12.4	101	1,193,434	\$80	\$96.0
Cape Cod	180,121	22.1%	7.9	93	292,657	\$89	\$26.1
Worcester	500,873	28.1%	10.0	100	1,407,567	\$90	\$126.3
West of Boston	336,419	26.9%	9.5	101	866,460	\$101	\$87.7
Boston South	677,900	33.0%	11.6	109	2,841,538	\$88	\$249.5
Boston North	927,419	35.0%	12.3	109	4,330,327	\$88	\$380.8
North Shore	722,741	26.4%	9.4	103	1,836,149	\$91	\$167.0
Leominster	207,144	25.1%	9.0	99	460,741	\$90	\$41.3
NW Mass	83,011	25.9%	9.2	94	186,246	\$85	\$15.8
Springfield	512,399	35.1%	12.4	100	2,232,990	\$81	\$181.9
Connecticut	1,590,859	28.7%	10.2	101	4,709,813	\$88	\$415.0
Rhode Island	811,655	33.5%	11.8	107	3,450,594	\$83	\$287.1
Tertiary North	848,587	18.9%	6.8	98	1,058,703	\$92	\$97.8
Total	8,565,644				28,749,615	\$87	\$2,515.0

Source: The Innovation Group

Overall, the market is projected to generate nearly 29 million visits. The following table shows gaming revenue for the Brockton scenario. We estimate that the facility will capture 13% of the local market by Year Two of its operation or an estimated 3.7 million gamer visits and generate \$327 million in gaming revenue. It should be noted that the gravity model has been calibrated to revenue data from Connecticut, Rhode Island, Maine and New York that is net of free play. Therefore, the projection below is for net gaming revenue. The table below details the subject property's local market gaming revenue by market segment.

Table 11: Brockton Local Market Gaming Revenue Forecast- First Stabilized Year

	Total Market Visits	Brockton Capture Rate	Brockton Gaming Visits	Brockton WPV	Brockton Gaming Revenue (MMs)
Brockton Primary	2,128,947	63.4%	1,349,385	\$85	\$114.1
Plainridge	1,211,666	19.1%	231,538	\$92	\$21.4
South Shore	541,784	41.8%	226,401	\$94	\$21.2
Southern Mass	1,193,434	13.3%	158,491	\$80	\$12.8
Cape Cod	292,657	22.5%	65,919	\$89	\$5.9
Worcester	1,407,567	5.2%	73,443	\$90	\$6.6
West of Boston	866,460	15.4%	133,614	\$101	\$13.5
Boston South	2,841,538	37.0%	1,050,391	\$88	\$92.2
Boston North	4,330,327	5.1%	219,021	\$88	\$19.3
North Shore	1,836,149	3.7%	67,277	\$91	\$6.1
Leominster	460,741	9.6%	44,390	\$90	\$4.0
NW Mass	186,246	4.8%	8,891	\$85	\$0.8
Springfield	2,232,990	0.3%	6,206	\$81	\$0.5
Connecticut	4,709,813	0.3%	15,119	\$88	\$1.3
Rhode Island	3,450,594	1.7%	57,633	\$83	\$4.8
Tertiary North	1,058,703	2.6%	27,035	\$92	\$2.5
Total	28,749,615	13.0%	3,734,755	\$88	\$326.9

Source: The Innovation Group

The addition of the Region C casino in Brockton is estimated to repatriate \$125.6 million in gaming spending by Massachusetts residents that would otherwise go to out-of-state casinos.

Table 12: Summary Gravity Model FY 2024: Impact of Brockton (MMs)

	Plainridge	MGM	Encore	Brockton	Subtotal MA	Out-of-State	Total
Total Model NGR							
Baseline	\$131.7	\$286.8	\$673.0	\$0.0	\$1,091.5	\$1,341.1	\$2,432.5
With Brockton	\$103.4	\$281.8	\$594.5	\$326.9	\$1,306.6	\$1,208.4	\$2,515.0
\$ Change	-\$28.3	-\$5.0	-\$78.5	\$326.9	\$215.1	-\$132.7	\$82.4
Massachusetts Markets							
Baseline	\$125.4	\$183.8	\$636.7	\$0.0	\$945.9	\$686.7	\$1,632.7
With Brockton	\$97.2	\$179.3	\$559.0	\$318.3	\$1,153.9	\$561.2	\$1,715.1
\$ Change	-\$28.2	-\$4.5	-\$77.6	\$318.3	\$208.0	-\$125.6	\$82.4
Out-of-State Markets							
Baseline	\$6.2	\$103.0	\$36.3	\$0.0	\$145.6	\$654.3	\$799.9
With Brockton	\$6.1	\$102.5	\$35.4	\$8.6	\$152.6	\$647.2	\$799.9
\$ Change	-\$0.1	-\$0.5	-\$0.9	\$8.6	\$7.1	-\$7.1	\$0.0

Source: The Innovation Group; Notes: *annualized estimate; **does not include a year 2 ramp up, ramp up for MGM is bundled into 2024

In addition to the local market revenue generated through the gravity model, the subject property is anticipated to generate out-of-market revenue. This out-of-market gaming demand represents visits driven by reasons other than proximity of permanent residence, such as tourism, visiting friends and family, seasonal residence, variety of gaming experience, and pass-through traffic intercept. This typically ranges between 4% and 10% of a casino's revenue depending upon

location, amenities and tourism market relative to the size of the local population, and the majority is estimated to be a net gain to the Commonwealth. For this estimate we have assumed the completion of a 250-room hotel in conjunction with additional amenities at the Brockton casino. Combined, total gaming revenue in stabilized operations at the proposed Brockton Casino is projected to be **\$351 million**.

**Table 13: Brockton Casino Gaming Revenue Summary
Stabilized Operations FY 2024**

	Gaming Revenue
Local Gravity Model Market	\$326,930,596
Out-of-Market	\$24,519,795
Total	\$351,450,391

Source: The Innovation Group

Five-Year Forecast

The following presents five year forecasted gaming revenue for the proposed property. As noted above, the revenue forecast is for stabilized operations in year two. Ramp-up of approximately 12% in year two and 6% in year three is projected to allow for marketing efforts to take effect and for player database growth. Normative growth of 2.0% is estimated thereafter.

Table 14: Brockton Five Year Revenue Forecast

	Year One	Year Two	Year Three	Year Four	Year Five
Gaming Revenue (MMs)	\$309.3	\$351.5	\$372.5	\$379.9	\$387.5
Visitation (MMs)	3.55	3.99	4.03	4.05	4.07
Win per Visit	\$87.03	\$88.02	\$92.39	\$93.77	\$95.16
Number of Units	2,844	2,844	2,844	2,844	2,844
Win/Unit/Day	\$298	\$339	\$359	\$366	\$373

Source: The Innovation Group

Source of Revenue and Repatriation Analysis Summary

This section summarizes the repatriation of gaming spending by Massachusetts residents that would otherwise accrue to casinos in neighboring states as well as the capture of spending by out-of-state residents. This analysis is based on the gravity model analysis, which as discussed distributes gaming visits from each zip code in the market area to each casino in the model. By comparing the Baseline with the Brockton Forecast model, an assessment of repatriation can be generated. As noted, the Baseline model included the other two approved casinos in Regions A and B as well as Plainridge. In the Baseline gravity model, it is estimated that Massachusetts residents would contribute nearly \$686 million dollars to gaming revenues at casinos in Connecticut, Rhode Island, New York, and Maine. Brockton is estimated to repatriate nearly \$126 million of this, \$49 million from Region C residents alone, as shown in the following table.

Table 15: Capture of MA Resident Spending by Out-of-State Casinos: Stabilized Year

	Region C	Remainder of State	Total MA
Baseline	\$190,260,669	\$496,487,647	\$686,748,316
With Brockton	\$141,063,571	\$420,102,873	\$561,166,444
Brockton Repatriation (Gravity Model)	\$49,197,098	\$76,384,774	\$125,581,872

Source: The Innovation Group

In addition to this repatriation, the Brockton Casino is estimated in the gravity model to capture approximately \$7 million from residents of neighboring states on a net basis (minus impact on existing Massachusetts casinos), as shown in the following table. It is also estimated that \$23 million of out-of-market gaming revenues will represent a net gain to Massachusetts. Combining repatriation and net out-of-state capture, the net gain to Massachusetts from the Brockton Casino is nearly \$156 million in gaming revenue, or 44% of its total gaming revenue forecast. This represents revenue that otherwise would not accrue to Massachusetts; since it excludes spending by Massachusetts residents except for repatriated dollars, it would not be subject to any substitution effect in an economic impact analysis. Including market growth in Southeast Massachusetts of \$82.4 million, the total net gain in Massachusetts gaming revenue is \$238 million, 67.7% of Brockton's estimated NGR forecast.

Table 16: Brockton Casino Net Gain: Stabilized Year

	Gravity Model	Out-of-Market	Total	% of Brockton NGR
In-state Repatriation	\$125,581,872		\$125,581,872	35.7%
Out-of-State Net	\$7,083,060	\$23,021,652	\$30,104,712	8.6%
Subtotal Repatriation & Net Out-of-State	\$132,664,932	\$23,021,652	\$155,686,584	44.3%
MA Market Growth	\$82,420,351		\$82,420,351	23.5%
Total Net Gain in Spending in MA	\$215,085,284	\$23,021,652	\$238,106,936	67.7%

Source: The Innovation Group

Incremental Impact Summary

The following table represents the impact on total gaming revenue the Brockton casino would have when introduced to the Massachusetts competitive casino set. While the existing casinos would see a drop in revenues, the overall total increases by over \$238 million, showing potential for market growth.

Table 17: Gaming Revenue Market Impact

	Without Brockton	With Brockton
Plainridge	\$136,946,497	\$108,203,374
Springfield	\$312,625,460	\$307,631,374
Everett	\$726,819,158	\$647,212,912
Brockton		\$351,450,391
Massachusetts Total	\$1,176,391,115	\$1,414,498,051

The following table shows the growth in gaming tax revenue to the state of Massachusetts with the addition of the Brockton Casino.

Table 18: Total Gaming Tax Revenue Market Impact

	Without Brockton	With Brockton
Plainridge	\$54,778,599	\$43,281,350
Springfield	\$78,156,365	\$76,907,843
Everett	\$181,704,789	\$161,803,228
Brockton		\$87,862,598
Total	\$314,639,753	\$369,855,019
<i>Incremental</i>		\$55,215,265

Source: The Innovation Group

Additionally, Massachusetts would see an increase in slot license fee revenue due to Brockton. The following table details the incremental revenue to the state from slot license fees. Total incremental revenue to Massachusetts would be \$56.5 million with the inclusion of the Brockton property. In addition, there would be the one-time license fee to the Commonwealth of \$85 million.

Table 19: Total Slot License Fee Market Impact

	Without Brockton	With Brockton
Plainridge	\$750,000	\$750,000
Springfield	\$1,530,000	\$1,530,000
Everett	\$1,945,200	\$1,945,200
Brockton		\$1,260,000
Total	\$4,225,200	\$5,485,200
<i>Incremental</i>		\$1,260,000

Source: The Innovation Group

Total Employment Effects

The following section details the direct impacts with regards to employment the Brockton facility would have, as assessed through a multi-regional analysis utilizing IMPLAN software. The multi-

regional analysis results in impacts for the host county (Plymouth), the remaining counties in Region C, and the rest of Massachusetts (termed “Balance of State” in the table headings in this report). The following tables show the results of the IMPLAN multiplier analysis in the Base Forecast.

In addition to the 1,797 direct jobs in Plymouth County, the operation of the resort casino will generate 1,070 indirect jobs and 642 induced jobs for a total of 3,508 in the county in year two of operations. The spending from stable year ongoing operations will have an indirect and induced impact on other communities supporting an additional 24 jobs within Region C and another 64 jobs across the state. In total, resort casino operations are estimated to support 3,596 jobs throughout Massachusetts with direct, indirect and induced employment in year two of operations.

Table 20: Operating Impacts— Employment

	Plymouth County	Region C	Balance of State	Total Massachusetts
Direct Effect	1,797	0	0	1,797
Indirect Effect	1,070	14	41	1,124
Induced Effect	642	9	24	675
Total	3,508	24	64	3,596

IMPLAN Group, LLC, IMPLAN System (data and software); The Innovation Group

RAMP-UP ANALYSIS

As casinos open in new or underserved gaming markets, gaming revenues tend to dramatically increase, or ramp-up, over the first few years of operation. The ramp-up naturally occurs as improved access to a gaming facility increases the propensity and frequency of adults in the market. However, it can also occur due to internal controls such as improved operational performance at the facility, adjustments to amenity offerings to accommodate local demand, and establishment of a player database to reward casino play.

To determine an appropriate level of ramp-up for gaming revenue at competitive casinos in the Brockton Gaming Market we evaluated the first four years of operation at new casino properties in the northeast region.

Maryland

The Maryland Lottery and Gaming Control Commission (MLGCC) was created in 2008 following a constitutional amendment authorizing slot machines at five locations throughout the state. In 2012, a referendum was approved to expand the gaming market allowing for table games at all existing facilities and a sixth casino license for Prince George's County, MGM National Harbor.

Due to its mid-Atlantic location, competition for Maryland casinos came mainly from existing gaming facilities operating in other neighboring states such as Delaware, Pennsylvania, West Virginia, and New Jersey. As such, the overlapping of market areas and later addition of table games make it difficult to evaluate year-over-year trends for most facilities in Maryland.

MGM National Harbor was the property chosen for this analysis, as it was the final competitor to enter the market and the only facility in the state to open with both slot and table games. The following table shows the monthly, annual, and year-to-date revenues for MGM since its first full month of operation in January 2017.

In its second full-year of operations, revenue ramped-up nearly 16% from \$609 million to \$705 million. Although a third-year comparison is not yet available, monthly trends indicate that revenues are on track to remain stable or increase slightly for the year.

Table 21: MGM National Harbor Annual Gaming Revenues

	2017	2018	'17-'18 YOY	2019	'18-'19 YOY
Jan	\$48,828,135	\$50,247,449	3%	\$56,043,437	12%
Feb	\$45,769,070	\$53,112,941	16%	\$53,931,672	2%
Mar	\$51,249,793	\$60,446,025	18%	\$62,775,839	4%
Apr	\$49,944,074	\$57,743,500	16%	\$60,804,670	5%
May	\$50,552,085	\$62,300,446	23%	\$59,122,476	-5%
Jun	\$50,135,634	\$59,316,909	18%	\$56,881,267	-4%
Jul	\$50,772,243	\$58,345,063	15%	\$54,130,798	-7%
Aug	\$52,875,808	\$58,310,929	10%	-	
Sep	\$49,362,253	\$54,426,900	10%	-	
Oct	\$51,952,946	\$73,443,099	41%	-	
Nov	\$50,609,479	\$57,269,085	13%	-	
Dec	\$56,575,869	\$59,916,626	6%	-	
Total	\$608,627,387	\$704,878,971	15.8%	-	
YTD	\$347,251,032	\$401,512,332	15.6%	\$403,690,158	0.5%

Source: Maryland Lottery and Gaming Control Agency

Massachusetts

The first property we evaluated was Plainridge Park Casino, the closest competitor to the proposed Brockton Casino. The racetrack was the state's first gaming facility opening in June 2015 earning \$159 million in Year 1. Despite a small decline in Year 2, Gross Gaming Revenues increased by more than 7% the following year as operational improvements took effect. However, the opening of MGM Springfield and the Tiverton Casino in late 2018 led to a decline in revenue at Plainridge.

Table 22: Plainridge Park Casino Annual Gaming Revenues

Plainridge		
First Full Month	July 2015	
1st Full Year	\$159,908,961	
2nd Full Year	\$158,267,980	-1%
3rd Full Year	\$170,016,148	7%
4th Full Year	\$168,675,538	-1%
3-Yr Ramp-up	5.5%	

Source: Massachusetts Gaming Commission

Ohio

Casinos were first introduced to the Ohio market in 2012, following a constitutional amendment in 2009 that allowed one casino in the each of the state's four largest cities. In addition to casinos,

VLTs were permitted at each of the state’s racetracks under the aegis of the Ohio Lottery. The opening of these gaming facilities occurred over a two-year period between May 2012 through September 2014. As most of the properties competed for a share of the same metropolitan area, we analyzed the year-over-year revenues trends for individual properties in addition to the following market areas: Columbus, Cincinnati, and Cleveland.

In order to evaluate an accurate ramp-up period for each market, we started with the first full month of operation for the last property to open in the market, as indicated in Table 23. Given the proximity of Dayton to the Cincinnati Market, we included a combined market area show the broader effect.

The Cincinnati Market performed best, with a combined 16.5% ramp-up of gaming revenues in four years. Cleveland experienced a ramp-up of 7% increase in revenues in four years, and the lower increase may have been a result of the market overlap and impact of the Mahoning Valley racino near Youngstown.

Table 23: Ohio Casino Market Annual Gaming Revenues

	Dayton		Cincinnati Market		Cincinnati-Dayton		Columbus Market		Cleveland Market	
Start of Year	Sep-14		Sep-14		Sep-14		Sep-14		Jan-14	
1st Full Year	\$83,319,686		\$375,229,641		\$458,549,327		\$349,231,791		\$520,081,926	
2nd Full Year	\$88,231,673	6%	\$402,947,357	7%	\$491,179,030	7%	\$363,689,659	4%	\$529,978,885	2%
3rd Full Year	\$96,276,607	9%	\$419,445,742	4%	\$515,722,349	5%	\$373,267,268	3%	\$542,232,936	2%
4th Full Year	\$104,620,516	9%	\$437,046,792	4%	\$541,667,308	5%	\$395,776,995	6%	\$556,342,453	3%
3-Yr Ramp-up	15.6%		11.8%		12.5%		6.9%		4.3%	
4-Yr Ramp-up	25.6%		16.5%		18.1%		13.3%		7.0%	

Source: Ohio Casino Control Commission; Ohio Lottery Commission; The Innovation Group; *Note: Cincinnati Market= Horseshoe, Miami Valley, Belterra; Columbus Market= Scioto Downs, Hollywood; Cleveland Market= Horseshoe, Thistle Downs, Northfield Park;

Some individual properties in the markets outperformed at the expense of others. Belterra Park experienced the highest 4-year ramp-up at more than 44%, while Horseshoe Cincinnati saw a 12% decline from the first year of operations. Similar patterns occurred in the other two gaming markets as shown in the following tables.

Table 24: Ohio Casino Properties Annual Gaming Revenues – Cincinnati Market

	Horseshoe Cincinnati		Miami Valley		Belterra Park	
<i>First Full Month</i>	<i>Mar 2013</i>		<i>Jan 2014</i>		<i>June 2014</i>	
1st Full Year	\$215,562,207		\$119,588,404		\$55,761,826	
2nd Full Year	\$193,174,058	-10%	\$123,764,576	3%	\$73,876,899	32%
3rd Full Year	\$198,368,180	3%	\$137,440,622	11%	\$79,511,661	8%
4th Full Year	\$190,415,719	-4%	\$147,525,699	7%	\$80,468,700	1%
4-Yr Ramp-up	-11.7%		23.4%		44.3%	

Source: Ohio Casino Control Commission; The Innovation Group

Table 25: Ohio Casino Properties Annual Gaming Revenues – Columbus Market

	Hollywood Columbus		Scioto Downs	
<i>First Full Month</i>	<i>Nov 2012</i>		<i>July 2012</i>	
1st Full Year	\$214,719,931		\$136,341,804	
2nd Full Year	\$207,740,860	-3%	\$134,416,348	-1%
3rd Full Year	\$208,872,828	1%	\$140,796,107	5%
4th Full Year	\$213,939,975	2%	\$148,920,233	6%
4-Yr Ramp-up	-0.4%		9.2%	

Source: Ohio Casino Control Commission; The Innovation Group

Table 26: Ohio Casino Properties Annual Gaming Revenues – Cleveland Market

	Horseshoe Cleveland		Thistle Downs		Hard Rock	
<i>First Full Month</i>	<i>June 2012</i>		<i>May 2013</i>		<i>Jan 2014</i>	
1st Full Year	\$267,038,441		\$133,197,696		\$179,774,412	
2nd Full Year	\$229,197,443	-14%	\$116,886,130	-12%	\$209,519,824	17%
3rd Full Year	\$221,244,243	-3%	\$107,562,472	-8%	\$225,119,596	7%
4th Full Year	\$208,515,572	-6%	\$115,085,066	7%	\$239,502,186	6%
4-Yr Ramp-up	-21.9%		-13.6%		33.2%	

Source: Ohio Casino Control Commission; The Innovation Group

Table 27: Ohio Casino Properties Annual Gaming Revenues – Independent Markets

	Hollywood Dayton		Hollywood Toledo		Hollywood Mahoning	
<i>First Full Month</i>	<i>Sept 2014</i>		<i>Jun 2012</i>		<i>Oct 2014</i>	
1st Full Year	\$83,319,686		\$194,559,380		\$91,834,260	
2nd Full Year	\$88,231,673	6%	\$180,824,110	-7%	\$98,590,968	7%
3rd Full Year	\$96,276,607	9%	\$187,202,119	4%	\$109,347,326	11%
4th Full Year	\$104,620,516	9%	\$197,650,908	6%	\$117,512,699	7%
4-Yr Ramp-up	25.6%		1.6%		28.0%	

Source: Ohio Casino Control Commission; The Innovation Group

New York

In 2013, New York legalized up to four commercial Class III casinos across three regions in upstate New York, followed by three additional casinos in the New York City area after a period of seven years. One of the casino licenses was awarded to an existing VLT facility, Tioga Downs, while the other three opened between January 2017-February 2018.

Although the three new properties have been operational for less than four years, we have included them in our analysis to evaluate the year-over-year ramp-up that occurred on a monthly basis. Resorts World Catskills was the last casino to enter the New York Market and earned the highest first full year revenues of the three at \$158 million. Resorts World Catskills has experienced

tremendous growth so far in their second year of operation, with year-over-year trends around 48%. The other two properties, del Lago Resort and Rivers Casino & Resort Schenectady, experienced far less growth in year two (3%-10%, respectively), although both are poised to grow more significantly in Year 3 according to the most recent data.

Table 28: New York Casino Properties Monthly Total Gaming Revenue

<i>First Full Month</i>	del Lago		Rivers NY		Catskills	
	Feb 2017	YOY	March 2017	YOY	March 2018	YOY
1st	\$13,600,019		\$13,593,690		\$12,404,694	
2nd	\$12,438,616		\$11,205,597		\$10,827,967	
3rd	\$13,151,410		\$10,889,310		\$11,713,454	
4th	\$12,733,464		\$10,016,433		\$13,227,407	
5th	\$11,134,750		\$13,297,257		\$13,096,015	
6th	\$13,199,161		\$11,692,553		\$14,988,933	
7th	\$12,015,656		\$12,048,028		\$15,989,573	
8th	\$12,236,343		\$11,112,726		\$12,329,961	
9th	\$12,523,530		\$11,889,893		\$14,517,943	
10th	\$11,974,904		\$11,404,725		\$12,459,314	
11th	\$11,180,468		\$11,195,499		\$13,071,612	
12th	\$10,476,399		\$12,395,672		\$14,258,544	
13th	\$11,710,864	-14%	\$13,789,603	1%	\$18,110,932	46%
14th	\$13,248,530	7%	\$13,379,524	19%	\$16,959,605	57%
15th	\$12,458,076	-5%	\$13,167,610	21%	\$14,489,348	24%
16th	\$12,257,873	-4%	\$12,533,399	25%	\$20,351,103	54%
17th	\$12,138,489	9%	\$12,647,377	-5%	\$20,764,886	59%
18th	\$12,983,675	-2%	\$14,412,387	23%		
19th	\$13,401,710	12%	\$12,965,723	8%		
20th	\$13,539,087	11%	\$12,195,884	10%		
21st	\$13,213,121	6%	\$12,236,554	3%		
22nd	\$12,613,837	5%	\$13,434,020	18%		
23rd	\$12,991,699	16%	\$11,354,863	1%		
24th	\$10,717,516	2%	\$12,806,568	3%		
25th	\$11,889,212	2%	\$15,974,470	16%		
26th	\$14,767,579	11%	\$13,961,124	4%		
27th	\$13,303,277	7%	\$13,735,088	4%		
28th	\$13,399,045	9%	\$13,918,339	11%		
29th	\$12,816,912	6%	\$14,089,513	11%		
30th	\$14,263,795	10%				
1st Full Year	\$146,664,720		\$140,741,383		\$158,885,416	
2nd Full Year	\$151,274,478	3.1%	\$154,923,512	10.1%	\$90,675,874	N/A
Last YTD Ramp-up		7.5%		9.4%		48.0%

Source: New York Gaming Commission, The Innovation Group

Slot machine ramp-up at Rivers NY has been even more dramatic, with 18% growth year two and an additional 14% so far in 2019.

Table 29: New York Casino Properties Monthly Slot Revenue

<i>First Full Month</i>	del Lago		Rivers NY		Catskills	
	Feb 2017	YOY	March 2017	YOY	March 2018	YOY
1st	\$10,678,579		\$8,049,432		\$6,204,878	
2nd	\$8,312,150		\$6,890,074		\$6,319,730	
3rd	\$9,117,495		\$6,698,841		\$6,584,505	
4th	\$9,117,801		\$6,305,771		\$6,830,122	
5th	\$8,387,725		\$7,948,753		\$7,402,268	
6th	\$10,077,397		\$7,659,895		\$7,937,221	
7th	\$8,934,705		\$7,704,071		\$8,647,002	
8th	\$9,417,413		\$7,717,105		\$6,789,832	
9th	\$9,506,699		\$7,764,125		\$7,907,779	
10th	\$8,461,631		\$7,394,425		\$9,434,588	
11th	\$7,852,377		\$7,378,294		\$7,618,414	
12th	\$7,570,723		\$8,132,029		\$8,610,768	
13th	\$8,570,851	-20%	\$9,402,640	17%	\$10,821,394	74%
14th	\$9,385,115	13%	\$9,028,663	31%	\$9,072,794	44%
15th	\$9,480,329	4%	\$8,808,993	32%	\$11,123,384	69%
16th	\$8,921,243	-2%	\$8,598,316	36%	\$11,840,758	73%
17th	\$9,015,248	7%	\$9,335,918	17%	\$11,721,108	58%
18th	\$10,179,948	1%	\$9,590,219	25%		
19th	\$10,616,526	19%	\$8,811,838	14%		
20th	\$10,391,683	10%	\$8,398,529	9%		
21st	\$10,081,211	6%	\$8,384,045	8%		
22nd	\$9,163,748	8%	\$8,898,266	20%		
23rd	\$9,817,144	25%	\$7,722,856	5%		
24th	\$7,922,626	5%	\$8,686,561	7%		
25th	\$9,068,305	6%	\$11,211,754	19%		
26th	\$11,115,867	18%	\$10,006,797	11%		
27th	\$10,298,686	9%	\$10,231,229	16%		
28th	\$10,427,197	17%	\$9,989,869	16%		
29th	\$10,083,729	12%	\$10,083,186	8%		
30th	\$9,682,223	-5%				
1st Full Year	\$107,434,694		\$89,642,815		\$90,287,106	
2nd Full Year	\$113,545,672	5.7%	\$105,666,844	17.9%	\$54,579,437	N/A
Last YTD Ramp-up		9.2%		14.1%		63.7%

Source: New York Gaming Commission, The Innovation Group

Rush Street Properties

In addition to the Rivers Casino in New York, as discussed previously, Rush Street opened casinos in Illinois, Mississippi and Pennsylvania. First-year slot ramp up has averaged 14.4% at these properties, as shown in the following table.

Table 30: Rush Street Slot Ramp Up

	Year 1	Year 2	Change
Rivers (Des Plaines)	\$293.0	\$305.9	4.4%
Riverwalk (Vicksburg)	Private	Private	8.9%
Rivers (Schenectady)	\$89.6	\$105.7	17.9%
Rivers (Pittsburgh)	\$223.2	\$266.4	19.4%
SugarHouse (Philadelphia)	\$157.5	\$191.6	21.6%
Average			14.4%

Source: Illinois Gaming Board; Rush Street Gaming; New York Gaming Commission; Pennsylvania Gaming Control Board

Summary

First-year performance in gaming markets that have opened since the Great Recession (Massachusetts, New York, Ohio and MGM Maryland) have come in below many analysts' expectations, leading to a lot of headlines and angst over suspected market saturation. However, while gaming markets may be softer now than before the Great Recession, new jurisdictions have contributed to overall market growth in year one and new casinos have demonstrated strong levels of ramp up in years two-through-four.

Additionally, as shown in the Competitive Environment section previously, a trend that has become evident in the post-recession environment is that new casinos have not impacted existing casinos as much as expected. This resilience of existing operators bodes well for the addition of the Brockton casino into the Massachusetts market, as the Plainridge and Encore casinos would be expected to remain strong competitors.

DISCLAIMER

Certain information included in this report contains forward-looking estimates, projections and/or statements. The Innovation Group has based these projections, estimates and/or statements on our current expectations about future events. These forward-looking items include statements that reflect our existing beliefs and knowledge regarding the operating environment, existing trends, existing plans, objectives, goals, expectations, anticipations, results of operations, future performance and business plans.

Further, statements that include the words "may," "could," "should," "would," "believe," "expect," "anticipate," "estimate," "intend," "plan," "project," or other words or expressions of similar meaning have been utilized. These statements reflect our judgment on the date they are made and we undertake no duty to update such statements in the future.

Although we believe that the expectations in these reports are reasonable, any or all of the estimates or projections in this report may prove to be incorrect. To the extent possible, we have attempted to verify and confirm estimates and assumptions used in this analysis. However, some assumptions inevitably will not materialize as a result of inaccurate assumptions or as a consequence of known or unknown risks and uncertainties and unanticipated events and circumstances, which may occur. Consequently, actual results achieved during the period covered by our analysis will vary from our estimates and the variations may be material. As such, The Innovation Group accepts no liability in relation to the estimates provided herein.



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August 14, 2019

VIA EMAIL AND HAND DELIVERY

Chair Cathy M. Judd-Stein
Commissioner Gayle Cameron
Commissioner Eileen O'Brien
Commissioner Bruce Stebbins
Commissioner Enrique Zuniga
Massachusetts Gaming Commission
101 Federal Street, 12th Floor
Boston, MA 02110

Re: Mass Gaming & Entertainment LLC and Region C

Dear Chair Judd-Stein and Commissioners Cameron, O'Brien, Stebbins, and Zuniga:

As you know, we represent Mass Gaming & Entertainment ("MG&E"). We write in anticipation of the Commission's September 12, 2019 public meeting at which you will be discussing Region C, and the legal question of whether the Commission has the discretion to reconsider MG&E's application for a gaming license. We initially requested reconsideration on June 6, 2018 in response to changed circumstances favoring a fresh review of MG&E's application. See our June 6, 2018 letter to the Commission (attached as Ex. A) at 2-3. In the 15 months that have passed since our initial request, circumstances have continued to change in a way that has, if anything, uniformly made the case for renewed consideration of MG&E's prior application that much more compelling. These most recent changes include:

- The Department of Interior formally ruled against the Mashpee Wampanoag (copy of decision attached as Ex. B), thereby ending any realistic chance the Mashpee may have had of building a casino in Region C;
- The apparent start of what is reported to be an "extensive federal investigation into the financial workings of the Mashpee Wampanoag Tribe," including an investigation into allegations of fraud regarding the hundreds of millions of dollars the Tribe has received from the Genting Corporation, a Malaysian casino conglomerate, to fund the Tribe's hope to develop a tribal casino in Massachusetts – see, e.g., "FOLLOW THE MONEY – 3rd tribal financial officer subpoenaed," <http://reelwamps.com>, dated August 7, 2019;



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- The successful openings of MGM in Springfield and Encore in Everett, leaving Region C that much further behind the other Massachusetts regions;
- The successful opening in August 2018 of the Twin Rivers Casino in Tiverton, Rhode Island, just over the Massachusetts border. (The Tiverton casino generated \$100.5 Million for the ten month period of September 2018 through June 2019, or approximately \$121 Million on an annualized basis. It is estimated that a substantial portion of this revenue—tens of millions of dollars—is coming from Massachusetts residents.);
- The Commission's receipt of public comments regarding Region C, which indicate widespread support for the building of MG&E's proposed casino in Brockton;
- The continued growth of legislative and local support for a casino development in Brockton, as will be seen and heard at the Commission's meeting on September 12 if the public officials who plan to attend are given the opportunity to speak;
- The completion of market studies indicating an ongoing demand for a casino in Region C, with estimated additional net tax revenues of over \$60 Million per year to the Commonwealth, and the recapturing by Massachusetts of an estimated \$140 Million per year in gaming revenues that are currently being lost to Rhode Island, Connecticut and other out-of-state locations;
- The rededication by MG&E and its parent Rush Street Gaming of additional resources to MG&E's Brockton plan, and their modification of the original plan in an effort to address prior Commission concerns; and
- The unabated and desperate need of Brockton for jobs, housing, public safety enhancements, and school improvements. (Brockton, which is one of just nine majority minority cities/towns in the Commonwealth, continues to lag behind all other Massachusetts cities in virtually all financial and quality-of-life metrics. See, e.g., Local Area Unemployment Statistics (LAUS) Program, <https://www.mass.gov/find-unemployment-rates> (noting that Brockton has an unemployment rate more than 33% higher than the state average, 4.1% v. 3.1%, as of June 30, 2019).

In light of these developments, we are especially pleased that the Commission has turned its attention to Region C and has agreed to consider the threshold legal question regarding its discretionary authority.

This letter addresses the threshold authority question as well as two closely related questions to help frame the discussion we will be having with you on September 12. We are getting our submission to the Commission, Executive Director Bedrosian and General Counsel Blue well in advance of the September meeting in the hope that Mr. Bedrosian and Ms. Blue may likewise be able to share their views with us in advance of the meeting. If that is possible, it may help to open a dialogue between us and the Commission's staff prior to September 12, which would

only help sharpen and focus the discussion we will be having during the September public meeting.

Question 1: Does the Commission have the authority to entertain a motion for reconsideration of a prior decision to deny an application for a Category 1 gaming facility?

The answer is an unequivocal yes. The pertinent enabling statute, M.G.L. c. 23K, may not explicitly grant the Commission reconsideration authority, *but* it does not deny such authority or limit the Commission's discretionary decision-making authority in any way. Under such circumstances, the law is well-settled that agencies like the MGC have reconsideration authority.

The Commission's staff has previously indicated that, in light of M.G.L. c. 23K, § 17(g), the Commission "may not have the ability to reconsider the denial of a gaming license." General Counsel Blue's letter to Goodwin Procter, dated September 27, 2018 (attached as Ex. C). Respectfully, that suggestion has no merit. Section 17(g) specifically provides that a license applicant "shall not be entitled to any further review if denied by the commission." The phrase "further review" as used in this provision does not, however, apply to reconsideration. As the Supreme Judicial Court ("SJC") made clear in *City of Revere v. Massachusetts Gaming Commission*, 476 Mass. 591, 597 (2017), "further review" refers exclusively to "judicial review." The language of § 17(g) reflects the "legislative intention to curtail judicial review," *id.*, not further administrative consideration.

There is no other hint in the enabling statute of any limitation on the Commission's reconsideration authority. And without any such express limitation, it is well-established as a general matter of administrative law, and as a specific matter under the Expanded Gaming Act, that the Commission has the discretion to reconsider MG&E's application.

As a general matter, administrative agencies like the Commission "have broad discretion over procedural aspects of matters before them," and an agency's "decision whether to reopen hearings is one such procedural matter which [courts] have accorded agencies a great deal of flexibility." *Zachs v. Dep't of Pub. Utilities*, 406 Mass. 217, 226 (1989). Where, as here, there is an "absence of statutory limitations, administrative agencies [like the MGC] generally retain inherent authority to reconsider their decisions." *Moe v. Sex Offender Registry Bd.*, 444 Mass. 1009, 1009 (2005).

As a specific matter, the Commission's enabling statute not only includes no limitation on the Commission's reconsideration authority, it affirmatively and expressly grants the Commission "full discretion as to whether to issue a license." M.G.L. c. 23K, § 17(g). In addition, the statute provides the Commission with "all powers necessary or convenient to carry out and effectuate its purposes," *id.* at § 4, and indicates that "the power and authority granted to the commission shall be construed as broadly as necessary for the implementation, administration, and enforcement of this chapter." *Id.* at § 1(10). Where, as here, an agency has "expansive regulatory responsibility over a subject, with considerable leeway regarding substance and procedure," that leeway necessarily includes the discretion to reopen and reconsider prior



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agency licensing decisions. *Aronson v. Brookline Rent Control Bd.*, 19 Mass. App. Ct. 700, 703-04 (1985).

Question 2: Assuming the Commission has the authority to reconsider its earlier denial of MG&E's Category 1 license application, would it first have to promulgate regulations setting forth the reconsideration process before proceeding?

This second question was raised by the Commission's staff in its September 27, 2018 response (see attached Ex. C) to MG&E's request for reconsideration. Citing to § 17(g) of the enabling statute, the staff noted that, even if the Commission were to decide that the cited section "did not prohibit reconsideration, the Commission would have to promulgate regulations describing the conditions and process by which such reconsideration could occur." As discussed above, the suggestion that § 17(g) somehow prohibits reconsideration is simply wrong. The notion that the Commission would have to promulgate regulations regarding a reconsideration "process" and open its proposed regulations to public comment before undertaking reconsideration is equally wrong.

Just because the Commission has not previously exercised a particular discretionary power – here, the power to reconsider past licensing decisions – does not mean that it needs to formally promulgate new regulations before doing so. Indeed, the Commission routinely addresses and navigates novel challenges without first formally promulgating new regulations. For example, several years ago, when daily fantasy sports ("DFS") were very much in the news, the Commission took it upon itself to study, hold public meetings, and issue a white paper regarding the subject, without first promulgating new rules regarding "process." It did so notwithstanding the fact that it had never previously considered DFS, and despite acknowledging that it did not even have the power to regulate DFS. See Commission's 10/29/2015 Open Meeting Transcript ("Tr.") at 112-14. More recently, the Commission undertook the unprecedented and high-profile task of effectively reconsidering its earlier decision to issue a Category 1 gaming license to Wynn Resorts. Again, it did so without promulgating new regulations regarding how to proceed.

All Commission precedent is on the side of proceeding transparently and efficiently, without taking the unnecessary and time-consuming step of first promulgating new regulations regarding the "process" by which a new matter should be considered. It is for good reason that the enabling statute grants the Commission "all powers necessary or convenient to carry out and effectuate its purposes," and indicates that "the power and authority granted to the commission shall be construed as broadly as necessary for the implementation, administration, and enforcement of this chapter." M.G.L. c. 23K, §§ 4 & 1(10). Recognizing the breadth of its mandate, and foreseeing the practical reality that it would routinely encounter new issues, the Commission's own rules explicitly afford it "reasonable discretion" to proceed in the manner it deems appropriate with regard to all matters, like reconsideration of licensing decisions, that are "not specifically provided for." 205 C.M.R. § 102.06.

The broad authority the Commission has to control "process" has been specifically reinforced by the SJC with respect to the Commission's licensing authority, which the Court has termed a "quasi-judicial proceeding." *City of Revere v. Mass. Gaming Comm'n*, 476 Mass. 591, 601-02 (2017). Although in rule-making the Commission has declared that its processes are

“administrative and legislative in nature, not adjudicatory,” 205 C.M.R. § 118.07(1), the SJC has noted that the “statutory authority for that declaration is less than clear,” and has held that licensing decisions specifically are “quasi-judicial” and “adjudicatory” in nature. *City of Revere*, 476 Mass. at 601 n. 4. This holding is significant to the question of whether the Commission may exercise its discretion to reconsider MG&E’s license application without formal rule-making about “process,” because it means that, when it comes to all matters related to licensing decisions, the Commission may develop its processes and policies on its own as part of the adjudicatory process, without resort to formal rule-making. *See, e.g., Arthurs v. Bd. of Registration in Med.*, 383 Mass. 299, 312–13 (1981).

Furthermore, there is nothing mysterious or ambiguous about the “process” being requested here, namely, a process whereby a prior application, with modifications responsive to previously articulated Commission concerns, would be reconsidered in light of the changed circumstances identified above and in our initial June 6, 2018 letter (attached as Ex. A), and judged according to the same high standards already established by the Commission for the granting of any Category 1 gaming license. Given the nature of our request, “rule-making” would run counter to the law and common sense, and, if implemented, would serve the interest of nothing other than delay. Indeed, the delay that would be occasioned by needless rule-making, coming as it would on top of the many years of delay that have already plagued the Commission’s decision-making with respect to Region C, would not only prejudice and come at the expense of MG&E, but would likewise continue to harm southeastern Massachusetts, and the Commonwealth as a whole.

Question 3: Should the Commission exercise its discretionary authority to reconsider MG&E’s license application?

The answer to this question should be the easiest of all. Reconsideration of MG&E’s application has tremendous potential upside:

- 2,000 construction jobs;
- At least 1,800 well-paid permanent jobs, many of which would be filled by residents of Brockton and surrounding communities, who would be given preferred status in hiring;
- Payment of an \$85 Million license fee;
- An estimated \$60-\$65 Million in tax revenue for the Commonwealth during the first year of operation (and every year thereafter);
- The revitalization of Brockton, with the immediate payment of millions of dollars for traffic and safety improvements, and annual payments thereafter of \$10-\$12 Million per year, at least a portion of which could be applied to the local match to rebuild Brockton High School; and

- The repatriating to Massachusetts of well over \$100 Million in annual casino revenues that are currently being lost to Rhode Island and Connecticut, a significant portion of which (in excess of tens of millions of dollars per year) would come from the Twin Rivers Tiverton casino, located quite literally across the street from Fall River, Massachusetts, which opened in August 2018 and is already generating over \$120 Million in annualized revenue. (A recent market study performed by The Innovation Group estimates that a Brockton casino would recapture \$140 Million in annual revenue that is currently leaving the Commonwealth for Rhode Island, Connecticut and elsewhere. See The Innovation Group's "Gaming Market Assessment: Brockton Fairgrounds Casino," dated September 2018 (copy attached as Ex. D to this letter), at 48. See also "Rhode Island Gaming and State Revenue Forecast," dated March 12, 2019, prepared by Christiansen Capital Advisors, LLC for The Rhode Island Department of Revenue (copy attached as Ex. E to this letter), at 27 (estimates that a Region C casino in Massachusetts would result in a decline of \$79.8 Million in gross Rhode Island gaming revenue for the period FY 2021-2024).

Reconsideration is all but demanded under the Expanded Gaming Act which, after all, was passed as an "economic development bill." MGC, *Reinvesting the Gaming Economic Development Fund*, White Paper (Jan. 2018) at 2, <http://massgaming.com/wp-content/uploads/Reinvesting-the-Gaming-Economic-Development-Fund-White-Paper-2-12-18.pdf>. Furthermore, reconsideration fits perfectly with the Commission's mission statement which states that the "Commission strives to ensure that its decision-making and regulatory systems . . . provide the greatest possible economic development benefits and revenues to the people of the Commonwealth. . . ." MGC, *Mission Statement*, <https://massgaming.com/the-commission/mission-values/>.

Reconsideration would bring with it the immediate possibility of the southeast region receiving the life-transforming benefits of jobs and revenue that were the promise of the Expanded Gaming Act, and which the eastern and western regions of the state have already begun to experience and enjoy. Southeastern Massachusetts deserves the same benefits currently being received by Everett and Springfield. Reconsideration would allow the southeast to receive those benefits *immediately* because: (i) MG&E is uniquely positioned to start and complete its casino development project quickly¹; (ii) MG&E has already commissioned market

¹ In contrast to all other hypothetical prospective Region C applicants for a commercial casino license, MG&E has already: (i) received the requisite referendum support from the host community; (ii) entered into a host community agreement with the City of Brockton; (iii) entered into surrounding community agreements with eight municipalities (Abington; Avon; East Bridgewater; Easton; Holbrook; Stoughton; West Bridgewater; and Whitman); (iv) completed a traffic study, including a proposed \$8.6 Million traffic and pedestrian improvement package; (v) completed an economic impact study; (vi) completed a community services impact analysis; and (vii) performed environmental impact studies, and received an ENF Certificate under the the Massachusetts Environmental Policy Act with minimal issues identified, and received authorization for the EIR process to commence. The accomplishment of all of these required tasks took MG&E years to complete. Any other potential applicant (of which there appear to be none) would have to have to start from ground zero, inevitably resulting in two or three years of unnecessary, additional delay for Region C.

studies that show that there continues to be strong demand for a casino in and around Brockton and southeastern Massachusetts (see, e.g., The Innovation Group's Report on Region C Gaming Development ("IG Report"), dated November 30, 2018, (copy attached as Ex. F to this letter); (iii) MG&E has already been found suitable by the Commission; (iv) MG&E's principal, Neil Bluhm, and his other companies have a proven track-record of successful casino development in multiple other highly competitive urban areas, and a proven track-record of transformational real estate development around the country, including in Massachusetts (e.g. Faneuil Hall, Copley Place); and (v) MG&E has indicated that it is prepared to work with the Commission and the City of Brockton to modify its prior development plan in a manner that is responsive to the Commission's previously stated concerns.

In contrast to the enormous potential upside that would be presented by reconsidering MG&E's modified proposal, there is no downside to reconsideration. First, reconsideration is not approval. All MG&E is asking the Commission to do is to give it the opportunity to be heard. While we are confident that, upon reconsideration, the Commission will approve the application, if we are wrong, the Commission loses nothing.

Second, the interest of finality would not be implicated by reconsidering the denial of MG&E's earlier application. We recognize that one of the principal reasons why administrative agencies are often reluctant to reconsider past decisions is the interest of finality. After all, "administrative decisions . . . have resolving force on which persons can rely," *Doe*, 478 Mass. at 457-58, and reconsideration may unfairly risk the uprooting of settled expectations. See *Stowe v. Bologna*, 32 Mass. App. Ct. 612, 618 (1992). But there is no such risk here. After all, the Commission's prior decision was only a denial, without any companion approval. Thus no one has or could have "relied" on the finality or the "resolving force" of the Commission's prior decision. No applicant risks losing a license if reconsideration were to be granted. Cf. *City of Revere*, 476 Mass. at 596-97 (SJC declining to review the grant of a license to Wynn Resorts and the concurrent denial of a license to Mohegan Sun). Indeed, no applicant risks anything at all, as MG&E was the only prior applicant found suitable by the Commission that completed the RFA-2 application process for a Region C commercial license, and MG&E is the only party that has expressed an ongoing interest in pursuing the development of a Region C commercial casino over the course of the three years that have passed since its earlier application was denied.

Third, there is no other viable alternative to reconsideration. Put differently, there is no downside to reconsideration of MG&E's proposal because there is no upside to any of the available alternatives. Those alternatives are:

(i) *Doing nothing* – This is not an option at all. It would be a dereliction of responsibility on the part of the Commission to do nothing, especially since the Expanded Gaming Act is already eight years old, and Region C has yet to experience any of the Act's promised benefits. Doing nothing would likewise be an insult to the citizens of Region C, as it would continue to treat the region as the forgotten step-child of the Commonwealth.

(ii) *Conducting market research to determine the saturation level of the Massachusetts market before determining what, if anything, to do in Region C* – This option is little different than option

(i). It kicks the can down the road, and allows neighboring Rhode Island and Connecticut to continue to receive a windfall of revenue that would otherwise stay in Massachusetts. More importantly, it ignores the fact that in response to an earlier Commission inquiry MG&E already conducted the very research now being suggested again. Indeed, that research, which was done late last year for MG&E by an independent third-party (The Innovation Group), concluded that building a casino in Brockton would be a success for the Commonwealth and Brockton due to the tax revenue it would generate for Massachusetts, the repatriation of out of state gaming revenue, job creation, and other economic impacts. And the research further indicates that if the project is developed and managed properly, it will be a financial success for MG&E. See IG Report at 9 (attached as Ex. F). MG&E and its principal, Neil Bluhm, are sophisticated developers of successful casino businesses. They do not make decisions designed to lose money. They have conducted the requisite market research, and are prepared to spend between \$700 and \$800 Million on a casino, hotel and entertainment development in Brockton. In other words, the market itself has already spoken. There is no need for additional market research.

(iii) *Waiting to see if the Mashpee Wampanoag are ever going to be able to build their proposed Native American casino in Taunton, Massachusetts* – As the U.S. First Circuit Court of Appeals has noted, this option brings with it constitutional equal protection concerns. See *KG Urban Enters., LLC. v. Patrick*, 693 F.3d 1, 25 (1st Cir. 2012) (expressly noting that the defense against an equal protection constitutional claim “would become weaker with the passage of time and the continuation of the status that there are no ‘Indian lands’ in the region.”). See also Ex. A attached to this letter at 6-7. Regardless of the constitutional issues, this option would be an exercise in futility. The Mashpee have lost their battle in court (see *Littlefield v. U.S. Dep’t of the Interior*, 199 F. Supp. 3d 391, 396 (D. Mass. 2016) (copy attached as Ex. G), and have lost before the Interior Department (copy of decision attached as Ex. B). Furthermore, their effort at a legislative fix is going nowhere during the Trump Administration, and it will go nowhere even if the Democrats are able to reclaim the White House as there is bipartisan opposition in the Senate to the Mashpee’s legislative agenda. See, e.g., Valerie Richardson, *Rhode Island Senate Democrats Threatened to Block Sen. Warren’s Push for Indian Casino*, Washington Times (Jan. 10, 2019), <https://www.washingtontimes.com/news/2019/jan/10/rhode-island-senate-democrats-threatened-block-sen/> (Rhode Island Democratic Senators have promised to block the proposed act “from reaching the Senate floor”). Plus, even a legislative victory, which is a near impossibility, would result in another courtroom battle, with the result being no casino in Taunton or elsewhere in Region C for years and years to come. In addition, it makes no sense to wait additional years on the Mashpee’s latest legislative hail Mary, where most if not all of the benefit of a hypothetical and near-impossible “Mashpee” casino would accrue to Genting—the Malaysian corporation to which the Mashpee currently owe approximately \$440 Million. See, e.g., Genting Malaysia Berhad Annual Report 2018 at 130, § 23 re: “Other Non-Current Assets,” n. (ii) (noting the recording of an “impairment loss of RM1,834.3 million” or approx. \$440 Million based on an exchange rate of \$0.24 US dollars to the Malaysian dollar, relating to Genting’s investment in the Mashpee’s Region C project). See also “FOLLOW THE MONEY – 3rd tribal financial officer subpoenaed,” <http://reelwamps.com>, dated August 7, 2019 (discussing “extensive federal investigation” into the Mashpee’s financial dealings with Genting).

(iv) *Opening up a new competitive RFA process in Region C* – This option has already been tried twice – first in the formal 2013-16 RFA application process, and then again, albeit indirectly, in the 2018 Region C public comment period. Trying yet again would only cause further delay and unnecessary expense for MG&E, without any attendant benefit to the Commission or the Commonwealth.

The initial Region C RFA process was delayed in getting off the ground out of deference to the Mashpee. See Andy Metzger, *Gaming Panel Won't Extend Deadline*, State House News Service (Jan. 18, 2013), <https://www.bostonglobe.com/metro/2013/01/18/gaming-commission-nixes-all-four-requests-for-extension/v9Y6Vu8Dt2VOo8SVsAn8cL/story.html>. It was then delayed again in order to give KG Urban an opportunity to present a casino plan for New Bedford that could compete with MG&E's Brockton proposal. See, e.g., Commission's 05/28/15 Tr., at 116. The latter delay was justified on the theory that competition would produce the best location and the best project for the Commonwealth. MG&E appreciated and agreed with the rationale and eagerly engaged in the competition. Indeed, it won out against all other competitors, as it was the only applicant that was found suitable and that succeeded in getting through the entire Commission process.

More recently, late this past year, when the Commission asked for public comments in response to MG&E's motion for reconsideration, it gave other potential applicants every chance to express their interest in potentially bidding in an RFA process for a casino license in Region C. But in the scores of public comments that were received, including comments from gaming companies, no one other than MG&E even hinted at bidding on a Region C license. There is no reason to believe that starting afresh with a new formal RFA process would result in a different outcome. No one other than MG&E is prepared to participate (and even if they were, a new process would, at a minimum, unnecessarily cause a delay of two or three more years in a process that has already been too long delayed – see *supra*. n. 1).

Simply put, MG&E is the only suitable entity that has been interested and remains interested in the prospect of building a casino development in Region C. In fact, the "reconsideration" being sought by MG&E is not so much "reconsideration" as it is the natural continuation and next logical step in what has been a rigorous competitive process dating back to 2013 – a process in which MG&E has proven itself to be the only suitable candidate with a dedication to Region C. Its ongoing and continuous interest in and commitment to Region C should naturally result in renewed consideration of its proposal, including recently devised modifications and enhancements to that proposal. Indeed, it is no accident that MG&E's request for further consideration, without opening the competitive process yet again, is supported by the Expanded Gaming Act and procurement law more generally. See June 6, 2018 Letter (attached as Ex. A) at 10-12. There is no reason to open a new RFA process to the world, where all the Commission would learn at the end of the day is what it already knows, namely, that MG&E is the only viable and suitable candidate that is prepared to commit to Region C. MG&E should be given the chance to once again demonstrate that commitment, without further delay.



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We look forward to joining you on September 12, and to continuing our dialogue regarding the future of Region C, and the Commission's discretion to further consider MG&E's proposal.

Very truly yours,

A handwritten signature in blue ink, appearing to read 'David Apfel', written in a cursive style.

David Apfel

A handwritten signature in blue ink, appearing to read 'Roberto Braceras', written in a cursive style.

Roberto Braceras

cc: Executive Director Edward Bedrosian, Jr.
General Counsel Catherine Blue

Exhibit A



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June 6, 2018

BY HAND AND E-MAIL

Massachusetts Gaming Commission
Chairman Stephen P. Crosby
Commissioner Gayle Cameron
Commissioner Eileen O'Brien
Commissioner Bruce W. Stebbins
Commissioner Enrique Zuniga

Re: Mass Gaming & Entertainment LLC's Application for Region C

Dear Chairman Crosby and Commissioners Cameron, O'Brien, Stebbins, and Zuniga:

On behalf of our client, Mass Gaming & Entertainment ("MG&E"), we petition the Massachusetts Gaming Commission ("MGC" or the "Commission" or "you") to reconsider MG&E's application for a license to develop a casino in Brockton, Massachusetts, in Region C.

* * * * *

In July 2016, U.S. District Court Judge William Young held that the Department of Interior "lacked the authority to acquire land in trust for the Mashpee Tribe." Close on the heels of that ruling, the Commission stated on its website:

At a time deemed appropriate, the Massachusetts Gaming Commission will engage in a public discussion to further our review of what course of action will be in the short and long-term best interests of Southeastern Mass. and the Commonwealth.

Today, nearly two full years after the posting of this website announcement, we write on behalf of MG&E to express our strong view that: (i) the appropriate time to "engage in a public discussion" regarding the future of Southeastern Massachusetts is now; and (ii) the course of action that is in the "short and long-term best interests" of both the Southeast region and the Commonwealth as a whole would be for the Commission to reconsider MG&E's Brockton proposal without further delay.

As you know, MG&E's application for a license to build a \$700 million casino and resort in Brockton was rejected by a 4-1 vote of the Commission in April 2016. The rejection came notwithstanding the fact that the Commission had unanimously found MG&E "suitable" and financially able to perform, and

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also had found its application "sufficient" on the merits in every measured category – overview; finance; economic development; building and site design; and mitigation. But, at the time that the Commission first considered MG&E's application, the Mashpee Wampanoag (the "Mashpees" or the "Tribe") had achieved land-in-trust status, and Genting Corporation (the Mashpees' financial backer) and the Mashpees had broken ground on a casino development in Taunton, Massachusetts. The public record expressly indicates that the Mashpees were the "800 pound elephant in the room" when the Commission voted to reject MG&E's application. See Transcript of April 28, 2016 Commission Hearing ("4/28/16 Tr.") at 83. Based on the Mashpees' land-in-trust status, the Commission believed there was a "clear presumption of a [Mashpee] casino" in Region C. *Id.* at 116. That "clear" – albeit flawed – presumption led to the denial of MG&E's application, as there was obvious concern on the part of the Commission over the prospect of the "saturation" that would result from two casinos being developed in Southeastern Massachusetts. As Chairman Crosby stated at the time: "If the tribe isn't able to do anything, whether it's because of a lawsuit or something else, then we will have made a mistake [in denying MG&E's application]."¹ In the two years since the Commission's decision, the Mashpees have *not* been able to do anything in Taunton – and they will not be able to do anything in the future either.

Since your April 2016 decision, much has changed:

- U.S. District Court Judge Young issued his opinion that the Department of Interior ("DOI") had erred as a matter of law in granting the Mashpees land-in-trust status in Taunton, noting that the question was "not a close call." *Littlefield v. U.S. Dep't of the Interior*, 199 F. Supp. 3d 391, 396 (D. Mass. 2016). That same day – July 28, 2016 – final Judgment was entered against the defendants by Judge Young, and the matter was remanded to the DOI for further proceedings.
- The defendants in the *Littlefield* litigation appealed the Judgment to the First Circuit Court of Appeals. Ultimately, the DOI, the Bureau of Indian Affairs, and the U.S. government withdrew their appeal of Judge Young's ruling, and the First Circuit entered final Judgment ordering their appeal voluntarily dismissed on May 8, 2017.²
- On remand, the DOI issued a preliminary opinion in June 2017, rejecting alternative theories that the Mashpees had presented for obtaining land-in-trust status. See attached Ex. A.
- The Mashpees, who had broken ground on their casino development in Taunton on April 5, 2016, promptly stopped work after Judge Young issued his July 28, 2016 land-in-trust opinion. No work on the Mashpees' site has been done since, their Taunton office has been closed, and all equipment has been removed.

¹ *Casino Dreams Become Reality for Mashpee Wampanoag*, Cape Cod Times (May 1, 2016, 7:14 AM).

² Though the Tribe has maintained its appeal before the First Circuit, the appeal exists in name only, as the Court lacks jurisdiction to consider a Mashpee appeal without the government agencies' participation. See, e.g., *Pit River Tribe v. U.S. Forest Serv.*, 615 F.3d 1069, 1075-76 (9th Cir. 2010).

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- Rhode Island approved the construction of a casino development in Tiverton, Rhode Island, just over the Massachusetts-RI border, and just minutes from Fall River, Massachusetts. That development – the Twin River Tiverton Casino – is nearly finished. It is scheduled to open just months from now, and it is expected to generate approximately \$65-\$70 million in annual tax revenue for Rhode Island,³ with Twin River publicly stating that it expects \$20 million of its first-year revenue to come from Massachusetts residents.
- While Region C remains in limbo, the Encore Resort Casino in Everett and the MGM Casino and Hotel in Springfield are well underway, and scheduled to open in June 2019 and September 2018 respectively.

None of this has been good for Southeastern Massachusetts, which continues to languish, and is being left further and further behind with each passing day. And none of this has been good for the Commonwealth, which will not only lose the estimated \$20 million in revenue over the next year (and then annually) to Twin River, but will continue to be denied the benefit of the \$85 million license fee that MG&E would pay the Commonwealth immediately upon the grant of the license. That is a loss of over \$100 million in needed revenue for Massachusetts, not to mention the many tens of millions of dollars in annual tax revenue that will be forthcoming to Massachusetts and the City of Brockton as soon as MG&E's casino opens.

MG&E and its principal owner, Rush Street Gaming LLC, are eager and ready to help reverse the course for the Southeast region, and to make the requisite payments to the Commonwealth. Despite the setback of the Commission's April 2016 vote, Rush Street and MG&E remain interested in pursuing a casino and hotel development in Brockton. Their project is poised to begin promptly, and their \$85 million license fee is ready to be paid. They are ready to provide 2,000 construction phase jobs, and 1,800 permanent, well-paying jobs to the citizens of Brockton and surrounding communities in Southeastern Massachusetts. MG&E estimates that, in the first year of operation, its Region C casino would generate a minimum of \$70 million in tax revenue to the Commonwealth and an estimated \$12-13 million annually to the City of Brockton.

In voting against the MG&E proposal on April 28, 2016, Chairman Crosby noted that "if it turns out that there is no land in trust ultimately, or there is no financing and no casino, as others have said, we can reopen this at any time."⁴ "Ultimately" has arrived. There is no land in trust. There is no financing. And there is no casino in Taunton. The time to reopen consideration of MG&E's application is now.

We respectfully request that you agree to hold a public hearing regarding the short and long-term best interests of Southeastern Massachusetts, and also agree to reconsider MG&E's application without reopening the RFA process more broadly.

³ Christiansen Capital Advisors, LLC, *Rhode Island Gaming and State Revenue Forecast* 23, 26 (2017).

⁴ 4/28/16 Tr. at 120-21.

A. The Time Is Ripe For The Commission To Renew A Public Discussion Of Region C.

The most obvious reason to reopen and reconsider MG&E's application now is exactly the same reason the Commission voted in April 2013 to open the competitive RFA process in that Region, namely, the loss of economic benefit to the region and to the Commonwealth. As Chairman Crosby explained at the time: "The Commonwealth loses a hundred million or so in revenues for every year that this unknown delay goes on. And the Commonwealth loses whatever the economic development and jobs impact is of the construction of a commercial facility."⁵

If anything, there is even more urgency today to end the "unknown delay" than there was back in 2013. After all, it is more than five years later, and we still have not made any progress in Region C. To the contrary, we have moved backwards. The Southeast region is now further behind the other regions of the state, which already have benefitted, and continue to benefit, from the ongoing "economic and jobs impact" of construction of their approved commercial casino developments. Those other regions will benefit even more when those developments open for business later this year and in 2019. In addition, as we note above, increased competition from out of state, specifically from the casino that is about to open in Tiverton, Rhode Island, adjacent to the southern tip of Region C, as well as ongoing competition from the two tribal Connecticut casinos, decreases the potential economic viability of a casino development in Southeast Massachusetts. In other words, the longer the Commission waits, the more vulnerable Region C becomes, and the more likely it becomes that the Commonwealth will permanently lose hundreds of millions of dollars in tax revenue.

To be clear, the Commission cannot wait any further for the Mashpees. The Mashpees' land-in-trust status is dead. Judge Young's *Littlefield* judgment is final and bullet-proof. And the DOI has made clear in its preliminary opinion (see attached Ex. A) that the Mashpees' alternative arguments are equally unavailing. Indeed, the Mashpees themselves realize that their land-in-trust efforts are dead, and that is why they are engaged in a futile, last-ditch effort to obtain special interest federal legislation that would unconstitutionally set aside Judge Young's final Judgment.

B. There Will Be No Federal Legislation To Resuscitate The Mashpees' Bid For A Casino, And Even If There Were, It Would Be Challenged And Likely Found Unconstitutional.

The Boston Globe and other sources⁶ have recently reported that the Mashpees are lobbying the Massachusetts Congressional delegation for federal legislation to end-run the litigation they lost before Judge Young. The Mashpees have not liked the results in federal court or before the DOI, so they are "forum shopping" and seeking to have Congress set aside Judge Young's ruling. This effort, like the Tribe's preceding efforts, is doomed to failure. The Commission should not permit the prospect of what

⁵ See Transcript of April 18, 2013 Commission Hearing ("4/18/13 Tr.") at 102.

⁶ Shirley Leung, *In Taunton, a Gamble That Has Yet to Pay Off*, Boston Globe (Apr. 6, 2018), <https://www.bostonglobe.com/business/2018/04/05/taunton-gamble-that-has-yet-pay-off/hGTMYcxB6AXCPx9NrLv6fM/story.html>.

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is at best highly unlikely federal legislation to cause yet further delay, which would only continue to harm Southeastern Massachusetts and the Commonwealth.

Before recently reaching an accommodation with the Mashpee Tribe, the Town of Mashpee Board of Selectmen accurately criticized the contemplated legislation as "creat[ing] prospective legal ambiguities that will benefit no one."⁷ For their part, the *Littlefield* plaintiffs have described the bill as a "Hail Mary on top of a Hail Mary" and have expressed their intent to move forward with a constitutional challenge to the legislation if it were somehow enacted by Congress.⁸

As a practical and political matter, there is little chance that federal legislation will be passed this term or any time in the near future. Neither the Republican-controlled House or Senate, nor the Trump Administration is likely to support legislation filed by the Massachusetts Democratic delegation, particularly in an election year. Moreover, separate and apart from standard partisan politics, the legislation is unlikely to garner support, because it will be seen for what it is, namely, a bill that would not so much help a Native American Tribe, as it would protect and fund the interests of the Genting Corporation, a multinational corporation and casino developer based in Malaysia. According to Genting itself, the Mashpees already owe Genting more than \$380 million as of December 31, 2017, with Genting charging the Tribe 15-18% annually in interest.⁹ Thus, for the foreseeable future, the lion's share, if not all, of the profits from the "Mashpee casino" would pass through to Genting. In other words, the proposed federal legislation would not only improperly circumvent current law, it would assist Genting, not the Mashpees. We believe, and it is likely that most members of Congress will share our view, that Brockton – one of the region's nine majority-minority cities – should gain the benefits of a casino, not Genting.

Politics and practical reality aside, the proposed legislation – the "Mashpee Wampanoag Tribe Reservation Reaffirmation Act" – would be legally unenforceable even if it were enacted. Most fundamentally, the proposed law violates constitutional separation-of-powers principles that preclude Congress from "prescrib[ing] rules of decision to the Judicial Department . . . in cases pending before it." *United States v. Klein*, 80 U.S. 128, 146 (1871).

The bill would attempt to reopen Judge Young's final Judgment declaring that the Department of Interior lacks authority to acquire land in trust for the Mashpees. This is impermissible. Indeed, it is well-settled that Congress cannot "retroactively command[] the federal courts to reopen final judgments" based on existing law. *Plaut v. Spendthrift Farm, Inc.*, 514 U.S. 211, 219 (1995). Where, as here, the suit that was before Judge Young is closed, with a final Judgment having issued, the

⁷ Tanner Stening, *Mashpee Selectmen Announce Opposition to Tribe Land Legislation*, Cape Cod Times (Apr. 24, 2018, 12:39 PM), <http://www.capecodtimes.com/news/20180423/mashpee-selectmen-announce-opposition-to-tribe-land-legislation>.

⁸ Charles Winkoor, *Taunton Lawyer Calls Congressional Bill a Double 'Hail Mary'*, Taunton Gazette (Mar. 22, 2018, 4:34 PM), <http://www.southcoasttoday.com/news/20180322/taunton-lawyer-calls-congressional-bill-double-hail-mary>.

⁹ See <https://www.gentingmalaysia.com/wp-content/uploads/2018/03/GENM-4Q-ANN-Press-Release.pdf>, at 22.

proposed bill would inevitably be found unconstitutional.¹⁰ And even if our assessment of the constitutional concerns were not well founded (which is not the case), years of litigation would follow the unlikely passage of the proposed bill, to the continued detriment of Region C.

C. Failure To Act On MG&E's Petition To Reconsider Would Raise Constitutional Concerns

The current delay also implicates constitutional due process and equal protection concerns. With regard to equal protection, for instance, the events of the past several years, including the current delay, have recreated the circumstances that led the First Circuit in the *KG Urban* case to question whether the exclusivity rights afforded the Mashpees by the Compact and the Expanded Gaming Act run afoul of the Fourteenth Amendment. See *KG Urban Enters., LLC v. Patrick*, 693 F.3d 1, 25 (1st Cir. 2012) (reversing the district court's dismissal of KG Urban's constitutional claim, and noting that the Commonwealth's argument in favor of the constitutionality of the exclusivity rights afforded the Mashpees, "would become weaker with the passage of time and the continuation of the status that there are no 'Indian lands' in the region.>").

The First Circuit further noted, somewhat presciently, that the constitutional footing of the Commonwealth's argument would be "even weaker, to the extent that Congressional action is required to provide the Secretary [of the DOI] authority to take this land into trust," *Id.* Remarkably, the Mashpees have now turned to Congress, six years after the *KG Urban* court made this observation, in a futile, eleventh-hour effort to obtain land-in-trust status. If anything, the current delay has put the Commission right back where it was when it decided in 2013 to accept commercial license applications in Region C. As then Commissioner McHugh noted at the time, while referencing the First Circuit's opinion in *KG Urban*:

The First Circuit has made a decision, the last seven pages of which talk about how the longer we wait without a defined deadline, the more the wait begins to look like a violation of the equal protection clause of the 14th Amendment. So, simply doing nothing, it seems to me, feeds into the clear indication. The First Circuit didn't decide the issue. But the longer we wait without some kind of a plan for allowing events to proceed to a

¹⁰ The Supreme Court's recent plurality decision, in *Patchak v. Zinke*, 138 S. Ct. 897 (2018), is not to the contrary. Although the *Patchak* Court upheld a law with similar language to the Mashpee bill, *Patchak* would not apply here, as there is a critical difference in the timing of the legislative action. In *Patchak*, Congress enacted the Gun Lake Trust Land Reaffirmation Act while Patchak's lawsuit was pending; indeed, before the district court had even considered Patchak's case on the merits. In contrast, here, the proposed bill would attempt to undo Judge Young's final decision about the scope of Interior's authority. Judge Young's decision is a "final judgment" that cannot be legislatively undone because it is "the last word of the judicial department with regard to a particular case or controversy." *Plaut*, 514 U.S. at 227. Unlike the law at issue in *Patchak*, the proposed Mashpee bill would impermissibly "compel . . . findings or results under old law." *Patchak*, 138 S. Ct. at 905 (quoting *Robertson v. Seattle Audobon Soc.*, 503 U.S. 429, 438 (1992)). As the Court made clear in *Patchak*, 138 S. Ct. at 909, the law at issue there did "not offend Article III," "because Patchak's suit [was] not final." Here, the *Littlefield* lawsuit is final, and that finality is dispositive.

predetermined point, one of which is supporting the IGRA process, which a wait will do, the more the wait is simply undefined, the more it looks like it may be in violation of the equal protection clause.¹¹

Commissioner McHugh's remarks were spot-on in April 2013. Even more so now, more than *five* years later, with a new wait that is "simply undefined." Holding a public discussion now about what needs to be done in Region C is not only the right thing to do for the citizens of that region, it is the only way to avoid further constitutional violations. We ask that the discussion proceed immediately, and that as part of that discussion you reconsider MG&E's Brockton proposal.

D. The Commission Has The Authority To Reconsider MG&E's Application

There can be little question that, should it choose to do so, the Commission has the authority to reconsider the licensing process in Region C and reconsider MG&E's application. As Chairman Crosby has often noted, the Commission has the ability to "re-open [the process] at any time."¹² And lest there were any doubt, there is ample authority to support the Chairman's view.

First, as a general matter, it is well-settled in Massachusetts and elsewhere that administrative agencies, like the Commission, possess the inherent power to reconsider any of their past decisions. *Soe v. Sex Offender Registry Bd.*, 466 Mass. 381, 396 (2013); *Moe v. Sex Offender Registry Bd.*, 444 Mass. 1009, 1009 (2005); *e.g.*, *Foley v. City of North Adams*, No. D1-14-30, 2014 WL 11497936, at *2 (Mass. Civil Service Comm'n Sept. 18, 2014) (exercising "inherent power to re-open concluded proceedings").

Second, reconsideration of an earlier administrative decision has been deemed particularly appropriate, both where, as here, there are compelling reasons to do so (*e.g.*, the economic challenges in Region C and the risk of irreparable harm stemming from out-of-state competition), and where reconsideration of an existing proposal provides the least costly means of addressing those reasons. *See, e.g.*, *Soe*, 466 Mass. at 383, 396; *In re Town of Hull*, Nos. MUP-10-5951, MUP-10-5952, MUP-10-5953, MUP-10-5954, 2016 WL 453496, at *2 (Mass. Labor Relations Comm'n Jan. 15, 2016) (granting reconsideration in light of change in administrative precedent and "in the interests of promoting the orderly administration of labor relations *and conserving the resources of the DLR, the parties, and the courts*" (emphasis added)).

Third, the Expanded Gaming Act authorizes the Commission to reconsider MG&E's application. It states that the Commission has "all powers necessary or convenient to carry out and effectuate its purposes including . . . the power to determine which applicants shall be awarded gaming licenses." M.G.L. c. 23K, § 4(13). The power to issue licenses comes with "full discretion." While applicants who

¹¹ 4/18/13 Tr. at 93-94.

¹² Marc Laroque, *With Tribe's Legal Woes, Will the Brockton Casino Plan Get Another Shot?*, Taunton Gazette (Oct. 23, 2016, 4:41 PM).

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have been rejected are not "entitled" to further review, M.G.L. c. 23K, § 17(g), nothing in the Act forecloses the Commission from exercising its discretionary authority to engage in reconsideration.

Fourth, the Commission's own regulations contemplate that the Commission has the procedural flexibility to grant reconsideration. For instance, while the regulations, 205 CMR § 101.01(8), foreclose "further review" of "determinations of suitability," there is no similar prohibition on reconsideration on the merits. Furthermore, although the regulations do not explicitly provide for reconsideration, they authorize the Commission to exercise "reasonable discretion" to address reconsideration as a "[m]atter not specifically provided for" pursuant to 205 CMR § 102.06.

In short, the Commission has solid legal authority to reopen the discussion of the future of Region C, and to reconsider MG&E's proposal.

E. Approval Of MG&E's Application Would Be In The Best Interests, Short And Long-Term, Of Southeastern Massachusetts And The Commonwealth.

We request that you not only reconsider MG&E's application, but that you approve it as well. In our view, doing so would be in the best short and long-term interests of Southeastern Massachusetts and the Commonwealth. Of course, to the extent the Commission believes modifications would improve MG&E's application, MG&E would be happy to discuss and consider any and all proposals made by the Commission.

That the approval of MG&E's application, with agreed-upon modifications as may be proposed, would be in the best short-term interest of the Southeast region and the Commonwealth is beyond dispute. After all, MG&E is the only prior applicant in the region that was found suitable, went through the entire RFA-1 and RFA-2 applications process, and whose proposal was found "sufficient" in every category evaluated by the Commission. Approving the Brockton license for MG&E would translate into an \$85 million license fee; hundreds of construction jobs; regional economic development; a minimum of \$70 million in taxes paid to the Commonwealth annually once the casino development opens; thousands of permanent jobs in the casino, hotel, and retail establishments (for a region where the unemployment rate remains higher than the state average). Put simply, reconsideration and approval of MG&E's application would mean over \$100 million dollars in the Commonwealth's coffers and thousands of jobs for Massachusetts residents during the next 2-3 years as opposed to zero revenue and zero jobs for at least the next 2-3 years or more if any other potential bidder is considered. A Region C casino would provide a dedicated revenue stream both to the Commonwealth and to Brockton, both of which are wrestling with serious budget challenges. This is the very definition of short-term benefit.

With regard to the long-term best interest of Region C and the Commonwealth, there is a sense in which it is no different from the short-term best interest. After all, if there is a delay of what would be, at a minimum, another two or three years before a casino license is issued in Region C, there likely would never be a viable casino built in that region because of the market penetration and first-mover advantage of the Tiverton, Rhode Island casino, and the continued marketing in Southeastern Massachusetts by the two tribal casinos in Connecticut.

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The window to build a viable resort casino in Region C is quickly closing. Analyses that have been done by Rush Street and MG&E have convinced them that they can still build a profitable resort casino in Brockton, provided it is built soon. But further delay, particularly one that lasts at least two or three more years and continues to allow the out-of-state casinos to build customer loyalty from Region C residents, would change the economics of the investment.

Independent of whether a delay of another two or three years (and likely much more) would permanently kill any chance of anyone ever building a viable casino development in the Southeast region, we are confident that the short-term approval of MG&E's renewed application would yield long-term benefits to the region and to the Commonwealth. As you know, Neil Bluhm, the driving force behind MG&E, has a long history of success in reviving distressed communities throughout the country, including Massachusetts. Indeed, one need look no further than Faneuil Hall and Copley Place to see iconic examples of great work in the Commonwealth by Neil Bluhm and his prior real estate companies. The resort casino project that Rush Street now envisions for Brockton will do for that city and surrounding Southeastern Massachusetts communities what the Faneuil Hall project did for Boston's downtown, and Copley Place did for what was a rundown section of the Back Bay bordering the South End. Under Mr. Bluhm's leadership, the Region C casino project in Brockton promises to result in the long-term transformation of Brockton.

On the merits, the Commission found MG&E's prior application "sufficient" in every category (overview; finance; economic development; building and site design; and mitigation). But the Commission denied the application because MG&E had purportedly not "presented convincing evidence" that its "proposed gaming establishment [would] provide value to Region C and to the Commonwealth."¹³ Of course, the principal reason, if not the only reason, for the denial of MG&E's application was the Commission's belief at the time of its vote that the Mashpees would retain land-in-trust status, and would be able to build a casino in Taunton.

As noted above, the Commission's prior denial of MG&E's application, as well as the ongoing delay in Commission action vis-à-vis Region C, fuel constitutional due process and equal protection concerns, and suggest, rightly or wrongly, that the goal of the Commonwealth has always been for there to be a Tribal casino, and only a Tribal casino, in Southeastern Massachusetts. Even when the Region C RFA process for commercial bids was first opened in April 2013, Chairman Crosby stated that, if the Mashpees were to perform as they said they would "with the compact and land in trust, . . . they very likely will get what they want, no matter what else anybody does."¹⁴ It now appears as if, even by *not* performing, the hope and design of the process is (and has always been) to make sure the Mashpees "get what they want, no matter what else anybody does."

¹³ Draft Decision Denying a License to Operate a Category I Gaming Establishment in Region C at 10, *In re Application of Mass Gaming & Entertainment*, available at <http://massgaming.com/wp-content/uploads/Commissioners-Packet-5-26-16.pdf>.

¹⁴ 4/18/13 Tr. at 104.

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These concerns easily could have led Rush Street and MG&E to pursue litigation. But they have not done so. Instead, they have chosen to respond in a constructive way. They hope to raise MG&E's proposal to a level which the Commission will recognize as going beyond the "merely" sufficient. They hope to demonstrate to the satisfaction of the Commission that MG&E's proposed project "would maximize revenue to the Commonwealth," and "offer the highest and best value to create a secure and robust gaming market in Region C and the Commonwealth."¹⁵

If you agree to reopen the public discussion regarding Region C, and reconsider MG&E's proposal, MG&E will, without question, consider any and all substantive concerns the Commission may have with its proposal, discuss those concerns with the Commission and its staff, and make reasonable modifications to its proposal as need be.

In the words of former Commissioner Lloyd Macdonald:

So, we've got a city [Brockton] that desperately needs economic development, workforce development, and the infusion of capital in order to be able to serve its citizens. And then we have in the form of Rush Street, a private party, not a government entity, a private party that is committed to invest almost \$700 million into the community with a proven track record in three other highly competitive urban areas.

So, I go back to the question let's look at what a no vote means. A no vote means Brockton we're sorry, you can't have it...

4/29/16 Tr. at 98-99.

Now is the time for the Commission to say "yes" to Brockton, and to state unequivocally "you can have it." MG&E's application should be reconsidered and granted without further delay.

F. Reconsideration And Approval Of MG&E's Application Without Opening Up A New RFA Process Is Lawful And Appropriate.

At the same time that we ask you to reconsider MG&E's renewed proposal, we request that you *not* reopen the RFA process to new applicants or to prior applicants that withdrew their applications. A broader reopening would be unfair to Region C as it would inevitably cause years of delay during which much of the prospective Region C market would be ceded to Rhode Island (Twin River/Tiverton) and other regional casinos in Connecticut. Likewise, a broader reopening would be unfair to MG&E, which is the only prior applicant that saw the initial process through to conclusion. As the Commission well knows, there was ample opportunity over a three-year period for other applicants to submit Region C license bids. Indeed, in its effort to promote competition, the Commission permitted KG Urban three

¹⁵ See M.G.L. c. 23K, s. 18(11) & (13). See also Draft Decision Denying A License to Operate A Category 1 Gaming Establishment in Region C at 5.

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extensions for a proposed casino development in New Bedford so that KG Urban could develop its proposal, which, ultimately, it decided to abandon.

The Mashpees/Genting chose a different path. Rather than pursuing the Region C commercial license to compete with the Brockton proposal, which they had every right and ability to do, they chose what they hoped would be an easier, less expensive, and less time-consuming option than the Commission's rigorous process, and one that, if successful, was destined to be far more profitable for them (and less profitable for the Commonwealth). While we have no evidence that Genting/Mashpees have any intent to seek a commercial license, in the name of basic fairness and equity, we believe that they should not be given an opportunity to benefit from their prior choice. They should not get a second bite at the apple. If Genting/Mashpees were to request, let alone be given, the opportunity to submit a commercial casino application, we would aggressively oppose any consideration of their request, not simply on grounds of equity and fairness, but also because there are serious questions regarding the Tribe's suitability to obtain a license.

Our request for a limited reopening of the process is not only fair and equitable, and in the best interest of Region C and the Commonwealth, it is consistent with and supported by the Expanded Gaming Act and procurement law more generally. For instance, the Expanded Gaming Act contemplates a single application process for each Region, with definite deadlines. The Act specifically instructs the Commission to "establish deadlines for the receipt of all applications for a gaming license," and it contemplates an end to the process, as it expressly bars the Commission from entertaining "[a]pplications received after the deadline." M.G.L. c. 23K, § 8(c). The deadline in Region C has come and gone. And reopening the process to newcomers would be an end-run of the statutory bar on reviewing "[a]pplications received after the deadline." We ask that the Commission reconsider MG&E's application based on the initial process sanctioned by statute. Although the Commission has discretion to decide whether to reconsider an application submitted and considered within the deadline, its discretion cannot bypass the limits set forth in the Act of a single application process. See *Moe*, 444 Mass. at 1009 (agency discretion subject to "statutory limitations").

Independent of limitations on the RFA process imposed by the Expanded Gaming Act, well settled procurement law also strongly disfavors any "broad reopening of discussions" where, as here, the reopening would "cause more harm than good," would "unfairly harm" qualified offerors, and "would cause more delay to the procurement." *Caddell Constr. Co. v. United States*, 125 Fed. Cl. 30, 56 (Ct. Fed. Cl. 2016). As we have noted above, MG&E would be unfairly harmed if it were compelled to begin the RFA process afresh, re-do all the work it has already done, and compete, once again, with others who chose not to apply during the RFA process, or bowed out of the competition before the Commission considered their plans on the merits. See *Sys. Applications & Techs., Inc. v. United States*, 100 Fed. Cl. 687, 708 (Ct. Fed. Cl. 2011) (a company suffers a "nontrivial competitive injury" if it is "forced to re-compete for a contract"); *Carahsoft Tech. Corp. v. United States*, 86 Fed. Cl. 325, 345 (Ct. Fed. Cl. 2009) (decision to reopen should "recognize the agency's interest in preserving its resources and the resources of the parties" (emphasis added)). More importantly, Southeastern Massachusetts would be harmed, potentially irreparably, by the *at least* two or three years of additional delay that would inevitably result from a complete reopening of the RFA process. Regardless of how one looks at the matter, a reopening of the RFA process to all bidders would "cause more harm than good."

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Where a winning bidder fails to perform or drops out of an RFA process after it has been selected, procurement law favors limiting reconsideration of other bids to the next most qualified bidder, as that bidder "stands to receive the contract in lieu of the challenged awardee." See, e.g., *United States v. Int'l Bus. Machine Corp.*, 892 F.2d 1006, 1011 (Fed. Cir. 1989). Here, since there was no winning bidder, this principle of procurement law would be served by reopening the process to MG&E which was the only "suitable" and qualified bidder in the completed RFA process. Furthermore, in connection with reconsideration, it is legally appropriate and standard to give the next most qualified bidder the opportunity to modify and enhance its prior bid, just as MG&E is prepared to consider doing here if need be. See, e.g., *Carahsoft*, 86 Fed. Cl. at 345.

Furthermore, procurement law specifically bars those who fail to participate in contract/licensing award processes from the outset from seeking a resolicitation that would include them. *MCI Telecomm's Corp. v. United States*, 878 F.2d 362, 365 (Fed. Cir. 1989). The "opportunity to qualify either as an actual or prospective bidder" ends "when the proposal period ends." *Id.* Here, this principle should bar any prospective bid from any candidate, including the Mashpees/Genting, who chose not to participate in the original RFA. Indeed, entertaining any bid for a commercial license from the Mashpees/Genting would be particularly inappropriate and unlawful, as it would implicate constitutional equal protection concerns (discussed above) as well as state prohibitions on bias and favoritism in the procurement process. See, e.g., *Bowman v. Drewry*, No. 942576, 1996 WL 178441, at *12 (Mass. Super. Ct. Jan. 11, 1996) (pursuant to Massachusetts Uniform Procurement Act, ordering town to award contract to "a reasonable and responsive proposal" and admonishing town for rejecting all applicants so as to continuously reopen the RFP process to permit a favored vendor to enter a satisfactory bid).

Procurement law likewise disfavors allowing prior bidders who have withdrawn from the bidding process from seeking resolicitation. See, e.g., *Federal Data Corp. v. United States*, 911 F.2d 699, 705 (Fed. Cir. 1990). Those bidders are barred from seeking review of award decisions because they could have, but deliberately declined to, "continue to compete for the . . . award." Here, this principle should preclude the Commission from reopening the RFA process to accommodate KG Urban and Crossroads, the two bidders who submitted initial applications but then withdrew from the process after each was unable to assemble a viable financing package.

In sum, the law uniformly favors reconsideration of MG&E's prior application, and disfavors permitting those who failed to participate in, or withdrew from, the completed RFA process from being given a second chance. Reconsideration of MG&E's application is not just the right thing to do for the Southeast region and the Commonwealth, it also is the legal thing to do.

* * * * *

We request that the Commission, as soon as possible, schedule a public discussion of the future of Region C, and then hold a meeting at which MG&E would be provided the opportunity to present its Brockton proposal, and address any questions or concerns the Commission may have. In the



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meanwhile, if you have questions regarding any of the points articulated in this letter, please do not hesitate to contact either of us.

We look forward to your response.

Very truly yours,

A handwritten signature in blue ink, appearing to read 'David J. Apfel'.

David J. Apfel

A handwritten signature in blue ink, appearing to read 'Roberto M. Bracerias'.

Roberto M. Bracerias

ACTIVE/95515757.1

Exhibit B



United States Department of the Interior

OFFICE OF THE SECRETARY

Washington, DC 20240

SEP 07 2018

The Honorable Cedric Cromwell
Chairman, Mashpee Wampanoag Tribe
483 Great Neck Road
Mashpee, Massachusetts 02649

Dear Chairman Cromwell:

On July 28, 2016, the United States District Court for the District of Massachusetts remanded to the Department of the Interior (Department) to consider whether the Mashpee Wampanoag Tribe (Mashpee Tribe or “Tribe”) meets one or more of the definitions of “Indian” in Section 19 of the Indian Reorganization Act (IRA).¹ The Court did so in light of its conclusion that the phrase “such members” in the IRA’s second definition of “Indian” referred to the phrase “members of a recognized Indian tribe now under Federal jurisdiction” in the first.² To consider this issue consistent with the Court’s reading of the second definition, the Department must therefore determine whether the Mashpee Wampanoag Tribe (Mashpee Tribe or Tribe) was “under federal jurisdiction” in 1934. Between December 2016 and November 2017, the parties submitted hundreds of pages of arguments and thousands of pages of exhibits addressing this question at the Department’s invitation.³ The Department has evaluated the parties’ submissions within the framework established by the Department’s Office of the Solicitor (Solicitor) for that purpose.⁴ Based on my review and consideration of these submissions, I cannot conclude that the Tribe was “under Federal jurisdiction” in 1934. As a result, the Tribe does not satisfy the “under Federal jurisdiction” requirement of the first definition of “Indian,” and it also does not satisfy such requirement with respect to the second definition as that definition has been interpreted by the United States District Court for the District of Massachusetts.

I. BACKGROUND

In 2007, the Department formally acknowledged the Mashpee Tribe pursuant to the administrative procedures set forth at 25 C.F.R. Part 83 (Part 83).⁵ The Department based its decision on evidence showing that the Tribe’s members and ancestors had substantially

¹ Act of June 18, 1934, ch. 576, 48 Stat. 984, codified as amended at 25 U.S.C. § 5101 et seq.

² *Littlefield, et al. v. United States DOI*, 199 F.Supp.3d 391 (D. Mass. 2016).

³ See *infra* § I.C.

⁴ The Meaning of ‘Under Federal Jurisdiction’ for Purposes of the Indian Reorganization Act, Op. Sol. Interior Sol. Op. M-37029 (Mar. 12, 2014) (“Sol. Op. M-37029”).

⁵ U.S. Dep’t of the Interior, Associate Deputy Secretary, Summary under the Criteria and Evidence for Final Determination for Federal Acknowledgment of the Mashpee Wampanoag Indian Tribal Council, Inc. (Feb. 15, 2007) (“Mashpee FD”); Final Determination for Federal Acknowledgment of the Mashpee Wampanoag Indian Tribal Council, Inc. of Massachusetts, 72 Fed. Reg. 8007 (Feb. 22, 2007). See also U.S. Dep’t of the Interior, Associate Deputy Secretary, Summary under the Criteria and Evidence for the Proposed Finding on the Mashpee Wampanoag Indian Tribal Council, Inc. (Mar. 31, 2006) (“Mashpee PF”).

maintained consistent interaction and significant social relationships from the time of first sustained contact with Europeans in the seventeenth-century, through the colonial and Revolutionary eras, and up until the present time. The Tribe presented evidence showing that nearly all the Tribe's members lived in a defined geographical area, namely, the Town of Mashpee (or Marshpee as it was formerly known) that was inhabited almost exclusively by the Tribe and its members.⁶ The Department also relied on evidence showing that the Tribe had maintained an autonomous political existence from the time of first sustained contact to the present.⁷ The Tribe's acknowledgment became effective on May 23, 2007.⁸

A. 2015 Record of Decision

After its Federal acknowledgment, the Tribe in 2007 asked the Department to acquire certain lands in trust for the Tribe's benefit pursuant to Section 5 of the IRA. As later amended, these lands included a parcel totaling approximately 170 acres in Mashpee, Massachusetts and a 150-acre parcel near the City of Taunton, Massachusetts. The Tribe sought trust lands to meet the present and future needs of its members by providing land for self-determination and self-governance, housing, education, and cultural preservation.⁹ The Tribe intended to use the Mashpee parcel, which included culturally significant sites such as the Mashpee Old Indian Meeting House and an historic Tribal burial ground used by the Tribe for centuries, for tribal administrative purposes, tribal housing, and cultural purposes.¹⁰ It intended to use the Taunton parcel for economic development by the construction and operation of a gaming facility under the Indian Gaming Regulatory Act.¹¹ Revenue from economic development would be used to enhance the Tribe's ability to preserve its history and community by funding the preservation and restoration of culturally significant sites;¹² to generate revenue to meet the needs of tribal members, many of whom are unemployed with incomes below the poverty level;¹³ and to fund construction of tribal housing and tribal programs such as the Wampanoag Housing Program and the Low Income Home Energy Assistance Program.¹⁴

On September 18, 2015, the Department issued a record of decision to acquire the Mashpee and Taunton parcels in trust for the Tribe.¹⁵ The Department determined that it had statutory authority to acquire the lands in trust for the Tribe under the second definition of "Indian" set forth in IRA Section 19, which includes "all persons who are descendants of such members who

⁶ Mashpee FD at 9.

⁷ Mashpee FD at 18. The evidence further demonstrated that nearly all of the Tribe's members (97%) descended from the historical Tribe identified by outside observers in the nineteenth-century. *Id.* at 30, 34; 72 Fed. Reg. at 8,009.

⁸ 72 Fed. Reg. at 8,009.

⁹ U.S. Dep't of the Interior, Assistant Secretary – Indian Affairs, Record of Decision, Trust Acquisition and Reservation Proclamation for 151 Acres in the City of Taunton, Massachusetts, and 170 Acres in the Town of Mashpee, Massachusetts, for the Mashpee Wampanoag Tribe at 7 (Sep. 18, 2015) ("2015 ROD"); U.S. Dep't of the Interior, Bureau of Indian Affairs, Notice of Final Agency Determination, 80 Fed. Reg. 57,848 (Sep. 25, 2015).

¹⁰ 2015 ROD at 6, 15, 110.

¹¹ 25 U.S.C. § 2701 et seq.

¹² 2015 ROD at 8.

¹³ 2015 ROD at 7.

¹⁴ 2015 ROD at 8.

¹⁵ *See supra* n. 9.

were, on June 1, 1934, residing within the present boundaries of any Indian reservation.”¹⁶ As a result, the Department did not decide whether the Tribe could also qualify under the first definition¹⁷ pursuant to the U.S. Supreme Court in *Carcieri v. Salazar*, which was handed down while the Tribe’s application was pending.¹⁸

As relevant here, Section 19 of the IRA defines “Indian” to include (1) “all persons of Indian descent who are members of any recognized Indian tribe now under Federal jurisdiction,” and (2) “all persons who are descendants of such members who were, on June 1, 1934, residing within the present boundaries of any Indian reservation...”¹⁹ The Department found it unclear whether the phrase “such members” in the second definition referred only to “members of any recognized Indian tribe” in the first definition, or whether it was intended to incorporate the expression “members of any recognized Indian tribe *now under Federal jurisdiction.*”²⁰ Concluding that “such members” was ambiguous, the Department construed it as referring only to “members of any recognized Indian tribe,” since construing it as incorporating all of the first definition would render the second definition largely redundant.²¹

The Department also conducted a comprehensive, fact-intensive analysis of whether the Tribe occupied a “reservation” as of June 1, 1934.²² The Department examined the Tribe’s continuous history in the Town of Mashpee from before European contact until modern times,²³ relying on extensive historical documentation, including materials assembled before the Office of Federal Acknowledgment when considering the Tribe’s petition for Federal acknowledgment. The record showed the Tribe’s long-standing relationship with the lands comprising the Town of Mashpee, and the intertwined relationship between the Tribe, the British Crown and Province of Massachusetts before the United States was founded.²⁴ It also showed recognition and protection of that relationship by the Crown and Colonial governments and by the Commonwealth of Massachusetts, separate and apart from protections later enacted by the United States, such as the

¹⁶ 2015 ROD at 79.

¹⁷ 2015 ROD at 79. The BIA accepted title to the parcels in trust on behalf of the United States for the benefit of the Tribe on November 10, 2015, and proclaimed them the Tribe’s initial reservation. U.S. Dep’t of the Interior, Bureau of Indian Affairs, Proclaiming Certain Lands as Reservation for the Mashpee Wampanoag, 81 Fed. Reg. 948 (Jan. 8, 2016).

¹⁸ 555 U.S. 379 (2009) (“*Carcieri*”).

¹⁹ 25 U.S.C. § 5129 (numbers in brackets added).

²⁰ 2015 ROD 93-95 (emphasis added for clarity). The Department also found ambiguous the phrase “descendants of such members who were, on June 1, 1934, residing...on an Indian reservation.” Neither the Act’s language nor its legislative history made clear whether it was the members or their descendants who had to be in residence on June 1, 1934. If the former, then the category of individuals eligible for trust acquisitions under the second definition of “Indian” would be open to all descendants. If the latter, however, eligibility would be limited to the closed class of descendants alive and residing on the reservation in 1934.

²¹ 2015 ROD at 93. The Department additionally determined that Congress intended the second definition to be independent of the first as shown by the use of the conjunction “and” to link the two definitions. *Id.* Further, it would have been redundant for Congress to incorporate “under federal jurisdiction” into the second definition at a time when it was well-established that Indian residents of a reservation were automatically under federal authority. *Id.* at 94.

²² See 2015 ROD at 101-120.

²³ 2015 ROD at 101ff.

²⁴ 2015 ROD at 102.

Non-Intercourse Act.²⁵ The record showed that the Federal Government considered the Tribe as inhabiting a reservation in the 1820s when considering implementation of the Federal removal policy,²⁶ and that a reservation had been set aside for the Tribe's occupation and use under the protection of the colonial court and government, which continued to exist and continued to be occupied by Mashpee tribal members through 1934.²⁷ Because it met the second definition of "Indian," the Department found the Tribe eligible for trust land acquisitions under Section 5 of the IRA.

B. Litigation

In 2016, several residents of the City of Taunton (collectively, the Littlefields) challenged the 2015 ROD in the United States District Court for the District of Massachusetts.²⁸ Among their claims, the Littlefields challenged the Department's interpretation of the IRA's second definition of "Indian."²⁹ On cross-motions for summary judgment on that issue,³⁰ the District Court ruled against the Department, concluding that the second definition unambiguously incorporates the antecedent phrase "members of any recognized Indian tribe now under Federal jurisdiction."³¹ The court remanded to the Secretary of the Interior (Secretary) for further proceedings consistent with the court's opinion. Because the decision suggested that the Tribe was not under Federal jurisdiction in 1934, an issue the 2015 ROD had expressly declined to reach,³² the court later clarified that the Department could, consistent with its opinion, evaluate whether the Tribe was under federal jurisdiction in 1934.³³ Thus on remand, the Department either could consider the Tribe's eligibility under the first definition of "Indian" or "reassess" its eligibility under the second consistent with the court's interpretation.³⁴

C. Remand Proceedings

The Department established remand procedures for considering the Tribe's eligibility under either the first definition of "Indian" or the second definition as interpreted by the district court³⁵

²⁵ 2015 ROD at 110-112. 25 U.S.C. § 177.

²⁶ 2015 ROD at 104-105.

²⁷ 2015 ROD at 113-119. Since the Tribe had also shown that its current members included persons who had resided on the Mashpee reservation in 1934 as well as descendants thereof, the Department found no need to address whether the second definition's residency requirement applied to "descendants" or "members." 2015 ROD at 100.

²⁸ *Littlefield, et al. v. United States Dep't of the Interior*, Case No. 16-CV-10184 (D. Mass) ("*Littlefield*").

²⁹ The Littlefields also challenged whether the Tribe had significant historical connection to the City of Taunton; whether the Mashpee and Taunton parcels could together form the Tribe's "initial reservation"; and whether the Tribe's lands in the Town of Mashpee constituted a "reservation" for IRA purposes. The Littlefields further challenged the constitutionality of the IRA as well as the Tribe's federal acknowledgment. *See id.*, Complaint, Dkt. No. 1, ¶¶ 91-96.

³⁰ *Littlefield*, Parties' Motions for Partial Summary Judgment, Dkt. Nos. 55, 59 (July 7, 2016).

³¹ *Littlefield*, 199 F.Supp.3d at 400.

³² *Littlefield*, Memorandum & Order, Dkt. No. 87 at 22.

³³ *Littlefield*, Order, Dkt. No. 121 at 2.

³⁴ *Littlefield*, Order, Dkt. No. 121 at 2.

³⁵ Though the Department initially filed a notice of appeal challenging the district court's interpretation of Section 19 of the IRA, it ultimately moved for voluntarily dismissal of its appeal. Motion to Voluntarily Dismiss Appeal, *Littlefield, et al. v. U.S. Dep't of the Interior*, No. 16-2481 (U.S.C.A. 1st Cir. Apr. 27, 2017). The Tribe's appeal of the district court's decision remains pending before the United States Court of Appeals for the First Circuit. *See*

and notified the parties of the procedures and schedule to be followed on remand.³⁶ The Tribe commenced by submitting evidence and arguments for the Department's consideration in determining whether the Tribe was under federal jurisdiction in two parts.³⁷ The Littlefields filed a response within 30 days,³⁸ to which the Tribe had 15 days to respond.³⁹ Remand briefing concluded on February 28, 2017.

The Department had intended to issue a remand decision on or before June 19, 2017.⁴⁰ However the parties' remand submissions raised new and potentially important issues that neither party had explored. Both parties relied on the First Circuit decision in *Joint Tribal Council of Passamaquoddy Tribe v. Morton*,⁴¹ which found that in considering legislation to admit Maine as a state, Congress had had notice of Massachusetts' exercise of authority over Indian affairs.⁴² This raised the question whether such exercise could be a surrogate for Federal jurisdiction for purposes of the *Carcieri* analysis. To further consider that question, the Department delayed issuing a remand decision. On June 30, 2017, the Department denied a Tribal request to suspend remand proceedings and instead sought supplemental briefing on the question of the effect of Massachusetts' exercise of authority over the Tribe for purposes of the "under federal jurisdiction" inquiry.⁴³

Pursuant to procedures established by the Department, the parties simultaneously submitted supplemental evidence and arguments on August 30, 2017⁴⁴ and their mutual responses thereto on October 30, 2017.⁴⁵ The Department granted a request by the Wampanoag Tribe of Gay Head (Aquinnah) to also respond,⁴⁶ to which the parties replied in turn.⁴⁷ Supplemental briefing on the issue raised by *Passamaquoddy* concluded on November 13, 2017.

Order of Court, *Littlefield v. Mashpee Wampanoag Indian Tribe*, Case No. 16-2484 (U.S.C.A 1st Cir. May 15, 2017) (staying proceedings until issuance of Department's remand decision).

³⁶ See Letters, Principal Deputy Assistant Secretary- Indian Affairs Lawrence Roberts to Adam Bond, Cedric Cromwell, Matthew Frankel, David Tennant (Dec. 6, 2016).

³⁷ Mashpee Wampanoag Tribe, *The Early Relationship Between The Mashpee Wampanoag Tribe And The Commonwealth Of Massachusetts Cannot Preclude Federal Jurisdiction Under The IRA* (Dec. 21, 2016) ("Mashpee Op. Br. Part 1"); *The Mashpee Wampanoag Tribe Is Eligible For Land Into Trust Under the Indian Reorganization Act As A Tribe Under Federal Jurisdiction In 1934* (Jan. 5, 2017) ("Mashpee Op. Br. Part 2").

³⁸ Littlefields, *Submission on Remand* (Feb. 13, 2017) ("Littlefields Resp.").

³⁹ Mashpee Wampanoag Tribe, *Reply to Citizens' Group Submission on Remand* (Feb. 28, 2017) ("Mashpee Reply").

⁴⁰ Email, U.S. Dep't of the Interior, Associate Solicitor – Indian Affairs Eric Shepard to the parties (Apr. 19, 2017).

⁴¹ 528 F.2d 370 (1st Cir. 1975) ("*Passamaquoddy*").

⁴² *Passamaquoddy*, 528 F.2d at 374-75.

⁴³ The Department enclosed a draft of its initial remand analysis with its request for supplemental briefing.

⁴⁴ Mashpee Wampanoag Tribe, *Supplemental Submission on the Two-Part Under Federal Jurisdiction Test: The Commonwealth of Massachusetts Acted as an Agent of the Federal Government* (Aug. 30, 2017) ("Mashpee Supp. Br."); Littlefields, *Supplemental Submission on Remand* (Aug. 30, 2017) ("Littlefields Supp. Br.").

⁴⁵ Mashpee Wampanoag Tribe, *Response to the Littlefield August 30, 2017 Submission* (Oct. 30, 2017); Littlefields, *Supplemental Reply Submission* (Oct. 30, 2017).

⁴⁶ Wampanoag Tribe of Gay Head (Aquinnah), *Request to Participate in the Mashpee Supplemental Briefing Request* (Oct. 30, 2017).

⁴⁷ Mashpee Wampanoag Tribe, *"Response to the Submission from the Wampanoag Tribe of Gay Head (Aquinnah)"* (Nov. 13, 2017); Littlefields, *"Response to Submission of Wampanoag Tribe of Gay Head (Aquinnah)"* (Nov. 13, 2017). A separate submission was received from the Towns of Ledyard, North Stonington, and Preston, Connecticut (Nov. 20, 2017).

II. ARGUMENTS

A. Previous *Carcieri* Submissions

In September 2012, the Tribe submitted a detailed discussion of its statutory eligibility with supplementary exhibits totaling more than 300 pages.⁴⁸ The 2012 submission offered two different views of why the Tribe should be considered to have been “under federal jurisdiction” in 1934.⁴⁹ First the Tribe argued it had been under Federal jurisdiction since 1789 by operation of law.⁵⁰ This relied on three subsidiary claims: that by reserving specific rights to the Tribe in the colonial era, the British Crown had created “functional treaty” obligations to which the United States later succeeded;⁵¹ that the Tribe always exercised and maintained aboriginal fishing and other usufructuary rights;⁵² and that a Federal trust relationship had always existed by virtue of federal common law and the Indian Trade and Intercourse Act.⁵³ Second the Tribe argued that it remained under Federal jurisdiction in 1934 by virtue of affirmative acts of Federal supervision from before 1934. These included Federal consideration and ultimate rejection of whether to remove the Tribe in the 1820s; Federal supervision of Mashpee students at the Carlisle Indian School in the early twentieth century; and the inclusion of Mashpee Indians in both general and Indian-specific Federal censuses.⁵⁴

B. Submissions on Remand

1. *Opening Brief*

The Tribe submitted its opening remand submission in two parts.⁵⁵ The first part addresses the single question of whether the Tribe’s historical relationship with the Commonwealth of Massachusetts precluded Federal jurisdiction over the Tribe. The Tribe argues that the Federal Government’s authority over Indian affairs is paramount throughout the United States, including within the original thirteen states. While some of the original thirteen states exercised authority over tribes within their borders, the Federal Government assumed plenary authority over tribes everywhere upon ratification of the United States Constitution in 1788. Assertions of state authority over tribes within a state cannot and do not oust paramount Federal authority, which

⁴⁸ Letter, Chairman Cedric Cromwell to Assistant Secretary Donald “Del” Laverdure (Sep. 4, 2012) (“Mashpee 2012 Ltr.”). The Tribe provided further arguments and evidence. *See* Letters, Arlinda Locklear, Esq. to Bella Wolitz, Dep’t of the Interior, Knoxville Field Solicitor’s Office (Nov. 5, 2012; Nov. 29, 2012). The Tribe had included a discussion of the Secretary’s statutory authority to take land in trust for the Tribe in light of *Carcieri* when it amended its application in 2010. *See* Mashpee Wampanoag Tribe, Amendment to Existing Application (Jul. 13, 2010). The Tribe there asserted that *Carcieri* did not impair the Secretary’s authority to acquire land in trust for the Tribe but deferred providing supplementary evidence or detailed discussion of the issue, further claiming that amendments to the IRA in 1994 prohibited the Department from making any decision or determination that disadvantaged or diminished its rights as a federally recognized tribe relative to other recognized tribes. *Id.* at 9, citing 25 U.S.C. § 476(f).

⁴⁹ The Tribe also argued that it independently satisfied the second definition of “Indian.” Mashpee 2012 Ltr. at 31-36.

⁵⁰ Mashpee 2012 Ltr. at 2.

⁵¹ Mashpee 2012 Ltr. at 2.

⁵² Mashpee 2012 Ltr. at 3.

⁵³ Mashpee 2012 Ltr. at 3.

⁵⁴ Mashpee 2012 Ltr. at 3.

⁵⁵ *See supra* n. 37.

may be exercised at any time and which can only be terminated by Congress. Based on these principles, the Tribe argues that Massachusetts's treatment of the Tribe and its members could not, as a matter of law, oust the Federal Government's supreme jurisdictional authority. The Tribe explained that by 1882 the State had ceased treating the Tribe as Indians, having enacted legislation making Tribal members state citizens and making Tribal lands into alienable fee property. The Tribe asserts that Federal officials erred in and around 1934 in claiming that the Tribe remained under state jurisdiction. Instead, the Tribe argues, the Tribe at that time was solely within the Federal Government's Indian affairs authority.

The second part discusses evidence of Federal jurisdictional status before and in 1934. The Tribe claims that its evidence indisputably shows Federal jurisdiction over the Tribe when viewed as a whole.⁵⁶ Largely repeating the arguments submitted in 2012, the Tribe offers general and particular grounds why it was "under federal jurisdiction" in 1934. The Tribe argues for being generally under Federal jurisdiction as a matter of law based on "treaty-like" obligations of the British Crown to which the United States succeeded; Federal restraints against alienation of the Tribe's aboriginal lands; and the continuing existence of usufructuary rights into the twentieth-century. In particular terms, the Tribe claims it came under Federal jurisdiction through specific Federal activities, including considering the Tribe for removal in the 1820s; Federal policy recommendations concerning Massachusetts tribes in the 1850s; mention of the Tribe on Federal censuses between 1850 and 1910; and the enrollment of Tribal students at the Carlisle Indian School in the early 1900s. The Tribe also relied on references to the Tribe and its history in federal reports or studies prepared 1888, 1890 and 1935.

2. *Response*

The Littlefields' devote nearly half of their 112-page response to the Tribe's submissions to arguing for the "vacatur" of Sol. Op. M-37029, which we address below. The remainder offers arguments to refute the Tribe's claims and to show that the Tribe could not have been under Federal jurisdiction under any test.

First the Littlefields contend that the United States is judicially estopped from finding that the Tribe was recognized and under Federal jurisdiction in 1934 because of a 1970s decision finding that the Tribe lacked standing to bring claims under the Nonintercourse Act. Next the Littlefields argue that the Tribe cannot have been under Federal jurisdiction if its history of state jurisdiction cannot meaningfully be distinguished from the Narragansett Tribe's, which *Carciere* concluded was not under Federal jurisdiction in 1934.

The Littlefields then attack the particular forms of evidence submitted by the Tribe, arguing that *Carciere* requires dispositive evidence of jurisdiction akin to a treaty, legislation, or formal benefits enrollment with the Office of Indian Affairs (OIA). The Littlefields conclude by arguing that disclaimers of responsibility for the Tribe in and around 1934 by OIA officials conclusively show that the Tribe was not under federal jurisdiction at that time.

⁵⁶ Mashpee Op. Br. Part 2.

3. Reply

The Tribe's reply to the Littlefields' response includes a new argument not raised in the Tribe's opening submissions.⁵⁷ Its reply additionally argues that because the Tribe occupied a reservation in 1934, as the Department determined in the 2015 ROD, the Tribe was thus eligible at that time to vote on whether to accept the IRA pursuant to Section 18,⁵⁸ and that such eligibility alone is dispositive of its being "under federal jurisdiction" in 1934.

Second, the Tribe argues that its 2007 Federal acknowledgment entailed a finding of continuous tribal existence for all purposes of Federal law. Based on this, the Tribe also claims that the Littlefields' argument for collateral estoppel amounts to an improper collateral attack on the acknowledged status of the Tribe.

Third, the Tribe presents arguments disputing the relevance of the Narragansett Tribe's history to the inquiry. The Tribe contends that Narragansett's jurisdictional status was never at issue in the *Carciere* litigation, which turned instead on the meaning of "now" in the IRA's first definition of "Indian." The Tribe further argues that unlike with Mashpee, the Federal Government retroactively disclaimed jurisdiction over the Narragansett in 1934.

The Tribe also challenges the evidentiary standard relied on by the Littlefields. The Tribe contends that the test does not require an active guardian-ward relationship in effect in 1934 or even specific evidence from the year 1934. The Tribe further contends that the Littlefield Response confuses two distinct issues, namely, whether Massachusetts' exercise of jurisdiction over the Tribe could preclude federal jurisdiction, and whether federal officials in 1934 could waive federal jurisdiction in favor of state jurisdiction over a tribe. The Tribe concludes that state jurisdiction cannot, as a matter of law, preclude federal jurisdiction over Indian affairs and, separately, that Sol. Op. M-37029 specifically states that once federal responsibility to a tribe attaches, only Congress may terminate it.

The Tribe concludes by denying that its evidence is episodic or insubstantial, as the Littlefields claim. The Tribe further notes the Littlefields' purported failure to address the Tribe's continued occupation of its aboriginal territory and the unique legal consequences thereof.⁵⁹ According to the Tribe, this forms a "fundamental feature" of the Tribe's interaction with the United States that must be viewed with the Tribe's other evidence of federal jurisdiction.

C. Supplemental Submissions

The parties' supplemental briefing contains over 200 pages of argument and over 1700 pages of exhibits. Their response briefs further contain 250 pages of argument and over 1500 pages of additional exhibits. The Tribe's supplemental submissions argue that the Commonwealth of

⁵⁷ The Littlefields raised no objection to the Tribe's new argument.

⁵⁸ 25 U.S.C. § 5125 (requiring the Secretary to hold elections for the adult Indian residents of reservations to provide such residents the opportunity to vote to reject the application of the IRA to their reservation).

⁵⁸ 25 U.S.C. § 5125 (requiring the Secretary to hold elections for the adult Indian residents of reservations to provide such residents the opportunity to vote to reject the application of the IRA to their reservation).

⁵⁹ Mashpee Reply at 31 ff.

Massachusetts acted as an agent of the United States pursuant to a delegation of authority.⁶⁰ The Tribe specifically suggests that in admitting Maine to the Union, Congress “allowed” the Commonwealth to assume a portion of the Federal Government’s trust responsibilities⁶¹ and legislatively “acknowledged” the Commonwealth’s “acceptance” of duties and obligations to Massachusetts Indians.⁶² The fact that such delegation was implicit is immaterial, the Tribe contends.⁶³ The Tribe also claims that the Commonwealth assumed responsibility for Massachusetts Indians in 1789 when the Constitution was adopted.⁶⁴ If states lack inherent authority over Indian affairs, the Commonwealth must have “necessarily agreed” to act as agents of the Federal Government and carry out its responsibilities owed to Massachusetts Indians.⁶⁵ The Tribe further claims that the United States exercised authority over the Mashpee in coordination with Commonwealth officials, relying as evidence thereof on a 1798 state trespass action litigated on behalf of the Marshpee proprietors by a United States attorney.⁶⁶ The Tribe argues that Congressional approval of the “cooperative exercise” of trust responsibilities constitutes federal validation of previous state actions.⁶⁷ The Tribe claims its evidence of federal actions over the Tribe also constitute federal approval of the Commonwealth’s role as an agent.⁶⁸

The Littlefields’ supplemental submissions first dispute the premises of the Department’s request for supplemental briefing, arguing that the United States “surrendered” authority over Indian affairs to the Commonwealth; lacked authority over Indian affairs in the 13 original states; and that any conflation of state and Federal authority over Tribes was unconstitutional.⁶⁹ They then generally advance a combination of legal and historical arguments, for a series of sweeping propositions, including that the original 13 states retained inherent authority over Indian affairs during the Confederation and Constitutional periods; that Congress acquiesced to state jurisdiction over Indians;⁷⁰ that the Trade and Intercourse Act did not apply in New England or to “assimilated” Indians;⁷¹ that New England “operated free of” Federal Indian affairs authority;⁷² that New England states enacted legislation governing Indian affairs from before 1789 until the 1970s⁷³ and that the United States acquiesced to such authority;⁷⁴ and that reading the Commonwealth’s actions over the Mashpee Tribe as a “surrogate” for Federal authority

⁶⁰ The Tribe devotes only a third of its supplemental submission to the question presented, using the remainder to re-argue why its previous evidence satisfies Sol. Op. M-37029’s two-part inquiry.

⁶¹ Mashpee Supp. Br. at 7.

⁶² Mashpee Supp. Br. at 7-8, 14.

⁶³ Mashpee Supp. Br. at 14.

⁶⁴ Mashpee Supp. Br. at 10.

⁶⁵ Mashpee Supp. Br. at 11.

⁶⁶ Mashpee Supp. Br. at 7, citing *Proprietors of Marshpee v. Crocker*, cited in Benjamin Franklin Hallett, “Legal Opinion of Council in the case of *Marshpee Indians vs. Revd. Phineas Fish*, May 20, 1835,” Harvard University Archives, PAPERS RELATING TO THE MARSHPEE INDIANS, 1811-1841; *id.* at 9.

⁶⁷ Mashpee Supp. Br. at 14.

⁶⁸ Mashpee Supp. Br. at 15-16 (noting reliance by Rev. Jedidiah Morse, as federal agent, on report commissioned by Massachusetts legislature on the status of Massachusetts Indians, including Mashpee).

⁶⁹ Littlefields Supp. at 15, 46-57.

⁷⁰ Littlefields Supp. at 29.

⁷¹ Littlefields Supp. at 31, 33.

⁷² Littlefields Supp. at 36.

⁷³ Littlefields Supp. at 41.

⁷⁴ Littlefields Supp. at 42.

would create “absurd results.”⁷⁵ The Littlefields also claim that the IRA’s “under federal jurisdiction” requirement removes state-recognized tribes from the IRA’s coverage.

III. ANALYSIS

Sol. Op. M-37029 requires that I determine whether there is a sufficient showing in the Tribe’s history that the United States took an action or series of actions that sufficiently establish or reflect Federal obligations, duties, responsibility for or authority over the Tribe in or before 1934, and whether such jurisdictional status, if obtained, remained intact as of 1934.⁷⁶ The Tribe claims that the evidence shows that it came under Federal jurisdiction before 1934 by operation of law as well as by virtue of specific exercises of federal authority. The evidence, according to the Tribe, supports Federal acknowledgment of the Tribe’s collective rights in land and natural resources; Federal acknowledgment of its jurisdiction over the Tribe; Federal management of tribal funds; inclusion of the Tribe in Federal censuses; enrollment of Tribal children at an off-reservation Federal Indian school; agency jurisdiction over the Tribe; and the Federal provision of healthcare to the Tribe.

A. Standard of Review

1. *Sol. Op. M-37029*

Section 5 of the IRA provides the Secretary discretionary authority to acquire land in trust for “Indians,” which Section 19 of the IRA defines as including:

“[1] all persons of Indian descent who are members of any recognized Indian tribe now under Federal jurisdiction, and [2] all persons who are descendants of such members who were, on June 1, 1934, residing within the present boundaries of any Indian reservation, and [3] shall further include all other persons of one-half or more Indian blood.”⁷⁷

In *Carcieri v. Salazar*,⁷⁸ the Supreme Court held that the term “now” in the first definition means 1934, the time of the IRA’s passage. The Court did not address the meaning of “under federal jurisdiction,” however, finding no need to do so in the context of the case.⁷⁹ The IRA does not define “under federal jurisdiction.” The Department’s Solicitor concluded that because the phrase had no clear and unambiguous meaning, Congress left an interpretive gap for the agency to fill.⁸⁰ In 2014 the Solicitor therefore issued a signed M-Opinion for use by the Department in determining when an Indian tribe was “under federal jurisdiction” in 1934 for purposes of

⁷⁵ Littlefields Supp. at 66 (*e.g.*, the Commonwealth’s disposition of aboriginal lands would thereby not violate the Trade and Intercourse Act).

⁷⁶ Sol. Op. M-37029 at 18-19.

⁷⁷ 25 U.S.C. § 5129.

⁷⁸ 555 U.S. 379 (2009).

⁷⁹ The Court concluded that the parties had conceded that the Narragansett Tribe was not under federal jurisdiction in 1934. *Carcieri*, 555 U.S. at 382, 395. The Court also did not address the Secretary’s authority to acquire land in trust for groups that fall under Section 19’s other definitions of “Indian.”

⁸⁰ Sol. Op. M-37029 at 17, citing *Chevron v. Natural Resources Defense Council*, 467 U.S. 837, 840-843 (1984).

implementing Section 5 of the IRA (“Sol. Op. M-37029”).⁸¹ Because a signed M-Opinion binds the Department and its officials until modified by the Solicitor, Deputy Secretary, or Secretary or otherwise overruled by the courts,⁸² Sol. Op. M-37029 guides this analysis.

Sol. Op. M-37029 rejected the argument that Congress’ constitutional plenary authority over tribes standing alone may be sufficient to show that a tribe was “under federal jurisdiction.”⁸³ It concluded that the decision in *Carciari* requires some indicia of Federal authority beyond the general principle of plenary authority,⁸⁴ in the form of evidence that demonstrates the Federal government’s exercise of responsibility for and obligation toward a tribe and its members in or before 1934.⁸⁵ Sol. Op. M-37029 therefore establishes a two-part inquiry for determining whether a tribe was “under federal jurisdiction” in 1934.⁸⁶ The first part looks for evidence that the United States acted in a manner that sufficiently shows or generally reflects Federal obligations, duties, responsibility for or authority over a tribe in or before 1934.⁸⁷ Where the evidence establishes that a tribe was under Federal jurisdiction *before* 1934, the inquiry moves to the second part to determine whether that jurisdictional status continued through 1934.

Sol. Op. M-37029 explains that some Federal actions can dispositively show that a tribe was under Federal jurisdiction at a particular time, such as treaty negotiations or specific Federal enactments.⁸⁸ The absence of a formal political relationship with the United States in 1934 does not in itself preclude a tribe from being considered under Federal jurisdiction at that time, however.⁸⁹ Tribes without a recognized political relationship may be able to exercise treaty

⁸¹ Sol. Op. M-37029 at 18. The Department announced its framework for interpreting “now under federal jurisdiction” in a December 2010 record of decision to acquire land in trust for the Cowlitz Indian Tribe. *See* U.S. Dep’t of the Interior, Bureau of Indian Affairs, Record of Decision, Trust Acquisition of, and Reservation Proclamation for the 151.87-acre Cowlitz Parcel in Clark County, Washington, for the Cowlitz Indian Tribe (April 2013) (“Cowlitz ROD”).

⁸² U.S. Dep’t of the Interior, 209 Departmental Manual 3.2(A)(11).

⁸³ Sol. Op. M-37029 at 17-18.

⁸⁴ Sol. Op. M-37029 at 18.

⁸⁵ Sol. Op. M-37029 at 17.

⁸⁶ Sol. Op. M-37029 at 18-19.

⁸⁷ Sol. Op. M-37029 at 19.

⁸⁸ *See e.g., Shawano County, Wisconsin v. Acting Midwest Reg’l Dir. Bureau of Indian Affairs*, 53 IBIA 62 (2011) (Secretarial calling of vote to accept or reject IRA necessarily recognizes tribe as under federal jurisdiction). *See generally* Theodore H. Haas, *Ten Years of Tribal Government Under I.R.A.* (1947) (listing the reservations where such elections were held between 1934-1936).

⁸⁹ Cowlitz ROD at 104 (Tribe’s admission that it lacked formal political relationship with United States in 1934 does not necessarily also mean it was not under federal jurisdiction in 1934).

rights, for example.⁹⁰ Thus in some cases a range of Federal actions when viewed in totality might demonstrate that a tribe was under Federal jurisdiction.⁹¹

Federal activities relevant to the “under federal jurisdiction” inquiry may include guardian-like actions undertaken on behalf of a tribe or a continuous course of dealings with the tribe or its members.⁹² They may also include the negotiation of treaties; Federal approval of contracts between a tribe and non-Indians; enforcement of the Trade and Intercourse Acts (Indian trader, liquor laws, and land transactions); the education of Indian students at BIA schools; and the provision of health or social services to a tribe.⁹³ They may further include actions by Office of Indian Affairs in administering a reservation’s affairs or in implementing specific Federal legislation, such as Section 18 elections under the IRA.⁹⁴ The range of evidence that may be used reflects that the Federal Government’s Indian policies, which were applied “to numerous tribes with diverse cultures,” necessarily “fluctuate[d] dramatically as the needs of the Nation and those of the tribes changed over time.”⁹⁵

For tribes that establish a Federal jurisdictional status before 1934, the second part of the inquiry turns to whether that status remained intact in 1934. The absence of probative evidence that a tribe’s jurisdictional status was terminated or lost prior to 1934 suggests that such status was retained in 1934.⁹⁶ The failure by Federal officials to take any actions toward or on behalf of a tribe in a particular period may not necessarily reflect a termination or loss of the tribe’s jurisdictional status.⁹⁷ Indeed, evidence that officials disavowed legal responsibility in certain instances cannot, in itself, revoke jurisdiction absent express congressional action.⁹⁸ There may also be periods where Federal jurisdiction exists but lies dormant.⁹⁹

⁹⁰ See, e.g., *United States v. Washington*, 641 F.3d 1368, 1371 (9th Cir. 1981), citing *Menominee Tribe v. United States*, 391 U.S. 404, 412-13 (1968); *Kimball v. Callahan*, 493 F.2d 564, 568 (9th Cir.), cert. denied, 419 U.S. 1019 (1974). Sol. Op. M-37029 explains that “recognized Indian tribe” as used in the first definition of “Indian” is ambiguous because “recognition” has historically been understood in two different senses, one cognitive or quasi-anthropological sense, the other a more formal legal sense connoting a political relationship with the United States. Sol. Op. M-37029 at 23. The latter sense has evolved into the contemporary notion of “federal acknowledgment.” *Id.* See Felix Cohen, *HANDBOOK OF FEDERAL INDIAN LAW* at 268 (1942 ed.); *Carciari*, 555 U.S. at 400 (Souter, J.) (dissent) (noting majority opinion does not foreclose giving recognition and jurisdiction separate content, and pointing out that whether the United States was ignorant of a tribe in 1934 would not preclude the tribe from having been under federal jurisdiction).

⁹¹ See, e.g., Cowlitz ROD.

⁹² Sol. Op. M-37029 at 19.

⁹³ Sol. Op. M-37029 at 19.

⁹⁴ Sol. Op. M-37029 at 19.

⁹⁵ *United States v. Lara*, 541 U.S. 193, 202 (2004).

⁹⁶ Sol. Op. M-37029 at 20.

⁹⁷ See Memorandum, Associate Solicitor, Indian Affairs to Assistant Secretary, Indian Affairs, *Request for Reconsideration of Decision Not to Take Land in Trust for the Stillaguamish Tribe* (Oct. 1, 1980) (“Stillaguamish Memorandum”).

⁹⁸ “Once recognized as a political body by the United States, a tribe retains its sovereignty until Congress acts to divest that sovereignty.” COHEN’S *HANDBOOK OF FEDERAL INDIAN LAW* § 4.01[1] (2012 ed.) (“COHEN 2012”), citing *Harjo v. Kleppe*, 420 F. Supp. 1110, 1142-43 (D.D.C. 1976).

⁹⁹ See Stillaguamish Memorandum at 2 (noting that enduring treaty obligations maintained federal jurisdiction, even if the federal government did not realize this at the time); *United States v. John*, 437 U.S. 634, 653 (1978) (in holding that federal criminal jurisdiction could be reasserted over the Mississippi Choctaw reservation after almost

2. *The Littlefields’ “Vacatur” Request*

The Littlefields’ remand submissions attack the legal validity and sufficiency of Sol. Op. M-37029 and request its “vacatur.”¹⁰⁰ Consistent with the Department’s procedures, I interpret this as a request to withdraw or modify Sol. Op. M-37029. As explained above, I lack the authority to modify or withdraw a signed Solicitor’s M-Opinion, for which reason I must deny the Littlefields’ request.¹⁰¹ Even if I had the authority to consider it, however, I would conclude that the Littlefields fails to show that Sol. Op. M-37029’s interpretation of “under federal jurisdiction” or the two-part inquiry are contrary to law. The courts to have considered the issue have upheld the Department’s interpretation of “under federal jurisdiction” and its application.¹⁰²

B. Jurisdiction by Operation of Law

The Tribe first argues that it came under Federal jurisdiction before 1934 by operation of law. It accurately notes that tribes lacking dispositive jurisdictional evidence in 1934 may show that their jurisdictional status arose before then.¹⁰³ The Tribe further states that the analysis under Sol. Op. M-37029 may look to Federal obligations as well as activities, “since federal jurisdiction can exist as a matter of law” even if the government is unaware that it does.¹⁰⁴ The Tribe argues that it came under Federal jurisdiction as a matter of law in the early constitutional period.¹⁰⁵ The Tribe argues that after the American Revolution, the United States automatically succeeded to “treaty-like” obligations of the British Crown to the Tribe.¹⁰⁶ As evidence of these obligations

100 years, the Court stated that the fact that federal supervision over the Mississippi Choctaws had not been continuous does not destroy the federal power to deal with them).

¹⁰⁰ See Littlefields Resp. at 2, 8-49. Despite being aimed at Sol. Op. M-37029, the Littlefields include numerous arguments in this section of their Response that in fact challenge the merits of the Tribe’s submissions, not Sol. Op. M-37029.

¹⁰¹ To the extent that the Littlefields’ arguments against Sol. Op. M-37029 raise issues that go to the merits of the “under federal jurisdiction” inquiry instead, I address them in §III below. See, e.g., Littlefields Resp. at 15 (effect of extending state citizenship in 1869); 30 (significance of federal-tribal correspondence in 1930s); 44-45 (effect of Tribal land-claim litigation); 25-32 (significance of parallels with Narragansett Tribe’s history in *Carciere*); 39-40 (significance of Mashpee student enrollment at Carlisle Indian School).

¹⁰² *Confederated Tribes of the Grande Ronde Cmty. of Or. v. Jewell*, 75 F.Supp.3d 387 (D.D.C. 2014), *aff’d*, 830 F.3d 552 (D.C. Cir. 2016), *cert. den. sub nom. Citizens Against Reservation Shopping v. Zinke*, 137 S.Ct. 1433 (2017) (“*Grande Ronde*”); *Cent. N.Y. Fair Bus. Ass’n v. Jewell*, 2015 WL 1400384 (N.D.N.Y. Mar. 26, 2015) (not reported), *aff’d*, 673 Fed. Appx. 63 (2d Cir. 2016) (not reported), *cert den.*, 137 S.Ct. 2134 (2017); *Citizens for a Better Way v. United States DOI*, 2015 WL 5648925 (E.D. Cal. Sep. 23, 2015) (not reported), *aff’d sub. nom. Cachil Dehe Band of Wintun Indians v. Zinke*, 889 F.3d 584 (9th Cir. 2018); *Stand Up for Cal.! v. United States DOI*, 204 F. Supp. 3d 212, 282 (D.D.C. 2016), 879 F.3d 1177 (D.C. Cir. 2018), *reh’g en banc den.*, Apr. 10, 2018, *cert pet. docketed*, No. 18-61 (U.S. Jul. 11, 2018); *County of Amador v. Jewell*, 136 F. Supp. 3d 1193 (E.D. Cal. 2015), *aff’d*, 872 F.3d 1012, 1025 (9th Cir. 2017), *reh’g en banc den.* (Jan. 11, 2018), *cert pet. docketed*, No. 17-1432 (U.S. Apr. 13, 2018). See also *Shawano County, Wisconsin v. Acting Midwest Reg’l Dir.*, 53 IBIA 62 (2011); *Village of Hobart, Wisc. v. Acting Midwest Reg’l Dir.*, *Bureau of Indian Affairs*, 57 IBIA 4 (2013).

¹⁰³ Mashpee Op. Br. Part 2 at 3.

¹⁰⁴ Mashpee Op. Br. Part 2 4-5, citing Sol. Op. M-37029 at 18, 19, 23.

¹⁰⁵ Mashpee Op. Br. Part 2 at 10-21.

¹⁰⁶ The Littlefields claim that any British obligations to the Tribe could only have been assumed by Massachusetts, since “[n]o Federal Government existed before 1789.” Littlefields Resp. at 62. Yet the Supreme Court has held that when Britain’s colonial sovereignty ceased, its powers in respect of external affairs passed to the American colonies “in their collective and corporate capacity as the United States of America.” *United States v. Curtiss-Wright Exp. Corp.*, 299 U.S. 304, 317 (1936). As the Court noted, the purpose of the Constitution was to make “more perfect” that already existing Union. *Id. United States v. Lara*, 541 at 202 (in first century of America’s national existence,

the Tribe points to seventeenth-century colonial deeds from Wampanoag sachems to the Tribe conveying their lands in perpetuity. The Tribe also cites a 1763 law by the Massachusetts Bay Province recognizing Mashpee as a self-governing Indian district.¹⁰⁷

Though the Mashpee Tribe asserts otherwise, the absence of any Federal action with respect to its “treaty-like” rights distinguishes the Tribe from the Tunica-Biloxi Tribe, for whom the Department issued a favorable *Carciari* analysis in 2011.¹⁰⁸ The Tunica-Biloxi Tribe fell under Spanish colonial authority before the United States acquired the Louisiana Territory through the 1803 Treaty of Paris. The Tribe held rights in its aboriginal lands by grant from Spain, and the Spanish government followed through on their commitment to defend the Tunica and their land by establishing a military post near the Tunica village to protect the Tunica and settlers from English and American colonists.¹⁰⁹ When the United States acquired the Louisiana Territory from France, the United States expressly assumed the same obligations to tribes in the Territory as those held by Spain.¹¹⁰ To that end, Congress extended the Nonintercourse Act to the Louisiana Territory, and, more importantly, federal agents later used that law to affirmatively protect the Tunica-Biloxi Tribe’s lands.¹¹¹

The Mashpee Tribe elsewhere seeks to rely on the Nonintercourse Act to establish its jurisdictional status;¹¹² yet the evidence shows that the Federal Government took no action to protect the Tribe’s lands despite invitations to do so.¹¹³ Sol. Op. M-37029 makes clear that the *first* step of the jurisdictional inquiry looks to an “action or series of actions” or to “a course of dealings or other relevant acts” by Federal officials demonstrating or reflecting the exercise of authority over the tribe at some point in or before 1934.¹¹⁴ Only when that status is established does the inquiry turn to whether that jurisdictional relationship remained intact in 1934. As a result, the Tribe cannot rely on an inchoate jurisdictional status as the basis for being under federal jurisdiction.

Indian affairs were aspect of military and foreign policy, not domestic or municipal law). *See also* Robert N. Clinton, *The Dormant Commerce Clause*, 27 CONN. L. REV. 1055, 1064 (1995) (“Clinton 1995”) (“The roots of both the Indian affairs clause of the Articles of Confederation and the Indian Commerce Clause lie deep in the history of colonial regulation of the management of Indian affairs”).

¹⁰⁷ Mashpee Op. Br. Part 2 at 13, citing Ex. E. By its terms, the 1763 Act incorporated the Mashpee Indians and their lands and provided for governance by five elected overseers, two of whom were to be Englishmen, with sole power to regulate the fishery at Mashpee and the allotment and leasing of Mashpee lands. *See* MASS. ACTS 1763-64, ch. 3 (June 14, 1763).

¹⁰⁸ *See* Mashpee Op. Br. Part 2, Ex. D (Letter, Randall Trickey, Acting BIA Eastern Regional Director to Early Barbry, Sr., Chairman, Tunica-Biloxi Tribe of Louisiana (Aug. 11, 2011)).

¹⁰⁹ Mashpee Op. Br. Part 2, Ex. D at 8-9.

¹¹⁰ Mashpee Op. Br. Part 2, Ex. D at 9, citing *The Treaty between the United States of America and the French Republic of April 30, 1803* at Art. 6, 8 Stat. 200.

¹¹¹ Mashpee Op. Br. Part 2 at 6-7 (discussing Tunica-Biloxi); *id.*, Ex. D.

¹¹² Mashpee Op. Br. Part 2 at 16-17.

¹¹³ Mashpee Op. Br. Part 2 at 20, citing Exhibits Y, Z (1886-1887 correspondence relating to state allotment of Tribe’s lands); *Mashpee Tribe v. Town of Mashpee*, 447 F. Supp. 940 (D. Mass. 1970), *aff’d sub nom. Mashpee Tribe v. New Seabury Corp.*, 592 F.2d 575 (1st Cir. 1979) (Tribe’s Nonintercourse Act claims).

¹¹⁴ Sol. Op. M-37029 at 19.

By contrast, the Tribe here relies merely on colonial-era title deeds and legislation, which in themselves are not comparable to treaties since they are not “contracts between governments” and do not evidence mutual commitments between the Tribe and Crown, nor any reciprocal grant of rights by the Tribe to the Crown.¹¹⁵ Further, while the Tribe characterizes the 1763 colonial act that established Mashpee as an Indian district as being the result of a “negotiated relationship” with the Crown,¹¹⁶ the Office of Federal Acknowledgment found it was the result of Tribal appeals to the Provincial legislature and Crown and that it was enacted in response to “diplomatic pressure” from the King.¹¹⁷ The absence of any evidence of subsequent Federal action in acknowledging or relying on these deeds or provincial acts, though not dispositive, diminishes their significance for our purposes.

In its Reply, the Tribe makes a similar argument for jurisdiction by operation of law based on the Department’s previous determination that the Tribe occupied a reservation in 1934. The Tribe claims the Department’s determination has “legal consequences” for the Sol. Op. M-37029 analysis.¹¹⁸ The Tribe notes that after passage of the IRA, the Department’s attorneys interpreted it as permitting any tribe in occupation of a reservation to vote in a Section 18 election, regardless how the tribe’s reservation was established.¹¹⁹ Based on that, the Tribe claims the Department’s 2015 ROD entailed the finding that the Tribe was eligible to vote on the IRA in 1934 and was thus also under Federal jurisdiction. I reject any claim that the 2015 ROD speaks to whether the Tribe was under Federal jurisdiction in 1934 at all. The Department’s inquiry there concerned only whether the Tribe occupied a “reservation” for IRA purposes. Based on the Department’s understanding of the second definition of “Indian” at that time, it had no need to address the Tribe’s Federal jurisdictional status.

Section 18 requires that the Secretary call elections at reservations, to allow the adult Indians residing thereon the opportunity to vote to reject application of the IRA.¹²⁰ A Section 18 vote is dispositive evidence of a tribe’s jurisdictional status because inherent in the calling of such election is that a reservation existed and that the adult residents thereon met the IRA’s definition of “Indian,” such that they were under Federal jurisdiction and eligible for IRA benefits unless they opted out of the Act. In this way, the actual calling of a Section 18 election is an unmistakable assertion of Federal jurisdiction.¹²¹ Whether the Tribe had a qualifying “reservation” within the meaning of Section 18 based on the analysis in the 2015 ROD, which arose in the unique situation where the land at issue was not set aside by the United States, does not necessarily resolve whether the Tribe’s members were “Indians” within the meaning of that statutory provision. As a result, the Tribe’s argument in effect begs the question of whether its members were “Indians” under the IRA, the same question addressed herein.

¹¹⁵ *United States v. Washington*, 520 F.2d 676, 684 (9th Cir. 1975), citing *United States v. Winans*, 198 U.S. 371, 381 (1905). See also *BG Grp. PLC v. Republic of Arg.*, 134 S. Ct. 1198, 1208 (2014) (“As a general matter, a treaty is a contract, though between nations.”)

¹¹⁶ Mashpee Op. Br. Part 2 at 14.

¹¹⁷ Mashpee PF 96.

¹¹⁸ Mashpee Reply at 2, citing Ex. A (2015 ROD) at 120.

¹¹⁹ Mashpee Reply at 2.

¹²⁰ 25 U.S.C. § 5125.

¹²¹ Sol. Op. M-37029 at 20-21.

C. Commonwealth Exercise of Authority as Evidence of Federal Jurisdiction

The parties' remand submissions discuss the significance of Massachusetts' historical exercise of authority over Indians in the state.¹²² The Tribe argues that the United States retained paramount authority over Indian affairs within the original thirteen states despite state actions and the slow development of Federal authority in the early constitutional period. Regardless, the Tribe adds, any exercise of state authority over Indians did not oust or otherwise limit Federal authority.¹²³ The Littlefields respond that the Commonwealth's exercises of authority over the Tribe precluded a Federal relationship in or before 1934, and that because the Tribe was always under the Commonwealth's care and authority, its members could not have been wards of the United States.¹²⁴ The parties' discussion of whether the United States could have exercised authority over Massachusetts Indians, however, was somewhat misplaced. The analysis for determining a recognized tribe's eligibility for statutory benefits under the IRA already presumes it is subject to the Federal Government's plenary power over Indian affairs.¹²⁵ The question for determining eligibility under the IRA's first definition of "Indian" is instead whether Federal officials ever *exercised* that authority with respect to the Tribe or its members and when.

After its initial review of the parties' submissions, the Department tentatively concluded that the Tribe's evidence did not demonstrate Federal jurisdiction in or before 1934 beyond the general principle of plenary authority.¹²⁶ Given the jurisdictional uncertainty over Indian affairs in the early national period, the question arose whether the Commonwealth's exercises of authority over the Mashpee Tribe and its affairs could be interpreted as a surrogate for, or indicia of some federal authority based on *Passamaquoddy's* conclusion that Congress knew of and tacitly acknowledged Massachusetts' authority over Indians in the state.¹²⁷

The historical record plainly shows that as a colony and state, Massachusetts exercised considerable authority over the Mashpee Tribe and its members, treating them as a self-governing Indian community distinct from non-Indians.¹²⁸ As a colony, Massachusetts enacted

¹²² See, e.g., Mashpee Op. Br. Part 1; Littlefields Resp. at 1-5.

¹²³ Mashpee Op. Br. Part 1.

¹²⁴ Littlefields Resp. at 2-3.

¹²⁵ Sol. Op. M-37029 instructs that to demonstrate being "under federal jurisdiction" requires indicia of federal jurisdiction *beyond* the general principle of plenary authority. Sol. Op. M-37029 at 18. In acknowledging the Tribe under the administrative procedures at Part 83, the Department determined that the Tribe had demonstrated a continuous tribal existence since first sustained contact with European settlers.

¹²⁶ While Sol. Op. M-37029 acknowledged in passing that some tribes might be unable to make the required showing, it declined to address that situation or any legal authority that might be pertinent. Sol. Op. M-37029 at 19, n. 118.

¹²⁷ See Littlefields Supp. at 29-39 (discussing jurisdictional conflicts between the national government and the original states over the exercise of Indian affairs authority). See also Clinton 1995 (discussing conflicts over responsibility for management of Indian affairs between the Crown and colonies and, later, between the national government and the original states); See Letter, U.S. Dep't of the Interior, Assoc. Dep. Secy. to Hon. Cedric Cromwell, Chairman, Mashpee Wampanoag Tribe (Jun. 30, 2017).

¹²⁸ The records of the Secretary of the Commonwealth of Massachusetts, Massachusetts Archive Division show interactions between Massachusetts authorities and Mashpee Indians dating back to the 17th-century. See <http://www.sec.state.ma.us/ArchivesSearch/RevolutionarySearch.aspx> (subject search "Mashpee Indians").

legislation governing Indian affairs generally¹²⁹ and the Mashpee Tribe specifically.¹³⁰ Indeed, John Adams, a drafter of the Massachusetts state constitution and second President of the United States, was an elected member of the colonial legislature that reauthorized laws setting Mashpee aside as a self-governing Indian district.¹³¹ Though it is somewhat unclear, the Littlefields appear to argue that the Commonwealth assumed authority over Indian affairs in the state directly from colonial authorities and exclusive of the Federal Government.¹³² Yet the Supreme Court long ago held that the Continental Congress assumed management of Indian affairs “first in the name of these United Colonies; and, afterwards, in the name of the United States.”¹³³ It is moreover a fundamental tenet of Federal Indian law that national power over Indians arises in part from inherent powers originating in colonial prerogatives derived from discovery and from Indians’ aboriginal status.¹³⁴

After 1776, Massachusetts continued to exercise its authority over Massachusetts Indians and the Mashpee Tribe.¹³⁵ Between 1788 and 1882, the Commonwealth enacted a wide range of legislation affecting the rights and property of the Tribe and its members,¹³⁶ including laws providing for the appointment of guardians to oversee the Tribe and its resources;¹³⁷ establishing

¹²⁹ See, e.g., MASS. ACTS 1694-95, ch. 10 (Sept. 12, 1694), (removal and restriction of Indians); MASS. ACTS 1697, ch. 22 (Oct. 30, 1697), 1701-02, ch. 11 (Jun. 28, 1702) (preemption); MASS. ACTS 1758-59, ch. 6 (June 15, 1758) (appointing guardians for every Indian plantation); MASS. ACTS 1752-53, ch. 14 (Jan. 5, 1753) (governing trade with Indians).

¹³⁰ See, e.g., MASS. ACTS 1763-64, ch. 3 (June 14, 1763) (incorporating the Indians of Mashpee) (reauthorized by MASS. ACTS 1766-67, ch. 20 (Mar. 20, 1767); MASS. ACTS 1770-71, ch. 6 (Nov. 20, 1770); MASS. ACTS 1775-76, ch. 14 (Feb. 9, 1776).

¹³¹ See *Journals of the House of Representatives of Massachusetts*, vol. 47, 1770-1771 (1978); MASS. ACTS 1770-71, ch. 6 (Nov. 20, 1770). The state legislature continued to reauthorize this legislation even after Independence. See MASS. ACTS 1775-76, ch. 14 (Feb. 9, 1776); MASS. ACTS 1779-80, ch. 18 (Nov. 25, 1779) (reauthorizing through 1785); Mashpee PF at 34. See also MASS. CONST. ch. VI art. VI (continuing in effect all laws of the Province, Colony, or State of Massachusetts Bay until legislatively altered or repealed unless otherwise repugnant to the state constitution).

¹³² The Littlefields assert both that colonial authority over Indian affairs “lapsed” around 1777 (Littlefields Resp. at 63) yet “continued unabated” through 1789 (Littlefields Resp. at 62).

¹³³ *Worcester v. Georgia*, 31 U.S. 515, 558 (1832); *United States v. Curtiss-Wright Exp. Corp.*, 299 U.S. 304, 317 (1936) (“When, therefore, the external sovereignty of Great Britain in respect of the colonies ceased, it immediately passed to the Union”).

¹³⁴ *Cherokee Nation v. Georgia*, 30 U.S. 1 (1831); *Johnson v. M’Intosh*, 21 U.S. 543 (1823). The parties did not address any effects on the analysis if the Commonwealth derived its authority over Indians from the same colonial prerogatives.

¹³⁵ Commonwealth laws governing Indians generally included MASS. ACTS 1819, ch. 156 (Jun. 19, 1819) (transferring Commonwealth’s authority over Indians within District of Maine to new State of Maine); MASS. ACTS 1846, ch. 216 (Apr. 14, 1846) (authorizing removal of guardians over Indians for cause); MASS. ACTS 1869, ch. 463 (Jun. 23, 1869) (extending state citizenship to Massachusetts Indians); MASS. ACTS 1870, ch. 350, § 1 (Jun. 13, 1870) (distributing state Indian School Fund to state towns; transferring Indian schools to local municipalities).

¹³⁶ Laws governing the Mashpee Wampanoag Tribe specifically included MASS. ACTS 1779-80, ch. 18 (Nov. 25, 1779); MASS. RESOLVES 1792, ch. 148 (Mar. 26, 1793) (establishing boundaries of Mashpee); MASS. ACTS 1818-19, ch. 105 (Feb. 18, 1819) (restricting ownership of Mashpee lands to Mashpee children and lineal descendants); MASS. ACTS 1858, ch. 94 (Mar. 26, 1858) (fishing rights); MASS. ACTS 1870, ch. 293 (May 28, 1870) (establishing Mashpee as municipality under state constitution); MASS. ACTS 1878, ch. 248 (May 15, 1878) (distribution of funds from sale of Mashpee lands); Mass. Acts 1882, ch. 151 (Apr. 12, 1882) (authorizing sale of undisposed Mashpee lands).

¹³⁷ MASS. ACTS 1788, ch. 38 (Jan. 30, 1789); see also Mashpee PF at 13-14; Mashpee FD at 18.

Mashpee as a self-governing Indian district;¹³⁸ and the allotment of tribal lands.¹³⁹ In common with the thinking of the day, the Commonwealth considered the Mashpee Indians a distinct community apart from the state body politic and subject to the state's care and protection.¹⁴⁰ An 1849 report of the Massachusetts legislature characterized the Mashpee Tribe's "peculiar" condition under state laws that treated them like tribes elsewhere¹⁴¹ as leaving the Mashpee "within the state, but not of it."¹⁴²

The record demonstrates that the Mashpee Tribe had significant relations with the Commonwealth as a colony and state for nearly two centuries; that the Commonwealth's exercises of authority over the Tribe were extensive and pervasive; and that the laws enacted by the Commonwealth for the benefit of the Tribe were often similar in substance to Federal laws enacted for the benefit of tribes. Nevertheless the record contains practically no evidence of any dealings with the Federal Government in that period, which Sol. Op. M-37029 requires, and exercises of Commonwealth authority, without more, cannot in itself reflect *federal* obligations, duties, responsibilities for, or authority over the Tribe.¹⁴³

The Tribe argues that Massachusetts agreed to act as an agent of the Federal Government to carry out Federal duties and obligations owed to Indians in the state.¹⁴⁴ But the record contains no evidence of any such agreement or similar understanding, either explicit or implicit, on the part of federal or state officials.¹⁴⁵ The Tribe also argues that the *nature* of Massachusetts' exercises of authority over the Mashpee were "quintessentially federal in nature."¹⁴⁶ I agree that Commonwealth's actions taken on behalf of the Mashpee Tribe addressed issues similar to Federal legislation enacted for the benefit of tribes elsewhere.¹⁴⁷ But that is not enough for the

¹³⁸ MASS. ACTS 1834, ch. 166 (Mar. 31, 1834); *see also* Mashpee FD at 18-19.

¹³⁹ MASS. ACTS 1842, ch. 72 (Mar. 3, 1842).

¹⁴⁰ *Hall v. Gardner*, 1 Mass. 171, 179 (1804) (describing the Mashpee Indians a legally under the guardianship and care of state-appointed overseers because of their "weakness"); *Elk v. Wilkins*, 112 U.S. 94, 100 (1884) (tribal members not U.S. citizens under 14th Amendment, and their "alien and dependent condition" can only be put off by action or assent of the United States). *See also Jackson (ex dem. Gilbert) v. Wood*, 7 Johns. 290 (N.Y. 1810) (Kent, C.J.) (though dependent and having rights of protection, members of Oneida Tribe of New York have no allegiance to State); COHEN 2012, § 14.01[1] (noting prevailing 19th-century view that tribal affiliation was inconsistent with U.S. and state citizenship).

¹⁴¹ Mass. H. Rep. No. 46, *Report of the Commissioners Relating to the Condition of the Indians in Massachusetts* at 30, 37 (Feb. 21, 1849); Mass. Sen Rep. No. 96, *Report to the Governor and Council, Concerning the Indians of the Commonwealth, under the Act of April 6, 1859* at 54 (Mar. 8, 1861) (referring to proposed extension of state citizenship to Mashpee members as change in political relations); *id.* at 120 (describing Mashpee has having reservation with little or no mixture with whites and distinguishing Tribe from Massachusetts Indians lacking distinct organization).

¹⁴² Mass. H. Rep. No. 46 at 120 (describing Mashpee has having reservation with little or no mixture with whites and distinguishing from Massachusetts Indians lacking reservations or distinct organization).

¹⁴³ Sol. Op. M-37029 at 19.

¹⁴⁴ Mashpee Op. Br. Part 1 at 11.

¹⁴⁵ Mashpee Op. Br. Part 1 at 3-5.

¹⁴⁶ Mashpee Op. Br. Part 1 at 12.

¹⁴⁷ *Compare, e.g.,* MASS. ACTS 1834, ch. 166 (Mar. 31, 1834) (establishing Mashpee as self-governing Indian town) with Act of June 18, 1934, ch. 576, § 16, 48 Stat. 984 (granting reservation residents right to organize for common welfare); MASS. ACTS 1842, ch. 72 (Mar. 3, 1842) (providing for allotment of Mashpee land and restricted fee title) with Act of Feb. 8, 1887, ch. 119, 24 Stat. 388 (General Allotment Act); MASS. ACTS 1869, ch. 463 (Jun. 23, 1869)

“under federal jurisdiction” inquiry. The Tribe provides no evidence to show that the Commonwealth ever acted at the request of the Federal Government. Nor does the Tribe offer evidence showing that the state viewed its actions as undertaken on behalf of the Federal Government, or as an exercise of a delegated Federal authority. To the contrary, reports prepared by the state legislature on the legal status of Massachusetts Indians show that it considered the issue without reference to federal authorities.¹⁴⁸

The Tribe also argues that Congress’ admission of Maine to the Union effected either an implicit delegation of Federal authority to Massachusetts¹⁴⁹ or a ratification of the Commonwealth’s exercises of authority over tribes in the state.¹⁵⁰ But neither the text nor the legislative history of the Maine enabling act support the Tribe’s construction. Maine’s admission may have placed Congress on notice of the Commonwealth’s assertion of authority over Massachusetts Indians, but it did so with respect to Indians in the district of Maine, not Mashpee. And the act’s legislative history contains no evidence of congressional views on the subject. While the Maine enabling act, like the Tribe’s other evidence, demonstrates a Federal awareness of the Massachusetts Indians and the Commonwealth’s regulation of their affairs, it does not establish or reflect any Federal actions taken on behalf of, or for the benefit of, the Mashpee Tribe or its members as such.

The Tribe relies on *Proprietors of Marshpee v. Crocker*, a 1798 state ejectment action brought on behalf of the Tribe under state law, as evidence of Federal coordination with state officials to exercise trust responsibilities.¹⁵¹ The Tribe bases its claim on the fact that the attorney representing the Tribe’s interests, John Davis, was the United States Attorney for the District of Massachusetts and empowered to prosecute civil actions in which the United States was concerned.¹⁵² However the Tribe fails to show that Davis acted on behalf of the United States in *Proprietors of Marshpee*, or that he represented any Federal interests or received authorization from the United States to do so. The record instead demonstrates that Davis received compensation for his services from the Commonwealth pursuant to state authority, further suggesting he acted in a non-Federal capacity.¹⁵³

Having considered the Tribe’s supplemental arguments and submissions, along with the Department’s additional research, I conclude that Massachusetts’ history of exercising authority over the Mashpee Indians provides no direct or indirect indicia of Federal authority sufficient to show that the Tribe was “under federal jurisdiction” within the framework set forth in Sol. Op. M-37029. Moreover, *Passamaquoddy* provides no assistance to the Tribe. The issue in that case was whether a state-recognized tribe lacking Federal acknowledgment was a “tribe” within the meaning of the Nonintercourse Act. Here the issue is whether a federally acknowledged tribe is

(extending state citizenship to Massachusetts Indians) with Act of June 2, 1924, ch. 288, 43 Stat. 253 (extending United States citizenship to all Indians born in the United States).

¹⁴⁸ See Mass. H. Rep. No. 68 (Mar. 1, 1827) (reporting on condition of Indians in the state); Mass. Sen. Rep. No. 17 (Jan. 24, 1838) (report of Mashpee District commissioner on Tribe’s socio-economic conditions); Mass. H. Rep. No. 46 (Feb. 21, 1849) (discussing legal condition of Mashpee Tribe); Mass. Sen. Rep. No. 96 (Mar. 8, 1861) (same).

¹⁴⁹ Mashpee Op. Br. Part 1 at 10-12.

¹⁵⁰ Mashpee Op. Br. Part 1 at 14.

¹⁵¹ Mashpee Op. Br. Part 1 at 8-10.

¹⁵² Mashpee Op. Br. Part 1 at 9.

¹⁵³ See MASS. RESOLVES 1789-99, ch. 41 (Feb. 24, 1797).

eligible for statutory benefits under Section 5 of the IRA, which in turn requires a demonstration that the tribe was “under federal jurisdiction” in or before 1934. This in turn, according to Sol. Op. M-37029, requires evidence that demonstrates a *federal* exercise of responsibility for and obligation toward a tribe and its members. Federal awareness of Massachusetts’ exercises of authority alone cannot satisfy the inquiry, and the Tribe offers no specific evidence of any Federal authorization, confirmation or ratification of state authority, or delegation of Federal authority to the state.

Any evidence of Federal participation in Commonwealth activities is at best tenuous and limited to the earliest, formative period of the national government. The evidence does not show any significant contacts between the United States and the Tribe through treaty, legislation, or Federal administrative action. While we agree with the Tribe that Federal authority over Indian affairs included tribes within the original 13 states, the record fails to sufficiently demonstrate the exercise of Federal authority with respect to the Tribe for the purposes of establishing that the Tribe was “under federal jurisdiction” for IRA purposes.

D. Evidence of Particular Federal Exercises of Authority

The Tribe also claims its submissions evidence particular exercises of Federal authority over the Tribe in the years before 1934. These include an 1822 report prepared by the Reverend Jedidiah Morse on the condition of Indians in the United States as a prelude to possible removal of eastern tribes;¹⁵⁴ the Office of Indian Affairs’ reliance between 1825 and 1850 on statistical tables that referenced the Mashpee;¹⁵⁵ a six-volume work on the tribes of the United States commissioned by Congress and prepared by Henry Schoolcraft, which included a description of the Mashpee Tribe and policy recommendations concerning them;¹⁵⁶ several Federal reports prepared between 1888 and 1934 that reference the Tribe and its history; Federal censuses from 1910 and 1911 that list Tribal members;¹⁵⁷ the enrollment of Tribal children in the Carlisle Indian Industrial School between 1905 and 1918;¹⁵⁸ and the purported acknowledgment by the United States Navy of the Tribe’s usufructuary rights around 1950.¹⁵⁹ I address each in turn.

1. *Morse Report*

In 1820, Secretary of War John C. Calhoun commissioned Reverend Morse, a reputable geographer, to visit various tribes in the country “in order to acquire a more accurate knowledge of their social and political conditions, and to devise the most suitable plan to advance their civilization and happiness.”¹⁶⁰ Morse spent four months traveling from the eastern seaboard to the Northwest Territory gathering information from some tribes himself.¹⁶¹ Acknowledging the

¹⁵⁴ Mashpee Op. Br. Part 2 at 21.

¹⁵⁵ Mashpee Op. Br. Part 2 at 25-28.

¹⁵⁶ Mashpee Op. Br. Part 2 at 28.

¹⁵⁷ Mashpee Op. Br. Part 2 at 29, 30, 38.

¹⁵⁸ Mashpee Op. Br. Part 2 at 32.

¹⁵⁹ Mashpee Op. Br. Part 2 at 38.

¹⁶⁰ Rev. Jedidiah Morse, A REPORT TO THE SECRETARY OF WAR OF THE UNITED STATES ON INDIAN AFFAIRS 11-12 (1822) (“Morse Rpt.”).

¹⁶¹ Morse Rpt. at 13.

difficulty of personally visiting “the whole territory inhabited by the Indians,”¹⁶² information about other tribes was collected from other materials, including questionnaires.¹⁶³ Morse compiled the information in statistical tables “embracing the names and numbers of all the tribes within the jurisdiction of the United States.”¹⁶⁴ The Report includes a 400-page appendix detailing the information Morse collected and summarizing it in several tables.

The Tribe fails to show how the Morse Report constitutes a federal action reflecting an exercise of authority over the Tribe. The Tribe characterizes the Morse Report as the “first explicit application of federal Indian policy” – not, however, to the Tribe in particular but “to eastern tribes” generally.¹⁶⁵ Congress ultimately took no steps to remove any tribes based on the Morse Report, however, and, despite its deliberations, enacted no national removal policy until the following decade.¹⁶⁶ The Morse Report shows that the Federal Government did little more than consider the Tribe, along with tribes across the United States, as *potentially* subject to the exercise of the federal Indian authority, in this case for the purpose of removal and resettlement. As this further suggests, the Morse Report only provides evidence of Congress’ awareness of its plenary authority over tribes.¹⁶⁷ This is consistent with the Department’s 2015 ROD, which characterized the lands set aside for the Tribe as “subject to federal oversight as part of the Federal Government’s larger agenda to remove Indians from their aboriginal territories” based on the Morse Report.¹⁶⁸ While the Morse Report provides evidence that the Federal Government was cognizant of the existence of the Tribe and its lands,¹⁶⁹ it does not further demonstrate any *exercise* of Federal authority over any tribe, much less the Tribe itself. The Morse Report’s compilation of general information about tribes in the United States, without more, does not amount to an action or course of dealings for purposes of the first part of Sol. Op. M-37029’s two-part analysis.¹⁷⁰

The same is true of the subsequent use made of the Morse Report by Executive officials and Congress. The Tribe notes that the Morse Report was circulated to Congress and the Executive Branch for use in considering the development and application of Federal trade and removal policies.¹⁷¹

¹⁶² Morse Rpt. at 21.

¹⁶³ See, e.g., Morse Rpt. at 22 (announcing intent to collect and arrange existing facts and materials presently scattered in books and manuscripts).

¹⁶⁴ Morse Rpt. at 23. See also *id.* at 22 (describing task as to “lay before the Government, as full and correct a view of the numbers and actual situation of the *whole* Indian population within their jurisdiction”) (emphasis original).

¹⁶⁵ Mashpee Op. Br. Part 2 at 21.

¹⁶⁶ Mashpee Reply at 36, n. 33; see also Littlefields Resp. at 73. It thus also remains unclear what “course of dealings between the Tribe and the United States” the Morse Report initiated. Mashpee Op. Br. Part 2 at 21.

¹⁶⁷ Mashpee Reply at 22 (Administration’s authority to consider Mashpee for removal based on federal jurisdictional authority over tribal lands wherever located).

¹⁶⁸ 2015 ROD at 115.

¹⁶⁹ See Mashpee PF at 40 (discussing Morse Report for evidence of Tribe’s existence as a distinct community from historical times to the present).

¹⁷⁰ See Mashpee Op. Br. Part 2 at 25-28 (describing federal government’s use of statistical information). Cf. Mashpee Reply at 38 (federal jurisdictional inquiry “is not limited to federal actions but the presence of federal jurisdiction”).

¹⁷¹ Mashpee Op. Br. Part 2 at 23 ff.

The Tribe asserts that Congress “debated” the Morse Report, noting an express reference to Indians that “reside on their respective reservations” in Massachusetts, including the Mashpee Tribe.¹⁷² But the House Report cited shows that the Morse Report was referred to the House Committee on Indian Affairs so its members could “know something of the situation of [the Indian tribes], and of their numbers” in considering proposed amendments to the Trade and Intercourse Act.¹⁷³ The passage relied on by the Tribe further shows that Representative Metcalf recited passages verbatim from the Morse Report.¹⁷⁴ As the full House Report makes clear, the Committee’s concern was whether the Government’s plans for the “civilization of the Indians” was appropriately within the scope of Federal authority generally. While such use of the Morse Report demonstrates that Congress knew that Mashpee and other tribes existed and held lands, it fails to demonstrate that Congress or the Executive Branch took any further action with respect to the Tribe in response.

Similarly, the transmittal by Secretary of War John Calhoun of statistical information compiled by Colonel Thomas McKenney, based in part on the Morse Report, reflects no exercise of Federal authority over the Tribe. Indeed, when transmitting the information to President Monroe, Secretary Calhoun does not even mention the Tribe, but instead refers to “the small remnants of tribes in Maine, Massachusetts, Connecticut, Rhode Island, Virginia, and South Carolina.”¹⁷⁵ He does so, moreover, for the limited purpose of reporting his presumption that any arrangement for the removal of Indians “is not intended to comprehend” those tribes.¹⁷⁶ President Monroe’s transmittal to Congress is even less specific, as the Tribe notes.¹⁷⁷ It broadly recommends the removal of Indian tribes “from the lands they now occupy, within the limits of the several States and Territories,”¹⁷⁸ and it transmits the Department of War’s best estimate of the number of Indians “within our States and Territories, and of the amount of lands held by the several tribes within each.”¹⁷⁹ The Tribe concedes that this simply shows that the Tribe was “deemed subject to federal Indian policy, that is, within the jurisdiction of the United States,”¹⁸⁰ not that it was ever subjected to such authority by the Federal Government. The same is true of the subsequent uses of such statistical information noted by the Tribe.¹⁸¹ For these reasons, the Federal Government’s use of information compiled by Reverend Morse and Colonel McKenney do not, in and of themselves, satisfy the first-step of the Sol. Op. M-37029 analysis.¹⁸²

¹⁷² Mashpee Op. Br. Part 2 at 23, citing Ex. ZB (House of Representatives Report on Indian Trade, 17th Cong., 1st Sess., at 1794 (remarks of Rep. Metcalf)).

¹⁷³ Mashpee Op. Br. Part 2, Ex. ZB at 1792.

¹⁷⁴ Mashpee Op. Br. Part 2, Ex. ZB at 1793.

¹⁷⁵ Mashpee Op. Br. Part 2, Ex. ZC at 542.

¹⁷⁶ Mashpee Op. Br. Part 2, Ex. ZC at 542; *see also* Mashpee Op. Br. Part 2 at 24.

¹⁷⁷ Mashpee Op. Br. Part 2 at 25.

¹⁷⁸ Mashpee Op. Br. Part 2 Ex. ZC at 541.

¹⁷⁹ Mashpee Op. Br. Part 2 Ex. ZC at 542.

¹⁸⁰ Mashpee Op. Br. Part 2 at 25 (quoting Morse Report) (internal quotations omitted).

¹⁸¹ Mashpee Op. Br. Part 2 at 25-26.

¹⁸² Mashpee Op. Br. Part 2 at 25-28. The Tribe’s evidence shows that McKenney later provided copies of the table in response to requests by Congress, the Executive, and private scholars for information about tribes in the United States.

2. *Schoolcraft Report*

The Tribe submits for the first time on remand a survey of tribes in the United States published in 1851. The Tribe does so as particular evidence that Federal Indian agents treated the Mashpee Tribe as subject to Federal jurisdiction.¹⁸³ The report was prepared by Henry R. Schoolcraft, a United States Indian Agent, using funds appropriated by Congress in 1847 for that purpose.¹⁸⁴ His six-volume Report includes historical and statistical information on the condition and prospects of tribes in the United States and it totaled several thousand pages. The Schoolcraft Report refers to the Mashpee Tribe only twice, once in a consolidated table listing the combined population of tribes existing within Massachusetts,¹⁸⁵ and later as part of a list of tribes residing in Massachusetts.¹⁸⁶

The Schoolcraft Report describes a proposed plan of improvement for the Massachusetts Indians generally,¹⁸⁷ which includes the enactment of a uniform system of laws for the Indians, merging certain tribes (excluding the Mashpee) into one community, and appointing an Indian commissioner for the Indians' supervision and improvement.¹⁸⁸ The Tribe claims that these recommendations evidence "a clear exercise of federal jurisdiction by the Office of Indian Affairs" because made by Schoolcraft himself.¹⁸⁹ A closer examination reveals that Schoolcraft was merely reporting recommendations contained in an 1849 report of state commissioners to the Massachusetts legislature on the condition of Indians in the state.¹⁹⁰ While the recommendations suggest that Massachusetts considered the Tribe and its lands within the State's authority, in and of themselves, the recommendations do not demonstrate any Federal activity, and the Tribe offers no other evidence that the United States adopted or approved them. As with the Morse Report, the Schoolcraft Report at best suggests Federal awareness of the existence of the Tribe and its lands, but does not demonstrate any exercise of federal authority over the Mashpee Tribe.¹⁹¹

3. *Federal Reports*

The Tribe also submits several reports prepared by or for Federal officials between 1888 and 1934 as evidence of a continuing Federal acknowledgment of the Tribe's collective rights in its

¹⁸³ Mashpee Op. Br. Part 2 38-39. Henry R. Schoolcraft, HISTORICAL AND STATISTICAL INFORMATION RESPECTING THE HISTORY, CONDITION AND PROSPECTS OF THE INDIAN TRIBES OF THE UNITED STATES: COLLECTED AND PREPARED UNDER THE DIRECTION OF THE BUREAU OF INDIAN AFFAIRS. PT. I at 524 (1851) ("Schoolcraft Rpt."). The Schoolcraft Report did not form part of the evidence evaluated by the Department in preparing the 2015 ROD.

¹⁸⁴ Mashpee Op. Br. Part 2 at 27, citing Act of March 3, 1847, ch. 66, § 6, 9 Stat. 263.

¹⁸⁵ Schoolcraft Rpt. at 524.

¹⁸⁶ Schoolcraft Rpt. at 287.

¹⁸⁷ Schoolcraft Rpt. at 287.

¹⁸⁸ Schoolcraft Rpt. at 287.

¹⁸⁹ Mashpee Op. Br. Part 2 at 29; Mashpee Reply at 30.

¹⁹⁰ See Mass. House No. 46 at 24-38, 54-57.

¹⁹¹ The Tribe further argues that the Department has already determined that inclusion in a federal survey "for federal Indian policy purposes" is probative evidence of a tribe's jurisdictional status, relying on a record of decision prepared for the Tunica-Biloxi Tribe of Louisiana. Mashpee Reply at 38, citing Ex. D (U.S. Dep't of the Interior, Bureau of Indian Affairs, Record of Decision for the Tunica-Biloxi Tribe of Louisiana (Aug. 11, 2011)). The Tunica-Biloxi ROD relied instead on a federal agent's defense of the Tribe's aboriginal title under the Non-Intercourse Act, which "clearly demonstrated the Tribe's jurisdictional relationship with the Federal Government." Id. Ex. D at 11.

tribal lands. These reports do not formally acknowledge Tribal rights as such, but rather provide accounts of the Tribe's historical and contemporary circumstances. None provides evidence of any exercises of Federal authority by officials over the tribe. While Sol. Op. M-37029 points to "annual reports, surveys, and census reports" produced by the Office of Indian Affairs, it makes clear that such material may provide evidence of Federal authority when produced "as part of the exercise of [the Office of Indian Affairs'] administrative jurisdiction" over a tribe.¹⁹² None of the reports submitted by the Tribe reflect that they were prepared as an exercise of administrative jurisdiction over the Tribe. Neither does the Tribe suggest that the reports provide evidence demonstrating a course of dealings over time that, when viewed as a whole, demonstrates a Federal obligation to the Tribe beyond the general principle of plenary authority.

The 1888 report prepared by Alice C. Fletcher is a nearly 700-page account of the history and current state of administration of Indian affairs and Indian education on federal Indian reservations in the United States.¹⁹³ Prepared in response to a Senate resolution and under the direction of the Department's Commissioner of Education, it includes a brief, two-page account of the seventeenth-century history of Massachusetts tribes, including the Mashpees, and an account of contemporary state legislation affecting the Mashpees based on information from a Tribal member.¹⁹⁴ The 2015 ROD relied on Mrs. Fletcher's report as evidence of the existence of the Mashpee reservation and the external recognition of the Town's "reservation-like" character.¹⁹⁵ On remand the Tribe also argues that, "acting effectively as an Indian agent," Mrs. Fletcher "confirmed the Tribe's tenacious ties to its land."¹⁹⁶ While the Fletcher report does describe the Tribe's historical ties to its lands, it makes no assertion as to the Federal Government's role, if any, in establishing or maintaining such ties, and thus offers no evidence of the exercise of Federal authority over the Tribe or its members beyond the general principle of plenary authority.

The 2015 ROD relied on a draft report on New England tribes prepared by Gladys Tantaquidgeon for the Office of Indian Affairs to show the Tribe's continuing occupation of its lands through 1934.¹⁹⁷ The 2015 ROD described the Tantaquidgeon report as providing "details on their 'reservation,' subsistence practices, education facilities, health needs, arts and language, and governance."¹⁹⁸ The 2015 ROD noted that though the BIA commissioned Tantaquidgeon's report, the BIA never officially published it.¹⁹⁹ On remand the Tribe now also claims that the Tantaquidgeon report demonstrates "federal treatment of the Tribe as having collective rights."²⁰⁰ The Tribe relies on Tantaquidgeon's description of the Tribe as "in occupation of an

¹⁹² Sol. Op. M-37029 at 16.

¹⁹³ Mashpee Reply at 39; Mashpee Op. Br. Part 2 at 30.

¹⁹⁴ S. Ex. Doc. No. 48-95, *Indian Education and Civilization. A Report Prepared in Answer to Senate Resolution of February 23, 1885* at 59-60 (1888). Fletcher's account relied on information provided by a Mashpee tribal member who was also a sitting member of the Massachusetts state legislature. *Id.* at 60, n. 1.

¹⁹⁵ 2015 ROD at 114; *see also id.* at 106.

¹⁹⁶ Mashpee Op. Br. Part 2 at 30.

¹⁹⁷ 2015 ROD at 109.

¹⁹⁸ 2015 ROD at 109.

¹⁹⁹ 2015 ROD at 109, n. 340. The 2005 Proposed Finding in favor of the Tribe's federal acknowledgment noted that Tantaquidgeon's findings were summarized in an Office of Indian Affairs newsletter. Mashpee PF at 23.

²⁰⁰ Mashpee Op. Br. Part 2 at 6.

Indian town, also referred to by [Tantaquidgeon] as a reservation.”²⁰¹ Though the Tribe describes the contents of the Tantaquidgeon report, it does not address how the report demonstrates any exercise of Federal authority over the Tribe. The 2015 ROD relied on the report for its contemporary and historical account of the Tribe’s lands and its occupancy thereof. While such information supports the Department’s earlier determination that the Tribe could be considered to have occupied a reservation for IRA purposes in 1934, it does not show any formal action by a Federal official determining any rights of the Tribe. While the Tantaquidgeon report offers historical evidence of the Tribe’s long-standing historical use and continued occupation of Tribal lands, it provides little if any demonstration of the exercise of Federal jurisdictional authority over the Tribe.²⁰²

In finding that the Tribe occupied a reservation for IRA purposes, the 2015 ROD also relied on the 1890 Annual Report of the Commissioner of Indian Affairs (ARCIA) to show external recognition of the fact that the Tribe historically occupied lands set aside for its use.²⁰³ On remand the Tribe argues that the ARCIA “unambiguously acknowledges collective rights [on the part of the Tribe] in tribal land”²⁰⁴ which, the Tribe claims, gives “rise to federal responsibilities toward the Tribe.”²⁰⁵ While the ARCIA plainly notes the existence of the Tribe’s Massachusetts reservation, that does not amount to an acknowledgment of Federal responsibility for, or an exercise of Federal authority over, the Tribe. The passage the Tribe cites occurs in a discussion of Indian title generally. It states that “only in Massachusetts, New York, and North Carolina are Indians found holding a tribal relation and in possession of specific tracts.” However the Commissioner’s statement follows his assertion that as of the early nineteenth century, “no Indians within the limits of the thirteen original States retained their original title of occupancy.”²⁰⁶ As noted in the 2015 ROD, the Commissioner explained that the Tribe had a State-appointed board of overseers that governed the Tribe’s internal affairs and held the Tribe’s lands in trust.²⁰⁷ The Tribe’s claim that the ARCIA constitutes an express acknowledgment of *federal* responsibility is also inconsistent with the remainder of the Commissioner’s report, which describes the Federal Government’s pursuit at that time of “a uniform course of extinguishing the Indian title.”²⁰⁸ These statements weigh heavily against the Tribe’s interpretation of the ARCIA as acknowledging or assuming Federal responsibilities for the Tribe.

²⁰¹ Mashpee Op. Br. Part 2 at 38.

²⁰² Mashpee PF at 23.

²⁰³ 2015 ROD at 106, 114, citing U.S. Dep’t of the Interior, Commissioner of Indian Affairs, Annual Report (1890).

²⁰⁴ Mashpee Reply at 39; Mashpee Op. Br. Part 2 at 30-31.

²⁰⁵ Mashpee Op. Br. Part 2 at 31.

²⁰⁶ Mashpee Op. Br. Part 2 at 30. *See also* H. Ex. Doc. No. 51-1, Pt. 5, *Report of the Secretary of the Interior*, vol. II at XXVI (1890).

²⁰⁷ 2015 ROD at 106, 114; Mashpee Op. Br. Part 2 at 30-31.

²⁰⁸ ARCIA at xxix. A table showing the population of Indians by state and the areas of Indian reservations contained later in the ARCIA omits any reference to Massachusetts or to Massachusetts tribes. ARCIA at xxxvii, Table 10. The Commissioner concluded his discussion of Indian title with a statement of then-applicable federal policy: “The sooner tribal relations are broken up and the reservation system done away with the better it will be for all concerned.” ARCIA at xxxix.

4. Federal Acknowledgment of Usufructuary Rights

The Tribe relies on a title report prepared for condemnation proceedings brought by the Department of the Navy in the late 1940s against lands in which a Mashpee Tribal member had interests as evidence showing “clear federal knowledge of, and acquiescence to” aboriginal hunting, fishing and gathering rights of the Tribe.²⁰⁹ A title report²¹⁰ prepared in connection therewith indicated that some of the lots in question were subject to the reserved right of the Proprietors of Mashpee to cross over the lots for the purpose of gathering seaweed and marsh hay.²¹¹ The title report states that the reservations of rights originated in deeds prepared by the Mashpee Commissioners.²¹² The Tribe states that the deeds were prepared pursuant to laws enacted by the State of Massachusetts for the purpose of allotting the Tribe’s lands in the late nineteenth century.²¹³ The Tribe claims the deeds “confirm” the existence of aboriginal usufructuary rights that “are subject to federal protection.”²¹⁴ As noted above, the evidence of action by the State of Massachusetts with respect to the Tribe’s property under state law does not provide evidence of Federal action, either expressly or by operation of law. Moreover, while the deeds on which the Tribe relies reserve to the Tribe’s members the right to cross over the subject parcels to gather seaweed and marsh hay elsewhere, they nowhere indicate whether such rights arise as a matter of common law or aboriginal right. Even if the Tribe retained aboriginal rights at the time of the condemnation proceedings, rather than common law property rights under state law, that fact alone would not satisfy the Sol. Op. M-37029 analysis because it would not show any exercise of Federal authority with respect to such rights. As already described, the decision in *Carcieri* requires some indicia of Federal authority beyond the general principle of plenary authority.²¹⁵

The absence of any Federal actions with respect to Mashpee’s usufructuary rights distinguishes the Tribe from the case of the Stillaguamish Tribe.²¹⁶ In 1976, the Department declined to take land into trust for Stillaguamish based on doubts whether it was under Federal jurisdiction in 1934. In 1980, the Department found that the Tribe was a beneficiary of fishing rights acknowledged and protected by the United States under the 1855 Treaty of Port Elliott, to which the Stillaguamish Tribe was a signatory.²¹⁷ For purposes of the Sol. Op. M-37029 analysis, the issue is not whether aboriginal usufructuary rights are subject to Federal protection as a matter of law²¹⁸ or whether they exist absent a tribe’s Federal acknowledgment.²¹⁹ The issue instead is whether the Federal Government took any action or series of actions in the exercise of its plenary

²⁰⁹ Mashpee Op. Br. Part 2 at 38 ff.

²¹⁰ Mashpee Op. Br. Part 2, Ex. ZZD.

²¹¹ Mashpee Op. Br. Part 2, Ex. ZZD at 3-4.

²¹² Mashpee Op. Br. Part 2, Ex. ZZD at 3-4.

²¹³ Mashpee Op. Br. Part 2 at 39-40; *see also* Mashpee Reply at 46.

²¹⁴ Mashpee Op. Br. Part 2 at 42; *see also id.* at 6, 11, 16-17.

²¹⁵ Sol. Op. M-37029 at 18.

²¹⁶ *See* Mashpee Reply at 39, 47.

²¹⁷ Sol. Op. M-37029 at 20, 23; *see also Carcieri*, 555 U.S. at 398 (Breyer, J., concurring).

²¹⁸ Mashpee Reply at 47, citing *Mitchel v. United States*, 34 U.S. 711, 748 (1835); *United States v. Michigan*, 471 F. Supp. 192, 256 (W.D. Mich. 1979), *aff’d as modified*, 653 F.2d 277 (6th Cir. 1981).

²¹⁹ Mashpee Reply at 47, citing *Timpanogo Tribe v. Conway*, 286 F.3d 1195, 1203 (10th Cir. 2002); *United States v. Suquamish Indian Tribe*, 901 F.2d 772, 776 (9th 1990).

power over a tribe.²²⁰ The reservation under state law of usufructuary rights for tribal members does not, standing alone, provide such evidence.

5. *Censuses & School Enrollment*

The Tribe on remand argues that by admitting Mashpee children as students to the Carlisle Indian School between 1905 and 1918, the Federal Government “explicitly acknowledged its jurisdiction over the Tribe.”²²¹ The Tribe appears also to suggest that the direct supervision of Mashpee students by Federal officials at Carlisle constitute indicia of Federal jurisdiction over the Tribe. The Tribe’s claim that the enrollment of students constituted an explicit acknowledgment of Federal jurisdiction over the Tribe appears to rely on several things. These include funding of Carlisle through congressional appropriations; the Federal Government’s use of Carlisle as an instrument of Indian educational policy; Departmental regulations governing non-reservation Indian schools; and school records for individual Mashpee students.²²² While such evidence clearly demonstrate exercises of Federal authority over Indians generally and individual Indians specifically, none suffice, in isolation, to show an exercise of federal authority over the Mashpee Tribe as distinct from some of its members.

The Tribe asserts that the provision of Federal services to individual tribal members, such as health or social services, can be the basis for a finding of Federal jurisdiction over a tribe,²²³ and it notes that the provision of educational services was used to demonstrate Federal jurisdiction over other tribes like the Cowlitz Tribe.²²⁴ While that is true, it neglects that the Cowlitz determination also relied on a wide range of other evidence covering an extended period of time. This included government-to-government treaty negotiations as well as a documented history of the BIA “supervising allotments, adjudicating probate proceedings, providing education services, assisting in protecting fishing activities, investigating tribal claims to aboriginal lands, and approving attorney contracts”²²⁵ for the Cowlitz Tribe and its members, none of which the Tribe has shown here.

The evidence of Mashpee student enrollment at Carlisle, by itself, does not unambiguously demonstrate that such enrollment was predicated on a jurisdictional relationship with the Tribe as such. Without any other evidence that the Federal Government provided services to or otherwise assumed jurisdiction over the Tribe, the Mashpee student records fall short of demonstrating that Tribe itself came under federal jurisdiction. Thus while the evidence of enrollment at Carlisle is plainly relevant to the Sol. Op. M-37029 inquiry, without more it is insufficient to show that the Tribe “was subjected to . . . clear, federal jurisdiction.”²²⁶

²²⁰ Sol. Op. M-37029 at 17-19.

²²¹ Mashpee Op. Br. Part 2 at 36.

²²² Mashpee Op. Br. Part 2 at 32-36.

²²³ Mashpee Reply at 44, citing Sol. Op. M-37029 at 16, 19.

²²⁴ Mashpee Reply at 44, citing *Grand Ronde*, 75 F. Supp.3d at 403.

²²⁵ Cowlitz ROD at 97-103 (describing course of dealings between Cowlitz Tribe and federal government between 1855 and 1932).

²²⁶ Mashpee Op. Br. Part 2 at 34. The same is true of the listing of Mashpee students on a 1911 census entitled “Census of Pupils Enrolled at Carlisle Indian School.” Mashpee Op. Br. Part 2 at 32.

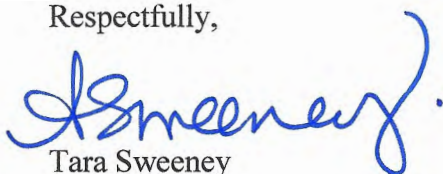
The Tribe also argues that inclusion on a 1910 Indian census “reflects the existence of a federal-Indian relationship and demonstrates that the federal government acknowledged responsibility for the tribes and the Indians identified therein.”²²⁷ The 1910 Indian census was prepared by the Director of the Census, not the Office of Indian Affairs, as the Tribe suggests.²²⁸ Neither was it prepared under authority of the 1884 Act that directed Indian agents to submit an annual census of the Indians at the agency or on the reservation under their charge.²²⁹ As with the nineteenth-century Federal reports referencing the Tribe and its lands, the listing of Tribal members on a Federal census, though it may be probative of Federal jurisdiction over the Tribe, in and of itself is inconclusive, and the Tribe provides no argument or evidence to suggest otherwise.²³⁰

CONCLUSION

Applying Sol. Op. M-37029’s framework to my review of the parties’ remand and supplemental submissions, I conclude that the evidence does not show that the Tribe was under Federal jurisdiction in 1934 within the meaning of the IRA’s first definition of “Indian.” The record before me contains little indicia of Federal jurisdiction beyond the general principle of plenary authority, and little if any evidence demonstrating that the United States took any actions establishing or reflecting Federal obligations, duties, responsibilities for or authority over the Tribe in or before 1934. Because the Tribe was not “under federal jurisdiction” in 1934, the Tribe does not qualify under the IRA’s first definition of “Indian.” Nor does it qualify under the second definition, as that definition has been interpreted by the United States District Court for the District of Massachusetts.

My analysis and decision on remand is strictly limited to the question of the Tribe’s jurisdictional status in 1934, and does not otherwise revisit or alter the remainder of the Department’s analysis of the second definition of “Indian” in the 2015 ROD. Nor does this decision revisit or alter the other conclusions reached in the 2015 ROD concerning the Indian Gaming Regulatory Act or the National Environmental Policy Act.

Respectfully,



Tara Sweeney
Assistant Secretary – Indian Affairs

Cc David Tennant, Esq.
Paula Hart, Director, Office of Indian Gaming
Chairwoman Cheryl Andrews-Maltais, Wampanoag Tribe of Gay Head (Aquinnah)

²²⁷ Mashpee Reply at 41, citing Memorandum, Associate Solicitor, Division of Indian Affairs to Pacific Regional Director, *Determination of Whether Carciere v. Salazar or Hawaii v. Office of Hawaiian Affairs limits the authority of the Secretary to Acquire Land in Trust for the Santa Ynez Band of Chumash Indians*, 9 (May 23, 2012).

²²⁸ See Act of March 3, 1899, ch. 419, 30 Stat. 1014; Act of March 6, 1902, ch. 139, 32 Stat. 51 (Permanent Census Act).

²²⁹ See Mashpee Op. Br. Part 2 at 32, citing Act of July 4, 1884, ch. 180, § 9, 23 Stat. 76, 98.

²³⁰ Mashpee Op. Br. Part 2 at 31. The Tribe notes it members were listed as “Wampanoag.” It further notes that a number of Indian families in Mashpee were shown on the general federal census in 1900, not the Indian census, an omission the Tribe describes as an error. Mashpee Op. Br. Part 2 at 31, n. 25.

Exhibit C



Legal Division

September 27, 2018

David J. Apfel, Esq.
Roberto M. Braceras, Esq.
Goodwin Proctor
100 Northern Avenue
Boston, MA 02210

Re: Mass Gaming and Entertainment

Dear Mr. Apfel and Mr. Braceras:

Thank you for your letters of June 6 and August 13 2018 and your email of August 30, 2018 wherein you request that the Massachusetts Gaming Commission (the “Commission”) reconsider your client, Mass Gaming and Entertainment’s (“MG&E”) 2015 application for a category 1 gaming license in Region C. The Commission reviewed your June 6, 2018 letter at its July 26, 2018 Commission meeting and the Commission plans to continue its discussion regarding your request and Region C at its September 27 commission meeting.

Commission staff has reviewed Chapter 23K as well as the Commission’s regulations, and case law. M.G.L c.23k section 17(g) states that:

“The Commission shall have full discretion as to whether to issue a license. Applicants shall have no legal right or privilege to a gaming license and shall not be entitled to any further review if denied by the commission.”

The Commission has received requests in the past to reconsider applications after the Commission’s denial of a license. In all cases, staff advised the Commission that based upon section 17(g), the Commission may not have the ability to reconsider the denial of a gaming license and if it did have the authority, it did not have a process to reconsider the denial of a gaming license. The Commission would first have to determine that section 17(g) did not prohibit reconsideration and the Commission would have to promulgate regulations describing the conditions and process by which such reconsideration could occur.

MG&E has further requested that if the Commission cannot reconsider its decision on the denial of a license, the Commission should consider MG&E’s license application anew, without reopening Region C and holding a competitive application process. M.G.L. c.23K sections 8 and 9 require the Commission to issue a request for applications and create a form of application for gaming licenses. Pursuant to sections 8 and 9, the Commission promulgated 205 CMR 110, 112, 115, and 205 CMR 117 – 128 which describes the detailed process by which the Commission will consider and award a gaming license. Those regulations provide a robust, competitive evaluation process. This is the only process currently available to the Commission for the issuance of a gaming



Massachusetts Gaming Commission

license. Any change to that process would require the promulgation of new regulations, following public discussion and public comment.

Your letters also suggest that the Commission's April 2016 decision was based upon the Commission's belief "that there was a clear presumption of a [Mashpee} casino in Region C". I would refer you to the Commission's written decision denying a license to MG&E which was articulated in the Commission's holding that MG&E's application "failed to demonstrate that the proposed project would maximize revenue to the Commonwealth (citation omitted) or that it would offer the highest and best value to create a secure and robust gaming market in Region C and the Commonwealth. (Citation omitted) Ultimately the Applicant did not articulate a clear vision or provide any well-developed plans as to how it would achieve the same quality of results in Brockton as it has at its properties in other jurisdictions."

Commission staff is happy to meet with you to discuss your thoughts on Region C. Staff will also continue to work with the Commission to support its discussions regarding Region C.

Very truly yours,

Catherine Blue
General Counsel



Massachusetts Gaming Commission

Exhibit D



**THE
INNOVATION
GROUP**

**Gaming Market Assessment:
Brockton Fairgrounds Casino**
Brockton, Massachusetts

Prepared for:

Rush Street Gaming, LLC

September 2018

Prepared by:

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Gaming Market Assessment, Brockton, MA

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EXECUTIVE SUMMARY

The Innovation Group was retained by Rush Street Gaming, LLC to complete a Gaming Market Analysis for the proposed casino in Brockton. Specifically, this analysis includes top-line gaming revenue projections for the first five years of operations. The casino is to be developed at the site of the Brockton Fairgrounds.

This Executive Summary covers the following five questions raised by the Massachusetts Gaming Commission:

1. A review of the gambling market in the Northeast and Mid-Atlantic, including the number of existing gambling options and plans to increase the number of gambling options, both in states that currently allow casino gambling and states where casino gambling does not yet exist. This review should include an analysis of the revenues collected by state governments over the last (5) years and an analysis of projected future revenues.
2. A review of the gaming market in Massachusetts in terms of expected demand for gaming and an estimate of the value of the overall gaming market in Massachusetts.
3. A review of the status of on-line gaming, sports betting and daily fantasy sports and the potential impact on casino gaming.
4. A review of the unemployment rate in Massachusetts, by region.
5. A review of the availability of person with the skills desired by casinos in order to determine whether the employment marketplace can fill a significant number of new casino jobs and whether a new casino will impact the ability of existing casinos to fill their jobs.

Question 1: Northeast and Mid-Atlantic Gaming Markets

The Competitive Environment section takes a detailed look at the gaming jurisdictions in New England and New York. In general, gaming revenue in calendar year 2017 was strong across the region. Revenue increased at all casinos in New England except the Hollywood Casino in Bangor, Maine. Both Connecticut casinos experienced slot revenue growth in 2017, after the lingering effects of the Great Recession and impacts from Rhode Island and Plainridge had caused multi-year declines. Twin River (TR) has experienced growth every year since 2010; although there is some apparent impact on TR's slot revenue from the opening of Plainridge the last week of June 2015, total gaming revenue continued to climb.

Plainridge also exhibited strong growth in 2017, of 6.3%. Further, its impacts on Rhode Island and Connecticut appear to have been minimal, suggesting that the large majority of Plainridge's first-year revenue came from market growth. Looking at Plainridge's impact on its two main

competitors, Twin River and Foxwoods, it is apparent that as much as 75% of Plainridge’s revenue resulted from market growth.

	Twin River	Foxwoods	Subtotal	Plainridge	Market Total
FY 2014	\$470,766,020	\$467,970,116	\$938,736,136	\$6,137,976*	\$944,874,112
FY 2015	\$443,747,069	\$462,215,501	\$905,962,570	\$159,908,961	\$1,065,871,531
Change	(\$27,018,951)	(\$5,754,615)	(\$32,773,566)	\$153,770,984	\$120,997,418

Source: State Lotteries and Gaming Commissions; The Innovation Group. *Note: one week’s data. FY=July-June.

Looking at state tax revenue and including Mid-Atlantic states, we see that tax revenues overall have grown. Where states have declined, mostly that has resulted from the impact of new casinos in neighboring states. In the case of Rhode Island, it has partially resulted from the growth in table revenue, which is taxed at a substantially lower rate than slot machines. The overall region has experienced annual tax revenue growth of 3% over the past five years.

State	FY-2013/14	FY-2014/15	FY-2015/16	FY-2016/17	FY-2017/18	CAGR
Maine	\$50.8	\$51.7	\$53.1	\$54.0	\$56.0	1.9%
Massachusetts	-	-	\$61.5	\$62.7	\$67.6	3.2%
Rhode Island	\$326.4	\$333.5	\$320.1	\$318.3	\$318.6	-0.5%
Connecticut	\$279.9	\$268.0	\$265.9	\$270.7	\$272.2	-0.6%
New York	\$871.7	\$866.9	\$906.0	\$928.3	\$993.2	2.6%
Pennsylvania	\$879.4	\$890.7	\$915.0	\$915.5	\$926.0	1.0%
New Jersey	\$208.1	\$196.8	\$201.0	\$210.5	\$211.5	0.3%
Delaware	\$157.5	\$155.0	\$156.8	\$153.6	\$157.1	-0.1%
Maryland	\$272.2	\$310.0	\$385.7	\$441.4	\$526.1	14.1%
Total	\$3,046.1	\$3,072.7	\$3,265.1	\$3,354.9	\$3,528.1	3.0%

Source: State Lotteries and Gaming Commissions; The Innovation Group. Note: Excludes horse industry payments. FY=July-June except NY April-March.

Question 2: Massachusetts Gaming Demand

The Gaming Market Analysis section takes a detailed look at the gaming market in Massachusetts and the forecast for Brockton and the other Massachusetts casinos. Also included is a detailed description of the methodology utilized in the gravity model calibration to current conditions and future forecasts.

The following table represents the impact on total gaming revenue the Brockton casino would have when introduced to the Massachusetts competitive casino set. While the existing casinos would

see a drop in total revenues, the overall total increases by over \$270 million, showing potential for market growth.

Total Gaming Revenue Market Impact		
	Without Brockton	With Brockton
Plainridge	\$122,616,795	\$94,581,694
Springfield	\$379,650,509	\$372,380,374
Everett	\$807,886,414	\$711,695,058
Brockton		\$403,843,949
Massachusetts Total	\$1,310,153,718	\$1,582,501,074

Source: The Innovation Group

The following table shows the growth in gaming tax revenue to the state of Massachusetts with the addition of the Brockton Casino.

Total Gaming Tax Revenue Market Impact		
	Without Brockton	With Brockton
Plainridge	\$49,046,718	\$37,832,678
Springfield	\$94,912,627	\$93,095,093
Everett	\$201,971,603	\$177,923,764
Brockton		\$100,960,987
Total	\$345,930,949	\$409,812,523
<i>Incremental</i>		<i>\$63,881,574</i>

Source: The Innovation Group

Additionally, Massachusetts would see an increase in slot license fee revenue due to Brockton. The following table details the incremental revenue to the state from slot license fees. Total incremental revenue to Massachusetts would be \$65.1 million with the inclusion of the Brockton property.

Total Slot License Fee Market Impact		
	Without Brockton	With Brockton
Plainridge	\$750,000	\$750,000
Springfield	\$1,530,000	\$1,530,000
Everett	\$1,945,200	\$1,945,200
Brockton		\$1,260,000
Total	\$4,225,200	\$5,485,200
<i>Incremental</i>		<i>\$1,260,000</i>

Source: The Innovation Group

Question 3: Online Gaming, Sports Betting, and DFS Impacts

The Sports Betting and Online Analysis section discusses the New England landscape for these issues. Connecticut and Rhode Island are in the process of making sports betting available to the public. Connecticut has passed enabling legislation but not a regulatory framework. Additionally, the issue of tribal gaming exclusivity could delay implementation. Rhode Island has passed legislation and sports betting is scheduled to be implemented by the Lottery in November 2018.

Massachusetts passed legislation related to sports betting, but only a *study bill* (S 2273), compelling the state to research the impact of sports betting in the commonwealth. The (Senate) Committee on Economic Development and Emerging Technologies is currently acting on this bill.

It is likely that all three states will have legalized sports betting available to the public in either a land-based or mobile format in the near future.

Sports betting can be seen as opportunity to bring in additional revenue to casinos. It is important to note that while there is potential for some substitution effect in total spend between sports bettors and other casino patrons, the demographics of the average sports bettor skews younger than slot players and even table gamers. Studies have found that the average sports bettor is between the ages of 18-34¹. Additionally, these players tend to be familiar with casinos and have the potential to spend additional dollars once on the casino floor at a table or slot during a visit to a legal sports book.

In addition to new sports betting ventures, Massachusetts and the competitive markets have the opportunity to pass legislation regarding online gambling and DFS. Recently, the Massachusetts House of Representatives passed an amendment removing the sunset clause on the laws regulating DFS, making a move in the direction towards permanent legalization of the gaming format.

Rhode Island elected to hold off on allowing online betting; it is expected that the State will reconsider in the long run as Massachusetts and Connecticut consider legislation allowing online gaming. Using New Jersey as a precedent, online gaming is expected to cause minimal cannibalization of land-based casino revenues and foster potential international partnerships with existing online formats.

Question 4: Massachusetts Unemployment

The Economic and Demographic Analysis section details the employment and income trends in Massachusetts and the region. The following table shows the unemployment statistics of each of the three gaming regions defined for Massachusetts. Region C, which includes the subject property, saw the highest levels of unemployment (9.8%) during the recession. However, the region has made a strong recovery with unemployment now equal to that of Region B and slightly

¹ HUMPHREYS, BRAD R., PEREZ, LEVI, Who Bets on Sports? Characteristics of Sports Bettors and the Consequences of Expanding Sports Betting Opportunities. *Estudios de Economía Aplicada*, vol. 30, no. 2, 2012, pp. 579-597

below Region A. Region C also has the second highest labor force, including nearly 31,000 people still unemployed.

Regional Unemployment Statistics				
Year	Civilian labor force	Employment	Unemployment	Unemployment rate (%)
Region A				
2009	2,346,396	2,165,368	181,028	7.7
2010	2,390,487	2,205,195	185,292	7.8
2011	2,388,063	2,228,518	159,545	6.7
2012	2,405,584	2,257,518	148,066	6.2
2013	2,428,922	2,278,217	150,705	6.2
2014	2,468,292	2,338,069	130,223	5.3
2015	2,488,537	2,378,669	109,868	4.4
2016	2,510,349	2,420,852	89,497	3.6
2017	2,544,821	2,458,120	86,701	3.4
Region B				
2009	426,331	390,982	35,349	8.3
2010	414,298	376,632	37,666	9.1
2011	410,677	377,150	33,527	8.2
2012	410,067	379,085	30,982	7.6
2013	410,362	378,791	31,571	7.7
2014	414,139	386,310	27,829	6.7
2015	414,579	391,153	23,426	5.7
2016	413,380	394,216	19,164	4.6
2017	416,702	398,287	18,415	4.4
Region C				
2009	697,661	632,658	65,003	9.3
2010	675,300	608,990	66,310	9.8
2011	670,574	612,091	58,483	8.7
2012	669,511	615,929	53,582	8.0
2013	673,548	619,788	53,760	8.0
2014	683,811	637,434	46,377	6.8
2015	685,122	646,050	39,072	5.7
2016	687,687	656,044	31,643	4.6
2017	695,649	665,073	30,576	4.4

Source: Bureau of Labor Statistics, The Innovation Group

Question 5: Casino Skilled Labor Supply

A survey of Plainridge employees conducted in 2017 demonstrates that casino employment is comprised mainly of workers already residing within commuting distance: a mixture of previously employed local residents looking for a better opportunity or the ability to work closer to home, along with previously unemployed local residents. The percentage of workers who moved to take the position with Plainridge was a small percentage of the staff. Furthermore, most casino workers had not had prior casino work experience.

Plainridge Casino Source of Workforce		
	# of Responses	Percentage
<i>Prior Employment status:</i>		
Unemployed	162	15.5%
Employed Part-time	363	34.7%
<i>Underemployed</i>	189	18.1%
Employed Full-time	522	49.9%
Total	1,047	100.0%
<hr/>		
<i>Reason for taking the position</i>		
Job closer to home	305	29.1%
<hr/>		
<i>Other results</i>		
No prior casino experience	902	86.2%
Moved to take the position	75	7.2%

New Employee Survey at Plainridge Park Casino: Analysis of First Two Years of Data Collection
University of Massachusetts Donahue Institute, Economic and Public Policy Research Group, May 10, 2017

This suggests the need for training strategies as new casinos enter the regional market. The New Casino Market Training Strategies section at the end of this report discusses training strategies for new gaming markets, with emphasis on markets that may require specialized training to reach employment forecast targets. The strategies include:

- Work force research
- Early-stage job fairs
- Partnering with local universities and vocational schools
- Intensive “on-the-job” training

INTRODUCTION

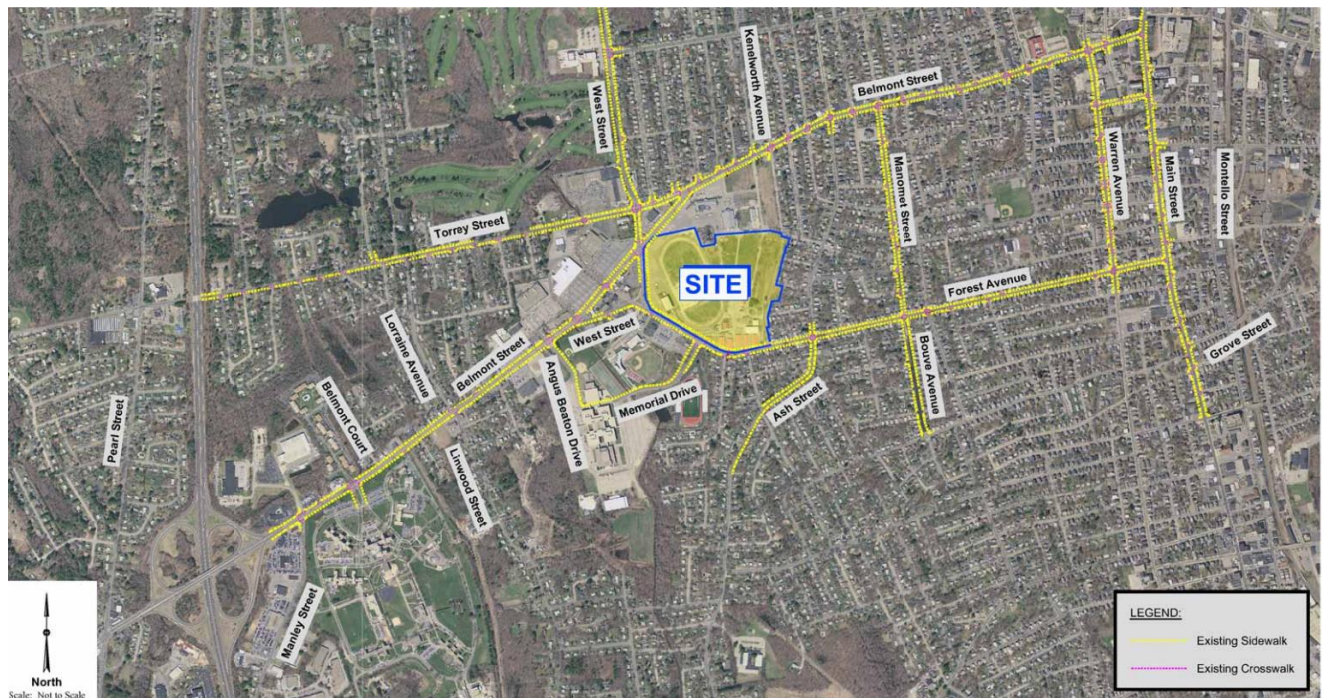
The Innovation Group was retained by Rush Street Gaming, LLC to complete a Gaming Market Analysis for the proposed casino in Brockton. Specifically, this analysis includes top-line gaming revenue projections for the first five years of operations. The casino is to be developed at the site of the Brockton Fairgrounds. The findings and conclusions in this report are based, in part, on the following major assumptions:

- The proposed property will be developed as a quality facility with 250 hotel rooms and complementary amenities;
- The Brockton casino shall feature 2,100 Class III slots, 100 house-banked games and a 24-table poker room;
- The level of competition in the local gaming market will remain static with no new developments anticipated to come online throughout the projection period unless otherwise noted in this report;
- An aggressive marketing program will be employed at the proposed casino targeting certain-appropriate gamers in the region;
- An experienced and professional management team will operate the gaming facility; and
- Economic conditions remain stable in line with current trends as discussed herein.

Site Analysis

The proposed casino is located in City of Brockton approximately 25 miles south of Boston in southeastern Massachusetts. The site is situated along Belmont Street, West Street, and Forest Avenue at the Brockton Fairgrounds on the outskirts of the city.

The development is 1.5 miles from Route 24, a six-lane expressway connecting to south Boston via I-93 in the north and the Cape Cod via I-495 in the south. The casino will be situated on a 45-acre property facing the intersection of Belmont and West Streets. There are other commercial developments adjacent to the property including shopping centers and a few stand-alone restaurants.



ECONOMIC AND DEMOGRAPHIC ANALYSIS

This section assesses specific economic and demographic characteristics within the Brockton that have the ability to affect future demand for gaming and hospitality. The analysis will evaluate the area's potential to draw new sources of leisure demand as well as continuing its support of existing facilities in the area.

Some of the factors we analyzed, including population, income, and employment trends, have implications for the participation rates and growth forecasts utilized in the gaming market analysis. Massachusetts and National statistics were used as benchmarks to provide context for local trends.

Population

For the purposes of the economic/demographic analysis, we assessed the population within a two-hour driving distance of the Brockton location in Massachusetts in four time bands: 0-30 minutes, 30-60 minutes, 60-90 minutes, and 90-120 minutes. Drive times were used as opposed to simple concentric rings because the site's adjacency to interstates will create market areas that extend beyond those of a regular ring pattern.

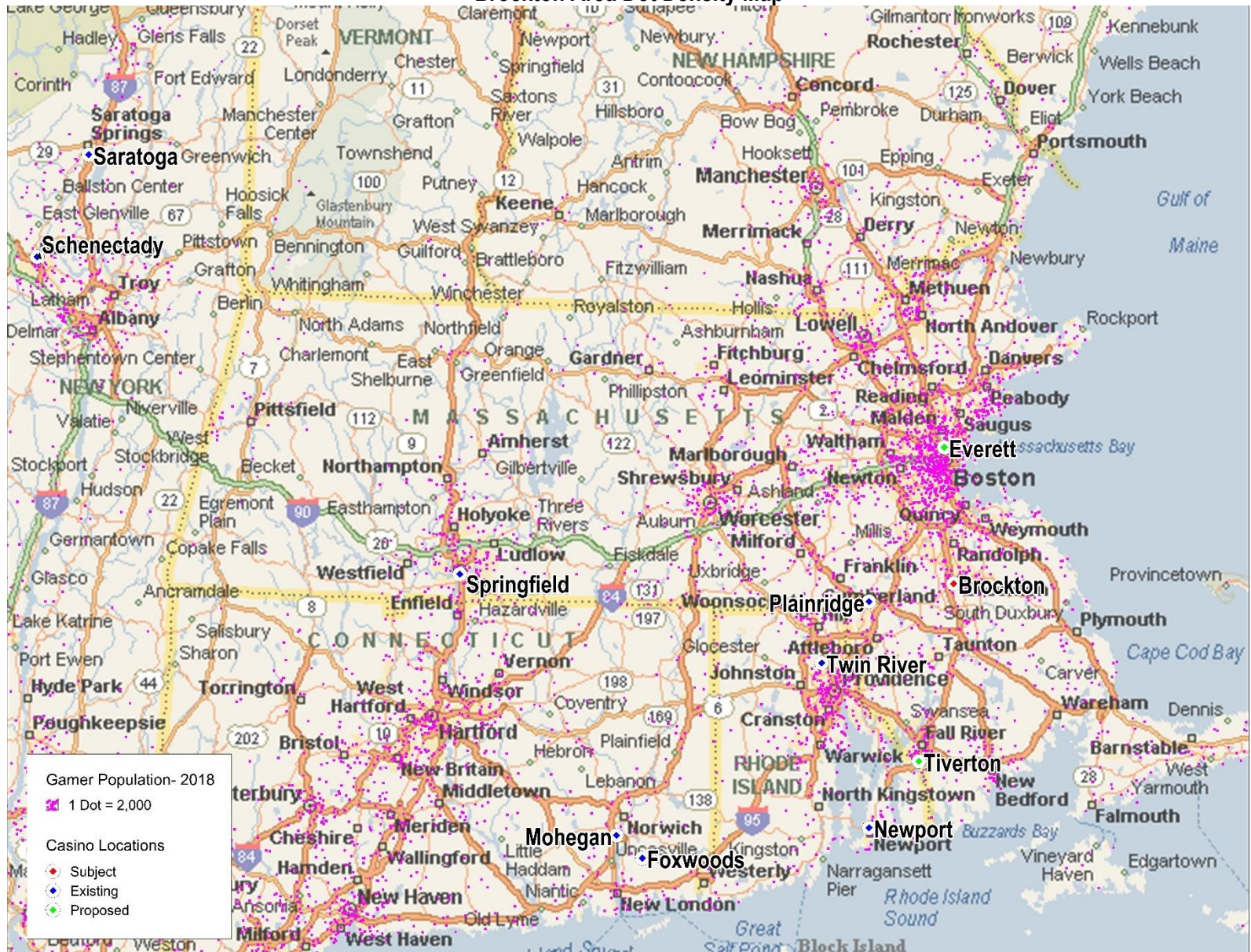
Total Population

The 0-30 minute drive ring for Brockton is least populated of the four drive rings. The largest population base belongs to the 30-60-minute drive ring which includes the City of Boston. While the other drive rings have larger population bases, the 0-30-minute drive ring has the largest Compound Annual Growth rate (CAGR) over the next five years of the studied areas and is the only one expected to outpace the growth rate of Massachusetts. The national growth rate has been largely driven by Hispanic immigration, a trend Massachusetts was mostly immune to.

Total Population					
Ring	2010	2018	2023	CAGR 2010-2018	CAGR 2018-2023
0-30 min	1,139,101	1,203,030	1,243,492	0.7%	0.7%
30-60 min	4,092,163	4,296,886	4,422,384	0.6%	0.6%
60-90 min	2,131,964	2,191,609	2,235,002	0.3%	0.4%
90-120 min	2,183,469	2,192,451	2,206,736	0.1%	0.1%
Area Total	9,546,697	9,883,976	10,107,614	0.4%	0.4%
<i>Massachusetts</i>	6,547,629	6,864,966	7,071,748	0.6%	0.6%
<i>National</i>	308,745,538	326,533,070	337,947,861	0.7%	0.7%

Source: IXPRESS/Nielsen Claritas; The Innovation Group

Brockton Area Dot Density Map



Gamer Population

People aged 21 and over account for 75.3% of the population within the 0-30-minute drive ring. This is slightly above the state average of 75.2% and the national average of estimated 73.2%. The County of Plymouth is more in the line with state and national figures at 73.6%. The adult population within two hours of the Brockton site is expected to increase by 0.7% from 2018-2023. On average, the study area's adult population will grow at a rate slightly below the national and statewide averages. Notably, the adult population in the innermost ring is the smallest in terms of total population, however it is expected to grow at the highest rate of the studied areas from 2018-2023.

Population Over 21 Yrs.					
Ring	2018	% of Total Population	2023	% of Total Population	CAGR 2018-2023
0-30 min	905,875	75.3%	948,107	76.3%	0.9%
30-60 min	3,227,669	75.1%	3,350,788	75.8%	0.8%
60-90 min	1,659,045	75.7%	1,716,830	76.8%	0.7%
90-120 min	1,643,858	75.0%	1,679,019	76.1%	0.4%
Area Total	7,436,447	75.2%	7,694,744	76.1%	0.7%
<i>Massachusetts</i>	5,160,872	75.2%	5,374,411	76.0%	0.8%
<i>National</i>	239,003,144	73.2%	249,303,590	73.8%	0.8%

Source: IXPRESS/Nielsen Claritas, The Innovation Group

2018 Population by Race and Ethnicity

The racial composition of the population in the City of Brockton is fairly distinct from that of the national population. 68% of the population in the immediate drive ring around Brockton identifies as White Alone as compared to a national average of 70%, and over 16% of the population identifies as Black or African American compared to 12.8% in the nation. This drive ring also differs from the remaining three areas where as much as 87% of the total population identifies as White Alone in the instance of the 60-90- minute drive ring area. The State of Massachusetts is generally in line with the total Area Total demographics, where both rank below national averages for all races except Asian Alone. Although the 0-30-minute drive ring is diverse, those who identified as Native American and Alaska Native, Asian Alone and Hispanic or Latino all ranked lower than national averages.

2018 Population by Single Race Classification or Ethnicity

Ring	Total Pop	White Alone	Black or African American Alone	American Indian and Alaska Native Alone	Asian Alone	Native Hawaiian & Other Pacific Islander Alone	Some Other Race Alone	Two or More Races	Hispanic or Latino
0-30 min	1,203,030	68.1%	16.1%	0.3%	7.6%	0.0%	4.5%	3.4%	8.2%
30-60 min	4,296,886	75.2%	6.3%	0.4%	7.6%	0.0%	6.8%	3.6%	14.2%
60-90 min	2,191,609	86.8%	3.3%	0.3%	4.0%	0.0%	2.9%	2.6%	7.8%
90-120 min	2,192,451	78.1%	8.6%	0.4%	3.9%	0.1%	6.0%	2.9%	13.9%
Area Total	9,883,976	77.5%	7.4%	0.4%	6.0%	0.0%	5.5%	3.2%	12.0%
Massachusetts	6,864,966	76.5%	7.5%	0.3%	6.9%	0.0%	5.6%	3.2%	12.0%
National	326,533,070	70.0%	12.8%	1.0%	5.7%	0.2%	6.8%	3.4%	18.2%

Source: IXPRESS/Nielsen Claritas; The Innovation Group

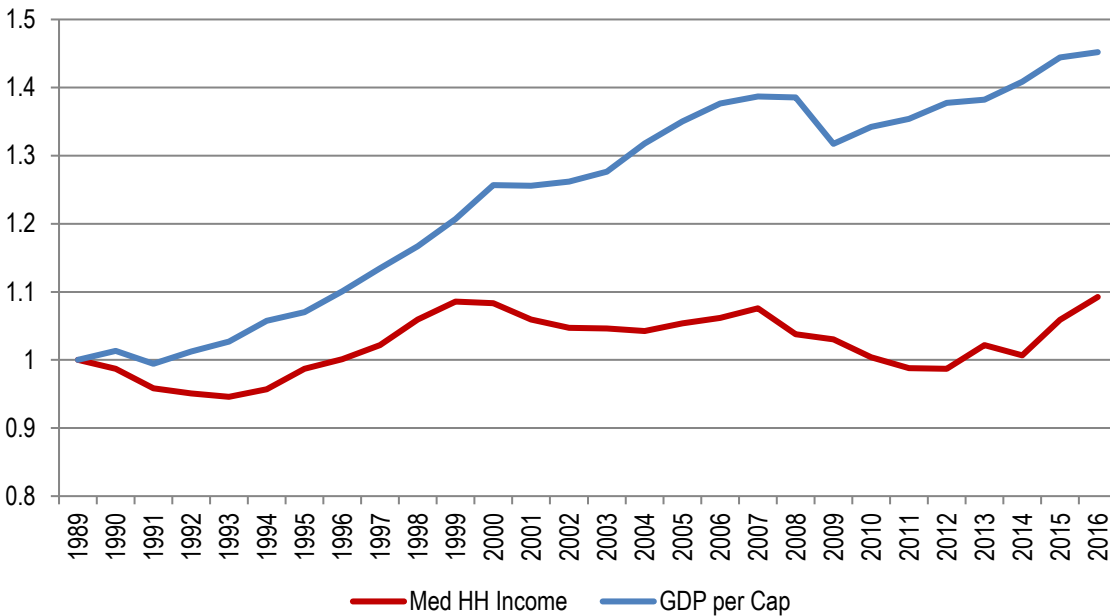
Income

Income is an important indicator of a region's economic well-being and the discretionary spending power of its residents. The following section analyzes national, regional, and local trends in income and discusses their potential impact on Brockton's development options.

National and Regional Trends

During the past decade household income lagged far behind gains in productivity. The widening gap in the following chart illustrates that American households effectively have not been earning enough to purchase the goods and services they have been producing. Consumer expenditures on gaming and other leisure activities remained strong into 2007 largely on the basis of rising home values; however, gaming revenues started a steady and pronounced decline once the housing bubble burst and the financial sector collapsed. Although 2013 saw a slight uptick in real income (0.35%), the first since 2007, GDP grew by over 2%, thereby increasing the gap.

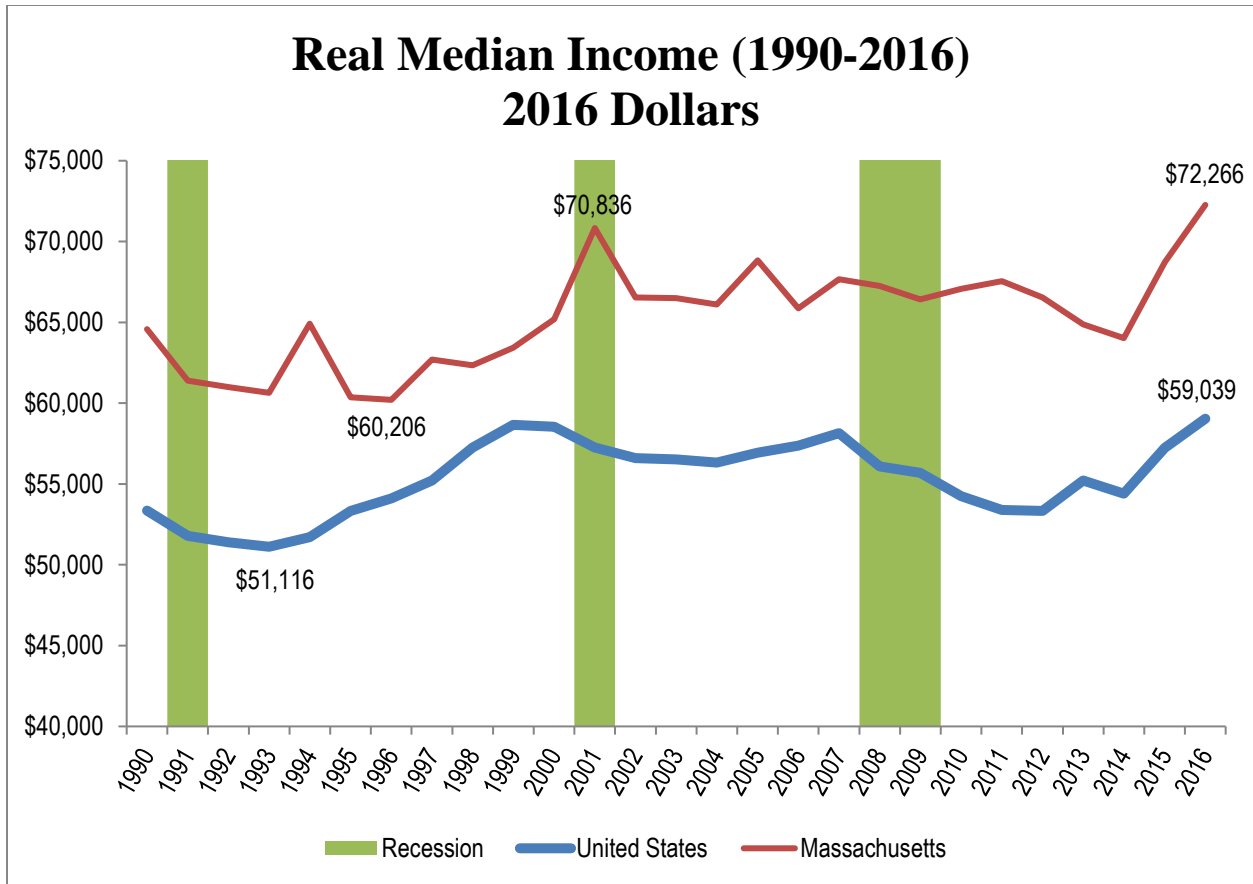
Real Growth in GDP and HH Income (Indexed to 1989)



Source: Bureau of Labor Statistics

Median household income declined for the better part of a decade, even before the recession hit in 2008, real median income was lower than it was ten years earlier, as incomes declined from 2000 through 2004 and then again from 2007 to 2012. However, starting in 2014 income has grown at a rate faster than GDP per Capita, a positive sign.

Massachusetts is one of the wealthier states in the U.S. The following graph shows that real median income in Massachusetts has exceeded that of the national average for the past 25 years.



Source: US Census Bureau, Current Population Survey, 1990-2016, Annual Social and Economic Supplements

Local Ring Income

Average Household Income

Average household income (A.H.I) in the Brockton region is generally aligned with Massachusetts averages and well above the nation as a whole. Of all the drive-time rings surrounding the subject property, the 90-120-minute ring had the lowest AHI as of 2018, although it was still well above the national average. The 0-30 and 30-60-minute drive rings had the highest AHI with incomes higher than the statewide averages. Additionally, these two drive rings have seen the largest growth from 2000-2018 and are expected to have the highest growth over the next 5 years. Every has an expected growth rate from 2018-2023 above the national averages.

Average Household Income					
Ring	2000	2018	2023	CAGR 2000-2018	CAGR 2018-2023
0-30 min	\$66,718	\$111,279	\$124,307	2.9%	2.2%
30-60 min	\$67,531	\$111,421	\$123,912	2.8%	2.1%
60-90 min	\$65,705	\$105,823	\$117,109	2.7%	2.0%
90-120 min	\$58,401	\$91,817	\$101,641	2.5%	2.1%
Area Total	\$64,969	\$105,813	\$117,594	2.7%	2.1%
Massachusetts	\$66,671	\$109,430	\$121,656	2.8%	2.1%
National	\$56,644	\$86,278	\$95,107	2.4%	2.0%

Source: IXPRESS/Nielsen Claritas, The Innovation Group

2018 Median Income by Race and Ethnicity

Race and/or ethnicity play a role in the gaming environment. Some, such as Asians, have a high propensity to gamble, while others may fall into the other end of the spectrum. The Census Bureau defines race as a person's self-identification with one or more social groups. An individual can report as White, Black or African American, Asian, American Indian and Alaska Native, Native Hawaiian and Other Pacific Islander, or some other race. Ethnicity is a population group whose members identify with each other on the basis of common nationality or shared cultural traditions. Meaning a person that is Hispanic or Latino can also identify as a race.

The following table shows median household income by race and ethnicity, as it compares to total median incomes in the area. Median income is typically lower than average income but is often a better indicator because it is less vulnerable to statistical outliers, such as extremely high incomes in a small number of households.

Nationally, Asian households have the highest median income at 39.2% higher than the national median income of \$61,045. White households have incomes 6.8% higher than the national median income, while African American, American Indian, and Hispanic households have considerably lower household income than other groups.

Discrepancies exist in the median household incomes in the Brockton area for certain ethnicities compared to the national averages, but generally remain in line with Massachusetts trends. Black or African American households have incomes just 64% of the average vs. 67% nationally, while Asian households have incomes 18.4% higher than the average. White Alone households have incomes 7.8% higher than the area average, which is both above the national average but slightly below that of Massachusetts. Hispanic or Latino households have median incomes that are in line with the statewide average of 54.3% but are considerably lower than the national average of 78.7%.

2018 Median Household Income by Single Race Classification or Ethnicity (Indexed)

Ring	Total	White Alone	Black or African American Alone	American Indian and Alaska Native Alone	Asian Alone	Native Hawaiian and Other Pacific Islander Alone	Some Other Race Alone	Two or More Races	Hispanic or Latino	Not Hispanic or Latino
0-30 min	\$82,283	111.5%	67.6%	54.3%	106.0%	100.7%	52.3%	80.0%	57.0%	103.4%
30-60 min	\$77,099	109.2%	58.4%	50.1%	119.1%	76.0%	51.9%	72.7%	56.5%	107.5%
60-90 min	\$78,525	103.5%	64.2%	59.1%	121.4%	88.3%	52.1%	68.9%	54.6%	103.6%
90-120 min	\$68,783	107.2%	69.1%	59.8%	115.7%	89.8%	44.3%	78.9%	49.4%	106.3%
Area Total	\$75,715	107.8%	64.1%	54.4%	118.4%	83.9%	49.9%	74.8%	54.3%	106.2%
Massachusetts	\$77,248	108.1%	63.5%	54.8%	118.7%	88.0%	49.4%	75.1%	54.3%	106.3%
National	\$61,045	106.8%	66.8%	70.2%	139.2%	97.8%	75.4%	91.5%	78.7%	103.7%

Source: IXPRESS/Nielsen Claritas, The Innovation Group

Employment

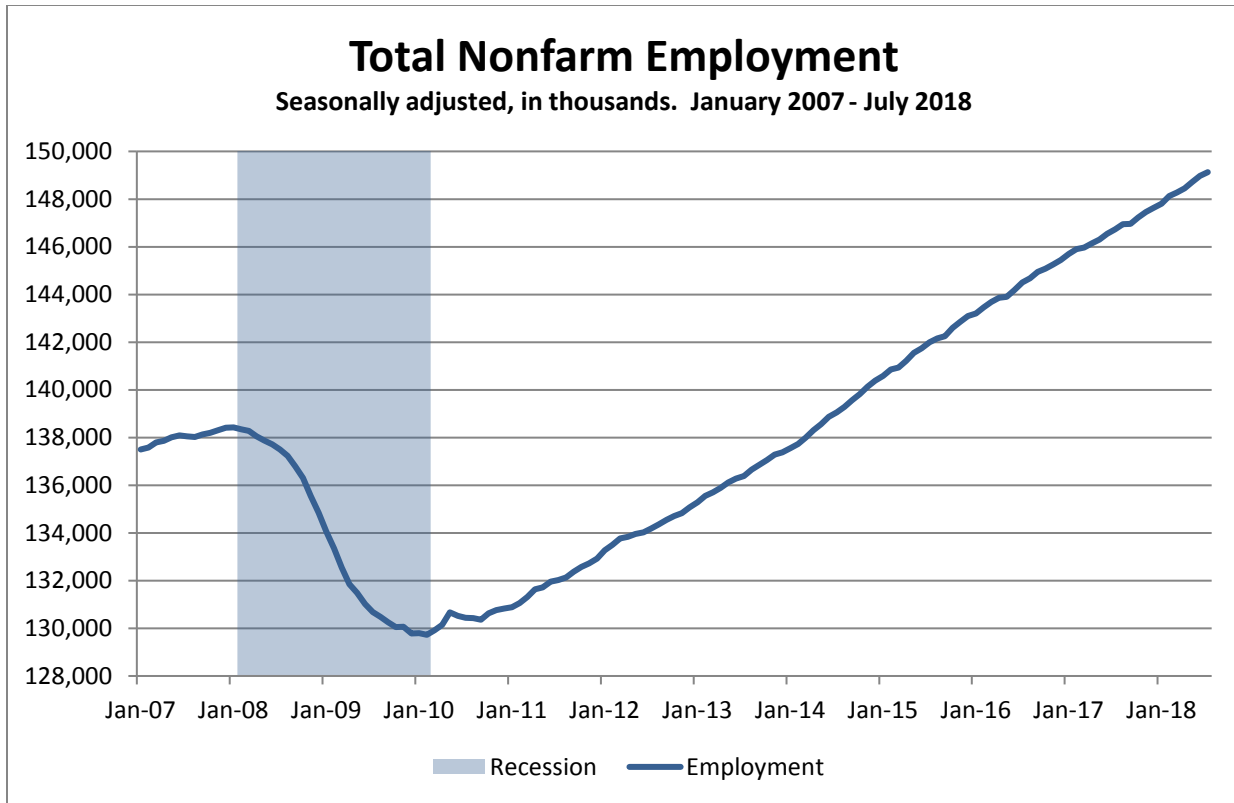
In a white paper assessment of the impact that the Great Recession has had on the gaming industry nationwide, the Innovation Group concluded that employment decline is the single greatest factor impacting gaming revenues. Therefore, it is critical to evaluate the employment and income trends in the regional market to assess the prospects for gaming spending in the market area.

National Trends

CES occasionally updates historical employment numbers. The following numbers are correct as of July 2018.

The unemployment rate is useful in comparing a state with the national average. However, a declining unemployment rate can result from workers dropping out of the labor force altogether, so it does not necessarily equal economic recovery. Employment is the better measure of recovery.

In terms of employment the Great Recession began at the national level in February 2008, with employment peaking in January 2008. Since then, the U.S. suffered 24 months of declining employment; during the five-month period of November 2008-March 2009 the average monthly decline was 604,000. Employment bottomed out in February 2010 at a low of 129.3 million. Since then it has steadily grown, and now stands at 149.1 million, above (7.7%) its pre-recession peak. However, the working age population has grown by 4% over the same period.

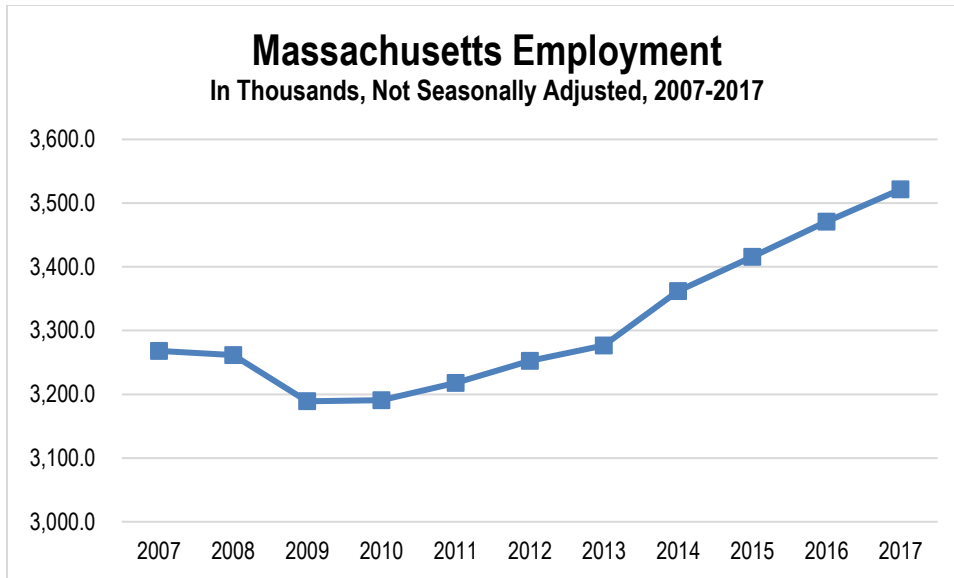


Source: Bureau of Labor Statistics, CES series; most recent month data is preliminary

Regional Labor Force

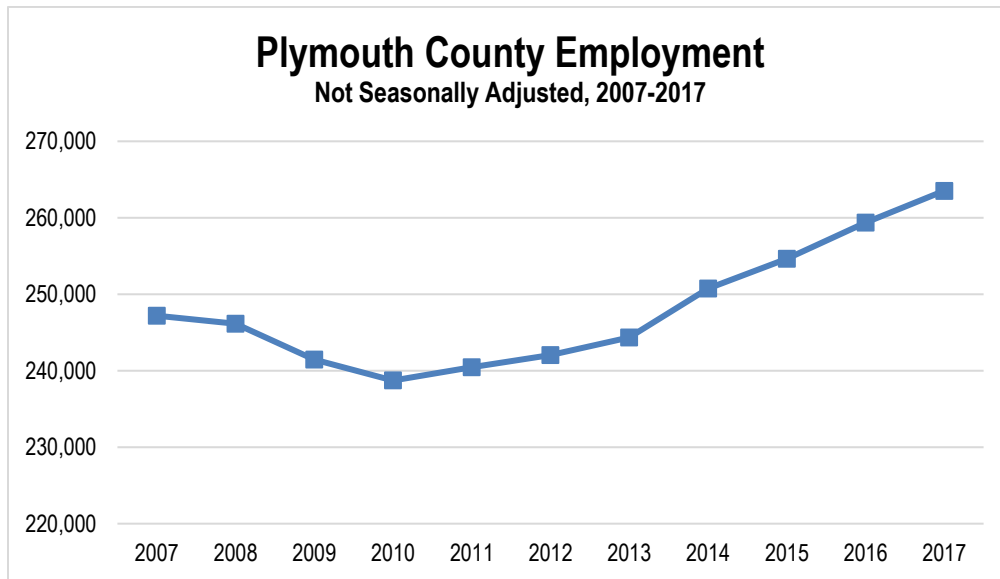
The Innovation Group analyzed employment in two significant regions: Massachusetts as a benchmark and Plymouth County.

The recession hit distinct geographic areas at different times, and recovery has not been consistent in terms of scope or timing. The Bureau of Labor and Statistics provided non-seasonally adjusted employment data for these areas, and therefore the information was analyzed on a yearly basis. In Massachusetts, the recession began in 2008, the same year it occurred on the national level. The chart below illustrates that Massachusetts began to recover in 2009, prior to the time the Nation began to recover in 2010. The recovery in Massachusetts began with a slow and steady climb from 2009 to 2013; however, the recovery has increased more dramatically from 2013 to the current year. July 2013 marked the first month that employment reached the pre-recession levels that existed in Massachusetts. 2017 employment figures were 6.4% higher than those of the pre-recession peak.



Source: Bureau of Labor Statistics, LAUS series

The recession in Plymouth County occurred around the same time as the Massachusetts statewide, but the recovery, as determined by employment, showed a slower rebound. The recession caused a decline in jobs from 2008 to 2010 in Plymouth County. However, once Plymouth County began to recover from the recession, the growth in employment mimicked the growth statewide with a steady increase until 2013 and a more dramatic increase from 2013-2017. As of 2017, employment figures in Plymouth County are 12.5% higher than those of the pre-recession peak.



Source: Bureau of Labor Statistics, LAUS series

Unemployment

The table below depicts historical unemployment statistics for Plymouth County and Massachusetts. The annual unemployment rate continually increased from 2009 through to 2010, peaking at 8.3% in Massachusetts and 8.9% in Plymouth County, but they have since recovered. Currently, both unemployment rates sit below 4% while labor force statistics continue to increase.

Average Annual Unemployment Statistics				
Year	Civilian labor force	Employment	Unemployment	Unemployment rate (%)
Plymouth County				
2009	263,807	241,447	22,360	8.5
2010	262,176	238,720	23,456	8.9
2011	260,735	240,474	20,261	7.8
2012	260,295	242,063	18,232	7.0
2013	262,695	244,330	18,365	7.0
2014	266,779	250,756	16,023	6.0
2015	268,191	254,630	13,561	5.1
2016	270,417	259,364	11,053	4.1
2017	274,224	263,530	10,694	3.9
Massachusetts				
2009	3,470,382	3,189,010	281,372	8.1
2010	3,480,083	3,190,818	289,265	8.3
2011	3,469,308	3,217,754	251,554	7.3
2012	3,485,161	3,252,531	232,630	6.7
2013	3,512,827	3,276,792	236,035	6.7
2014	3,566,237	3,361,811	204,426	5.7
2015	3,588,241	3,415,874	172,367	4.8
2016	3,611,418	3,471,112	140,306	3.9
2017	3,657,173	3,521,482	135,691	3.7

Source: Bureau of Labor Statistics; The Innovation Group

Additionally, the Expanded Gaming Act of 2011 allowed the Massachusetts Gaming Commission to oversee up to three casinos across the state. The act divided the 14 counties into three regions. Region A includes the counties of Suffolk, Middlesex, Essex, Norfolk, and Worcester. Region B includes the counties of Hampshire, Hampden, Franklin, and Berkshire, and Region C includes Bristol, Plymouth, Nantucket, Dukes, and Barnstable counties. The following map shows the layout of the three regions.

Massachusetts Gaming Regions



Source: Massachusetts Gaming Commission

The following table includes the unemployment statistics of each region. Region C, which includes the subject property, saw the highest levels of unemployment (9.8%) during the recession. However, the region has made a strong recovery with unemployment now equal to that of Region B and slightly below Region A. Region C also has the second highest labor force.

Regional Unemployment Statistics

Year	Civilian labor force	Employment	Unemployment	Unemployment rate (%)
Region A				
2009	2,346,396	2,165,368	181,028	7.7
2010	2,390,487	2,205,195	185,292	7.8
2011	2,388,063	2,228,518	159,545	6.7
2012	2,405,584	2,257,518	148,066	6.2
2013	2,428,922	2,278,217	150,705	6.2
2014	2,468,292	2,338,069	130,223	5.3
2015	2,488,537	2,378,669	109,868	4.4
2016	2,510,349	2,420,852	89,497	3.6
2017	2,544,821	2,458,120	86,701	3.4
Region B				
2009	426,331	390,982	35,349	8.3
2010	414,298	376,632	37,666	9.1
2011	410,677	377,150	33,527	8.2
2012	410,067	379,085	30,982	7.6
2013	410,362	378,791	31,571	7.7
2014	414,139	386,310	27,829	6.7
2015	414,579	391,153	23,426	5.7
2016	413,380	394,216	19,164	4.6
2017	416,702	398,287	18,415	4.4
Region C				
2009	697,661	632,658	65,003	9.3
2010	675,300	608,990	66,310	9.8
2011	670,574	612,091	58,483	8.7
2012	669,511	615,929	53,582	8.0
2013	673,548	619,788	53,760	8.0
2014	683,811	637,434	46,377	6.8
2015	685,122	646,050	39,072	5.7
2016	687,687	656,044	31,643	4.6
2017	695,649	665,073	30,576	4.4

Source: Bureau of Labor Statistics, The Innovation Group

Major Employers

The following is list of largest employers in Brockton/Plymouth County. Largest employers include those in the private sectors such as WB Mason as well as government agencies, healthcare facilities and education facilities such as the City of Brockton, Signature Healthcare and Massasoit Community College.

Largest Employers - Brockton

Company	Industry
Barbour Corporation	Manufacturer
Baypointe Rehabilitation Center	Healthcare
Brockton Area Transit Authority	Transportation
Brockton Housing Authority	Housing
City of Brockton	Government
Columbia Gas of Massachusetts	Energy
Concord Foods	Food/Retail
Good Samaritan Medical Center	Healthcare
Massasoit Community College	Education
Montello Heel Manufacturing	Manufacturer
Old Colony YMCA	Recreation
Pharmerica	Pharmaceutical
Signature Healthcare	Healthcare
T.F. Kinnealy & Co., Inc.	Food/Retail
UPS	Postal Service
V.A. Medical Center	Healthcare
W.B. Mason Co., Inc.	Retail
Westgate Mall	Retail

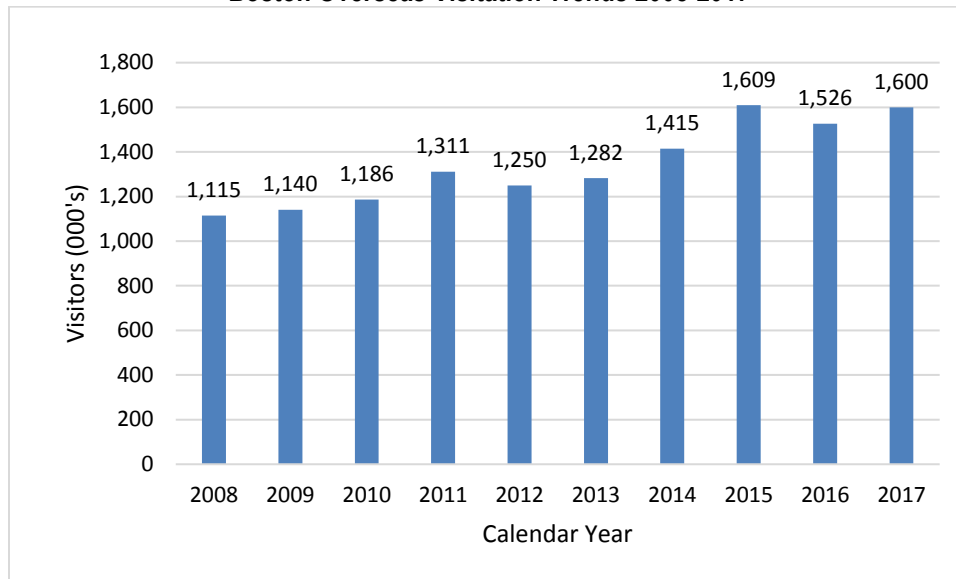
Source: Metro South Chamber of Commerce

Tourism

The City of Brockton is located in Plymouth County between two major tourist destinations in Massachusetts, Cape Cod and Boston. As a result, the casino is strategically located to capture existing tourism to the region.

Boston has seen overseas visitation increase by nearly 100% since 2005 and it is currently ranked one of the top ten international tourist destinations in North America. In 2017, the Boston region received around 20 million tourists, of which 1.6 million were international tourists.

Boston Overseas Visitation Trends 2008-2017



Source: Greater Boston Convention and Visitors Bureau

The following table highlights overseas visitation to Boston in 2017. While overseas visitors account for only 8% of overall visitation to the Boston area, they account for nearly 15% of tourism spending. Although a majority of international trips to the region tend to be for leisure purposes, Boston does benefit from a relatively balanced market mix between commercial, group, and leisure visitors.

China has become the largest source of international visitors to the Boston area, at over 250 thousand and accounted for 38% of overseas expenditures in 2017. Additionally, Chinese visitors spend over double the amount per stay of all international visitors at nearly \$5,000.

2017 Overseas Visitation to Boston

	China	United Kingdom	Germany	Total Overseas
Visitors	251,000	205,000	110,000	1,600,000
Visitor Spend (MM's)	\$1,249.7	\$274.4	\$121.5	\$3,285.0
Average Spend Per Stay	\$4,979	\$1,339	\$1,105	\$2,053

Source: Greater Boston Convention and Visitors Bureau

Boston is renowned for its historical and cultural facilities as well as world-class educational institutions. The greater Boston area also has a thriving theater scene, several museums and art galleries, and four major league sports teams. The following table lists the top museum attractions in Boston for 2017, ranked by visitation. The top two destinations, Museum of Science and New England Aquarium, are both located in central Boston on the waterfront.

Top Ranked Museums by Attendance

Rank	Name	2017 Attendance
1	New England Aquarium	1,418,949
2	Museum of Science	1,381,490
3	Museum of Fine Arts, Boston	1,226,431
4	Zoo New England	584,073
5	Boston Children's Museum	578,632
6	Old North Church	547,385

Source: Greater Boston Convention and Visitors Bureau

The greater Boston area also receives a significant amount of domestic tourism, with roughly 63% originating from the New England region. The following table summarizes the economic impact of domestic tourism to the Greater Boston area and Plymouth County. Domestic tourism has a total tax receipt impact of \$650 million between the two areas.

Impact of Domestic Tourism- 2017

	Greater Boston	Plymouth County
Expenditures (MM's)	\$10,946.2	\$604.9
Payroll (MM's)	\$2,426.5	\$127.1
Employment (000's)	65.9	4.0
State Tax Receipts (MM's)	\$367.6	\$31.2
Local Tax Receipts (MM's)	\$222.5	\$28.7

Source: Massachusetts Office of Travel and Tourism

Plymouth County is included in the Boston Metropolitan Statistical Area (MSA) and stretches south along the coast to Cape Cod. The county was established over 300 years ago and is home to some of the earliest settlements and historically significant properties in the United States.

Brockton is the county seat and also the most populated city in Plymouth County. Brockton's largest attractions are Campanelli Stadium and the Westgate Mall shopping center. The stadium opened in 2002 for the Brockton Rox baseball team with a capacity of 6,000, making it an ideal venue for other large scale events and concerts. The city also paid tribute to its most famous resident, undefeated heavyweight boxer Rocky Marciano, by erecting a 20ft statue of the fighter at Champion Park near Brockton High School and Campanelli Stadium.

Traffic

As previously noted, the proposed site is located 1.5 miles east from Exit 17 off Route 24, a six-lane expressway that connects to Interstates I-93 and I-495. The Massachusetts Department of Transportation listed the most current data for these routes as 2015. Route 24 is generally a north-south roadway that provides the greatest access to the site and will likely account for the majority of trips. As seen in the table below, the AADT (Average Annual Driving Traffic) on Route 24 has increased slightly from 102,744 in 2014 to 105,152 in 2015 and is still significantly higher than traffic on I-495 to the south. The AADT on I-93 in southern Boston grew by 7% in 2015 reaching 172,586 near the Route 24 interchange.

AADT Near Brockton

Street	2014	2015	Growth
Route 24 north of Belmont	102,744	105,152	2.3%
I-93 near MA-24 Interchange	172,586	174,090	0.9%
I-495 near MA-24 Interchange	69,877	74,703	6.9%

Source: Massachusetts Department of Transportation

COMPETITIVE ENVIRONMENT

Existing competition for the proposed casino in Brockton will come mainly from casinos in neighboring states, specifically Rhode Island and Connecticut. Twin River and Newport casinos are less than an hour from Brockton, and the Newport casino will be closed as of August 28th, 2018 and the license will transfer to Tiverton Casino Hotel which is slightly closer to Brockton. Additionally, Foxwoods and Mohegan are twice the distance but two of the largest casinos in the U.S. outside of Las Vegas, NV.

More distant competitors include casinos in New York and Maine.

In addition to the existing facilities, for the purposes of this analysis, two facilities in the Catskill/Hudson Valley region and two casinos in Massachusetts, as well as a proposed casino in East Windsor, Connecticut have also been included as competitors for the proposed casino in Brockton.

Gaming revenue described in this section is net of free play.

The following table presents all of the existing competitive casinos in the Brockton region:

Existing Competitive Casinos				
Location	Name	Machines	Tables	Positions
Ledyard, CT	Foxwoods Casino	6,088	441	8,734
Montville, CT	Mohegan Sun Resort	5,613	350	7,713
Yonkers, NY	Empire City at Yonkers Raceway	5,349	0	5,349
Jamaica, NY	Resorts World Casino at Aqueduct	5,005	0	5,005
Lincoln, RI	Twin River Casino	4,220	80	4,700
Saratoga Springs, NY	Saratoga Gaming and Raceway	1,782	0	1,782
Schenectady, NY	Rivers Casino and Resort	1,150	82	1,642
Plainville, MA	Plainridge Park Casino	1,250	0	1,500*
Monticello, NY	Monticello Casino and Raceway	1,110	0	1,110
Newport, RI	Newport Grand Slots Casino	1,097	0	1,097
Bangor, ME	Hollywood Casino Hotel & Raceway Bangor	921	16	1,017
Oxford, ME	Oxford Casino	811	22	943
Total	12	34,396	991	40,592

Source: The Innovation Group, Various Gaming Boards and Commissions, CasinoCity.com; *Note: Plainridge has electronic tables that count as one machine but that bring its seat count to approximately 1,500 positions.

Existing

This section details the eleven existing competitors within Brockton's gaming market categorized by state.

Connecticut

Mohegan Sun Casino

The Mohegan Sun Casino and Entertainment complex opened in October 1996. The Mohegan Sun is located on a 185-acre site on the Tribe's reservation overlooking the Thames River with direct access from Interstate 395 and Connecticut Route 2A. Mohegan Sun is approximately 100 miles from Brockton, Massachusetts. In fiscal 2002, the property completed a major expansion of Mohegan Sun known as Project Sunburst, which included increased gaming, restaurant and retail space, an entertainment arena, an approximately 1,200-room luxury Sky Hotel Tower and approximately 100,000 square feet of convention space. In fiscal 2007 and 2008, the Sunrise Square and Casino of the Wind components of Project Horizon expansions were completed. The property now boasts 3.1 million square feet of gaming, food and beverage, and entertainment space.

Mohegan Sun's gaming revenues have been declining due to a combination of the effects from the national economic recession and the development of competitive facilities in Pennsylvania and the New York VLTs. The property currently offers 4,145 machines and 300 table games.

Mohegan Sun Casino Resort, Montville, CT Slot Performance Statistics

Year	Gaming Revenue	Change	Machines	Change	Win per Position	Change
2008	\$728,024,927		7,734		\$257	
2009	\$684,424,106	-6.0%	7,641	-1.2%	\$245	-4.6%
2010	\$649,020,622	-5.2%	6,964	-8.9%	\$255	4.0%
2011	\$633,815,234	-2.3%	6,440	-7.5%	\$270	5.6%
2012	\$576,794,502	-9.0%	6,276	-2.5%	\$252	-6.6%
2013	\$530,572,312	-8.0%	5,921	-5.7%	\$246	-2.5%
2014	\$483,559,414	-8.9%	5,693	-3.9%	\$233	-5.2%
2015	\$465,010,320	-3.8%	4,695	-17.5%	\$271	16.6%
2016	\$456,156,085	-1.9%	4,466	-4.9%	\$279	2.9%
2017	\$468,048,004	2.6%	4,145	-7.2%	\$309	10.8%

Source: Connecticut Gaming Board; The Innovation Group

Table revenue is not subject to revenue sharing and therefore is not reported through the Connecticut Gaming Board. However, the Mohegan Tribal Gaming Authority (MTGA) releases table game revenues in its reporting to the Securities and Exchange Commission. Altogether, gaming revenues at Mohegan Sun are approximately \$910 million in 2016, with table revenue accounting for about 35% of win.

Mohegan Sun Total Gaming Revenues (\$MMs)

	FY2016	FY2015	FY2014	FY2013	FY2012
Slot rev	\$592.1	\$582.5	\$582.1	\$618.7	\$675.1
Table rev	\$317.8	\$297.2	\$293.3	\$310.0	\$302.6
Total gaming rev	\$909.9	\$879.7	\$875.4	\$928.6	\$977.7
# of slots	5,267	5,268	5,470	5,553	6,038
# of tables	325	325	330	327	353
Table rev ratio	34.9%	33.8%	33.5%	33.4%	31.0%

Fiscal years ending Sept. 30

Foxwoods Casino

The Foxwoods Casino is located near the town of Ledyard, Connecticut along the Thames River in New London County approximately 95 miles from Brockton, Massachusetts. Foxwoods was founded in 1986 as a bingo hall and was later converted to a casino in 1993. The property features over 4.7 million square feet of gaming, food and beverage and entertainment space and is one of the largest casino resorts in the world. Foxwoods latest expansion, the MGM Grand at Foxwoods was a \$700 million addition in 2008.

Slot revenues continued to decline to \$728 million in the year 2008 from a total of \$783 million in the year 2007 despite the expansion; however, the expansion at the facility coincided with the national economic recession. Gaming revenues continued to decrease at the resort given the opening of competitive facilities and their amenities in Pennsylvania and the VLTS racinos in New York and the soft economy. However, 2017 saw its first year of growth in gaming revenue in over a decade. Foxwoods currently offers about 4,100 machines, and over 250 table games.

Foxwoods Casino, Ledyard, CT Slot Performance Statistics

Year	Gaming Revenue	Change	Machines	Change	Win per Position	Change
2008	\$728,024,927		7,734		\$257	
2009	\$684,424,106	-6.0%	7,641	-1.2%	\$245	-4.6%
2010	\$649,020,622	-5.2%	6,964	-8.9%	\$255	4.0%
2011	\$633,815,234	-2.3%	6,440	-7.5%	\$270	5.6%
2012	\$576,794,502	-9.0%	6,276	-2.5%	\$252	-6.6%
2013	\$530,572,312	-8.0%	5,921	-5.7%	\$246	-2.5%
2014	\$483,559,414	-8.9%	5,693	-3.9%	\$233	-5.2%
2015	\$465,010,320	-3.8%	4,695	-17.5%	\$271	16.6%
2016	\$456,156,085	-1.9%	4,466	-4.9%	\$279	2.9%
2017	\$468,048,004	2.6%	4,145	-7.2%	\$309	10.8%

Source: Connecticut Gaming Board; The Innovation Group

The following table shows fiscal years so slot revenue does not match the previous calendar-year tables above.

Foxwoods Total Gaming Revenues (\$MMs)

	FY2016	FY2015
Slot rev	\$481.4	\$483.1
Table rev	\$245.1	\$234.4
Total gaming rev	\$726.5	\$717.5
# of slots	5,807	5,808
# of tables	428	429
Table rev ratio	33.7%	32.7%

Fiscal years ending Sept. 30

Rhode Island

Twin River Casino

The Twin River Casino in Lincoln, Rhode Island is approximately 50 miles southwest of Brockton, located at the former Lincoln Greyhound Park off State Highway 146. The racetrack, just 10 minutes from downtown Providence, began offering video lottery terminals in 1992 and completed a \$220 million expansion in 2007 under new ownership. In 2012 voters approved a state referendum to allow live table games at the Twin River Casino.

The facility includes a 190,000 square foot gaming floor, 9 food and beverage options and a 29,000 square foot event center frequently hosting national acts and live boxing/MMA fights. The facility has a 135-room on-site hotel. The casino at Twin River currently offers guest over 4,200 slots, 80 gaming tables with a separate poker room and a simulcast racebook betting room.

Twin River Property Statistics

Year	Slot Revenue	Machines	Table Revenue	Table Games	Total Revenue	Change	Win per Position
2008	\$407,503,857	4,748			\$407,503,857		\$234.5
2009	\$399,662,955	4,741			\$399,662,955	-1.9%	\$231.0
2010	\$423,660,592	4,749			\$423,660,592	6.0%	\$244.4
2011	\$462,793,306	4,748			\$462,793,306	9.2%	\$267.1
2012	\$477,827,613	4,751			\$477,827,613	3.2%	\$274.8
2013	\$470,391,984	4,592	\$41,322,389	66	\$511,714,373	7.1%	\$281.1
2014	\$466,015,784	4,537	\$99,886,924	80	\$565,902,708	10.6%	\$309.0
2015	\$456,830,932	4,408	\$114,446,240	80	\$571,277,172	0.9%	\$320.2
2016	\$438,054,054	4,258	\$135,048,433	80	\$573,102,487	0.3%	\$330.5
2017	\$434,829,065	4,212	\$143,855,958	80	\$578,685,023	1.0%	\$337.9

Source: Rhode Island Lottery; The Innovation Group

Newport Grand Casino

Newport Grand Casino was located off the exit from the Claiborne Pell Newport Bridge on Aquidneck Island, approximately 50 miles south of Brockton. Formerly known as Newport Grand Slot parlor, Twin River Management Group finalized the purchase of this casino in July 2015 with intentions of relocating the gaming license to Tiverton, RI. Newport closed as of August 28th,

2018 and Tiverton opened on September 1st, 2018. Tiverton will be the closest competitor in terms of distance to Brockton.

The current facility has a 50,000 square foot gaming floor, two dining options and one lounge. The casino currently offers 1,097 slots and simulcast racebook betting for greyhound, horse and jai alai races across the country. Slot revenues at Newport Grand have declined over the last decade and while Twin River has expanded into table games, voters refused the state referendum to allow table games at this facility. However, the Tiverton Casino hotel will feature 32 table games and an 84-room hotel.

Newport Property Statistics				
Year	Machines	Slot Revenue	Change	Win per Position
2008	1,244	\$67,546,725		\$148.4
2009	1,484	\$61,505,924	-8.9%	\$113.5
2010	1,182	\$53,297,539	-13.3%	\$123.6
2011	1,097	\$50,071,495	-6.1%	\$125.0
2012	1,093	\$50,131,054	0.1%	\$125.3
2013	1,093	\$46,350,614	-7.5%	\$116.2
2014	1,097	\$45,179,615	-2.5%	\$112.9
2015	1,097	\$44,543,308	-1.4%	\$111.3
2016	1,096	\$46,006,384	3.3%	\$114.7
2017	1,097	\$46,166,038	0.3%	\$115.3

Source: Rhode Island Lottery; The Innovation Group

Massachusetts

Plainridge Park Casino

Plainridge Park Casino, owned by Penn National Gaming, is the newest competitor in the market having opened in late June 2015 at the Plainridge harness-racing track on Route 1 about 20 miles west of Brockton. The racetrack became the first and only slot parlor and live harness racing venue in the state. The \$225 million facility includes 8 food and beverage options, one live entertainment lounge bar and parking garage. The casino offers gamers over 1,250 slots, video table games and simulcast and live harness racebook betting. Plainridge generated revenue of \$165 million in its first full year of operation.

Plainridge Property Statistics				
Year	Machines	Slot Revenue	Change	Win per Position
2016	1,250	\$155,041,918		\$338.9
2017	1,250	\$164,786,230	6.3%	\$361.2

Source: Massachusetts Gaming Commission; The Innovation Group

New York

Saratoga Springs

Saratoga Gaming and Raceway is a ½-mile standardbred harness racing dirt track located in Saratoga Springs, New York, just across Nelson Avenue from Saratoga Race Course which hosts thoroughbred racing each August. Saratoga Raceway aka The Saratoga Equine Sports Center – otherwise known as the Saratoga Gaming and Raceway – was opened in 1941 as a facility for American harness racing and was the third racetrack in the State of New York to feature pari-mutuel wagering. The casino opened in January 2004 featuring approximately 1,300 video lottery terminals. The casino now features 1,700 video lottery terminals.

Saratoga Springs Historical Gaming Revenues

Year	Gaming Revenue	Change	Machines	Change	Win per Position	Change
2008	\$134,373,560		1,770		\$207	
2009	\$136,038,290	1.2%	1,770	0.0%	\$211	1.5%
2010	\$139,721,687	2.7%	1,775	0.3%	\$216	2.4%
2011	\$150,420,830	7.7%	1,782	0.3%	\$231	7.3%
2012	\$159,751,975	6.2%	1,780	-0.1%	\$245	6.0%
2013	\$159,594,798	-0.1%	1,782	0.1%	\$245	0.1%
2014	\$158,765,338	-0.5%	1,782	0.0%	\$244	-0.5%
2015	\$160,919,293	1.4%	1,763	-1.0%	\$250	2.4%
2016	\$167,212,392	3.9%	1,718	-2.6%	\$266	6.4%
2017	\$137,438,160	-17.8%	1,707	-0.6%	\$221	-17.1%

Source: New York Lottery, The Innovation Group

Monticello Raceway

The Monticello Gaming and Raceway originally opened in June 1958 featuring the “Mighty M” half mile track featuring standard bred horse races. The casino portion opened in June 2004 featuring 1,700 video lottery terminals, but it has since scaled back to 1,110. Gaming revenue has fluctuated up and down, but roughly stayed flat over the last decade at \$58 million.

Monticello Raceway Historical Gaming Revenues

Year	Gaming Revenue	Change	Machines	Change	Win per Position	Change
2008	\$58,109,181		1,587		\$100	
2009	\$53,751,367	-7.5%	1,401	-11.7%	\$105	5.0%
2010	\$57,394,484	6.8%	1,089	-22.3%	\$144	37.3%
2011	\$60,918,062	6.1%	1,110	1.9%	\$150	4.2%
2012	\$63,873,596	4.9%	1,110	0.0%	\$157	4.6%
2013	\$62,821,386	-1.6%	1,110	0.0%	\$155	-1.4%
2014	\$59,142,393	-5.9%	1,110	0.0%	\$146	-5.9%
2015	\$59,326,309	0.3%	1,110	0.0%	\$146	0.3%
2016	\$61,086,135	3.0%	1,110	0.0%	\$150	2.7%
2017	\$58,508,310	-4.2%	1,110	0.0%	\$144	-4.0%

Source: New York Lottery, The Innovation Group

Empire City at Yonkers Raceway

Yonkers Raceway, founded in 1899 in Yonkers as the Empire City Race Track, is a one-half-mile standardbred harness racing dirt track. The casino opened in October 2006 after a \$225 million renovation and featured only 1,870 video lottery terminals. The casino now features approximately 5,200 video lottery terminals.

Yonkers Raceway Historical Gaming Revenues

Year	Gaming Revenue	Change	Machines	Change	Win per Position	Change
2008	\$486,459,681		5,339		\$249	
2009	\$540,495,929	11.1%	5,320	-0.4%	\$278	11.8%
2010	\$582,229,271	7.7%	5,309	-0.2%	\$300	7.9%
2011	\$624,432,033	7.2%	5,351	0.8%	\$320	6.4%
2012	\$544,698,569	-12.8%	4,987	-6.8%	\$298	-6.7%
2013	\$559,946,387	2.8%	5,327	6.8%	\$288	-3.5%
2014	\$537,491,608	-4.0%	5,344	0.3%	\$276	-4.3%
2015	\$558,287,537	3.9%	5,277	-1.3%	\$290	5.2%
2016	\$589,716,723	5.6%	5,232	-0.8%	\$308	6.2%
2017	\$599,218,590	1.6%	5,221	-0.2%	\$314	2.1%

Source: New York Lottery; The Innovation Group

Resorts World Casino at Aqueduct Racetrack

The Aqueduct Racetrack is a horse racing facility in Jamaica, New York with three tracks that feature thoroughbred racing. The Resorts World casino opened in October of 2011, and features over 5,000 gaming machines, including electronic table games that are extremely popular with the Asian population in Queens and Brooklyn.

Aqueduct Historical Gaming Revenues

Year	Gaming Revenue	Change	Machines	Change	Win per Position	Change
2011*	\$89,293,498		2,919		\$471	
2012	\$672,570,324		4,954	69.7%	\$371	-21.2%
2013	\$785,128,863	16.7%	5,004	1.0%	\$430	15.9%
2014	\$807,988,805	2.9%	5,003	0.0%	\$442	2.9%
2015	\$831,222,582	2.9%	5,060	1.1%	\$450	1.7%
2016	\$826,486,601	-0.6%	5,423	7.2%	\$416	-7.5%
2017	\$702,120,545	-15.0%	5,207	-4.0%	\$369	-11.3%

Source: New York Lottery; *2011 has 65 Days, The Innovation Group

Rivers Casino & Resort

Rivers Casino & Resort is a \$330 gaming and entertainment venue located in Schenectady, New York, which is roughly 200 miles west of Brockton. Rivers Casino opened in February of 2017. The venue opened its hotel in the second quarter of operations. The property offers roughly 1,150 slot machines and 80 table games. In its first complete Fiscal Year in operation, Rivers Casino reported approximately \$140 million in GGR.

Rivers Historical Gaming Revenues

Year	Slot Revenue	Machines	Table Revenue	Table Games	Total Revenue	Change	Win per Position
2017	\$82,016,111	1,150	\$40,611,458	67	\$122,627,569		\$216
Last 12 Months	\$97,537,310	1,150	\$44,947,233	67	\$142,484,543	n/a	\$252

Source: New York Lottery; *2017 has 327 Days, The Innovation Group

Resorts World Catskills

Resorts World Catskills was the last of the four nontribal casinos licensed by the state of New York in 2014 to open. Gaming operations at this \$900 million hotel casino located at the old Concord Hotel near Monticello started in February of 2018. The hotel has 332 rooms and the casino floor has over 2,150 slot machines and 150 table games including poker. In its first full month of operations, the casino generated \$12.4 million in GGR.

Resorts World Historical Gaming Revenues

Year	Slot Revenue	Machines	Table Revenue	Table Games	Total Revenue	Change	Win per Position
2018*	\$31,727,284	2,153	\$23,814,682	125	\$55,541,966	n/a	\$233

Source: New York Lottery; *2018 has 82 Days of data, The Innovation Group

Maine

Hollywood Casino Hotel & Raceway Bangor

Hollywood Casino is located at the junction of Interstates I-95 and I-395 next to the Penobscot River in Bangor, central Maine. The facility is almost 5 hours or 275 miles north of Brockton, MA and is not considered a strong competitor. The casino first opened in 2005 at a temporary location before building the current facility at an existing racetrack in 2008. The casino is operated by Penn National Gaming, who expanded casino operations in 2012 to include the state's first table games. The facility currently includes a 152-room hotel, three dining options, one live entertainment lounge, banquet facilities, live-harness racetrack and 10,000 square foot gaming floor currently offering 784 slots and 16 poker and table games.

Hollywood Casino Bangor Property Statistics

Year	Slot Revenue	Machines	Table Revenue	Tables	Total Revenue	Change	Win per Position
2008	\$50,515,382	740			\$50,515,382		\$187
2009	\$59,224,270	1,000			\$59,224,270	17.2%	\$162
2010	\$61,667,214	1,000			\$61,667,214	4.1%	\$169
2011	\$59,453,078	1,000			\$59,453,078	-3.6%	\$163
2012	\$56,212,925	936	\$6,470,964	16	\$62,683,888	5.4%	\$166
2013	\$47,269,709	909	\$7,388,848	16	\$54,658,557	-12.8%	\$149
2014	\$46,410,579	877	\$8,026,814	16	\$54,437,393	-0.4%	\$153
2015	\$44,274,063	763	\$8,966,225	16	\$53,240,288	-2.2%	\$170
2016	\$43,494,044	779	\$9,133,204	17	\$52,627,248	-1.2%	\$163
2017	\$41,698,800	773	\$8,730,574	18	\$50,429,374	-4.2%	\$157

Source: Maine Gaming Board; The Innovation Group

Oxford Casino

The Oxford Casino opened in 2012 as Black Bear Four Season Resort & Casino but changed its name before being sold to Churchill Downs Inc. the following year. The facility is located 20 miles off Interstate I-95 just outside of Oxford in southwest Maine. The casino currently has three dining options and a 30,281 square foot gaming floor with over 850 slots, 28 table games and 12-seat video poker bar. A 107-room hotel as opened in November of 2017.

Oxford Casino Property Statistics

Year	Slot Revenue	Machines	Table Revenue	Tables	Total Revenue	Change	Win per Position
2012	\$29,887,262	688	\$6,652,279	16	\$36,539,541		\$218
2013	\$58,353,948	811	\$13,261,868	23	\$71,615,816	96.0%	\$207
2014	\$58,368,047	858	\$14,464,188	26	\$72,832,235	1.7%	\$197
2015	\$62,091,956	855	\$14,475,213	26	\$76,567,169	5.1%	\$208
2016	\$64,856,476	857	\$15,637,882	27	\$80,494,358	5.1%	\$218
2017	\$68,722,796	852	\$17,564,142	28	\$86,286,938	7.2%	\$234

Source: Maine Gaming Board; *2012 has 213 Days, The Innovation Group

Proposed

Massachusetts

In November 2011, Massachusetts gaming legislation approved three resort casinos. The bill establishes three different regions for casinos, including one that encompasses the four Western Massachusetts counties – Hampshire, Hampden, Franklin and Berkshire – known as region B. Suffolk, Middlesex, Essex, Norfolk and Worcester counties are in region A, and Bristol, Plymouth, Barnstable, Nantucket and Dukes counties are in region C. For the three resorts, the bill also calls for a minimum investment of \$500 million, not including land costs, license fee, or off-site infrastructure mitigation. Massachusetts Gaming Commission awarded licenses to MGM Resorts International for Region B and Wynn Resorts for Region A.

Springfield

MGM opened its nearly \$1 billion integrated resort in Springfield on August 24th, 2018. The property includes a 250-room hotel tower and 125,000 square feet of gaming space with 2,550 slot machines and 120 gaming tables. Additionally, it provides typical amenities found in such resort properties such as restaurants, spas, retail shops, and meeting space in addition to an 8,000-seat entertainment venue, TopGolf swing suite, and a bowling alley.

Everett

Wynn Resorts plans to develop a \$2.5 billion casino at the former Monsanto Chemical Plant site on the Mystic River in Everett, a northern suburb of Boston. Development of the 33-acre waterfront property is to be complete in one phase starting with the environmental clean-up and transportation infrastructure improvements. The proposed resort, named Encore Boston Harbor, will focus on open-space amenities to reconnect the public to the waterfront through a harborwalk, park, pavillion and docking facilities for ferry operations to Boston. The project also includes 670 hotel accommodations, spa, retail, multiple food and beverage options, convention space and parking garage. The casino gaming floor is estimated to offer patrons over 3,000 slots and 150 table games and is expected to open in June 2019.

Connecticut

MMCT Venture LLC, the joint venture formed by the Mashantucket Pequot and Mohegan tribes, plans to develop a \$300-\$400 million venue with 100,000 square feet of gaming space in East

Windsor, Connecticut. The Native American tribes that own Foxwoods Resort Casino and Mohegan Sun say they plan a fall 2018 groundbreaking at their planned East Windsor casino, which would suggest an opening date in 2020. The expansion casino would be roughly a 20-minute drive south of MGM Springfield and its opening is aimed at keeping gambling dollars and preserving jobs tied to the gambling industry in Connecticut. This proposed casino would not have a material effect on the Eastern Massachusetts market.

Additionally, MGM Resorts International plans to continue fighting the expansion in court where MGM has argued that Connecticut wrongly denied them an opportunity to compete for the commercial gaming license. MMCT said the proposed casino would have roughly 2,000 slot machines and 60 table games.

SPORTS BETTING AND ONLINE ANALYSIS

In May, the Supreme Court of the United States ruled in favor of New Jersey in *Murphy v. NCAA*, overturning PASPA, the Professional and Amateur Sports Protection Act. PASPA was the legislation that effectively rendered sports betting illegal in most of the United States. This SCOTUS ruling puts the legislation and regulation of sports wagering in the hands of the states. In addition to Nevada, many states, such as New Jersey, Delaware, Pennsylvania, Mississippi, New York, and West Virginia, have already passed legislation legalizing sports wagering, and several other states have bills being considered in their legislatures.

Additionally, casinos in other states, like New Jersey, are in markets that allow with online gambling and Daily Fantasy Sports (DFS) options. This section gives a brief overview of the markets in the immediate area around Massachusetts.

Massachusetts

Massachusetts passed legislation related to sports betting, but only a *study bill* (S 2273), compelling the state to research the impact of sports betting in the commonwealth. The (Senate) Committee on Economic Development and Emerging Technologies is currently acting on this bill, which states that:

[Should PASPA be repealed...] there shall be a special commission to conduct a comprehensive study and offer proposed legislation relative to the regulation of online sports betting. The commission shall convene within 30 calendar days following any decision by the United States Supreme Court, and shall review all aspects of online sports betting including, but not limited to: economic development, consumer protection, taxation, legal and regulatory structures, burdens and benefits to the commonwealth and any other factors the commission deems relevant.

And specifically that the commission:

shall submit recommendations for legislation with the clerks of the senate and the house of representatives not later than 120 calendar days following the decision by the United States Supreme Court.

This gives the commission until 9/11/2018 to develop recommendations for legislation. And, we remark that this mandate specifically includes a directive to include recommendations around online sports wagering. With MGM Springfield and Encore Boston Harbor opening this year, we believe Massachusetts is very likely to legalize sports wagering online, or at minimum on offsite mobile devices, sometime in 2019.

Connecticut

Connecticut passed sports betting legislation in 2017. This bill authorizes sports betting in the state of Connecticut, subject to the development of a regulatory framework. In other words, sports betting is legal, but there is no mechanism by which either of the operators in the state – the Mashantucket Pequot Tribe (Foxwoods) or the Mohegan Tribe (Mohegan Sun) – can actually offer it. Further complicating matters are tribal compacts and exclusivity agreements. Since sports betting is a class III game, current compacts would need to be renegotiated in order for Foxwoods or Mohegan Sun to allow sports betting. The tribes also argue that their exclusivity agreements extend to sports wagering and that having legal

sports wagering in CT anywhere except at Foxwoods and Mohegan Sun would be in violation of their exclusivity agreement (and grounds to withhold hundreds of millions of dollars in exclusivity fees paid annually to the state). The legislature is adjourned until January 2019, so it appears very unlikely that Connecticut will develop regulations this year.

Rhode Island

Rhode Island is one of the six states that has legal sports betting but is also one of the three states in that group that is still in the preparation stages. The State of Rhode Island passed legislation that legalized sports betting in June 2018 and is expected to start operations in November of 2018. The legislation has put the Rhode Island Lottery in charge of overseeing sports betting within the state. Additionally, the bill imposes a revenue sharing system where the state of Rhode Island receives 51% of GGR, the operator receives 32% of GGR, and the casino receives the remaining 17% of GGR. This revenue sharing system, in effect, operates as a heavy tax on sports betting, and therefore produced only a sole bidder, IGT, for the sports betting technology vendor for Rhode Island. Recently, it was announced that William Hill would partner with IGT to operate as the risk management services for the sports betting operations.

Conclusion

Sports betting can be seen as opportunity to bring in additional revenue to existing casinos. While Connecticut and Rhode Island are in the process of making sports betting available to the public, it is the belief of The Innovation Group that all three states will have legalized sports betting available to the public in either a land-based or mobile format in the near future.

It is important to note that while there is potential for some substitution effect in total spend between sports bettors and other casino patrons, the demographics of the average sports bettor skews younger than slot players and even table gamers. Studies have found that the average sports bettor is between the ages of 18-34². Additionally, these players tend to be familiar with casinos and have the potential to spend additional dollars once on the casino floor at a table or slot during a visit to a legal sports book.

In addition to new sports betting ventures, Massachusetts and the competitive markets have the opportunity to pass legislation regarding online gambling and DFS. Recently, the Massachusetts House of Representatives passed an amendment removing the sunset clause on the laws regulating DFS, making a move in the direction towards permanent legalization of the gaming format.

Rhode Island elected to hold off on allowing online betting; it is expected that the State will reconsider in the long run as Massachusetts and Connecticut consider legislation allowing these wagers. Using New Jersey as a precedent, online gaming is expected to cause minimal cannibalization of land-based casino revenues and foster potential international partnerships with existing online formats.

² HUMPHREYS, BRAD R., PEREZ, LEVI, Who Bets on Sports? Characteristics of Sports Bettors and the Consequences of Expanding Sports Betting Opportunities. *Estudios de Economía Aplicada*, vol. 30, no. 2, 2012, pp. 579-597

GAMING MARKET ANALYSIS

Methodology

In developing this analysis, a gravity model was employed. Gravity models are commonly used in location studies for commercial developments, public facilities and residential developments. First formulated in 1929 and later refined in the 1940s, the gravity model is an analytical tool that defines the behavior of a population based on travel distance and the availability of goods or services at various locations. The general form of the equation is that attraction is directly related to a measure of availability such as square feet and inversely related to the square of the travel distance. Thus the gravity model quantifies the effect of distance on the behavior of a potential patron, and considers the impact of competing venues.

The basic formulation is that the interaction between two or more gaming venues is based on Newton's Law of Universal Gravitation: two bodies in the universe attract each other in proportion to the product of their “masses” – here, gaming positions – and inversely as the square distance between them. Thus, expected interaction between gaming venue i and market area j is shown as:

$$k \times \frac{N_i \times P_j}{d_{ij}^2}$$

where N_i = the number of gaming positions in gaming venue i , P_j = the population (21+) in market area j , d_{ij} = the distance between market area j and gaming venue i , and k = an attraction factor relating to the quality and amenities to be found at each gaming venue in comparison to the competing set of venues. When this formulation is applied to each gaming venue gaming trips generated from any given zip code are then distributed among all the competing venues.

The gravity model included the identification of 16 discrete market areas based on drive times and other geographic features and the competitive environment. Using our GIS software and CLARITAS database³, the adult population (21 and over), latitude and longitude, and average household income is collected for each zip code.

Each of these market areas is assigned a unique set of propensity and frequency factors. Gamer visits are then generated from zip codes within each of the areas based on these factors. The gamer visits thus generated are then distributed among the competitors based upon the size of each

³The GIS software used was MapInfo. This software allows for custom data generally in a tabular format with a geographic identification code (census tract, zip code, latitude and longitude, or similar identifier) to be mapped or displayed and integrated with other geographic census based information such as location of specific population or roadways. MapInfo is one of the most widely used programs in the geographic information systems industry. Nielsen Claritas is a vendor of demographic information located in the United States. Nielsen Claritas provides census demographic and psychographic data on a variety of geographic levels of detail ranging from census block groups and counties to postal zip codes. Their information is updated every six months and includes a current year estimate and provides a five year forecast for the future. The Innovation Group has utilized this data for inputs to its models for the last six years and has purchased full access to their demographic database for the entire United States.

facility, its attractiveness and the relative distance from the zip code in question. The gravity model then calculates the probabilistic distribution of gamer visits from each market area to each of the gaming locations in the market.

Each travel distance/time is evaluated to determine the likely alternative gaming choices for residents of the region. The model is constructed to include only those alternative venues that are considered to be within a reasonable travel time. These include competing casinos that have the potential to attract patrons, or siphon off visits from the market. Travel distances and time have been developed through use of our GIS system.

The following section provides a description and definition of the various components of the model.

Gamer Visits

This measure is used to specify the number of patron trips to a gaming market, where an individual can make any number of separate visits in the course of a year. In order to estimate the gamer visits, market penetration rates, made up of the separate measures of propensity and frequency, are applied to the adult population in each zip code. A gamer visit can include more than one visit to a casino.

Propensity

Propensity measures the percentage of adults who will participate in casino gaming within the zip code. This varies based upon a number of factors, which includes the number of gaming venues, their type (i.e. landbased versus cruising riverboat versus dockside riverboat), games permitted, availability of other entertainment and leisure options, and most importantly distance from a gaming venue. Propensity in the inner market areas from 0-50 miles can vary between the high thirty per cent range in a single cruising riverboat market to the fifty percent range, or more, for multiple land-based casinos with a well-developed array of amenities.

Frequency

This measures the average number of visits that an adult will make annually to casinos in the subject market. Frequency is a function of annual gaming budget as indicated by income variations, the number of venues in the market, the type of gaming facility and most importantly distance from a gaming venue.

MPI (Market Potential Index)

Propensity also varies as a function of each market's average market potential index (MPI) score. MPI scores are generated by Simmons Survey, a respected consumer research firm that conducts a nationwide survey of consumer behavior, including propensity to gamble at a casino. This score is an indication of the degree of likelihood that a person will participate in gaming based upon their lifestyle type. The MPI score inflates or discounts the participation rate of each zip code. For example, if a market area has an overall participation rate of 4.0 (propensity of 40% times frequency of 10), an MPI score of 120 for a particular zip code would effectively inflate the participation rate of that zip code to 4.8 (4.0 times 120%). The overall MPI score for the market area is a weighted average of all the zip codes within the area.

Win per Visit

Win per visit varies not only by gaming jurisdiction, but also in some cases by individual facilities. Normatively, win per visit is a function of distance and income. Gamers traveling greater distances tend to spend more per visit, typically making fewer gamer visits on average.

Attraction Factors

Attraction factors measure the relative attraction of one gaming venue in relation to others in the market. Attraction factors are applied to the size of the gaming venue as measured by the number of positions it has in the market. Positions are defined as the number of gaming machines plus the number of seats at gaming tables. A normative attraction factor would be one. When this is applied to the number of positions in a gaming venue there is no change in the size of the gaming venue as calculated by the model and hence its attraction to potential patrons. A value of less than one adjusts the size of the gaming venue downwards and conversely a value greater than one indicates that the gaming venue has characteristics that make it more attractive. Attraction factors can be based on a number of components including branding, the level and effectiveness of marketing efforts, and the level of quality and amenities of a facility. Attraction factors are also adjusted to model the presence of natural and man-made boundaries which impact ease of access and convenience of travel in the market area.

The sensitivity of the model to changes in these factors is not in the nature of a direct multiplication. For example, a doubling of the attraction factor will not lead to a doubling of the gamer visits attracted to the site. It will however cause a doubling of the attractive power of the gaming venue, which is then translated via non-linear equations into an increase in the number of gamer visits attracted to the gaming venue. This is based upon the location, size and number of competing gaming venues and their relationship to the market area to which the equation is applied. The variation of these factors is based upon The Innovation Group's experience in developing and applying these models, and consideration of the existing visitation and revenues. The latter represents the calibration of the model and has been accomplished by adjusting attraction factors to force the model to recreate the existing revenues and patron counts. In this case attraction factors have been adjusted for each casino for each market area. This is based upon known visitation patterns.

Market Carve-out

The Brockton market has been carved into 16 distinct market areas, from which it could be expected that different participation rates may be expected depending on the level and location of competition that is present in the market currently and in the future. The following map and table show the market areas and their respective adult population (21 and over) and average household income.

Brockton Market Carve With Casino Competition



Market Carveout Area Demographics

	Adult (21+) Population			Average Annual Household Incomes		
	2018	2023	C.A.G.R. 2018-2023	2018	2023	C.A.G.R. 2018-2023
Brockton Primary	437,855	457,374	0.9%	\$100,078	\$111,306	2.1%
Plainridge	253,009	265,885	1.0%	\$142,112	\$159,587	2.3%
South Shore	154,351	163,022	1.1%	\$136,879	\$150,085	1.9%
Southern Mass	262,451	270,177	0.6%	\$76,462	\$85,829	2.3%
Cape Cod	176,839	179,565	0.3%	\$94,521	\$104,502	2.0%
Worcester	476,631	496,726	0.8%	\$108,822	\$120,034	2.0%
West of Boston	316,588	333,018	1.0%	\$166,100	\$183,514	2.0%
Boston South	638,642	671,171	1.0%	\$110,263	\$122,852	2.2%
Boston North	888,202	920,751	0.7%	\$116,264	\$130,318	2.3%
North Shore	681,586	715,698	1.0%	\$111,721	\$122,832	1.9%
Leominster	196,828	205,378	0.9%	\$101,935	\$112,665	2.0%
NW Mass	81,065	82,680	0.4%	\$80,107	\$89,429	2.2%
Springfield	493,646	509,212	0.6%	\$81,681	\$91,382	2.3%
Connecticut	1,571,305	1,587,550	0.2%	\$101,857	\$112,566	2.0%
Rhode Island	796,603	809,100	0.3%	\$86,941	\$95,939	2.0%
Tertiary North	817,785	843,341	0.6%	\$106,359	\$119,693	2.4%
Average/Total	8,243,386	8,510,648	0.6%	\$106,162	\$118,110	2.2%

Source: iXPRESS, Nielsen Claritas, Inc.; MapInfo: The Innovation Group; CAGR= Compound Annual Growth Rate

The 2-hour market area contains nearly 8.2 million adults (21 and over). Population growth, although estimated to be marginally lower than the national average, is projected to be 0.6%. At \$106,162, household income is significantly higher than the national average, and has a projected annual growth of 2.2%.

Model Calibration

The following table shows the rates for propensity, frequency, MPI, and win per visit by market area that were used to re-create the actual conditions in the Base 2018 model. Win has been varied based on differences between market areas in average household income and travel time.

The following table shows gravity model gaming visits and revenues for the base calibration. These revenues reflect the total potential gaming revenue from the defined market area in 2018.

Gravity Model Calibration Base 2018

Market Segment	Gamer Pop.	Propensity	Frequency	MPI	Gaming Visits	WPV	GGR (\$M)
Brockton Primary	437,855	33.1%	11.0	103	1,648,133	\$78	\$128.7
Plainridge	253,009	34.4%	12.6	101	1,099,301	\$84	\$92.4
South Shore	154,351	27.7%	9.4	98	393,452	\$87	\$34.1
Southern Mass	262,451	30.8%	10.3	101	836,105	\$75	\$62.6
Cape Cod	176,839	20.4%	7.1	93	238,112	\$81	\$19.4
Worcester	476,631	29.7%	10.0	100	1,417,784	\$81	\$114.8
West of Boston	316,588	23.7%	10.0	101	753,881	\$93	\$69.7
Boston South	638,642	25.3%	10.6	109	1,868,473	\$82	\$152.8
Boston North	888,202	23.0%	9.7	109	2,144,877	\$84	\$179.7
North Shore	681,586	19.0%	8.1	103	1,079,422	\$84	\$91.0
Leominster	196,828	23.5%	8.1	99	369,295	\$82	\$30.2
NW Mass	81,065	15.3%	5.4	94	63,354	\$80	\$5.1
Springfield	493,646	19.7%	6.8	100	665,787	\$79	\$52.7
Connecticut	1,571,305	33.0%	11.1	101	5,839,293	\$78	\$457.4
Rhode Island	796,603	35.8%	11.8	107	3,614,698	\$75	\$270.0
Tertiary North	817,785	17.3%	6.1	98	844,121	\$84	\$71.1
Total	8,243,386				22,876,091	\$80	\$1,831.6

Source: The Innovation Group

Local Market Future Baseline

The next step in the analysis was to create a baseline model for 2022 using projected population and income growth and looking at historical revenue trends. The following table therefore details the local market gaming revenue projected out to 2022 and segregated by market segment assuming *without* the subject property.

Gravity Model Forecast– 2022 Baseline

Market Segment	Gamer Pop.	Propensity	Frequency	MPI	Gaming Visits	WPV	GGR (\$M)
Brockton Primary	453,392	33.1%	11.0	103	1,706,086	\$81	\$139.0
Plainridge	263,255	34.4%	12.6	101	1,143,524	\$87	\$100.0
South Shore	161,249	27.7%	9.4	98	410,976	\$90	\$37.0
Southern Mass	268,607	30.8%	10.3	101	855,578	\$78	\$66.9
Cape Cod	179,013	20.4%	7.1	93	241,056	\$85	\$20.4
Worcester	492,622	29.7%	10.0	100	1,464,908	\$84	\$123.6
West of Boston	329,656	23.7%	10.0	101	784,701	\$96	\$75.3
Boston South	664,518	25.3%	10.6	109	1,945,014	\$85	\$165.7
Boston North	914,136	23.0%	9.7	109	2,207,699	\$87	\$192.5
North Shore	708,730	19.0%	8.1	103	1,122,233	\$88	\$98.4
Leominster	203,631	23.5%	8.1	99	382,008	\$85	\$32.6
NW Mass	82,352	15.3%	5.4	94	64,354	\$83	\$5.4
Springfield	506,050	19.7%	6.8	100	682,372	\$83	\$56.3
Connecticut	1,584,261	33.0%	11.1	101	5,886,525	\$82	\$481.1
Rhode Island	806,563	35.8%	11.8	107	3,657,971	\$78	\$285.6
Tertiary North	838,140	17.3%	6.1	98	865,101	\$88	\$75.8
Total	8,456,174				23,420,103	\$84	\$1,955.7

Source: The Innovation Group

Base Forecast with New Properties

The next step for the 2022 model was to account for additions to the regional market. One slots-only facility was assumed in Plainville, MA, the Newport casino location would be transferred to become the Tiverton Casino Hotel with table games, and two additional Class III facilities were assumed for Massachusetts (Springfield and Everett). Propensity and frequency would be expected to increase in market areas affected by these developments.

Gravity Model Forecast with Additional Casinos- 2022

Market Segment	Gamer Pop.	Propensity	Frequency	MPI	Gaming Visits	WPV	GGR (\$M)
Brockton Primary	453,392	33.1%	11.0	103	1,706,086	\$81	\$139.0
Plainridge	263,255	38.2%	12.6	101	1,270,582	\$86	\$109.8
South Shore	161,249	29.1%	9.8	98	452,134	\$90	\$40.5
Southern Mass	268,607	37.7%	12.4	101	1,260,951	\$75	\$95.2
Cape Cod	179,013	23.1%	7.9	93	304,406	\$84	\$25.6
Worcester	492,622	31.2%	10.5	100	1,615,061	\$84	\$135.3
West of Boston	329,656	33.7%	11.2	101	1,250,308	\$93	\$116.0
Boston South	664,518	33.4%	11.0	109	2,660,010	\$83	\$221.4
Boston North	914,136	34.3%	11.2	109	3,822,112	\$84	\$320.8
North Shore	708,730	28.1%	9.4	103	1,913,965	\$86	\$163.7
Leominster	203,631	26.4%	9.0	99	476,822	\$84	\$40.2
NW Mass	82,352	24.6%	8.3	94	157,790	\$81	\$12.8
Springfield	506,050	37.5%	12.4	100	2,357,173	\$76	\$180.1
Connecticut	1,584,261	35.7%	12.1	101	6,908,491	\$80	\$556.1
Rhode Island	806,563	35.8%	11.8	107	3,657,971	\$78	\$285.6
Tertiary North	838,140	19.8%	6.8	98	1,094,755	\$87	\$95.4
Total	8,456,174				30,908,617	\$82	\$2,537.5

Source: The Innovation Group

Base Forecast with Brockton

Finally, the subject property in Brockton, Massachusetts was added to the gravity model. The following table shows the market factors during the first full year of operations for the Brockton casino with the additional properties added to the market.

Gravity Model Forecast with Brockton- 2022

Market Segment	Gamer Pop.	Propensity	Frequency	MPI	Gaming Visits	WPV	GGR (\$M)
Brockton Primary	453,392	38.2%	12.6	103	2,237,775	\$79	\$177.4
Plainridge	263,255	38.2%	12.6	101	1,270,582	\$86	\$109.8
South Shore	161,249	32.6%	10.9	98	563,139	\$88	\$49.6
Southern Mass	268,607	37.7%	12.4	101	1,260,951	\$75	\$95.2
Cape Cod	179,013	23.1%	7.9	93	304,406	\$84	\$25.6
Worcester	492,622	31.2%	10.5	100	1,615,061	\$84	\$135.3
West of Boston	329,656	33.7%	11.2	101	1,250,308	\$93	\$116.0
Boston South	664,518	35.4%	11.6	109	2,982,157	\$82	\$245.6
Boston North	914,136	34.7%	11.3	109	3,912,573	\$84	\$327.7
North Shore	708,730	28.3%	9.4	103	1,936,548	\$85	\$165.6
Leominster	203,631	26.4%	9.0	99	476,822	\$84	\$40.2
NW Mass	82,352	24.6%	8.3	94	157,790	\$81	\$12.8
Springfield	506,050	37.5%	12.4	100	2,357,173	\$76	\$180.1
Connecticut	1,584,261	35.7%	12.1	101	6,908,491	\$80	\$556.1
Rhode Island	806,563	35.8%	11.8	107	3,657,971	\$78	\$285.6
Tertiary North	838,140	19.8%	6.8	98	1,094,755	\$87	\$95.4
Total	8,456,174				31,986,502	\$82	\$2,617.9

Source: The Innovation Group

Overall, the market is projected to generate approximately 32 million visits. The following table shows gaming revenue for the Brockton scenario. We estimate that the facility will capture 14.3% of the local market or an estimated 4.6 million gamer visits and generate \$376 million in gaming revenue in the first stabilized year of operation. It should be noted that the gravity model has been calibrated to revenue data from Connecticut, Rhode Island, Maine and New York that is net of free play. Therefore the projection below is for net gaming revenue. The table below details the subject property's local market gaming revenue by market segment.

Brockton Local Market Gaming Revenue Forecast - First Stabilized Year

Market Segment	Total Market Visits	Brockton Capture Rate	Brockton Gamer Visits	Brockton WPV	Brockton Gaming Revenue (MMs)
Brockton Primary	2,237,775	66.4%	1,485,205	\$79.3	\$117.7
Plainridge	1,270,582	22.5%	285,784	\$86.4	\$24.7
South Shore	563,139	43.8%	246,870	\$88.1	\$21.8
Southern Mass	1,260,951	17.4%	219,970	\$75.5	\$16.6
Cape Cod	304,406	32.9%	100,188	\$84.0	\$8.4
Worcester	1,615,061	11.2%	181,349	\$83.8	\$15.2
West of Boston	1,250,308	17.6%	219,879	\$92.8	\$20.4
Boston South	2,982,157	31.2%	930,221	\$82.4	\$76.6
Boston North	3,912,573	4.0%	157,765	\$83.8	\$13.2
North Shore	1,936,548	13.0%	252,205	\$85.5	\$21.6
Leominster	476,822	11.1%	52,804	\$84.3	\$4.5
NW Mass	157,790	4.0%	6,343	\$80.9	\$0.5
Springfield	2,357,173	1.4%	32,561	\$76.4	\$2.5
Connecticut	6,908,491	1.9%	128,589	\$80.5	\$10.4
Rhode Island	3,657,971	5.0%	181,716	\$78.1	\$14.2
Tertiary North	1,094,755	7.9%	86,016	\$87.1	\$7.5
Total:	31,986,502	14.3%	4,567,465	\$82.2	\$375.7

Source: The Innovation Group

In addition to the local market revenue generated through the gravity model, the subject property is anticipated to generate out-of-market revenue. This out-of-market gaming demand represents visits driven by reasons other than proximity of permanent residence, such as tourism, visiting friends and family, seasonal residence, variety of gaming experience, and pass-through traffic intercept. This typically ranges between 4% and 10% of a casino's revenue depending upon location, amenities and tourism market relative to the size of the local population. For this estimate we have assumed the completion of a 250-room hotel in conjunction with additional amenities at the Brockton casino. Combined, total gaming revenue in stabilized operations at the proposed Brockton Casino is projected to be **\$404 million**.

**Brockton Casino Gaming Revenue Summary
Stabilized Operations**

	Gaming Revenue
Local Gravity Model Market	\$375,668,790
Out-of-Market	\$28,175,159
Total	\$403,843,949

Source: The Innovation Group

Five Year Forecast

The following presents five year forecasted gaming revenue for the proposed property. As noted above, the revenue forecast is for stabilized operations in year two. Ramp-up of approximately 6% in year two and 2.5% in year three is projected to allow for marketing efforts to take effect and player database growth. Normative growth of 2.0% is estimated thereafter.

Brockton Five Year Revenue Forecast

	Year One	Year Two	Year Three	Year Four	Year Five
Gaming Revenue (MMs)	\$381.1	\$403.8	\$413.8	\$422.0	\$430.5
Visitation (MMs)	4.62	4.86	4.91	4.94	4.96
Win per Visit	\$82.57	\$83.03	\$84.22	\$85.48	\$86.76
Number of Units	2,844	2,844	2,844	2,844	2,844
Win/Unit/Day	\$367	\$389	\$399	\$407	\$415

Source: The Innovation Group

Source of Revenue and Repatriation Analysis

This section assesses the repatriation of gaming spending by Massachusetts residents that would otherwise accrue to casinos in neighboring states as well as the capture of spending by out-of-state residents. This analysis is based on the gravity model analysis, which as discussed distributes gaming visits from each zip code in the market area to each casino in the model. By comparing the Baseline with the Brockton Forecast model, an assessment of repatriation can be generated. As noted, the Baseline model included the other two approved casinos in Regions A and B as well as Plainridge. In the Baseline gravity model, it is estimated that Massachusetts residents would contribute nearly \$608 million dollars to gaming revenues at casinos in Connecticut, Rhode Island, New York, and Maine. Brockton is estimated to repatriate approximately \$140 million of this, as shown in the following table.

Capture of MA Resident Spending by Out-of-State Casinos: Stabilized Year

Baseline	\$608,290,189
With Brockton	\$467,786,519
Brockton Repatriation (Gravity Model)	\$140,503,670

Source: The Innovation Group

In addition to this repatriation, the Brockton Casino is estimated in the gravity model to capture approximately \$27 million from residents of neighboring states on a net basis (minus impact on existing Massachusetts), as shown in the following table. It is also estimated that \$28 million of out-of-market gaming revenues will represent a net gain to Massachusetts.

Brockton Casino Net Gain: Stabilized Year

	Gravity Model	Out-of-Market	Total
In-state Repatriation	\$140,503,670		\$140,503,670
Out-of-State Net	\$26,732,527	\$28,175,159	\$54,907,686
Total Net Gain in Spending in MA	\$167,236,197	\$28,175,159	\$195,411,356
% of Total Gaming Revenue			48.4%

Source: The Innovation Group

Repatriation is estimated to total nearly \$141 million at the Brockton Casino, and net gain of out-of-state revenue \$55 million. In total, the net gain to Massachusetts from the Brockton Casino is approximately \$195 million in gaming revenue, or 48% of its total gaming revenue forecast. This represents revenue that otherwise would not accrue to Massachusetts; since it excludes spending by Massachusetts residents except for repatriated dollars, it would not be subject to any substitution effect in an economic impact analysis.

Incremental Impact Summary

The following table represents the impact on total gaming revenue the Brockton casino would have when introduced to the Massachusetts competitive casino set. While the existing casinos would see a drop in total revenues, the overall total increases by over \$270 million, showing potential for market growth.

Total Gaming Revenue Market Impact		
	Without Brockton	With Brockton
Plainridge	\$122,616,795	\$94,581,694
Springfield	\$379,650,509	\$372,380,374
Everett	\$807,886,414	\$711,695,058
Brockton		\$403,843,949
Massachusetts Total	\$1,310,153,718	\$1,582,501,074

Source: The Innovation Group

The following table shows the growth in gaming tax revenue to the state of Massachusetts with the addition of the Brockton Casino.

Total Gaming Tax Revenue Market Impact		
	Without Brockton	With Brockton
Plainridge	\$49,046,718	\$37,832,678
Springfield	\$94,912,627	\$93,095,093
Everett	\$201,971,603	\$177,923,764
Brockton		\$100,960,987
Total	\$345,930,949	\$409,812,523
<i>Incremental</i>		\$63,881,574

Source: The Innovation Group

Additionally, Massachusetts would see an increase in slot license fee revenue due to Brockton. The following table details the incremental revenue to the state from slot license fees. Total incremental revenue to Massachusetts would be \$65.1 million with the inclusion of the Brockton property.

Total Slot License Fee Market Impact

	Without Brockton	With Brockton
Plainridge	\$750,000	\$750,000
Springfield	\$1,530,000	\$1,530,000
Everett	\$1,945,200	\$1,945,200
Brockton		\$1,260,000
Total	\$4,225,200	\$5,485,200
<i>Incremental</i>		<i>\$1,260,000</i>

Source: The Innovation Group

Total Employment Effects

The following section details the direct impacts with regards to employment the Brockton facility would have, as assessed through a multi-regional analysis utilizing IMPLAN software. The multi-regional analysis results in impacts for the host county (Plymouth), the remaining counties in Region C, and the rest of Massachusetts (termed “Balance of State” in the table headings in this report). The following tables show the results of the IMPLAN multiplier analysis in the Base Forecast.

In addition to the 1,797 direct jobs in Plymouth County, the operation of the resort casino will generate 1,070 indirect jobs and 642 induced jobs for a total of 3,508 in the county in year two of operations. The spending from stable year ongoing operations will have an indirect and induced impact on other communities supporting an additional 24 jobs within Region C and another 64 jobs across the state. In total, resort casino operations are estimated to support 3,596 jobs throughout Massachusetts with direct, indirect and induced employment in year two of operations.

Operating Impacts— Employment

	Plymouth County	Region C	Balance of State	Total Massachusetts
Direct Effect	1,797	0	0	1,797
Indirect Effect	1,070	14	41	1,124
Induced Effect	642	9	24	675
Total	3,508	24	64	3,596

IMPLAN Group, LLC, IMPLAN System (data and software); The Innovation Group

HIGH-LOW ANALYSIS

The following sensitivity analysis assesses the impact on gaming revenue resulting from high and low estimates for gaming demand. This analysis examines a 10% variance from the Base Case, or a total high-low spread of 20%.

The resulting five-year forecasts are shown in the tables below.

Brockton Casino Five-Year Revenue Forecast: High Case

	Year One	Year Two	Year Three	Year Four	Year Five
Gaming Revenue (MMs)	\$419.2	\$444.2	\$455.1	\$464.2	\$473.5
Visitation (MMs)	5.08	5.35	5.40	5.43	5.46
Win per Visit	\$82.57	\$83.03	\$84.22	\$85.48	\$86.76
Number of Units	2,844	2,844	2,844	2,844	2,844
Win/Unit/Day	\$404	\$428	\$438	\$447	\$456

Source: The Innovation Group

Brockton Casino Five-Year Revenue Forecast: Low Case

	Year One	Year Two	Year Three	Year Four	Year Five
Gaming Revenue (MMs)	\$343.0	\$363.5	\$372.4	\$379.8	\$387.4
Visitation (MMs)	4.15	4.38	4.42	4.44	4.47
Win per Visit	\$82.57	\$83.03	\$84.22	\$85.48	\$86.76
Number of Units	2,844	2,844	2,844	2,844	2,844
Win/Unit/Day	\$330	\$350	\$359	\$366	\$373

Source: The Innovation Group

NEW CASINO MARKET TRAINING STRATEGIES

A survey of Plainridge employees conducted in 2017 demonstrates that casino employment is comprised mainly of workers already residing within commuting distance: a mixture of previously employed local residents looking for a better opportunity or the ability to work closer to home, along with previously unemployed local residents. The percentage of workers who moved to take the position with Plainridge was a small percentage of the staff. Furthermore, most casino workers had not had prior casino work experience.

Plainridge Casino Source of Workforce

	# of Responses	Percentage
<i>Prior Employment status:</i>		
Unemployed	162	15.5%
Employed Part-time	363	34.7%
<i>Underemployed</i>	189	18.1%
Employed Full-time	522	49.9%
Total	1,047	100.0%
<i>Reason for taking the position</i>		
Job closer to home	305	29.1%
<i>Other results</i>		
No prior casino experience	902	86.2%
Moved to take the position	75	7.2%

New Employee Survey at Plainridge Park Casino: Analysis of First Two Years of Data Collection
University of Massachusetts Donahue Institute, Economic and Public Policy Research Group, May 10, 2017

Other studies show similar impacts on employment. The Rappaport Institute for Greater Boston and the John F. Kennedy School of Economics at Harvard University (Baxandall and Sacerdote 2005) in a national, county-level study of Native American casinos found a slight decrease in unemployment rates after casinos opened. From their total sample of 156 casino counties, the Rappaport study isolated out 57 counties with large casinos and relatively low population and nine counties with both large casinos and large populations to see if there were statistical differences in terms of community impacts. The authors compared the county unemployment rate averaged for the year before and after a casino opens in a county, and then subtracted that number from the average state change in unemployment to isolate the county-specific effect. The following table shows their results:

Rappaport Study Employment Results

	All Casino- Counties ¹	Counties with Large- Capacity Casinos ²	Populous Casino Counties ³
Population Growth (%)	+5*	8.6	+8.1*
Total Employment (%)	+6.7*	+14.9*	5.7
Unemployment (%)	-0.3	-1.2*	0.5

*Statistically significant results at 99% confidence interval.

1. Reports how adjusted outcomes in 156 counties that introduced Indian-run casinos during the 1990s differed from the other 2,959 that did not.

2. The effect for 21 counties in the top 10th percentile in terms of number of slot machines (over 1,760).

3. The effect for the 57 casino counties in the top population quartile (over 55,000 residents).

All this data suggests the need for training strategies as new casinos enter the regional market, since it cannot be assumed that the unemployed finding jobs will have hospitality or casino skills.

As a part of The Innovation Group's Gaming Market Analysis for the proposed casino in Brockton, we have been asked to review training strategies for new gaming markets, with emphasis on markets that may require specialized training to reach employment forecast targets. The following key strategies were discovered in our research, followed by several case studies:

Industry Tactics:

- **Work force research**

As new casino markets are developed through enabling legislation, the Gaming Industry has historically performed socio-economic research, initially for the purposes of demand feasibility. However, such information soon becomes critical in the econometric analysis performed to gauge the economic and employment impacts of a project. This body of data also includes information related to employment and socio-economic status, which operators can begin to use to assess the job market and prepare to engage the community in fulfilling employment needs and project training requirements to meet practical and legislative employment targets.

- **Early-stage job fairs**

Even before a gaming license is awarded it is not uncommon for developers and operators to hold job fairs. The purpose of these events is multi-fold. First, there is a community-relations component where the operator is able to meet the broader community that may not have been involved in a casino project during the pre-development phase. Organized labor relations, where relevant, are often established through this period as well. Finally, the practical aspects of the hiring process begin here through the development of lists of potential employees from the community. As the background of potential workers begins to be vetted the operator can begin to prepare for training and preparedness programs which are often customized for the subject host community.

- **Partnering with local universities and vocational schools**

Developing partnerships with local academic and vocational institutions is another common way for operators to get ahead in the employment process. This is a particularly important tactic in brand new markets, including international markets where training infrastructure are lacking, and language barriers may need to be overcome.

- **Intensive “on-the-job” training**

Given the importance of technical capabilities and customer service in casinos, operators are known to maintain deep training resources in their corporate organizations. Trainers are deployed to sites in new markets well ahead of the completion of construction of new facilities using trailers or converting underutilized buildings to begin early training in all areas of the casino operation.

Case Study Markets:

- **The Bahamas**

The initial development of the Bahamas casino market, and the re-development of Resorts International into Atlantis on Paradise Island in particular, proved challenging given the small population base of the Bahamas and a poor record of leisure industry training historically. In response Sun International, the developer of Atlantis, launched a massive effort to prepare the local work force. While initially workers were brought to The Bahamas from other casino markets the market is currently predominantly served by local residents.

- **Micronesia**

Casino development on the Islands of Tinian and Saipan in Micronesia (near Guam) were some of the least prepared work forces in the history of the gaming industry. However, a low population base with a traditional pacific island education have been overcome by intensive training and preparedness work by local operators. Although a large portion of the work force is attracted from the international market local employment is on the rise.

- **Mexico**

Over the last decade Mexico has gradually introduced casinos and very successfully trained thousands of local residents for all types of positions. Only upper management tends to be introduced from outside jurisdictions, a trend that will be reversed over time as line employees are promoted.

- **Emerging US Casino Markets (1990’s)**

We should not leave out the large number of United States and Native American gaming markets that have been justified largely by the promise of work-force development. From underprivileged communities in urban and rural areas, and Indian reservations with low levels of education and social challenges, the US casino industry has thrived. Promotion in commercial casinos and self-sufficiency including high level management roles in many Tribal casinos has become the norm.

DISCLAIMER

Certain information included in this report contains forward-looking estimates, projections and/or statements. The Innovation Group has based these projections, estimates and/or statements on our current expectations about future events. These forward-looking items include statements that reflect our existing beliefs and knowledge regarding the operating environment, existing trends, existing plans, objectives, goals, expectations, anticipations, results of operations, future performance and business plans.

Further, statements that include the words "may," "could," "should," "would," "believe," "expect," "anticipate," "estimate," "intend," "plan," "project," or other words or expressions of similar meaning have been utilized. These statements reflect our judgment on the date they are made and we undertake no duty to update such statements in the future.

Although we believe that the expectations in these reports are reasonable, any or all of the estimates or projections in this report may prove to be incorrect. To the extent possible, we have attempted to verify and confirm estimates and assumptions used in this analysis. However, some assumptions inevitably will not materialize as a result of inaccurate assumptions or as a consequence of known or unknown risks and uncertainties and unanticipated events and circumstances, which may occur. Consequently, actual results achieved during the period covered by our analysis will vary from our estimates and the variations may be material. As such, The Innovation Group accepts no liability in relation to the estimates provided herein.

Exhibit E



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Rhode Island Gaming and State Revenue Forecast

Prepared by: Christiansen Capital Advisors, LLC
Prepared for: The Rhode Island Department of Revenue
March 12, 2019

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Rhode Island Gaming and State Revenue Forecast

SUMMARY OF RECENT AND PROJECTED DEVELOPMENTS

Christiansen Capital Advisors, LLC (CCA) has been retained by the State of Rhode Island Department of Revenue (DOR) to update its previous studies of gaming in Rhode Island and New England.¹ These prior studies successfully forecasted the observed impacts of slot machine gaming at Plainridge Park in Plainville, Massachusetts (opened June 2015), and MGM Springfield (opened August 2018), although there have been considerable delays in the implementation of full scale casino gaming in the Commonwealth that have delayed these impacts.²

In this study, we forecast the likely additional revenue impacts on casino gaming venues in the State of Rhode Island from the nearly completed Encore Boston Harbor casino in Everett, Massachusetts and a potential Class III tribal gaming facility in Taunton, Massachusetts. At the present time, it appears that a Region C (southeastern Massachusetts including Cape Cod) casino is still at least a few years away. Although the Massachusetts Gaming Commission rejected a competing Region C application in Brockton and accepted a Mashpee Wampanoag tribal casino in Taunton, that casino is on hold as the result of a successful lawsuit challenging the United States Department of the Interior (DOI) ruling to take the land owned by the Tribe for the casino site into trust.³

Unforeseen in our previous studies, shortly after the Supreme Court of the United States overturned the Professional and Amateur Sports Protection Act (“PASPA”), Rhode Island authorized sports betting at Twin River Casino Hotel in Lincoln and Tiverton Casino Hotel in Tiverton. Sports wagering commenced at Twin River Casino Hotel on November 26, 2018 and at Tiverton Casino Hotel on December 3, 2018 and a bill is currently pending in the legislature to allow these venues to offer remote sports wagering via internet enabled devices.⁴ In this study we add sports wagering to our analysis and project gross sports wagering revenues in Rhode

¹ Christiansen Capital Advisors, LLC, for the Rhode Island Department of Revenue “Rhode Island Gaming and State Revenue Forecast,” October 31, 2017, 2015, and 2014.

² Massachusetts’ Expanded Gaming Act was passed into law in November of 2011. Three years later (February 2014), Plainridge Park was awarded a slot-only facility license and opened in June 2015. MGM Springfield was licensed in June of 2014 and opened its doors in late August of 2018. Wynn Boston Harbor was awarded a license to conduct casino games in September of 2014 and is scheduled to open in June 2019. This compares to neighboring New York where a constitutional amendment allowing as many as seven casinos (four initially) was approved by New York voters in November of 2013. Three licenses were issued in December 2014 (and additional license for Tioga Downs, which was not approved in the first round was later approved in August 2016). Three of the four casinos opened in 2017 (the largest of the four Montreign opened in February, 2018). The whole process took only 3 and one half years compared to the nearly eight years in Massachusetts.

³ Although, as some others have noted, the State of Massachusetts could award a commercial (non-tribal) gambling license to the Wampanoag tribe thereby circumventing the need for the casino site to be taken into trust under the Indian Gaming Regulatory Act (IGRA), but this would likely require reopening of the competitive bidding process for Region C.

⁴ <https://legiscan.com/RI/text/S0037/id/1851946>

Island under a no new competition scenario and two other scenarios assuming that Connecticut and Massachusetts also authorize land based and remote sports wagering. Other meaningful changes in the Rhode Island gaming landscape since our last study include: the October 2018 opening of a 136-room hotel at the Twin River casino in Lincoln and (authorized by a November of 2016 referendum in both Tiverton, Rhode Island and statewide) the transfer to Twin River of the Newport Grand license to operate video lottery terminals and the subsequent closure of Newport Grand and the transfer of that gaming license to a full casino and 84-room hotel with 1,000 VLTs and 32 table games in Tiverton, Rhode Island. The Tiverton Casino Hotel officially opened and Newport Grand was closed on August 29, 2018.

In light of these meaningful changes that have occurred and are anticipated to occur within the southern New England gaming market, CCA has revisited its analysis of two years ago and has developed gaming revenue and Rhode Island revenue projections for the next five years under the following three potential competitive scenarios:

(1) Scenario A: a baseline scenario, consisting of a five year projection of Rhode Island gross gaming revenue and the State of Rhode Island's share of that revenue, for Twin River Casino Hotel in Lincoln and Tiverton Casino Hotel in Tiverton with large casinos in Springfield and Everett, Massachusetts and the existing slots-only facility in Plainville, Massachusetts.

(2) Scenario B: consisting of a five year projection of Rhode Island gross gaming revenue and the State of Rhode Island's share of that revenue, for Twin River Casino Hotel in Lincoln and Tiverton Casino Hotel in Tiverton with large casinos in Springfield and Everett, Massachusetts; the existing slots-only facility in Plainville, Massachusetts; and the addition in July 2021 of either a Class III tribal facility or a State licensed commercial gaming facility in Taunton, Massachusetts.

(3) Scenario C: consisting of a five year projection of Rhode Island gross gaming revenue and the State of Rhode Island's share of that revenue, for Twin River Casino Hotel in Lincoln and Tiverton Casino Hotel in Tiverton with large casinos in Springfield and Everett, Massachusetts; the existing slots-only facility in Plainville, Massachusetts; the addition in July 2021 of either a Class III tribal facility or State licensed commercial facility in Taunton, Massachusetts; and legalized bricks and mortar and remote sports wagering in Connecticut and Massachusetts. For the purposes of this study we have assumed that these sports wagering operations commence in January and June of 2020, respectively.

To develop projections for the revenue potential of casinos (and one racino) in Massachusetts, CCA utilized proprietary models it has used in previous studies,⁵ modified to take into account specific southern New England and surrounding area market conditions, to develop projections for the market potential of expanded gaming in Massachusetts and its impact on Rhode Island.

In preparing this report CCA compiled pertinent historical data relating to casinos and video lottery terminal (VLT) facilities in New England, including the Twin River Casino Hotel and the

⁵ CCA has conducted similar studies with accurate results for the Federal National Gambling Impact Study Commission and in Kentucky, Kansas, Pennsylvania, Ontario, Connecticut, Iowa, Illinois, Massachusetts, Bermuda, Florida, New York, Macau, Maryland, Greece, California, and various other domestic and international markets.

Tiverton Casino Hotel markets, casino gaming in Connecticut and in adjoining States, and constructed models of similar markets in other jurisdictions. Our analysis of this historical experience and the output of our models form the basis for the following independent analysis and conclusions.

REVENUE FORECASTING METHODOLOGY

The methodology employed by CCA in constructing the estimates presented in this report is rigorous in approach. To develop these projections, CCA utilized the same basic modeling technique it has used in similar studies over the past 30 years, modified to take into account specific New England and surrounding area market conditions, to develop projections for the market potential of, and impacts on, existing Rhode Island licensees of expanded gaming in New England.

The core of the model, which is used in many location-based analyses of this type, is often referred to as a "gravity model," because it is similar to Newton's Law of Gravitation (for which the distance factor would be -2.0 : if you double the distance, the attraction declines by a factor of four). This model has been consistently refined and improved by CCA over the years as it relates to gaming facilities; the technique focuses on the demographics of areas surrounding each facility, in particular the number of adults residing at various distances (measured in drive time), and the observed ratio of actual spending of other similar adult populations in other gambling markets.

In other words, our model assesses, and projects, gambling revenues based upon the distribution and characteristics of the adult populations surrounding each facility. The model includes parameters for distance, competition, *per capita* income, urban/rural population mix, and the nonresident "visitor" population. These factors or variables are then weighted using real world data and experience to generate the resulting projections. In conducting these analyses, CCA drills down to a precise level of detail. CCA models markets in the United States down to adult population by ZIP Code, and in Canada by postal FSA. Carrying the analysis down to the ZIP Code level is particularly important in markets that have several gambling facilities in close proximity.

Another important component of CCA's modeling procedure that is often missing from other types of gravity model analyses is a *verifiable* adult spending base for slot machines and table games. We apply the experience of existing casino, racino and riverboat facilities in the existing market(s) and in comparable markets to estimate the consumer demand for a proposed gambling facility and its potential impacts upon other forms of gaming providing a firm real world foundation for its projections. In this case, we have applied the experience of existing casinos and video lottery terminal (VLT) facilities in New England and in other comparable markets to estimate the consumer demand for New England casinos and their impacts upon Rhode Island. To this end, we analyzed the performance of gaming machines and table games at casinos and racetrack gaming facilities in a wide variety of markets, including Pennsylvania, New York, Indiana, West Virginia, Delaware, Connecticut, Illinois, Iowa and Maryland.

Our projections of casino demand and potential revenues are based on a very important observation: other things being equal, patrons of regional gaming facilities, as distinct from patrons of destination resorts serving long-distance travelers, overwhelmingly tend to gamble at the facility that is most conveniently located for them. Because the public tends to gamble at the facility that is most conveniently located, patronage (and associated spending) at full-service casino gambling facilities falls off with increased drive time. For very large casino resorts, like Foxwoods and Mohegan Sun we utilize a "drive time coefficient"⁶ of about -0.45, compared to values of about -0.7 for racino or VLT only facilities. These coefficients are derived from observed experience and player tracking from many disparate casino markets. In other words, casino patronage rises with increased proximity to a gaming facility, but at differing rates for different types of gaming properties.⁷

Because regional casino slot machines and table games are in essence commodities, drive time is by far the predominant determinant of casino patronage. The drive time impact is manifold because it not only determines the overall level of *per capita* expenditures in the marketplace; it weighs heavily in consumer choice among competing suppliers. In general, the evidence from other markets overwhelmingly indicates that consumer expenditures on regional casino games will flow to the closest supplier to any given market.⁸ Effective player databases, clever promotions, amenities such as signature restaurants, concert venues and so forth can play a key role in the relative *attractiveness* of competing gambling properties, particularly if they are in close proximity, but at round trip travel times measured in an hour or more the tyranny of distance generally prevails. That said, casino patrons sometimes do visit more distant facilities, particularly if there is a critical mass of casinos or amenities that they cannot get at the nearest facility and they will spend more per visit at those casinos, but the local (nearby) supplier will usually get the lion's share of that patron's annual gambling budget.

To recap, the models used for the projections in this report adjust the populations surrounding each facility (or proposed facility) for drive time, *per capita* income,⁹ the proportion of urban to rural residents in the population (urbanites typically spend more), the nonresident "visitor" population, and competition. From these data, we calculate an *adjusted adult population* around each facility, or group of facilities. This measure weights the adults who live closest to a facility (and not closer to a competing facility) at higher values than those who live at greater drive

⁶ The "distance factors" estimated for these models are, technically, the "elasticities" of spending with respect to distance. Based upon survey data from several jurisdictions, rates of casino visitation appear to decline in proportion to about the 0.5 to 0.7 power of the distance to the casino, yielding distance factors of about 0.5 to 0.7. This is a relatively "long-distance" attraction; if distance doubles, for example, spending (other things being equal) declines by only about 30 percent.

⁷ Specifically, the drive time coefficient obtained from the analysis of comparable markets is -.45 for very large scale casino resorts, -.5 for large casinos with hotels and other amenities, -.6 for smaller casinos without a hotel, and -.7 for single product facilities.

⁸ Integrated casino resorts or IRs such as those in Las Vegas, Singapore, Macau, and proposed for Japan are an exception. These markets are unique both in terms of intensity of capital investment and of the many additional attractions that enable them to attract a truly global market.

⁹ We assume that for counties with *per capita* money incomes below regional averages, resort casino spending declines with income with an elasticity of 0.5.

times. Total actual or estimated revenues (or consumer spending) in each market is divided by these adjusted population figures to arrive at a drive time adjusted spending base.¹⁰

THE CURRENT NEW ENGLAND MARKET—MAP AND FACILITY REVIEW

The following section presents an overview of the facilities that comprise the current New England gambling market. Exhibit 1.1 presents a map of this regional market. The locations of the six currently operating gaming facilities (Foxwoods, Mohegan Sun, MGM Springfield, Twin River Casino Hotel, Tiverton Casino Hotel, and Plainridge Park Casino) as well as the soon to open Encore Boston Harbor and the location of the proposed Mashpee Wampanoag Region C casino in Taunton are indicated with pins on this map.

¹⁰ As noted above, these populations are adjusted for several other factors as well; however, the most significant variable, in terms of casino spending, is drive time. Hence, we refer to these populations as “drive time” adjusted.

Exhibit 1.1: Map of the Current (2019) Regional Gaming Market



Source: Christiansen Capital Advisors, LLC

Connecticut Gaming Facilities

Connecticut's two tribal casinos, located approximately 10 miles apart in the Ledyard/Montville area in the southeastern region of the State, are currently the largest destination gaming resort attractions north of Atlantic City, more than 270 miles to the south.

Foxwoods and Mohegan Sun Property Descriptions¹¹

- Foxwoods: Approximately 343 tables; 4,400 slot machines, 3,600 bingo seats; 344,000 square feet of casino floor; 39 restaurants and 3 bars; 2,224 hotel rooms in 4 hotels and \$679 million in gross gaming revenue in calendar 2018;
- Mohegan Sun Casino: 350 table and poker games; 5,072 slot machines; 350,000 square feet of casino floor; 10,000 seat Mohegan Sun Arena; 38 restaurants and 7 bars; 40-story, 1,200 room Sky Tower hotel; the Earth Tower hotel with 361 standard rooms and 39 suites, and \$914 million in gross gaming revenue in calendar 2018.

The Connecticut Division of Special Revenue reports Foxwoods and Mohegan Sun slot gross gaming revenue (GGR). It does not report table GGR. Mohegan Sun and Foxwoods do report both slot and table revenue (for the calendar year) in annual filings with the Securities and Exchange Commission (SEC).

Due in part to the Great Recession and primarily from increased competition in neighboring states, including Rhode Island, Connecticut gross gaming revenue decreased from approximately \$2.4 billion in 2007 to approximately \$1.6 billion in 2018. With the further expansion of racinos and casinos in New York and the addition of casinos and racinos in Massachusetts, particularly MGM Springfield, Connecticut tribal gaming continues to undergo substantial competitive pressure.

Rhode Island Gaming Facilities

Twin River Casino Hotel

Twin River Casino Hotel in Lincoln is four miles (as the crow flies) from the center of Providence and is easily accessible from Massachusetts via the heavily traveled I-95 and I-295 arteries. Twin River Casino Hotel is located in the Town of Lincoln in Providence County, which contains more than half the adult population of the State of Rhode Island. According to our models, Twin River Casino Hotel draws upon a population of over half-million adults within a 10-mile radius of the facility. This large and nearby segment of the market population contributes over 30% of the facilities revenues.

After shaking off the impact of the Great Recession, Twin River Casino Hotel VLT revenue grew more or less steadily for six years until peaking at nearly \$476 million in FY 2012, and then declined marginally in FY 2013 and FY 2014. The decline in gross gaming revenue in the 2013-2014-time period was an industry wide phenomenon. Results in Rhode Island are consistent with the performance of gaming markets across the United States during that time. The majority of stable gaming markets (markets without material supply additions or other

¹¹ <http://connecticut.casinocity.com/>

changes) across the country began to contract, or only slightly grow, on a year over year basis in 2013 and 2014.¹²

In FY 2015, VLT revenue at Twin River Casino Hotel was \$470.8 million. The Plainridge Park casino opened in June of 2015, or right at the end of that fiscal year. In FY 2016, the first full year of competition for Twin River Casino Hotel from nearby Plainridge Park, VLT revenue declined by \$27 million or 5.74% from FY 2015, an additional \$7.5 million or 1.7% in FY 2017, and \$1.4 million or 0.3% in FY 2018. Revenue from table games has been increasing steadily since they started operating at Twin River Casino Hotel in FY 2014, totaling \$145.8 million in FY2018, more than offsetting the decline in VLT revenues since the opening of Plainridge Park.¹³

Tiverton Casino Hotel

Twin River Worldwide Holdings purchased the Newport Grand casino in Newport, Rhode Island in July 2015, and, after passage of an authorizing referendum in November 2016, transferred that license on August 29, 2018 to an 80,000 square foot casino in Tiverton, Rhode Island off Route 81 only hundreds of feet from the Massachusetts border in Fall River. Tiverton Casino Hotel is currently equipped with 1,000 VLTs, 32 table games, and amenities such as a full-service restaurant and entertainment with an attached three-story 84-room hotel. The transfer of gaming operations from the Newport Grand slot parlor to Tiverton Casino Hotel has been a success. Although only being open since late August, we estimate Tiverton Casino Hotel is on track to more than double the revenue of Newport Grand in FY2019 with \$92.8 million in VLT revenue and \$20.3 million in table game revenue for a total gross gaming revenue (GGR) of \$113.1 million compared to the \$46.5 million generated by Newport Grand in FY 2018.

Massachusetts Gaming Facilities

The following section presents a description of the currently open, soon to be open, and proposed casino facilities in Massachusetts. We present a description of the relative size, amenities, and gross gaming revenues of these properties in the order that they opened or are scheduled to open.

Slots Only Facility: Plainridge Park Casino in Plainville, Massachusetts

Formerly a small harness track located in Plainville, Massachusetts, Plainridge Park Casino still offers approximately 105 live racing days per year in April to November and simulcasting all year round. The length of the racecourse is 5/8 mile and the length of stretch is 600 feet. The original Plainridge Racecourse offered the “21 Club,” which is a 172-seat simulcast theater with 80-inch TV screens, and 15-inch LCD TVs. The racecourse provides 3,500 seating accommodations, in Grandstand, Simulcast Theater and Clubhouse.

Penn National Gaming was the first company awarded a gaming license (Category 2) with a 3-to-2 majority vote by the Massachusetts Gaming Commission on February 28th, 2014. The \$225

¹² This phenomenon is described in greater detail with a market-by-market analysis in another study recently completed by CCA. Christiansen Capital Advisors, LLC. “Analysis of the Demand for and the Revenue Impact of the Award of a Casino License in Cedar Rapids on the Central Eastern Iowa Casino Market.” <https://irgc.iowa.gov/document/wild-rose>.

¹³ Table gaming is considerably less profitable for both the casino and the State of Rhode Island, however.

million Plainridge Park Casino opened on June 24, 2015. The horse track racino's gaming space features its full allotment of 1,250 slot machines in a 106,000 square foot expansion to the existing racecourse site.¹⁴ The property has eight restaurants and one bar, and Penn National Gaming added approximately 1,620 structured and surface parking spaces to the existing facility. In 2018 Plainridge Park Casino generated \$171.6 million in gross gaming revenue from slot machines, an increase of \$6.8 million, or 4.1% from 2017 (Exhibit 1.2).

Region B Casino: MGM Springfield in Springfield, Massachusetts

On June 13, 2014, the Massachusetts Gaming Commission awarded a casino license for Region B¹⁵ to MGM Springfield. MGM Springfield offers 3,000 slots and 75 table and poker games in approximately 125,000 square feet of gaming space. As of the date of this report, the property also includes one bar, 12 restaurants, and 250 hotel rooms. As of the end of December 2018, MGM Springfield had generated \$101.7 million in gross gaming revenue since its August 24, 2018 opening date. On an annualized basis, that \$101.7 million suggests a run rate of about \$300-350 million. This is substantially below MGM's \$500 million year three projection for the property, unless performance meaningfully improves.¹⁶

Region A Casino: Encore Boston Harbor in Everett, Massachusetts

Wynn Resorts was awarded its casino license for Region A¹⁷ by the Massachusetts Gaming Commission on September 17, 2014. Originally budgeted at \$1.7 billion the project has since expanded to \$2.4 billion,¹⁸ Encore Boston Harbor is planning on deploying 3,242 slot machines and 168 table games and a 90-table poker room in a 193,000 square foot gaming facility. The property is anticipated to be a five-star resort with more than 600 hotel rooms, a nightclub with more than 30,000 square feet of floor space, high-end spa, retail, dining, and a ballroom and meeting space. In addition, Encore Boston Harbor plans to incorporate approximately 33,000 square feet of exhibition space and multi-purpose rooms, 77,250 square feet of retail and 3,750 parking spaces (2,900 in a covered parking structure and approximately 850 offsite). The resort is scheduled to open in June of 2019.

Exhibit 1.2 presents a historical performance summary of all the above-described gaming facilities (slot machines, VLTs, table games and sports wagering) in southern New England over the past six calendar years. CCA has converted all values to calendar rather than fiscal years because we can only get Connecticut table revenues by calendar year. It also carries the benefit of providing the most up to date data with the very recent end of Calendar 2018. In this exhibit the Connecticut casinos, Mohegan Sun and Foxwoods, are indicated by blue bars (slots and tables), Twin River Casino Hotel, Newport Grand, and Tiverton Casino Hotel with orange bars, and Massachusetts gaming facilities MGM Springfield and Plainridge Park Casino with red bars.

¹⁴ Plainridge Racecourse Visitor's General Information. <http://www.prcharness.com/Visitor_Info/General_Info/general_info.html> 25 Oct 2014.

¹⁵ Region B includes Hampshire, Hampden, Franklin and Berkshire counties in western Massachusetts.

¹⁶ Chesto, Jon. "No surprises in early MGM Springfield casino revenue numbers" Boston Globe, September 17, 2018. <https://www.bostonglobe.com/business/talking-points/2018/09/17/mgm-springfield-early-haul-unremarkable/4A3gFq4794uwn0j32BspcK/story.html>

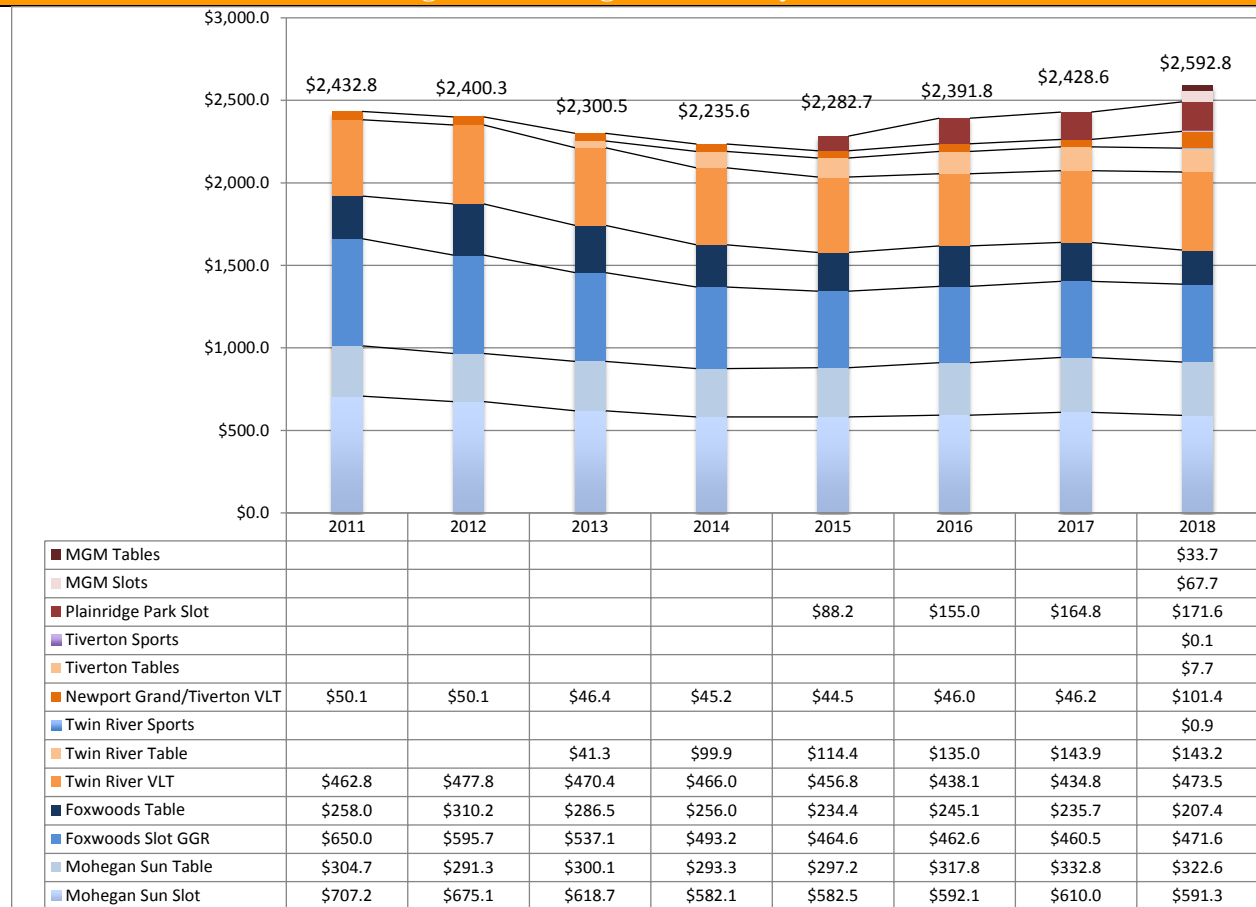
¹⁷ Region A includes Suffolk, Middlesex, Essex, Norfolk and Worcester counties in central Massachusetts.

¹⁸ "Wynn tweaks Everett casino plan as cost rises to \$2.4 billion", Boston.com,

<https://www.boston.com/news/business/2017/03/02/wynn-tweaks-everett-casino-plan-as-cost-rises-to-2-4-billion>

Like most U.S. gaming markets, total gaming revenue in southern New England was down in 2013 and 2014 but began recovering in 2015 and that recovery has continued into 2018. As depicted by the trend lines, the addition of tables and a hotel at Twin River Casino Hotel, the transfer of Newport Grand gaming operations to Tiverton Casino Hotel and their subsequent expansion to table games and the authorization of sports wagering have, so far, substantially mitigated the competitive impact of expanded gaming in Massachusetts. In fact, as of the end of 2018, statewide gaming revenue in Rhode Island has increased from \$615.8 million in 2015 (the year Plainridge Park Casino opened) to \$726.8 million in 2018 an increase of 18%; this makes Rhode Island somewhat unique by *increasing* gaming revenue in the face of out-of-state competition.

Exhibit 1.2: Southern New England Gaming Revenues by Calendar Year (in \$s millions)



Source: Rhode Island Lottery, Massachusetts Gaming Commission, Connecticut Division of Special Revenue, Mohegan Tribal Gaming Authority Form 10-K, Electronic Municipal Market Access, Christiansen Capital Advisors estimates.

THE NEW ENGLAND GAMING MARKET—PROPOSED FACILITIES REVIEW

Region C Casino: First Light Casino in Taunton, Massachusetts (Mashpee Wampanoag Tribe)

The Massachusetts Gaming Act envisioned a Class III tribal casino owned by the Mashpee Wampanoag tribe in Region C¹⁹ provided that the United States Secretary of the Interior took land for the casino into trust. The legislation also left open the possibility of a commercial casino in that region should the Tribe fail to succeed in gaining trust lands.²⁰

In 2015 the Department of the Interior under President Barack Obama took 151 acres in Taunton and 170 acres in Mashpee into trust for the Mashpee Wampanoag tribe. A group of East Taunton residents, financed by Rush Street Gaming (that wants to build a commercial Region C casino in Brockton, Massachusetts) filed suit.

Construction had already begun on the project when, in 2016, U.S. District Court Judge William G. Young ruled that United States Department of the Interior (DOI) erred by taking the land into trust (which for practical purposes makes these lands a tribal reservation) because the Tribe was not formally under federal jurisdiction in 1934 when the Indian Reorganization Act was enacted.²¹ The judge remanded the case back to the DOI. In June of 2017, prior to the release of a new finding by the DOI, the Mashpee Wampanoag tribe announced that, "In consultation with the U.S. Department of Interior, the Tribe has suspended its request for review under Category 1 of the Indian Reorganization Act."²²

Nevertheless, in September of 2018, the DOI (now under the Trump administration) agreed with Judge Young's conclusion that the Mashpee Wampanoag did not meet the definition of "Indian." "Because the Tribe was not 'under federal jurisdiction' in 1934, the Tribe does not qualify under the [Indian Reorganization Act's] first definition of 'Indian,'" Assistant Secretary—Indian Affairs Tara Sweeney wrote in a letter to the Tribe.²³ The Tribe then filed a lawsuit against the administration, saying its decision was "arbitrary, capricious and contrary to law, and if left unaddressed, will have a devastating impact on the tribe [sic]."²⁴

Two Massachusetts lawmakers, representatives Bill Keating and Joe Kennedy III, have co-authored legislation to federally recognize the Mashpee Wampanoags and return the land to trust

¹⁹ Region C includes Bristol, Plymouth, Nantucket, Dukes and Barnstable counties in southeastern Massachusetts and Cape Cod.

²⁰ Massachusetts Session Law, Act 2011. Chapter 194. Section 91(e).

²¹ The basis for this decision was *Carcieri v. Salazar*, 555 U.S. 379 (2009), in which the Supreme Court of the United States held that the federal government could not take land into trust that was acquired by the Narragansett Tribe in the late 20th century, as it was not federally recognized until 1983. The Court ruled that the phrase "now under Federal jurisdiction" in the Indian Reorganization Act of 1934 referred only to those tribes that were federally recognized when the act was passed. It ruled that the federal government could not take land into trust for the Narragansett or other tribes that were federally recognized and acquired land after 1934.

²² Although, as a few others have noted, the State of Massachusetts could award a commercial (non-tribal) gambling license to the Wampanoag tribe thereby circumventing the need for the casino site to be taken into Trust under the Indian Gaming Regulatory Act (IGRA), but this would likely require reopening of the competitive bidding process for Region C.

²³ <https://www.indianz.com/News/2018/09/10/mashpee090718.pdf>

²⁴ by Shafik Mandhai, "Native American Mashpee tribe turns to Congress in land dispute" Aljazeera, 14 Nov 2018.

<https://www.aljazeera.com/news/2018/11/native-american-mashpee-tribe-turns-congress-land-dispute-181114184734541.html>

status. The Mashpee Tribe Reservation Reaffirmation Act²⁵ is about one page and simply states that all laws with “general applicability to Indians” apply to the Mashpee Wampanoags. In other words, the members of the Mashpee Wampanoag Tribe are “Indians.” The bill has 21 Republican and Democratic co-sponsors, although it is vehemently opposed by Rhode Island’s Congressional delegation.²⁶

At the time of writing this report, the future of the Mashpee Wampanoag’s First Light Casino is uncertain, although we believe it unlikely that the Region C gambling license created by the Massachusetts Gaming Act will remain dormant forever. Furthermore, the Tribe has vowed to “investigate all options” and “examine all avenues available under the law.”²⁷ In the absence of another viable location until and unless the State of Massachusetts re-opens Region C for bidding, we have assumed for the purposes of our analysis that the First Light Casino will eventually get built, but that it will likely be years from now. We have assumed a July 2021 opening date for the First Light Casino.

The Mashpee Wampanoag Tribe proposal is a \$500 million casino and resort facility in East Taunton, which is located approximately 35 miles south of Boston and 20 miles east of Providence (Exhibit 1.3).

The Tribe has proposed a phased construction plan (also known as The Project First Light Casino plan). Phase 1 of the construction plan involves building a 150,000 square foot casino facility with 3,000 slot machines, 150 house banked table games, and 40 poker tables. Phase 1 of the plan will also include the following facilities: a 2,500 to 3,200 space-parking garage, 2,085 surface parking spaces, a food court, an international buffet, two dining restaurants, a center bar with lounge seats and a small stage and 7-10 retail stores.²⁸

Exhibit 1.3 presents a detailed summary of the scope of the three casinos in Massachusetts.

²⁵ <https://www.congress.gov/115/bills/hr5244/BILLS-115hr5244ih.pdf>

²⁶ By Rebecca Nagle, This Thanksgiving, The Trump Administration Is Taking Land From The Tribe That Welcomed The Pilgrims”, Huffington Post, Nov 25, 2018, https://www.huffingtonpost.com/entry/trump-wampanoag-reservation-thanksgiving_us_5bf5b80de4b03b230f9e44ac

²⁷ <http://www.tauntongazette.com/news/20170627/mashpee-wampanoag-land-in-trust-taunton-casino-deal-hits-another-snag>

²⁸ <http://www.mashpeewampanoagtribe.com/content/pages/77/MWT-Presentation.pdf>

Exhibit 1.3: Project Summaries for Massachusetts Casinos

Massachusetts Casinos - Project Summaries			
Applicant	Springfield/ MGM	Everett/ Wynn	Mashpee Wampanoag
Name	MGM Springfield	The Wynn Resort in Everett	The Mashpee Wampanoag Tribe
Location	Springfield, MA	Everett, MA	Taunton, MA
Construction Period	27 months	36 months	Construction begun but halted after court decision
Opening Date	September 2018 [1]	June 2019 [3]	July 2022E
Project Size	759,000 square feet [4]	3,096,700 square feet [3]	151 acres [8]
Gaming			
Slots	3,000 [2]	3,242 [5]	3,000 [9]
Table Games	75 [3]	168 [5]	150 [9]
Area (sq ft)	125,000 [3]	192,543	150,000 [9]
Non-Gaming			
Shops & Restaurants	15 [3]	10	7-10 branded themed outlets; International buffet; two fine dining restaurants [9]
Total Seats	2,065	1,160	
Hotel	6-story hotel with 250 rooms [4]	365-foot glass-like hotel tower [5] with 671 rooms [3]	three 300-room hotels [7]; 12 stories in height [9]
Entertainment	Eight-screen cinema, bowling alley and an outdoor stage [3]	Nightclub, 1,000 seat multi-purpose venue, 500 seat outdoor amphitheatre	25,000 square foot water park [7]; bar, spa, large pool, roof terrace [9]
Exhibition/Meeting Space	19,388 sq ft	32,942 sq ft [5]	6 Event/meeting rooms; 15,000 sq ft event center [9]
Retail	55,000 sq ft dining, retail, and entertainment space [3]	77,250 sq ft retail [5]	10 retail stores [9]
Parking (spaces)	Multi-level parking garage with 5,000 parking spaces [3]	3,750 [3]	2,500 to 3,200 space-parking garage, 2,085 surface parking spaces [7]

Sources:

- [1] http://www.masslive.com/news/boston/index.ssf/2015/08/massachusetts_gaming_commissio_9.html
- [2] <http://www.courant.com/business/hc-mgm-springfield-casino-groundbreaking-0324-2-20150324-story.html>
- [3] <https://massgaming.com/wp-content/uploads/Encore-Boston-Harbor-Quarterly-Report-2018-Q3.pdf>
- [4] <http://netimegambling.com/2015/08/20/wynn-everett-anticipation-builds-above-turmoil/>
- [5] <http://netimegambling.com/2015/08/20/wynn-everett-anticipation-builds-above-turmoil/>
- [6] <http://boston.cbslocal.com/2015/09/19/mashpee-wampanoag-tribal-leaders-plan-to-start-mass-casino-construction-in-2016/>
- [7] <http://www.mashpeewampanoagtribe.com/content/pages/77/MWT-Presentation.pdf>
- [8] <http://www.indianz.com/IndianGaming/2015/09/21/mashpee-wampanoag-tribe-aims-t.asp>
- [9] <http://www.mashpeewampanoagtribe.com/content/pages/77/MWT-Presentation.pdf>
- [10] The Connecticut Mirror, House votes for final approval of tribes' casino in East Windsor By: MARK PAZNIOKAS | June 7, 2017
- [11] Christiansen Capital Advisors, LLC. estimate
- [12] <https://netimegambling.com/2017/02/27/east-windsor-is-chosen-by-mmct-for-ct-casino/>

RHODE ISLAND GAMING AND STATE REVENUE FORECASTS

Utilizing the models and methodology developed in our assessment of the current casino gambling market in New England (which is described in the previous section) we constructed estimates of the impact of the MGM Springfield and Encore Boston Harbor casinos and the Plainridge Park Casino in Massachusetts on Rhode Island gaming revenues and the State of Rhode Island's revenues derived from gaming. CCA also utilized three and a half years of historical data on the Plainridge Park Casino's operations and five months of historical data on MGM Springfield's operations as a basis for our projections. The projections for the Encore Boston Harbor casino were derived solely from models we have developed over the many years of performing this type of analysis.

In evaluating the Plainridge property, we have assumed that the lack of table games at Plainridge, the availability of smoking at Twin River Casino Hotel, and the statutory slot machine cap of 1,250 units at Plainridge will continue to give Twin River Casino Hotel a competitive advantage.²⁹ These two sites, only 11 miles apart, aggressively compete for gamblers. Both Plainridge and Twin River Casino Hotel draw from areas that are rich in population and *per capita* income. Our models and results from these areas are very sensitive to changes in facility and/or operator quality. In other words, small differences in facility quality and/or management effectiveness in the densely populated areas of southern Massachusetts and northern Rhode Island could produce large swings in the revenue potential of these gaming facilities.

As discussed elsewhere in this report, geographic proximity is the most important variable when assessing the demand for a proposed casino facility. As casino gaming becomes increasingly available throughout New England, casino visitation becomes more frequent and spending on casino games increases. For example, casino visitation and spending by residents of Massachusetts will increase as travel time to the nearest casino is reduced to 30 minutes or less for the vast majority of Massachusetts' residents.

THE REVENUE IMPACTS OF MASSACHUSETTS CASINOS

As of the writing of this report, the Region C license in Massachusetts remains in limbo, as such, we have constructed three different scenarios for gaming in southern New England: a baseline scenario (Scenario A), consisting of five year projections of Rhode Island gross gaming revenue and the State of Rhode Island's share of that revenue, for Twin River Casino Hotel and Tiverton Casino Hotel with Plainridge Park Casino (opened June 2015), MGM Springfield (opened August 2018), Encore Boston Harbor (opening June 2019) and sports wagering, both on-site at Twin River Casino Hotel and Tiverton Casino Hotel and remotely from anywhere in the State of Rhode Island; a second scenario (Scenario B) consisting of five year projections of Rhode Island gross gaming revenue and the State of Rhode Island's share of that revenue with the Scenario A casino gaming operations and the addition in July 2021 of either a Class III tribal gaming facility or State licensed commercial gaming facility in Taunton, Massachusetts; and, a third scenario

²⁹ Massachusetts Session Law, Act 2011, Chapter 194.

(Scenario C) consisting of a five year projection of Rhode Island gross gaming revenue and the State of Rhode Island's share of that revenue, with the Scenario B casino gaming operations and legalized bricks and mortar and remote sports wagering in Connecticut and Massachusetts. For the purposes of this study we have assumed that sports wagering operations commence in January of 2020 in Connecticut and June of 2020 in Massachusetts.

In all three scenarios, expanded casino gaming in Massachusetts will have measurable negative impacts on gaming revenues in Rhode Island, but that recently authorized sports wagering, a new hotel at Twin River Casino Hotel and the Tiverton Casino Hotel will mitigate some of those impacts. As discussed in the previous section, a substantial portion of Rhode Island gambling revenues are contributed by Massachusetts residents, and, as previously noted, it is relatively rare for the public to drive by one gambling facility to get to another. The result of expanded gaming in southern New England is that some of the Massachusetts spending that currently crosses the Rhode Island border on its way to Rhode Island gaming establishments will stay in Massachusetts. In terms of the relative revenue impacts upon the State of Rhode Island, the following section shows that the closer Massachusetts gaming facilities are located to properties in Rhode Island, the greater the impacts on Rhode Island gaming facilities.

In assessing the impacts of expanded gaming on Rhode Island facilities, we have relied primarily upon a gravity model analysis utilizing the methodologies and methods described in the previous section, and the most recent available data on gaming revenues in concert with updated projected opening dates for each operating casino in the market and the observed historical impacts of Plainridge Park and MGM Springfield on Rhode Island venues.

Gaming markets in the United States caught a tailwind recently due to markedly decreasing gas prices. Prior to that, spending per adult and gross gaming revenues in reasonably supplied markets were in decline. To a large degree, this decline in spending per adult and gaming revenues is reflective of a material change in casino gaming market economics in the United States: baby boomers with less retirement savings after the 2008 market crash; an anemic recovery in the years following that event; millennials and generation Xers that don't gamble at the levels of their parents (and showing a clear preference for table gaming when they do gamble); and the hollowing out of the middle class. All of these things are affecting consumer spending on gambling at some level. As a result CCA projects substantially less "organic growth" in U.S. gaming markets than was observed in the 2000s. For this report, we have assumed underlying non-supply related growth at about -0.5% per year for machine gaming (slots, VLTs, etc.) and +1.7% per year for table gaming.

Timing

Upon consultation with the Department of Revenue, we have assumed in all three scenarios that Encore Boston Harbor opens in June 2019. In Scenarios B and C, we assume that the Mashpee Wampanoag casino located in Taunton opens in July 2021.³⁰

³⁰ Although it is important to note that based upon the experience of the last three years, these projected opening dates are likely to be quite fluid.

SPORTS WAGERING

Sports wagering, once restricted to only four states (and only one, Nevada, was allowed full sports wagering), is expanding rapidly in America. At the time of writing, there are no less than 25 states with active legislation to allow betting on sports.³¹ Rhode Island got in early. In the time since our last report, the State of Rhode Island has affirmatively legalized and implemented sports wagering at Twin River Casino Hotel in late November 2018 and at Tiverton Casino Hotel in early December 2018 and it is expected that statewide remote sports wagering will be authorized in the State this year.

Sports Wagering Background

On May 14, 2018 The Supreme Court of the United States ruled in favor of the State of New Jersey in *Murphy v. NCAA*. At issue in the case was the constitutionality of The Professional and Amateur Sports Protection Act (“PASPA”) a federal law seeking to halt the expansion of sports wagering in the United States passed by Congress in 1992.

PASPA specifically held that it was unlawful for a State or its subdivisions “to sponsor, operate, advertise, promote, license, or authorize by law or compact . . . a lottery, sweepstakes, or other betting, gambling, or wagering scheme based. . . on” competitive sporting events³², and for “a person to sponsor, operate, advertise, or promote” those same gambling schemes if done “pursuant to the law or compact of a governmental entity.”³³ PASPA did not make sports wagering a federal crime. Instead, it allowed the Attorney General, as well as professional and amateur sports organizations, to bring civil actions to enjoin violations.³⁴ The law included “grandfather” provisions which allowed existing forms of sports wagering prior to the passage of PASPA to continue in four States: Nevada, Delaware, Montana, and Oregon. It also would have permitted New Jersey to set up sports wagering in Atlantic City within a year of PASPA’s enactment.³⁵ The one-year deadline came and went without New Jersey taking action on sports wagering.

More than twenty years later, however, New Jersey voters approved an amendment to the State Constitution giving the legislature the authority to legalize sports wagering in Atlantic City and at horseracing tracks. The New Jersey legislature quickly exercised that authority, and almost immediately the NCAA and three major professional sports leagues brought an action in federal court against New Jersey’s Governor and other state officials on the grounds that it had violated PASPA.

³¹ Ramsey, Eric. “Bookmaking Legislative Lasso: Half Of US States Look At Legalizing” Legal Sports Report. Feb 1, 2019. <https://www.legalsportsreport.com/28447/sports-betting-bills-february-1/>

³² 28 U. S. C. §3702(1)

³³ 28 U. S. C. §3702(2)

³⁴ 28 U. S. C. §3702(3)

³⁵ §3704(a)(1)–(3)

The New Jersey legislature enacted law in 2014 that partially repealed its own sports wagering ban.³⁶ Over the next three years, New Jersey lost in both federal district court and the US Third Circuit Court of Appeals. New Jersey then appealed the case to the US Supreme Court.

The Supreme Court agreed to hear New Jersey's appeal (granted *certiorari*) in the summer of 2017. Oral arguments in the case took place in December of that year. The majority opinion issued in May 2018 was written by Justice Samuel Alito, and, in sum, held that PASPA is unconstitutional.³⁷

Sports Wagering in Rhode Island

In anticipation of the Supreme Court ruling, Rhode Island began taking affirmative steps to authorize and enact sports wagering in early 2018. On January 18, 2018, a bill was introduced in the Rhode Island Senate (S-2045) that would allow the Rhode Island Lottery to operate sports wagering at the two state operated casinos. Governor Gina Raimondo's FY 2019 Recommended Budget included different statutory language from S-2045 that also implemented sports wagering at Twin River Casino Hotel and Tiverton Casino Hotel and S-2045 was subsequently replaced with S-2045 Substitute A which mirrored the Governor's proposed statutory changes to implement sports wagering. The Governor's FY 2019 proposed budget projected \$23.5 million in revenue to the state from on-site sports wagering at the two facilities.³⁸ These estimated revenues were later included in the FY 2019 Enacted Budget passed by the House of Representatives and the Senate when the statutory language proposed by the Governor to implement sports wagering was modified slightly and passed into law contingent on the overturning of PASPA by the United States Supreme Court.

On April 3, 2018 the Rhode Island Lottery issued a Request for Proposals (RFP) for a "Sports Betting Service Provider for the Rhode Island Lottery." According to the RFP, the Lottery service provider would be responsible for the establishment, implementation, and maintenance of all sports wagering within the state. While initial interest in the RFP seemed high, only one firm, IGT (and their sports wagering partner U.K. based William Hill), submitted a final bid.

On May 15, 2018 (one day after the Supreme Court's ruling in *Murphy v. NCAA*) Rhode Island lawmakers held the first post-PASPA hearing in the United States. The legislature passed the FY 2019 Enacted Budget including the slightly modified sports wagering provisions proposed by the Governor in mid-June and Governor Raimondo signed it into law on June 22, 2018. As noted

³⁶ The 2014 law was narrowly tailored as a "partial repeal" after the first attempt, a similar law passed in 2012, was contested by the NCAA and the leagues in Federal Court but failed to be granted *certiorari* by the United States Supreme Court.

³⁷ Key components of the ruling include: that when a State completely or partially repeals old laws banning sports gambling schemes, it for practical purposes "authorize[s]" those schemes under PASPA; PASPA's provision prohibiting state authorization of sports gambling schemes violates the anticommandeering rule; PASPA's provision prohibiting "licens[ing]" of sports gambling schemes also violates the anticommandeering rule. It issues a direct order to the state legislature and suffers from the same defect as the prohibition of state authorization. Thus, this Court need not decide whether New Jersey's 2014 law violates PASPA's antilicensing provision."

³⁸ The estimated revenue to the state from sports wagering for FY 2019 was subsequently reduced to \$11.5 million at the November 2018 Revenue Estimating Conference. Thus, the amount of revenue included in the FY 2019 budget from on-site sports wagering is now one-half of the original estimate.

above, sports wagering commenced at Twin River Casino Hotel on November 26, 2018 and at Tiverton Casino Hotel on December 3, 2018. Furthermore, on January 16, 2019 Senate President Dominick Ruggerio submitted legislation (S-0037 since replaced by S-0037 Substitute A) to allow remote sports wagering statewide in Rhode Island.³⁹ S-0037 Substitute A passed the Senate on February 13, 2019 and the approved bill has been referred to the House Finance Committee for consideration and action. It should be noted that Speaker of the House Nicholas A. Mattiello submitted H-5241, a companion bill to S-0037, and a hearing before the House Finance Committee on this bill was held on February 7, 2019. Given the support of the leadership of the General Assembly and the Governor, it is expected that statewide remote sports wagering will become available in Rhode Island in FY 2020.

As noted previously in this section, half of all U.S. states are considering legalizing some form of sports wagering adding to the seven states that approved it in 2018 and those states include neighboring Massachusetts and Connecticut.

Massachusetts Sports Wagering

Massachusetts has allowed legal and regulated daily fantasy sports (DFS) since 2016. There are currently no fees or taxes on DFS operations in Massachusetts, but that arrangement expired in 2018. Massachusetts's lawmakers are considering adopting a new schedule of taxes and fees on DFS, including licensing fees and taxes of up to 12.5 percent on revenues as part of a broader legalization of sports wagering in the Commonwealth.

There are currently four bills pending in Massachusetts in regard to sports wagering. SD 908, sponsored by Senator Bruce Tarr, would create an 11-person study commission to examine sports wagering in Massachusetts. The commission would be given 180 days to complete its report to the legislature.⁴⁰

SD 882, sponsored by Senator James Welch, would enable existing Massachusetts casinos to begin sports wagering operations, including both in-person and mobile sports wagering. The legislation levies a 6.75 percent tax on sports wagering revenue.⁴¹

SD 903, sponsored by Senator Brendan Crighton, also legalizes both retail and mobile sports wagering operations in Massachusetts. This bill would levy an initial license fee of \$500,000 per operator and sports wagering revenue would be taxed at 12.5 percent of gross revenue.⁴²

Governor Charlie Baker introduced H 68 "An Act Expanding Sports Wagering in the Commonwealth" in the current session. Baker's bill would allow the Massachusetts Gaming Commission to license the State's three casino operators to offer both on-site and online sports wagering, but the proposal would also allow other entities, such as daily fantasy sports operators, (including Boston based Draft Kings) to also be licensed for sports wagering. Baker's proposal

³⁹ <https://legiscan.com/RI/text/S0037/id/1851946>. The FY 2019 Enacted Budget already provided for remote, or mobile, sports wagering within the property boundaries of the Twin River Casino Hotel and Tiverton Casino Hotel, including in the parking lots of the two facilities.

⁴⁰ <https://malegislature.gov/Bills/191/SD908>

⁴¹ <https://malegislature.gov/Bills/191/SD882>

⁴² <https://malegislature.gov/Bills/191/SD903>

would levy a 10 percent tax on in-person sports wagering at casinos, while online bets would be taxed at 12.5 percent. The governor's proposal would not allow betting on college sports or other amateur sporting events.⁴³

Connecticut Sports Wagering

In 2017, Connecticut lawmakers passed a gaming bill that authorized a tribally owned casino in East Windsor, expanded the number of Off Track Betting (OTB) sites, and instructed the State's consumer protection department to begin establishing a regulatory structure for sports wagering in the event of PASPA being overturned.⁴⁴ The Connecticut legislature adjourned on May 9, 2018 five days before the Supreme Court's ruling in *Murphy v NCAA*. Connecticut's existing law in theory became active with the Supreme Court's ruling, but regulators asked for more direction from the legislature including details such as who should be allowed to offer sports wagering in the State.

Given the above, we expect Connecticut to move quite quickly on sports wagering in the current legislative session. There are currently two bills pending in the Connecticut legislature to authorize sports wagering. The first is SB 17 which was introduced by Senator Catherine A. Osten and would not only allow remote and in person sports wagering by the State's two Indian tribes but also full scale Internet gaming including casino games and poker as well as allow the State lottery to offer Keno over Internet enabled devices.⁴⁵ The second is SB 665, introduced by Senator Martin M. Looney "An Act Concerning Sports Wagering" that would allow sports wagering only. The bill is unclear if that includes remote betting or who would be allowed to conduct sports wagering.⁴⁶

For forecasting purposes, we have assumed in Scenarios B and C that both remote and in person sports wagering will be authorized and made operational in Connecticut and Massachusetts by January and June of 2020, respectively.

SPORTS WAGERING REVENUE FORECASTS

To produce estimates of sports wagering revenue in Rhode Island, CCA utilized its gravity modeling technique discussed earlier in this report using three sets of comparables and two methodologies. For in person or onsite betting at Twin River Casino Hotel and Tiverton Casino Hotel, we relied on the experience of local Nevada sports wagering markets such as Downtown Las Vegas and the Boulder Strip as well as models of newly implemented sports wagering results in West Virginia, Delaware, and New Jersey (utilizing estimates of sports wagering revenue for 2019 based on reported 2018 results) as well as comparing these results with the early returns from sports wagering in Rhode Island. For remote, or online, betting we utilized a weighted average of per adult remote betting results from Nevada the United Kingdom as well as

⁴³ <https://malegislature.gov/Bills/191/H68>

⁴⁴ Keating, Christopher and Gosselin, Kenneth R. "House Approves East Windsor Casino, But MGM Expects Legal Battle" Hartford Courant. June 7, 2017. <https://www.courant.com/politics/hc-house-casino-debate-20170606-story.html>

⁴⁵ https://www.cga.ct.gov/asp/cgabillstatus/cgabillstatus.asp?selBillType=Bill&bill_num=SB00017&which_year=2019

⁴⁶ https://www.cga.ct.gov/asp/cgabillstatus/cgabillstatus.asp?selBillType=Bill&which_year=2019&bill_num=Sb665

estimates for less developed remote sports wagering markets such as New Jersey. As we expected, data from newly authorized sports wagering states lags the more developed markets such as Nevada and the U.K. but we expect this gap to close as sports wagering becomes more developed and mature in these new jurisdictions.

As described above, and shown in the proceeding exhibit, it is the very early days for sports wagering in the United States outside the State of Nevada. Exhibit 1.4 presents total sports wagering revenue for the seven states that authorized sports wagering in 2018. None have yet operated for a full year. While the methodology employed by CCA in generating projections for sports wagering in Rhode Island is sound and CCA’s knowledge and years of global experience in the industry is unsurpassed, the relative paucity of available data will inherently make our forecasts for Rhode Island sports wagering subject to greater variability than similar projections for slot machines and table games.

Exhibit 1.4: United States Sports Wagering 2018

Month	Delaware	Mississippi	Nevada	New Jersey	Pennsylvania	Rhode Island	West Virginia	Total
January	-	-	\$25,089,000	-	-	-	-	\$25,089,000
February	-	-	\$10,691,000	-	-	-	-	\$10,691,000
March	-	-	\$34,163,000	-	-	-	-	\$34,163,000
April	-	-	\$16,324,000	-	-	-	-	\$16,324,000
May	-	-	\$20,476,000	-	-	-	-	\$20,476,000
June	\$875,216	-	\$20,173,000	\$3,458,668	-	-	-	\$24,506,884
July	\$461,226	-	\$4,061,000	\$3,845,880	-	-	-	\$8,368,106
August	\$706,780	\$645,057	\$12,604,000	\$9,198,272	-	-	-	\$23,154,109
September	\$3,153,529	\$5,503,793	\$56,304,000	\$23,775,366	-	-	\$2,129,235	\$90,865,923
October	\$448,578	\$1,178,343	\$29,547,000	\$11,686,119	-	-	\$1,010,246	\$43,870,286
November	\$1,124,979	\$1,674,250	\$27,136,000	\$21,243,865	\$508,997	\$72,997	\$1,371,803	\$53,132,891
December	\$2,149,611	\$6,174,224	\$44,106,000	\$20,814,222	\$2,006,546	\$957,913	\$2,247,152	\$78,455,667
YTD	\$8,919,919	\$15,175,668	\$300,674,000	\$94,022,392	\$2,515,542	\$1,030,910	\$6,758,436	\$429,096,867

Note: Total sports betting revenue per state; includes both in-person and online/mobile play, where applicable.
 Nevada has had legal sports betting since 1931
 Delaware began sports betting on June 5th 2018
 Mississippi began sports betting on August 1st 2018
 Pennsylvania began sports betting on November 17th 2018
 Rhode Island began sports betting on November 26th 2018
 New Jersey began sports betting on June 14th 2018

Source: David G. Schwartz and Autumn Bassett. United States Sports Betting: Monthly and Year-to-Date Revenue Results from States. Las Vegas: Center for Gaming Research, University Libraries, University of Nevada Las Vegas, 2019.

In Exhibit 1.7 we take the data for sports wagering in the seven states that allowed it in 2018 and compare these results with the adult populations of these states as well as the more developed market for bookmaking in the United Kingdom. Bookmaking has been legal in the UK since 1960, remote betting via the technology of the day, the telephone, was also legal,⁴⁷ thus when the world was altered by the Internet and mobile technology, U.K. bookmakers were allowed to embrace this sea change unencumbered. As sports wagering spreads across America we believe that our neighbor across the pond will serve as a useful analog of the likely breadth and depth of sports wagering in the United States. For that reason we have included that experience as well in generating our projections for remote sports wagering in Rhode Island.

In the case of emerging markets where sports wagering is just getting underway and experiencing rapid growth, CCA has generated estimates for 2019 based upon that observed

⁴⁷ Entirely by accident in most historical accounts. It is not that remote telephone betting was affirmatively legalized by the Betting Gaming and Lotteries Act of 1960, but rather that the act was silent on telephone betting.

rapid growth and the available reported data from 2018. The State of Nevada only reports total sports wagering revenue, it does not break down these figures into remote versus in person betting. However, William Hill’s CEO of US operations, Joe Asher, (William Hill has partnered with many Nevada casinos for sports wagering) reported at the industry trade show G2E that roughly 75% of Nevada sports betting is now processed remotely.⁴⁸ Thus, as depicted in Exhibit 1.5, remote betting per adult ranges from a low of \$23.80 in New Jersey (and, given the rapid growth and continued build out of sports betting in New Jersey, CCA expects that number will at least double by 2019) to \$98.50 in the entire State of Nevada and that remote betting makes up the lions share (63% to 75%) of sports betting revenue.

To generate estimates for remote sports betting in Rhode Island we have averaged the most comparable remote per adult spending figures of the United Kingdom, Nevada (excluding the large strip casinos that cater primarily to international travelers) and double the \$23.80 per adult sports wagering estimated for New Jersey in 2019. We have doubled New Jersey because it is a still developing and rapidly growing market that we expect to continue for at least the next two years. The result is a per adult spending of around \$53.53 that we applied to the estimated 2021 adult population in Rhode Island to generate FY 2021 remote sports wagering revenue of around \$43 million.

Exhibit 1.5: Per Adult Spending on Sports Wagering

	Adult (US21+, UK18+) Population (000s)	Remote Sports Wagering Revenue (\$MMs)	Onsite Sports Wagering Revenue (\$MMs)	Total Sports Wagering Revenue (\$MMs)	Remote per adult	Onsite per Adult	Total per Adult	Remote % to Total
<i>Developed Markets</i>								
United Kingdom	51,312.7	\$2,233.5	\$1,297.6	\$3,531.1	\$43.5	\$25.3	\$68.8	63.3%
Nevada Statewide	2,289.5	\$225.5	\$75.2	\$300.7	\$98.5	\$32.8	\$131.3	75.0%
Nevada ex The Strip	2,289.5	\$124.8	\$41.6	\$166.5	\$54.5	\$18.2	\$72.7	75.0%
Nevada ex The Strip \$72MM+	2,289.5	\$158.9	\$53.0	\$211.9	\$69.4	\$23.1	\$92.5	75.0%
<i>Emerging Markets(1)</i>								
Delaware (2)	749.9	\$0.0	\$21.8	\$21.8	\$0.0	\$29.1	\$29.1	0.0%
Mississippi (2)	2,247.8	\$0.0	\$52.0	\$52.0	\$0.0	\$23.1	\$23.1	0.0%
New Jersey	6,956.4	\$165.8	\$64.5	\$230.3	\$23.8	\$9.3	\$33.1	72.0%
West Virginia	1,431.7	n/a (2)	\$29.0	\$29.0	n/a	\$20.3	\$20.2	n/a

(1) Revenues for emerging markets are 2019 estimates based on 2018 results

(2) Remote wagering currently unavailable

(3) Remote wagering did not begin in West Virginia until 12/29/18

Sources: U.K. Gambling Commission, United States Census Bureau, Nielsen/Claritas, U.K. Office for National Statistics, Delaware Lottery, West Virginia Lottery, New Jersey Division of Gaming Enforcement, Nevada Gaming Control Board, Mississippi Gaming Commission, Legal Sports Report, Christiansen Capital Advisors estimates.

As discussed above, as sports wagering is relatively new in the United States CCA’s projections for sports wagering will be subject to greater variability than our projections for table and machine gaming. In addition, sports wagering is unlike slot machine or table gaming in one very material respect—volatility of hold. Over the course of a year the hold percentage (what is retained by the operator as revenues expressed as percentage of the total amount wagered) for machine and table gaming is almost entirely predictable. Sometimes players or casinos can get

⁴⁸ Candee, Adam. “Casinos Pitch For Fully Remote Registration Of Nevada Sports Betting Mobile App Accounts,” Legal Sports Report. October 16, 2018. <https://www.legalsportsreport.com/24933/nevada-sports-betting-mobile-app-registration/>

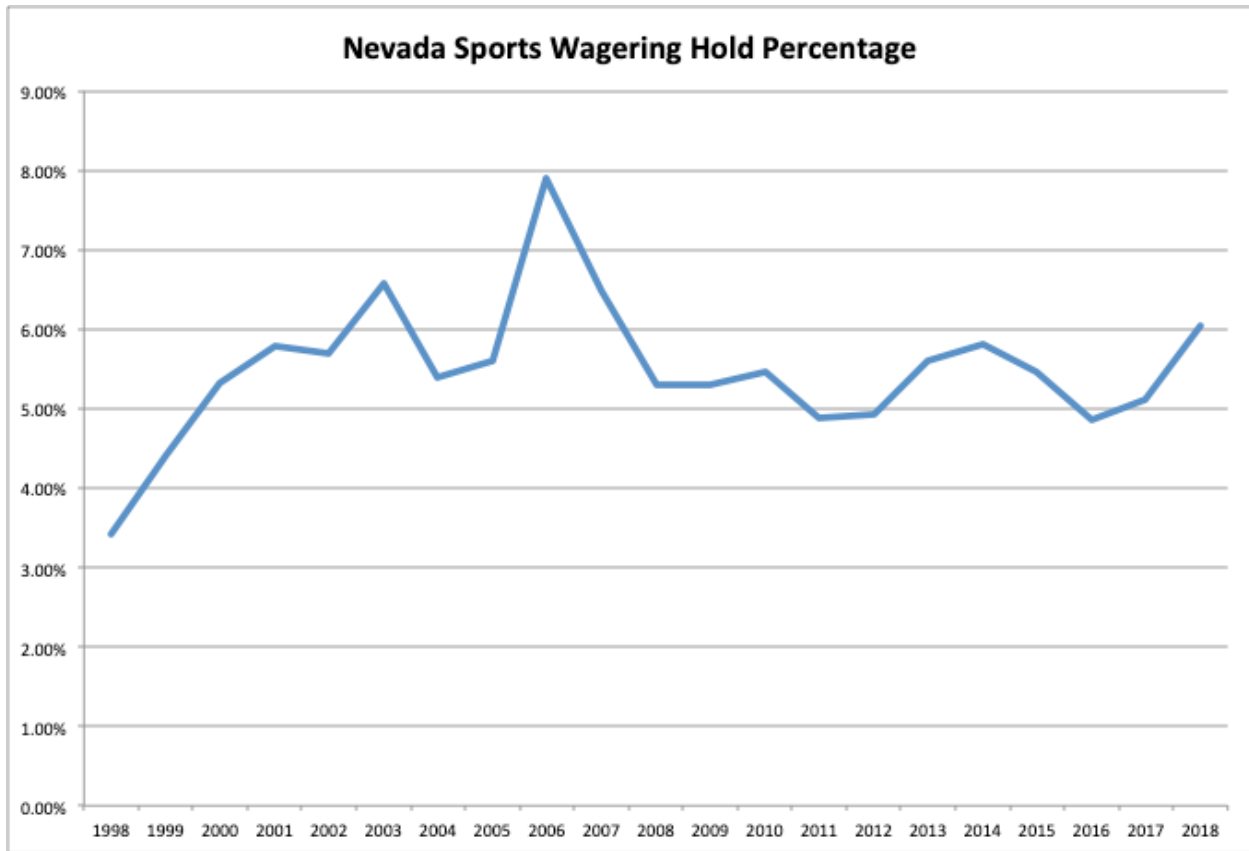
lucky, but over the course of a year the billions of handle pulls on slot machines and rolls of the dice or flip of the cards on table games will **hold** very close to what probability dictates the games should retain. In sports wagering, which is focused on a very finite pool of sporting contests and heavily weighted toward championships and certain sports, sports wagering operators can and do lose, sometimes in a big way. This phenomenon is best depicted by Exhibit 1.6, which shows the sports wagering hold percentage in the entire State of Nevada for the past 20 years. As shown in the exhibit the sports wagering hold can vary widely in any given year from 3.5% in some years to 7.9% in others. Over longer periods we expect sports books to hold about 5.5%. The average hold percentage for sports wagering was 5.52% in the State of Nevada from 1984 to 2018.⁴⁹

In other words, although we forecast sports wagering revenue in whole numbers assuming an industry standard hold percentage, CCA does not expect these forecasts will play out exactly as forecast in any given year, but that in the aggregate, and over the five years projected below, these numbers should prove relatively accurate.

For budgeting purposes, CCA would recommend that the State of Rhode Island should prepare for the worst and hope for the best, because revenue derived from sports wagering will be inherently volatile producing years of feast and famine.

⁴⁹ David G. Schwartz. Nevada Bookmaking Totals: 1984-2018. Las Vegas: Center for Gaming Research, University Libraries, University of Nevada Las Vegas, 2018. https://gaming.unlv.edu/reports/NV_sportsbetting.pdf

Exhibit 1.6: Nevada Sports Wagering Hold Percentage, 1998-2018



Source: University of Nevada Las Vegas Center for Gaming Research

REVENUE FORECAST SCENARIO A: BASELINE

For the purposes of comparison with our previous study and the other scenarios in this report,⁵⁰ CCA has prepared a baseline scenario to assess the extent of the impact of expanded gaming in Massachusetts on Rhode Island revenues assuming only the known (approved and under construction) casinos in Massachusetts and the new hotel at Twin River Casino Hotel and the new casino hotel in Tiverton, Rhode Island with recently authorized sports wagering.

Exhibit 1.7 presents a timeline of the opening of Encore Boston Harbor and remote sports wagering assumed in Scenario A by fiscal year (ended June 30).

Exhibit 1.7: Baseline Scenario Timeline



Source: Rhode Island Department of Revenue, Christiansen Capital Advisors, LLC. estimates

⁵⁰ Christiansen Capital Advisors, LLC, for the Rhode Island Department of Revenue "Rhode Island Gaming and State Revenue Forecast," October 31, 2017.

The resulting projections are presented in Exhibits 1.8 and 1.9.

Exhibit 1.8: Baseline Rhode Island Revenue Projections by Fiscal Year (\$s MM)

GGR (in millions)	2018A	2019E	2020E	2021E	2022E	2023E	2024E	5 Year CAGR
Twin River VLTs	\$434.8	\$435.2	\$413.0	\$410.9	\$408.9	\$406.8	\$404.8	-1.4%
Twin River Tables	\$145.8	\$140.5	\$135.7	\$137.7	\$139.8	\$141.9	\$144.0	0.5%
Twin River Sports Wagering		\$5.5	\$9.9	\$10.9	\$11.3	\$11.6	\$11.9	23.8%
Newport Grand/Tiverton VLTs	\$46.5	\$92.8	\$104.2	\$112.0	\$111.4	\$110.9	\$110.3	3.8%
Tiverton Tables		\$20.3	\$25.3	\$27.2	\$27.7	\$28.1	\$28.5	8.0%
Tiverton Sports Wagering		\$1.0	\$1.8	\$2.0	\$2.1	\$2.1	\$2.2	22.6%
Remote Sports Wagering			\$19.6	\$43.1	\$45.3	\$47.5	\$49.9	
Rhode Island Gaming Revenue	\$627.2	\$695.2	\$709.5	\$743.9	\$746.3	\$748.9	\$751.6	1.6%

Net State Revenue (in millions)*	2018A	2019E	2020E	2021E	2022E	2023E	2024E	5 Year CAGR
Twin River VLTs	\$260.7	\$261.1	\$247.4	\$246.2	\$244.8	\$243.5	\$242.2	-1.4%
Twin River Net Table Revenue	\$18.6	\$18.4	\$17.4	\$17.7	\$18.0	\$18.3	\$18.7	0.3%
Twin River Sports Wagering		\$2.3	\$4.7	\$5.2	\$5.3	\$5.5	\$5.7	30.2%
Newport Grand/Tiverton VLTs	\$27.7	\$55.3	\$62.4	\$67.2	\$66.8	\$66.5	\$66.1	3.9%
Twin River Net Table Revenue		\$1.3	\$1.7	\$2.0	\$2.1	\$2.1	\$2.2	13.9%
Tiverton Sports Wagering		\$0.4	\$0.8	\$0.9	\$0.9	\$1.0	\$1.0	31.8%
Remote Sports Wagering			\$9.3	\$20.7	\$21.7	\$22.8	\$24.0	
Rhode Island Gov't Revenue	\$307.0	\$338.8	\$343.7	\$359.8	\$359.6	\$359.7	\$359.8	1.2%

* Excludes payments to third parties, such as host municipalities.

Facility Assumptions

Tiverton Casino Hotel: 1,000 VLTs, 32 table games, and a hotel with 84 rooms. Newport Grand ceased operations on August 28, and the Tiverton facility opened August 29, 2018.

Twin River-Lincoln: 125 table games and 4,180 VLTs in 2019. Hotel with 136 rooms. We assume that machine counts will decline by 25 per year between FY2020 and FY 2024.

MGM Springfield: 75 gaming tables, 3,000 slot machines and 250-room hotel. Opened August 24, 2018

Encore Boston Harbor: 168 tables, 2,838 slot machines and a 671-room hotel. Projected to open in June, 2019

Remote wagering commences in Rhode Island in January 2020.

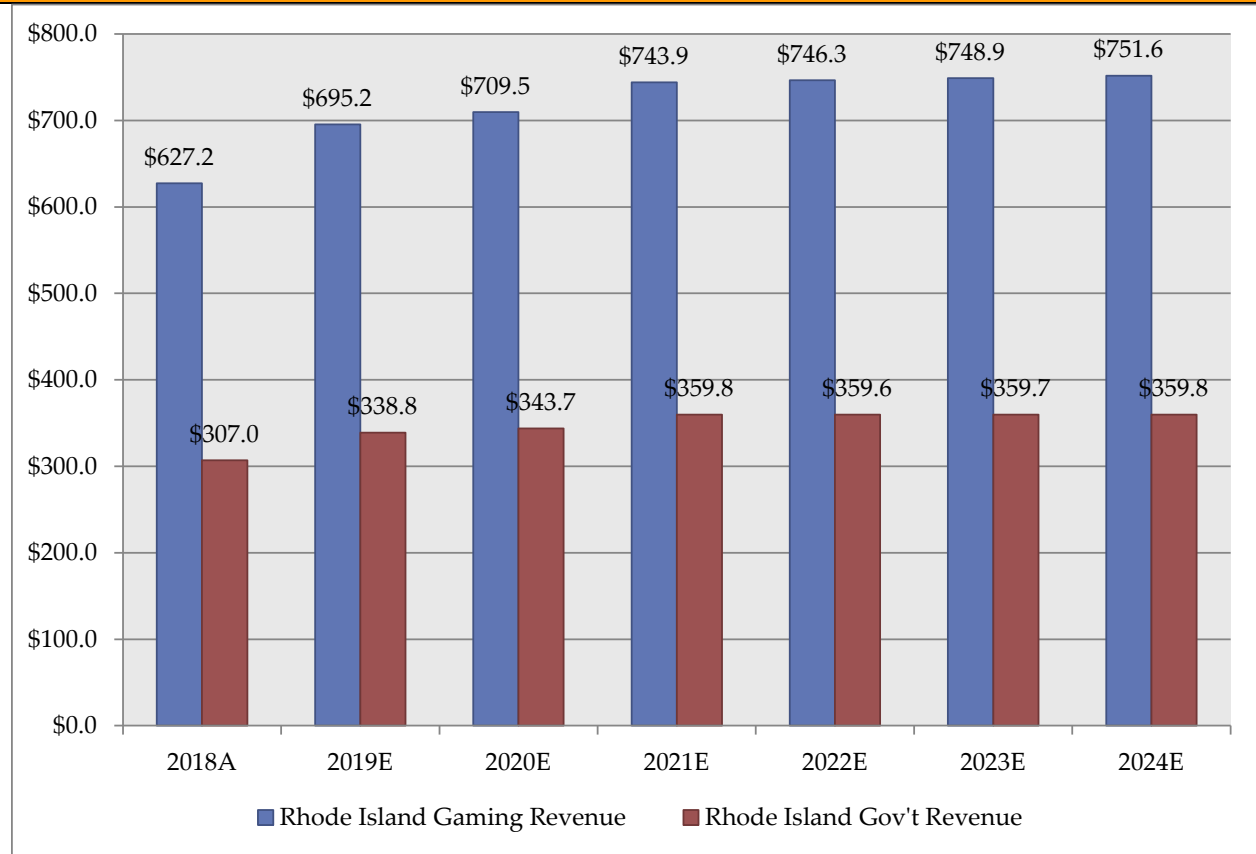
Source: Rhode Island Department of Revenue, Christiansen Capital Advisors, LLC. estimates

In Exhibit 1.8 we project that with anticipated competition from the Encore Boston Harbor casino, Rhode Island gross gaming revenue from VLTs, table games, and sports wagering would grow by approximately \$56.4 million, or 8.1 percent, between FY 2019 and FY 2024. We estimate that the State's share of these revenues will grow by about \$21 million over the same period. We project that the impact of the opening of the Encore Boston Harbor casino in Everett will be modest as gross gaming revenues and the State's share of those revenues increase from FY 2020, the fiscal year in which the Encore Boston Harbor casino opens, through FY 2024. This is mostly due to the offsetting impact of expanded sports wagering in Rhode Island.

We estimate that the Encore Boston Harbor will divert approximately \$20 million in consumer expenditures on VLTs and \$5 million in table revenues from Twin River-Lincoln. We project that the Tiverton Hotel Casino will be impacted as well, but to a lesser degree, with VLT revenues approximately \$10 million lower and tables \$4 million lower than what they would be in the absence of Encore Boston Harbor.

Exhibit 1.9 summarizes and expresses in graphical form the results from Exhibit 1.8. CCA’s analysis concludes that in the absence of a Region C casino in Taunton, Rhode Island gaming revenues will continue to rise (albeit slightly) despite additional competition for New England gaming customers from Encore Boston Harbor.

Exhibit 1.9: Baseline Rhode Island Revenue Projections by Fiscal Year (\$s MM)



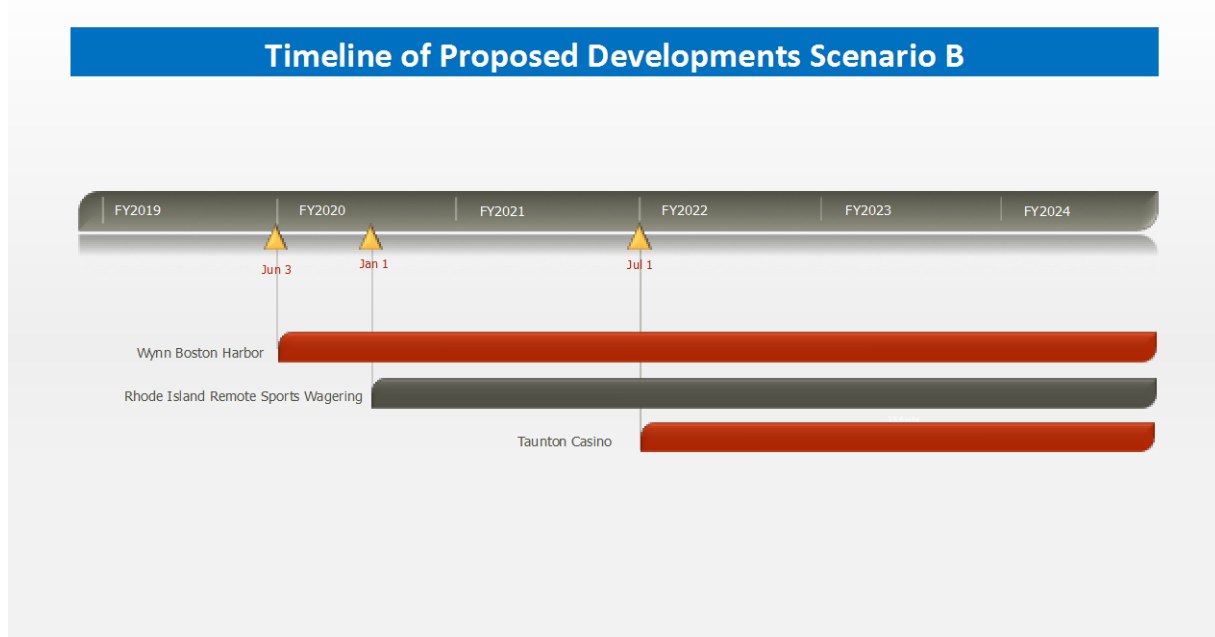
Source: Rhode Island Department of Revenue, Christiansen Capital Advisors, LLC. estimates

REVENUE FORECAST SCENARIO B: NEW CASINOS IN EVERETT (ENCORE BOSTON HARBOR) AND TAUNTON, MASSACHUSETTS

The following scenario examines the impact of expanded gaming in southern New England on Rhode Island revenues if there are (as authorized) three casinos in Massachusetts, specifically MGM Springfield, Encore Boston Harbor, as well as a tribally owned casino in Taunton, Massachusetts and the slots only venue at Plainridge Park Casino.

Since the exact date of the opening of a Mashpee Wampanoag casino is still uncertain (and, if the past is any guide, likely to change), and for ease of calculation, we have assumed that the Taunton casino opens on July 1st 2021. Exhibit 1.10 presents a timeline of the opening of the casinos assumed in Scenario B by Rhode Island fiscal year.

Exhibit 1.10: Scenario B Timeline



Source: Rhode Island Department of Revenue, Christiansen Capital Advisors, LLC. estimates

Exhibit 1.11 presents our estimates of the impacts of a potential casino in Taunton, Massachusetts. We project that these impacts will be significant on both Twin River-Lincoln and Tiverton Casino Hotel. We estimate that total gaming revenue will decline by \$31.1 million, or 4.5 percent, between FY 2019 and FY 2024. We estimate that the State’s share of these revenues will decrease by about \$16.3 million over the same period. Over the FY 2021 through FY 2024 period, however, the additional impact of a Taunton casino is more pronounced with gross gaming revenue declining by \$79.8 million and the State’s share of these revenues falling by \$37.3 million.

We estimate that a Taunton Casino will divert another \$23 million in consumer expenditures on VLTs and \$14 million in table revenues from Twin River-Lincoln. We project that the Tiverton Hotel Casino will be meaningfully impacted as well with VLT revenues approximately \$17 million lower and table revenue \$5 million lower than what they would be in the absence of a Taunton casino.⁵¹

Exhibit 1.11: Revenue Projections w/Taunton Casino, by Fiscal Year (\$s MM)

GGR (in millions)	2018A	2019E	2020E	2021E	2022E	2023E	2024E	5 Year CAGR
Twin River VLTs	\$434.1	\$435.2	\$413.0	\$410.9	\$388.4	\$378.8	\$369.3	-3.0%
Twin River Tables	\$150.0	\$140.5	\$135.7	\$137.7	\$123.8	\$118.9	\$114.2	-3.7%
Twin River Sports Wagering		\$5.5	\$9.9	\$10.9	\$11.3	\$11.6	\$11.9	23.8%
Newport Grand/Tiverton VLTs	\$46.5	\$92.8	\$104.2	\$112.0	\$94.7	\$94.2	\$93.8	0.2%
Tiverton Tables		\$20.3	\$25.3	\$27.2	\$22.1	\$22.5	\$22.8	2.4%
Tiverton Sports Wagering		\$1.0	\$1.8	\$2.0	\$2.1	\$2.1	\$2.2	22.6%
Remote Sports Wagering			\$19.6	\$43.1	\$45.3	\$47.5	\$49.9	N/A
Rhode Island Gaming Revenue	\$630.7	\$695.2	\$709.5	\$743.9	\$687.6	\$675.6	\$664.1	-0.9%

Net State Revenue (in millions)*	2018E	2019E	2020E	2021E	2022E	2023E	2024E	5 Year CAGR
Twin River VLTs	\$260.7	\$261.1	\$247.4	\$246.2	\$232.2	\$226.3	\$220.5	-3.1%
Twin River Net Table Revenue	\$18.6	\$18.4	\$17.4	\$17.7	\$15.5	\$14.8	\$14.1	-4.7%
Twin River Sports Wagering		\$2.3	\$4.7	\$5.2	\$5.3	\$5.5	\$5.7	30.2%
Newport Grand/Tiverton VLTs	\$27.7	\$55.3	\$62.4	\$67.2	\$56.6	\$56.3	\$56.0	0.2%
Tiverton Net Table Revenue		\$1.3	\$1.7	\$2.0	\$1.2	\$1.3	\$1.3	0.3%
Tiverton Sports Wagering		\$0.4	\$0.8	\$0.9	\$0.9	\$1.0	\$1.0	31.8%
Remote Sports Wagering			\$9.3	\$20.7	\$21.7	\$22.8	\$24.0	N/A
Rhode Island Gov't Revenue	\$307.0	\$338.8	\$343.6	\$359.8	\$333.5	\$327.9	\$322.5	-1.0%

* Excludes payments to third parties, such as host municipalities.

Facility Assumptions

Tiverton Casino Hotel: 1,000 VLTs, 32 table games, and a hotel with 84 rooms. Newport Grand ceased operations on August 28, and the Tiverton facility opened August 29, 2018.

Twin River-Lincoln: 125 table games and 4,180 VLTs in 2019. Hotel with 136 rooms. We assume that machine counts will decline by 25 per year between FY2020 and FY 2024.

MGM Springfield: 75 gaming tables, 3,000 slot machines and 250-room hotel. Opened August 24, 2018

Encore Boston Harbor: 168 tables, 2,838 slot machines and a 671-room Hotel. Projected to open in June, 2019

Remote wagering commences in Rhode Island in January 2020.

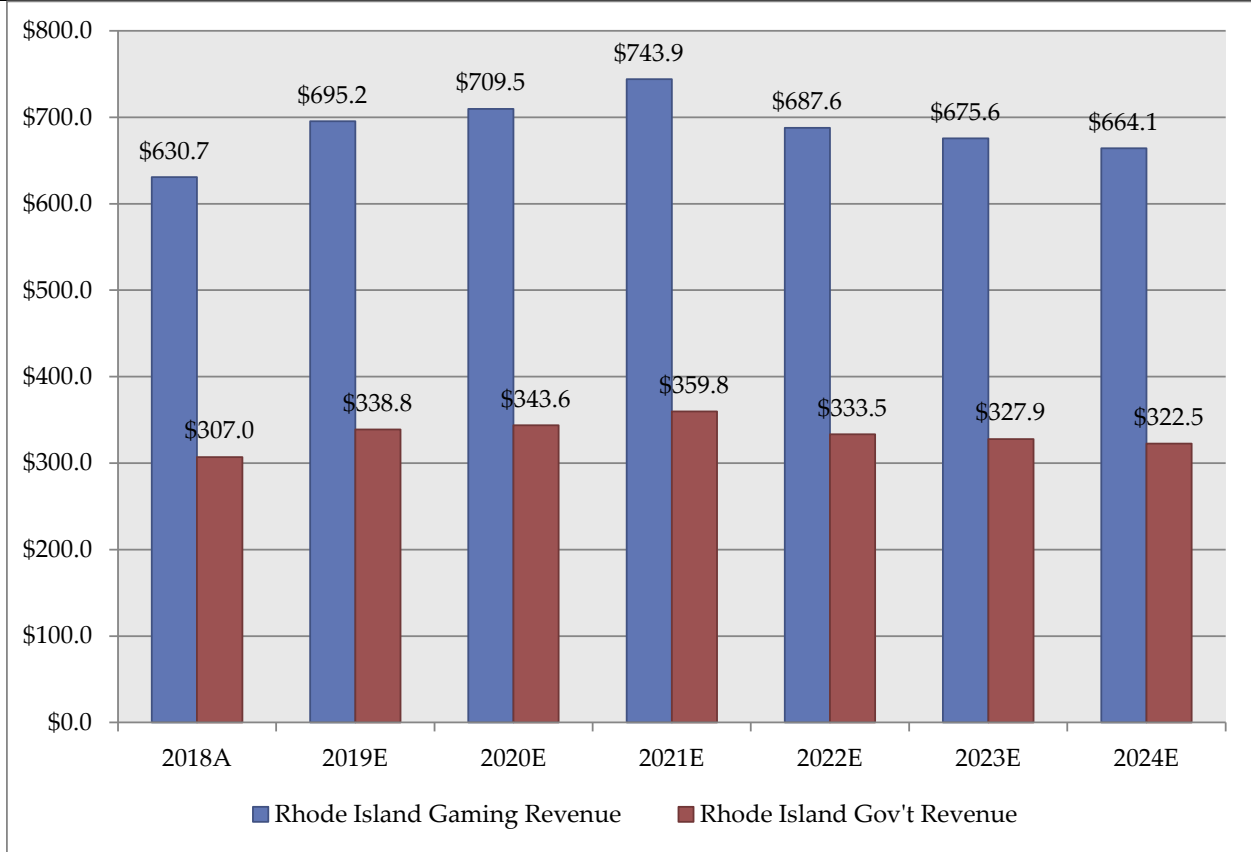
First Light Resort and Casino: 3,000 slot machines, 190 tables (40 poker), and a 300-room hotel. Projected to open July 2021

Source: Rhode Island Department of Revenue, Christiansen Capital Advisors, LLC estimates.

⁵¹ It is important to remember that in this scenario these impacts are cumulative of Encore Boston Harbor and a new casino in Taunton. In the absence of a Boston casino, Rhode Island gaming revenues would be larger and the negative impacts upon Rhode Island facilities of a single casino in Taunton would also be larger.

Exhibit 1.12 summarizes and expresses in graphic format the results presented in Exhibit 1.11.

Exhibit 1.12: Revenue Projections w/Taunton Casino, by Fiscal Year (\$s MM)

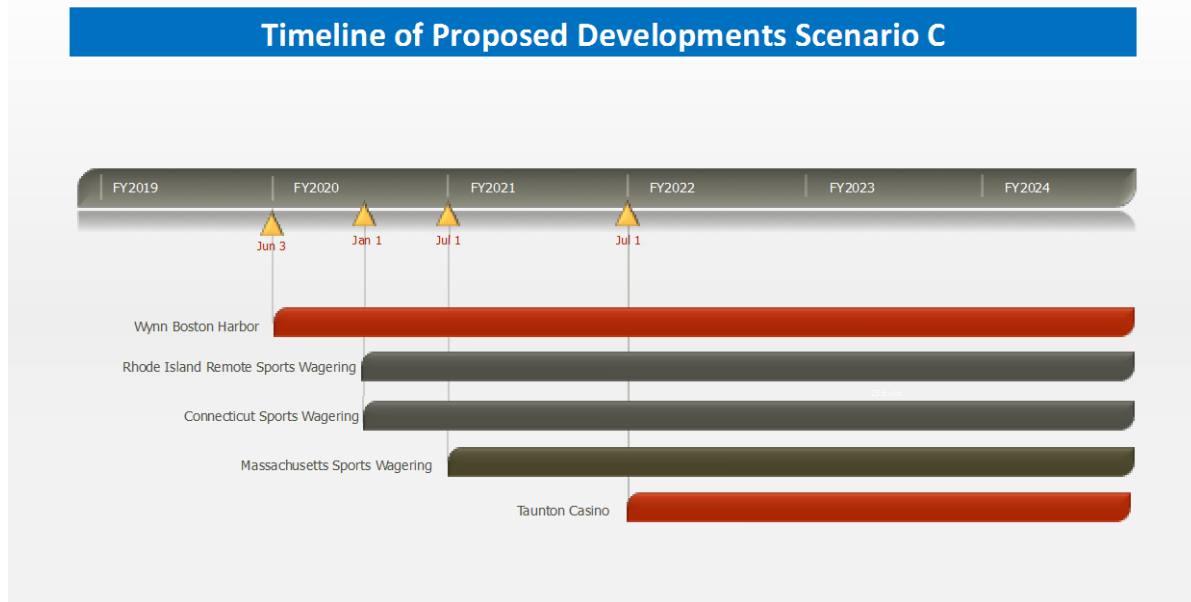


Source: Rhode Island Department of Revenue, Christiansen Capital Advisors, LLC. estimates

REVENUE FORECAST SCENARIO C: NEW CASINOS IN EVERETT (ENCORE BOSTON HARBOR), TAUNTON AND SPORTS WAGERING IN CONNECTICUT AND MASSACHUSETTS

The following scenario examines the impact of expanded gaming in Southern New England on Rhode Island revenues if there are three casinos in Massachusetts, specifically MGM Springfield, Encore Boston Harbor, and the First Light Casino in Taunton, the slots only Plainridge Park Casino, and in person and remote sports wagering in Connecticut and Massachusetts. Exhibit 1.13 presents a timeline of the opening of the two new casinos and the implementation of sports wagering assumed in Scenario C by Rhode Island fiscal year.

Exhibit 1.13: Scenario C Timeline



Source: Rhode Island Department of Revenue, Christiansen Capital Advisors, LLC. estimates

Exhibit 1.14 presents our estimates of the impacts of expanded gaming in Massachusetts and Connecticut. As in our previous forecast for the State of Rhode Island our models indicate that a casino in Taunton will have meaningful deleterious effects on Rhode Island gaming revenue and State of Rhode Island revenue derived from gaming. Sports wagering in Massachusetts and Connecticut will add to these woes but given that the impacts will primarily be on on-site sports wagering and that sports wagering is projected to be a comparatively small revenue source the overall impacts are not that large. We project Rhode Island gross gaming revenue from VLTs, table games, and sports wagering will decline by approximately \$33.9 million, or 4.9 percent, between FY 2019 and FY 2024. We estimate that the State’s share of these revenues will decline by about \$17.7 million over this same period. We estimate sports wagering in Connecticut and Massachusetts in will reduce Rhode Island gross gaming revenues by about \$2.6 million and the State’s share of sports wagering revenues by about \$1.3 million. While there may be some slight impact on remote sports wagering in Rhode Island, due to the fact that remote wagering will be

restricted to Rhode Island residents and visiting gamblers physically located in the State, we do not expect that these impacts to be meaningful on remote sports wagering.

Exhibit 1.14: Revenue Projections Taunton Casino and Sports Wagering, by Fiscal Year (\$s MM)

GGR (in millions)	2018A	2019E	2020E	2021E	2022E	2023E	2024E	5 Year CAGR
Twin River VLTs	\$434.8	\$435.2	\$413.0	\$410.9	\$388.4	\$378.8	\$369.3	-3.0%
Twin River Tables	\$145.8	\$140.5	\$135.7	\$137.7	\$123.8	\$118.9	\$114.2	-3.7%
Twin River Sports Wagering		\$5.5	\$9.4	\$8.7	\$9.0	\$9.3	\$9.6	15.0%
Newport Grand/Tiverton VLTs	\$46.5	\$92.8	\$104.2	\$112.0	\$94.7	\$94.2	\$93.8	0.2%
Tiverton Tables		\$20.3	\$25.3	\$27.2	\$22.1	\$22.5	\$22.8	2.4%
Tiverton Sports Wagering		\$1.0	\$1.8	\$1.6	\$1.7	\$1.7	\$1.8	14.1%
Remote Sports Wagering			\$19.6	\$43.1	\$45.3	\$47.5	\$49.9	N/A
Rhode Island Gaming Revenue	\$627.2	\$695.2	\$709.0	\$741.3	\$685.0	\$672.8	\$661.3	-1.0%

Net State Revenue (in millions)*	2018E	2019E	2020E	2021E	2022E	2023E	2024E	5 Year CAGR
Twin River VLTs	\$260.7	\$261.1	\$247.4	\$246.2	\$232.2	\$226.3	\$220.5	-3.1%
Twin River Tables	\$18.6	\$18.4	\$17.4	\$17.7	\$15.5	\$14.8	\$14.1	-4.7%
Twin River Sports Wagering		\$2.3	\$4.4	\$4.1	\$4.3	\$4.4	\$4.5	20.0%
Newport Grand/Tiverton VLTs	\$27.7	\$55.3	\$62.4	\$67.2	\$56.6	\$56.3	\$56.0	0.2%
Tiverton Tables		\$1.3	\$1.7	\$2.0	\$1.2	\$1.3	\$1.3	0.0%
Tiverton Sports Wagering		\$0.4	\$0.8	\$0.7	\$0.7	\$0.8	\$0.8	20.9%
Remote Sports Wagering			\$9.3	\$20.6	\$21.7	\$22.8	\$23.9	N/A
Rhode Island Gov't Revenue	\$307.0	\$338.8	\$343.4	\$358.6	\$332.2	\$326.6	\$321.1	-1.0%

* Excludes payments to third parties, such as host municipalities.

Facility Assumptions

Tiverton Casino Hotel: 1,000 VLTs, 32 table games, and a hotel with 84 rooms. Newport Grand ceased operations on August 28, and the Tiverton facility opened August 29, 2018.

Twin River-Lincoln: 125 table games and 4,180 VLTs in 2019. Hotel with 136 rooms. We assume that machine counts will decline by 25 per year between FY2020 and FY 2024.

MGM Springfield: 75 gaming tables, 3,000 slot machines and 250-room hotel. Opened August 24, 2018

Encore Boston Harbor: 168 tables, 2,838 slot machines and a 671-room Hotel. Projected to open in June, 2019

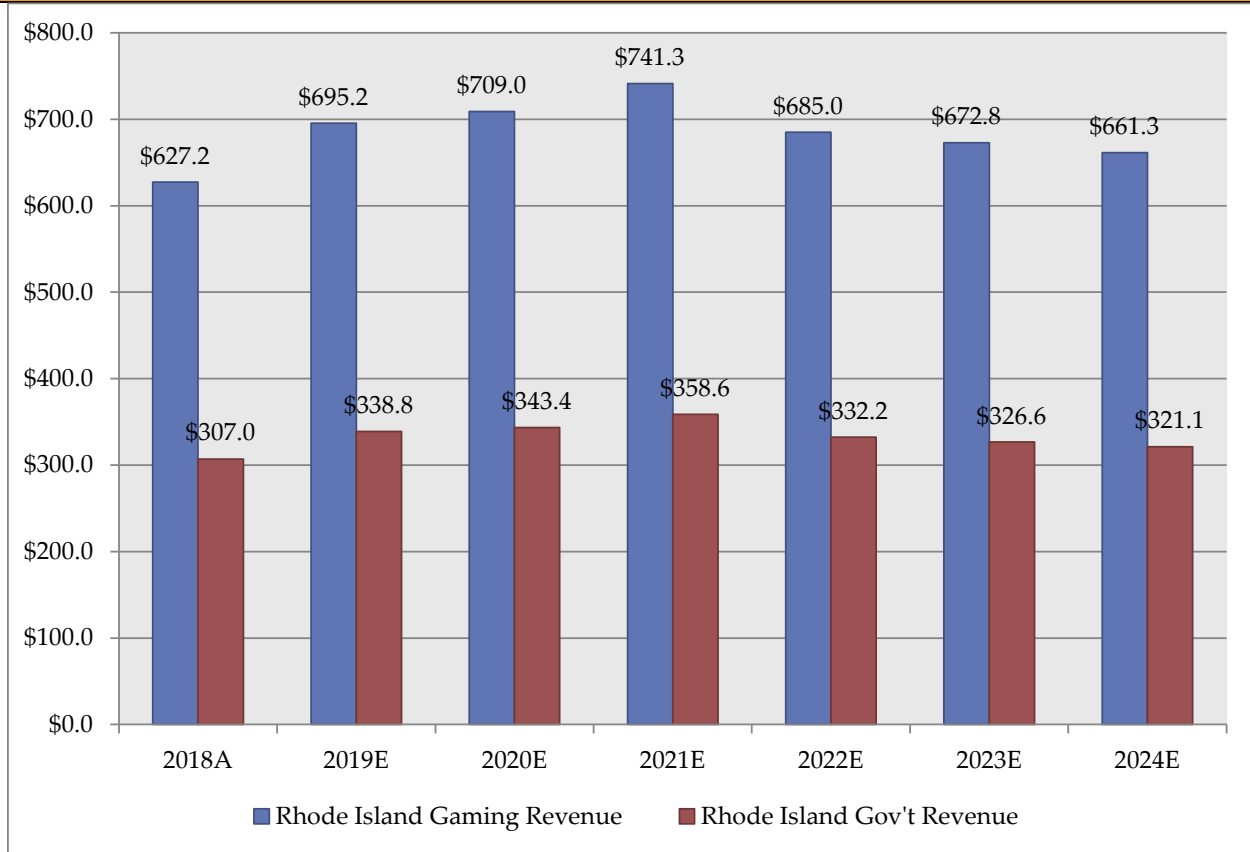
We assume remote sports wagering commences in Rhode Island and Connecticut in January 2020, and that remote and land based sports wagering commencing July 2020 in Massachusetts.

First Light Resort and Casino: 3,000 slot machines, 190 tables (40 poker), and a 300 room hotel. Projected to open July 2021

Source: Rhode Island Department of Revenue, Christiansen Capital Advisors, LLC estimates.

Exhibit 1.15 summarizes and expresses in graphic format the results presented in Exhibit 1.14.

Exhibit 1.15: Revenue Projections w/Taunton Casino and Sports Wagering in Connecticut and Massachusetts, by Fiscal Year (\$ MM)



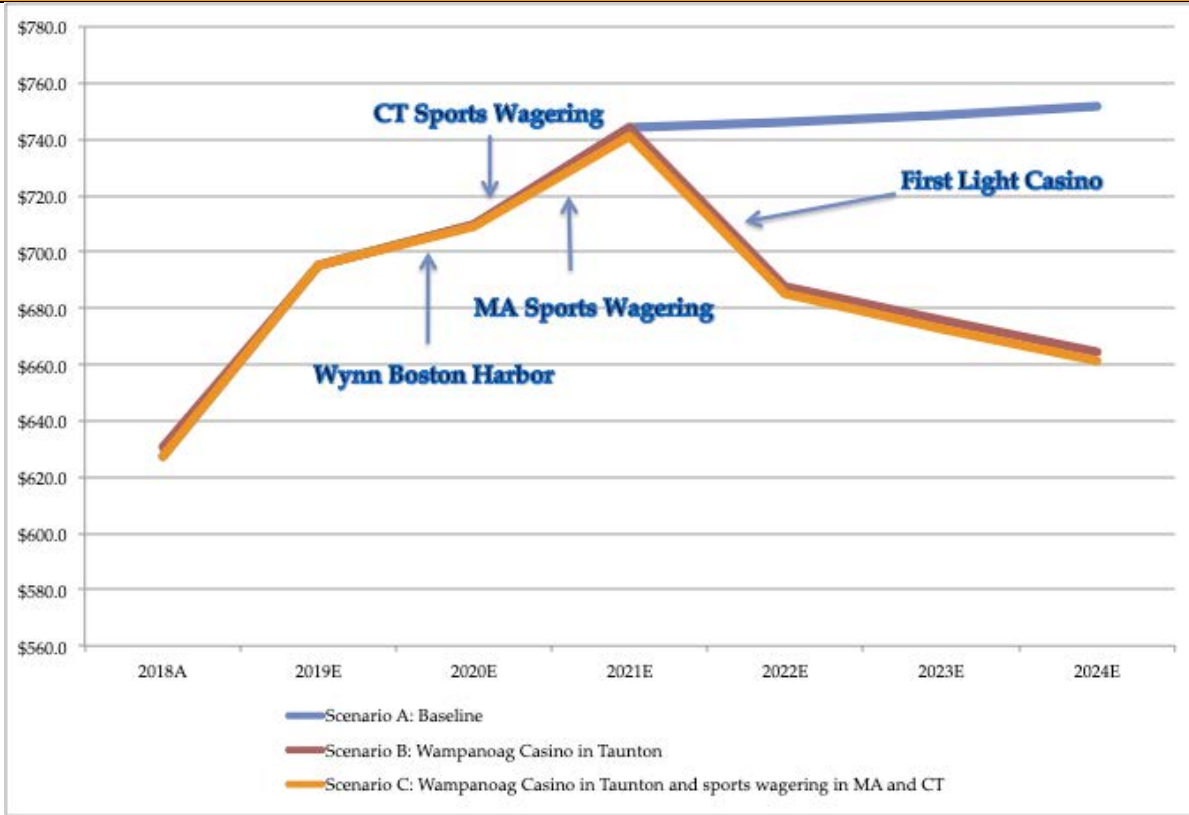
Source: Rhode Island Department of Revenue, Christiansen Capital Advisors, LLC. estimates

SUMMARY OF FORECASTS

Exhibit 1.16 summarizes Rhode Island total gaming revenue and Rhode Island government revenue from gaming under the scenarios we have examined in this report, including the dates of various milestones that will impact gaming revenue in the future. As shown in the exhibit, Rhode Island gaming revenues will be impacted in FY 2020 by the June 2019 opening of Encore Boston Harbor, but, all other things equal, should still squeak out a small gain. As shown in Exhibits 1.8, 1.11, and 1.14 the opening of the Tiverton Casino Hotel will more than double the gaming revenue that was derived from Newport Grand, a slots only facility. Summarized in Exhibit 1.16, CCA projects that this will help offset the negative impact of the opening of the Encore Boston Harbor casino in FY 2020. As depicted by the blue line in Exhibit 1.16, if no additional casinos open in Massachusetts or Connecticut, gaming revenue will continue to grow until FY 2021 when we expect (all other things equal) that gaming revenue growth will flatten out in FY 2022 through FY 2024 without further expansion of gaming in Rhode Island. If a new

tribal facility in Taunton comes to fruition, we project that Rhode Island gaming revenues will meaningfully decline (about \$30 million) by FY 2024.

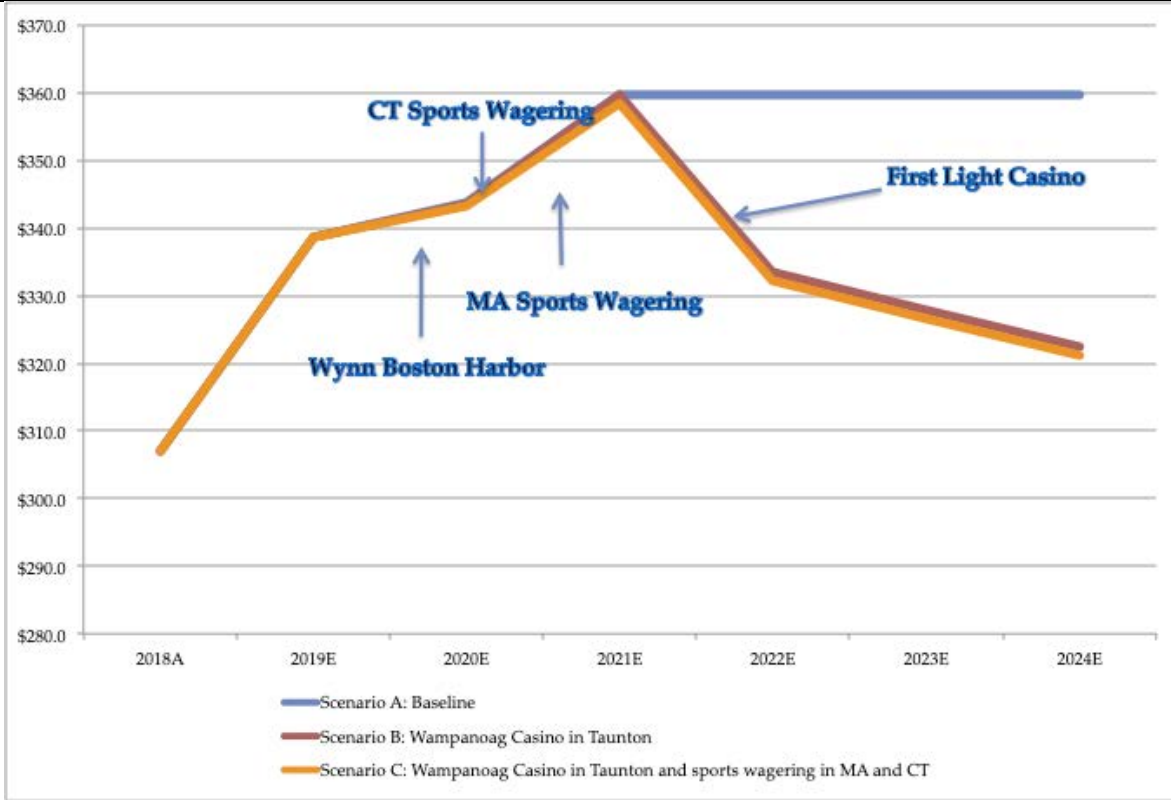
Exhibit 1.16: Summary of Rhode Island Gaming Revenue Projections by Fiscal Year



Source: Christiansen Capital Advisors, LLC. estimates

Exhibit 1.17 shows Rhode Island government revenue from gaming under the scenarios we have examined in this report, including the various milestones that will impact government revenue in the future. As one would expect, these lines track closely to the results in Exhibit 1.16.

Exhibit 1.17: Summary of Rhode Island Government Revenue by Fiscal Year



Source: Christiansen Capital Advisors, LLC. estimates

The projections presented herein are based upon the accompanying assumptions. Some of these assumptions will inevitably not materialize, and unanticipated events and circumstances will occur. Actual results may therefore vary from our projections, and such variations may be material.

Exhibit F



**THE
INNOVATION
GROUP**

**Response to Public Comments:
Proposed Region C Gaming Development
Massachusetts**

Prepared for:

Rush Street Gaming, LLC

November 30, 2018

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Region C Massachusetts Gaming Market

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REGION C: REQUEST FOR PUBLIC COMMENTS

The Innovation Group was retained by Rush Street Gaming, LLC to provide comments on the following five items in response to the Massachusetts Gaming Commission's request for public comments:

1. What is the status of the gaming market in the Northeast and Mid-Atlantic? What are the existing gaming options? What plans exist to increase the number of gaming options, both in states that currently allow casino gaming and states where casino gaming does not currently exist? What revenues have been collected by states that have gaming over the last five (5) years and what are their projected future revenues?
 2. What is the expected demand for gaming and the value of the overall gaming market in Massachusetts?
 3. Should the Commission review the status of online gaming, sports betting and daily fantasy sports and their potential impact on casino gaming?
 4. Is there sufficient capacity to fill new casino jobs created by a Region C casino? What impact will that have on existing casinos to fill their jobs and on existing business to replace experienced employees who move to a casino job?
11. What role should horse racing have in considering a category 1 region C gaming license application?

Question 1: Northeast and Mid-Atlantic Gaming Markets

The gaming industry in the Northeast and Mid-Atlantic region is strong and expanding, with several new casinos having opened in 2017 and 2018 in Massachusetts, Maryland, New York, and Rhode Island. Appendix A takes a detailed look at all existing and potential competitors within Brockton's gaming market. In this section, we examine the gaming offerings and revenue trends, by state, in New England and in the Mid-Atlantic states.

The following table shows the existing gaming options in the Northeast region by state:

Northeast Casinos by State				
	City	Machines	Tables	Positions
Connecticut				
Mohegan Sun	Montville	5,613	350	7,713
Foxwoods	Ledyard	4,145	428	6,713
Maine				
Hollywood Bangor	Bangor	921	16	1,017
Oxford Casino	Oxford	811	22	943
Massachusetts				
Plainridge	Plainville	1,250	0	1,500
MGM Springfield	Springfield	2,550	120	3,270
New York*				
Saratoga Springs	Saratoga Springs	1,782	0	1,782
Monticello Raceway	Monticello	1,110	0	1,110
Empire City at Yonkers	Yonkers	5,349	0	5,349
Jake's 58	Islandia	1,000	0	1,000
Rivers Casino & Resort	Schenectady	1,150	82	1,642
Resorts World Aqueduct	Jamaica	5,005	0	5,005
Resorts World Catskills	Monticello	2,153	125	2,903
Rhode Island				
Twin River Casino	Lincoln	4,220	80	4,700
Tiverton Casino Hotel	Tiverton	1,000	37	1,222
Regional Total		38,059	1,260	45,869

Source: State Lotteries and Gaming Commissions; The Innovation Group. Only casinos in the eastern part of New York are considered relevant to the Massachusetts/New England market.

The following table shows the existing gaming options in the Mid-Atlantic region by state:

Mid-Atlantic Casinos by State				
	City	Machines	Tables	Positions
Delaware				
Delaware Park	Wilmington	2,250	39	2,484
Dover Downs Hotel and Casino	Dover	2,177	40	2,417
Harrington Raceway and Casino	Harrington	1,787	31	1,973
Maryland				
Hollywood Casino Perryville	Perryville	822	22	954
Horseshoe Casino	Baltimore	2,200	168	3,208
Live! Casino & Hotel	Hanover	3,997	198	5,185
MGM National Harbor	Oxon Hill	2,961	180	4,041
Ocean Downs	Berlin	888	0	888
Rocky Gap Casino Resort	Flintstone	665	17	767
New Jersey				
Bally's Atlantic City	Atlantic City	1,776	164	2,760
Borgata	Atlantic City	1,994	268	3,602
Caesars Atlantic City	Atlantic City	1,889	132	2,681
Golden Nugget Atlantic City	Atlantic City	1,454	99	2,048
Hard Rock Atlantic City	Atlantic City	2,063	152	2,975
Harrah's Resort Atlantic City	Atlantic City	2,109	133	2,907
Oceans Resort	Atlantic City	1,937	107	2,579
Resorts Casino Hotel	Atlantic City	1,475	68	1,883
Tropicana Atlantic City	Atlantic City	2,476	130	3,256
Pennsylvania*				
Harrah's Philadelphia	Chester	2,450	118	3,158
Hollywood Casino at Penn National Race Course	Grantville	2,170	75	2,620
Mohegan Sun Pocono	Wilkes-Barre	2,325	89	2,859
Mount Airy Casino Resort	Mt. Pocono	1,863	81	2,349
Parx Casino and Racing	Bensalem	3,331	190	4,471
Sands Casino Resort Bethlehem	Bethlehem	3,073	252	4,585
SugarHouse Casino	Philadelphia	1,809	141	2,655
Valley Forge Casino Resort	King of Prussia	600	50	900
West Virginia**				
Hollywood Casino at Charles Town Races	Ranson	2,284	90	2,824
Regional Total		54,825	3,034	73,029

Source: State Lotteries and Gaming Commissions; The Innovation Group, *Only casinos in the eastern part of Pennsylvania, **Only Charles Town was considered relevant due to location within the state; Greenbrier has not been included because of its far southern location and lack of relevance to Massachusetts

The strength of the Northeast gaming market is prompting a number of proposed developments. The following table shows the proposed gaming options and expected openings in the region. Only Encore Boston Harbor and East Windsor are of any direct relevance to Massachusetts.

Proposed Casino Locations by State

Name	Location	Proposed Positions	Note
Connecticut			
-	East Windsor	2,000 Slot Machines 60 Tables	Joint venture between Mohegan Sun and Foxwoods. Facing legal challenge; undetermined at this time if it will proceed.
Massachusetts			
Encore Boston Harbor	Everett	4,250 Total Gaming Positions	Reported over \$2 Billion property. License currently under review. Scheduled opening June 2019.
Pennsylvania			
Category 4 Casinos	-	300-750 Slot Machines up to 30 Table Games	Three casinos in the eastern side of the state: York, Shippensburg, and Morgantown.
New York			
-	Medford	1,000 VLT Machines	Previous Medford OTB site. OTB would consider building a casino in Medford with up to 1,000 machines if the state allows Suffolk County to expand to 2,000 terminals.

Source: The Innovation Group

In general, gaming revenue in calendar year 2017 was strong across the region. Revenue increased at all casinos in New England except the Hollywood Casino in Bangor, Maine. Both Connecticut casinos experienced slot revenue growth in 2017, after the lingering effects of the Great Recession and impacts from Rhode Island and Plainridge had caused multi-year declines. Twin River (TR) has experienced growth every year since 2010; although there is some apparent impact on TR's slot revenue from the opening of Plainridge the last week of June 2015, total gaming revenue continued to climb.

Plainridge also exhibited strong growth in 2017, of 6.3%. Further, its impacts on Rhode Island and Connecticut appear to have been minimal, suggesting that the large majority of Plainridge's first-year revenue came from market growth. Looking at Plainridge's impact on its two main competitors, Twin River and Foxwoods, it is apparent that as much as 75% of Plainridge's revenue resulted from market growth.

Plainridge First Year Impacts

	Twin River	Foxwoods	Subtotal	Plainridge	Market Total
FY 2014	\$470,766,020	\$467,970,116	\$938,736,136	\$6,137,976*	\$944,874,112
FY 2015	\$443,747,069	\$462,215,501	\$905,962,570	\$159,908,961	\$1,065,871,531
Change	(\$27,018,951)	(\$5,754,615)	(\$32,773,566)	\$153,770,984	\$120,997,418

Source: State Lotteries and Gaming Commissions; The Innovation Group. *Note: one week's data. FY=July-June.

A similar effect can be seen from the recent openings of MGM Springfield (late August 2018) in Massachusetts and Tiverton, Rhode Island (September 1, 2018). Looking at slot revenue only, since Plainridge is a slot-only casino and in Connecticut only slot revenue is reported by the State, impacts on existing facilities in September ranged from 4% to 8.8%. Mohegan Sun, which is the closest of the four to MGM Springfield, showed the largest impact.

CT, MA, and RI Slot Revenue Impact

	Plainridge Slot Revenue	Twin River Slot Revenue	Mohegan Sun Slot Revenue	Foxwoods Slot Revenue
Sep-17	\$14,895,275	\$36,259,349	\$51,755,254	\$40,062,545
Sep-18	\$14,319,232	\$34,709,583	\$47,201,802	\$37,986,949
Change	-3.9%	-4.3%	-8.8%	-5.2%

Source: Massachusetts Gaming Commission; Rhode Island Lottery; The Innovation Group

The losses at these four existing facilities were more than surpassed by the slot revenue at the two new casinos, as shown in the following table. Using slot revenues for the above properties and the former Newport Casino (roughly \$4 million), the total market slot revenue reached \$146.9 million in September of 2017. With the inclusion of the Tiverton and MGM Springfield revenues below, slot revenues totaled \$162.2 million in September of 2018, showing a growth of 10.4%.

September 2018 Slot Revenue

	Slot Revenue
MGM Springfield	\$18,149,752
Tiverton	\$9,837,048

Source: Massachusetts Gaming Commission; Rhode Island Lottery; The Innovation Group

Similarly, the opening in June of 2018 of two casinos—Hard Rock Casino and Oceans Resort—have increased gaming revenue in Atlantic City without impacting competing facilities in the important feeder market of Philadelphia. Additionally, while the previous Atlantic City casinos saw a 7.7% decrease in gaming revenues from July-September 2018 as compared to the previous year, the addition of the Hard Rock and Oceans grew the total market revenues by \$86.7 million or 12.6%.

Atlantic City Gaming Revenue Impact

	AC Casinos	Hard Rock	Oceans	AC Market Total
Jul-Sept 2017	\$685,984,805	\$0	\$0	\$685,984,805
Jul-Sept 2018	\$633,491,325	\$89,070,843	\$50,136,606	\$772,698,774
<i>% Change</i>	-7.7%	-	-	12.6%

Source: Massachusetts Gaming Commission; Rhode Island Lottery; The Innovation Group

As shown in the table below, Philadelphia casinos saw a minimal impact in the first full month of operations (July 2018) of the two new Atlantic City casinos, a drop in total gaming revenue of just 0.8%. However, in the following two months, Philadelphia gaming revenue exceeded the previous monthly totals of 2017 by 6.6% in August and 4.1% in September.

AC Impact on Philadelphia Gaming Statistics

	Slot Revenue	Table Revenue	Total Revenue	Win per Position
Jul-17	\$73,531,560	\$33,822,380	\$107,353,940	\$309
Jul-18	\$73,871,810	\$32,583,725	\$106,455,535	\$307
<i>Change</i>	0.5%	-3.7%	-0.8%	-0.7%
Aug-17	\$68,741,290	\$33,266,655	\$102,007,944	\$293
Aug-18	\$73,198,425	\$35,536,320	\$108,734,745	\$314
<i>Change</i>	6.5%	6.8%	6.6%	7.2%
Sep-17	\$70,172,983	\$32,351,545	\$102,524,528	\$305
Sep-18	\$72,699,091	\$34,067,310	\$106,766,402	\$319
<i>Change</i>	3.6%	5.3%	4.1%	4.7%

Source: Pennsylvania Gaming Control Board; The Innovation Group

In February of 2018, Resorts World Catskills opened at the former location of the Concord Hotel in Monticello, New York. The new gaming property introduced over 2,150 slot machines and roughly 150 table games to the market. The casino is averaging over \$13 million in total GGR per month since March.

This opening had a negative effect on nearby casinos in northeastern Pennsylvania. The three closest casinos are the Mohegan Sun Pocono, Mount Airy, and Sands Bethlehem. Each casino saw a decrease in total Win, with Mount Airy being impacted the largest. The table below shows the combined total win for the three casinos by month. June was the only month that saw an increase in win from 2017 to 2018.

Resorts World Impact on Eastern Pennsylvania

	2017 Total Win (MMs)	2018 Total Win (MMs)	Change
February	\$79.5	\$75.6	-4.9%
March	\$86.7	\$85.0	-1.9%
April	\$87.6	\$80.8	-7.8%
May	\$86.1	\$82.5	-4.1%
June	\$78.0	\$79.1	1.3%
July	\$89.4	\$83.6	-6.5%
August	\$83.1	\$81.7	-1.7%
September	\$85.6	\$79.1	-7.6%
Total	\$676.0	\$647.4	-4.2%

Source: Pennsylvania Gaming Control Board; The Innovation Group

Looking at state tax revenue and including Mid-Atlantic states, we see that tax revenues overall have grown. Where states have declined, mostly that has resulted from the impact of new casinos in neighboring states. In the case of Rhode Island, it has partially resulted from the growth in table revenue, which is taxed at a substantially lower rate than slot machines. The overall region has experienced annual tax revenue growth of 2.6% over the past five years.

New England and Mid-Atlantic State Tax Revenue

State	FY-2013/14	FY-2014/15	FY-2015/16	FY-2016/17	FY-2017/18	CAGR
Maine	\$50.8	\$51.7	\$53.1	\$54.0	\$56.0	1.9%
Massachusetts	-	-	\$61.5	\$62.7	\$67.6	3.2%
Rhode Island	\$326.4	\$333.5	\$320.1	\$318.3	\$318.6	-0.5%
Connecticut	\$279.9	\$268.0	\$265.9	\$270.7	\$272.2	-0.6%
New York	\$871.7	\$866.9	\$906.0	\$928.3	\$993.2	2.6%
Pennsylvania	\$879.4	\$890.7	\$915.0	\$915.5	\$926.0	1.0%
New Jersey	\$208.1	\$196.8	\$201.0	\$210.5	\$211.5	0.3%
Delaware	\$157.5	\$155.0	\$156.8	\$153.6	\$157.1	-0.1%
West Virginia*	\$426.1	\$371.6	\$349.5	\$335.5	\$321.6	-6.8%
Maryland	\$272.2	\$310.0	\$385.7	\$441.4	\$526.1	14.1%
Total	\$3,472.1	\$3,444.2	\$3,614.6	\$3,690.5	\$3,849.9	2.6%

Source: State Lotteries and Gaming Commissions; The Innovation Group. Note: Excludes horse industry payments. FY=July-June except NY April-March, *WV tax revenues are estimates using reported effective tax rates for table games (35%) and VLTs (53.5%)

With recent casino additions in Maryland, New York, New Jersey and Massachusetts, some of the states in the Northeast and Mid-Atlantic regions have felt a negative impact while others have grown. The following table details the last full five years of state gaming revenue for each state in these two regions that allow gaming. Additionally, the table provides high-level estimates for the next three years of gaming revenue by state using estimated annualized

revenues for 2018, previous growth rates, expected impacts of newly opened casinos, and potential impacts from the proposed Encore Boston Harbor casino.

As shown below, the inclusion of the proposed Boston casino potentially bolsters the revenues in Massachusetts while reducing the revenues in surrounding states like Connecticut and Rhode Island. Overall, the total gaming market in these regions can be expected to continue growing with the inclusion of additional gaming properties.

State by State Gaming Revenue (\$MMs)

	CT	DE	MA	MD	ME	NJ	NY*	PA*	RI	WV**	Total
2013	\$1,144.9	\$432.1	-	\$749.0	\$126.3	\$2,863.6	\$1,567.5	\$2,339.2	\$558.1	\$456.5	\$9,780.5
2014	\$1,067.5	\$403.7	-	\$931.1	\$127.3	\$2,619.3	\$1,563.4	\$2,313.1	\$611.1	\$391.9	\$9,636.3
2015	\$1,044.5	\$404.6	-	\$1,098.4	\$129.8	\$2,414.2	\$1,609.8	\$2,407.9	\$615.8	\$396.2	\$9,725.0
2016	\$1,053.5	\$398.7	\$155.0	\$1,203.3	\$133.1	\$2,405.9	\$1,644.5	\$2,462.0	\$619.1	\$368.6	\$10,075.2
2017	\$1,075.0	\$409.3	\$164.8	\$1,615.0	\$136.7	\$2,413.4	\$1,738.4	\$2,480.1	\$624.9	\$339.4	\$10,657.5
<i>CAGR</i>	<i>-1.6%</i>	<i>-1.3%</i>	<i>6.3%</i>	<i>21.2%</i>	<i>2.0%</i>	<i>-4.2%</i>	<i>2.6%</i>	<i>1.5%</i>	<i>2.9%</i>	<i>-7.1%</i>	<i>2.2%</i>
2018	\$1,010.5	\$403.9	\$280.1	\$1,655.3	\$138.1	\$2,715.1	\$1,764.5	\$2,517.3	\$649.8	\$337.7	\$11,134.7
2019	\$909.4	\$410.0	\$896.4	\$1,696.7	\$135.3	\$2,783.0	\$1,790.9	\$2,555.1	\$617.4	\$341.1	\$11,794.3
2020	\$864.0	\$416.2	\$1,075.7	\$1,739.1	\$138.0	\$2,852.5	\$1,817.8	\$2,593.4	\$586.5	\$344.5	\$12,083.3
2021	\$881.2	\$422.4	\$1,280.1	\$1,782.6	\$140.8	\$2,923.8	\$1,845.1	\$2,632.3	\$595.3	\$347.9	\$12,525.2

Source: State Lotteries and Gaming Commissions; The Innovation Group.

*New York and Pennsylvania statistics only includes the revenues from the Eastern part of the state

**West Virginia statistics only include the revenues from Charlestown Races casino.

Question 2: Massachusetts Gaming Demand

Given the Commonwealth’s large population base, the fact that the gaming licenses have been well distributed geographically, and the level of capital being invested, gaming demand in Massachusetts is expected to be strong. Two casinos are already in operation, producing substantial revenues and economic impacts. Once the Region A casino is open and statewide revenue has stabilized, the Innovation Group estimates that by 2022 gaming revenue will reach \$1.3 billion.¹ Adding the Region C casino, the overall total increases by over \$270 million, showing potential for market growth, as shown in the following table:

¹ The Innovation Group prepared a Gaming Market Analysis for a proposed casino in Region C, in Brockton. Included in that analysis is a detailed description of the methodology utilized in the gravity model calibration to current conditions and future forecasts.

Total Gaming Revenue Market Impact

	Without Region C	With Region C
Plainridge	\$122,616,795	\$94,581,694
Springfield	\$379,650,509	\$372,380,374
Everett	\$807,886,414	\$711,695,058
Brockton		\$403,843,949
Massachusetts Total	\$1,310,153,718	\$1,582,501,074

Source: The Innovation Group

Given the projected gaming-age population for 2022, the revenue forecast with Brockton implies a win per capita of \$294, well within the ranges experienced in other jurisdictions. Win per capita reaches well over \$500 in several U.S. markets. In 2017, win per capita reached over \$336 in Pennsylvania as detailed below.

Win per Capita

	PA 2017	MA 2022
GGR	\$3,226,917,156	\$1,582,501,074
Gamer Population	9,587,688	5,386,879
Win per capita	\$336.57	\$293.77

Source: The Innovation Group

The following table shows the growth in gaming tax revenue to the state of Massachusetts with the addition of the Region C Casino.

Total Gaming Tax Revenue Market Impact

	Without Region C	With Region C
Plainridge	\$49,046,718	\$37,832,678
Springfield	\$94,912,627	\$93,095,093
Everett	\$201,971,603	\$177,923,764
Brockton		\$100,960,987
Total	\$345,930,949	\$409,812,523
<i>Incremental</i>		<i>\$63,881,574</i>

Source: The Innovation Group

Additionally, Massachusetts would see an increase in slot license fee revenue due to the Region C casino. The following table details the incremental revenue to the state from slot license fees. Total incremental revenue to Massachusetts would be \$65.1 million with the inclusion of the Region C casino.

Total Slot License Fee Market Impact		
	Without Region C	With Region C
Plainridge	\$750,000	\$750,000
Springfield	\$1,530,000	\$1,530,000
Everett	\$1,945,200	\$1,945,200
Brockton		\$1,260,000
Total	\$4,225,200	\$5,485,200
<i>Incremental</i>		<i>\$1,260,000</i>

Source: The Innovation Group

Question 3: Status and Potential Impact on Casino Gaming of Online Gaming, Sports Betting, and DFS

While there has been concern in the casino industry that online gambling, sports betting, and DFS wagering will cannibalize GGR at bricks-and-mortar casinos, the data available do not support that concern. In fact, these products can be seen as an opportunity to bring in additional revenue to existing casinos. The following section discusses the landscape for these non-traditional gambling products and the data that is available for each.

Online Gaming (iGaming)

Online gaming is legal in New Jersey, Pennsylvania, and Delaware. Nevada has legal online poker. In New Jersey, licenses are issued to casinos in the state, and the casinos can partner with an online operator or software company to provide the games. This revenue is taxed at 15%. In Pennsylvania, there is a \$10 million interactive license fee for the combined online poker, slots, and table games license. Table game and poker revenue are taxed at 16%, while slots are taxed at 54%. While several partnerships have been announced, no iGaming has launched in Pennsylvania. Delaware taxes iGaming at 15.5%.

Several states have expressed interest in iGaming. Bills were considered in Louisiana, Michigan, Illinois, New York, New Hampshire, Massachusetts, and West Virginia. Additional states considered online lottery, and there is a form of legal online lottery in Georgia, Illinois, Kentucky, Maine, Maryland, Michigan, New Hampshire, New York, North Carolina, North Dakota, Pennsylvania, and Virginia.

It is not possible to definitively isolate the impact to date of online gaming, since in the two states for which data is available—Delaware and New Jersey—the implementation of online gaming coincided with new casino development in Pennsylvania and Maryland, which had a substantial negative impact on bricks-and-mortar gaming revenues in both states. However, industry analysts generally consider that online gaming has helped New Jersey become more competitive in the face of growing regional competition. Since online gaming is currently limited to intra-state activity, Delaware’s small population has limited the product’s potential.

Brick and Mortar and Online Gaming Trends- Before and After

Year	Delaware				New Jersey			
	Online	B&M Locations	Total State Revenue	% Growth	Online	B&M Locations	Total State Revenue	% Growth
2011		\$547,872,433	\$547,872,433			\$3,298,860,680	\$3,298,860,680	
2012		\$520,548,891	\$520,548,891	-4.99%		\$3,051,874,667	\$3,051,874,667	-7.5%
2013*	\$251,397	\$432,058,442	\$432,309,839	-17.00%	\$8,371,486	\$2,863,568,572	\$2,871,940,058	-6.2%
2014	\$2,098,532	\$403,695,364	\$405,793,896	-6.56%	\$123,096,896	\$2,619,250,907	\$2,742,347,803	-8.5%
2015	\$1,798,931	\$404,581,100	\$406,380,031	0.22%	\$149,029,795	\$2,414,335,959	\$2,563,365,754	-7.8%
2016	\$2,906,886	\$398,657,403	\$401,564,289	-1.5%	\$196,858,746	\$2,405,323,367	\$2,602,182,113	-0.4%
2017	\$2,391,942	\$409,264,911	\$411,656,853	2.7%	\$246,018,441	\$2,413,221,069	\$2,659,239,510	0.3%

Source: State Gaming Commissions, The Innovation Group, *2013 marks the first year of legalized online gaming in DE and NJ

Sports Betting

Today, six states in the US have legal sports betting. Nevada has offered sports betting legally since 1949. The other five states have launched single-event sports wagering since the repeal of PASPA in May. They are: New Jersey, Delaware, West Virginia, Mississippi, and New Mexico.

Tax rates are as follows:

- Nevada: 6.75%
- New Jersey: 9.75% (includes 1.5% to Redevelopment Fund), Online is 15%
- Delaware: 43.75% (as part of a revenue share agreement between lottery, casinos, and horsemen)
- West Virginia: 10%
- New Mexico: No tax, implemented as part of a tribal compact authorizing Class III gaming

New Jersey and Nevada have mobile sports betting, and West Virginia plans to follow in the coming months.

Rhode Island legalized sports betting in June 2018, with the Rhode Island Lottery having regulatory and oversight responsibilities. Through an RFP process, the Lottery selected IGT as the sports betting provider for Rhode Island's two casinos. There are currently no provisions for mobile or online betting, though the RFP suggested that these initiatives are likely. IGT announced a partnership with William Hill in this endeavor. The targeted launch date was October 2018, but delays have pushed the expected launch into November or December 2018. The tax rate (technically a revenue share) on sports betting revenue in Rhode Island is 51%.

Pennsylvania legalized sports betting as part of an omnibus gaming legislation overhaul in late 2017, pending the overturn of PASPA. As of this writing, of five casinos which have applied to engage in sports betting, Hollywood Casino at Penn National Race Course just began taking bets this month. The tax rate in Pennsylvania is 36% (34% to the state + 1% each to the county and municipality).

In November 2018, Arkansas authorized sports betting via ballot initiative at the state's four authorized casinos, two of which are not built yet. The state legislature now must pass legislation consistent with the referendum.

New York and Connecticut have passed legislation legalizing sports wagering in the state, but the states still have not developed a regulatory framework. Tribal compacts in both states present hurdles.

More than a dozen other states had bills considered during the most recent legislative session, and several are likely to pass legislation in 2019.

To assess the impact that sports betting has had on casinos, we look at year over year growth by market and compare 2018 to 2017 results in sports betting states versus states without. The following GGR excludes sports betting revenue so it is comparable on a same-store basis. New Jersey also excludes on-line gaming revenue. States in blue had legal sports betting in September 2018, but not in September 2017.

September 2018 vs September 2017 GGR Growth by State (\$MMs)

State	Sept-17 GGR	Sept-18 GGR	Year-over-Year Change	SB Rev	Total GGR+ SB Rev	Year-over-Year Change
Colorado	\$73.9	\$72.5	-1.80%		\$72.5	
Delaware*			-0.06%	\$3.2	n/a	
Illinois	\$227.4	\$231.3	1.73%		\$231.3	
Indiana	\$176.1	\$169.6	-3.65%		\$169.6	
Iowa	\$122.2	\$122.6	0.32%		\$122.6	
Kansas	\$32.4	\$32.7	0.79%		\$32.7	
Louisiana	\$247.0	\$251.2	1.67%		\$251.2	
Maine	\$12.2	\$12.6	3.50%		\$12.6	
Maryland	\$134.5	\$143.8	6.87%		\$143.8	
Michigan	\$113.6	\$115.2	1.39%		\$115.2	
Mississippi	\$168.2	\$177.3	5.42%	\$5.5	\$182.8	8.70%
Missouri	\$145.7	\$144.1	-1.10%		\$144.1	
Nevada	\$935.0	\$934.9	-0.01%		\$934.9	
New Jersey	\$215.2	\$231.5	7.58%	\$16.7	\$248.2	15.36%
New Mexico	\$19.7	\$20.2	2.37%		\$20.2	
New York	\$170.8	\$170.1	-0.42%		\$170.1	
Ohio	\$146.4	\$152.2	3.98%		\$152.2	
Oklahoma	\$11.0	\$11.3	2.94%		\$11.3	
Pennsylvania	\$271.0	\$268.5	-0.92%		\$268.5	
Rhode Island	\$56.9	\$57.1	0.41%		\$57.1	
South Dakota	\$9.6	\$9.5	-1.54%		\$9.5	
West Virginia	\$59.4	\$58.3	-1.83%	\$1.8	\$60.1	1.26%
Total USA**	\$3,348.1	\$3,386.5	1.15%	-	-	-
Total States without Sports	\$2,905.4	\$2,919.4	0.48%	-	-	-

Source: UNLV and State Gaming Commissions; The Innovation Group.

*Trend is for daily slot revenue; table revenue not yet reported for September 2018. Delaware reports months by last Sunday of the month—September 2017 was 28 days versus 35 days for 2018. **Excluding Delaware.

Delaware, Mississippi, West Virginia, and New Jersey all had legal sports betting in 2018 but not 2017. While Delaware and West Virginia show declines in traditional gaming revenue, New Jersey and Mississippi both show significant gains. It should also be noted that New Jersey had two new properties open in June.

Delaware and West Virginia both faced increased competition in adjacent states (Atlantic City, Maryland, and Ohio), but the declines in slots and tables are very small even if it attributable to diversion of spending to sports betting. In fact, sports betting put West Virginia in the positive in total gambling revenue.

In conclusion, the limited data available to date would suggest that sports betting is having an overall positive impact on slot and table revenues, as well as contributing new wagering revenue to casinos and states.

The following table shows recent trends in Nevada, which as noted has had sports betting since 1949. Sports betting is volatile, so year-over-year trends fluctuate highly.

Nevada GGR and Sports Betting Trends						
	Gaming	% Growth	Sports Betting	% Growth	Total	% Growth
2013	\$10,942,549,000		\$202,838,000		\$11,145,387,000	
2014	\$10,789,009,000	-1.40%	\$227,045,000	11.93%	\$11,016,054,000	-1.16%
2015	\$10,882,043,000	0.86%	\$231,787,000	2.09%	\$11,113,830,000	0.89%
2016	\$11,037,171,000	1.43%	\$219,174,000	-5.44%	\$11,256,345,000	1.28%
2017	\$11,323,151,000	2.59%	\$248,777,000	13.51%	\$11,571,928,000	2.80%

Source: Nevada Gaming Commission

Daily Fantasy Sports

Daily fantasy sports (DFS) has been explicitly legalized in many states, including: Arkansas, Colorado, Delaware, Indiana, Kansas, Louisiana, Maine, Maryland, Mississippi, Missouri, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Tennessee, Vermont, and Virginia. Michigan and Illinois have active legislation. Connecticut approved DFS, subject to agreement with the tribes, which is in negotiation. Tax rates vary, but we don't see the same high tax rates as we do on slots in many states. Not all states have defined tax rates – for example, DFS was passed by ballot initiative in 47 of Louisiana's 64 parishes in the 2018 election, so this is an agenda item for the next legislative term. But those who have are in the range of 8-15% on GGR. New York and Pennsylvania, for example, have a 15% tax on DFS.

Data on DFS wagering is limited. The New York Gaming Commission produces a report showing national spending and a breakdown of New York residents. Nationwide, DFS generated revenue of \$335 million in FY 2018 (through March), with \$31 million originating in New York, or less than 1% of bricks-and-mortar casino revenue if all casinos—commercial, VLT, and tribal—are included.

A Rutgers University survey showed that 22% of DFS players also participate in casino gaming, bingo, or wagering on sports and horse racing. A Fantasy Sports Trading Association survey shows that DFS players skew younger and male and have higher than average income.²

Given the small amount of revenue generated by DFS wagering compared to casino revenue, if any substitution effect occurs it is likely not measurable. In fact, casino GGR nationally generally increased in 2017, which would tend to suggest limited if any negative effect from DFS wagering. Further, the demographics of DFS players suggest that casinos could potentially utilize the DFS product to increase traditional gaming revenue by drawing in new gamers.

² <https://www.playnj.com/news/nj-casino-dfs-partnerships/14193/>

Summary

Sports betting can be seen as opportunity to bring in additional revenue to existing casinos. While there is potential for some substitution effect in total spending between sports bettors and other casino patrons, the demographics of the average sports bettor skews younger than slot players and even table gamers. Studies have found that the average sports bettor is between the ages of 18-34³. Additionally, these players tend to be familiar with casinos and have the potential to spend additional dollars once on the casino floor at a table or slot during a visit to a legal sports book. Results from September 2018 provide empirical support for the potential for sports betting to drive growth.

In addition to new sports betting ventures, Massachusetts and the competitive markets have the opportunity to pass legislation regarding online gambling and DFS. Recently, the Massachusetts House of Representatives passed an amendment removing the sunset clause on the laws regulating DFS, making a move in the direction towards permanent legalization of the gaming format.

Rhode Island elected to hold off on allowing online betting; it is expected that the State will reconsider in the long run as Massachusetts and Connecticut consider legislation allowing these wagers. Using New Jersey as a precedent, online gaming is expected to cause minimal cannibalization of land-based casino revenues and foster potential international partnerships with existing online formats.

Question 4: Casino Staffing Availability and Labor Market Impact

Jurisdictions sometimes have concern over supplying staffing to new casinos, and the potential for collateral impact on other businesses. However, given the surplus of underemployed labor in Plymouth County and Region C, and the long history of gaming in the Northeast, staffing of the Brockton casinos is not expected to be problematic, and collateral impacts on other Massachusetts casinos or businesses are expected to be minimal, if any. In fact, development and operation of the Brockton casino would be beneficial to the Massachusetts labor force.

A survey of Plainridge employees conducted in 2017 on behalf of the Massachusetts Gaming Commission demonstrates that casino employment is comprised mainly of workers already residing within commuting distance: a mixture of previously employed local residents looking for a better opportunity or the ability to work closer to home, along with previously unemployed local residents. The percentage of workers who moved to take the position with Plainridge was a

³ HUMPHREYS, BRAD R., PEREZ, LEVI, Who Bets on Sports? Characteristics of Sports Bettors and the Consequences of Expanding Sports Betting Opportunities. *Estudios de Economía Aplicada*, vol. 30, no. 2, 2012, pp. 579-597

small percentage of the staff. Furthermore, most casino workers had not had prior casino work experience.

Plainridge Casino Source of Workforce		
	# of Responses	Percentage
<i>Prior Employment status:</i>		
Unemployed	162	15.5%
Employed Part-time	363	34.7%
<i>Underemployed</i>	189	18.1%
Employed Full-time	522	49.9%
Total	1,047	100.0%
<i>Reason for taking the position</i>		
Job closer to home	305	29.1%
<i>Other results</i>		
No prior casino experience	902	86.2%
Moved to take the position	75	7.2%

New Employee Survey at Plainridge Park Casino: Analysis of First Two Years of Data Collection
 University of Massachusetts Donahue Institute, Economic and Public Policy Research Group, May 10, 2017

This suggests the need for training strategies as new casinos enter the regional market. The New Casino Market Training Strategies section at the end of this report discusses training strategies for new gaming markets, with emphasis on markets that may require specialized training to reach employment forecast targets. The strategies include:

- Work force research
- Early-stage job fairs
- Partnering with local universities and vocational schools
- Intensive “on-the-job” training

Region C has a civilian labor force of nearly 700,000 persons, with more than 30,000 unemployed. Region C has a higher rate of unemployment (4.4%) than Region A (3.4%), suggesting that there is more potential for elasticity in Region C.

Regional Unemployment Statistics

Year	Civilian labor force	Employment	Unemployment	Unemployment rate (%)
Region A				
2009	2,346,396	2,165,368	181,028	7.7
2010	2,390,487	2,205,195	185,292	7.8
2011	2,388,063	2,228,518	159,545	6.7
2012	2,405,584	2,257,518	148,066	6.2
2013	2,428,922	2,278,217	150,705	6.2
2014	2,468,292	2,338,069	130,223	5.3
2015	2,488,537	2,378,669	109,868	4.4
2016	2,510,349	2,420,852	89,497	3.6
2017	2,544,821	2,458,120	86,701	3.4
Region B				
2009	426,331	390,982	35,349	8.3
2010	414,298	376,632	37,666	9.1
2011	410,677	377,150	33,527	8.2
2012	410,067	379,085	30,982	7.6
2013	410,362	378,791	31,571	7.7
2014	414,139	386,310	27,829	6.7
2015	414,579	391,153	23,426	5.7
2016	413,380	394,216	19,164	4.6
2017	416,702	398,287	18,415	4.4
Region C				
2009	697,661	632,658	65,003	9.3
2010	675,300	608,990	66,310	9.8
2011	670,574	612,091	58,483	8.7
2012	669,511	615,929	53,582	8.0
2013	673,548	619,788	53,760	8.0
2014	683,811	637,434	46,377	6.8
2015	685,122	646,050	39,072	5.7
2016	687,687	656,044	31,643	4.6
2017	695,649	665,073	30,576	4.4

Source: Bureau of Labor Statistics, The Innovation Group

The table below depicts historical unemployment statistics for Plymouth County and Massachusetts. The annual unemployment rate continually increased from 2009 through to 2010, peaking at 8.3% in Massachusetts and 8.9% in Plymouth County, but they have since recovered. Currently, both unemployment rates sit below 4% while labor force statistics continue to increase.

Average Annual Unemployment Statistics

Year	Civilian labor force	Employment	Unemployment	Unemployment rate (%)
Plymouth County				
2009	263,807	241,447	22,360	8.5
2010	262,176	238,720	23,456	8.9
2011	260,735	240,474	20,261	7.8
2012	260,295	242,063	18,232	7.0
2013	262,695	244,330	18,365	7.0
2014	266,779	250,756	16,023	6.0
2015	268,191	254,630	13,561	5.1
2016	270,417	259,364	11,053	4.1
2017	274,224	263,530	10,694	3.9
Massachusetts				
2009	3,470,382	3,189,010	281,372	8.1
2010	3,480,083	3,190,818	289,265	8.3
2011	3,469,308	3,217,754	251,554	7.3
2012	3,485,161	3,252,531	232,630	6.7
2013	3,512,827	3,276,792	236,035	6.7
2014	3,566,237	3,361,811	204,426	5.7
2015	3,588,241	3,415,874	172,367	4.8
2016	3,611,418	3,471,112	140,306	3.9
2017	3,657,173	3,521,482	135,691	3.7

Source: Bureau of Labor Statistics; The Innovation Group

The Brockton casino is estimated to require staffing of 1,800 people, which represents 0.26% of the labor force of Region C and 0.66% of Plymouth County.

Underemployment records the number of workers placed in jobs that are below their qualifications, and also includes the unemployed. According to the United Health Foundation’s annual report of America’s Health Rankings, Massachusetts has an underemployment rate of 8.1% of the civilian labor force, approximately double that of the unemployment rate. This suggests that for every unemployed worker in Massachusetts, there is an employed person working below his/her qualifications or desire for full-time hours. Using the figures from the Bureau of Labor Statistics above, Plymouth County has an underemployed work force of 22,212 and Region C has an underemployed work force of 56,348, sufficient to supply the casino with the staffing required.

As for the potential impact that the filling of MG&E casino jobs will have on existing businesses that have to replace experienced employees, there is no hard data showing a direct negative impact on other businesses. However, there is indirect evidence from Plainridge that no such negative impact took place. We would refer to a MGC presentation dated June 26, 2018 (<https://massgaming.com/wp-content/uploads/SEIGMAPresentation6.26.18.pdf>) which shows a greater increase in the number of businesses in Plainville from 2009-2016 (13%) than in other

surrounding communities (10.6%) or the control counties of Norfolk and Bristol Counties (9%).

Question 11: Massachusetts Horse Racing

The Region C casino would not a significant effect on the Race Horse Development Fund (RHDF or “Fund”), and thus there does not appear to be justification for considering horse racing in the decision regarding the Region C license. As discussed below, 9% of Plainridge’s gaming revenue goes to the Fund, whereas 2.5% of Brockton’s tax revenue (ergo 2.5% of 25% of GGR) would go toward the Fund. The gain to the Fund from Brockton is estimated to counteract nearly precisely the loss to the Fund from Brockton’s impact on Plainridge.

<u>RHDF Net Impact from Brockton</u>	
Loss from Plainridge	-\$2,523,159
Gain from Brockton	\$2,524,025

Further, the horse racing industry has not been able to fully utilize the existing Fund since the Commonwealth’s Thoroughbred track has dramatically reduced operations.

Massachusetts has two established horse racecourses. Located in East Boston, Suffolk Downs Horse Racing Track (Thoroughbred) was established in 1935, at the time when pari-mutuel wagering had just been legalized in Massachusetts. The other, Plainridge Racecourse, opened in 1999 as a harness (Standardbred) horse racing track in Plainville, offering both live and simulcast racing.

The Massachusetts State Racing Commission oversees Thoroughbred and harness racing, ensuring that rules are adhered to, for the welfare of the horses, as well as to protect the integrity of the horse racing industry. The following table details the racing and purse statistics of the two racecourses as reported by the Racing Commission in their annual reports.

Massachusetts Historical Racecourse Statistics

		Suffolk Downs	% Share	Plainridge	% Share	Total
Total Purses	2013	\$8,375,400	80.8%	\$1,988,055	19.2%	\$10,363,455
	2014	\$6,929,400	72.9%	\$2,581,552	27.1%	\$9,510,952
	2015	\$1,620,200	27.8%	\$4,210,636	72.2%	\$5,830,836
	2016	\$2,735,902	25.6%	\$7,954,092	74.4%	\$10,689,994
	2017	\$3,844,306	27.9%	\$9,912,523	72.1%	\$13,756,829
Number of Races	2013	720	48.0%	780	52.0%	1,500
	2014	560	43.2%	736	56.8%	1,296
	2015	34	3.5%	949	96.5%	983
	2016	63	5.5%	1,092	94.5%	1,155
	2017	92	7.2%	1,182	92.8%	1,274
Number of Race Days	2013	80	46.5%	92	53.5%	172
	2014	62	43.7%	80	56.3%	142
	2015	3	2.8%	105	97.2%	108
	2016	6	5.0%	115	95.0%	121
	2017	8	6.0%	125	94.0%	133

Source: Massachusetts State Racing Commission Annual Reports; *2017 numbers have not been audited

Suffolk Downs has scaled back live racing since failing to secure the Region A resort casino license. Inversely, Plainridge has increased live racing since opening a slot machine casino. The Commonwealth levies a 9% tax on slot revenues at Plainridge that goes towards the Race Horse Development Fund (RHDF). The RHDF was created by the Legislature’s 2011 expanded gaming law to increase purses, assist the breeding industry, and help pay for benefits for riders, trainers and others who work in the business. Of the RHDF totals, 80% is designated for purses, 16% goes to breeders, and 4% is allocated to backstretch welfare.

The following table shows the annual RHDF contributions since the Plainridge casino opened in late June 2015.

Massachusetts RHDF	
2015	\$7,940,749
2016	\$13,953,773
2017	\$14,830,761

Source: Massachusetts Gaming Commission

The RHDF is split between the Thoroughbred and Standardbred sectors. Originally, the Thoroughbred sector received 75% of the RHDF, but after Suffolk Downs reduced live racing starting in 2015, the share was shifted 55%-45% in favor of the Standardbred (harness) sector. The increases in purses at Plainridge show the impact of the RHDF on the harness industry. However, the Thoroughbred sector has not utilized its full share of the RHDF and a surplus resulted.

In 2017, the Massachusetts State Senate proposed a budget for fiscal 2018 that would have repurposed the balance of the RHDF to other state departments. The fund had a balance of \$15,543,988.88 as of mid-April 2017, according to the Massachusetts Gaming Commission. Ultimately, the \$15.5 million was maintained within the RHDF.

APPENDIX A: COMPETITIVE ENVIRONMENT

Existing competition for the proposed casino in Brockton will come mainly from casinos in neighboring states, specifically Rhode Island, Massachusetts, New York and Connecticut. Two of the existing competitors, MGM Springfield and Tiverton, opened in late August/early September. More distant competitors include casinos in New Jersey, Pennsylvania, and Maine. Additionally, Foxwoods and Mohegan are twice the distance but two of the largest casinos in the U.S. outside of Las Vegas, NV.

More distant competitors include casinos in New Jersey and Pennsylvania.

In addition to the existing facilities, for the purposes of this analysis, two facilities in the Catskill/Hudson Valley region and two casinos in Massachusetts, as well as a proposed casino in East Windsor, Connecticut have also been included as competitors for the proposed casino in Brockton.

Gaming revenue described in this section is net of free play.

The following table presents all of the existing competitive casinos in the Northeast and Mid-Atlantic region:

Existing Competitive Casinos

Location	Name	Machines	Tables	Positions
Montville, CT	Mohegan Sun Resort	5,613	350	7,713
Yonkers, NY	Empire City at Yonkers Raceway	5,349	0	5,349
Hanover, MD	Live! Casino & Hotel	3,997	198	5,185
Jamaica, NY	Resorts World Casino at Aqueduct	5,005	0	5,005
Lincoln, RI	Twin River Casino	4,220	80	4,700
Bethlehem, PA	Sands Casino Resort Bethlehem	3,073	252	4,585
Bensalem, PA	Parx Casino and Racing	3,331	190	4,471
Oxon Hill, MD	MGM National Harbor	2,961	180	4,041
Atlantic City, NJ	Borgata	1,994	268	3,602
Springfield, MA	MGM Springfield	2,550	120	3,270
Atlantic City, NJ	Tropicana Atlantic City	2,476	130	3,256
Baltimore, MD	Horseshoe Casino	2,200	168	3,208
Chester, PA	Harrah's Philadelphia	2,450	118	3,158
Atlantic City, NJ	Hard Rock Atlantic City	2,063	152	2,975
Atlantic City, NJ	Harrah's Resort Atlantic City	2,109	133	2,907
Monticello, NY	Resorts World Catskills	2,153	125	2,903
Wilkes-Barre, PA	Mohegan Sun Pocono	2,325	89	2,859
Atlantic City, NJ	Bally's Atlantic City	1,776	164	2,760
Atlantic City, NJ	Caesars Atlantic City	1,889	132	2,681
Philadelphia, PA	SugarHouse Casino	1,809	141	2,655
Grantville, PA	Hollywood Casino at Penn National Race Course	2,170	75	2,620
Atlantic City, NJ	Oceans Resort	1,937	107	2,579
Wilmington, DE	Delaware Park	2,250	39	2,484
Dover, DE	Dover Downs Hotel and Casino	2,177	40	2,417
Mt. Pocono, PA	Mount Airy Casino Resort	1,863	81	2,349
Atlantic City, NJ	Golden Nugget Atlantic City	1,454	99	2,048
Harrington, DE	Harrington Raceway and Casino	1,787	31	1,973
Atlantic City, NJ	Resorts Casino Hotel	1,475	68	1,883
Saratoga Springs, NY	Saratoga Gaming and Raceway	1,782	0	1,782
Schenectady, NY	Rivers Casino and Resort	1,150	82	1,642
Plainville, MA	Plainridge Park Casino	1,250	0	1,500*
Monticello, NY	Monticello Casino and Raceway	1,110	0	1,110
Tiverton, RI	Tiverton Casino Hotel	1,097	0	1,097
Bangor, ME	Hollywood Casino Hotel & Raceway Bangor	921	16	1,017
Islandia, NY	Jake's 58 Hotel & Casino	1,000	0	1,000
Perryville, MD	Hollywood Casino Perryville	822	22	954
Oxford, ME	Oxford Casino	811	22	943
King of Prussia, PA	Valley Forge Casino Resort	600	50	900
Berlin, MD	Ocean Downs	888	0	888
Flintstone, MD	Rocky Gap Casino Resort	665	17	767
Total	40	86,552	3,739	109,236

Source: The Innovation Group, Various Gaming Boards and Commissions, CasinoCity.com; *Note: Plainridge has electronic tables that count as one machine but that bring its seat count to approximately 1,500 positions.

Existing

This section details the eleven existing competitors within Brockton's gaming market categorized by state.

Connecticut

Foxwoods Casino

The Foxwoods Casino is located near the town of Ledyard, Connecticut along the Thames River in New London County. Foxwoods was founded in 1986 as a bingo hall and was later converted to a casino in 1993. The property features over 4.7 million square feet of gaming, food and beverage and entertainment space and is one of the largest casino resorts in the world. Foxwoods latest expansion, the MGM Grand at Foxwoods was a \$700 million addition in 2008.

Slot revenues continued to decline to \$728 million in the year 2008 from a total of \$783 million in the year 2007 despite the expansion; however, the expansion at the facility coincided with the national economic recession. Gaming revenues continued to decrease at the resort given the opening of competitive facilities and their amenities in Pennsylvania and the VLTS racinos in New York and the soft economy. However, 2017 saw its first year of growth in gaming revenue in over a decade. Foxwoods currently offers about 4,100 machines, and over 250 table games.

Foxwoods Casino, Ledyard, CT Slot Performance Statistics

Year	Gaming Revenue	Change	Machines	Change	Win per Position	Change
2008	\$728,024,927		7,734		\$257	
2009	\$684,424,106	-6.0%	7,641	-1.2%	\$245	-4.6%
2010	\$649,020,622	-5.2%	6,964	-8.9%	\$255	4.0%
2011	\$633,815,234	-2.3%	6,440	-7.5%	\$270	5.6%
2012	\$576,794,502	-9.0%	6,276	-2.5%	\$252	-6.6%
2013	\$530,572,312	-8.0%	5,921	-5.7%	\$246	-2.5%
2014	\$483,559,414	-8.9%	5,693	-3.9%	\$233	-5.2%
2015	\$465,010,320	-3.8%	4,695	-17.5%	\$271	16.6%
2016	\$456,156,085	-1.9%	4,466	-4.9%	\$279	2.9%
2017	\$468,048,004	2.6%	4,145	-7.2%	\$309	10.8%

Source: Connecticut Gaming Board; The Innovation Group

The following table shows fiscal years so slot revenue does not match the previous calendar-year tables above.

Foxwoods Total Gaming Revenues (\$MMs)

	FY2016	FY2015
Slot rev	\$481.4	\$483.1
Table rev	\$245.1	\$234.4
Total gaming rev	\$726.5	\$717.5
# of slots	5,807	5,808
# of tables	428	429
Table rev ratio	33.7%	32.7%

Fiscal years ending Sept. 30

Mohegan Sun Casino

The Mohegan Sun Casino and Entertainment complex opened in October 1996. The Mohegan Sun is located on a 185-acre site on the Tribe’s reservation overlooking the Thames River with direct access from Interstate 395 and Connecticut Route 2A. Mohegan Sun is approximately 10 miles from Foxwoods. In fiscal 2002, the property completed a major expansion of Mohegan Sun known as Project Sunburst, which included increased gaming, restaurant and retail space, an entertainment arena, an approximately 1,200-room luxury Sky Hotel Tower and approximately 100,000 square feet of convention space. In fiscal 2007 and 2008, the Sunrise Square and Casino of the Wind components of Project Horizon expansions were completed. The property now boasts 3.1 million square feet of gaming, food and beverage, and entertainment space.

Mohegan Sun’s gaming revenues have been declining due to a combination of the effects from the national economic recession and the development of competitive facilities in Pennsylvania and the New York VLTs. The property currently offers 4,511 machines and over 300 table games.

Mohegan Sun Casino Resort, Montville, CT Slot Performance Statistics

	Gaming Revenue	Change	Machines	Change	Win per Position	Change
2008	\$842,873,026		6,300		\$366	
2009	\$763,879,790	-9.4%	6,752	7.2%	\$310	-15.2%
2010	\$736,157,773	-3.6%	6,405	-5.1%	\$315	1.6%
2011	\$712,346,164	-3.2%	6,318	-1.4%	\$309	-1.9%
2012	\$652,780,377	-8.4%	5,880	-6.9%	\$303	-1.8%
2013	\$614,364,394	-5.9%	5,533	-5.9%	\$304	0.3%
2014	\$583,912,203	-5.0%	5,426	-1.9%	\$295	-3.1%
2015	\$579,495,965	-0.8%	5,216	-3.9%	\$304	3.2%
2016	\$597,383,584	3.1%	5,111	-2.0%	\$319	4.9%
2017	\$606,937,856	1.6%	4,939	-3.4%	\$337	5.4%

Source: Connecticut Gaming Board; The Innovation Group

Table revenue is not subject to revenue sharing and therefore is not reported through the Connecticut Gaming Board. However, the Mohegan Tribal Gaming Authority (MTGA) releases table game revenues in its reporting to the Securities and Exchange Commission. Altogether, gaming revenues at Mohegan Sun are approximately \$910 million in 2016, with table revenue

accounting for about 35% of win.

	FY2016	FY2015	FY2014	FY2013	FY2012
Slot rev	\$592.1	\$582.5	\$582.1	\$618.7	\$675.1
Table rev	\$317.8	\$297.2	\$293.3	\$310.0	\$302.6
Total gaming rev	\$909.9	\$879.7	\$875.4	\$928.6	\$977.7
# of slots	5,267	5,268	5,470	5,553	6,038
# of tables	325	325	330	327	353
Table rev ratio	34.9%	33.8%	33.5%	33.4%	31.0%

Fiscal years ending Sept. 30

Rhode Island

Twin River Casino

The Twin River Casino in Lincoln, Rhode Island is approximately 50 miles southwest of Brockton, located at the former Lincoln Greyhound Park off State Highway 146. The racetrack, just 10 minutes from downtown Providence, began offering video lottery terminals in 1992 and completed a \$220 million expansion in 2007 under new ownership. In 2012 voters approved a state referendum to allow live table games at the Twin River Casino.

The facility includes a 190,000 square foot gaming floor, 9 food and beverage options and a 29,000 square foot event center frequently hosting national acts and live boxing/MMA fights. The facility has a 135-room on-site hotel. The casino at Twin River currently offers guest over 4,200 slots, 80 gaming tables with a separate poker room and a simulcast racebook betting room.

Year	Slot Revenue	Machines	Table Revenue	Table Games	Total Revenue	Change	Win per Position
2008	\$407,503,857	4,748			\$407,503,857		\$234.5
2009	\$399,662,955	4,741			\$399,662,955	-1.9%	\$231.0
2010	\$423,660,592	4,749			\$423,660,592	6.0%	\$244.4
2011	\$462,793,306	4,748			\$462,793,306	9.2%	\$267.1
2012	\$477,827,613	4,751			\$477,827,613	3.2%	\$274.8
2013	\$470,391,984	4,592	\$41,322,389	66	\$511,714,373	7.1%	\$281.1
2014	\$466,015,784	4,537	\$99,886,924	80	\$565,902,708	10.6%	\$309.0
2015	\$456,830,932	4,408	\$114,446,240	80	\$571,277,172	0.9%	\$320.2
2016	\$438,054,054	4,258	\$135,048,433	80	\$573,102,487	0.3%	\$330.5
2017	\$434,829,065	4,212	\$143,855,958	80	\$578,685,023	1.0%	\$337.9

Source: Rhode Island Lottery; The Innovation Group

Newport Grand Casino/Tiverton Casino

Newport Grand Casino was located off the exit from the Claiborne Pell Newport Bridge on Aquidneck Island, approximately 50 miles east of Foxwoods. Formerly known as Newport

Grand Slot parlor, Twin River Management Group finalized the purchase of this casino in July 2015 with intentions of relocating the gaming license to Tiverton, RI. Newport closed as of August 28th, 2018 and Tiverton opened on September 1st, 2018.

The current facility has a 33,600 square foot gaming floor, three dining options and one lounge. Slot revenues at Newport Grand had declined over the last decade and while Twin River expanded into table games, voters refused the state referendum to allow table games at the Newport facility. However, the Tiverton Casino features 32 table games, 1,000 slot machines, and an 84-room hotel.

Year	Machines	Slot Revenue	Change	Win per Position
2008	1,244	\$67,546,725		\$148.4
2009	1,484	\$61,505,924	-8.9%	\$113.5
2010	1,182	\$53,297,539	-13.3%	\$123.6
2011	1,097	\$50,071,495	-6.1%	\$125.0
2012	1,093	\$50,131,054	0.1%	\$125.3
2013	1,093	\$46,350,614	-7.5%	\$116.2
2014	1,097	\$45,179,615	-2.5%	\$112.9
2015	1,097	\$44,543,308	-1.4%	\$111.3
2016	1,096	\$46,006,384	3.3%	\$114.7
2017	1,097	\$46,166,038	0.3%	\$115.3

Source: Rhode Island Lottery; The Innovation Group

Massachusetts

Plainridge Park Casino

Plainridge Park Casino, owned by Penn National Gaming, is the newest competitor in the market having opened in late June 2015 at the Plainridge harness-racing track on Route 1 about 20 miles west of Brockton. The racetrack became the first and only slot parlor and live harness racing venue in the state. The \$225 million facility includes 8 food and beverage options, one live entertainment lounge bar and parking garage. The casino offers gamers over 1,250 slots, video table games and simulcast and live harness racebook betting. Plainridge generated revenue of \$165 million in its first full year of operation.

Year	Machines	Slot Revenue	Change	Win per Position
2016	1,250	\$155,041,918		\$338.9
2017	1,250	\$164,786,230	6.3%	\$361.2

Source: Massachusetts Gaming Commission; The Innovation Group

MGM Springfield

MGM opened its nearly \$1 billion integrated resort in Springfield on August 24th, 2018. The property includes a 250-room hotel tower and 125,000 square feet of gaming space with 2,550 slot machines and 120 gaming tables. Additionally, it provides typical amenities found in such resort properties such as restaurants, spas, retail shops, and meeting space in addition to an 8,000-seat entertainment venue, TopGolf swing suite, and a bowling alley.

MGM Springfield Property Statistics

	Slot GGR	Table GGR	Total GGR
Aug-18*	\$7,347,491	\$2,109,486	\$9,456,977
Sep-18	\$18,149,752	\$8,802,344	\$26,952,096
YTD	\$25,497,243.51	\$10,911,829.78	\$36,409,073.29

Source: Massachusetts Gaming Commission; The Innovation Group; *August 2018 had 7 days in it

New York

Saratoga Springs

Saratoga Gaming and Raceway is a ½-mile standardbred harness racing dirt track located in Saratoga Springs, New York, just across Nelson Avenue from Saratoga Race Course which hosts thoroughbred racing each August. Saratoga Raceway aka The Saratoga Equine Sports Center – otherwise known as the Saratoga Gaming and Raceway – was opened in 1941 as a facility for American harness racing and was the third racetrack in the State of New York to feature pari-mutuel wagering. The casino opened in January 2004 featuring approximately 1,300 video lottery terminals. The casino now features 1,700 video lottery terminals.

Saratoga Springs Historical Gaming Revenues

Year	Gaming Revenue	Change	Machines	Change	Win per Position	Change
2008	\$134,373,560		1,770		\$207	
2009	\$136,038,290	1.2%	1,770	0.0%	\$211	1.5%
2010	\$139,721,687	2.7%	1,775	0.3%	\$216	2.4%
2011	\$150,420,830	7.7%	1,782	0.3%	\$231	7.3%
2012	\$159,751,975	6.2%	1,780	-0.1%	\$245	6.0%
2013	\$159,594,798	-0.1%	1,782	0.1%	\$245	0.1%
2014	\$158,765,338	-0.5%	1,782	0.0%	\$244	-0.5%
2015	\$160,919,293	1.4%	1,763	-1.0%	\$250	2.4%
2016	\$167,212,392	3.9%	1,718	-2.6%	\$266	6.4%
2017	\$137,438,160	-17.8%	1,707	-0.6%	\$221	-17.1%

Source: New York Lottery, The Innovation Group

Monticello Raceway

The Monticello Gaming and Raceway originally opened in June 1958 featuring the “Mighty M” half mile track featuring standard bred horse races. The casino portion opened in June 2004 featuring 1,700 video lottery terminals, but it has since scaled back to 1,110. Gaming revenue has fluctuated up and down, but roughly stayed flat over the last decade at \$58 million.

Monticello Raceway Historical Gaming Revenues

Year	Gaming Revenue	Change	Machines	Change	Win per Position	Change
2008	\$58,109,181		1,587		\$100	
2009	\$53,751,367	-7.5%	1,401	-11.7%	\$105	5.0%
2010	\$57,394,484	6.8%	1,089	-22.3%	\$144	37.3%
2011	\$60,918,062	6.1%	1,110	1.9%	\$150	4.2%
2012	\$63,873,596	4.9%	1,110	0.0%	\$157	4.6%
2013	\$62,821,386	-1.6%	1,110	0.0%	\$155	-1.4%
2014	\$59,142,393	-5.9%	1,110	0.0%	\$146	-5.9%
2015	\$59,326,309	0.3%	1,110	0.0%	\$146	0.3%
2016	\$61,086,135	3.0%	1,110	0.0%	\$150	2.7%
2017	\$58,508,310	-4.2%	1,110	0.0%	\$144	-4.0%

Source: New York Lottery, The Innovation Group

Empire City at Yonkers Raceway

Yonkers Raceway, founded in 1899 in Yonkers as the Empire City Race Track, is a one-half-mile standardbred harness racing dirt track. The casino opened in October 2006 after a \$225 million renovation and featured only 1,870 video lottery terminals. The casino now features approximately 5,200 video lottery terminals.

Yonkers Raceway Historical Gaming Revenues

Year	Gaming Revenue	Change	Machines	Change	Win per Position	Change
2008	\$486,459,681		5,339		\$249	
2009	\$540,495,929	11.1%	5,320	-0.4%	\$278	11.8%
2010	\$582,229,271	7.7%	5,309	-0.2%	\$300	7.9%
2011	\$624,432,033	7.2%	5,351	0.8%	\$320	6.4%
2012	\$544,698,569	-12.8%	4,987	-6.8%	\$298	-6.7%
2013	\$559,946,387	2.8%	5,327	6.8%	\$288	-3.5%
2014	\$537,491,608	-4.0%	5,344	0.3%	\$276	-4.3%
2015	\$558,287,537	3.9%	5,277	-1.3%	\$290	5.2%
2016	\$589,716,723	5.6%	5,232	-0.8%	\$308	6.2%
2017	\$599,218,590	1.6%	5,221	-0.2%	\$314	2.1%

Source: New York Lottery; The Innovation Group

Resorts World Casino at Aqueduct Racetrack

The Aqueduct Racetrack is a horse racing facility in Jamaica, New York with three tracks that feature thoroughbred racing. The Resorts World casino opened in October of 2011, and features over 5,000 gaming machines, including electronic table games that are extremely popular with the Asian population in Queens and Brooklyn.

Aqueduct Historical Gaming Revenues

Year	Gaming Revenue	Change	Machines	Change	Win per Position	Change
2011*	\$89,293,498		2,919		\$471	
2012	\$672,570,324		4,954	69.7%	\$371	-21.2%
2013	\$785,128,863	16.7%	5,004	1.0%	\$430	15.9%
2014	\$807,988,805	2.9%	5,003	0.0%	\$442	2.9%
2015	\$831,222,582	2.9%	5,060	1.1%	\$450	1.7%
2016	\$826,486,601	-0.6%	5,423	7.2%	\$416	-7.5%
2017	\$702,120,545	-15.0%	5,207	-4.0%	\$369	-11.3%

Source: New York Lottery; *2011 has 65 Days, The Innovation Group

Rivers Casino & Resort

Rivers Casino & Resort is a \$330 gaming and entertainment venue located in Schenectady, New York, which is roughly 200 miles west of Brockton. Rivers Casino opened in February of 2017. The venue opened its hotel in the second quarter of operations. The property offers roughly 1,150 slot machines and 80 table games. In its first complete Fiscal Year in operation, Rivers Casino reported approximately \$140 million in GGR.

Rivers Historical Gaming Revenues

Year	Slot Revenue	Machines	Table Revenue	Table Games	Total Revenue	Change	Win per Position
2017	\$82,016,111	1,150	\$40,611,458	67	\$122,627,569		\$216
Last 12 Months	\$97,537,310	1,150	\$44,947,233	67	\$142,484,543	n/a	\$252

Source: New York Lottery; *2017 has 327 Days, The Innovation Group

Resorts World Catskills

Resorts World Catskills was the last of the four nontribal casinos licensed by the state of New York in 2014 to open. Gaming operations at this \$900 million hotel casino located at the old Concord Hotel near Monticello started in February of 2018. The hotel has 332 rooms and the casino floor has over 2,150 slot machines and 150 table games including poker. In its first full month of operations, the casino generated \$12.4 million in GGR.

Resorts World Historical Gaming Revenues

Year	Slot Revenue	Machines	Table Revenue	Table Games	Total Revenue	Change	Win per Position
2018*	\$31,727,284	2,153	\$23,814,682	125	\$55,541,966	n/a	\$233

Source: New York Lottery; *2018 has 82 Days of data, The Innovation Group

Maine

Hollywood Casino Hotel & Raceway Bangor

Hollywood Casino is located at the junction of Interstates I-95 and I-395 next to the Penobscot River in Bangor, central Maine. The facility is almost 5 hours or 275 miles north of Brockton, MA and is not considered a strong competitor. The casino first opened in 2005 at a temporary location before building the current facility at an existing racetrack in 2008. The casino is operated by Penn National Gaming, who expanded casino operations in 2012 to include the state's first table games. The facility currently includes a 152-room hotel, three dining options, one live entertainment lounge, banquet facilities, live-harness racetrack and 10,000 square foot gaming floor currently offering 784 slots and 16 poker and table games.

Hollywood Casino Bangor Property Statistics

Year	Slot Revenue	Machines	Table Revenue	Tables	Total Revenue	Change	Win per Position
2008	\$50,515,382	740			\$50,515,382		\$187
2009	\$59,224,270	1,000			\$59,224,270	17.2%	\$162
2010	\$61,667,214	1,000			\$61,667,214	4.1%	\$169
2011	\$59,453,078	1,000			\$59,453,078	-3.6%	\$163
2012	\$56,212,925	936	\$6,470,964	16	\$62,683,888	5.4%	\$166
2013	\$47,269,709	909	\$7,388,848	16	\$54,658,557	-12.8%	\$149
2014	\$46,410,579	877	\$8,026,814	16	\$54,437,393	-0.4%	\$153
2015	\$44,274,063	763	\$8,966,225	16	\$53,240,288	-2.2%	\$170
2016	\$43,494,044	779	\$9,133,204	17	\$52,627,248	-1.2%	\$163
2017	\$41,698,800	773	\$8,730,574	18	\$50,429,374	-4.2%	\$157

Source: Maine Gaming Board; The Innovation Group

Oxford Casino

The Oxford Casino opened in 2012 as Black Bear Four Season Resort & Casino but changed its name before being sold to Churchill Downs Inc. the following year. The facility is located 20 miles off Interstate I-95 just outside of Oxford in southwest Maine. The casino currently has three dining options and a 30,281 square foot gaming floor with over 850 slots, 28 table games and 12-seat video poker bar. A 107-room hotel as opened in November of 2017.

Oxford Casino Property Statistics

Year	Slot Revenue	Machines	Table Revenue	Tables	Total Revenue	Change	Win per Position
2012	\$29,887,262	688	\$6,652,279	16	\$36,539,541		\$218
2013	\$58,353,948	811	\$13,261,868	23	\$71,615,816	96.0%	\$207
2014	\$58,368,047	858	\$14,464,188	26	\$72,832,235	1.7%	\$197
2015	\$62,091,956	855	\$14,475,213	26	\$76,567,169	5.1%	\$208
2016	\$64,856,476	857	\$15,637,882	27	\$80,494,358	5.1%	\$218
2017	\$68,722,796	852	\$17,564,142	28	\$86,286,938	7.2%	\$234

Source: Maine Gaming Board; *2012 has 213 Days, The Innovation Group

New Jersey

Bally's Atlantic City

Bally's Atlantic City is a hotel and casino on the Boardwalk in Atlantic City, New Jersey that opened in 1979. The property has grown to feature over 1,700 slot machines, and 171 table and poker games. The hotel, Bally's Park Place is located adjacent to the casino and features 1,251 rooms and suites, a large fitness center, pool and spa. The property features 13 food and beverage facilities including seven "quick bite" locations, five casual dining restaurants, and a flagship Guy Fieri Steakhouse. The property features five additional bars including a beach bar and a nightclub while also offering frequent live shows managed by Caesars Entertainment. There have been several small-scale renovations to some of the rooms and suites with no major renovations planned.

Bally's Historical Gaming Revenues

Year	Slot Revenue	Machines	Table Revenue	Tables	Total Revenue	Change	Win per Position
2008	\$394,629,796	4,914	\$173,440,327	212	\$568,070,123		\$251
2009	\$314,338,881	3,818	\$160,007,217	204	\$474,346,098	-16.5%	\$258
2010	\$283,638,705	3,511	\$142,366,290	204	\$426,004,995	-10.2%	\$247
2011	\$264,441,156	3,319	\$113,869,996	207	\$378,311,152	-11.2%	\$227
2012	\$198,656,540	2,464	\$98,112,689	147	\$296,769,229	-21.6%	\$242
2013	\$163,416,180	2,250	\$81,034,095	135	\$244,450,275	-17.6%	\$219
2014	\$150,319,270	1,921	\$74,578,853	163	\$224,898,123	-8.0%	\$212
2015	\$140,223,513	1,867	\$70,334,072	169	\$210,557,585	-6.4%	\$200
2016	\$135,577,882	1,835	\$75,132,527	171	\$210,710,409	0.1%	\$201
2017	\$138,812,736	1,774	\$72,211,812	165	\$211,024,548	0.1%	\$209

Source: New Jersey Division of Gaming Enforcement, The Innovation Group

Borgata

Borgata is one of the most prominent casinos in Atlantic City, originally featuring 1,700 video lottery terminals, and has grown to host 3,000 gaming machines and over 250 table and poker games. The Borgata features 2,000 standard rooms while the Water Club at Borgata features 800

standard rooms. The hotels also feature five separate specialty pools, large fitness center, two spas, and retail center with five featured brand names including Hugo Boss and Misura. The casino as experienced several internal lobby renovations while the hotel has experienced renovated rooms and pool areas. Borgata hosts two nightclubs and the Borgata Beer Garden as well as three separate bars.

Borgata Historical Gaming Revenues

Year	Slot Revenue	Machines	Table Revenue	Tables	Total Revenue	Change	Win per Position
2008	\$441,443,988	3,956	\$297,334,851	274	\$738,778,839		\$360
2009	\$431,395,370	3,928	\$263,935,199	274	\$695,330,569	-5.9%	\$342
2010	\$422,852,611	3,600	\$224,817,026	276	\$647,669,637	-6.9%	\$338
2011	\$430,412,456	3,475	\$221,401,551	275	\$651,814,007	0.6%	\$348
2012	\$417,234,016	3,368	\$195,457,441	270	\$612,691,457	-6.0%	\$336
2013	\$419,907,236	3,200	\$198,562,125	273	\$618,469,361	0.9%	\$350
2014	\$433,410,358	3,113	\$209,561,815	273	\$642,972,173	4.0%	\$371
2015	\$468,397,051	3,051	\$227,820,100	274	\$696,217,151	8.3%	\$406
2016	\$491,483,634	3,025	\$231,288,615	276	\$722,772,249	3.8%	\$422
2017	\$508,152,357	3,029	\$246,943,501	279	\$755,095,858	4.5%	\$440

Source: New Jersey Division of Gaming Enforcement, The Innovation Group

Caesars Atlantic City

Caesars opened in 1979 and is Atlantic City's second casino. The casino and hotel have been recently renovated with updated lobbies, pool areas, and nightclubs. The casino now features more than 2,000 slot machines, and 137 table and poker games. The Hotel features 1,141 updated rooms and suites, a rooftop pool, spa, salon, meeting rooms, and the Playground Mall. The property features three nightclubs and bars with 12 additional restaurants. Restaurants include five casual options, two buffets, one "quick bite" location, and three upscale restaurants.

Caesars Historical Gaming Revenues

Year	Slot Revenue	Machines	Table Revenue	Tables	Total Revenue	Change	Win per Position
2008	\$327,475,136	3,113	\$216,293,908	166	\$543,769,044		\$361
2009	\$284,752,454	2,860	\$175,456,897	168	\$460,209,351	-15.4%	\$326
2010	\$248,514,994	2,610	\$160,215,001	180	\$408,729,995	-11.2%	\$304
2011	\$241,776,432	2,404	\$162,606,717	181	\$404,383,149	-1.1%	\$318
2012	\$229,462,232	2,245	\$129,102,488	178	\$358,564,720	-11.3%	\$296
2013	\$209,421,964	2,131	\$127,025,395	180	\$336,447,359	-6.2%	\$287
2014	\$210,635,652	1,947	\$119,977,272	144	\$330,612,924	-1.7%	\$323
2015	\$197,709,639	1,881	\$112,604,162	146	\$310,313,801	-6.1%	\$308
2016	\$195,049,635	1,854	\$106,954,998	137	\$302,004,633	-2.7%	\$308
2017	\$205,240,148	1,853	\$119,821,259	137	\$325,061,407	7.6%	\$333

Source: New Jersey Division of Gaming Enforcement; The Innovation Group

Golden Nugget Atlantic City

The Golden Nugget is one of the largest casinos in Atlantic City and features over 1,450 gaming machines and 88 table and poker games. The casino is located within the hotel which currently has 545 standard rooms and 171 suites. The hotel hosts a fitness center, marina, salon, spa, and rooftop pool. The hotel currently has ten restaurant options, featuring a Chart House Steakhouse, Grotto Italian Restaurant and the Deck Bayfront Bar & Restaurant. Within the hotel is the Haven Nightclub, Rush Lounge, and Bar 46 as well as a shopping center with eleven shops.

Golden Nugget Historical Gaming Revenues

Year	Slot Revenue	Machines	Table Revenue	Tables	Total Revenue	Change	Win per Position
2008	\$155,075,095	1,971	\$48,568,409	74	\$203,643,504		\$231
2009	\$125,270,157	1,876	\$37,329,676	72	\$162,599,833	-20.2%	\$193
2010	\$113,359,416	1,779	\$34,027,123	70	\$147,386,539	-9.4%	\$184
2011	\$97,553,342	1,512	\$27,645,876	71	\$125,199,218	-15.1%	\$177
2012	\$97,915,534	1,473	\$33,171,681	89	\$131,087,215	4.7%	\$178
2013	\$95,605,199	1,430	\$29,266,019	93	\$124,871,218	-4.7%	\$171
2014	\$128,332,077	1,339	\$46,427,593	92	\$174,759,670	40.0%	\$254
2015	\$146,000,772	1,380	\$54,260,282	92	\$200,261,054	14.6%	\$284
2016	\$150,548,958	1,449	\$59,135,210	92	\$209,684,168	4.7%	\$286
2017	\$159,736,626	1,453	\$59,940,049	93	\$219,676,675	4.8%	\$299

Source: New Jersey Division of Gaming Enforcement; The Innovation Group

Taj Mahal/Hard Rock Atlantic City

The previous Taj Mahal, which closed in 2016, has reopened on June 28th, 2018 as the Hard Rock Casino. The property has undergone substantial renovations with both the hotel and casino obtaining new designs. The casino features over 2,100 gaming machines and 120 table and poker games. The hotel is separated to two towers with the North tower hosting 708 standard rooms and 74 suites, and the south tower hosting 1012 standard rooms and 216 suites. The hotel currently has 20 food and beverage options including the Council Oak Fish Restaurant, Kuro Restaurant, Song, and Il Mulino. Amenities include a full-service pool, spa, and gym, meeting rooms, mercantile shops, and full nightclub. The property features the Etes Arena which hosts live performances and shows. Gaming revenue totaled \$32.4 in the Hard Rock’s first full month of operation.

Taj Mahal Historical Gaming Revenues

Year	Slot Revenue	Machines	Table Revenue	Tables	Total Revenue	Change	Win per Position
2008	\$296,075,931	3,235	\$48,568,409	74	\$186,331,878		\$298
2009	\$274,660,169	3,029	\$37,329,676	72	\$172,268,053	-7.5%	\$287
2010	\$258,070,652	2,912	\$34,027,123	70	\$144,327,704	-16.2%	\$267
2011	\$228,837,319	2,788	\$27,645,876	71	\$119,720,880	-17.0%	\$243
2012	\$206,902,415	2,592	\$33,171,681	89	\$88,589,664	-26.0%	\$217
2013	\$186,424,133	2,529	\$29,266,019	93	\$73,490,148	-17.0%	\$197
2014	\$159,928,015	2,522	\$46,427,593	92	\$55,934,907	-23.9%	\$166
2015	\$142,221,456	2,518	\$54,260,282	92	\$38,047,795	-32.0%	\$151
2016*	\$96,787,797	2,510	\$59,940,049	93	\$28,593,940	-24.8%	\$137

Source: New Jersey Division of Gaming Enforcement; *2016 Closed October 10th, The Innovation Group

Harrah's Resort Atlantic City

Harrah's Resort opened in 1980 and has since established itself as one of the top-grossing casinos in the city. The current property has seen a recent renovation to the hotel lobbies and rooms in addition to the casino being recently renovated. The hotel hosts 890 rooms and 281 suites, two pools, a fitness center, spa, meeting centers, and shopping center. The hotel also hosts three bars, an additional pool bar, and thirteen food and beverage options. Restaurants include four casual dining options, four "quick bite" options, one buffet, and four upscale restaurants including the Gordon Ramsay Steakhouse.

Harrah's Historical Gaming Revenues

Year	Slot Revenue	Machines	Table Revenue	Tables	Total Revenue	Change	Win per Position
2008	\$446,455,951	3,677	\$98,268,682	132	\$544,724,633		\$333
2009	\$388,327,533	3,244	\$100,151,362	149	\$488,478,895	-10.3%	\$323
2010	\$350,535,636	2,955	\$102,935,424	162	\$453,471,060	-7.2%	\$316
2011	\$345,374,645	2,855	\$94,436,900	170	\$439,811,545	-3.0%	\$311
2012	\$297,684,341	2,682	\$101,356,469	179	\$399,040,810	-9.3%	\$290
2013	\$269,851,423	2,412	\$86,515,519	179	\$356,366,942	-10.7%	\$280
2014	\$273,238,828	2,305	\$92,119,539	178	\$365,358,367	2.5%	\$297
2015	\$283,102,384	2,224	\$91,212,679	177	\$374,315,063	2.5%	\$312
2016	\$266,299,345	2,179	\$91,769,157	176	\$358,068,502	-4.3%	\$302
2017	\$280,339,059	2,152	\$83,366,378	176	\$363,705,437	1.6%	\$311

Source: New Jersey Division of Gaming Enforcement; The Innovation Group

Resorts Casino Hotel

Resorts Casino Hotel was the first casino to open in Atlantic City. The hotel has 942 standard rooms and the casino floor has over 1,553 slot machines and 74 table and poker games. The hotel offers a pool, spa & health club, salon, and boardwalk. The hotel is comprised of two towers, the

Rendezvous Tower, and the recently renovated Ocean Tower. The property host six bars, an event center, and ten restaurants, including four fine dining restaurants, four casual dining restaurants, a quick-bites food court, and coffee shop.

Resorts World Historical Gaming Revenues

Year	Slot Revenue	Machines	Table Revenue	Tables	Total Revenue	Change	Win per Position
2008	\$174,294,678	2,584	\$58,921,514	89	\$233,216,192		\$204
2009	\$142,390,803	2,419	\$49,285,001	85	\$191,675,804	-17.8%	\$179
2010	\$122,010,528	2,292	\$41,034,133	83	\$163,044,661	-14.9%	\$160
2011	\$115,757,070	2,163	\$38,346,133	82	\$154,103,203	-5.5%	\$159
2012	\$99,136,427	2,057	\$31,691,937	84	\$130,828,364	-15.1%	\$140
2013	\$104,551,454	1,664	\$26,251,715	72	\$130,803,169	0.0%	\$171
2014	\$110,222,299	1,723	\$29,167,535	73	\$139,389,834	6.6%	\$177
2015	\$128,183,105	1,617	\$34,049,911	71	\$162,233,016	16.4%	\$218
2016	\$135,090,368	1,555	\$38,038,452	74	\$173,128,820	6.7%	\$237
2017	\$146,001,303	1,502	\$44,507,005	75	\$190,508,308	10.0%	\$268

Source: New Jersey Division of Gaming Enforcement; The Innovation Group

Tropicana Atlantic City

Tropicana Hotel and Casino opened in 1981 and currently hosts over 2,300 gaming machines, 125 table and poker games, and a hotel with 2047 business suites. The hotel recently saw renovations to their hotel rooms and lobbies. The hotel offers two full-service spas, salon, fitness center, pool, and business center. In addition to the four bars and nightclub, the property also hosts 29 different food and beverage options including the Pal Restaurant, Il Verdi, and Golden Dynasty. The property is known for its “Quarter” which features a large selection of shops in a Havana-style street setting.

Tropicana Historical Gaming Revenues

Year	Slot Revenue	Machines	Table Revenue	Tables	Total Revenue	Change	Win per Position
2008	\$252,178,402	3,606	\$104,808,388	178	\$356,986,790		\$209
2009	\$221,775,764	3,322	\$91,822,325	172	\$313,598,089	-12.2%	\$197
2010	\$205,543,341	3,054	\$94,899,480	159	\$300,442,821	-4.2%	\$205
2011	\$191,905,012	2,739	\$85,247,531	141	\$277,152,543	-7.8%	\$212
2012	\$190,371,544	2,639	\$59,622,147	141	\$249,993,691	-9.8%	\$196
2013	\$180,858,101	2,609	\$47,163,837	132	\$228,021,938	-8.8%	\$184
2014	\$221,010,199	2,530	\$53,617,131	130	\$274,627,330	20.4%	\$227
2015	\$225,618,527	2,294	\$54,451,928	129	\$280,070,455	2.0%	\$250
2016	\$241,439,840	2,246	\$62,709,449	130	\$304,149,289	8.6%	\$274
2017	\$281,390,455	2,268	\$66,944,924	126	\$348,335,379	14.5%	\$316

Source: New Jersey Division of Gaming Enforcement; The Innovation Group

Revel/Oceans Resort

Opened in June of 2018, Oceans Resort is one of the newest casinos in Atlantic City and features 1,399 rooms and suites, over 2,000 gaming machines, and 100 table and poker games. The property was formerly the Revel Casino which was only open between March 2012 and September 2014. The new hotel building features ocean view rooms, fitness center, Exhale Spa, Top Golf Swing Suites, and retail district. The property features six food and beverage options including Harper's and American Cut. Oceans is known for its large variety of nightclub options including Ovation Hall, HQ2, Villain and Saint, and Ivan Kane's Royal Jelly Burlesque Nightclub. In its first full month of operation, Oceans Resort had a gaming revenue of \$15.7 million.

Revel Historical Gaming Revenues

Year	Slot Revenue	Machines	Table Revenue	Tables	Total Revenue	Change	Win per Position
2012	\$80,264,208	2,409	\$42,051,867	150	\$122,316,075		\$133
2013	\$96,835,844	2,360	\$58,316,675	139	\$155,152,519	26.8%	\$135
2014	\$64,140,024	2,201	\$34,013,219	113	\$98,153,243	-36.7%	\$103

Source: New Jersey Division of Gaming Enforcement; The Innovation Group

Pennsylvania

Sands Casino Resort Bethlehem

Sands Bethlehem Casino is located west of New York City in Bethlehem, PA. The casino location is off Interstate 78 and is over four hours away from Foxwoods casino. The casino opened May 22, 2009. In the winter of 2009–2010, the casino was granted a license for table games which allowed the casino to expand to include 180 table games which began operations in July of 2010. The Sands Hotel opened its 282-room facility in May of 2011. The casino has 139,000 square feet of gaming space and operates roughly 3,000 slots and 240 table games.

Sands Bethlehem Property Statistics

Year	Slot Revenue	Machines	Table Revenue	Tables	Total Revenue	Change	Win per Position
2009*	\$142,267,867	2,964			\$142,267,867		\$212
2010	\$258,735,860	3,099	\$27,366,916	89	\$286,102,776	101.1%	\$216
2011	\$270,967,159	3,022	\$106,380,000	118	\$377,347,159	31.9%	\$277
2012	\$291,547,632	3,015	\$146,492,966	151	\$438,040,597	16.1%	\$305
2013	\$288,378,796	3,014	\$176,577,739	181	\$464,956,535	6.1%	\$311
2014	\$280,979,456	3,013	\$188,974,141	201	\$469,953,597	1.1%	\$305
2015	\$299,528,646	3,013	\$214,409,351	207	\$513,937,997	9.4%	\$331
2016	\$305,036,579	3,013	\$230,151,256	222	\$535,187,835	4.1%	\$337
2017	\$302,568,558	2,996	\$243,170,902	240	\$545,739,460	2.0%	\$337

Source: Pennsylvania Gaming Control Board; The Innovation Group; *2009 Has 226 Days

Mount Airy Casino Resort

Mount Airy Casino Resort is in Mount Pocono, Pennsylvania roughly 4 hours west of Foxwoods. The casino and 188-room hotel opened in October of 2007. Mount Airy Casino and Resort is one of two AAA 4 Diamond Casino Resorts in Pennsylvania, the other being the Sands Casino Resort Bethlehem. The facility includes 62,000 square feet of gaming space, seven F&B options including a Guy Fieri restaurant, a golf club, and a spa. The casino has roughly 1,900 slots and starting in 2010 started offering table games that now number over 80.

Mount Airy Casino Property Statistics

Year	Slot Revenue	Machines	Table Revenue	Tables	Total Revenue	Change	Win per Position
2008	\$176,389,714	2,521			\$176,389,714		\$191
2009	\$164,634,128	2,506			\$164,634,128	-6.7%	\$180
2010	\$143,811,645	2,415	\$19,466,397	75	\$163,278,042	-0.8%	\$156
2011	\$145,776,853	2,296	\$39,607,114	73	\$185,383,967	13.5%	\$186
2012	\$149,842,697	2,076	\$39,670,415	72	\$189,513,113	2.2%	\$207
2013	\$142,856,720	1,930	\$40,523,390	73	\$183,380,110	-3.2%	\$212
2014	\$140,635,829	1,869	\$43,028,021	79	\$183,663,850	0.2%	\$215
2015	\$139,765,235	1,870	\$46,582,339	80	\$186,347,574	1.5%	\$217
2016	\$141,953,231	1,868	\$42,584,186	81	\$184,537,417	-1.0%	\$214
2017	\$147,803,674	1,865	\$50,084,907	81	\$197,888,581	7.2%	\$231

Source: Pennsylvania Gaming Control Board; The Innovation Group

Mohegan Sun Pocono

Located in Wilkes-Barre, PA, Mohegan Sun Pocono was the first slots casino in operations in the state of Pennsylvania in 2006. Formerly known as the Pocono Downs Racetrack, Mohegan Sun acquired the racetrack on January 25, 2005 in a \$280 million purchase from Penn National Gaming. In November 2013, Mohegan Sun opened a 238-room hotel connected to the casino floor. The facility includes notable F&B options, such as Ruth's Chris Steakhouse, shopping center, comedy club, horse racing track, and more. The casino currently operates 2,300 slot machines and 90 table games including poker.

Mohegan Sun Pocono Property Statistics

Year	Slot Revenue	Machines	Table Revenue	Tables	Total Revenue	Change	Win per Position
2008	\$185,583,564	1,798			\$185,583,564		\$282
2009	\$220,808,247	2,466			\$220,808,247	19.0%	\$245
2010	\$224,762,570	2,350	\$18,453,735	78	\$243,216,305	10.1%	\$236
2011	\$232,814,363	2,356	\$42,021,546	84	\$274,835,909	13.0%	\$263
2012	\$232,175,872	2,332	\$42,747,972	84	\$274,923,844	0.0%	\$265
2013	\$219,667,892	2,332	\$43,764,894	84	\$263,432,787	-4.2%	\$254
2014	\$217,175,321	2,331	\$45,644,444	87	\$262,819,765	-0.2%	\$252
2015	\$216,419,629	2,333	\$48,851,817	91	\$265,271,446	0.9%	\$252
2016	\$216,247,247	2,325	\$45,441,506	91	\$261,688,752	-1.4%	\$249
2017	\$204,461,556	2,332	\$42,413,840	91	\$246,875,395	-5.7%	\$235

Source: Pennsylvania Gaming Control Board; The Innovation Group

Parx Casino and Racing

Parx Casino is located just outside of Philadelphia and four hours from Foxwoods. Originally called the Keystone Racetrack, the facility operated solely as a horse racetrack until the facility was granted a slots license by the Pennsylvania Gaming Control Board in December 2006. The facility now operates over 3,400 slot machines and 180 table games.

Parx Casino Property Statistics

Year	Slot Revenue	Machines	Table Revenue	Tables	Total Revenue	Change	Win per Position
2008	\$345,502,693	2,816			\$345,502,693		\$335
2009	\$359,274,246	2,904			\$359,274,246	4.0%	\$339
2010	\$398,155,075	3,385	\$34,447,042	69	\$432,602,118	20.4%	\$312
2011	\$376,668,692	3,454	\$114,763,592	169	\$491,432,284	13.6%	\$301
2012	\$384,566,137	3,462	\$109,959,936	175	\$494,526,073	0.6%	\$300
2013	\$368,423,345	3,363	\$119,244,192	165	\$487,667,537	-1.4%	\$307
2014	\$360,755,915	3,276	\$129,884,887	157	\$490,640,802	0.6%	\$319
2015	\$379,077,877	3,268	\$144,401,468	162	\$523,479,345	6.7%	\$338
2016	\$389,843,195	3,446	\$161,821,309	174	\$551,664,504	5.4%	\$336
2017	\$388,220,901	3,428	\$178,297,138	180	\$566,518,039	2.7%	\$344

Source: Pennsylvania Gaming Control Board; The Innovation Group

SugarHouse Casino

SugarHouse is the only casino located in Philadelphia and is just 2.6 miles from the city center. This casino received one of the five original gaming licenses from the Pennsylvania Gaming Control Board in 2006; however, due to legal complications, the casino was not able to open until September of 2010. SugarHouse, located on the site of a former sugar refinery, is a 1.3 million square foot complex with 45,000 square feet of gaming space. A recent \$164 million expansion project included new amenities, featuring six new restaurants, a new event space, a seven-story parking garage and more. The casino currently operates over 1,800 slot machines and roughly 140 table games.

SugarHouse Casino Property Statistics

Year	Slot Revenue	Machines	Table Revenue	Tables	Total Revenue	Change	Win per Position
2010*	\$37,076,304	1,601	\$17,118,033	41	\$54,194,337		\$288
2011	\$170,967,818	1,587	\$74,212,407	47	\$245,180,225	352.4%	\$360
2012	\$190,192,054	1,604	\$83,941,815	55	\$274,133,869	11.8%	\$388
2013	\$180,760,342	1,603	\$84,797,895	58	\$265,558,237	-3.1%	\$373
2014	\$174,368,864	1,605	\$90,755,766	64	\$265,124,630	-0.2%	\$365
2015	\$174,263,728	1,605	\$94,747,202	84	\$269,010,931	1.5%	\$349
2016	\$181,187,600	1,865	\$116,492,823	129	\$297,680,423	10.7%	\$308
2017	\$177,837,718	1,825	\$119,869,572	139	\$297,707,290	0.0%	\$307

Source: Pennsylvania Gaming Control Board; The Innovation Group; *2010 has 102 Days

Harrah’s Philadelphia Casino & Racetrack

Harrah’s Philadelphia is located in Chester, PA on the Delaware River and roughly 30 minutes south of Philadelphia and five hours from Foxwoods. The racino, formerly known as Harrah’s Chester, changed its name in 2012 to appeal to a broader market. The racetrack held its first race in 2006 and slot machine only casino opened in early 2007. Currently, the gaming facility includes 100,000 square feet of gaming space, 2,500 slot machines, and a 14,000 square foot event center. Additional amenities include a Krispy Kreme, a Guy Fieri restaurant, shopping center, and more. Harrah’s Philadelphia started offering live table games in July of 2010.

Harrah’s Philadelphia Casino Property Statistics

Year	Slot Revenue	Machines	Table Revenue	Tables	Total Revenue	Change	Win per Position
2008	\$328,443,772	2,816			\$328,443,772		\$319
2009	\$315,938,366	2,915			\$315,938,366	-3.8%	\$297
2010	\$296,491,721	2,912	\$30,019,768	106	\$326,511,489	3.3%	\$252
2011	\$268,113,984	2,957	\$80,971,453	121	\$349,085,437	6.9%	\$259
2012	\$259,799,107	2,832	\$81,004,213	124	\$340,803,319	-2.4%	\$260
2013	\$233,875,716	2,786	\$77,285,609	123	\$311,161,325	-8.7%	\$242
2014	\$217,836,232	2,794	\$68,989,732	124	\$286,825,965	-7.8%	\$222
2015	\$218,365,368	2,800	\$68,233,556	116	\$286,598,924	-0.1%	\$224
2016	\$206,845,371	2,740	\$65,296,774	107	\$272,142,145	-5.0%	\$220
2017	\$198,193,939	2,451	\$65,270,571	117	\$263,464,509	-3.2%	\$229

Source: Pennsylvania Gaming Control Board; The Innovation Group

Valley Forge Casino Resort

Valley Forge Resort Casino, located in the town of King of Prussia 35-minutes west of Philadelphia, became the eleventh casino to operate in Pennsylvania when it opened in March of 2012. Valley Forge operates with a Category 3 gaming license limiting the number of slot machines to 600 and tables to 50. This property has two hotels offering 486 hotel rooms and

suites. The Valley Forge Casino Resort has over 100,000 square feet of meeting space including the Valley Forge Convention Center. The complex also includes a spa, fitness center, and two stores. In September 2018, Boyd Gaming Corporation finalized its purchase of Valley Forge for a reported price of \$280.5 million.

Valley Forge Casino Property Statistics

Year	Slot Revenue	Machines	Table Revenue	Tables	Total Revenue	Change	Win per Position
2012*	\$36,466,250	600	\$21,419,727	50	\$57,885,978		\$210
2013	\$63,207,408	600	\$33,046,232	50	\$96,253,639	66.3%	\$293
2014	\$73,495,317	600	\$33,209,169	50	\$106,704,486	10.9%	\$325
2015	\$78,059,250	600	\$34,819,102	50	\$112,878,352	5.8%	\$344
2016	\$77,801,417	600	\$37,059,368	50	\$114,860,785	1.8%	\$349
2017	\$82,760,824	599	\$34,419,700	50	\$117,180,524	2.0%	\$357

Source: Pennsylvania Gaming Control Board; The Innovation Group; *2012 Has 306 Days

Hollywood Casino at Penn National Race Course

Located 110 miles west of Philadelphia and 300 miles southwest of Foxwoods, Hollywood Casino originally started as a racetrack in 1972. The casino began operations in February of 2008 and began offering table games in July of 2010. The facility includes meeting and event space, five F&B options, and live entertainment. The casino currently operates over 2,300 slot machines and 74 table games.

Hollywood Casino Property Statistics

Year	Slot Revenue	Machines	Table Revenue	Tables	Total Revenue	Change	Win per Position
2008*	\$171,117,626	2,120			\$171,117,626		\$247
2009	\$237,721,830	2,318			\$237,721,830	38.9%	\$281
2010	\$253,403,976	2,433	\$15,062,128	54	\$268,466,104	12.9%	\$267
2011	\$248,924,977	2,466	\$38,410,926	62	\$287,335,903	7.0%	\$277
2012	\$244,021,769	2,472	\$38,579,543	69	\$282,601,312	-1.6%	\$267
2013	\$230,334,692	2,458	\$36,427,141	69	\$266,761,833	-5.6%	\$254
2014	\$213,954,040	2,437	\$33,396,373	70	\$247,350,413	-7.3%	\$237
2015	\$215,578,964	2,406	\$34,761,184	69	\$250,340,147	1.2%	\$243
2016	\$209,885,267	2,392	\$34,361,514	71	\$244,246,780	-2.4%	\$237
2017	\$209,014,353	2,347	\$35,758,641	74	\$244,772,994	0.2%	\$240

Source: Pennsylvania Gaming Control Board; The Innovation Group; *2008 Has 327 Days

Proposed New England

Encore Boston Harbor

Wynn Resorts is developing a \$2.5 billion casino at the former Monsanto Chemical Plant site on the Mystic River in Everett, a northern suburb of Boston. The proposed resort, named Encore

Boston Harbor, will focus on open-space amenities to reconnect the public to the waterfront through a harborwalk, park, pavilion and docking facilities for ferry operations to Boston. The project also includes 670 hotel accommodations, spa, retail, multiple food and beverage options, convention space and parking garage. The casino gaming floor is estimated to offer patrons over 3,000 slots and 150 table games and is expected to open in June 2019.

In January of 2018, the Massachusetts Gaming Commission launched an investigation into Steve Wynn and what Wynn Resorts executives knew of sexual misconduct allegations against him when the company obtained a Massachusetts casino license. The investigation is intended to determine the suitability of Wynn Resorts holding a gaming license in Massachusetts. The Gaming Commission agreed to remove Steve Wynn, who resigned from the company and divested his holdings, from the list of people who must be deemed individually suitable for Wynn Resorts to continue to hold its casino license. The Commission is expected to make its findings public in December 2018. No details have been made clear as to what would happen to the Encore resort property if the commission determines that Wynn will no longer hold one of the state's casino licenses.

Connecticut

MMCT Venture LLC, the joint venture formed by the Mashantucket Pequot and Mohegan tribes, have plans to develop a \$300-\$400 million venue with 100,000 square feet of gaming space in East Windsor, Connecticut. MMCT said the proposed casino would have roughly 2,000 slot machines and 60 table games. MGM Resorts International has fought the project, and a recent federal court ruling has suspended the project. The ultimate legal outlook for the project is unknown at this time.

APPENDIX B: SIGNATURE PAGE

Respectfully Submitted,



Thomas Zitt
Executive Vice President
The Innovation Group

November 30, 2018

Exhibit G

plaintiffs' notice of voluntary dismissal (Docket No. 83) and defendant's motion to dismiss for lack of subject matter jurisdiction (Docket No. 84) is **DENIED**.

So ordered.



David LITTLEFIELD, Michelle Littlefield, Tracy Acord, Deborah Canary, Francis Canary, Jr., Veronica Casey, Patricia Colbert, Vivian Courcy, Will Courcy, Donna Defaria, Antonio Defaria, Kim Dorsey, Kelly Dorsey, Francis Lagace, Jill Lagace, David Lewry, Kathleen Lewry, Michele Lewry, Richard Lewry, Robert Lincoln, Christina McMahon, Carol Murphy, Dorothy Peirce, David Purdy, and Louise Silvia, Plaintiffs,

v.

UNITED STATES DEPARTMENT OF the INTERIOR; Sally Jewell, in her official capacity; Bureau of Indian Affairs; Lawrence Roberts, in his official capacity, and United States of America, Defendants.

CIVIL ACTION NO. 16-10184-WGY

United States District Court,
D. Massachusetts.

Signed July 28, 2016

Background: Local residents brought action against the United States, the Department of the Interior, the Board of Immigration Appeals (BIA), and the Acting Assistant Secretary of Indian Affairs, challenging, under the Administrative Procedure Act (APA), the Secretary of the Interior's decision to acquire land in trust for the benefit of Indian tribe pursuant to the Indian Reorganization Act (IRA). The parties filed cross-motions for summary judgment.

Holding: The District Court, Young, J., held that Secretary lacked authority under the IRA to acquire land in trust for the tribe.

Plaintiffs' motion granted.

1. Indians ⇔101, 152

Members of now-federally recognized Indian tribe that was not under federal jurisdiction on date Indian Reorganization Act (IRA) was enacted were not themselves descendants of members who were residing within the present boundaries of any Indian reservation on IRA's enactment date, and thus, they were not "Indians" within the meaning of the IRA, and thus, Secretary of the Interior lacked authority under the IRA to acquire land in trust for them.

See publication Words and Phrases for other judicial constructions and definitions.

2. Statutes ⇔1111

To look beyond the unambiguous plain meaning of a statute in order to discern congressional intent is improper.

David H. Tennant, Nixon Peabody, LLP, Rochester, NY, Adam M. Bond, Law Office of Adam M. Bond, Middleborough, MA, Matthew J. Frankel, Nixon Peabody LLP, Providence, RI, for Plaintiffs.

Rebecca M. Ross, Joann L. Kintz, Steven Miskinis, U.S. Department of Justice, Washington, DC, for Defendants.

MEMORANDUM & ORDER

YOUNG, DISTRICT JUDGE

I. INTRODUCTION

This case arises out of a decision of the Secretary of the Department of the Interi-

or (the “Secretary”) to acquire land in trust for the benefit of the Mashpee Wampanoag Tribe (the “Mashpees”) under Section 465 of the Indian Reorganization Act (“IRA”), 25 U.S.C. § 465. The Plaintiffs are residents of Taunton who claim they are injured by the acquisition and planned development of the land at issue. They have filed suit against the Department of the Interior (the “Department”), the Bureau of Indian Affairs (the “BIA”), Acting Assistant Secretary of Indian Affairs Lawrence Roberts, and the United States (together, the “government”), challenging the Secretary’s decision pursuant to Section 702 of the Administrative Procedure Act (“APA”), 5 U.S.C. § 702. The parties make cross-motions for summary judgment on the Plaintiffs’ first cause of action, United States’ Mot. Partial Summ. J., ECF No. 55; Pls.’ Mot. Summ. J. First Cause Action, ECF No. 58, which involves the Mashpees’ eligibility as beneficiaries under the IRA, and correspondingly, the authori-

ty of the Secretary to take land into trust for the Mashpees’ benefit.

A. Factual Background¹

The Mashpees are a federally recognized tribe that obtained official acknowledgement from the BIA in 2007.² Pls.’ Local Rule 56.1 Separate Statement Facts Supp. Mot. Summ. J. First Cause Action (“Pls.’ Statement Facts”) 1, ECF No. 60; Compl., Ex. 1, R. Decision 4, ECF No. 1-1.³ Previously, the Mashpees had been subject to colonial and state governmental jurisdiction. Pls.’ Statement Facts ¶ 5. Upon receiving federal acknowledgement, the Mashpees filed a “fee-to-trust” application with the BIA requesting that the Department acquire tracts of land for the Mashpees’ use as a tribal reservation in Mashpee and Taunton, Massachusetts. R. Decision 4.⁴ Of concern to the Plaintiffs here is the Taunton site, which “[t]he City of Taunton has designated . . . for econom-

1. As the motions presently before the Court involve a narrow question of statutory interpretation rather than a factual dispute, the Court sketches only a brief outline of the relevant facts, accepting as true the uncontested factual assertions set forth in the Secretary’s Record of Decision and the statements of fact submitted in conjunction with the parties’ summary judgment motions, which are not the subject of dispute. See Stip. and Order Limiting Scope Rule 65(a)(2) Trial Plaintiffs’ First Cause Action and Deferring Other Matters Pending Disposition Same 3-4, ECF No. 50 (stating that the “Plaintiffs’ First Cause of Action challenges the [Department of the Interior’s] Record of Decision on the alleged grounds, *inter alia*, that it is inconsistent with the plain language of the Indian Reorganization Act of 1934 and the Supreme Court’s decision in *Carcieri v. Salazar*, 555 U.S. 379, 129 S.Ct. 1058, 172 L.Ed.2d 791 (2009),” and noting that such claim “is amenable to resolution even in the absence of the complete [administrative record] . . . on the basis of cross-motions for summary judgment[.]”).
2. For a historical overview of the politics involved in according federal recognition to

various tribal entities, see generally Lorinda Riley, *When a Tribal Entity Becomes a Nation: The Role of Politics in the Shifting Federal Recognition Regulations*, 39 Am. Indian L. Rev. 451 (2015), <http://digitalcommons.law.ou.edu/ailr/vol39/iss2/2>.

3. The Record of Decision issued by the Secretary of the Department of Indian Affairs appears on pages 50 through 189 of the Administrative Record. See Notice Filing Certified Provisional Admin. R., ECF No. 51. It was also attached as an exhibit to the Plaintiffs’ complaint. Compl., Ex. 1, ECF No. 1-1. For purposes of clarity and simplicity, the Court cites the internal page numbers in the Record of Decision rather than the corresponding pagination in the Administrative Record.
4. CD-ROMs containing the Administrative Record were filed with the Court, along with notices and indexes, which are part of the online docket. See Notice Filing Certified Provisional Admin. R., ECF No. 51; Notice Filing Certified Second Provisional Admin. R., ECF No. 52.

ic development purposes” and which the Mashpees “would use . . . to meet [their] needs for economic development.” *Id.* Specifically, the Mashpees intend to construct and operate “an approximately 400,000 sq. ft. gaming-resort complex, water park, and 3 hotels” on the Taunton site. *Id.* at 5.

On September 18, 2015, the Secretary issued a written decision (the “Secretary’s Decision” or “Record of Decision”) granting the Mashpees’ fee-to-trust application. *See id.*; Admin. R. 000049 (memorandum from the Assistant Secretary of Indian Affairs to the Regional Director, Eastern Region, approving the Mashpees’ request that the Department acquire land in trust in Taunton “for gaming and other purposes” and declare the acquired land the Mashpees’ “initial reservation”). As relevant to the matter at issue here, the Secretary specifically found that “the Mashpee Tribe qualifies”—i.e., is “eligible to receive land into trust under the IRA”—pursuant to the second definition of “Indian” set forth in Section 479 of the IRA. R. Decision 112.

Both parties acknowledge that the land was subsequently taken into trust on November 10, 2015. Am. Compl. Decl. and Inj. Relief ¶¶ 78, 82, ECF No. 12; United States’ Mem. Law Supp. Mot. Partial Dismissal 1, 9, ECF No. 17. In the months since, development of the Taunton site has been widely reported. *See, e.g.,* Sean P. Murphy, Mashpee Tribe Speeds Up Timetable For Taunton Casino Opening, Boston Globe (Mar. 14, 2016) <https://www.bostonglobe.com/metro/2016/03/14/mashpee-wampanoag-tribe-prepares-unveil-schedule-for-massive-casino-taunton/eHpal5nQfslYIyNgaSuFBJ/story.html>; Philip Marcelo, Tribe Breaks Ground on Massachusetts’ Latest Casino Project, WBUR News (Apr. 05, 2016) <http://www.wbur.org/news/2016/04/05/tribe-breaks-ground-casino>.

B. Procedural History

The Plaintiffs filed suit challenging the Secretary’s Decision on February 4, 2016, Compl. Decl. and Inj. Relief, ECF No. 1, and later amended their complaint to include additional claims, Am. Compl. Decl. and Inj. Relief, ECF No. 12. The government timely moved to dismiss the Plaintiffs’ fifth through eighth causes of action. United States’ Mot. Partial Dismissal, ECF No. 16; United States’ Mem. Law Supp. Mot. Partial Dismissal, ECF No. 17.

On May 27, 2016, the Plaintiffs filed their opposition to the government’s partial motion to dismiss. Pls.’ Mem. Law Opp’n Defs.’ Mot. Partial Dismissal, ECF No. 22. The same day, the Plaintiffs moved for a preliminary injunction on the basis of their first cause of action, seeking that the land at issue be removed from trust, or, at minimum, that further development of the site be halted. Mot. Prelim. Inj. or Writ, ECF No. 25; Pls.’ Mem. Law Supp. Mot. Prelim. Inj. or Writ (“Pls.’ Mem. Supp. Prelim. Inj.”), ECF No. 26. They also requested that the Court “advance the merits of” the first cause of action to permit the parties to then “exercise their right under 28 U.S.C. 1292(a) to immediately appeal this central, dispositive issue.” Pls.’ Mem. Supp. Prelim. Inj. 6. The government opposed the Plaintiffs’ motion. United States’ Mem. Opp’n Pls.’ Mot. Prelim. Inj. or Writ (“Defs.’ Mem. Opp’n Prelim. Inj.”), ECF No. 38.

At a hearing on June 20, 2016, the Court combined further hearing on the injunction with trial on the merits, Fed. R. Civ. P. 65(a), and scheduled further oral argument for July 11, 2016, with additional briefing and production of the administrative record to occur in the interim. Elec. Clerk’s Notes, ECF No. 40. On June 29, 2016, following a final pretrial conference, Elec. Clerk’s Notes, ECF No. 49, the Court entered a joint stipulation limiting the

scope of the upcoming hearing to the merits of the Plaintiffs' first cause of action, Stip. and Order Limiting Scope Rule 65(a)(2) Trial Plaintiffs' First Cause Action and Deferring Other Matters Pending Disposition Same, ECF No. 48. The other seven counts in the Plaintiffs' complaint were administratively closed. Elec. Clerk's Notes, ECF No. 49.

The government filed the administrative record in two pieces on June 30, 2016, and July 6, 2016. See Notice Filing Certified Provisional Admin. R., ECF No. 51; Notice Filing Certified Second Provisional Admin. R., ECF No. 52. On July 7, 2016, the parties filed cross-motions for summary judgment on the first cause of action along with supporting memoranda. United States' Mot. Partial Summ. J., ECF No. 55; United States' Mem. Law Supp. United States' Mot. Partial Summ. J. ("Defs.' Mem."), ECF No. 56; Pls.' Mot. Summ. J. First Cause Action, ECF No. 58; Pls.' Mem. Law Supp. Mot. Summ. J. ("Pls.' Mem."), ECF No. 59. The Court heard oral argument on the parties' summary judgment motions on July 11, 2016, and took the matter under advisement. Elec. Clerk's Notes, ECF No. 67. The parties have since filed supplemental memoranda. United States' Supp. Mem. Law Supp. United States' Mot. Partial Summ. J. ("Defs.' Supp. Mem."), ECF No. 81; Pls.' Post-Hearing Mem. Law ("Pls.' Supp. Mem."), ECF No. 82.⁵

II. ANALYSIS

The Plaintiffs' first cause of action challenges the Secretary's determination that the Mashpees are eligible beneficiaries of the IRA provision that grants the Secretary authority to acquire and hold land in trust "for the purpose of providing land for Indians." 25 U.S.C. § 465. Specifically, the Plaintiffs argue that the Mashpees do not

qualify as "Indian" under the definitions section of the IRA, 25 U.S.C. § 479, and accordingly, that the Secretary lacked authority to acquire land in trust for their benefit. The government, meanwhile, contends that the definition of "Indian" at issue here is ambiguous, that the Secretary permissibly interpreted it to include the Mashpees, and that the Secretary's interpretation is entitled to deference.

The Court first discusses the standard of review it must apply in its review of these cross-motions. It then sketches the applicable legal framework, before finally applying that framework to the particulars of this case.

A. Standard of Review

The Plaintiffs are entitled to judicial review of the Department's action under Chapter 7 of the APA. See 5 U.S.C. §§ 702, 704. The scope of the Court's review is governed by Section 706, which provides that, "[t]o the extent necessary to [its] decision and when presented, the reviewing court shall decide all relevant questions of law, interpret constitutional and statutory provisions, and determine the meaning or applicability of the terms of an agency action." *Id.* § 706. Further, it empowers courts to "hold unlawful and set aside agency action, findings, and conclusions" that are held to be, *inter alia*, "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;" or "in excess of statutory jurisdiction, authority, or limitations, or short of statutory right[.]" *Id.*

The First Circuit has stated, somewhat confusingly, that an agency's legal conclusions "engender de novo review, but with some deference to the agency's reasonable interpretation of statutes and regulations

5. The Court acknowledges with appreciation the briefs *amicus curiae* of the City of Taun-

ton, ECF No. 68, and USET Sovereignty Protection Fund, Inc., ECF No. 83.

that fall within the sphere of its authority.” Jianli Chen v. Holder, 703 F.3d 17, 21 (1st Cir.2012); see also Gourdet v. Holder, 587 F.3d 1, 5 (1st Cir.2009) (“We review legal questions de novo, with appropriate deference to the agency’s interpretation of the underlying statute in accordance with administrative law principles.”) (internal quotation marks and citation omitted). This articulation of the applicable standard of review is perplexing because de novo review means no deference ought be given. See, e.g., Orndorf v. Paul Revere Life Ins. Co., 404 F.3d 510, 517 (1st Cir.2005) (“[N]o deference is given to the administrator’s interpretation of the plan language. Rather, the court interprets the plan de novo[.]”).

The Court interprets the First Circuit’s statement as a muddled articulation of the two-step legal framework set forth in Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc., 467 U.S. 837, 104 S.Ct. 2778, 81 L.Ed.2d 694 (1984). Under so-called Chevron deference, the Court must first ask “whether Congress has directly spoken to the precise question at issue. If the intent of Congress is clear, that is the end of the matter.” *Id.* at 842, 104 S.Ct. 2778; see also Holly Farms Corp. v. Nat’l Labor Relations Bd., 517 U.S. 392, 398, 116 S.Ct. 1396, 134 L.Ed.2d 593 (1996) (“If a statute’s meaning is plain, . . . reviewing courts must give effect to the unambiguously expressed intent of Congress.”) (internal quotation marks and citation omitted). At this first step, then, the agency’s interpretation receives no deference. If there is ambiguity—i.e., the Court has determined that a statute is susceptible to multiple reasonable interpretations, see, e.g., Holly Farms Corp., 517 U.S. at 398–99, 116 S.Ct. 1396—then the Court must defer to the agency’s interpretation, so long as it is “rational and consistent with the statute,” Sullivan v. Everhart, 494 U.S. 83, 89, 110 S.Ct. 960, 108 L.Ed.2d 72 (1990) (internal quotation marks and citation

omitted). Thus, the First Circuit’s articulations of the standard of review of agency actions quoted above are flawed to the extent they suggest that “some” deference is always due an agency’s reasonable interpretations of its governing statute: in fact, the question of whether statutory language is ambiguous is for the Court alone, and if such language is not ambiguous, then no deference is due. If there is ambiguity, then the agency’s reasonable interpretation is controlling.

B. Legal Framework

This case involves two provisions of the Indian Reorganization Act (again, the “IRA”). The first is the section from which the Secretary derives authority to acquire land “in trust” for the benefit of an “Indian tribe or individual Indian.” 25 U.S.C. § 465. That section provides, in relevant part:

The Secretary of the Interior is authorized, in his discretion, to acquire . . . any interest in lands . . . for the purpose of providing land for Indians.

. . . .

Title to any lands or rights acquired pursuant to this Act . . . shall be taken in the name of the United States in trust for the Indian tribe or individual Indian for which the land is acquired, and such lands or rights shall be exempt from State and local taxation.

Id. Thus, acquisition is proper pursuant to Section 465 only if the beneficiary of such acquisition falls within the statutory definition of “Indian.” Section 479 defines this term as follows:

The term ‘Indian’ as used in this Act shall include [1] all persons of Indian descent who are members of any recognized Indian tribe now under Federal jurisdiction, and [2] all persons who are descendants of such members who were, on June 1, 1934, residing within the

present boundaries of any Indian reservation, and shall further include [3] all other persons of one-half or more Indian blood.

25 U.S.C. § 479 (numbers in brackets supplied).

The Supreme Court interpreted the first of these three definitions of “Indian” in Carcieri v. Salazar, 555 U.S. 379, 129 S.Ct. 1058, 172 L.Ed.2d 791 (2009). As is the case here, Carcieri involved a tribe that was not under federal jurisdiction at the time the IRA was enacted in 1934, but was under federal jurisdiction by the date on which land was purportedly taken into trust for its benefit. See id. at 384–85, 395, 129 S.Ct. 1058. The Supreme Court held that “the term ‘now under Federal jurisdiction’ unambiguously refers to those tribes that were under the federal jurisdiction of the United States when the IRA was enacted in 1934.” Id. at 395, 129 S.Ct. 1058. Accordingly, the tribe for whom the land was taken into trust was not “Indian” for the purpose of Section 479, and in turn, the Department was not entitled to take land into trust for the tribe’s benefit pursuant to Section 465. See id. at 396, 129 S.Ct. 1058 (reversing the First Circuit’s holding that the Secretary was authorized to take the land at issue into trust for the tribe’s benefit).

C. Application to the Plaintiffs’ First Claim

[1] The matter before the Court involves the second definition of “Indian” provided in Section 479 of the IRA. It presents the question: are the Mashpees “descendants of such members who were, on June 1, 1934, residing within the present boundaries of any Indian reservation”? 25 U.S.C. § 479. To answer this requires defining the term “such members,” and it is here that the parties diverge.

The Plaintiffs argue that “such members” plainly refers to the entire preceding

clause in the first definition of “Indian” (“all persons of Indian descent who are members of any recognized Indian tribe now under Federal jurisdiction”). Pls.’ Mem. 8. The government, meanwhile, contends that the phrase is ambiguous and that the Secretary reasonably interpreted it to refer only to the first several words of the preceding clause (“all persons of Indian descent who are members of any recognized Indian tribe”). Defs.’ Mem. 1, 12–14.

This difference is critical, because under the Plaintiffs’ reading, a descendant of a “recognized Indian tribe” will be an eligible beneficiary of the IRA’s land-into-trust provision only if that tribe was under federal jurisdiction in June 1934 (when the IRA was enacted). By contrast, under the government’s reading, descendants may qualify as “Indian” under Section 479 even if their tribal ancestors were not under federal jurisdiction in 1934. As the Mashpees gained federal recognition in 2007, they are excluded from the version of the second definition of “Indian” proffered by the Plaintiffs, but they fall within such definition under the Secretary’s reading.

As described supra, the Court, in reviewing an agency’s legal interpretation under the APA, must first determine whether the statutory phrase at issue is ambiguous. In doing so, the Court begins, as it must, with the plain meaning of the relevant statutory language. See, e.g., In re Rudler, 576 F.3d 37, 44 (1st Cir.2009). Here, that language is the second statutory definition of “Indian.” With respect, this is not a close call: to find ambiguity here would be to find it everywhere.

Post-Carcieri, Section 479 of the IRA effectively reads:

The term ‘Indian’ as used in this Act shall include [1] all persons of Indian descent who are members of any recognized Indian tribe . . . under Federal jurisdiction [in June 1934], and [2] all

persons who are descendants of such members who were, on June 1, 1934, residing within the present boundaries of any Indian reservation, and shall further include [3] all other persons of one-half or more Indian blood.

25 U.S.C. § 479. The second definition of “Indian” uses the word “such” to indicate that the “members” to which it refers are those described in the first definition. See Merriam Webster’s Collegiate Dictionary 1247 (11th ed. 2003) (defining “such” as “of the character, quality, or extent previously indicated or implied”); American Heritage Dictionary 1729 (4th ed. 2000) (defining “such” as “[o]f a kind specified or implied” and “[o]f a degree or quality indicated”). In the wake of Carcieri, the Plaintiffs’ interpretation is the one compelled by the plain text of the statute, and thus the Court “must apply [it] according to its terms.” Carcieri, 555 U.S. at 387, 129 S.Ct. 1058 (internal citations omitted). This means that, despite their subsequent acknowledgement by the federal government, for purposes of Sections 465 and 479 of the IRA the Mashpees are not considered “Indians” because they were not under federal jurisdiction in June 1934. Thus, the Secretary lacked the authority to acquire land in trust for them, at least under the rationale the Secretary offered in the Record of Decision. See id. (“The Secretary may accept land into trust only for ‘the purpose of providing land for Indians.’”) (citing 25 U.S.C. § 465).

The Court finds support for its statutory analysis from that of Judge Ketanji Brown Jackson of the District of Columbia, who was tasked with interpreting somewhat analagous statutory language. See Takeda Pharms., U.S.A., Inc. v. Burwell, 78 F.Supp.3d 65 (D.D.C.2015), appeal filed Takeda Pharms. U.S.A., Inc. v. Burwell, 15–5021 (D.C.Cir. Jan. 26, 2015) (internal citations omitted). In Takeda, the D.C. District Court interpreted Section 355 of the Federal Food, Drug, and Cosmetic

Act, 21 U.S.C. § 355. Id. at 68. Paragraph 2 of that section states:

An application submitted . . . shall also include—

(A) a certification, in the opinion of the applicant and to the best of his knowledge, with respect to each patent which claims the drug for which such investigations were conducted or which claims a use for such drug for which the applicant is seeking approval under this subsection and for which information is required to be filed under paragraph (1) or subsection (c) of this section[.]”

21 U.S.C. § 355(b)(2)(A) (emphasis added). The court explained that “[t]he term ‘such,’ when used as an adjective, is an inclusive term, showing that the word it modifies is part of a larger group . . . and, even more important, ‘such’ nearly always operates as a reference back to something previously discussed.” Id. at 99. The court held that, “in accordance with its plain meaning, the term ‘such drug’ unambiguously refers back to the ‘drug for which such investigations were conducted[.]’” Id. at 99. In so doing, that court rejected the interpretation proffered by the plaintiffs that removed the language “for which such investigations were conducted” from the referent antecedent phrase, effectively “ignor[ing] ‘such’ entirely, and . . . replac[ing] it with ‘the[.]’” Id.

The Ninth Circuit’s analysis in University Medical Center of Southern Nevada v. Thompson, 380 F.3d 1197 (9th Cir.2004) also sheds light on the question of whether and when there exists ambiguity with respect to the antecedent phrase referenced by the word “such.” There, the court was charged with interpreting a paragraph of the Medicare statute that described a hospital that

is located in an urban area, has 100 or more beds, and can demonstrate that its

net inpatient care revenues (excluding any of such revenues attributable to this subchapter or State plans approved under subchapter XIX of this subchapter), during the cost reporting period in which the discharges occur, for indigent care from state and local government sources exceed 30 percent of its total of such net inpatient care revenues during the period.

42 U.S.C. § 1395ww(d)(5)(F)(i)(II) (emphasis added). The parties there disputed “whether the word ‘such’ in the phrase ‘such net inpatient care revenues’ refers back to ‘net inpatient care revenues (excluding any of such revenues attributable to [Medicare or Medicaid])’ or simply to ‘net inpatient care revenues,’” with University Medical Center arguing for the former reading. 380 F.3d at 1199–1200 (alterations in original). While the court ultimately concluded that the phrase “such net inpatient care revenues” did not reference the more complete version of the antecedent phrase, it arrived at this conclusion only because of the statute’s inclusion of the word “total” before the “such” phrase. *Id.* at 1200. The court was clear that in the absence of “total,” the plain meaning of “such,” referring back to the entire antecedent, would control:

In the context of this statute, the word ‘total’ implies that the word ‘such’ refers to aggregate net inpatient care revenues, and that the Medicare and Medicaid payments that were previously deducted from net inpatient care revenues for purposes of determining a hospital’s revenue from non-federal sources should not be added back for purposes of determining a hospital’s revenue from all sources. [University Medical Center]’s interpretation would be correct—and the statute would unambiguously support its interpretation—if the words ‘its total of’ were deleted and the statute read ‘30 percent of such net inpatient

care revenues.’ In this circumstance the antecedent would be unmistakable.

Id. at 1200–01 (emphasis supplied).

Unlike the Medicare statute at issue in *University Medical Center*, however, there is no language in Section 479 of the IRA to indicate that the term “such members” references only a portion of the antecedent phrase “members of any recognized Indian tribe now under Federal jurisdiction[.]” Thus, as in the hypothetical version of the Medicare statute the court considered in *University Medical Center*, 380 F.3d at 1201, the term “such” here “unmistakably” references the entire antecedent phrase.

[2] The government argues that the phrase “such members” is ambiguous not based on principles of grammar or syntax, but rather based on the legislative history of the IRA. See *Pls.’ Mem.* 7 (“[N]othing in the legislative history indicates that [the Plaintiffs’ reading of the second definition] is what Congress intended”). To look beyond the unambiguous plain meaning in order to discern congressional intent, however, is improper. See, e.g., *Barnhill v. Johnson*, 503 U.S. 393, 401, 112 S.Ct. 1386, 118 L.Ed.2d 39 (1992) (“[A]ppeals to statutory history are well taken only to resolve statutory ambiguity”) (internal quotation marks and citation omitted); *Palmieri v. Nynex Long Distance Co.*, 437 F.3d 111, 115 (1st Cir.2006) (“We have consistently held that when the plain meaning of a statute is clear, we are not to look beyond that text to discern legislative intent.”); *People To End Homelessness, Inc. v. Develco Singles Apartments Assocs.*, 339 F.3d 1, 5 (1st Cir.2003) (“When the language of a statute is plain and admits of no more than one meaning the sole function of the courts is to enforce the statute according to its terms.”) (internal quotation marks, citations, and alterations omitted). Only in “rare and exceptional” circumstances is such further

inquiry appropriate. Mullane v. Chambers, 333 F.3d 322, 330 (1st Cir.2003) (internal citation and quotation marks omitted).

The government appears to argue that this case presents just such anomalous circumstances because adopting the Plaintiffs' reading of Section 479 would render the second statutory definition of "Indian" "entirely surplus." Defs.' Mem. 1. The Court, however, fails to see how this is so. Under the Plaintiffs' reading, the second definition covers descendants of members of recognized Indian tribes that were subject to federal jurisdiction in 1934 and who were also living on Indian reservations at that time. This is distinct from the first definition, which requires actual membership in a tribe that was under federal jurisdiction in 1934 in order to qualify as "Indian." See 25 U.S.C. § 479 (referencing "all persons of Indian descent who are members of any recognized Indian tribe now under Federal jurisdiction") (emphasis supplied). It is surely plausible that not all descendants of members of tribes that were under federal jurisdiction in 1934 and whose members resided on Indian reservations are also members of such a tribe.⁶

6. The government acknowledges as much in its supplemental memorandum. See Defs.' Supp. Mem. 5 ("To be sure, one could be a descendant of a 'recognized Indian tribe' who is not a member of that tribe, and thus need to resort to the reservation residence requirement[.]").

7. What is more, even were the government's surplusage argument convincing, it is not clear that this would cause the Court to depart from the plain text of the IRA. The First Circuit has held that, where statutory language is unambiguous, "we consider Congress's intent only to be certain that the statute's plain meaning does not lead to 'absurd' results." In re Rulder, 576 F.3d at 44-45 (citing Lamie v. United States, 540 U.S. 526, 534, 124 S.Ct. 1023, 157 L.Ed.2d 1024 (2004)); see also Pritzker v. Yari, 42 F.3d 53, 67-68 (1st Cir.1994) ("As a fundamental principle of statutory construction, we will not

Indeed, while descendancy may be a factor in determining membership it is not necessarily determinative. See, e.g., B.J. Jones, In Their Native Lands: The Legal Status of American Indian Children in North Dakota, 75 N.D. L. Rev. 241, 241 n.3 (1999) ("Most Indian tribes determine membership by a process of enrollment whereby one must demonstrate that she meets the various requirements of membership There is no one generally-accepted definition of an 'Indian,' although it is generally acknowledged that Indian tribes have the inherent authority to determine their own membership").⁷

Having concluded that the Secretary erred in finding that the Mashpees fell within the second definition of "Indian" provided in Section 479 of the IRA, the Court need not address the Plaintiffs' additional arguments regarding the Mashpees' recognition as a tribe, Pls.' Mem. 25-28, and the residence-on-a-reservation requirement, id. at 28-30.⁸

III. CONCLUSION

Upon thorough consideration of the parties' submissions, the Court rules that the

depart from, or otherwise embellish, the language of a statute absent either undeniable textual ambiguity . . . or some other extraordinary consideration, such as the prospect of yielding a patently absurd result") (internal citations omitted). The government has not argued that adopting the Plaintiffs' interpretation produces "absurd" results.

8. To the extent the Plaintiffs argue that Carci-eri stands for the principle that there exists no ambiguity as to any of the terms used in Section 479, see Pls.' Supp. Mem. 3, however, the Court considers this too broad a reading of that case. As the government has pointed out, courts reviewing decisions of the Secretary since Carci-eri have agreed with the Secretary that certain terms are ambiguous and have deferred to the Secretary's interpretation of those terms. See Defs.' Mem. Opp'n Prelim. Inj. 3-4.

second definition of “Indian” in Section 479 of the IRA unambiguously incorporates the entire antecedent phrase—that is, “such members” refers to “members of any recognized Indian tribe now under Federal jurisdiction.” Thus, no deference is due the Secretary’s interpretation. In light of the Supreme Court’s interpretation of “now under Federal jurisdiction” to mean under Federal jurisdiction in June 1934, the Secretary lacked the authority to acquire land in trust for the Mashpees, as they were not then under Federal jurisdiction. See *Carciari*, 555 U.S. at 382–83, 129 S.Ct. 1058.

In keeping with the parties’ stipulation and to enable a prompt appeal of this declaration, the Court determines there is no just cause for delay, Fed. R. Civ. P. 54(b), and enters this declaratory judgment on the Plaintiffs’ first cause of action. The matter is remanded to the Secretary for further proceedings consistent with this opinion.

SO ORDERED.



**Elizabeth LEONARD and, Timothy
J. Leonard, Plaintiffs,**

v.

**GENERAL ELECTRIC COMPANY,
Defendant.**

CIVIL ACTION NO. 14-40107-TSH

United States District Court,
D. Massachusetts.

Signed July 28, 2016

Background: Beneficiaries brought Employee Retirement Income Security Act (ERISA) action against plan sponsor seeking accidental death benefits. The parties cross-moved for judgment on the administrative record.

Holdings: The District Court, Hillman, J., held that:

- (1) claim forms initially submitted by beneficiaries did not timely seek accidental death benefits;
- (2) beneficiaries did not seek accidental death benefits as soon as was reasonably possible after receiving physician’s report suggesting that participant’s death was accidental; and
- (3) substantial evidence supported plan administrator’s finding that any abdominal trauma attributable to accidental fall was not the sole and independent cause of participant’s death, thus precluding accidental death benefits.

Sponsor’s motion granted.

1. Labor and Employment ⇌685

Court reviews the acts of the ERISA plan administrator de novo unless the benefit plan gives the administrator discretionary authority to construe the terms of the plan or determine eligibility for benefits, in which case the administrator’s decision will be upheld unless it is arbitrary, capricious, or an abuse of discretion, that is, it will be upheld if there is any reasonable basis for the decision. Employee Retirement Income Security Act of 1974, § 2 et seq., 29 U.S.C.A. § 1001 et seq.

2. Labor and Employment ⇌687, 696(1)

The court will uphold an ERISA plan administrator’s decision under the arbitrary and capricious standard of review if the decision was reasoned and supported by “substantial evidence,” meaning that the evidence is reasonably sufficient to support a conclusion and contrary evidence does not make the decision unreasonable. Employee Retirement Income Security

COMMONWEALTH OF MASSACHUSETTS

PLYMOUTH, ss.

MASSACHUSETTS GAMING COMMISSION

In the Matter of:

Application of Mass Gaming & Entertainment, LLC for a
License to Operate a Category 1 Gaming Establishment
In Region C

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**DECISION DENYING A LICENSE TO OPERATE A
CATEGORY 1 GAMING ESTABLISHMENT IN REGION C**

I. Introduction

Mass Gaming & Entertainment, LLC (hereinafter “MG&E” or “Applicant”) submitted to the Massachusetts Gaming Commission (hereinafter “Commission” or “MGC”) an RFA- 2 application for a Category 1 Gaming License to operate a Gaming Establishment in Region C. The Commission has the authority to award a single Category 1 Gaming License (“License”) in Region C pursuant to G.L. c.23K, §19(a). For the following reasons, the application submitted by MG&E is hereby **DENIED**.

II. Background

In 2013, the Applicant submitted an RFA-1 application to the Commission in anticipation of pursuing the Category 2 (slots) gaming license. The Applicant paid the application fee and underwent a thorough investigation by the Investigation and Enforcement Bureau (“IEB”). See G.L. c.23K, §15(11).¹ On July 11, 2013, the Commission issued a positive determination of suitability to the Applicant in connection with that application. See 205 CMR 115.05(3). On September 19, 2013, the Applicant discontinued its pursuit of the Category 2 gaming license.

In January 2015, the Applicant applied for a Category 1 License in Region C. The IEB conducted a supplemental investigation of the Applicant so as to update its previous investigation into the Applicant’s suitability. On May 6, 2015, a hearing was conducted by the Commission at the conclusion of the investigation to again review the Applicant’s suitability. See 205 CMR 115.04(3). By vote of the Commission after presentations by the IEB and the Applicant, the Commission issued a positive determination of suitability for MG&E and its qualifiers deeming each suitable to hold a gaming license and, accordingly, rendering MG&E eligible to file an RFA-2 application for a Category 1 gaming license. See 205 CMR 115.05(3).

¹ Applicant paid all required investigatory costs and monies due relative to the host and surrounding community process. See G.L. c.23K, §15(4) and (11), and 205 CMR 114.00.

The Applicant signed an agreement with the host community of Brockton, MA², setting out the conditions under which a gaming establishment may be located within the host community, and submitted the executed Host Community Agreement to the Commission in accordance with 205 CMR 123.02(3). See G.L. c.23K, §15(8)³. A vote pursuant to G.L. 23K, §15(13) was held in the Host Community on May 12, 2015, relative to the Applicant proposal. 7173 ‘yes’ votes and 7025 ‘no’ votes were recorded. As a result, the Applicant “received a certified and binding vote on a ballot question at an election in the host community in favor of such license.” See G.L. c.23K, §15(13).

The Applicant submitted an RFA-2 Application, dated September 29, 2015, in accordance with 205 CMR 118.01(2), to the Commission, (“RFA-2 Application”). The Commission heard an informal presentation from the Applicant explaining its RFA-2 Application on November 5, 2015. See 205 CMR 118.04(1) (e). The Commission held a public hearing in Holbrook, MA, on January 28, 2016, to afford interested individuals from potentially affected communities an opportunity to offer comment relative to the proposal. See 205 CMR 118.04(1) (a). The Commission also accepted written comments from members of the public relative to the proposal. Further, the Commission held Host Community public hearings in Brockton, MA, on March 1, 2016, and March 28, 2016. See G.L. c.23K, §17(c) and (d), and 205 CMR 118.05.

The Applicant executed agreements with all designated Surrounding Communities and Impacted Live Entertainment Venues and submitted those agreements to the Commission. See G.L. c.23K §§15(9) and (10).

The RFA-2 Application was divided into five categories: overview, finance, economic development, building and site design, and mitigation. See 205 CMR 119.03(2). Each of the five sections of the Applicant’s RFA-2 Application was assigned to an individual Commissioner to conduct an evaluation. Each Commissioner was advised by professional consultants and independent evaluators. See 205 CMR 118.04(1) (b) and (c) and 205 CMR 119.03(1). Each Commissioner then presented a report and recommendation on their assigned section to the full Commission. The Commissioners reviewed all of the reports and discussed the recommendations made by each Commissioner at public meetings of the Commission on April 26, 2016, and April 27, 2016. The Commission took a final vote as to whether to award the license on April 28, 2016. See 205 CMR 118.06. The Commission now files this decision. See G.L. c.23K, §17(f) and 205 CMR 118.06(4).

III. Findings and Evaluation

In evaluating whether to issue the Category 1 license in Region C to the Applicant, the Commission considered all information in the RFA-1 and RFA-2 Applications submitted by the Applicant and developed as part of the IEB investigation, including that information presented to the Commission on April 26, 2016, and April 28, 2016, the presentations made by the Applicant

² The City of Brockton is located in Plymouth County and accordingly is located in Region C. See G.L. c.23K, §19(a).

³ The agreement provides for payment of a community impact fee. The contents of Applicant’s application, including the applicable attestation provided in Section B of the RFA-2 application (Commitment to Community Mitigation), demonstrate that G.L. c.23K, §15(14) has been satisfied.

to the Commission, and the comments received by the Commission in writing and at the surrounding and host community hearings. The RFA-1 and RFA-2 Applications, the Phase 1 Suitability Decision dated July 3, 2013, the Applicant's presentation, and the evaluation reports created by the Commission, as referenced in the paragraph above, are incorporated into this Decision by reference.

In accordance with G.L. c.23K, §18, in determining whether to issue the License to the Applicant, the Commission also evaluated how the Applicant proposed to advance the following objectives:

- (1) protecting the lottery from any adverse impacts due to expanded gaming including, but not limited to, developing cross-marketing strategies with the lottery and increasing ticket sales to out-of-state residents;
- (2) promoting local businesses in host and surrounding communities, including developing cross-marketing strategies with local restaurants, small businesses, hotels, retail outlets and impacted live entertainment venues;
- (3) realizing maximum capital investment exclusive of land acquisition and infrastructure improvements;
- (4) implementing a workforce development plan that utilizes the existing labor force, including the estimated number of construction jobs a proposed gaming establishment will generate, the development of workforce training programs that serve the unemployed and methods for accessing employment at the gaming establishment;
- (5) building a gaming establishment of high caliber with a variety of quality amenities to be included as part of the gaming establishment and operated in partnership with local hotels and dining, retail and entertainment facilities so that patrons experience the diversified regional tourism industry;
- (6) taking additional measures to address problem gambling including, but not limited to, training of gaming employees to identify patrons exhibiting problems with gambling and prevention programs targeted toward vulnerable populations;
- (7) providing a market analysis detailing the benefits of the site location of the gaming establishment and the estimated recapture rate of gaming-related spending by residents travelling to out-of-state gaming establishments;
- (8) utilizing sustainable development principles including, but not limited to: (i) being certified as gold or higher under the appropriate certification category in the Leadership in Environmental and Energy Design program created by the United States Green Building Council; (ii) meeting or exceeding the stretch energy code requirements contained in Appendix 120AA of the Massachusetts building energy code or equivalent commitment to advanced energy efficiency as determined by the secretary of energy and environmental affairs; (iii) efforts to mitigate vehicle trips; (iv) efforts to conserve water

and manage storm water; (v) demonstrating that electrical and HVAC equipment and appliances will be EnergyStar labeled where available; (vi) procuring or generating on-site 10 per cent of its annual electricity consumption from renewable sources qualified by the department of energy resources under section 11F of chapter 25A; and (vii) developing an ongoing plan to submeter and monitor all major sources of energy consumption and undertake regular efforts to maintain and improve energy efficiency of buildings in their systems;

- (9) establishing, funding and maintaining human resource hiring and training practices that promote the development of a skilled and diverse workforce and access to promotion opportunities through a workforce training program that: (i) establishes transparent career paths with measurable criteria within the gaming establishment that lead to increased responsibility and higher pay grades that are designed to allow employees to pursue career advancement and promotion; (ii) provides employee access to additional resources, such as tuition reimbursement or stipend policies, to enable employees to acquire the education or job training needed to advance career paths based on increased responsibility and pay grades; and (iii) establishes an on-site child day-care program;
- (10) contracting with local business owners for the provision of goods and services to the gaming establishment, including developing plans designed to assist businesses in the commonwealth in identifying the needs for goods and services to the establishment;
- (11) maximizing revenues received by the commonwealth;
- (12) providing a high number of quality jobs in the gaming establishment;
- (13) offering the highest and best value to create a secure and robust gaming market in the region and the commonwealth;
- (14) mitigating potential impacts on host and surrounding communities which might result from the development or operation of the gaming establishment;
- (15) purchasing, whenever possible, domestically manufactured slot machines for installation in the gaming establishment;
- (16) implementing a marketing program that identifies specific goals, expressed as an overall program goal applicable to the total dollar amount of contracts, for the utilization of: (i) minority business enterprises, women business enterprises and veteran business enterprises to participate as contractors in the design of the gaming establishment; (ii) minority business enterprises, women business enterprises and veteran business enterprises to participate as contractors in the construction of the gaming establishment; and (iii) minority business enterprises, women business enterprises and veteran business enterprises to participate as vendors in the provision of goods and services procured by the gaming establishment and any businesses operated as part of the gaming establishment;

- (17) implementing a workforce development plan that: (i) incorporates an affirmative action program of equal opportunity by which the applicant guarantees to provide equal employment opportunities to all employees qualified for licensure in all employment categories, including persons with disabilities; (ii) utilizes the existing labor force in the commonwealth; (iii) estimates the number of construction jobs a gaming establishment will generate and provides for equal employment opportunities and which includes specific goals for the utilization of minorities, women and veterans on those construction jobs; (iv) identifies workforce training programs offered by the gaming establishment; and (v) identifies the methods for accessing employment at the gaming establishment;
- (18) whether the applicant has a contract with organized labor, including hospitality services, and has the support of organized labor for its application, which specifies: (i) the number of employees to be employed at the gaming establishment, including detailed information on the pay rate and benefits for employees and contractors; (ii) the total amount of investment by the applicant in the gaming establishment and all infrastructure improvements related to the project; (iii) completed studies and reports as required by the commission, which shall include, but need not be limited to, an economic benefit study, both for the commonwealth and the region; and (iv) whether the applicant has included detailed plans for assuring labor harmony during all phases of the construction, reconstruction, renovation, development and operation of the gaming establishment; and
- (19) gaining public support in the host and surrounding communities which may be demonstrated through public comment received by the commission or gaming applicant.

In order to evaluate the above factors, the Commission considered the Applicant's overall response in accordance with 205 CMR 119.03 in each of the following general categories: Overview of the Project; Finance; Economic Development; Building and Site Design; and Mitigation. To those ends, the Commission generally adopts the following findings of fact and conclusions of law for the Applicant as they are set forth in each of the reports prepared by the individual commissioners as part of the deliberations that have been incorporated into this decision by reference. Ultimately, the Commission is convinced that the project set out by the Applicant in its RFA-2 Application and included in the other referenced sources meets the eligibility requirements set forth in G.L. c.23K, §15. However, by vote of a majority of the Commission, it was determined that the Applicant has not presented convincing evidence as part of the RFA-2 process that the Applicant's proposed gaming establishment will provide value to Region C and to the Commonwealth. G.L. c.23K, §19(a).

A majority of the Commission determined that the Applicant failed to demonstrate that its proposed project would maximize revenue to the Commonwealth, see G.L. c.23K, §18(11), or that it would offer the highest and best value to create a secure and robust gaming market in Region C and the Commonwealth. See G.L. c.23K, §18(13). With respect to economic development, the Commission determined that the Application lacked specific plans to promote local businesses in the host and surrounding communities, to coordinate with other cultural and tourism venues, or to otherwise enhance and develop the Brockton area. See G.L. c.23K, §18(2). Furthermore, while the Applicant's investment plan acknowledged potential competition from a

tribal casino in Taunton, its market assessment did not fully appreciate the potential magnitude of that competition.

Accordingly, the Commission declines to award a License to MG&E.

We set out our findings in each of the five aforementioned categories below.

A. Overview of the Project

Overall, a majority of the Commission deemed the Applicant’s proposal in the Overview category to be sufficient. For the reasons below, though not unanimous in the finding, the Commission essentially determined that the proposed project met the minimum standards required, but that the Application did not demonstrate that the Applicant:

thought broadly and creatively about creating an innovative and unique gaming establishment that will create a synergy with, and provide a significant and lasting benefit to, the residents of the host community, the surrounding communities, the region, and the Commonwealth of Massachusetts, and will deliver an overall experience that draws both residents and tourists to the gaming establishment and the Commonwealth of Massachusetts.

205 CMR 119.01. The Applicant put together a commendable effort given the limitations imposed by the landscape. Ultimately, though, the Applicant, while very successful with its gaming establishments in other states, did not present a dynamic proposal with an economic development strategy of the sort that the law envisioned and that the Commission received in the other RFA 2 applications submitted in Regions A and B.

This category was evaluated in a number of criteria as follows:

SUMMARY OF EVALUATION BY CRITERIA	
Criterion	Findings
Looking Outward, Enhancing the Context	The Application sufficiently addressed plans for promoting local and regional businesses, but lacked specific detailed plans to promote local businesses in the host and surrounding communities, to coordinate with other cultural and tourism venues, or to otherwise enhance and develop the Brockton area. The applicant pledged \$100,000 to study the development of an entertainment district and referred to a Rush Rewards program to partner with and promote local businesses, but failed to offer any specific details with respect to this proposed program. The Applicant’s marketing initiatives reflect an entirely local/regional gaming establishment. Aside from agreements with neighboring facilities (i.e., Campanelli Stadium, Shaw’s Center), few other formal arrangements have been put in place. The Application lacked specifics regarding formal partnerships with local hotels and dining, retail, and entertainment facilities that would allow patrons to experience the diversified regional tourism industry, and relied instead

	<p>on Boston and area tourism marketing entities and products. <u>See</u> G.L. c.23K, §18(5).</p> <p>Furthermore, the facility itself is isolated from the community and is essentially inward rather than outward looking, as evidenced by the fact that most proposed restaurants cannot be reached from outside of the gaming establishment.</p>
Marketing the Massachusetts Brand	<p>The Applicant highlighted its affiliated properties’ previous marketing strategies and expressed its intent to replicate those efforts in its proposal, but did not provide local specifics and demonstrated little knowledge of the City of Brockton or Plymouth County. The Applicant stated that it would host entertainment and athletic events, but the Applicant did not appear sensitive or to have done much due diligence regarding the local market (e.g., lack of emphasis on Brockton’s rich boxing history). <u>See</u> G.L. c.23K, §18(5). Furthermore, the Applicant missed a distinct opportunity to create an iconic centerpiece of the project with an old exhibition building, and instead carved the building out of the facility property. The Applicant does, however, make a gesture to Massachusetts history with the adoption of a brick style reminiscent of the city and region’s manufacturing past.</p>
Destination Resort in a Competitive Environment	<p>The Applicant failed to demonstrate distinctiveness in its business model or marketing that would differentiate it in a highly competitive market. The Application referenced a program of non-gaming options, but provided no specifics with respect to that program or its partners. The Application detailed amenities from sister properties, including a bike path, river walk, running path, outdoor amphitheater, and green wall. However, no such amenities were included in the Applicant’s proposal. Furthermore, the proposal referenced the hotel and convention space, but failed to demonstrate strategies for these spaces which could make the property a “destination resort.”</p>
Diverse Workforce and Supplier Base	<p>The Applicant outlined a general approach regarding workforce development with little in terms of formal commitments. The Applicant did not clearly demonstrate its commitment to “establishing, funding and maintaining human resource hiring and training practices that promote the development of a skilled and diverse workforce and access to promotion opportunities” G.L. c. 23K, §18(9). The Applicant pledged to establish a formal diversity plan and stated its intention to collaborate with local groups to identify and inform diverse populations on jobs, necessary skills, and training resources, but formal diversity plans were not fully developed in the Application. It was the Applicant’s intent to replicate strategies used in its other properties and execute a similar diversity plan in Brockton. The</p>

	Applicant’s affiliates’ history of diverse hiring practices includes 53% minority hiring in Philadelphia, 28% in Pittsburgh, 56% in Des Plaines.
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B. Finance

Overall, the Applicant’s proposal in the Finance category is rated as sufficient with very good elements, namely the financial strength (ability to obtain project capital) and the operations plan (alignment with the market opportunity).

The Applicant demonstrated that it possesses the financial capabilities and necessary capital required to develop and operate the proposed project. The Applicant’s view of the market opportunity demonstrates a solid understanding of the existing awarded gaming licenses in Massachusetts (specifically market differentiation from Wynn Boston Harbor). The operations plan submitted aligns with this view of the market opportunity.

While the Applicant’s investment plan (e.g., spending of contingency amounts is to meet the \$500 million eligible capital investment threshold) acknowledges future Region C competition (i.e., a tribal casino in Taunton, MA), their market assessment does not fully appreciate the potential magnitude of this competition. The Applicant relies upon their experience in other competitive markets to effectively compete for a share of the Massachusetts gaming market with a tribal casino in Taunton. This experience, however, may not be fully comparable to the Massachusetts market, as they will not be the closest gaming establishment to the core population base in the Boston market.

This category was evaluated in a number of criteria as follows:

SUMMARY OF EVALUATION BY CRITERIA	
Criterion	Findings
Financial Capability	<p>The Applicant demonstrated that it possesses the financial stability and strength to develop and operate the proposed gaming establishment.</p> <p>The Applicant demonstrated the availability of adequate financing for the project. The total capital required for the proposed project is \$677.5 million. The net worth of the entities and related entities of Brockton Gaming, LLC demonstrates the ability to fund the \$172.5 million equity component of the project. The Applicant provided a bank letter indicating that the owners of Brockton Gaming, LLC have access to a credit facility with undrawn funds available. The Applicant also provided highly confident letters from Credit Suisse, Wells Fargo, and Goldman Sachs indicating confidence in arranging financing in scenarios with and without a tribal casino located in Taunton.</p> <p>The financial strength of the Applicant is based upon the provider of</p>

	<p>equity to the project, Brockton Gaming, LLC. The net worth of entities and related entities of Brockton Gaming, LLC demonstrates sufficient net worth to fund the project. While the Applicant's affiliated entities have significant (i.e., controlling) ownership interests in Rivers Casino Pittsburgh, Rivers Casino Des Plaines, and Sugarhouse Casino Philadelphia, these casinos are not being used by the Applicant to demonstrate the financial strength of the Applicant. That said, a financial ratio analysis was completed for these three casino projects and the resulting ratios demonstrate financial strength.</p> <p>The Applicant's proposed plan produces a commercially reasonable return on investment in both competition scenarios, with a 21% return on investment without a tribal casino in Taunton and a 15% return on investment with a tribal casino in Taunton. If revenue projections do not materialize (for example, due to the impact of a second gaming establishment in Region C), projected returns, while positive, could be below what would be considered reasonable.</p> <p>The contents of the Application, including the applicable attestation provided in Section B of the RFA-2 Application, demonstrate that G.L. c.23K, §15(5) has been satisfied.</p>
Investment Plan	<p>Eligible capital costs provided by the Applicant meet the minimum capital investment requirements (in terms of eligible capital costs) if the budgeted contingency costs were actually spent on eligible capital items. See G.L. c.23K, §10(a), G.L. c. 23K, §18(3), and 205 CMR 122.00 (governing the manner in which the capital investment is calculated.). The total eligible costs are \$478.3 million; the total eligible costs if the contingency is spent are \$500.4 million (contingency hard costs are \$17.9 million; contingency soft costs are \$4.2 million). The contents of the Application, including the applicable attestation provided in Section B of the RFA-2 Application, demonstrate that G.L. c.23K, §15(2) has been satisfied.</p> <p>The facility proposed by the Applicant (investment and facility program) differentiates itself from the Wynn Boston Harbor (i.e., attempts to be complementary as opposed to directly competitive) which is financially prudent strategy.</p> <p>The Applicant proposed a construction timeline of 38 to 41 months with a prospective opening date in May 2019. This was considered a reasonable timeline for opening a facility of the nature proposed given the size and scope of the development and the site location. The proposed size and scope of the facility is consistent with business and financial plans submitted, and the proposed gaming establishment is positioned to penetrate the local market. The proposed project is comprised of the following elements:</p>

	<ul style="list-style-type: none"> • <i>Site Location</i> situated on the Brockton Fairgrounds • <i>Gaming Floor</i> of 91,900 square feet containing 2,100 slot machines and 124 table games • 250 room <i>hotel</i> • 6 <i>food and beverage</i> outlets containing 770 total seats • 3,003 <i>parking</i> spaces • 15,600 square feet of <i>exhibition and meeting space</i>; and • 1,000 square feet of <i>retail</i> space. <p>The Commission finds that the Applicant proposal met the statutory requirements regarding the purchase of domestically manufactured slot machines. <u>See</u> G.L. c.23K, §18(15).</p>
Market Assessment	<p>It is important to note that no projections come with any guarantees. As such, we do not look at numbers in a vacuum, but instead we consider them for purposes of thinking about what effect an additional gaming establishment may have on the gaming landscape. Despite conflicting numbers presented by a variety of parties, the one thing that remained constant is that an additional gaming establishment would likely have an impact on the existing gaming licensees. It is the scope of this impact that was subject of analysis. To that end, the Commission considered all of the information submitted to determine whether there was convincing evidence that the Applicant’s proposal would provide value to both Region C and the Commonwealth. We were unable to find compelling evidence that the Applicant’s proposal would provide value to both Region C and the Commonwealth. <u>See</u> G.L. c. 23K, §§18(13) and 19(a).</p> <p>The Applicant satisfied its obligation to provide “a market analysis detailing the benefits of the site location of the gaming establishment and the estimated recapture rate of gaming-related spending by residents travelling to out-of-state gaming establishments” <u>See</u> G.L. c. 23K, §18(7). The Commission’s consultant, HLT Advisory (“HLT”), provided a market analysis to test the reasonability of information presented by the Applicant. Gaming revenue projections for a Brockton casino with no tribal casino in Taunton (i.e., with the Applicant being the only gaming establishment in Region C) provided by the Applicant were determined to be within the range of expected market results. However, the Applicant did not seem to consider a scenario in which the Taunton casino would have a competitive advantage due to the tax differential. There were other projections that were reviewed as well. The respective projections are set out below:</p> <p style="padding-left: 40px;">A. <u>Projections for a Brockton only casino</u></p> <p><u>HLT projection</u></p>

In HLT's original analysis, gaming revenue from the HLT defined market area generated by a Region C gaming establishment ranged from \$346.7 million to \$404.5 million.

MG&E projection

- market area: \$375.6 million
- Outside the defined market area (Inflow): \$28.7 million
- Total: \$404.3 million

B. Projections for casinos in Brockton and Taunton

HLT projections

For the purposes of the Region C market assessment, HLT developed two market scenarios for measuring the impact of having two casinos in the region:

- Scenario 1 - Brockton and Taunton casinos are the same size and quality (no competitive advantage due to either tax rate or marketing/facility investment).
- Scenario 2 - Taunton casino has a competitive advantage over the Brockton casino due to no gaming revenue payments being assessed under the compact allowing for greater marketing and/or facility investment.

In Scenario 1, Region C casinos would generate a combined total between \$446.2 million (Taunton-\$219 million and Brockton-\$227 million) and \$520.6 million (Taunton-\$256 million and Brockton-\$265 million).

In Scenario 2, Region C casinos would generate a combined total between \$466.9 million (Taunton-\$281 million and Brockton-\$186 million) and \$544.7 million (Taunton-\$328 million and Brockton-\$217 million).

HLT's Scenario 2 considers the potential impact of such a competitive advantage though such impact was difficult to project given the lack of concrete details relative to the tribal casino proposal. Under Scenario 2, however, the potential impact is estimated to be approximately \$48 million which represents the difference between Scenario 1 and Scenario 2.

MG&E projections

The Applicant's gaming revenue projections for the Brockton casino with a tribal casino in Taunton appeared aggressive. The Applicant's market assessment estimated that the Applicant's gaming establishment in Brockton would generate \$327 million if there were a tribal casino in Taunton. (The Applicant did not provide a detailed breakdown of

	<p>revenue by market area nor did they define the size and scope of the tribal casino.) The Applicant believed it could effectively compete with a tribal casino in Taunton (that would not be paying any share of its gaming revenue to the Commonwealth) for a share of the Greater Boston gaming market. This belief is based on their location relative to the Greater Boston area population base and their experience operating in competitive markets (i.e., Philadelphia, Chicago, and Pittsburgh). HLT’s Scenario 1 projections align with this belief (i.e.- if, despite the lack of payments to the Commonwealth, there is no competitive advantage for the tribal casino in Taunton). However, the Applicant did not contemplate a scenario in which the tribal casino in Taunton would have a competitive advantage (e.g., through increased marketing spend and/or greater size and scope of facility). As noted above, HLT projected the potential competitive advantage to result in a negative impact of approximately \$48 million. Overall, the Applicant’s \$327 million estimate was deemed aggressive even when viewed in the light most favorable to MG&E by looking at the high end projection from Scenario 1, and by factoring in the Applicant’s ability to attract players from outside the defined market area (referred to as “inflow” in the HLT analysis).</p>
<p>Operations Plan</p>	<p>The Applicant recognized the importance of internal controls and its proposed gaming establishment management company, Rush Street Gaming, LLC, has experience developing and adhering to internal control requirements in Mississippi, Pennsylvania, and Illinois. Further, the Applicant acknowledged that it would abide by Massachusetts internal control regulations and provided a draft internal control manual.</p> <p>All operational and marketing plans submitted by the Applicant were clearly articulated and represented a cohesive strategy that aligns with Brockton/Applicant’s proposed gaming establishment and view of the market opportunity (market differentiation from Everett/Wynn). The Applicant’s projected marketing expenditures are aligned with what would be expected for a North American regional gaming establishment. The submissions included plans for slot machine products, table game products, food and beverage, hotel, retail, parking, and marketing.</p> <p>The Applicant’s financial projections are in alignment with their business plan and view of the market opportunity. The Applicant’s total payroll as a percentage of total revenue is lower than expected. Overall, the proposed financial projections are reasonable.</p>

C. Economic Development

Overall, the Applicant’s proposal in the economic development category is rated as sufficient.

The Applicant provided reasonable detail on achievements at its existing casinos in other jurisdictions—across all three economic development focus areas—but failed to sufficiently elaborate on specific plans and targets for the Brockton project.

Within the Job Creation area, the Applicant quantified employment from both construction and ongoing operations. The Applicant’s anticipated salaries and wages per full time employee are lower than that for the other Category 1 gaming licensees approved in Regions A and B. Depending on market conditions and the availability of a qualified workforce, some challenges may occur in filling all positions at these pay scales. The projected benefits presented by the Applicant are consistent with projected compensation.

The discussion of job opportunities for the unemployed and underemployed provided by the Applicant lacked any targets or clear delineation of plans and activities. Similarly, the section on workforce training was inadequate in that it failed to identify the community college located in Brockton or other vehicles for delivery of training. However, it is notable that the Applicant demonstrated success in both these areas at their Pittsburgh, Philadelphia and Des Plaines casinos.

Employee retention rates at its existing casinos, and expected rates projected by the Applicant for the Brockton project, are low (i.e., high turnover) but comparable to industry averages as well as rates projected by other Category 1 applicants.

The Applicant provided a description of the vendor outreach process for operational goods and services. The Applicant also sufficiently addressed plans for promoting local and regional businesses, although more could have been done to identify specific businesses and how these businesses might be better involved. No detail was provided in the Application relative to vendor outreach for construction.

With respect to vendor diversity targets, the Applicant failed to identify targets for Minority/Women/Veteran Business Enterprise (“MBE/WBE/VBE”) participation and provided insufficient information relative to building awareness, strategies for involvement and development, joint ventures and mentorships, monitoring process, and project operations training with respect to MBE/WBE/VBE.

The Applicant views the Brockton gaming establishment’s primary market as the greater Boston area as evidenced by the tourism-oriented marketing initiatives described in the Application. Aside from agreements with neighboring facilities (i.e., Campanelli Stadium, Shaw’s Center), no other formal arrangements have been put in place; for the most part, the Application fails to identify local or regional tourism marketing entities or tourism operators. These marketing initiatives, or lack thereof, reflect a local/regional gaming establishment marketing to the Greater Boston market.

Similarly, as it pertains to job creation and small business collaboration, the Applicant’s description of achievements at its other casinos is far more thorough than the plans for its Brockton proposal. The Applicant demonstrated a reasonable linkage to the regional economic

plans (e.g. Brockton 2025) and a commitment to non-competition with local entertainment venues.

This category was evaluated in a number of criteria as follows:

SUMMARY OF EVALUATION BY CRITERIA																															
Criterion	Findings																														
Job Creation	<p>Overall, the Applicant achieved a sufficient rating for the Job Creation category.</p> <p>The Applicant demonstrated limited effort in tailoring HR practices and workforce development plans to the local market. See G.L. c. 23K, §18(17). As depicted in the chart below, the Applicant projected modest job creation from construction (2,033 FYEs), and ongoing operations (1,477 FTEs –YR 1) with full-time employees representing approximately 80% of employees. See G.L. c.23K, §18(12).</p> <table border="1" data-bbox="467 873 1414 1604"> <tbody> <tr> <td colspan="2">Construction Period:</td> </tr> <tr> <td>FYEs</td> <td>2,033</td> </tr> <tr> <td>Annual \$/FYE</td> <td>\$46,905</td> </tr> <tr> <td colspan="2">Operations (Year 1):</td> </tr> <tr> <td>FTEs</td> <td>1,477</td> </tr> <tr> <td>Annual\$(without benefits)/FTE</td> <td>\$28,935</td> </tr> <tr> <td>Mean Household Income</td> <td>Brockton: \$61,096 (Source: US Census Bureau–2010-2014 ACS)</td> </tr> <tr> <td colspan="2">Benefits (Year 1):</td> </tr> <tr> <td>Salary-to-benefit ratio</td> <td>46.5%</td> </tr> <tr> <td>FTE benefits/employee</td> <td>\$13,457</td> </tr> <tr> <td>FT benefits/employee</td> <td>\$13,631</td> </tr> <tr> <td>PT benefits/employee</td> <td>\$2,574</td> </tr> <tr> <td>Benefits breakdown as a % payroll</td> <td>Average of per FT/PT: Medical/Dental/Vision/Life/Disability (29.4%), Bonuses (6%), 401k (4%), paid-time-off (6.9%)</td> </tr> <tr> <td>Forecasted retention rate</td> <td>Year 1-15: 72%-82%</td> </tr> <tr> <td>Retention rate since Day 1 of operations (opening date)</td> <td>Rivers, Pittsburgh=12% (2009 – hired for table games 2010); SugarHouse, Philadelphia=23% (2010); Rivers, Des Plaines=35% (2011)</td> </tr> </tbody> </table> <p>However, the Applicant demonstrated its affiliated properties’ track record of executing local market engagement, hiring underemployed/unemployed, community college partnerships, and providing the means for workforce development – providing a sense of confidence that the Applicant has the ability to execute similar efforts at a Brockton gaming establishment. Within other jurisdictions, the Applicant’s affiliates have engaged the local community in hiring and</p>	Construction Period:		FYEs	2,033	Annual \$/FYE	\$46,905	Operations (Year 1):		FTEs	1,477	Annual\$(without benefits)/FTE	\$28,935	Mean Household Income	Brockton: \$61,096 (Source: US Census Bureau–2010-2014 ACS)	Benefits (Year 1):		Salary-to-benefit ratio	46.5%	FTE benefits/employee	\$13,457	FT benefits/employee	\$13,631	PT benefits/employee	\$2,574	Benefits breakdown as a % payroll	Average of per FT/PT: Medical/Dental/Vision/Life/Disability (29.4%), Bonuses (6%), 401k (4%), paid-time-off (6.9%)	Forecasted retention rate	Year 1-15: 72%-82%	Retention rate since Day 1 of operations (opening date)	Rivers, Pittsburgh=12% (2009 – hired for table games 2010); SugarHouse, Philadelphia=23% (2010); Rivers, Des Plaines=35% (2011)
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training processes and there is evidence of workforce development (advancement) at these casinos. The Applicant did not commit to specific employment figures for Brockton, but stated that they would implement and work off of what has been done in other jurisdictions. Rivers Casinos in Des Plaines and Pittsburgh, and SugarHouse Casino in Philadelphia have promoted approximately 1,400 employees since the casinos have opened, with 300 individuals being promoted in the past year. Collectively, the three casinos employ approximately 4,000 people.

Further, the Host Community Agreement stipulates that the Applicant work in good faith and provide reasonable preference to qualified Brockton residents for both construction and permanent jobs (though no quantifiable targets or commitments were made). The Applicant committed to hosting construction and operation job fairs (citing the Massasoit Community College Conference Center or the Shaw's Center as potential event sites) to inform local residents about job opportunities and assist them in becoming qualified for those jobs. The Applicant has earmarked \$11.9 million for a pre-opening budget. This figure includes pre-opening salary/wages, recruiting and training. See G.L. c.23K, §18(4).

Payroll (without benefits) for ongoing operating FTEs is \$28,935/FTE – YR 1. There are comparatively weak retention rates at affiliated properties with similar rates projected for the Brockton facility. The forecasted retention rate for Years 1-15 is 72%-82%. The Applicant's affiliated facilities have limited union representation in mostly support areas, such as facilities. There is controversy over union certification/labor practices in Pittsburgh. The Applicant did not execute a contract with organized labor or have the support of organized labor for its application. See G.L. c.23K, §18(18).

The Applicant outlined a general approach regarding workforce development with little detail or formal commitments. The Applicant did not clearly demonstrate its commitment to “establishing, funding and maintaining human resource hiring and training practices that promote the development of a skilled and diverse workforce and access to promotion opportunities” G.L. c. 23K, §18(9). Formal diversity plans were not fully developed in the Application. However, affiliated Applicant properties do have a track record of establishing and executing diversity plans. It was Applicant's intent to replicate strategies and execute a similar diversity plan in Brockton. The Applicant's affiliates' history of diverse hiring practices includes 53% minority hiring in Philadelphia, 28% in Pittsburgh, 56% in Des Plaines.

Notable human resource and training practices that the Applicant did reference include: a commitment to establish job opportunities and

	<p>employee assistance programs at the gaming establishment; preference given to internal promotions over external hires and that historically many promotions have occurred as a result of employment growth; “Rush Street Gaming Leadership Excellence” training (business and leadership skills such as situational leadership, financial aptitude) provided to all supervisory employees; responsible gaming training as a preventative measure; EAP programs consisting of professional counseling services for help in confronting personal problems such as alcohol and other substance abuse, marital and family difficulties, financial or legal troubles, and emotional distress, provided to all staff to target prevention and identification of signs of problems and how to remedy them; on-site child daycare was not to be provided, but employees would have been given the option to allocate health care benefits towards child care services.</p> <p>The applicant did have a working draft of MOU completed with Brockton Area Building Construction Trades Council. It did not, however, have any other labor agreements in place at the time the Application was reviewed. See G.L. c. 23K, §18(9) and (18).</p>
<p>Support for External Business Components</p>	<p>Overall, the Applicant achieved a sufficient rating for the Supporting External Business and Job Growth category. Applicant has expressed an intention to integrate and engage the surrounding businesses and create job growth. The Application, however, lacked specific, detailed plans for the Brockton market and largely described the track record at other affiliated properties as proof of intent.</p> <p>The Application lacked specifics and detailed plans to promote local businesses in the host and surrounding communities, however, it did state intentions to partner with local organizations and committed capital (\$50,000 per year) to purchase local business gift cards for rewards program. The Applicant committed to “strategically source goods and services and create a fair bid process” to assist and favor local businesses in providing goods/services for the gaming establishments operations.” Little further detail on local vendor hiring intentions was provided, though. The Applicant did outline modest committed funds for local enterprises and provided modest projections for spin off spending with plans to link local businesses with rewards program. Further, the Applicant identified opportunities for local businesses to be integrated into the gaming establishment and its ability to bring traffic to the region. It is also clear that the Applicant’s affiliated properties have a proven track record of purchasing goods and services from local businesses. To that end, the Applicant expressed an intent to replicate a strategy of hosting local vendor fairs and creating a database of local suppliers which can be referenced when looking for goods and services vendors. The Applicant committed to hosting vendor fairs prior to opening of the gaming establishment and during operations to advertise and inform local vendors relative to job opportunities and how to become qualified for said jobs.</p>

	<p>Additionally, these fairs would provide a means to educate local vendors on volumes and quantities needed to support operations of the gaming establishment. Additionally, the Applicant earmarked \$11.9 million for a pre-opening budget, of which recruiting and training activities are a part. See G.L. c.23K, §18(2) and (10).</p> <p>A cooperation agreement was signed with Brockton 21st Century (owner of The Shaw’s Center and Campanelli Stadium).</p> <p>The Applicant delegated local supplier integration into the construction phase to general contractors and construction management firms.</p> <p>The Applicant outlined plans to replicate strategies at affiliated properties to engage local vendors through vendor fairs and maintain local vendor database.</p> <p>The Applicant failed to identify specific goals to engage minority, women, and veteran-owned businesses.</p> <p>The Applicant’s affiliated properties have track record of modest MWVBE spending.</p> <p>The Applicant’s plans are aligned with the City of Brockton’s economic development plans and financial commitments from Applicant should bolster municipal efforts.</p> <p>The Applicant demonstrated sufficient evidence of fulfilling domestic gaming equipment suppliers.</p>
Regional Tourism and Attractions	<p>Overall, the Applicant achieved a sufficient rating in the Regional Tourism and Attractions category, although the Applicant clearly positions the Brockton project as a “local resident” gaming establishment targeting the Greater Boston market. The Applicant demonstrated relative strength in identifying potential local/regional business partnership opportunities and expressed intentions to collaborate and engage the appropriate tourism/economic agencies, however, the Application lacked robust formal displays of communication and agreements with potential partners. The Applicant has committed impactful levels of funding and identified alignment with the city and region’s goals of development and overall advancement.</p> <p>The Applicant demonstrated intentions to partner with local venues and tourism/economic organizations (i.e., cooperation agreement with Brockton 21st Century). However, the Application lacked specifics and initiative for formal partnerships with local hotels and dining, retail and entertainment facilities so that patrons experience the diversified regional tourism industry, and relied on Boston and area tourism marketing entities</p>

	<p>and products. Further, the Applicant demonstrated little knowledge of the City of Brockton or Plymouth County. However, the Applicant did highlight its affiliated properties' previous marketing strategies with intentions to replicate efforts, but again lacked local specifics and uniqueness.</p> <p>The Applicant demonstrated a commitment to aiding the local economy through the community enhancement fee (\$3 million/annum - 5% of which goes to Brockton Community Foundation), and committed capital towards economic development and planning in Brockton. Further, the Applicant expressed an intention to host entertainment and athletic events, however lacked sensitivity and due diligence towards the local market (e.g., lack of emphasis on Brockton's rich boxing history). <u>See</u> G.L. c.23K, §18(5).</p>
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D. Building & Site Design

Overall, the Applicant's proposal in the Building & Suite Design category is rated as sufficient.

Taken as a whole, the Application submitted by the Applicant is solidly sufficient. There is nothing especially exciting about the proposed gaming establishment/hotel, although the exterior design creatively seeks to evoke the look and feel of a New England manufacturing city like Brockton. There are no significant design deficiencies.

The Applicant intends the gaming establishment to be a regional destination, offering first class gaming, hotel and dining options. In conjunction with the Shaw's Center and Campanelli Stadium, the gaming establishment is intended to anchor an entertainment district. The masonry exterior recalls mill buildings and historic properties.

The gaming establishment consists of three main elements:

- Casino floor and associated food and beverage (F&B) venues
- Multi-purpose ballroom and associated conference/meeting rooms
- Hotel and spa.

These elements are well arranged to support the different uses, but the overall design is inward focused from the surrounding community. A potential opportunity was considered lost or delayed by the Applicant's failure to incorporate the adjacent historic Brockton Fairgrounds Exhibition Hall in the gaming establishment.

The size of the proposed gaming establishment is approximately 466,000 square feet, at an estimated construction cost of approximately \$295,000,000. This cost does not include furnishings, fixtures, gaming equipment or land costs. A cost comparison between the Applicant's and MGM Springfield gaming establishments indicates that the proposed quality of amenities would be similar.

The proposed site plan would provide adequate access/egress for patrons and employees arriving by car and adequate parking in a three level garage and at grade. Pedestrian circulation on the site would require further development. The Applicant proposed evaluating the viability of a

shuttle bus between the MBTA downtown station and the gaming establishment and pledged to work with the local transit agency to integrate the site into local bus routes.

The existing off-site transportation network was evaluated using accepted procedures, but would have needed to be expanded through the Massachusetts Environmental Policy Act (“MEPA”) process. The primary access to the proposed site is from Route 24 along Route 123 (Belmont Street) to West Street and Forest Avenue. MassDOT has preexisting plans in place to reconstruct Belmont Street. The Applicant would upgrade West Street and Forest Avenue. The roadway and signal improvements proposed by Applicant are estimated to cost \$10.2 million.

Where specific information on sustainability and security is lacking in the Application there is normally a performance standard that will need to be met as the initial design concepts are further developed. For example, information in the Application on specific sustainability measures is limited, but the Applicant has committed to having the gaming establishment certified as LEED Gold. Further, in terms of security, the Applicant provided protocols used at their other casinos (e.g., surveillance, communication and security plans) that could be used in Applicant’s gaming establishment, tailored to MGC regulations.

The Applicant provided adequate information on water, wastewater and stormwater infrastructure. The City can provide water and the Applicant proposed approximately 1 million dollars of off-site sewer improvements to connect to the City’s system. The proposed stormwater management system would retain runoff to provide 50% of irrigation needs and meet DEP stormwater standards.

Permitting for the proposed project is straight forward, primarily because the 46-acre site was previously developed as the Brockton Racetrack and Fairgrounds. It is relatively open with few structures of any size. The MEPA process needs to be completed, followed by a MassDOT permit for off-site roadway construction and local permits from the Brockton Planning Board and DPW. There are no tidelands, wetlands or other sensitive environmental features that would require extensive permitting.

In terms of schedule, the critical path would run through completion of the MEPA process, the MassDOT permit and the time needed to complete off-site roadway construction. The proposed schedule calls for an opening in June 2019, with the possibility of an earlier opening at the end of 2018, if the permitting process can be accelerated.

The most positive aspects of the Application are listed below:

1. The Applicant’s parent company, Rush Street, has a track record in the type of casino proposed in Brockton and appears to understand the market.
2. The development team that has been assembled has experience designing casinos and has strong local technical support.
3. Based on construction costs per square foot, the Applicant’s proposed gaming establishment is similar to the MGM Springfield gaming establishment.
4. The Applicant has committed to a certified LEED Gold facility, which requires a significant commissioning effort. Further, Rush Street has built a LEED Gold casino in Pennsylvania.

5. Despite a close vote in Brockton approving the gaming establishment, the City administration—significantly including the Superintendent of Schools—is unqualifiedly supportive.
6. The City Administration has created a zoning overlay district that allows the gaming establishment to be constructed ‘by right’.

As the design and permitting processes proceed, the following issues should be further developed.

1. The proposed building and site plans are inward focused and, as presently configured, do not create positive interaction with surrounding commercial uses. A \$100,000 commitment has been made to prepare an Entertainment District study. This study should be accelerated, with input from the Applicant, to build excitement and a vision for future development.
2. Additional transportation improvements/commitments should be considered through the MEPA process for Belmont Street/Kenelworth Avenue and Route 27/West Street.
3. Additional mitigation should be considered through the MEPA process to improve water conservation and to protect the City’s Silver Lake reservoir system.

This category was evaluated in a number of criteria as follows:

SUMMARY OF EVALUATION BY CRITERIA	
Criterion	Findings
Creativity in design and overall concept excellence	<p>The Applicant intends the gaming establishment to be a regional destination offering first class gaming, hotel and dining options and, in conjunction with the Shaw Center and Campanelli Stadium, anchor an entertainment district. The masonry exterior recalls mill buildings and historic properties.</p> <p>The Gaming Establishment consists of three main elements:</p> <ul style="list-style-type: none"> • Casino floor and associated food and beverage (F&B) venues • Multi-purpose ballroom and associated conference/meeting rooms • Hotel and spa. <p>These are well arranged to support the different uses, but are inward focused. A potential opportunity is lost or delayed by not incorporating the historic Brockton Fairgrounds Exhibition Hall in the gaming establishment.</p> <p>Parking and transportation infrastructure are discussed in Criterion 3.</p>
Gaming establishment of high caliber with quality amenities in partnership with local facilities	<p>The Applicant proposes an inward-focused gaming floor including 2,990 gaming positions (2,100 slot machines, 100 live table games, and a 24-table poker area) in a 91,000 square foot casino floor. Non-gaming amenities include a full complement of food and beverage offerings, convenience retail, and a 250-room hotel with an additional restaurant and a spa, health club and pool. A multi-function ballroom with meeting</p>

	<p>space is located between the hotel and casino floor. The multi-function space of 12,200 square feet could accommodate up to 1,000 patrons for certain programming, including live entertainment.</p> <p>The size of the proposed gaming establishment and hotel facility is approximately 466,000 square feet, at an estimated construction cost of approximately \$295,000,000. This cost does not include furnishings, fixtures, gaming equipment or land costs.</p> <p>A comparison of the program and the costs was made between the Applicant's proposed gaming establishment and MGM Springfield and suggests that the quality of amenities in the Applicant's gaming establishment will be similar to MGM. See G.L. c. 23K, §18(5).</p>
<p>Compatibility with surroundings</p>	<p>The site plan provides for adequate access and egress to the gaming establishment for cars, busses and taxis. Adequate circulation and parking is also provided. Pedestrian circulation was not adequately described on the site plan and would need to be further developed as the design progresses.</p> <p>The existing off-site transportation network was evaluated using acceptable procedures. For the area intersections studied to date a reasonable package of mitigation measures has been proposed for a total cost of \$10.2 million dollars. In addition, MassDOT is planning to upgrade Route 123 (Belmont Street) from Route 24 to West Street, the main access to the gaming establishment. Further traffic mitigation should be considered at several locations through the on-going MEPA process.</p> <p>In terms of transit, the Applicant had shuttle bus service under consideration, including connections to the BAT downtown station and integration of existing bus routes with a stop at the gaming establishment.</p> <p>The site plan was generally positive on the neighborhood side by pulling the buildings away from the property edge to allow for a landscaped buffer. However, on the commercial side a large parking area separates it from potentially compatible uses. The Applicant pledged to fund a \$100,000 study of an entertainment district in the vicinity of the gaming establishment, which should address this issue. However, the plan as presented did not incorporate the neighboring institutions.</p> <p>Among the most commonly articulated complaints received during the public comment process with regard to the Application related to the proximity of the site to the Brockton High School. Brockton High School is less than a quarter mile from the site. The proximity is made more concerning because the proposed gaming establishment lies along the routes that the students from the residential neighborhoods to the north and the east of the gaming establishment employ to walk to and from school.</p> <p>Brockton's water and wastewater utilities should be able to support the</p>

	<p>gaming establishment development with the mitigation measures proposed in the Application along with additional water conservation measures. <u>See</u> G.L. c.23K, §18(8).</p>
<p>Sustainable development</p>	<p>The responses to Sustainability questions are consistent with the conceptual nature of the plan development at the time of the RFA-2 Application. On the positive side, the Applicant has committed to achieve LEED Gold certification through the US Green Building Council. In support of this commitment, the Applicant has included a LEED checklist identifying 62 credit points at this time; has assembled a team of well-qualified design professionals in this area; and has previously achieved LEED Gold on another casino facility. The commitment to 3rd party commissioning for both the envelope and the HVAC system is also seen as a positive. Importantly, the proposed gaming establishment would comply with the Massachusetts Stretch Energy Code.</p> <p>The Applicant made the following further commitments: making use of Energy Star equipment “as applicable”; proposed use of energy recovery systems for “ventilation systems with high outdoor air percentages” and co-generation systems will be considered, with specific locations and quantities to be developed in subsequent phases; a commitment to envelope commissioning during construction of the gaming establishment, with a 3rd party commissioning agent, including thermal performance (insulation) and air infiltration, and to HVAC commissioning in accordance with LEED; plans for on-going building commissioning post-occupancy; plans for on-going monitoring via Building Management Systems (“BMS”) or Building Automation Systems (“BAS”); metering that would provide data to the BMS/BAS so that data could be applied to on-going energy saving measures; a Measurement and Verification (“M&V”) system for short-interval data collection and monitoring to inform energy model; a digital lighting control system to interface with the BMS/BAS and help manage lighting loads; a Central Utility Plant (“CUP”) for facility-wide chilled and hot water and considered cogeneration or Combined Heat and Power (CHP) (no specific plans were presented); The Applicant identified strategies for on-going sustainability, but there was no mention of operational waste management, a recycling plan or on-site hazardous materials management. The gaming establishment would include emergency generators for the critical loads of the facility with uninterrupted power supply (UPS) intended to protect data and security equipment. <u>See</u> G.L. c.23K, §18(8).</p> <p>On the less positive side, there were limited details in support of the sustainability commitments (likely due to the early stage of design) and the Applicant has not committed to on-site energy generation and has committed only to purchase the minimum required amount of renewable green power after the first two years. <u>See</u> G.L. c.23K, §18(8)(vi).</p> <p>The Applicant has provided a concept plan for the proposed stormwater</p>

	<p>utilities, but no supporting calculations. The plan must comply with State Stormwater Standards and is reasonable at this early stage of design. Water conservation measures are also reasonable to achieve a 35/50% reduction in potable water for normal uses and irrigation respectively. Further reductions should be evaluated in the MEPA process to avoid additional stress on the Silver Lake reservoir system. <u>See</u> G.L. c.23K, §18(8).</p>
<p>Security, monitoring, surveillance and emergency procedures</p>	<p>In responding to the Security, Monitoring, Surveillance and Emergency Procedures questions, the Applicant did not typically provide information specifically tailored to the proposed gaming establishment. This is consistent with the approach taken by other applicants in other regions and is in part based on the early stage of design and programming. The Applicant did respond to questions by stating that the applicable local and state codes and regulations would be followed (e.g. building and fire codes, surveillance regulations). Further, the Applicant provided the following examples from their other facilities, specifically in Pennsylvania, that addresses these questions:</p> <ul style="list-style-type: none"> • Surveillance Plan • Crisis Management and Communication Plan • Security Department Standard Operating Plan <p>The Applicant provided a designated area for MGC operations and shows the area on the floor plans. Also included was a discussion about controlling minors at access points to the gaming establishment and training of security staff on identifying minors. There were no metrics provided on the history/success of security at other gaming establishment operated by the Applicant’s affiliates. There is a central monitoring system (CMS) that the Applicant’s affiliate uses in Pennsylvania to design, purchase and install equipment and infrastructure and the Applicant proposes to use the same system at the gaming establishment. They have also provided a standard organization chart for their IT Department that includes 11 positions.</p> <p>Given the Applicants experience in developing security plans at other gaming establishments and the ongoing review of these plans by Commission staff to insure compliance with state and local codes and regulations, the responses to Criterion 5 questions are sufficient.</p>
<p>Permitting including ENF, EIR, Local Permits, and Zoning</p>	<p>The permitting process for the gaming establishment is straightforward. Once the MEPA process is complete, the only significant state permit is from Mass DOT for the roadway improvements. As noted, the MassDOT is already committed to a significant upgrade of much of Belmont Street between the Route 24 interchange and the gaming establishment site. The local process includes site plan review by the Planning Board and a stormwater permit from the DPW. The project is permitted by-right under the Brockton Zoning By-Laws.</p> <p>In terms of schedule, the critical path runs through completion of the</p>

	MEPA process, the MassDOT permit and the time needed to complete off-site roadway construction. The current schedule calls for an opening in June 2019, with the possibility of an earlier opening at the end of 2018, if the permitting process can be accelerated.
Other	The Applicant has a limited, general response to the potential alternative use of the facility and has provided adequate documentation regarding ownership of the proposed gaming facility land.

E. Mitigation

Overall, Applicant’s proposal in the mitigation category is rated as sufficient.

The Applicant has executed a Host Community Agreement and associated mitigation documents with the City of Brockton. A certified election in Brockton was held in May 2015 that approved the gaming establishment project, albeit by a small majority; 50.5% in favor and 49.5% opposed (7173 yes, 7025 no, 1 blank). The Applicant will provide the City 18.5 million dollars before the gaming establishment opens for infrastructure improvements and other city costs. After opening, annual payments will be at least 10.3 million dollars, or more depending on the gaming revenues. This will be reduced to a minimum of 7 million dollars if a tribal casino is built in the region.

The Applicant has executed Surrounding Community Agreements with all nine designated communities (Abington, Avon, Easton, East Bridgewater, Holbrook, Pembroke, Stoughton, West Bridgewater and Whitman).

There is an executed Impacted Live Entertainment Agreements (ILEA) with Brockton 21st Century, which owns Campanelli Stadium and Shaw’s Center.

The site plan provides for adequate access and egress to the gaming establishment and hotel for cars, buses and taxis. There is also an appropriate distinction between patron and employee access/egress.

The adequacy of the existing transportation network was evaluated using acceptable procedures including baseline and projected traffic volumes, trip generation rates and modeling. For the area intersections studied to date, a reasonable package of mitigation measures has been proposed. This primarily includes roadway and traffic signal improvements to Forest Avenue and West Street for an estimated total cost of \$10.2M. In addition, MassDOT is planning on upgrading Route 123 (Belmont Street) from Route 24 to West Street, the main access to the gaming establishment. The first two Phases of the DOT work on Belmont Street should be completed before the gaming establishment opens.

The following further traffic mitigation should be evaluated as part of the ongoing MEPA process:

1. Safety mitigation at the Route 27/West Street intersection.
2. Mitigation for the Belmont Street/Kenelworth Avenue intersection.
3. Reevaluate the proposed realignment of West Street in front of the gaming establishment with respect to the Belmont Street intersection.

In terms of transit, the Applicant is considering shuttle bus service, including connections to the Brockton Area Transit Authority (BAT) downtown station and integrating a gaming establishment bus stop with existing bus routes. These discussions with the BAT should continue, with minimum mitigation including a local bus stop at the gaming establishment and an evaluation of the viability of a shuttle service from the Brockton MBTA Station to the gaming establishment.

The payments by the Applicant to the City itemized in the Host Community Agreement and the Mitigation Agreement is sufficient to mitigate potential impacts to housing, schools and public safety (police and fire).

The Applicant’s response to the Mitigation questions concerning responsible gambling practices and policies generally expressed a willingness to conform to the tactics described in the MGC Responsible Gaming Framework (RGF).

Though no agreement had been reached between the Applicant and the MA State Lottery (“Lottery”) as of the time of the review of the Application, the Applicant demonstrated that it understood the need to reach an agreement with the Lottery and identified strategies from other states to incorporate into such an agreement. For example, the Applicant suggested several strategies to promote the lottery including point of purchase, direct mailing, promotional giveaways and social media marketing. See G.L. c.23K, §18(1).

This category was evaluated in a number of criteria as follows:

SUMMARY OF EVALUATION BY CRITERIA	
Criterion	Findings
Community Support	<p>The Applicant has executed a Host Community Agreement and associated mitigation documents with the City of Brockton. A certified election in Brockton was held in May 2015 that approved the gaming establishment project, albeit by a small majority; 50.5% in favor and 49.5% opposed. Further, most area public officials, including Mayor Bill Carpenter, spoke and commented in favor of the proposed project. <u>See</u> G.L. c. 23K, §18(19). The Applicant will provide the City 18.5 million dollars before the gaming establishment opens for infrastructure improvements and other city costs. After opening, annual payments will be at least 10.3 million dollars, or more depending on the gaming revenues. This will be reduced to a minimum of 7 million dollars if a tribal casino is built in the region.</p> <p>The Applicant has executed Surrounding Community Agreements with all nine designated communities (Abington, Avon, Easton, East Bridgewater, Holbrook, Pembroke, Stoughton, West Bridgewater and Whitman). These Agreements are similar in format and include payments for consultant and legal costs, a one-time Community Impact Fee paid before the gaming establishment opens and an Annual Community Impact Fee. The two communities (Easton and East Bridgewater) required mediation to reach an Agreement. Accordingly, the contents of Application, including the applicable attestations</p>

	<p>provided in Section B of the RFA-2 Application, demonstrate that G.L. c.23K, §§15 (7), and (8) have been satisfied, and that measures have been put in place to “mitigat[e] potential impacts on host and surrounding communities which might result from the development or operation of the gaming establishment” G.L. c. 23K, §18(14).</p> <p>The Agreement has been executed between the Applicant and Brockton 21st Century, which owns Campanelli Stadium and Shaw’s Center, to discuss joint marketing opportunities. The Applicant has given examples of similar agreements at their other casino locations and is aware of the importance of having good relations with local venues. The Applicant was not able to reach an agreement with the Massachusetts Performing Arts Coalition (MPAC).</p>
Mitigate traffic and Offsite Impacts	<p>The site plan provides for adequate access and egress to the gaming establishment and hotel for cars, buses and taxis. There is also an appropriate distinction between patron and employee access/egress. The adequacy of the existing transportation network was evaluated using acceptable procedures including baseline and projected traffic volumes, trip generation rates and modeling. For the area intersections studied to date, a reasonable package of mitigation measures has been proposed. This primarily includes roadway and traffic signal improvements to Forest Avenue and West Street for an estimated total cost of \$10.2M. In addition, MassDOT is planning on upgrading Route 123 (Belmont Street) from Route 24 to West Street, the main access to the gaming establishment. The first two Phases of the MassDOT work on Belmont Street should be completed before the gaming establishment opens.</p> <p>In terms of transit, the Applicant had shuttle bus service under consideration, including connections to the Brockton Area Transit Authority (“BAT”) downtown station and integrating a gaming establishment bus stop with existing bus routes. <u>See</u> G.L. c. 23K, §18(8).</p> <p>The payments by the Applicant to the City itemized in the Host Community Agreement and the Mitigation Agreement is sufficient to mitigate potential impacts to housing, schools and public safety (police and fire).</p>
Measures to Promote Responsible Gaming and Address Problem Gambling	<p>The Applicant’s response to the Mitigation questions concerning responsible gambling practices and policies generally expressed a willingness to conform to the tactics described in the Commission’s Responsible Gaming Framework (“RGF”). Unfortunately, responses to subsection “a” from the series of questions (describing how the strategy will be implemented) often lacked detail and rather restated, sometimes verbatim, language within the RGF. Responses to subsection “b” of these questions (historical application of strategy) generally discussed</p>

	<p>compliance with Pennsylvania Gaming Control Board regulations. Those regulations have some overlap with Massachusetts, though are less comprehensive than measures described in the RGF. The responses in total are viewed as sufficient – expressing willingness to conform with Commission expectations, but lacking detail, inventiveness, and initiative to flesh out responsible gaming practices in the Application. <u>See</u> G.L. c. 23K, §18(6).</p>
Protect and Enhance the Lottery	<p>No formal agreement with the Massachusetts State Lottery had been executed as of the date of the review of the Application. However, the Applicant demonstrated an understanding of the need to reach such an agreement, and identified strategies from other states to consider for incorporation. Further, the Applicant formally agreed to be a licensed state lottery sales agent under G.L. c.10 to sell or operate lottery, multi-jurisdictional and keno games; agreed to ensure that the lottery and keno games be readily accessible to the guests of the proposed gaming establishment, and agreed that, as a condition of a gaming license, it would agree will not create, promote, operate or sell games that are similar to or in direct competition, as determined by the commission, with games offered by the state lottery commission, including the lottery instant games or its lotto style games such as keno or its multi-jurisdictional games. <u>See</u> G.L. c.23K, §§ 15(1) and 18(1).</p>

IV. Conclusion


Having carefully reviewed and evaluated all of the materials submitted to the Commission as part of the RFA-1 and RFA-2 Application processes along with materials gathered by the Commission as part of the review process including information and comments submitted by the public, all as outlined above, the Commission finds that MG&E has met the standards of suitability required under G.L. c.23K, has “met the eligibility criteria” outlined in G.L. c.23K and 205 CMR, see G.L. c.23K, §19(a) necessary to be awarded a gaming license, and has demonstrated “the business practices and the business ability [] to establish and maintain a successful gaming establishment . . .” G.L. c. 23K, §12(a)(3). As such, the Commission finds that the Applicant is a suitable and qualified applicant for a Category 1 gaming license. The Commission further acknowledges that the Applicant, through its affiliates, designed, constructed and operates high quality gaming establishments in Illinois and Pennsylvania. The Commission also recognizes the challenges faced by the City of Brockton, and the benefits this proposed project may have prospectively contributed towards alleviating some of those challenges and encouraging further economic development in Brockton.

However, the Commission’s evaluation includes a multitude of factors in addition to the potential benefits that may be conferred on the host community. It must look at the entire region and Commonwealth as a whole. To that end, the Commission finds that the Applicant has not “provided convincing evidence that the applicant will provide value to [] region [C] and to the

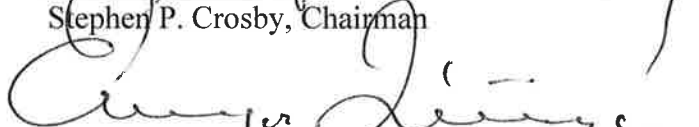
commonwealth” G.L. c.23K, §19(a). That is, the Applicant has failed to demonstrate that its proposed project would maximize revenue to the Commonwealth, see G.L. c.23K, §18(11), or that it would offer the highest and best value to create a secure and robust gaming market in Region C and the Commonwealth. See G.L. c.23K, §18(13). Ultimately, the Applicant did not articulate a clear vision nor provide any well-developed plans as to how it would achieve the same quality of results in Brockton as it has at its properties in other jurisdictions. However, while the Commission has determined not to grant a License to the Applicant, this determination should not be viewed, as described above, as a reflection upon the Applicant’s suitability or the Applicant’s ability to design, construct, or operate a quality gaming establishment. Accordingly, for all of the aforementioned reasons, the RFA-2 Application submitted by Mass Gaming & Entertainment, LLC, by a vote of four (4) in favor of denial and one (1) opposed, is hereby **DENIED**.

SO ORDERED.

MASSACHUSETTS GAMING COMMISSION



Stephen P. Crosby, Chairman



Enrique A. Zurfiga, Commissioner



Gayle Cameron, Commissioner



Bruce Stebbins, Commissioner



Lloyd Macdonald, Commissioner (opposed)

DATED: August 11, 2016

Kevin M. Considine, Esq.
kconsidine@considinefurey.com

September 6, 2019

VIA EMAIL & FIRST CLASS MAIL

Catherine Blue, Esq.
Massachusetts Gaming Commission
101 Federal Street - 12th Floor
Boston, MA 02110

Re: Response to Request for Public Comments on Mass Gaming & Entertainment LLC's Motion for Reconsideration of Region C License Decision

Dear Attorney Blue:

On behalf of the Notos Group, LLC, I write in response to the Massachusetts Gaming Commission's ("MGC," or the "Commission") invitation for public comments regarding Mass Gaming and Entertainment's ("MG&E") request that the Commission reconsider its decision denying MG&E's gaming license application. The Notos Group has proposed a major economic development project in Region C within the Town of Wareham that would include a thoroughbred racetrack with a gaming component. As set forth below, the Commission does not have the authority to reconsider its decision *three years* after holding a public hearing on MG&E's application and denying that application in a decisive 4-1 vote. MG&E urges the Commission to overlook both the substance and the spirit of Massachusetts statutory law by reconsidering MG&E's application at this late juncture without soliciting additional applications for a Region C gaming license.

Although MG&E relies heavily on the common law principle that an agency has discretion to reconsider its decision, such discretion is not absolute. Rather, "[a]n administrative agency, **in the absence of statutory limitations**, generally has the inherent authority to reconsider a decision or reopen a proceeding **to prevent or mitigate a miscarriage of justice.**" *Soe v. Sex Offender Registry Bd.*, 466 Mass. 381, 395 (Mass. 2013) (citing *Moe v. Sex Offender Registry Bd.*, 444 Mass. 1009, 1009, (Mass. 2005)). An agency's authority to reconsider its decisions "must be sparingly used if administrative decisions are to have resolving force on which persons can rely." *Stowe v. Bologna*, 32 Mass. App. Ct. 612, 616 (Mass. App. Ct. 1992). Further,

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requests for reconsideration of an agency decision are subject to reasonable time limitations. *Covell v. Dept. of Social Services*, 42 Mass. App. Ct. 427, 433 (Mass. App. Ct. 1997); *see also Stowe*, 32 Mass. App. Ct. at 618-619.

Reconsideration would be inappropriate here because (1) there are statutory limitations in place preventing the Commission from reconsidering its decision on the MG&E application; (2) there will be no “miscarriage of justice” if the Commission denies MG&E’s request; and (3) MG&E has not made its request for reconsideration within a reasonable timeframe.

1. Massachusetts Statutory Law Does Not Permit the Commission to Review of Decision Denying MG&E’s Application at this Juncture.

Gaming is a heavily regulated industry in Massachusetts. G.L. c. 23K, while granting discretion to the Commission on the award of licenses, establishes significant guidelines for licensing decisions. That statutory framework provides no basis for the Commission to reconsider its denial of MG&E’s application for a Region C license three years after issuing that decision.

a. G.L. c. 23K §17(d) Requires the Commission to Issue a Decision Within Months of a Public Hearing.

The Commission may only reach a determination regarding gaming licenses after a public hearing. As set forth in G.L. c. 23K §17(d),

The public hearing shall provide the commission with the opportunity to address questions and concerns relative to the proposal of a gaming applicant to build a gaming establishment, including the scope and quality of the gaming area and amenities, the integration of the gaming establishment into the surrounding community and the extent of required mitigation plans and receive input from members of the public from an impacted community.

See §17(d). Following a public hearing on a license application, the Commission is required to make a determination within 30-90 days granting the application, denying the application, or extending the decision-making period **no longer than 30 days**. *See* G.L. c. 23K §17(e). The legislature thereby intended for the Commission to reach a final decision on an application within months of the public hearing. Section 17(e) would be rendered meaningless if the Commission could reverse its decision three years after the public hearing on MG&E’s application.

b. G.L. c. 23K §17(f)-(g) Only Allows for Review of Findings of Fact and States That “Applicant Shall Not Be Entitled to Any Further Review.”

Once the Commission has denied an application, an applicant may “request a hearing before the commission to contest any findings of fact by the bureau relative to the suitability of the applicant.” G.L. c. 23K §17(f). However, “applicants shall have no legal right or privilege to a gaming license and **shall not be entitled to any further review if denied by the commission.**” G.L. c. 23K §17(g). Here, MG&E does not contest any suitability determination, but challenges the ultimate agency decision. MG&E thus makes the untenable argument that because it has not challenged a finding of fact pursuant to §17(f), there are **no** limitations on the Commission’s authority to review its prior decision. The more reasonable reading of the statute is that an applicant is only entitled to request a hearing as to findings of facts relative to suitability and there is otherwise no “further review” as to the commission’s discretionary findings. *See* §17(g). Furthermore, MGC has consistently interpreted §17(g) to preclude the agency from reconsidering the denial of a gaming license. Even if the intent of the Legislature were not clear (which it arguably is in G.L. c. 23K §17(g)), a Court would give deference to the reasonable interpretation by the agency implementing the statute. *See Chevron v. Natural Resource Defense Council, Inc.*, 467 U.S. 837, 843–844 & n. 11 (1984); *Souza v. Registrar of Motor Vehicles*, 462 Mass. 227, 228–229 (Mass. 2012); *Goldberg v. Board of Health of Granby*, 444 Mass. 627, 633–634 (Mass. 2005).

2. *There is No Compelling Reason for MGC to Reconsider Decision on MG&E’s Application.*

Further, an agency’s authority to reconsider its decisions “must be sparingly used if administrative decisions are to have resolving force on which persons can rely.” *Stowe v. Bologna*, 592 N.E. 2d 764. MG&E presents no compelling reason why the Commission should reconsider its April 2016 decision denying the Region C application. MG&E emphasizes that the gaming landscape in southeastern Massachusetts has shifted since 2016 as a result of the federal court decisions halting the Mashpee Wampanoag Tribe’s (the “Tribe”) efforts to build a casino in Taunton, Massachusetts. MG&E mistakenly suggests that the Commission rejected its application solely because of concerns over competition from the prospective Tribal casino in the region.

In fact, transcripts from the Commission’s deliberations reflect a wide range of concerns with MG&E’s applications, which were unrelated to the Tribe. For example:

- Chairman Crosby: “I’m deeply concerned about whether or not independent of tribal issues this project meets our requirements.” MGC Public Meeting, April 28, 2016, Tr. 76:11-13.
- Chairman Crosby: “It’s not in my view a destination resort casino in the way that the Legislature and we really anticipated.... It may not match what we were looking for under the completely reasonable constraints of this particular marketplace.” *Id.* at 118:8-14.
- Commissioner Cameron: “But there were a number of issues that I was concerned about. One of them was the close vote in this community. This is a divided community. And we have not had a situation in which we were going to award where it was this close.” *Id.* at 84:12-17
- Commissioner Cameron: “[T]he legislation really calls for high-quality jobs. And I was concerned about the low salaries.” *Id.* at 85:15-18.
- Commissioner Stebbins: “...I have some serious concerns... Commissioner Cameron raised one with respect to pay. I have concerns about what the applicant has told us are their retention rates, which is a concern.” *Id.* at 103:14-19.
- Commissioner Stebbins: “...I don’t want to make an award of a license to an application that in my estimation is just not up to the level of excellence that I would expect... *Id.* at 104:16-19.

In short, the Commission denied MG&E’s application based on various concerns unrelated to potential competition from the Tribe’s proposed casino in Taunton. The decision in *Littlefield v. Dep’t of the Interior*, 199 F. Supp. 3d 391 (D. Mass. 2016) may have removed certain roadblocks relating to “saturation” of the gaming market in southeastern Massachusetts, but that decision did not resolve the various unrelated shortcomings of MG&E’s application. In short, MG&E has not demonstrated compelling reasons for the Commission to reconsider its 2016 decision.

It bears further note that, although the Commission addressed the possibility of “reopening” discussions of a Region C gaming license during deliberations on the MG&E application, the Commissioners suggested that further proceedings would involve a second RFA round. Commissioner Zuniga acknowledged, “Circumstances could change. If we don’t award the license, we retain the option to re-bid this years down the line or however long later.” April 28, 2016 Tr. 109:22-110:1. Commissioner Stebbins noted, “...I don’t feel saying no to this application necessarily... means no to a casino in Region C. And I don’t believe maybe it means no to a casino in Brockton. It just may not be this application that I’m comfortable with.” *Id.* at 105:7-14. Indeed, the Notos Group respectfully suggests that circumstances in Region C have changed and the Commission ought to re-open the Region for competitive bids based on current market conditions.

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3. *MG&E Did Not Request Reconsideration Within a Reasonable Timeframe.*

Even if the Commission had authority to reconsider licensing decisions, “applications for [reconsideration of an agency decision] can hardly be entertained without limit of time.” *Covell v. Dept. of Social Services*, 42 Mass. App. Ct. 427, 433 (Mass. App. Ct. 1997); *see also Stowe*, 32 Mass. App. Ct. at 618-619 (holding that agency decision was no longer “susceptible to reconsideration” four years later). It has now been three years since the Commission denied MG&E’s application; four years since Brockton voted (by a remarkably slim 143 vote margin) to approve MG&E’s proposal; three years since a public hearing on MG&E’s application; and two years since Judge Young issued his decision in *Littlefield* (the supposed basis of MG&E’s request for reconsideration). Moreover, the Commission has two new members who did not participate in the prior proceeding. Certainly they should be given the opportunity to participate fully in any Region C process involving the issuance of a gaming license. The clock has surely run on a “reconsideration” of MG&E’s long-dead application.

In summary, I strongly recommend that this Commission deny MG&E’s request for reconsideration.

Sincerely,

Kevin M. Considine

KMC:hp

cc: Neil D. Raphael, Esq.



Legal Division

TO: Commissioners
FROM: Carrie Torrisi, Associate General Counsel
DATE: September 5, 2019
RE: Junkets

As previously discussed, a draft of 205 CMR 134.06 *Junkets* is attached. This memo is intended to provide a brief explanation of each section of this regulation.

134.06(1) Licensing

Pursuant to this regulation, all junket enterprises and junket representatives will be required to be licensed before they may conduct any junket business. They will be licensed as follows:

- A junket enterprise will be licensed as a gaming vendor-primary (205 CMR 134.04(1)(a));
- A junket representative employed by a licensee or enterprise will be licensed as a gaming employee (205 CMR 134.02); and
- A junket representative self-employed will be licensed as a key gaming employee-standard (205 CMR 134.01(2)).

134.06(2) Complimentary services exception: This section is intended to distinguish between complimentary services that might be provided as part of a junket agreement and complimentary services that might otherwise be provided to patrons of the gaming establishment who are not participating in a junket.

134.06(3) Selection of persons for participation in junket: This section relates to the definition of the term “junket” in G.L. c. 23K, § 2, and is intended to clarify whether or not an agreement constitutes a junket and therefore triggers licensing requirements. “Junket” is defined as:

[A]n arrangement intended to induce a person to come to a gaming establishment to gamble, where the person is selected or approved for participation **on the basis of the person's ability to satisfy a financial qualification obligation related to the person's ability or willingness to gamble or on any other basis related to the person's propensity to gamble** and pursuant to which and as consideration for which, any of the cost of transportation, food, lodging, and entertainment for the person is directly or indirectly paid by a gaming licensee or an affiliate of the gaming licensee. (emphasis added)



Massachusetts Gaming Commission

134.06(4) Reporting requirements: This section includes the reporting requirements that will be imposed on the licensees and consist of requirements that are common among other jurisdictions surveyed, as previously discussed.

134.06(5) Marketing prohibitions on junket enterprises and junket representatives: There has been a good deal of discussion regarding prohibiting junket enterprises and representatives from marketing to anyone on the voluntary self-exclusion list or anyone on the licensee's "no marketing" list. This section codifies the prohibition and prohibits junket enterprises and representatives from marketing to:

1. Individuals under 21;
2. Individuals who have requested to be on the "no marketing" list;
3. Individuals who have placed themselves on the voluntary self-exclusion list; and
4. Individuals who are on the exclusion list.

This section requires junket operations and representatives to send their marketing lists to the licensees prior to engaging in any marketing activity and requires the licensees to notify the junket operators and representatives of any individuals falling within categories one through three above.

134.05(6) Additional prohibitions on junket enterprises and junket representatives: This section includes prohibitions common in other jurisdictions surveyed including prohibiting junket enterprises and representatives from extending any credit to junket participants, engaging in collection efforts, or accepting a fee from a patron in exchange for their participation in a junket.

Regulation Review Checklist

Agency Contacts for This Specific Regulation		
Carrie Torrisi		
Karen Wells		
Overview		
CMR Number	205 CMR 134.01	
Regulation Title	Junkets	
<input checked="" type="checkbox"/> Draft Regulation	<input type="checkbox"/> Final Regulation	
Type of Proposed Action		
<input checked="" type="checkbox"/> Please check all that apply		
<input type="checkbox"/> Retain the regulation in current form.		
<input type="checkbox"/> New regulation (Please provide statutory cite requiring regulation):		
<input type="checkbox"/> Emergency regulation (Please indicate the date regulation must be adopted):		
<input checked="" type="checkbox"/> Amended regulation		
<input type="checkbox"/> Technical correction		
<input type="checkbox"/> Other Explain:		

Summary of Proposed Action
Please describe the purpose of the regulation:
This regulation requires an independently operating junket representatives to be licensed as key gaming employee-standard.
Nature of and Reason for the Proposed Action
Encore Boston Harbor is requesting authorization to begin running junkets

Regulation Review Checklist

Additional Comments or Issues Not Earlier Addressed by this Review	
Required Attachments	
✓ Please check all that apply	
<input checked="" type="checkbox"/> Redlined version of proposed amendment to regulation, including repeals	<input type="checkbox"/> Clean copy of the regulation if it is a new chapter or if there is a recommendation to retain as is
<input type="checkbox"/> Text of statute or other legal basis for regulation	
<input checked="" type="checkbox"/> Small Business Impact Statement (SBIS)	<input type="checkbox"/> Amended SBIS

205 CMR 134.00: LICENSING AND REGISTRATION OF EMPLOYEES, VENDORS,
JUNKET ENTERPRISES AND REPRESENTATIVES, AND LABOR ORGANIZATIONS

134.01: Key Gaming Employee Licensees

No individual shall be employed by or perform services for a gaming licensee as a key gaming employee, as defined by M.G.L. c. 23K, § 2, unless the individual has been licensed in accordance with M.G.L. c. 23K, § 30 and 205 CMR 134.00. There shall be two categories of key gaming employee licensees: key gaming employee-executive and key gaming employee-standard.

- (1) An individual holding one of the following positions, and any person in a similar or equivalent position, regardless of job title, whose employment relates to gaming shall be designated as a key gaming employee-executive:
 - (a) Assistant General Manager;
 - (b) Chief Internal Audit Officer;
 - (c) Gaming Manager;
 - (d) Chief Financial Officer;
 - (e) Chief of Security;
 - (f) General Manager;
 - (g) Chief Surveillance Officer;
 - (h) Chief Compliance Officer;
 - (i) Principal executive Officer;
 - (j) Principal operating Officer;
 - (k) Principal accounting Officer;
 - (l) Chief Information Officer;
 - (m) Other executive level employees who are not identified as a key gaming employee-standard in accordance with 205 CMR 134.01(2) as determined by the commission.

- (2) An individual holding one of the following positions, and any person in a similar or equivalent position, regardless of job title, whose employment relates directly to a gaming establishment shall be designated as a key gaming employee-standard:
 - (a) Controller;
 - (b) Electronic gaming device or slot machines manager;
 - (c) Human resources manager;
 - (d) Information technology manager;
 - (e) Pit boss;
 - (f) Shift supervisor of table games, of a slot department, credit department, security, surveillance, accounting department, cage, or player development;
 - (g) Credit manager;
 - (h) Cage manager;
 - (i) Hotel Manager;
 - (j) Entertainment Director;
 - (k) Food & Beverage Manager;
 - (l) Other managerial employees who are not identified as a key gaming employee-executive in accordance with 205 CMR 134.01(1), but who are empowered to make discretionary

decisions which impact gaming establishment operations, or as determined by the commission;

~~(m)~~ Junket representative not employed by a gaming licensee or affiliate of the gaming licensee or a junket enterprise licensed as a gaming vendor in accordance with 205 CMR 134.00.

- (3) Any individual who is a qualifier of a gaming licensee but who does not perform any of the duties of the positions identified in 205 CMR 134.01(1)(a) or (b) does not have to become licensed as a key gaming employee. Such individual does have to be approved as a qualifier and issued a positive determination of suitability in accordance with 205 CMR 111.00: *Phase 1 Application Requirements*, 115.00: *Phase 1 Suitability Determination, Standards and Procedures*, and 116.00: *Persons Required to Be Licensed or Qualified*. An individual who has been issued a positive determination of suitability in accordance with 205 CMR 111.00: *Phase 1 Application Requirements* and who will be performing the responsibilities requiring licensure as a key gaming employee shall apply for licensure in accordance with 205 CMR 134.08(2) subject to the term limitation of 205 CMR 134.16(4).

Regulation Review Checklist

Agency Contacts for This Specific Regulation		
Carrie Torrisi		
Karen Wells		
Overview		
CMR Number	205 CMR 134.06	
Regulation Title	Junkets	
<input checked="" type="checkbox"/> Draft Regulation		<input type="checkbox"/> Final Regulation
Type of Proposed Action		
<input checked="" type="checkbox"/> Please check all that apply		
<input type="checkbox"/> Retain the regulation in current form.		
<input checked="" type="checkbox"/> New regulation (Please provide statutory cite requiring regulation): G.L. c. 23K, s. 5(13) and s. 33		
<input type="checkbox"/> Emergency regulation (Please indicate the date regulation must be adopted):		
<input type="checkbox"/> Amended regulation		
<input type="checkbox"/> Technical correction		
<input type="checkbox"/> Other Explain:		

Summary of Proposed Action
Please describe the purpose of the regulation:
The purpose is to codify licensing requirements, reporting requirements, and restrictions for junket operators.
Nature of and Reason for the Proposed Action
Encore Boston Harbor is requesting authorization to begin running junkets

Regulation Review Checklist

Additional Comments or Issues Not Earlier Addressed by this Review	
Required Attachments	
✓ Please check all that apply	
<input type="checkbox"/> Redlined version of proposed amendment to regulation, including repeals	<input checked="" type="checkbox"/> Clean copy of the regulation if it is a new chapter or if there is a recommendation to retain as is
<input type="checkbox"/> Text of statute or other legal basis for regulation	
<input checked="" type="checkbox"/> Small Business Impact Statement (SBIS)	<input type="checkbox"/> Amended SBIS

205 CMR 134.00: LICENSING AND REGISTRATION OF EMPLOYEES, VENDORS,
JUNKET ENTERPRISES AND REPRESENTATIVES, AND LABOR ORGANIZATIONS

134.06: Junket Enterprises and Junket Representatives

- (1) Licensing. No person shall conduct business with a gaming licensee as a junket enterprise or junket representative unless such person has been licensed in accordance with 205 CMR 134.00. A person shall be considered to be conducting business upon commencement of performance of a contract or provision of a service. A gaming licensee acting as a junket enterprise shall not be required to obtain additional licensure pursuant to this section.
- (2) Complimentary services exception. An offer by a gaming licensee to pay for the cost of transportation, food, lodging, and entertainment for a person in an amount to be determined by the actual gaming activities of that person after his or her arrival at the gaming establishment shall be deemed to be an offer of complimentary services or item, as defined in G.L. c. 23K, § 2, for the purposes of whether an arrangement involving such an offer is a junket within the meaning of G.L. c. 23K, § 2 and 205 CMR 134.06.
- (3) Selection of persons for participation in junket.
 - (a) As used in G.L. c. 23K, § 2, selection or approval of a person “for participation in a junket on the basis of the person’s ability to satisfy a financial qualification obligation related to the person’s ability or willingness to gamble” shall be deemed to occur whenever a person, as an element of the arrangement, is required to:
 1. Establish gaming credit with a gaming licensee;
 2. Establish a customer deposit with a gaming licensee;
 3. Demonstrate to a gaming licensee or agent thereof the availability of a specified amount of cash, cash equivalent, or gaming chips;
 4. Gamble to a predetermined level at a gaming establishment; or
 5. Comply with any similar obligation.
 - (b) As used in G.L. c. 23K, § 2, selection or approval of a person on a “basis related to the person’s propensity to gamble” shall be deemed to occur whenever that person has been selected or approved on the basis of:
 1. The previous satisfaction of a financial qualification obligation in accordance with the provisions of 205 CMR 134.06(3);
 2. A rating for gambling performance; or
 3. An evaluation that the person has a tendency to participate in gambling activities as the result of an inquiry concerning said person’s tendency to gamble or some other means of determining that person has a tendency to participate in gambling activities.
 - (c) Without limitation of 205 CMR 134.06(3)(b), a rebuttable presumption that a person has been selected or approved for participation in an arrangement on a basis related to his or her propensity to gamble shall be created whenever said person is provided with:
 1. Complimentary guest room accommodations as part of the arrangement; or

2. Complimentary food, entertainment, or transportation which has a value of \$200 or more.

(4) Reporting requirements.

- (a) Pursuant to M.G.L. c. 23K, § 33, each gaming licensee, junket representative, or junket enterprise shall file a report with the Bureau with respect to each list of junket patrons or potential junket patrons purchased directly or indirectly by the gaming licensee, junket representative, or junket enterprise. The report shall be filed no later than seven days after receipt of the list by the purchaser and shall include:
 1. The name and address of the person or enterprise selling the list;
 2. The purchase price paid for the list, or any other terms of compensation related to the transaction; and
 3. The date of purchase of the list.
- (b) Monthly reports. Each gaming licensee shall, on or before the 15th day of each month, prepare a junket activity report to be kept on file at the gaming establishment, and shall supply to the Bureau the name and license number of each person employed by the gaming licensee who performed the services of a junket representative during the preceding month. The junket activity report shall be made available to the Bureau for inspection upon request and shall contain, at a minimum:
 1. The origin of every junket arriving at the premises;
 2. The number of participants in the junket, including a listing of the names and addresses of all junket participants;
 3. The arrival time and date of the junket;
 4. The departure time and date of the junket;
 5. The name and license number of all junket representatives and junket enterprises involved in the junket; and
 6. The actual amount and type of complimentary services and items provided to each junket participant in accordance with the provisions of 205 CMR 138.13.

(5) Marketing prohibitions on junket enterprises and junket representatives.

- (a) No junket enterprise or junket representative shall authorize or conduct marketing, advertising, and/or promotional communication or activity that specifically targets:
 1. Individuals younger than 21 years old;
 2. Individuals who have requested not to receive marketing materials from the gaming licensee in accordance with the protocols set pursuant to G.L. c. 23K, § 21(a)(18);
 3. Individuals who have placed themselves on the voluntary self-exclusion list pursuant to 205 CMR 133.00, *et seq.*; and
 4. Individuals who have been placed on the exclusion list pursuant to 205 CMR 152.06.
- (b) Before conducting any marketing, advertising, or promotional communication, junket enterprises and junket representatives must provide their prospective marketing lists to the gaming licensees. The gaming licensees must notify the junket enterprise or junket representative within seven days of receipt of the marketing list of any individuals

included on the list who (1) the gaming licensee has identified as being not appropriate to receive marketing materials; (2) have requested to be excluded from any database or other list held by the gaming licensee for use in marketing or promotional communications pursuant to G.L. c. 23K, § 21(a)(18) and (3) have placed themselves on the voluntary self-exclusion list pursuant to 205 CMR 133.00, *et seq.* The gaming licensee shall not identify from which category an individual comes.

(6) Additional prohibitions on junket enterprises and junket representatives.

No junket enterprise or junket representative may engage in collection efforts, pay for any services provided to a junket participant, receive any fee from a patron for the privilege of participating in a junket or for the performance of any function for which the junket enterprise or junket representative is licensed, or extend credit to a junket participant.

DRAFT



Legal Division

SMALL BUSINESS IMPACT STATEMENT

The Massachusetts Gaming Commission (“Commission”) hereby files this small business impact statement in accordance with [G.L. c.30A, §2](#) relative to the proposed amendment to [205 CMR 134.00: Licensing and Registration of Employees, Vendors, Junket Enterprises and Representatives, and Labor Organizations](#). Specifically, **205 CMR 134.01: Key Gaming Employee Licensees** shall be amended to add Junket representatives, whom are not employed by a gaming licensee or affiliate of the gaming licensee or a junket enterprise licensed as a gaming vendor, as Key Gaming Employees. Further, **205 CMR 134.06: Junket Enterprises and Junket Representatives** shall be added to the regulation to describe the scope of responsibility and compliance imposed upon the licensee in order to employ a junket enterprise or junket representative. Notice of these amendments were filed on this day with the Secretary of the Commonwealth. The amendments were developed as part of the process of promulgating regulations governing the operation of gaming establishments in the Commonwealth and are largely governed by [G.L. c.23K](#), §16, 30, and 31.

The proposed amendments apply directly to and impact junket representatives and junket enterprises, which can be considered small businesses. In accordance with G.L. c.30A, §2, the Commission offers the following responses:

1. Estimate of the number of small businesses subject to the proposed regulation:

Junket representatives and enterprises can be considered small businesses. Therefore, these individuals and entities will be impacted by these amendments to the regulation, as all junket enterprises and junket representatives will be required to be licensed before they may conduct any junket business.

2. State the projected reporting, recordkeeping, and other administrative costs required for compliance with the proposed regulation:

The projected reporting, recordkeeping, and administrative costs created by these amendments are determined by the cost of the investigation required for a Key Gaming Employee license and/or Primary Vendor license. There are also reporting requirements that will be imposed on the licensees and consist of requirements that are common among other jurisdictions surveyed.



Massachusetts Gaming Commission

3. State the appropriateness of performance standards versus design standards:

These amendments implicate a performance standard update for implementation.

4. Identify regulations of the promulgating agency, or of another agency or department of the Commonwealth, which may duplicate or conflict with the proposed regulation:

There are no conflicting regulations in 205 CMR, and the Commission is unaware of any conflicting or duplicating regulations of any other agency or department of the Commonwealth.

5. State whether the proposed regulation is likely to deter or encourage the formation of new businesses in the Commonwealth:

The proposed amendments to this regulation will not only encourage the formation of new businesses in the Commonwealth, but will accommodate the existing applicants for licensure as small businesses in the junket capacity.

Massachusetts Gaming Commission

By:

Shara N. Bedard
Paralegal

Dated: _____



Massachusetts Gaming Commission

QUARTERLY REPORT

SEPTEMBER 12, 2019

ENCORE BOSTON HARBOR













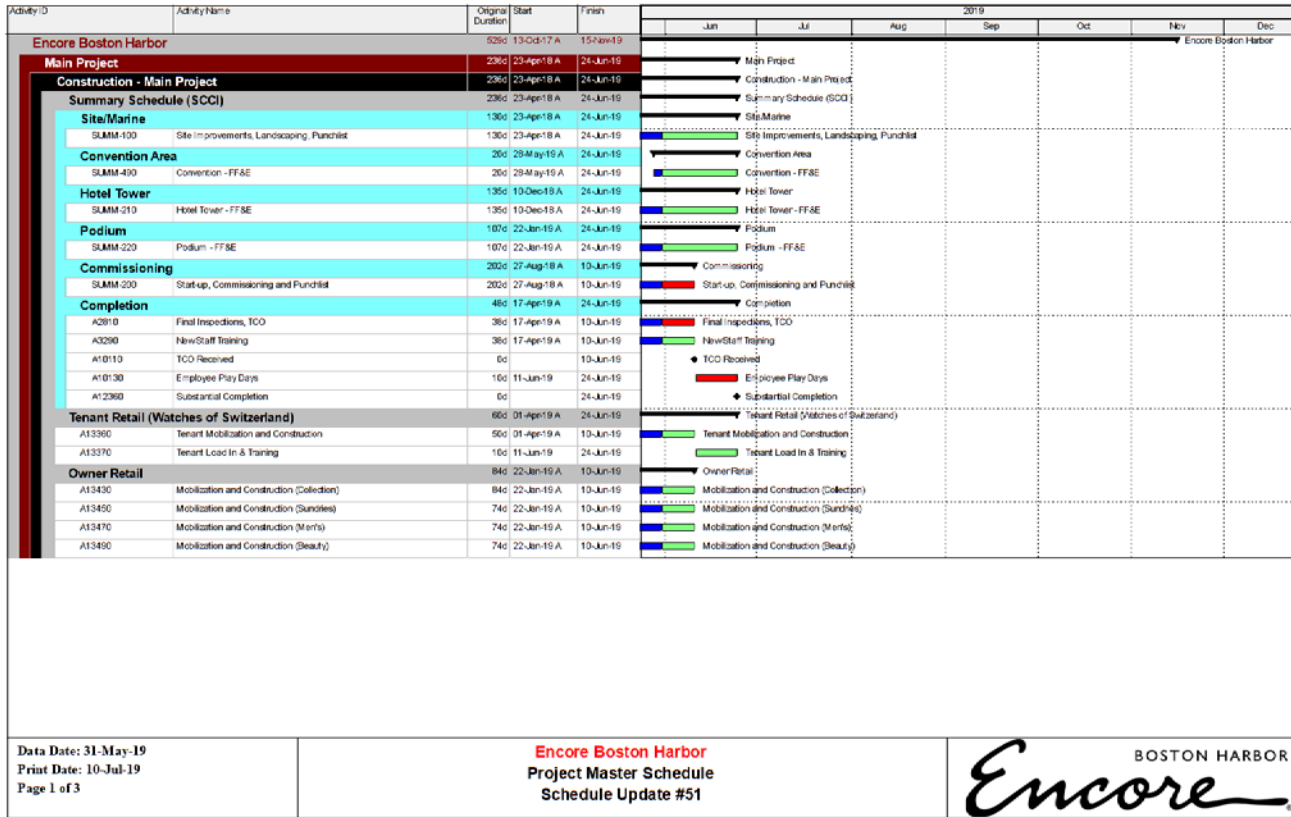
CONSTRUCTION SCHEDULE

	Activity	Date	Complete
1	Certificate of Occupancy	06/10/2019	✓ [?] (05/31/2019)
2	High Rise Level 5-8 Turnover	12/10/2018	✓ [?]
3	High Rise Level 9-12 Turnover	01/07/2019	✓ [?]
4	High Rise Level 14-17 Turnover	02/04/2019	✓ [?]
5	High Rise Level 18-21 Turnover	03/04/2019	✓ [?]
6	High Rise Level 22-26 Turnover	04/15/2019	✓ [?]
7	Central Plant Turnover (with FF&E)	11/26/2018	✓ [?]
8	Retail/Food and Beverage Turnover (Tenant)	01/21/2019	✓ [?] (12/01/2018)
9	Security and Surveillance/IT Data Center Turnover	03/18/2019	✓ [?] (12/01/2018)
10	Fire Command Center Turnover	03/18/2019	✓ [?] (12/01/2018)
11	Executive Offices Turnover	04/15/2019	✓ [?]
12	Back of House Turnover	04/15/2019	✓ [?]

CONSTRUCTION SCHEDULE

	Activity	Date	Complete
13	Atrium/Hotel Registration Turnover	04/29/2019	✓ [?]
14	Casino Turnover	04/29/2019	✓ [?]
15	Spa/Salon/Fitness Center Turnover	04/29/2019	✓ [?]
16	Public Restrooms Turnover	05/13/2019	✓ [?]
17	Lounge Turnover	05/13/2019	✓ [?] (12/01/2018)
18	Retail/Food and Beverage Turnover (Owner)	05/20/2019	✓ [?] (12/01/2018)
19	Convention and Meeting Rooms Turnover	05/27/2019	✓ [?]
20	Porte Cochere Completion	06/03/2019	✓ [?]
21	Site Work Completion	06/10/2019	✓ [?]
22	Full Beneficial Use of Offsite Infrastructure – Broadway and Truck Route (Package 1)	06/01/2019	✓ [?]
23	Full Beneficial Use of Offsite Infrastructure – Route 16 (Package 2)	06/01/2019	✓ [?]
24	Full Beneficial Use of Offsite Infrastructure – Malden and Wellington MBTA Stations (Package 3)	05/15/2019	✓ [?]

PROJECT SCHEDULE



PROJECT SCHEDULE

Activity ID	Activity Name	Original Start	Finish	2019														
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Off-Site Transportation Improvements				4/01/18	10/31/18													
Milestones																		
Package #1 (Lower Broadway and Truck Route)				2/28/18	10/31/18													
A1300.140	CPH Construction (Lower Broadway and Truck Route)	2/28/18	10/31/18															
Package #1 (Silurian Square)				2/28/18	10/31/18													
A1300.100	CPH Construction (Silurian Square)	2/28/18	10/31/18															
Land Transfer Easements				3/31/18	4/30/18													
Final Planning Board Approval				3/31/18	4/30/18													
4370	Final Planning Board Approval	3/31/18	4/30/18															
Construction Package #1 - Lower Broadway & Truck Route				10/1/18	10/31/18													
CPH Construction				10/1/18	10/31/18													
A1300.110	Basement Steel Deck Steel Installation	10/1/18	10/31/18															
A1300.120	CPH #1 Complete	10/1/18	10/31/18															
Construction Package #1 - Silurian Square Construction				5/01/18	4/30/18													
A1300	Overall Frames, Spigot Fire Line Tying	5/01/18	4/30/18															
A1330	Silurian Square Completed	10/1/18	10/31/18															

Date: 11/14/19
 Print Date: 11/14/19
 Page 3 of 3

Encore Boston Harbor
 Project Master Schedule
 Schedule Update #51



Contracts Awarded to Minority, Women and Veteran Business Enterprises - Design Phase



MBE

13 contract awards:

\$5,619,350

% of total contracts: **8.5%**

Goal: **7.9%**

WBE

14 contract awards:

\$5,399,784

% of total contracts: **8.2%**

Goal: **10.0%**

VBE

4 contract awards:

\$3,974,569

% of total contracts: **6.1%**

Goal: **1.0%**

SUMMARY*

30 total M/W/VBE contracts:

\$14,953,702

% of total contracts: **22.7%**

Goal: **18.9%**

*M/W/VBE design contract awards report includes awards and payments made to businesses with more than one diverse classification (i.e. M/WBE). Totals reported deduct any double counting due to awards to businesses with more than one diverse classification.

Contracts Awarded to Minority, Women and Veteran Business Enterprises for Construction Phase



MBE

81 contract awards:

\$80,834,984

% of total contracts: **5.8%**

Goal: **5.0%**

WBE

152 contract awards:

\$174,670,571

% of total contracts: **12.5%**

Goal: **5.4%**

VBE

49 contract awards:

\$38,365,931

% of total contracts: **2.8%**

Goal: **1.0%**

SUMMARY*

252 total M/W/VBE contracts:

\$263,348,345

% of total contracts: **18.9%**

Goal: **11.4%**

*M/W/VBE construction contract awards report includes awards and payments made to businesses with more than one diverse classification (i.e. M/WBE). Totals reported deduct any double counting due to awards to businesses with more than one diverse classification.

Minority, Women and Veteran Workforce Participation for Construction Phase



Minority

1,870 workers:

1,535,037 hours

% of total work hours: **25.7%**

Goal: **15.3%**

Female

489 workers:

427,773 hours

% of total work hours: **7.2%**

Goal: **6.9%**

Veteran

311 workers:

314,789 hours

% of total work hours: **5.3%**

Goal: **3.0%**

EMPLOYMENT UPDATE

HIRING UPDATE

- 4,982 active employees currently onboard
- 220 additional employees in the onboarding process
- 64 open positions
 - Primarily Dealers and Food & Beverage



NO TRAFFIC ISSUES SINCE OPENING



LICENSE CONDITIONS

1. **Further documentation regarding commitment closeouts**
 - In Progress
2. **Installation of panic alarms in Main Bank and in each High Limit Gaming Salons**
 - Complete
3. **Panic alarms have speakers**
 - Complete
4. **Additional cameras in all service bars and temporary bars to ensure full coverage**
 - Complete
5. **Angle all front line cage facial shots 10 degrees down**
 - In progress
6. **Stadium Gaming Roulette wheel, dealing shoes, and other gaming equipment locked**
 - Complete
7. **Additional “Fair Deal” signage**
 - One remaining sign to be installed
8. **Casino credit department sealed off from cashier’s cage**
 - In progress

“GREAT WORKPLACE” BY GREAT PLACE TO WORK®



SEPTEMBER 2019

- Wynn Las Vegas certified as a “Great Workplace” by independent analysts
- Scores illustrate the following about Wynn Las Vegas employees:
 - Are proud to tell others where they work
 - Are made to feel welcome in the workplace
 - Appreciate the camaraderie and care that Company leadership encourages among co-workers
 - Feel good about the many ways Wynn provides them with opportunities to contribute to the local community through charitable efforts

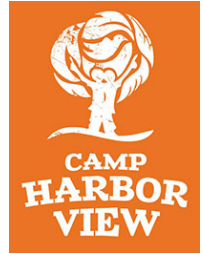
COMPANY INITIATIVES

- Access to on-site leadership skills-training and self development classes
- Executive Mentor Program pairing managers with executives to accelerate professional growth
- A diverse workplace with an environment that fosters inclusion and acceptance
- Introduction of The Wynn Employee Foundation Scholarship
- Paid parental leave and financial assistance with early childhood expenses
- Charitable matching program up to \$50,000 per employee, per year



PARTNERSHIP WITH CAMP HARBOR VIEW

- 29 Everett children and 7 Encore children participated in Camp Harbor View summer camp programs



PARTNERSHIP WITH BOSTON LANDMARKS ORCHESTRA

Encore
BOSTON HARBOR

- Introduced instrument playground and music enrichment activities to students in For Kids Only After School summer program.



NATIONAL CHILDREN'S DAY FESTIVAL – June 6

Encore
BOSTON HARBOR

- Organized an outdoor fun family friendly festival for 250 Everett families



SERVE A MEAL – July 30

Encore
BOSTON HARBOR

- 15 volunteers served meals for veterans at New England Center and Home for Veterans



NEW ENGLAND CENTER
AND HOME FOR VETERANS



WATER CHESTNUT REMOVAL – August 3

- Removed 25 baskets of water chestnuts and trash from Mystic River



BACK-TO-SCHOOL SHOPPING SPREE – August 7

- Created a back-to-school shopping experience for 430 Everett children



CARE PACKS – August 9

- Packed 400 care packages for Summer Search and Beacon Academy students



HAPPY HOPE FOUNDATION – August 20

- Decorated outpatient kits for 200 hospitalized children



COMMUNITY INVESTMENT HIGHLIGHTS

Encore Boston Harbor is proud to share our commitment in local communities.



Finalist - Massachusetts Economic Impact Awards



Donated **\$2.3M in 2019** to local charitable organizations



Raised **\$669,018** during Casino Preview Events to support six local nonprofits



2,400+ Employee Volunteer Hours YTD



QUESTIONS



Encore Boston Harbor

Monitoring of Project Construction and Licensee Requirements 205 CMR 135

Quarterly Report Massachusetts Gaming Commission as of June 30, 2019



Monitoring of Project Construction and Licensee Requirements

Quarterly Report as of June 30, 2019

1.0 Project at a Glance

The Encore Boston Harbor (the “Project”) is an approximately \$2.6 billion luxury resort that transformed a blighted section of the City of Everett, Massachusetts adjacent to the Mystic River, into a world-class destination. The Project contributed hundreds of millions of dollars, including tens of millions of dollars in infrastructure contributions to the City of Everett, the region, and the Commonwealth of Massachusetts. The Project is located on the site of a former chemical manufacturing plant totaling approximately 33.9 acres (the “Project Site”).



The Project is comprised of a luxury hotel with 671 rooms, a gaming area, retail space, food and beverage outlets, event and meeting space, a spa and gym, a parking garage, and other complementary amenities. The Project also includes extensive landscape and open space amenities including a public gathering area with an outdoor park-like open space, a pavilion, waterfront features, a public harborwalk, and water transportation docking facilities reconnecting the City of Everett to the Mystic River and Boston Harbor for the first time in generations.

The Project also includes off-site improvements including extensive transportation improvements and a multiuse path from the Project's harborwalk to the existing paths at the Massachusetts Department of Conservation and Recreation ("DCR") Gateway Park. The Project was developed in a single phase.

Wynn MA, LLC ("Wynn") received a conditional Category 1 gaming license for Region A (the "Gaming License") in November 2014. Since receiving the conditional Gaming License, Wynn made significant progress on community outreach, project entitlements, permitting, land acquisition, the design, construction, and completion of the Project.

In August 2015, Wynn selected Charter Contracting Company, LLC, a Massachusetts limited liability company, as its remediation contractor. Remediation of the landside portion of the Project Site commenced in October 2015, and final completion documentation was filed on August 4, 2016.

On July 15, 2015, Wynn filed its Second Supplemental Final Environmental Impact Report ("SSFEIR") to address the remaining three principal areas of study that were outlined in the Certificate of the Secretary of Energy and Environmental Affairs on Wynn's Supplemental Final Environmental Impact Report ("SFEIR") dated April 3, 2015. On August 28, 2015, Wynn received a Certificate of the Secretary of Energy and Environmental Affairs on its SSFEIR (the "Secretary's Certificate") concluding that Wynn's SSFEIR "adequately and properly complies" with the Massachusetts Environmental Policy Act ("MEPA").

In accordance with MEPA, following the receipt of its Secretary's Certificate, Wynn worked with various state agencies to obtain "Section 61 findings," a determination made by an agency of the Commonwealth describing the environmental impact, if any, of the Project and a finding that all feasible measures have been taken to avoid or minimize said impact. Wynn received its Section 61 findings from the following agencies on the dates set forth below:

Massachusetts Water Resources Authority:	January 12, 2016
Massachusetts Port Authority:	January 21, 2016
Massachusetts Department of Transportation & Department of Conservation and Recreation:	April 5, 2016
Massachusetts Gaming Commission:	April 25, 2016 ¹

¹ The Massachusetts Gaming Commission approved a minor modification of the April 25, 2016 Section 61 findings effective July 13, 2017, and a second amended Section 61 findings effective May 29 2019.

On August 24, 2015, Wynn filed its Chapter 91 License Application for the Project with the Massachusetts Department of Environmental Protection (“MassDEP”) to obtain license authorization for the development of a portion of the Project on private filled and flowed tidelands. MassDEP issued the Chapter 91 License on August 3, 2016.

On February 28, 2017, Wynn filed a Notice of Project Change (“NPC”) identifying changes to programming and design refinements for the Project and including a sediment remediation plan for a portion of the Project Site and an adjacent area of the Mystic River.

On May 31, 2019, Wynn received a temporary certificate of occupancy from the City of Everett. On June 21, 2019, the Massachusetts Gaming Commission issued a conditional Operation Certificate to Wynn in accordance with 205 CMR 151.01(1) enabling the commencement of operations on June 23, 2019, and on June 27, 2019, the Massachusetts Gaming Commission issued Wynn a permanent Operations Certificate. On June 23, 2019, the Project opened to the public under the name, “Encore Boston Harbor.”

2.0 Cost of Construction and Capitalization of Gaming Licensee

Pursuant to 205 CMR 135.02(5)(a) and (b), please see Appendix 1 for a sworn certification regarding (a) the total estimated cost of construction of the Project and related infrastructure improvements and (b) the capitalization of the Wynn for the quarter ending June 30, 2019. During the quarter ending June 30, 2019, Wynn Resorts, Limited filed its certified financial statements with the Securities and Exchange Commission as part of its 10-K annual report. Included in Appendix 1 are the Consolidated Balance Sheets, Consolidated Statements of Income, Consolidated Statements of Comprehensive Income, Consolidated Statements of Stockholders’ Equity, and Consolidated Statements of Cash Flows from the 10-K filing. The complete annual 10-K report can be accessed at: <https://wynnresortslimited.gcs-web.com/node/15906/html>.

3.0 Design and Construction Contracts

Pursuant to 205 CMR 135.02(5)(c), please see Appendix 2 for a list of all design and construction contracts executed for the quarter ending June 30, 2019 to design and construct the gaming establishment and related infrastructure improvements.

4.0 Progress of Construction

Pursuant to 205 CMR 135.02(5) (d), the following is a status report regarding the progress of the construction of the Project.

4.1 Federal Permits.

On May 18, 2017, Wynn filed a Permit Modification Request with the US Army Corps of Engineers to modify the permit previously issued for the Project to include (i) accessibility improvements for the floating dock system, (ii) installation of three piles to protect an outfall, and (iii) remedial activities including the removal of derelict barges, debris removal, and additional dredging and filling in the Mystic River. The permit modification was issued on August 31, 2017 and reissued on September 11, 2017. Another permit modification was received on June 25, 2018 to address erosion of a limited portion of the cap.

4.2 State Permits.

On July 15, 2015, Wynn filed its SSFEIR to address the remaining three principal areas of study that were outlined in the Certificate of the Secretary of Energy and Environmental Affairs on Wynn's SFEIR dated April 3, 2015. On August 28, 2015, Wynn received a Secretary's Certificate concluding that Wynn's SSFEIR "adequately and properly complies" with MEPA.

The Secretary's Certificate confirmed that Wynn's traffic analysis and mitigation plans are effective to mitigate the Project's impacts on existing transportation infrastructure. With respect to broader regional transportation impacts, the Secretary's Certificate required the establishment of a "Regional Working Group" to be led by MassDOT for the purpose of assessing and developing long-term transportation improvements that will support sustainable redevelopment and economic growth in and around Sullivan Square. Wynn committed to participating in this Regional Working Group and providing a proportionate share of funding to support this effort. Wynn has attended all monthly meetings of the Lower Mystic Regional Working Group ("LMRWG").

The Secretary's Certificate also required enhanced public review during permitting and development of Section 61 findings by MassDOT and the Massachusetts Gaming Commission ("MGC"). Following the receipt of the Secretary's Certificate, Wynn had productive meetings with each of the State Agencies with permitting authority over the Project for the purpose of preparing Section 61 findings to be issued by each such State Agency. Wynn received its Section 61 findings from the following agencies on the dates set forth below:

Massachusetts Water Resources Authority:	January 12, 2016
Massachusetts Port Authority:	January 21, 2016
Massachusetts Department of Transportation & Department of Conservation and Recreation:	April 5, 2016
Massachusetts Gaming Commission:	April 25, 2016 ²

On February 28, 2017, Wynn filed an NPC with MEPA. The primary purpose of the NPC was to describe the sediment remediation plans for a portion of the Project Site and an adjacent parcel located in the Mystic River. The NPC also described refinements to the program and interior layout of the building to reflect current market conditions as they have changed since prior MEPA filings. Program changes include a reduction in retail space, a reduction of hotel suites to provide for additional rooms, an increase in food and beverage space, the addition of a larger luxury ballroom space, and an increase in “back of house” support space. The NPC contained updated square footage for each of the Project components as they were further refined and finalized as part of the design process. Other minor changes that developed over the course of designing and preparing construction documents for the Project were also included in the NPC (e.g., minor adjustments to the elevation of the salt marsh to improve viability, minor changes to the docking and float systems to accommodate Americans with Disabilities Act (“ADA”) and other passenger needs, and a minor reduction in the navigational dredge footprint).

On August 24, 2015, Wynn filed its Chapter 91 License Application for the Project with the MassDEP to obtain license authorization for the development of a portion of the Project on private filled and flowed tidelands. Wynn received its “Written Determination” from MassDEP on January 22, 2016. On February 11, 2016, Mayor Joseph A. Curtatone, in his capacity as Mayor of the City of Somerville (“Somerville”), filed a “Notice of Claim” with the Executive Office of Energy and Environmental Affairs, Department of Environmental Protection, requesting an adjudicatory hearing with respect to the Written Determination. On February 18, 2016, the Office of Appeals and Dispute Resolution of MassDEP issued a Scheduling Order pursuant to which a hearing on Somerville’s appeal was set for June 2, 2016. As a direct result of this appeal, Wynn was unable to commence construction activities within those portions of the Project Site that are subject to Chapter 91.

² The Massachusetts Gaming Commission approved a minor modification of the April 25, 2016 Section 61 findings effective July 13, 2017, and a second amended Section 61 findings effective May 29 2019.

On June 2, 2016, Wynn, Somerville and the DEP participated in the adjudicatory hearing. On July 15, 2016, MassDEP's Office of Appeals and Dispute Resolution issued a "Recommended Final Decision" affirming Wynn's Written Determination, and MassDEP issued the Chapter 91 License on August 3, 2016.

On February 22, 2017, Wynn filed a request with MassDEP for a Minor Project Modification, pursuant to CMR 9.22(3), to modify the below-grade footprint of underground parking facility. The requested modifications included (i) decreasing the below-grade parking structure from three (3) levels to one (1) level under the peninsular portion of the building footprint, (ii) a setback of the below-grade parking structure footprint under the main entrance, and (iii) increasing the below-grade parking structure from three (3) levels to four (4) levels under the remaining portion of the main building footprint. None of the foregoing modifications extended the below-grade building footprint, increased the total number of parking spaces, or changed any previously authorized uses. On February 28, 2017, MassDEP determined that the proposed modifications comply with the minor project modification provisions set forth in 310 CMR 9.22(3)(a) and that the submission of a Chapter 91 Waterways License Application was not required for such modifications.

On March 16, 2017, Wynn filed a request with MassDEP for a second Minor Project Modification, pursuant to CMR 9.22(3), to (1) reduce the living shoreline elevation, (2) increase the total number of hotel rooms from 629 to 671, (3) modify the docking facility of the Project to accommodate an improved accessible ramping system, (4) install three fender piles to protect an outfall structure, and (5) in response to market conditions, change the size and location of some first floor uses. On March 29, 2017, the DEP determined that the proposed modifications (1) through (4) above comply with the minor project modification provisions set forth in 310 CMR 9.22(3)(a) and that the proposed modification (5) complies with 310 CMR 9.22(3)(b). Therefore, DEP determined that the submission of a Chapter 91 Waterways License Application was not required for such modifications.

On May 12, 2017, Wynn filed a Chapter 91 License and Water Quality Certification Application with MassDEP for the removal of deteriorated barges and sediment remediation in a portion of the Mystic River located in the Cities of Boston and Everett. MassDEP issued a Water Quality Certification on August 25, 2017, which came into effect on September 15, 2017 after the three-week appeal period ended. A draft Chapter 91 License was issued on August 29, 2017. The final license was issued on September 25, 2017 following the expiration of the appeal period. On June 18, 2018, the Department approved an amendment to address erosion of a limited area of the sediment remediation cap. On May 24, 2018, Wynn filed a

Minor Project Modification for the sediment remediation Chapter 91 License to address the limited cap erosion, the request was presumptively approved following a thirty (30) day review period. Wynn received a Certificate of Compliance on May 10, 2019.

On May 22, 2017, Wynn submitted a request for an amendment to its combined 401 Water Quality Certification with MassDEP to conduct remediation activities at an area of the proposed living shore line where seepage of discolored water was observed. On June 29, 2017, MassDEP approved the amendment.

On June 21, 2017, Wynn filed a combined Phase III Remedial Action Plan and Phase IV Remedy Implementation Plan with MassDEP for the sediment portion of the Project Site. The purpose of the Phase III Remedial Action Plan was to establish remedial objectives, identify and evaluate remedial action technologies, formulate and evaluate remedial action alternatives, and select a remedial action alternative for the sediment portion of the Project Site that will result in a Permanent Solution. The Phase IV Remedy Action Plan addresses the design, construction, and implementation of the “Comprehensive Remedial Action” to be implemented for the sediment portion of the Disposal Site. A public meeting was held on June 29, 2017 and the public comment period ended July 11, 2017 in accordance with the Public Involvement Plan (“PIP”) process. On December 6, 2018 Wynn filed the Phase IV As-Built Construction and Final Inspection Report, Partial Permanent Solution Statement, and two Activity Use Limitations (“AULs”) as part of the sediment remediation closure documents. A public meeting was held on December 17, 2018 and the public comment period ended on January 9, 2019. No comments were received and the final Phase IV As-Built Construction and Final Inspection Report, Partial Permanent Solution Statement, and two AULs for the sediment remediation were submitted in February 2019.

A MassDOT/DCR Access Permit for transportation and pedestrian improvements work on Route 16 in Everett, Medford, and Revere, was received on October 31, 2017. MWRA 8(m) permits were also granted for the transportation improvements projects in Sullivan Square on November 8, 2017, and on Route 16 and Broadway/Alford Street on November 28, 2017, respectively.

On March 16, 2018, Wynn filed a request with MassDEP for a third Minor Project Modification, pursuant to CMR 9.22(3), to (1) add additional open space between Alford Street and the Project with landscaping and other improvements and (2) add additional open space west of the Project’s service road for temporary and emergency access purposes. On April 2, 2018, MassDEP sent a Decision on Request for Third Minor Project Modification

asking for additional documentation to allow for the additional parcels to be added to the License. Wynn responded to DEP's Decision on June 15, 2018.

On April 23, 2018, Wynn filed a Chapter 91 License Application for Phase 1 of the DCR Harborwalk Connector project (as defined below). DEP issued the Chapter 91 License on September 21, 2018.

On April 30, 2018 an application for Site Plan review and approval was submitted to Boston Water & Sewer Commission ("BWSC") for pedestrian and landscape improvements on Alford Street. BWSC approved the Site Plan on July 18, 2018.

4.3 Local Permits.

On May 11, 2015, Wynn submitted its Form 19A Site Plan Review Application to the Everett Planning Board. The City of Everett engaged outside consultants, LDD Collaborative, Inc. and TranSystems, to provide Site Plan Review services for the Project. On July 13, 2015, Wynn presented its Site Plan Review Application at the Everett Planning Board public meeting and advised the Everett Planning Board that it would be modifying its application to address comments raised by the City of Everett's outside consultants. On August 24, 2015, Wynn presented its modified application to the Everett Planning Board and the Everett Planning Board heard public comments. On September 16, 2015, the Everett Planning Board concluded the public hearing and unanimously approved the application.

The Application Site Plan Review and Special Permit for the Project's service road was submitted to the City of Everett Planning Board for review in January 2016. On May 5, 2016, the Everett Planning Board issued the Site Plan Approval for the Project's service road.

On August 11, 2015, Wynn submitted its Notice of Intent for the Project to the City of Everett Conservation Commission in order to obtain approval under the Massachusetts Wetland Protection Act for work within wetlands resource areas and buffer zones. The Everett Conservation Commission held an initial public meeting on August 20, 2015. On September 17, 2015, the Everett Conservation Commission held another public meeting and voted unanimously to approve Wynn's Notice of Intent. The Everett Conservation Commission issued its Order of Conditions with respect to the Project on September 24, 2015.

On May 31, 2017, Wynn filed an application for an amendment to the Everett Conservation Commission Order of Conditions. The purpose of the amendment was to include accessibility improvements for the floating dock system and installation of three piles to protect an outfall.

The revised Order of Conditions was issued on July 13, 2017. On June 11, 2018 Wynn filed an application for an amendment to the Everett Order of Conditions for minor landscaping and grading revisions in the southeast portion of the Project Site adjacent to the City of Boston and a request to extend the Order of Conditions. Both the amended Order of Conditions and Extension were issued on June 21, 2018.

On May 3, 2017, Wynn filed a Notice of Intent with the City of Boston for sediment remediation within the portion of the cove located within the City of Boston. The City of Boston issued an Order of Conditions on June 13, 2017 and the Certificate of Compliance was received on July 18, 2018. On May 4, 2017, Wynn filed a Notice of Intent with the City of Everett for sediment remediation within the portion of the cove located within the City of Everett. The City of Everett issued an Order of Conditions on June 15, 2017 and an Amended Order of Conditions to address erosion due to a shoreline seep on May 7, 2018. Wynn received the Certificate of Compliance on November 15, 2018.

On October 19, 2017, Wynn received a Roadway Construction Approval from the City of Everett for the roadway improvements on Broadway and Alford Streets.

On April 18, 2018, a Notice of Intent was filed with the City of Boston for pedestrian and landscape improvements. An Order of Conditions was issued on May 16, 2018.

On May 3, 2018, a Notice of Intent was filed with the City of Everett for Phase 1 of the DCR Harborwalk Connector. An Order of Conditions was issued on May 17, 2018.

On July 27, 2018, a Notice of Intent was filed with the City of Everett for Phase 2 of the DCR Harborwalk Connector. An Order of Conditions was issued on August 16, 2018.

On May 31, 2019, the City of Everett issued Wynn a temporary certificate of occupancy for the Project.

Pursuant to 205 CMR 135.02(6), please see [Appendix 3](#) for an updated permits chart and all documents and information listed in 205 CMR 120.01: *Permitting Requirements*.

4.4 Site Remediation.

Prior to the commencement of the remediation, Wynn completed field investigation including nearly 2,000 samples landside and in the river, and significant laboratory analysis of the samples. On April 8, 2015, Wynn received a petition from residents of the City of Everett

requesting that the disposal site be designated as a PIP site in accordance with Massachusetts General Laws (MGL) c. 21E §14(a). This law requires that, upon receiving such a petition, a plan for involving the public in decisions regarding response actions must be prepared and a public meeting held to present the proposed plan. The disposal site was designated as a PIP site on April 28, 2015. The PIP process was used to educate the public on the remediation process and provide a forum for addressing any comments. The PIP process will continue through the completion of the construction related remediation activities.

Wynn and GZA GeoEnvironmental, Inc., the Licensed Site Professional (“LSP”) for the Project Site, presented the draft PIP plan at a public meeting on June 2, 2015 at Everett City Hall. In addition, the draft Release Abatement Measure (“RAM”) plan was also presented at the meeting. The comment period for the PIP plan was scheduled to end on June 22, 2015, but was extended by Wynn at the request of the petitioners for an additional 21 days to July 13, 2015. In addition, the comment period for the draft RAM plan was extended an additional 30 days to July 22, 2015.

On August 19, 2015, the RAM plan for the landside remediation (known as Phase 1) was submitted to the MassDEP and all petitioners were notified accordingly.

Pursuant to the RAM Plan, Wynn held public meetings in Everett and Charlestown on October 15 and 16, 2015, respectively, for the purpose of informing the public regarding the remediation prior to commencement. Remediation of the Project Site began following such meetings. Weekly updates on the remediation were posted on Wynn’s website (www.encorebostonharbor.com). The perimeter air-monitoring system was operational throughout the remediation and no alarm conditions attributable to the RAM work were recorded.

Phase 1 remediation of the Project Site was completed in the second quarter of 2016. A total of approximately 10,680 tons of contaminated soil was transported off-site for proper disposal during Phase 1. The soil was transported in lined trailers that were cleaned prior to leaving the Project Site. The Draft Phase I RAM Completion Report and Immediate Response Action Report was submitted on August 4, 2016. A public meeting on the Phase I RAM Completion Report was held on September 7, 2016. The public comment period ended September 27, 2016, and no comments were received.

A separate RAM Plan was prepared to address construction-related RAM activities. Response actions to be conducted under this RAM Plan included the excavation of contaminated soil, the dredging of contaminated sediment, and the placement of clean fill materials at the

properties identified in the RAM Plan. On February 17, 2016, a public meeting on the construction-related RAM Plan was held at the Everett City Hall. The public comment period for the construction-related RAM Plan ended on March 9, 2016. No comments were received. On May 2, 2016 the construction-related RAM Plan and a Final Revised Public Involvement Plan was filed. On August 30, 2016, constructed-related RAM Status Report No. 1 was filed. On October 28, 2016 and November 16, 2016, RAM Modifications were filed with MassDEP to address the detection of asbestos in soil associated with demolition debris. On February 2, 2017, a RAM Modification was filed with MassDEP to revise perimeter and interior air sampling for airborne fibers. On November 1, 2017, a RAM Modification was filed with DEP to document the engineering controls including clean cover materials, marker layers, and hardscape materials that will be installed as part of the final grading activities and the planned reduction in the number of active perimeter air monitoring stations.

Wynn undertook a project to dredge and cap approximately seven acres of the Mystic River within and immediately adjacent to the Project Site. The intent of the dredging was to (1) remove and replace contaminated sediments that reside on the bottom of the river as a result of decades of industrial use of the surrounding land, and (2) to restore the depth of the navigable channel to allow for safe and efficient access to the Project Site by various size passenger craft. Orders of Conditions were issued from the Boston and Everett Conservation Commissions on June 14, 2017 and June 15, 2017, respectively. For the sediment remediation, DEP issued a Water Quality Certification (“WQC”) on August 25, 2017 and Chapter 91 license on September 25, 2017 and U.S. Army Corps of Engineers modified the resort permit to allow for the sediment remediation on September 11, 2017. Dredging began in October 2017. Fish migration in the river restricts dredging activities to an annual window of October to February. Time of Year waivers, issued by the USACE and DEP, allowed for capping operations to continue until March 23, 2018. The Sediment Remediation project was substantially complete as of March 31, 2018 and a Partial Permanent Solution with Conditions was filed in November 2018.

4.5 Offsite Infrastructure.

As described above, the Secretary’s Certificate confirmed that Wynn’s traffic analysis and mitigation plans are effective to mitigate the Project’s impacts on existing transportation infrastructure. In light of this positive response, an RFP was issued on June 26, 2015 to select a design and permitting team to deliver the offsite roadway and transit station improvements. In November 2015, Wynn entered into an agreement with AECOM USA of America, a Massachusetts corporation (“AECOM”), to provide civil and geotechnical engineering and construction oversight services for off-site infrastructure related to the

Project. During first quarter 2016, AECOM completed the applicable Roadway Safety Audits and continued with site surveys and concept design. During the second quarter 2016, site surveys were completed as well as the development of the 25% design plans and functional design reports. On April 26, 2016, Wynn and AECOM staff met with MassDOT, MBTA and DCR transportation officials to discuss the projects and schedule.

On June 14, 2016, the 25% design plans and functional design reports were submitted to the City of Everett and their peer review consultant, Weston & Sampson, at a design briefing meeting. The 25% design plans and functional design reports were submitted for review to MassDOT at a design briefing meeting held on June 24, 2016. MassDOT and the City of Everett both submitted comments in the third quarter 2016. Coordination with the Massachusetts Central Transportation Planning staff continued regarding the progression of the 25% design. Work continued on further developing the design documents to the 75%/100% stage and submittals were made to MassDOT as well as the Cities of Everett, Medford, Boston, and Chelsea for the Route 16 Roadway improvement projects that included Wellington, Sweetser, and Santilli Circles, as well as Broadway and the proposed truck route.

Howard/Stein-Hudson Associates, Inc. was Wynn's designer for the Sullivan Square improvements. During the first quarter of 2017, the MBTA contracted with Urban Idea Lab to conduct a peer review of the current design alternatives and coordination continued with the MBTA on advancing the Sullivan Square station design. Wynn filed 25% design documents for the roadway and station improvements with the City, MBTA, MassDOT, and Massport in April 2017. On March 22, 2017, Wynn filed a Notice of Intent ("NOI") application with the City of Boston Conservation Commission for its proposed improvements to the Sullivan Square Rotary and its approaches.

The offsite transportation improvements were fully designed with comments from agency reviews incorporated. There were four separate bid packages, known as Construction Packages 1-4, generally organized by Broadway (CP #1), Revere Beach Parkway (CP #2), Wellington and Malden Center Train Stations (CP #3), and Sullivan Square, including the MBTA station (CP #4). Contracts were awarded for all Construction Packages and all contracts were scheduled for completion in January 2019, with the majority of work being performed in the spring, summer, and fall of 2018. However, due to a number of third-party utility delays and inclement weather, the completion dates were extended to late May for CP #1, CP #2, and CP #4. Construction was undertaken in close coordination with the Cities of Everett, Boston, and Medford, as well as numerous state agencies to reduce the impact of the work on commuters. In addition, Wynn developed and implemented a communication plan to alert drivers of upcoming work or real time problems through social media, variable message signs, and press engagement.

The Off-site roadway improvement work commenced in November, 2017 and all offsite improvements were completed and operable prior to the opening of the Project on June 23, 2019.

In addition to the foregoing mitigation improvements, in accordance with Wynn's Section 61 findings, Wynn was an active participant in the LMRWG. The LMRWG was convened by MassDOT to assess and develop short and long-range transportation improvements that can support sustainable redevelopment and economic growth for the Lower Mystic River area. MassDOT has engaged the services of staff from the Boston Region Metropolitan Planning Organization – including from the Metropolitan Area Planning Council (“MAPC”) and from the Central Transportation Planning Staff – to provide technical assistance and study support.

The Working Group was chaired by the Secretary of Transportation, and consisted of elected officials and staff of the three Cities of Boston, Everett and Somerville as well as MAPC. Representatives from the Executive Office of Housing and Economic Development, the Attorney General's Office of Massachusetts, the Massachusetts Gaming Commission, former Congressman Capuano's office, the Massachusetts Port Authority, and Wynn were also participants of the LMRWG.

The Working Group released its report on March 14, 2019.

4.6 Design.

Construction Drawings (dated September 16, 2016) were issued on September 30, 2016. The hotel tower, podium, site, and interiors were reviewed by the City of Everett and a Building Permit was issued on December 15, 2016. Project design is complete, including a redesign of the meeting and event space area and food and beverage modifications as outlined in the NPC. Drawings for these areas were issued in July 2017.

4.7 Construction Services.

On January 8, 2016, Wynn entered into an Agreement for Guaranteed Maximum Price Construction Services with Suffolk Construction Company, Inc. (“Suffolk”). Following the receipt of Wynn's Chapter 91 License, construction activities were commenced on all portions of the Project Site. Wynn finalized Suffolk's Guaranteed Maximum Price on April 28, 2017. All aspects of the construction were completed prior to opening on June 23, 2019.

4.8 Service Road.

The service road and utilities drawings were prepared and issued on March 31, 2016. Bids were received in early May to allow early construction of this critical work. On May 25, 2016, J. Derenzo Co. was awarded the Service Road and Utility Relocation contract. The road has been open for public use since Fall 2016. The road is now completed and fully operational.

4.9 DCR Harborwalk Connector.

The DCR Harborwalk Connector project will connect the existing paths at the Massachusetts Department of Conservation and Recreation (“DCR”) Gateway Park to the Encore Boston Harbor harborwalk. The design of the DCR Harborwalk Connector is complete. Construction commenced in September and was completed prior to opening on June 23, 2019.

4.10 Owner Controlled Insurance Program (“OCIP”).

Wynn, in conjunction with Willis Towers Watson, initiated an Owner Controlled Insurance Program for the Project. The Worker’s Compensation and General Liability insurance programs were implemented on July 1, 2016 and Builder’s Risk was implemented on August 15, 2016.

4.11 Project Labor Agreement.

Following the engagement of Suffolk, Wynn and Suffolk re-engaged in discussions with local labor leaders and finalized the draft Project Labor Agreement for the Project. The Project Labor Agreement was executed on May 5, 2016.

4.12 Construction Management Plan.

Howard/Stein-Hudson Associates, Inc. prepared a Construction Management Plan (“CMP”) for the purpose of mitigating any adverse impacts to the host and surrounding communities. The CMP was submitted to the City of Everett on April 21, 2016.

5.0 Project Schedule

5.1 Six Month Look Ahead

The 6-month look ahead schedule is attached hereto as Appendix 4.

5.2 *Project Master Schedule*

The development of the Master Schedule has evolved from a high level schedule to a more detailed schedule. This coincides with the contractor's efforts to increase the detail level of their schedule by working with the subcontractors as they are selected for the Project.

6.0 **Project Resources/Diversity**

Pursuant to 205 CMR 135.02(5)(f), please see Appendix 5 for a report describing the number of contracts, total dollars amounts contracted with and actually paid to minority business enterprises, women business enterprises and veteran business enterprises for design and construction of the Project and related infrastructure, and the total number and value of all subcontracts awarded to a minority, women and veteran owned business, and a comparison of these reports with the goals established by Wynn as approved by the MGC.



July 26, 2019

Massachusetts Gaming Commission
101 Federal St., 12th
Boston, MA 02110

Dear Commissioners:

In accordance with 205 CMR 135.02(5)(a), please see below for the total estimated cost of construction of the project and related infrastructure improvements and the costs incurred as of September 30, 2018, calculated pursuant to 205 CMR 122.03: *Costs Included in the Calculation of Capital Investment*, and separately identifying detailed costs for design, land acquisition, site preparation and construction and off-site improvements:

MGC Quarterly Report

Appendix 1

(US\$ thousands)

Component	Cost Incurred	Estimated	Total
	06/30/2019	Remaining Cost	Estimated Cost
Construction / on-site Development	\$ 1,619,759	\$ 103,829	\$ 1,723,588
Design and engineering	115,583	968	116,551
Site preparation	44,931	(3,094)	41,837
Off-site improvements	42,000	11,748	53,748
Land acquisition	68,667	(2,458)	66,209
Pre-opening	146,972	(1,451)	145,521
Owner FF&E	133,745	31,887	165,632
Total	\$ 2,171,657	\$ 141,429	\$ 2,313,086

In addition, in accordance with 205 CMR 135.02(5)(b), I direct you to the financial statements of Wynn Resorts, Limited (NASDAQ: WYNN), the parent of Wynn MA, LLC (the "Licensee"), including Wynn Resorts' Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, filed with the Securities and Exchange Commission (the "SEC") on November 7, 2018, which is available at www.sec.gov. As reflected in these financial statements, Licensee has sufficient financial resources in order to meet all expected financial obligations relating to the completion of the Project and related infrastructure improvements associated with the Project.

I, Frank Cassella, hereby certify to my knowledge and in my capacity as Chief Financial Officer of Wynn MA, LLC, as to the material veracity of the foregoing.

Sincerely,

A handwritten signature in black ink, appearing to read 'Frank Cassella', written in a cursive style.

Frank Cassella
Chief Financial Officer

WYNN RESORTS, LIMITED AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(in thousands, except share data)

	December 31,	
	2018	2017
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 2,215,001	\$ 2,804,474
Investment securities	—	166,773
Receivables, net	276,644	224,128
Inventories	66,627	71,636
Prepaid expenses and other	83,104	156,773
Total current assets	2,641,376	3,423,784
Property and equipment, net	9,385,920	8,498,756
Restricted cash	4,322	2,160
Investment securities	—	160,682
Intangible assets, net	222,506	123,705
Deferred income taxes, net	736,452	240,533
Other assets	225,693	232,119
Total assets	\$ 13,216,269	\$ 12,681,739
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts and construction payables	\$ 321,796	\$ 285,437
Customer deposits	955,450	1,049,629
Gaming taxes payable	247,341	211,600
Accrued compensation and benefits	163,966	140,450
Accrued interest	61,595	94,695
Current portion of long-term debt	11,960	62,690
Other accrued liabilities	119,955	85,789
Total current liabilities	1,882,063	1,930,290
Long-term debt	9,411,140	9,565,936
Other long-term liabilities	108,277	107,163
Total liabilities	11,401,480	11,603,389
Commitments and contingencies (Note 15)		
Stockholders' equity:		
Preferred stock, par value \$0.01; 40,000,000 shares authorized; zero shares issued and outstanding	—	—
Common stock, par value \$0.01; 400,000,000 shares authorized; 122,115,585 and 116,391,753 shares issued; 107,232,026 and 103,005,866 shares outstanding, respectively	1,221	1,164
Treasury stock, at cost; 14,883,559 and 13,385,887 shares, respectively	(1,344,012)	(1,184,468)
Additional paid-in capital	2,457,079	1,497,928
Accumulated other comprehensive loss	(1,950)	(1,845)
Retained earnings	921,785	635,067
Total Wynn Resorts, Limited stockholders' equity	2,034,123	947,846
Noncontrolling interests	(219,334)	130,504
Total stockholders' equity	1,814,789	1,078,350
Total liabilities and stockholders' equity	\$ 13,216,269	\$ 12,681,739

The accompanying notes are an integral part of these consolidated financial statements.

WYNN RESORTS, LIMITED AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME
(in thousands, except per share data)

	Years Ended December 31,		
	2018	2017	2016
		(as adjusted)	(as adjusted)
Operating revenues:			
Casino	\$ 4,784,990	\$ 4,244,303	\$ 2,750,890
Rooms	751,800	670,957	595,610
Food and beverage	754,128	732,115	635,411
Entertainment, retail and other	426,742	422,785	363,886
Total operating revenues	6,717,660	6,070,160	4,345,797
Operating expenses:			
Casino	3,036,907	2,718,120	1,768,320
Rooms	254,549	244,828	206,848
Food and beverage	611,706	567,690	499,202
Entertainment, retail and other	183,113	196,547	179,150
General and administrative	761,415	685,485	548,143
Litigation settlement	463,557	—	—
Provision (benefit) for doubtful accounts	6,527	(6,711)	8,203
Pre-opening	53,490	26,692	154,717
Depreciation and amortization	550,596	552,368	404,730
Property charges and other	60,256	29,576	54,822
Total operating expenses	5,982,116	5,014,595	3,824,135
Operating income	735,544	1,055,565	521,662
Other income (expense):			
Interest income	29,866	31,193	13,536
Interest expense, net of amounts capitalized	(381,849)	(388,664)	(289,365)
Change in derivatives fair value	(4,520)	(1,056)	433
Change in Redemption Note fair value	(69,331)	(59,700)	65,043
Gain (loss) on extinguishment of debt	104	(55,360)	—
Other	(4,074)	(21,709)	(712)
Other income (expense), net	(429,804)	(495,296)	(211,065)
Income before income taxes	305,740	560,269	310,597
Benefit (provision) for income taxes	497,344	328,985	(8,128)
Net income	803,084	889,254	302,469
Less: net income attributable to noncontrolling interests	(230,654)	(142,073)	(60,494)
Net income attributable to Wynn Resorts, Limited	\$ 572,430	\$ 747,181	\$ 241,975
Basic and diluted income per common share:			
Net income attributable to Wynn Resorts, Limited:			
Basic	\$ 5.37	\$ 7.32	\$ 2.39
Diluted	\$ 5.35	\$ 7.28	\$ 2.38
Weighted average common shares outstanding:			
Basic	106,529	102,071	101,445
Diluted	107,032	102,598	101,855

The accompanying notes are an integral part of these consolidated financial statements.

WYNN RESORTS, LIMITED AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(in thousands)

	Years Ended December 31,		
	2018	2017	2016
Net income	\$ 803,084	\$ 889,254	\$ 302,469
Other comprehensive income (loss):			
Foreign currency translation adjustments, before and after tax	(1,936)	(3,832)	(180)
Change in net unrealized loss (gain) on investment securities, before and after tax	1,292	(563)	522
Redemption Note credit risk adjustment, net of tax of \$2,735	9,211	—	—
Total comprehensive income	811,651	884,859	302,811
Less: comprehensive income attributable to noncontrolling interests	(230,115)	(141,007)	(60,444)
Comprehensive income attributable to Wynn Resorts, Limited	\$ 581,536	\$ 743,852	\$ 242,367

The accompanying notes are an integral part of these consolidated financial statements.

WYNN RESORTS, LIMITED AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in thousands, except share data)

	<u>Common stock</u>				Accumulated other comprehensive income (loss)	Retained earnings	Total Wynn Resorts, Limited stockholders' equity (deficit)	Noncontrolling interests	Total stockholders' equity
	Shares outstanding	Par value	Treasury stock	Additional paid-in capital					
Balances, January 1, 2016	101,571,909	\$ 1,146	\$ (1,152,680)	\$ 983,131	\$ 1,092	\$ 55,332	\$ (111,979)	\$ 133,824	\$ 21,845
Net income	—	—	—	—	—	241,975	241,975	60,494	302,469
Currency translation adjustment	—	—	—	—	(130)	—	(130)	(50)	(180)
Change in net unrealized gain on investment securities	—	—	—	—	522	—	522	—	522
Exercise of stock options	74,000	1	—	3,486	—	—	3,487	—	3,487
Issuance of restricted stock	412,504	4	—	(4)	—	—	—	—	—
Cancellation of restricted stock	(60,000)	(1)	—	1	—	—	—	—	—
Shares repurchased by the company and held as treasury shares	(198,942)	—	(14,017)	—	—	—	(14,017)	—	(14,017)
Shares of subsidiary purchased for share award plan	—	—	—	(5,471)	—	—	(5,471)	(2,109)	(7,580)
Sale of ownership interest in subsidiary, net of income tax of \$49.8 million	—	—	—	224,013	—	—	224,013	15,890	239,903
Cash dividends declared	—	—	—	—	—	(202,210)	(202,210)	(111,716)	(313,926)
Distributions to noncontrolling interest	—	—	—	—	—	—	—	(33)	(33)
Excess tax benefits from stock-based compensation	—	—	—	802	—	—	802	—	802
Stock-based compensation	—	—	—	20,957	—	—	20,957	3,632	24,589
Balances, December 31, 2016	101,799,471	1,150	(1,166,697)	1,226,915	1,484	95,097	157,949	99,932	257,881
Cumulative effect, change in accounting for stock-based compensation	—	—	—	2,807	—	(2,696)	111	—	111
Net income	—	—	—	—	—	747,181	747,181	142,073	889,254
Currency translation adjustment	—	—	—	—	(2,766)	—	(2,766)	(1,066)	(3,832)
Change in net unrealized loss on investment securities	—	—	—	—	(563)	—	(563)	—	(563)
Exercise of stock options	661,800	7	—	61,988	—	—	61,995	214	62,209
Issuance of restricted stock	706,341	7	—	18,565	—	—	18,572	653	19,225
Cancellation of restricted stock	(13,333)	—	—	—	—	—	—	—	—
Shares repurchased by the company and held as treasury shares	(148,413)	—	(17,771)	—	—	—	(17,771)	—	(17,771)
Shares of subsidiary repurchased for share award plan	—	—	—	(283)	—	—	(283)	(109)	(392)
Sale of ownership interest in subsidiary, net of income tax of \$17.8 million	—	—	—	149,259	—	—	149,259	13,238	162,497
Cash dividends declared	—	—	—	—	—	(204,515)	(204,515)	(116,568)	(321,083)
Distributions to noncontrolling interest	—	—	—	—	—	—	—	(11,436)	(11,436)
Stock-based compensation	—	—	—	38,677	—	—	38,677	3,573	42,250
Balances, December 31, 2017	103,005,866	1,164	(1,184,468)	1,497,928	(1,845)	635,067	947,846	130,504	1,078,350
Cumulative effect, change in accounting for credit risk, net of tax of \$2,735	—	—	—	—	(9,211)	9,211	—	—	—
Net income	—	—	—	—	—	572,430	572,430	230,654	803,084
Currency translation adjustment	—	—	—	—	(1,397)	—	(1,397)	(539)	(1,936)
Change in net unrealized loss on investment securities	—	—	—	—	1,292	—	1,292	—	1,292
Redemption Note settlement	—	—	—	—	9,211	—	9,211	—	9,211
Exercise of stock options	261,470	2	—	21,463	—	—	21,465	506	21,971
Issuance of common stock	5,300,000	53	—	915,187	—	—	915,240	—	915,240
Issuance of restricted stock	288,270	3	—	1,295	—	—	1,298	501	1,799
Cancellation of restricted stock	(125,908)	(1)	—	1	—	—	—	—	—
Shares repurchased by the Company and held as treasury shares	(1,497,672)	—	(159,544)	—	—	—	(159,544)	—	(159,544)
Shares of subsidiary repurchased for share award plan	—	—	—	(4,497)	—	—	(4,497)	(1,735)	(6,232)
Cash dividends declared	—	—	—	—	—	(294,923)	(294,923)	(276,528)	(571,451)
Distributions to noncontrolling interest	—	—	—	—	—	—	—	(305,372)	(305,372)
Stock-based compensation	—	—	—	25,702	—	—	25,702	2,675	28,377
Balances, December 31, 2018	107,232,026	\$ 1,221	\$ (1,344,012)	\$ 2,457,079	\$ (1,950)	\$ 921,785	\$ 2,034,123	\$ (219,334)	\$ 1,814,789

The accompanying notes are an integral part of these consolidated financial statements.

WYNN RESORTS, LIMITED AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Years Ended December 31,		
	2018	2017	2016
		(as adjusted)	(as adjusted)
Cash flows from operating activities:			
Net income	\$ 803,084	\$ 889,254	\$ 302,469
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	550,596	552,368	404,730
Deferred income taxes	(498,654)	(310,854)	6,356
Change in Redemption Note fair value	69,331	59,700	(65,043)
Property charges and other	56,974	44,004	42,670
Amortization of debt issuance costs	36,917	25,013	24,326
Stock-based compensation expense	35,040	43,971	43,722
Provision (benefit) for doubtful accounts	6,527	(6,711)	8,203
Change in derivatives fair value	4,520	1,056	(433)
Loss on extinguishment of debt	4,391	55,360	—
Excess tax benefits from stock-based compensation	—	—	(742)
Increase (decrease) in cash from changes in:			
Receivables, net	(59,157)	829	(39,272)
Inventories and prepaid expenses and other	(5,212)	(4,372)	(36,642)
Customer deposits	(92,395)	456,005	163,217
Accounts payable and accrued expenses	49,527	70,954	116,985
Net cash provided by operating activities	961,489	1,876,577	970,546
Cash flows from investing activities:			
Capital expenditures, net of construction payables and retention	(1,475,972)	(935,474)	(1,225,943)
Purchase of intangible and other assets	(126,414)	(13,571)	(14,985)
Proceeds from sale of assets	54,213	20,374	3,872
Proceeds from the sale or maturity of investment securities	359,461	200,366	144,829
Purchase of investment securities	(34,098)	(229,328)	(196,750)
Return of investment in unconsolidated affiliates	—	—	727
Net cash used in investing activities	(1,222,810)	(957,633)	(1,288,250)
Cash flows from financing activities:			
Repayments of long-term debt	(3,032,267)	(2,959,843)	(400,707)
Proceeds from issuance of long-term debt	2,788,925	2,429,988	1,430,313
Payments for financing costs	(48,297)	(91,174)	(5,381)
Payment to acquire derivatives	(3,900)	—	—
Proceeds from issuance of common stock, net of issuance costs	915,240	—	—
Dividends paid	(569,781)	(320,760)	(325,217)
Distribution to noncontrolling interest	(305,372)	(11,436)	(33)
Repurchase of common stock	(159,544)	(17,771)	(14,017)
Proceeds from exercise of stock options	21,971	62,209	3,487
Shares of subsidiary repurchased for share award plan	(6,232)	(392)	(7,580)
Sale of ownership interest in subsidiaries	75,000	180,000	217,000
Income taxes paid from sale of ownership interest of subsidiary	—	(25,176)	—
Payments on long-term land concession obligation	—	—	(15,978)
Excess tax benefits from stock-based compensation	—	—	742
Net cash (used in) provided by financing activities	(324,257)	(754,355)	882,629
Effect of exchange rate on cash	(1,733)	(3,900)	(1,129)
Cash, cash equivalents and restricted cash:			
Increase (decrease) in cash, cash equivalents and restricted cash	(587,311)	160,689	563,796
Balance, beginning of period	2,806,634	2,645,945	2,082,149
Balance, end of period	\$ 2,219,323	\$ 2,806,634	\$ 2,645,945
Supplemental cash flow disclosures			
Cash paid for interest, net of amounts capitalized	\$ 378,023	\$ 367,074	\$ 265,076

Cash paid for income taxes	\$	1,885	\$	37,089	\$	2,040
Property and equipment acquired under capital lease	\$	—	\$	16,593	\$	—
Stock-based compensation capitalized into construction	\$	11	\$	80	\$	92
Liability settled with shares of common stock	\$	1,800	\$	19,225	\$	—
Change in accounts and construction payables related to property and equipment	\$	35,934	\$	(35,447)	\$	(34,049)
Change in dividends payable on unvested restricted stock included in other accrued liabilities	\$	1,669	\$	323	\$	(11,291)
Note receivable acquired from sale of ownership interest in subsidiary	\$	—	\$	—	\$	72,464

The accompanying notes are an integral part of these consolidated financial statements.

Appendix 2

Design and Construction Contracts

As of June 30, 2019

Reference 205 CMR 135.02(5)(c)

Vendor/Contractor	Date	Services	MGC Status
AECOM	11/4/15	Civil and Geotechnical Eng. – Offsite Infrastructure	NGV092
	1/18/16	Design and Construction Phase Services – MBTA Everett Maintenance Facility	NGV092
	05/10/17	Concept Design – Mystic River Pedestrian Bridge	NGV092
	12/28/17	Bridge Design – Mystic River Pedestrian Bridge	NGV092
	04/26/18	Parking Design – Lower Broadway	NGV092
Aerotek Inc.	10/22/18	Design Consultant – QA/QC	NGV1900
AMEC Massachusetts Inc.	08/25/16	Peer Review – Supplemental Phase II Site Assessment	NGV952
	04/01/19	Environmental Permitting Services – Mystic River Pedestrian Bridge	NGV952
Alliance Detective & Security	12/31/15	Site Security	NGV326
Arup USA, Inc.	12/10/14	Fire Protection Consulting	NGV102
Balance Architects, Inc.	01/23/19	Architectural Design Services – EBH Daycare	NGV2220
Bard, Roa + Athanas Consulting Engineers, Inc.	08/31/16	Commissioning Services	NGV884
Boston Environmental Corp.	02/08/19	Soil Characterization and LSP Services – Community Parking Lot	XXXXX
Bohler Engineering MA, LLC	06/08/16	Engineering Services – Property Redevelopment - McDonalds	NGV845
Building Enclosure Associates, LLC	08/30/16	Building Enclosure – Commissioning Svcs.	NGV989
Bukhari Design Studio, LLC	7/15/15	Concept and Documentation Services – High Limit Gaming	NGV434
Cashman Dredging & Marine Contracting and Company, LLC	9/2/15	Site Clean-up/Fencing	NGV450
CE Power Engineered Services, LLC	01/31/19	Engineering Review of Electrical Distribution – Battery Farm	NGV2056
Charter Contracting Company	11/10/15	Site Remediation Services	NGV479
Christopher Gordon		Project Management	NGV226
Cleo Design, LLC	7/15/15	Design Consultant – Staff Dining	NGV500

	7/15/15	Design Consultant – Executive Offices	NGV500
Code Red Consultants LLC	10/04/16	Life & Safety Systems Commissioning	NGV844
Crabtree McGrath Associates	03/01/18	Food Service Consulting – Beverage Dispensing System	NGV428
Cranshaw Construction of NE	01/21/19	General Contractor – EBH Daycare Build-out	NGV2213
Cross Spectrum Acoustics	02/06/17	Acoustical Consultants	NGV1149
DHA Design Services LTD	9/24/15	Exterior Lighting Design	NGV522
D.W. White Construction	10/25/17	Off-site Roadway Improvements – Sullivan Square	NGV1353
Design Enterprise	9/17/15	Design Consultant – High Limit Gaming	NGV460
Eco Systems Pest Control Inc.	02/16/18	Pest Control Services – WBH MBTA Warehouse	NGV268
Environmental Health & Engineer	11/07/17	Engineering Consultant – Asbestos Removal - Dredging	NGV1367
Eslick Design Associates	05/22/15	Design Consultant – Site Signage	NGV383
	7/15/15	Design Consultant – Low-Rise and Garage Signage	NGV383
	7/15/15	Design Consultant – High-Rise Signage	NGV383
Express Services, Inc.	12/11/18	Temporary Labor – WBH MBTA Warehouse	NGV2039
First Circle Design, Inc.	10/14/15	Design Consultant – Interior Lighting – Meeting & Convention/Gaming	NGV518
Fenagh Engineering & Testing, LLC	09/08/16	Quality Control and Inspection Services	NGV185
	11/14/18	QC and Inspection Services – Community Parking Lot	NGV185
Fennell Engineering Inc.	12/27/17	Structural Design – DCR Harbor Walk	NGV1437
Fort Point Associates, Inc.	12/30/14	Planning and Environmental Consulting	NGV075
	06/28/16	Environmental Consulting – Harbor Walk	NGV075
	06/18/18	Permitting Consulting – Redevelopment of the BWas Material Handling Facility	NGV075
	06/22/18	Water Shuttle Study	NGV075
Forte Specialty Contractors, LLC	09/13/17	Contractor – Art Feature Installation	NGV789
Foundry Interior Design	10/21/15	Design Consultant – Performance Lounge	NGV535
Gilbane Building Company	01/24/14	Preconstruction Consulting Services	NGV035
GZA Geo Environmental, Inc.	04/21/16	Geotechnical and Environmental Services – Harbor Walk	NGV013

Haks Engineers, P.C.	09/08/16	Quality Control and Testing	NGV894
Hirsch Bedner Associates dba HBA/Hirsch Bedner Associates	02/25/15	Design Consultant – High- Rise Interiors	NGV133
	05/22/15	Design Consultant – Public Areas	NGV133
	05/22/15	Design Consultant – F&B	NGV133
	05/22/15	Design Consultant – Public Areas	NGV133
	05/22/15	Design Consultant – Buffet	NGV133
	05/22/15	Design Consultant – Public Restrooms	NGV133
	05/22/15	Design Consultant – Meeting and Convention	NGV133
Howard/Stein-Hudson Associates, Inc.	12/30/14	Traffic Engineering	NGV079
	4/28/15	Traffic Engineering	NGV079
Harry Feldman, Inc., dba Feldman Land Surveyors	02/06/15	Surveying	NGV071
	05/10/17	Surveying – DC Harbor Walk	NGV071
	12/28/17	Surveying – Mystic River Pedestrian Bridge	NGV071
In Order Business Solutions	07/20/17	Consultant – Diversity Reporting – Offsite Infrastructure	NGV397
JBA Consulting Engineers	09/30/15	A/V Engineering Services	NGV642
JDC Demolition Co. Inc.	10/29/18	Demolition Contractor – Community Parking Lot	NGV378
J. Derenzo Company	10/23/17	Off-site Roadway Improvements – Route 16 Improvements	NGV870
	09/24/18	GC - Lower Broadway Community Parking	NGV870
	09/25/18	GC - DCR Harbor Walk Connector	NGV870
Jacobs Consultants Inc.	12/04/14	Executive Architect	NGV181
John A. Martin & Associates of Nevada, Inc.	07/29/16	Structural Expansion Joint Review	NGV919
John Lyons Systems - Moonlighting	05/09/16	A/V Engineering Services	NGV805
Koncerted LLC	11/11/16	Low Voltage Project Oversight	NGV1070
Liberty Construction Services	06/11/19	Scaffolding – DCR Harbor Walk Connector	NGV1559
Lifescapes International, Inc.	02/03/15	Landscape Architect	NGV151
Lighting Design Alliance	10/29/15	Design Consultant – Interior Lighting – Food and Beverage/Public Areas	NGV439

	05/11/16	Design Consultant – Interior Lighting – Meeting and Convention Areas	NGV439
Halifax Security Inc. dba M. Malia & Associates	01/23/15	Security and Surveillance Consulting	NGV123
M. Arthur Gensler Jr. & Associates	03/13/18	Design Consultant – Retail Area	NGV063
McDonald Electrical Corp.	12/29/18	Electrical Contractor – Installation of Battery Farm	NGV2154
Medcor, Incorporated	08/31/16	On-site Safety Services Program	NGV851
Michael Hong Architects, Inc.	12/11/14	Architectural Design Services	NGV206
Musgrove Engineering P.A.	07/13/2017	Engineering Consultant – Snow Melt System Design	Exempt
National Grid	04/11/16	Relocation of Utilities – Service Road	Exempt
	06/08/16	Relocation of Gas Main – Main Site	
Nobis Engineering Inc.	01/22/18	Geotechnical Engineering – DCR Harborwalk Connector	NGV1440
Oguz Cem Yazici	3/23/16	Construction Consultant – Scheduling	NGV801
One Call Facility Services, LLC	12/28/17	Facility Services – WBH MBTA Warehouse	NGV1416
PMA Consultants, LLC	03/21/17	Construction Consultant – Contractor Auditing	NGV1185
	09/21/18	Construction Consultant – Offsite Roadway Improvements	NGV1185
Pasek Corporation	11/29/17	Security System Design & Install – WBH MBTA Warehouse	NGV257
Quench USA, Inc.	05/31/17	Water Service	NGV317
RF Networks	11/12/15	Communication Systems Specifications	NGV688
Ryan Biggs Clark Davis Engineers	10/29/15	Structural Peer Review of Jacobs Drawings	NGV508
SAAM Architecture LLC	10/13/17	Design Consultant – Sundries Store	NGV1347
SJ Lighting Inc.	11/03/16	Theatrical Engineering and Special Effects	NGV1111
Stys Hospitality Initiative LLC	12/29/18	Construction Consultant – Project Management of Retail Build-out.	NGV2025
SPS New England Inc.	10/06/17	GC – Dredging and Sediment Remediation	NGV1316
	10/17/17	Off-site Roadway Improvements – Lower Broadway	NGV1316
Shadley Associates P.C.	05/08/17	Landscape Architect – DCR Harbor Walk	NGV1602
	06/11/19	Landscape Architect – Battery Farm	NGV1602
Sound Investment Audio	11/03/16	Audio Design	NGV1129

Suffolk Construction Company, Inc.	01/08/16	Construction Management	NGV163
The Vertex Companies, Inc.	06/21/17	Environmental Consulting – DCR Harbor Walk	NGV609
	06/30/17	Environmental Site Assessment – Offsite Infrastructure	NGV609
TRC Environmental Corporation	09/30/15	Construction Consultant - Building Demolition	NGV067
Trinity Building + Construction	02/19/19	General Contractor – Retail Store Build-outs	NGV2201
Valmont & Cie, LLC	01/31/19	Design Consultant – Fine Art Labeling	NGV2098
Vanasse & Associates, Inc.	02/06/15	Supplemental Final Environmental Impact Report - Transportation	NGV066
Vermuelens, Inc.	02/03/16	Construction Consultant – Construction Cost Analysis	NGC072
Vicente Wolf Associates	05/22/15	Design Consultant – F&B	NGV283
WES Construction Corporation	11/16/16	MBTA Maintenance Facility Improvements	NGV948
Yesco	03/13/18	Design Consultant – F&B Signage	NGV724

Appendix 3

Permits
As of June 30, 2019

Reference 205 CMR 135.02(6)

Agency Governing Legal Authority (Statute/Regulation/Ordinance)	Permit, Review, or Approval	Date Application Submitted or Estimated Anticipated Application Date	Maximum Agency Decision Time Maximum Effective Period (if provided in applicable statute, regulation or ordinance)
Federal			
<p>Federal Aviation Administration (FAA)</p> <p>49 U.S.C. Subtitle VII, Aviation Programs, Part A and B; 14 CFR 77, Subpart D; Order JO 7400.2J, Procedures for Handling Airspace Matters, Ch. 7 Determinations</p>	<p>Determination Regarding Air Navigation</p>	<p><u>Building</u>: Received January 9, 2016, Notice of Actual Construction or Alteration filed June 26, 2018.</p> <p><u>Cranes</u>: Cranes 1 & 2 received August 18, 2016 Cranes 3-8 received August 11, 2016. January 29, 2018 received extension. Notice of Actual Construction or Alteration filed</p> <p><u>Podium</u>: Received August 10, 2016. Notice of Actual Construction or Alteration filed February 9, 2018.</p>	<p>Determination is effective for 18 months and may apply for one 18-month renewal.</p>
<p>U.S. Army Corps of Engineers (ACOE)</p> <p>Section 10 of Federal Rivers and Harbors Act; 33 USC s. 403; 33 CFR Parts 322, 325</p>	<p>Work in Navigable Waters (Section 10) Permit</p>	<p><u>Project</u>: Received December 12, 2016</p>	<p>No fixed maximum decision time. For individual permits, ACOE will be guided by the target schedule of decision within 60 days of receiving completed application, subject to receipt of any additional information needed for decision and processes required by other state and federal laws (such as CZM Act) to precede decision.</p>
<p>U.S. Army Corps of Engineers (ACOE)</p> <p>Section 404 of Federal Clean Water Act; 33 USC s. 1344; 33 CFR Parts 323, 325</p>	<p>Clean Water Act (Section 404) Individual Permit</p>	<p><u>Project</u>: Received December 12, 2016</p>	<p>Individual permits for a permanent structure or activity typically do not expire, but may specify when the work must start - usually within 1 year of issuance.</p>

<p>U.S. Army Corps of Engineers (ACOE)</p> <p>Section 404 of Federal Clean Water Act; 33 USC s. 1344; 33 CFR Parts 323, 325</p>	<p>Clean Water Act (Section 404) Individual Permit</p>	<p><u>Sediment Remediation:</u> Permit Modification Received August 31, 2017, Revised September 11, 2017 Modification Received June 25, 2018</p>	<p>ACOE modified the resort permit to allow for sediment remediation activity.</p>
<p>U.S. Environmental Protection Agency (EPA)</p> <p>Federal Clean Water Act Section 402(p); 33 USC s. 1342(p); 40 CFR 122.26; NPDES Construction General Permit, Effective February 16, 2012</p>	<p>National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) NOI (for stormwater management)</p>	<p>On-site: April 6, 2016 On-site under 2017 CGP: May 23, 2017</p>	<p>Decision time for CGP and RGP: effective 14 days after NOI submittal to and acknowledged by EPA. The CGP expired on February 16, 2017, a new NOI for those activities covered by the CGP was filed under the new CGP.</p>
<p>U.S. Environmental Protection Agency (EPA)</p> <p>Federal Clean Water Act Section 402(a), 33 USC s. 1342(a); 40 CFR 122.28; 314 CMR 4.00; NPDES Remediation General Permit, NPDES Permit No. MAG910000, Effective September 10, 2010</p>	<p>NPDES Remediation General Permit (RGP) (for construction dewatering)</p>	<p>NOI Submitted May 25, 2016, 10 day waiting period ended June 9, 2016 NOI under 2017 RGP: Submitted July 6, 2017, Authorization received August 3, 2017. Notice of Termination submitted March 7, 2018.</p>	<p>When the RGP expired on September 10, 2015, those activities covered by the RGP filed a NOI under the new RGP.</p>

State			
<p>Executive Office of Energy and Environmental Affairs</p> <p>Massachusetts Environmental Policy Act; MGL c. 30 ss. 61-62I; 301 CMR 11.00</p>	<p>Massachusetts Environmental Policy Act (MEPA) Review</p>	<p><u>Project:</u> Certificate on EENF received 11/26/13 Certificate on DEIR received 2/21/14 Certificate on FEIR received 8/15/14 Certificate on SFEIR Received 4/03/15 Certificate on SSFEIR Received 8/28/15 <u>Sediment Remediation:</u> Notice of Project Change filed 2/28/17, Certificate received 4/7/17</p>	<p>Secretary determines whether a Draft EIR, or Final EIR, as applicable, is adequate within 37 days of notice of availability of the EIR in the Environmental Monitor.</p> <p>A project that has not commenced either construction, or other project development activities (including final design, property acquisition, or marketing), within five years of notice of availability of Final EIR must file a Notice of Project Change.</p> <p>Secretary determines whether a subsequent filing is required.</p> <p>MEPA review is complete if no further filings are required.</p>

<p>Executive Office of Energy and Environmental Affairs</p> <p>MGL c. 21A ss. 2 and 4A; 301 CMR 23.00</p>	<p>Municipal Harbor Plan</p>	<p>Submitted on 10/16/13 Approved on 2/10/14</p>	<p>After publication of proposed Plan in <i>Environmental Monitor</i> and 30 day public comment period, Secretary has 60 days to consult with municipality proposing the Plan and other applicable agencies/entities, and 21 days thereafter to issue a written decision on the MHP.</p>
<p>Massachusetts Department of Environmental Protection (MassDEP)</p> <p>MGL c. 91 ss. 12-14; 310 CMR 9.00</p>	<p>Chapter 91 Waterways Determination of Applicability</p>	<p>Determination of Applicability re Chapter 91 jurisdictional boundaries received on July 29, 2013</p>	
<p>Massachusetts Department of Environmental Protection (MassDEP)</p> <p>MGL c. 91 ss. 12-14; 310 CMR 9.00</p>	<p>Chapter 91 Waterways License</p>	<p><u>Project:</u> Submitted August 19, 2015 License received August 3, 2016</p> <p>Minor Project Modification (MPM) #1 received February 28, 2017</p> <p>MPM #2 received March 29, 2017</p> <p>MPM #3 filed March 16, 2018</p> <p><u>Sediment Remediation:</u> Submitted May 2017, License Received September 25, 2017 Certificate of Compliance Received May 10, 2019</p> <p><u>DCR Harborwalk Connector:</u> Filed April 23, 2018. License Received September 21, 2018</p>	<p>Licenses are issued for a fixed term; the standard term is 30 years but a license may be issued for an extended term (maximum of 99 years) if certain additional requirements are met.</p>
<p>MassDEP</p> <p>MGL c. 21 s. 43; 310 CMR 7.12</p>	<p>Compliance Certification for Stationary Engine</p>	<p>TBD</p>	<p>Required for CHP and generator</p>
<p>MassDEP</p> <p>MGL c. 111 ss. 142A-142E; 310 CMR 7.09</p>	<p>Notification of Construction and Demolition</p>	<p>TBD</p>	<p>Effective 10 working days after filing of notification.</p>

<p>MassDEP</p> <p>Section 401 of Federal Clean Water Act, 33 USC s. 1341; Massachusetts Clean Waters Act, MGL c. 21 ss. 26 et seq.; 314 CMR 9.00 (which cites to 310 CMR 4.00)</p>	<p>Water Quality Certification (401)</p>	<p><u>Project</u>: Submitted September 8, 2015 Approval received January 22, 2016</p> <p>Amendment #1 received February 2017</p> <p>Amendment #2 received June 2017</p> <p><u>Sediment Remediation</u>: Approval Received August 25, 2017</p> <p>Amendment #1 received June 18, 2018</p>	<p>Standard MassDEP technical review period is 120 days (24 days for determination of administrative completeness and 96 days for technical review). No fixed maximum decision time.</p>
<p>MassDEP</p> <p>MGL c. 131 s. 40; 310 CMR 10.00</p>	<p>Wetlands Superseding Order of Conditions</p>	<p>Only in event of appeal of Order of Conditions issued by Everett Conservation Commission</p>	<p>Per 310 CMR 10.05 (7)(f) Issued within 70 days of request for superseding action (unless MassDEP requests additional information).</p>
<p>MassDEP Bureau of Waste Site Cleanup/Massachusetts Contingency Plan (MCP)</p> <p>MGL c. 21E; 310 CMR 40.000</p>	<p>(Submittals by Licensed Site Professional on behalf of Site Owner - do not need DEP approval)</p>	<p><u>Landside Remediation</u>: RAM Plan submitted May 2015; PIP process underway</p> <p>RAM Modifications: October 2016, November 2016, February 2017, November 2017, May 2019</p> <p><u>Sediment Remediation</u>: Phase II submitted December 2015</p> <p>Revised Phase II submitted December 30, 2016</p> <p>Phase III/IV submitted June 2017</p> <p>Draft Phase IV, Partial Permanent Solution Statement, and AULs submitted December 2018</p> <p>Final Phase IV, Partial Permanent Solution Statement, and AULs submitted February 2019</p>	<p>Agency decision time frame N/A under MCP privatized program.</p>

<p>Massachusetts Water Resources Authority (MWRA)</p> <p>Chapter 372 of the Acts of 1984, s. 8(m); 360 CMR 10.000</p>	<p>Section 8(m) Permit (to cross or construct within an MWRA easement)</p>	<p><u>Project</u>: 8M permits were submitted to MWRA and received. in November, 2017</p>	
<p>Massachusetts Office of Coastal Zone Management (CZM)</p> <p>301 CMR 20.00, M.G.L. c. 21A, §§2 and 4A</p> <p>Coastal Zone Management Act of 1972, 16 U.S.C. 1451 et seq., 15 CFR §§ 923 and 930</p>	<p>Federal Consistency Certification</p>	<p><u>Project</u>: Received August 12, 2016</p>	
<p>Massachusetts Historical Commission (MHC)</p> <p>MGL c. 9 ss. 26 et seq.; 950 CMR 71.00</p>	<p>Review of project relative to potential effects on State Register historic/ archaeological resources.</p>	<p>Review Completed</p>	<p>Within 30 days of receipt of a completed Project Notification Form or ENF, the MHC will determine whether further information is needed and/or consultation is needed because the project may affect State Register properties. Beyond initial period, no other maximum decision times apply.</p>
<p>Board of Underwater Archaeological Resources (BUAR)</p> <p>M.G.L. c. 6, ss. 179 and 180; 312 CMR 2.00</p>	<p>Review of waterside activities</p>	<p><u>Project</u>: Review Completed</p> <p><u>Sediment Remediation</u>: Review Completed under NPC</p>	
<p>Massachusetts Department of Transportation (MassDOT)</p> <p>MGL c. 81 s. 21, 720 CMR 13.00</p>	<p>Non-Vehicular Access Permit - Off-site roadway improvements</p>	<p>MassDOT highway access permit applications have been submitted for all applicable MassDOT roadways that will be improved. Access permits have been received for the Route 16 improvements. The access permit for Sullivan Square 93 off ramp improvements was received on May 29, 2018.</p>	<p>MassDOT completes technical reviews of the Access Permit application in 75 business days (35 business days following receipt of the 25% design submission, 20 business days following receipt of the 75%/100% design submission, and 20 business days following receipt of the PS&E submission.) Following technical review and approval, Section 61 Finding, and completion of MHC review and Mass. Wetlands Protection Act permitting, the MassDOT permit is issued 5 to 7 business days following final design approval.</p>

Massachusetts Department of Transportation (MassDOT) MGL c. 40 s. 54A	Consent to issuance of building permit for construction on land formerly used by railroad company	<u>Project</u> : Approval issued May 2, 2016	
Massachusetts Department of Transportation (MassDOT) MGL c. 161A s. 5(b)	MBTA Land Disposition and Easement Agreements	Issued November 2016	

Local			
City of Boston (Off-site Roadway) Public Improvement Commission (PIC) Boston Transportation Department (BTD) Revised Ordinances of City of Boston of 1961, Ch.21, Sect. 36	Approvals	Filed January 30, 2015. All PIC permits have been received.	
Everett Planning Board M.G.L. 40A, as amended, and Everett Zoning Ordinance, Section 28A, Resort Casino Overlay District (RCOD) in Lower Broadway Economic Development District (LBEDD)	Site Plan Review	<u>Project</u> : Approval Received October 14, 2015 <u>Access Road</u> : Approval Received May 5, 2016	Site Plan Review decisions shall be issued within 180 calendar days after filing of a completed application. Everett Zoning Ordinance, Sec. 28A(10)(B)(iii). Everett has accepted expedited permitting processes for Priority Development Sites pursuant to MGL c. 43D. All lots located in the LBEDD and RCOD are Priority Development Sites, Everett Zoning Ordinance Section 28A(10)(B).
Everett Conservation Commission Everett City Charter, c. 2, Article III, Division 7, Section 2-252 M.G.L. c. 131 §40; 310 CMR 10.00	Wetlands Order of Conditions	<u>Project</u> : Order of Conditions issued September 24, 2015, Amended Order of Conditions Received July 13, 2017 Amended Order of Conditions Received June 21, 2018 Extension to Order of Conditions Received June 21, 2018 <u>Landside Remediation</u> : Order of Conditions Issued 2015	Decision time (about 42 days plus duration of public hearing which may consist of more than one ConComm meeting): - A public hearing must be held within 21 days of receiving NOI. - Orders of Conditions issued within 21 days of the close of the public hearing. Orders of Conditions are valid for 3 years unless extended.

		<p><u>Sediment Remediation:</u> Received June 2017 Amended Order of Conditions Received May 7, 2018 Certificate of Compliance Issued November 15, 2018</p> <p><u>DCR Harborwalk Connector (Phase 1):</u> Received May 17, 2018</p> <p><u>DCR Harborwalk Connector (Phase 2):</u> Received August 16, 2018</p>	
<p>Everett Fire Department</p> <p>Rev. Ordinance 1976, Pt.2, Ch.7, §33</p> <p>Everett City Charter, Chapter 8, Article I, §2-252</p> <p>M.G.L. c. 148 §10A</p>	<p>Review of Plans Fire Suppression System Installation Fuel Storage Permit LP Gas Storage Permit Underground Storage Tank Removal Permit (Commercial)</p>	<p><u>Review of Plans:</u> Ongoing</p> <p><u>Fire Suppression System Installation:</u> In process</p> <p><u>Fuel Storage Permit:</u> Received June 25, 2018</p>	
<p>Everett Health Department</p> <p>M.G.L. c. 140</p>	<p>Food Establishment Permit Application</p>	TBD	<p>Permits are annual, and expire May 31st of each year.</p>
<p>Everett Licensing Commission</p> <p>Victualler License: M.G.L. c. 140</p>	<p>Alcohol License Common Victualler License</p>	TBD	
<p>Everett Public Works</p> <p>Sewer: M.G.L., c. 83; Everett City Charter, Chapter 15</p> <p>Water: Everett City Charter, Chapter 20</p>	<p>Sewer Connection Permit Water Connection Permit</p>	<p>TBD TBD</p>	
<p>Everett Building Department</p> <p>State Building Code, 780 CMR 105.3.1</p>	<p>Building Permit</p> <ul style="list-style-type: none"> • Plumbing • Gas • Electrical • Wire • Trench • Mechanical • Foundation 	<p>Foundation Permit May 2, 2016 Building Permit December 15, 2016</p>	<p>30 days from submission of completed application. Specific permits (plumbing, gas, etc.) to be requested and issued at various times during construction period within 30 days following application</p>

<p>Boston Conservation Commission M.G.L. c. 131 §40; 310 CMR 10.00</p>	<p>Wetlands Order of Conditions</p>	<p><u>Sediment Remediation:</u> Issued June 2017 Certificate of Compliance July 18, 2018</p> <p><u>Alford Street Pedestrian and Landscape Improvements:</u> Received May 16, 2018</p>	
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Activity ID	Activity Name	Original Duration	Start	Finish	2019						
					Jun	Jul	Aug	Sep	Oct	Nov	Dec
Encore Boston Harbor					▼ Encore Boston Harbor						
Main Project					▼ Main Project						
Construction - Main Project					▼ Construction - Main Project						
Summary Schedule (SCCI)					▼ Summary Schedule (SCCI)						
Site/Marine					▼ Site/Marine						
SUMM-100	Site Improvements, Landscaping, Punchlist	130d	23-Apr-18 A	24-Jun-19	Site Improvements, Landscaping, Punchlist						
Convention Area					▼ Convention Area						
SUMM-490	Convention - FF&E	20d	28-May-19 A	24-Jun-19	Convention - FF&E						
Hotel Tower					▼ Hotel Tower						
SUMM-210	Hotel Tower - FF&E	135d	10-Dec-18 A	24-Jun-19	Hotel Tower - FF&E						
Podium					▼ Podium						
SUMM-220	Podium - FF&E	107d	22-Jan-19 A	24-Jun-19	Podium - FF&E						
Commissioning					▼ Commissioning						
SUMM-200	Start-up, Commissioning and Punchlist	202d	27-Aug-18 A	10-Jun-19	Start-up, Commissioning and Punchlist						
Completion					▼ Completion						
A2810	Final Inspections, TCO	38d	17-Apr-19 A	10-Jun-19	Final Inspections, TCO						
A3290	New Staff Training	38d	17-Apr-19 A	10-Jun-19	New Staff Training						
A10110	TCO Received	0d		10-Jun-19	◆ TCO Received						
A10130	Employee Play Days	10d	11-Jun-19	24-Jun-19	■ Employee Play Days						
A12360	Substantial Completion	0d		24-Jun-19	◆ Substantial Completion						
Tenant Retail (Watches of Switzerland)					▼ Tenant Retail (Watches of Switzerland)						
A13360	Tenant Mobilization and Construction	50d	01-Apr-19 A	10-Jun-19	■ Tenant Mobilization and Construction						
A13370	Tenant Load In & Training	10d	11-Jun-19	24-Jun-19	■ Tenant Load In & Training						
Owner Retail					▼ Owner Retail						
A13430	Mobilization and Construction (Collection)	84d	22-Jan-19 A	10-Jun-19	■ Mobilization and Construction (Collection)						
A13450	Mobilization and Construction (Sundries)	74d	22-Jan-19 A	10-Jun-19	■ Mobilization and Construction (Sundries)						
A13470	Mobilization and Construction (Men's)	74d	22-Jan-19 A	10-Jun-19	■ Mobilization and Construction (Men's)						
A13490	Mobilization and Construction (Beauty)	74d	22-Jan-19 A	10-Jun-19	■ Mobilization and Construction (Beauty)						

Activity ID	Activity Name	Original Duration	Start	Finish	2019					
					Jun	Jul	Aug	Sep	Oct	Nov	Dec
Service Road and Utilities Projects		181d	04-Feb-19 A	15-Nov-19	Service Road and Utilities Projects					
Service Road Construction		181d	04-Feb-19 A	15-Nov-19	Service Road Construction					
12130	BESS System Installation and Testing	150d	04-Feb-19 A	15-Nov-19	BESS System Installation and Testing					
12120	Final Roadway Top, Striping, Landscaping	33d	17-Apr-19 A	22-Jul-19	Final Roadway Top, Striping, Landscaping					

Activity ID	Activity Name	Original Duration	Start	Finish	2019											
					Jun	Jul	Aug	Sep	Oct	Nov	Dec					
Off-Site Transportation Improvements		400d	13-Oct-17 A	10-Jun-19	▼ Off-Site Transportation Improvements											
Milestone		276d	13-Oct-17 A	10-Jun-19	▼ Milestone											
Package #1 (Lower Broadway and Truck Route)		260d	13-Oct-17 A	10-Jun-19	▼ Package #1 (Lower Broadway and Truck Route)											
AMS.800.1140	CP#1 Construction (Lower Broadway and Truck Route)	260d	13-Oct-17 A	10-Jun-19	▶ CP#1 Construction (Lower Broadway and Truck Route)											
Package #4 (Sullivan Square)		255d	01-Nov-17 A	10-Jun-19	▼ Package #4 (Sullivan Square)											
AMS.800.1300	CP#4 Construction (Sullivan Square)	255d	01-Nov-17 A	10-Jun-19	▶ CP#4 Construction (Sullivan Square)											
Land Transfers, Easements		38d	17-Apr-19 A	10-Jun-19	▼ Land Transfers, Easements											
Final Planning Board Approval		38d	17-Apr-19 A	10-Jun-19	▼ Final Planning Board Approval											
14970	Final Planning Board Approval	38d	17-Apr-19 A	10-Jun-19*	▶ Final Planning Board Approval											
Construction Package #1 - Lower Broadway & Truck Route		101d	10-Sep-18 A	10-Jun-19	▼ Construction Package #1 - Lower Broadway & Truck Route											
Lower Broadway & Truck Route		101d	10-Sep-18 A	10-Jun-19	▼ Lower Broadway & Truck Route											
CP#1 Construction		101d	10-Sep-18 A	10-Jun-19	▼ CP#1 Construction											
ALB.900.1110	Beacham Street at Robin Street Intersection	93d	10-Sep-18 A	10-Jun-19	▶ Beacham Street at Robin Street Intersection											
ALB.900.1070	CP #1 Completed	0d		10-Jun-19	◆ CP #1 Completed											
Construction Package #4 - Sullivan Square Charlestown		50d	01-Apr-19 A	10-Jun-19	▼ Construction Package #4 - Sullivan Square Charlestown											
A7560	Overall Finishes, Signal Fine Tune, Testing	50d	01-Apr-19 A	10-Jun-19	▶ Overall Finishes, Signal Fine Tune, Testing											
A7550	Sullivan Square Completed	0d		10-Jun-19	◆ Sullivan Square Completed											

Appendix 5

**Project Construction Workforce:
Women, Minority, Veteran Participation
As of June 30th, 2019**

Reference 205 CMR 135.02(5)(e)

As of June 30th, 2019, 5,980,774.8 work hours had been completed on the Project Site by 7,740 individuals, with 1,870 minorities, 489 females, and 311 veterans, performing work on site.

	# of Workers	Participation to Date (% of workforce hours)	Goal (% of workforce hours)
Minority	1,870	25.7%	15.3%
Female	489	7.2%	6.9%
Veteran	311	5.3%	3.0%

LOCAL TRADE UNION	Total Hours	Total # Workers	PROJECT TO DATE								
			MINORITY - Goal: 15.3%			FEMALE - Goal: 6.9%			VETERAN - Goal: 3.0%		
			# Workers	Hours	%	# Workers	Hours	%	# Workers	Hours	%
Asbestos Workers Local 6	74,367.5	136	33	14,595.0	19.6%	10	3,433.5	4.6%	9	5,921.0	8.0%
Boilermakers Local 29	2,360.0	2	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
Bricklayers Local 3 Eastern Mass.	295,503.9	428	83	64,344.3	21.8%	11	12,412.0	4.2%	14	9,453.5	3.2%
Carpenters, New England	101,465.8	1,218	337	280,278.0	27.6%	72	61,288.0	6.0%	48	54,231.8	5.3%
Electricians Local 103 I.B.E.W.	1,268,350.0	1,064	177	227,290.8	17.9%	71	84,530.8	6.7%	48	63,900.0	5.0%
Electricians Local 104 I.B.E.W (Utilities)	3,941.0	43	2	132.0	3.3%	1	391.0	9.9%	0	0.0	0.0%
Elevator Constructors Local 4	108,388.5	159	13	9,630.8	8.9%	8	5,322.0	4.9%	12	7,437.8	6.9%
Floorcoverers Local 2168	76,684.8	84	47	47,975.5	62.6%	3	3,065.8	4.0%	2	471.5	0.6%
Iron Workers Local 7	469,772.2	787	194	121,467.0	25.9%	49	33,505.5	7.1%	36	38,222.0	8.1%
Massachusetts Laborers	1,137,656.8	1,594	513	391,523.1	34.4%	150	126,478.9	11.1%	42	37,567.5	3.3%
Milw rights Local 1121	277.0	5	2	94.0	33.9%	0	0.0	0.0%	0	0.0	0.0%
Operating Engineers Local 4	358,158.8	526	62	63,618.0	17.8%	20	18,521.0	5.2%	32	34,111.5	9.5%
Operating Engineers Local 98	658.8	3	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
Painters & Allied Trades D.C. #35	383,920.8	538	211	153,362.0	39.9%	40	32,622.5	8.5%	9	11,133.5	2.9%
Pledrivers Local 56	47,748.0	114	10	5,347.0	11.2%	9	1,838.0	3.8%	10	5,157.0	10.8%
Pipe Fitters Local 537	135,846.5	126	16	27,782.5	20.5%	8	11,929.0	8.8%	10	10,096.5	7.4%
Plasterers & Cement Masons Local	84,825.7	251	57	15,062.8	17.8%	10	1,850.7	2.2%	7	1,149.1	1.4%
Plumbers & Gasfitters Local 12	203,241.8	236	33	35,027.5	17.2%	16	12,789.0	6.3%	13	16,232.0	8.0%
Roofers & Slaters Local 33	66,840.3	137	40	22,527.3	33.7%	4	5,174.8	7.7%	4	4,925.0	7.4%
Sheet Metal Workers Local 17	144,589.8	201	30	35,462.0	24.5%	5	6,991.5	4.8%	7	6,353.3	4.4%
Sheet Metal Workers Local 63	62.0	4	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
Sprinkler Fitters Local 550	102,670.0	63	10	19,517.5	19.0%	2	5,629.5	5.5%	6	8,415.5	8.2%
Teamsters Local 25	413.0	18	0	0.0	0.0%	0	0.0	0.0%	2	11.0	2.7%
Union Number	24.0	2	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
Woodframe Local 723	8.0	1	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
Total	5,980,774.8	7,740	1,870	1,535,036.9	25.7%	489	427,773.3	7.2%	311	314,789.3	5.3%

CONTRACTOR	PROJECT TO DATE										
	Total Hours	Total # Workers	MINORITY - Goal: 15.3%			FEMALE - Goal: 6.9%			VETERAN - Goal: 3.0%		
			# Workers	Hours	%	# Workers	Hours	%	# Workers	Hours	%
4 Seasons Property Management (VBE)	1,549.0	5	2	94.0	6.1%	1	622.0	40.2%	0	0.0	0.0%
AJ Conveyer and Laundry Systems	269.0	4	1	86.0	32.0%	0	0.0	0.0%	0	0.0	0.0%
Allegheny Contract Flooring, Inc.	76,669.8	95	23	21,326.5	27.8%	5	3,887.0	5.1%	4	3,267.5	4.3%
All-Pro Electric, LLC	480.0	4	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
Aluminum Services, Inc.	117.5	4	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
Andella Iron Inc.	565.0	4	1	153.0	27.1%	0	0.0	0.0%	0	0.0	0.0%
Angelini Plastering, Inc. (WBE)	19,324.0	26	4	3,907.5	20.2%	0	0.0	0.0%	1	94.0	0.5%
Anvil Steel Engineering, Inc. (MVBE)	22,581.5	40	15	10,026.0	44.4%	5	2,222.5	9.8%	4	4,502.0	19.9%
Archer Corp	17,309.5	23	4	1,268.0	7.3%	2	1,015.0	5.9%	0	0.0	0.0%
Atlantic Lining Company Inc	649.5	16	12	555.5	85.5%	0	0.0	0.0%	1	15.0	2.3%
Atlantic Plant Maintenance, Inc.	198.0	8	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
Axion Specialty Contracting	39,179.5	72	16	4,772.5	12.2%	6	1,103.0	2.8%	5	3,081.0	7.9%
Back Bay Concrete Corp. (WBE)	3,801.0	58	15	963.0	25.3%	4	53.5	1.4%	3	96.5	2.5%
Bay State Specialties, Inc.	1,089.0	4	1	32.0	2.9%	0	0.0	0.0%	1	545.0	50.0%
BOSS Steel Inc. (WBE)	22,036.8	71	16	4,196.0	19.0%	3	1,406.0	6.4%	3	1,399.5	6.4%
Bow line Construction	1,595.0	12	5	430.0	27.0%	0	0.0	0.0%	1	48.0	3.0%
Brand Safway LLC	244.0	9	3	132.0	54.1%	0	0.0	0.0%	0	0.0	0.0%
Brava Electric & Telecom, Inc. (MBE)	4,471.0	4	2	2,782.3	62.2%	0	0.0	0.0%	0	0.0	0.0%
Brightview Landscaping Development Inc.	69,901.2	139	44	31,709.9	45.4%	12	4,437.4	6.3%	2	623.0	0.9%
Bunting Graphics, Inc.	6,253.7	16	4	2,179.0	34.8%	0	0.0	0.0%	0	0.0	0.0%
Capco Steel Erection Company	18,503.0	45	5	1,375.5	7.4%	1	306.0	1.7%	0	0.0	0.0%
Capital Carpet and Flooring Specialists, Inc.	76,684.8	84	47	47,975.5	62.6%	3	3,065.8	4.0%	2	471.5	0.6%
Cashman Dredging & Marine Contracting	200.0	2	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
Cavalieri Construction Company, Inc.	5,401.5	29	6	2,443.5	45.2%	0	0.0	0.0%	1	537.5	10.0%
Century Drywall, Inc.	473,800.8	456	198	193,702.5	40.9%	28	30,179.5	6.4%	11	20,248.8	4.3%
Chapman Construction Group, Inc. (WVBE)	16,356.0	21	3	1,803.5	11.0%	4	4,389.5	26.8%	2	1,820.0	11.1%
Chapman Waterproofing Company	177.0	5	1	32.0	18.1%	0	0.0	0.0%	1	48.0	27.1%
Coastal Marine Construction	2,223.5	15	0	0.0	0.0%	1	84.0	3.8%	1	116.5	5.2%
Coghlin Electrical Contractors, Inc. (WBE)	546,948.8	270	43	86,394.0	15.8%	14	27,836.0	5.1%	14	29,566.5	5.4%
Collins Overhead Door Inc.	474.2	3	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
Component Assembly Systems, Inc.	79,367.0	82	24	17,953.5	22.6%	3	3,208.5	4.0%	3	3,763.5	4.7%
Composite Company, Inc.	470.0	6	2	278.0	59.1%	0	0.0	0.0%	0	0.0	0.0%
Construction Drilling, Inc.	499.5	4	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
Costa Brothers Masonry, Inc.	39,317.0	78	16	9,526.5	24.2%	2	2,078.0	5.3%	1	56.0	0.1%
Cross Country Food Service Equipment Installers	7,091.5	12	1	54.0	0.8%	1	54.0	0.8%	1	1,692.5	23.9%
D.W. White Construction	38,342.5	78	13	8,132.0	21.2%	4	2,836.5	7.4%	1	1,482.5	3.9%
Dagle Electrical Construction Corporation (WBE)	10,236.5	79	5	1,312.0	12.8%	2	296.0	2.9%	4	211.5	2.1%
Daniel Marr and Son Co.	150,534.0	204	28	24,963.0	16.6%	14	7,398.5	4.9%	9	11,328.0	7.5%
DeLucca Fence Company (WBE)	2,432.5	43	9	395.0	16.2%	2	139.0	5.7%	1	27.0	1.1%
Dependable Masonry Construction Co.	848.5	6	2	203.0	23.9%	0	0.0	0.0%	0	0.0	0.0%
Don Martin Corporation (MBE)	3,817.0	36	15	1,690.0	44.3%	0	0.0	0.0%	1	200.5	5.3%
Draper Elevator Cab Co, Inc.	94.5	2	0	0.0	0.0%	0	0.0	0.0%	2	94.5	100.0%
D's Welding	438.0	9	1	69.0	15.8%	0	0.0	0.0%	0	0.0	0.0%
Duggan & Marcon, Inc.	800.0	1	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
E.H. Marchant Co. Inc.	5,022.0	14	1	1,039.0	20.7%	1	160.0	3.2%	1	220.0	4.4%
E.M. Duggan, Inc.	173,350.3	162	24	30,101.0	17.4%	14	12,783.0	7.4%	12	17,353.0	10.0%
East Coast Fireproofing Co	10,541.0	23	5	2,182.0	20.7%	2	833.0	7.9%	3	850.0	8.1%
East Coast Interiors	15,673.0	34	5	1,728.0	11.0%	2	776.0	5.0%	1	1,167.0	7.4%
Eastern Exterior Wall Systems, Inc. (VBE)	752.5	1	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
Easton Concrete Cutting & Drilling LLC	594.0	13	1	27.0	4.5%	0	0.0	0.0%	0	0.0	0.0%
Edward G. Sawyer Co., Inc.	212,214.5	157	27	48,352.0	22.8%	13	20,089.5	9.5%	4	6,729.5	3.2%
EverGreene Architectural Arts	5,719.7	12	6	2,885.3	50.4%	2	369.7	6.5%	1	695.1	12.2%
Evermore Light and Power Inc. (WBE)	6,120.0	6	0	0.0	0.0%	1	296.0	4.8%	1	1,533.0	25.0%
F.C. Construction Corp.	5,473.0	42	11	1,293.5	23.6%	1	167.0	3.1%	1	251.0	4.6%
Federal Concrete (WBE)	8,261.5	54	12	1,273.0	15.4%	7	1,061.5	12.8%	2	418.5	5.1%
Fischbach & Moore Electric Group, LLC	996.0	7	1	8.0	0.8%	0	0.0	0.0%	0	0.0	0.0%
Fisher Contracting Corporation (MVBE)	4,876.0	20	3	604.0	12.4%	3	837.0	17.2%	1	276.0	5.7%
Food Equipment Installations, Inc.	6,214.0	14	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%

CONTRACTOR	PROJECT TO DATE										
	Total Hours	Total # Workers	MINORITY - Goal: 15.3%			FEMALE - Goal: 6.9%			VETERAN - Goal: 3.0%		
			# Workers	Hours	%	# Workers	Hours	%	# Workers	Hours	%
Garrity Asphalt Reclaiming, Inc.	149.5	5	1	29.5	19.7%	0	0.0	0.0%	0	0.0	0.0%
Geologic Earth Exploration, Inc.	72.5	2	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
Gleeson Powers, Inc.	7,627.0	14	4	2,066.5	27.1%	1	592.0	7.8%	0	0.0	0.0%
Greenwood Industries, Inc.	9,864.3	48	14	3,108.3	31.5%	1	456.3	4.6%	0	0.0	0.0%
Griffin Door dba Overhead Door Specialties	112.0	2	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
H. Carr & Sons, Inc.	2,852.5	14	3	808.0	28.3%	0	0.0	0.0%	0	0.0	0.0%
Hayward Baker Inc.	10,688.0	55	4	1,472.0	13.8%	2	250.0	2.3%	1	365.5	3.4%
Homeland Mechanical LLC (VBE)	340.0	3	0	0.0	0.0%	0	0.0	0.0%	1	168.0	49.4%
Hub Foundation Co., Inc.	18,363.5	45	6	2,839.5	15.5%	2	1,164.0	6.3%	6	4,377.0	23.8%
J & M Brown Company, Inc.	58,495.0	47	11	11,396.0	19.5%	3	5,144.5	8.8%	2	3,946.0	6.7%
J Rams Inc	17.0	2	0	0.0	0.0%	0	0.0	0.0%	1	8.0	47.1%
J&K Drywall	2,722.0	15	9	1,585.0	58.2%	0	0.0	0.0%	0	0.0	0.0%
J. Derezco Co.	200,188.4	161	21	45,814.0	22.9%	11	23,362.0	11.7%	12	17,304.5	8.6%
J. Thibert Architectural Woodwork Installation	12,699.5	14	1	1,057.5	8.3%	1	1,057.5	8.3%	1	1,323.5	10.4%
J.C. Cannistraro	42,994.0	65	8	8,825.0	20.5%	3	3,062.5	7.1%	2	504.0	1.2%
J.C. Higgins Corp	98,561.0	84	11	16,215.0	16.5%	5	8,484.5	8.6%	4	5,483.0	5.6%
J.F. White Contracting Company, Inc	38,834.5	69	10	5,046.0	13.0%	4	4,009.5	10.3%	3	1,360.0	3.5%
Jackson Glass, Inc. (WBE)	83,801.5	66	16	18,511.0	22.1%	6	11,376.5	13.6%	8	9,376.5	11.2%
JENKAT Painting LLC	12,490.3	45	10	2,877.0	23.0%	2	453.0	3.6%	0	0.0	0.0%
Jerez LLC (MWBE)	13,536.0	11	9	12,178.0	90.0%	1	1,012.5	7.5%	0	0.0	0.0%
JM Electrical Company, Inc.	904.0	4	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
John W. Egan Co., Inc.	40.0	1	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
JP Obelisk, Inc.	1,261.0	13	5	592.0	46.9%	0	0.0	0.0%	0	0.0	0.0%
JR Vinagro Corp.	2,657.0	25	5	223.0	8.4%	1	120.0	4.5%	1	122.0	4.6%
K&H Electrical Systems, Inc.	12,275.5	30	8	3,050.5	24.9%	1	457.5	3.7%	1	120.5	1.0%
K&K Acoustical Ceilings, Inc.	14,962.5	19	5	3,668.5	24.5%	3	1,694.0	11.3%	2	5,099.5	34.1%
K&M Fire Protection Services, Inc.	102,670.0	63	10	19,517.5	19.0%	2	5,629.5	5.5%	6	8,415.5	8.2%
K. DaPonte Construction Corp.	3,568.0	29	2	592.0	16.6%	2	160.0	4.5%	0	0.0	0.0%
K.O. Stone Inc. (MBE)	8,942.0	23	19	8,022.0	89.7%	10	4,488.0	50.2%	0	0.0	0.0%
Kenneth Castellucci & Associates, Inc.	34,720.3	49	3	2,010.0	5.8%	0	0.0	0.0%	1	46.0	0.1%
Killea Equipment	920.0	3	2	550.0	59.8%	0	0.0	0.0%	0	0.0	0.0%
KM Kelly, Inc.	34,535.3	26	6	6,485.0	18.8%	4	4,719.3	13.7%	2	1,817.0	5.3%
L.J. Mishel Electrical Contractors, Inc.	96.0	2	0	0.0	0.0%	0	0.0	0.0%	1	48.0	50.0%
Lan-Tel Communications, Inc.	33,703.8	25	7	12,790.3	37.9%	2	2,857.5	8.5%	0	0.0	0.0%
Leading Way Construction Co., Inc.	96.0	6	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
Liberty Construction Services	622,899.5	466	146	179,807.5	28.9%	40	60,799.5	9.8%	10	10,699.5	1.7%
Liberty Equipment and Supply	67,271.5	79	10	20,272.5	30.1%	6	4,890.0	7.3%	5	5,793.5	8.6%
Lockwood Remediation	32.0	1	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
Longden Company Inc.	4,955.0	11	4	1,081.0	21.8%	0	0.0	0.0%	2	1,168.0	23.6%
Lund Rebar Services, Inc.	109,408.5	132	60	50,392.0	46.1%	11	7,612.0	7.0%	6	8,400.0	7.7%
M. Cohen and Sons, Inc.	23,915.5	32	9	7,299.5	30.5%	2	1,812.0	7.6%	3	4,167.5	17.4%
M.L. McDonald Sales Company, LLC	175,929.0	194	54	41,319.0	23.5%	12	12,446.0	7.1%	6	8,058.0	4.6%
Manganaro Northeast	1,260.0	11	3	550.0	43.7%	0	0.0	0.0%	1	2.0	0.2%
Marguerite Concrete, Inc.	1,716.3	58	14	457.0	26.6%	2	38.0	2.2%	2	147.0	8.6%
Marr Equipment Corp.	202.0	9	0	0.0	0.0%	0	0.0	0.0%	1	3.0	1.5%
Mass Bay Electrical Corp.	7,244.0	54	4	530.5	7.3%	2	407.0	5.6%	0	0.0	0.0%
Massey's Plate Glass Aluminum, Inc.	15,680.5	57	12	2,954.5	18.8%	2	1,037.0	6.6%	1	714.0	4.6%
Maxim Crane Works, L.P.	47,085.5	73	14	11,248.5	23.9%	3	3,756.5	8.0%	5	6,816.5	14.5%
McCusker-Gill, Inc.	84,628.0	106	21	28,750.0	34.0%	2	5,159.5	6.1%	5	4,203.8	5.0%
McDonald Electrical Corp.	89,322.5	99	19	11,599.0	13.0%	10	6,271.0	7.0%	4	1,286.0	1.4%
McGregor Industries, Inc.	23,032.5	41	7	1,954.5	8.5%	2	3,808.5	16.5%	4	1,872.5	8.1%
McPhee Electric Ltd.	56,442.8	50	8	6,612.3	11.7%	5	3,569.0	6.3%	4	7,724.5	13.7%
Melo's Rodbusters, Inc. (WBE)	13,566.5	22	11	7,113.0	52.4%	0	0.0	0.0%	1	1,820.0	13.4%
Midnight Iron Construction Management Inc.	32.0	1	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
Milharmer Associates, Inc.	5,230.0	7	0	0.0	0.0%	1	80.0	1.5%	0	0.0	0.0%

CONTRACTOR	PROJECT TO DATE										
	Total Hours	Total # Workers	MINORITY - Goal: 15.3%			FEMALE - Goal: 6.9%			VETERAN - Goal: 3.0%		
			# Workers	Hours	%	# Workers	Hours	%	# Workers	Hours	%
Mitsubishi Electric US, Inc.	8,344.0	13	3	2,649.0	31.7%	1	943.0	11.3%	4	3,920.0	47.0%
MON Landscaping Inc.	1,359.0	32	4	144.0	10.6%	1	72.0	5.3%	0	0.0	0.0%
Moretrench	19,856.0	38	11	5,850.0	29.5%	3	302.0	1.5%	2	1,335.5	6.7%
MTK Construction Services, Inc.	1,799.5	25	15	1,310.9	72.8%	0	0.0	0.0%	0	0.0	0.0%
Murphy Electric & Industrial Control, LLC	1,355.5	8	1	167.5	12.4%	0	0.0	0.0%	1	576.0	42.5%
NER Construction Mgmt	26,392.5	50	5	1,302.5	4.9%	0	0.0	0.0%	1	48.0	0.2%
New England Finish Systems	2,982.5	30	2	46.0	1.5%	5	467.0	15.7%	0	0.0	0.0%
New England Installation, Inc.	2,192.5	10	2	175.0	8.0%	0	0.0	0.0%	1	264.5	12.1%
New Roads Environmental	7,961.5	42	40	7,906.5	99.3%	4	1,412.0	17.7%	1	172.0	2.2%
New tech Installation USA inc	31,495.3	48	10	5,864.0	18.6%	3	1,340.5	4.3%	3	1,635.0	5.2%
North East Foam Solutions, Inc.	7,819.0	11	5	1,667.0	21.3%	1	2,484.0	31.8%	3	3,513.0	44.9%
Northeast Interior aka Artisan Millwork	8,109.5	13	3	3,044.0	37.5%	1	568.0	7.0%	1	1,442.5	17.8%
NorthStar Contracting Group, Inc	37.0	2	1	12.0	32.4%	0	0.0	0.0%	0	0.0	0.0%
Oasis Shower Doors	8,243.0	11	2	1,864.0	22.6%	1	509.5	6.2%	0	0.0	0.0%
Otis Elevator Company	93,953.3	121	8	6,127.5	6.5%	7	4,379.0	4.7%	4	2,832.8	3.0%
P.J. Dionne Company, Inc.	1,954.5	6	1	276.0	14.1%	1	228.0	11.7%	0	0.0	0.0%
P.J. Spillane Company, Inc. (WBE)	24,519.0	52	11	3,008.5	12.3%	2	2,390.0	9.7%	1	36.0	0.1%
Peak Mechanical Services	16,697.0	26	4	6,354.0	38.1%	0	0.0	0.0%	3	2,600.5	15.6%
Pick Crane Service, Inc.	110.5	3	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
Port Morris Tile & Marble Boston LP	115,977.0	148	31	29,250.5	25.2%	4	7,122.0	6.1%	5	5,952.0	5.1%
Pro Cut Inc.	16.0	1	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
PSN Construction Inc.	1,347.2	2	2	1,347.2	100.0%	0	0.0	0.0%	0	0.0	0.0%
Quality Air Metals, Inc. (WBE)	19,299.0	16	3	4,493.0	23.3%	1	1,698.0	8.8%	1	457.0	2.4%
Quality Construction Specialty, Inc.	7,301.5	13	1	669.0	9.2%	0	0.0	0.0%	0	0.0	0.0%
R.J. Cobb LTD	48.0	2	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
Rapid Flow Inc.	1,572.0	2	0	0.0	0.0%	0	0.0	0.0%	1	8.0	0.5%
Regis Steel Corporation (MBE)	6,283.5	24	6	1,415.5	22.5%	3	613.0	9.8%	0	0.0	0.0%
Richard W. Reid Electric Company Inc.	34.0	3	2	16.0	47.1%	0	0.0	0.0%	0	0.0	0.0%
Roadsafe Traffic Systems, Inc	1,433.0	30	3	70.0	4.9%	2	25.5	1.8%	0	0.0	0.0%
Roman Iron Works, Inc.	628.0	3	1	205.0	32.6%	0	0.0	0.0%	0	0.0	0.0%
S&A Cranes LLC	62.5	7	1	10.5	16.8%	0	0.0	0.0%	1	8.0	12.8%
S&F Concrete Contractors, Inc.	425,256.0	415	103	129,999.0	30.6%	17	23,739.0	5.6%	11	15,248.5	3.6%
S-Cel-O Painting LLC (MWBE)	3,535.0	8	3	1,212.0	34.3%	3	1,144.0	32.4%	0	0.0	0.0%
Semper Diving & Marine Corporation (VBE)	55.5	3	0	0.0	0.0%	0	0.0	0.0%	1	18.5	33.3%
Silverback Construction Inc.	416.0	18	1	27.0	6.5%	0	0.0	0.0%	0	0.0	0.0%
Skylight Consultants of America, Inc.	2,014.5	14	2	171.0	8.5%	1	107.0	5.3%	0	0.0	0.0%
SOEP Painting Corp.	62,294.5	84	30	21,468.0	34.5%	10	5,699.0	9.1%	2	2,394.0	3.8%
SOS Corporation (WBE)	11,751.0	46	28	7,823.0	66.6%	28	7,201.0	61.3%	1	192.0	1.6%
SPS New England, Inc.	64,055.0	88	19	12,720.5	19.9%	6	3,730.5	5.8%	1	424.0	0.7%
Stalker Electric Inc.	686.0	7	0	0.0	0.0%	0	0.0	0.0%	1	219.0	31.9%
Stanley & Sons, Inc.	18,205.5	33	10	4,924.5	27.0%	3	2,326.5	12.8%	4	2,769.0	15.2%
Structures Derek International SA	2,207.5	11	4	1,143.5	51.8%	0	0.0	0.0%	0	0.0	0.0%
Sullivan & McLaughlin Co., Inc.	4,324.0	12	1	873.0	20.2%	2	945.0	21.9%	1	681.0	15.7%
Sunrise Erectors, Inc.	48,581.5	87	13	5,488.5	11.3%	6	2,692.5	5.5%	5	3,820.5	7.9%
Swan Contracting, LLC (MWBE)	72.0	1	1	72.0	100.0%	0	0.0	0.0%	0	0.0	0.0%
Sweeney Drywall Finishes Corp	12,882.0	40	14	4,393.0	34.1%	2	814.0	6.3%	1	32.0	0.2%
T & T Steel Erectors, Inc. (MBE)	859.0	6	1	305.0	35.5%	1	240.0	27.9%	0	0.0	0.0%
T&T Electrical Contractors, Inc.	172,143.0	168	27	32,980.0	19.2%	10	7,660.0	4.4%	6	7,621.5	4.4%
Tavares LLC (MBE)	41,739.5	70	36	27,136.5	65.0%	3	3,180.0	7.6%	1	2,351.0	5.6%
TCI Installations Inc. (WBE)	3,584.0	9	1	416.0	11.6%	0	0.0	0.0%	1	1,011.0	28.2%
Tekon-Technical Consultants, Inc.	877.5	5	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
The Cheviot Corporation	9,313.0	26	7	1,354.5	14.5%	1	881.5	9.5%	1	340.0	3.7%
The Railroad Associates Corporation	68.5	3	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
The Welch Corporation	11,582.5	21	2	1,308.0	11.3%	3	1,057.0	9.1%	2	1,225.0	10.6%
Thermo-Dynamics International, Inc. (VBE)	18,769.0	38	12	5,616.5	29.9%	2	1,047.0	5.6%	2	1,865.0	9.9%
Titan Roofing, Inc. (MWBE)	70,442.5	108	29	20,625.0	29.3%	3	4,718.5	6.7%	4	4,925.0	7.0%
Total Mechanical Service Corp. (MBE)	96.0	3	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
TREVICOS CORPORATION	60,534.5	89	24	16,023.0	26.5%	7	4,090.5	6.8%	3	2,630.0	4.3%
Triboro Crane & Rigging Services	1,242.0	9	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%

CONTRACTOR	PROJECT TO DATE										
	Total Hours	Total # Workers	MINORITY - Goal: 15.3%			FEMALE - Goal: 6.9%			VETERAN - Goal: 3.0%		
			# Workers	Hours	%	# Workers	Hours	%	# Workers	Hours	%
Ultra-Lum Services, LLC	3,348.0	11	3	725.0	21.7%	0	0.0	0.0%	0	0.0	0.0%
Union Temporary Services, Inc.	16,281.5	29	7	3,163.0	19.4%	2	1,698.5	10.4%	0	0.0	0.0%
Unistrut International Corp.	17,445.8	22	5	6,106.5	35.0%	2	1,186.5	6.8%	1	2,044.0	11.7%
United Elevator Company (WBE)	983.0	8	0	0.0	0.0%	0	0.0	0.0%	1	21.0	2.1%
Universal Automation & Mechanical Services	2,022.0	9	1	8.0	0.4%	0	0.0	0.0%	0	0.0	0.0%
Urban Insulation Inc. (WBE)	13,144.0	20	5	4,206.0	32.0%	2	1,283.5	9.8%	2	975.0	7.4%
UTEC Constructors LLC	688.0	9	1	116.0	16.9%	0	0.0	0.0%	0	0.0	0.0%
Vanguard Plumbing & Mechanical LLC	352.0	2	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
Vynorius Pledriving Inc.	13,626.3	32	3	1,810.3	13.3%	3	657.5	4.8%	4	1,592.0	11.7%
Walco Installations, LLC	846.0	8	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
WES Construction Corp	4,134.0	15	1	356.5	8.6%	1	398.0	9.6%	0	0.0	0.0%
Whitehawk Construction Services, Inc.	6,018.5	25	8	1,539.0	25.6%	1	496.0	8.2%	0	0.0	0.0%
Won-Door Corporation	345.6	3	0	0.0	0.0%	0	0.0	0.0%	0	0.0	0.0%
Wood & Wire Fence Co. Inc. (MBE)	8.0	2	1	4.0	50.0%	0	0.0	0.0%	0	0.0	0.0%
TOTAL	5,980,774.8	7,740	1,870	1,535,036.9	25.7%	489	427,773.3	7.2%	311	314,789.3	5.3%

**Contracts and Payments to Minority, Women and
Veteran Business Enterprises for Construction Phase**

As of June 30, 2019

Reference 205 CMR 135.02(5)(f)

As of June 30th, 2019, Encore had awarded \$263,348,345 or 18.9% of qualified construction contracts, in contracts to M/W/VBEs. As of June 30th, 2019, Encore and Encore’s contractors and sub-contractors awarded 81 contracts to MBEs, 152 contracts to WBEs, and 49 contracts to VBEs for construction.

	# Contract Awards*	Contract Award Value (\$)	% of Total Construction Contracts Awarded to Date	% Goal	Paid to Date (\$) As of 03/31/19
MBE	81	80,834,984	5.8%	5.0%	71,892,845
WBE	152	174,670,571	12.5%	5.4%	153,025,747
VBE	49	38,365,931	2.8%	1.0%	31,971,895
TOTAL**	252	\$263,348,345	18.9%	11.4%	\$233,863,524

*Note that a majority of M/W/VBEs are sub-contracted with Encore’s contractors and sub-contractors.

M/W/VBE contract awards and payments report includes awards and payments made to businesses with more than one diverse classification (i.e. M/WBE). **Totals reported deduct any double counting due to awards to businesses with more than one diverse classification.

**Contracts and Payments to Minority, Women and
Veteran Business Enterprises for Design Phase**
As of June 30th, 2019

Reference 205 CMR 135.02(5)(f)

As of June 30th, 2019, Encore had awarded \$14,953,702 or 22.7% of qualified design contracts, to M/W/VBEs for design work. As of June 30th, 2019, Encore and Encore's consultants awarded 13 contracts to MBEs, 14 contracts to WBEs, and 4 contracts to VBEs for design work.

	# Contract Awards*	Contract Award Value (\$)	% Total Design Contract*	% Goal	Paid to Date (\$) As of 03/31/19
MBE	13	5,619,350	8.5%	7.9%	5,407,293
WBE	14	5,399,784	8.2%	10.0%	5,111,598
VBE	4	3,974,569	6.0%	1.0%	3,650,616
TOTAL **	30	\$14,953,702	22.7%	18.9%	\$14,141,175

*Note that 9 MBE contracts, 9 WBE contracts, and 2 VBE contract, are sub-contracted with Encore's consultants.

M/W/VBE contract awards and payments report includes awards and payments made to businesses with more than one diverse classification (i.e. M/WBE). **Totals reported deduct any double counting due to awards to businesses with more than one diverse classification.



MEMORANDUM

TO: Massachusetts Gaming Commission
FROM: Todd Grossman, Deputy General Counsel
RE: Renewal of a gaming license
DATE: September 12, 2019

I. Introduction

The two Category 1 gaming licenses awarded by the Commission are issued for a term of 15 years. See G.L. c.23K, §19(b). The single Category 2 gaming license awarded by the Commission is valid for a term of 5 years. See G.L. c.23K, §20(f). Per the documents awarding the respective licenses, the term of the licenses began upon the Commission's approval to commence operations of the gaming establishments. Chapter 23K includes some provisions relative to the renewal of these licenses at the expiration of the initial terms, but the Commission will have to develop and implement new regulations to effectively govern the renewal process. Prior to doing so, however, a number of broad policy questions should be discussed in order to lend guidance to the process. Some of those questions are outlined below. Prior to contemplating those questions though, it will be useful to review the relevant statutory provisions, as well as the approaches employed by other gaming jurisdictions.

II. Statutory Renewal Provisions

The governing provisions included in G.L. c.23K grant broad discretion to the Commission to develop a renewal process for the gaming licenses it issues. Aside from directing that the Commission develop such a process that includes some sort of renewal fee, the statutes do not themselves establish many requirements.

The law requires the Commission to “establish procedures” for the renewal of the Category 1 and Category 2 licenses. G.L. c.23K, §§19(b)¹ and 20(f).² There is no other indication in the

¹ G.L. c.23K, §19(b) provides: “The commission shall establish procedures for the renewal of a category 1 license, including a renewal fee, and submit to the clerks of the senate and house of representatives any legislative recommendations that may be necessary to implement those procedures, not less than 180 days before the expiration of the first license granted pursuant to this chapter.”

² G.L. c.23K, §20(f) provides: “The commission shall establish procedures for renewal and set the renewal fee based on the cost of fees associated with the evaluation of a licensee; provided, however, that the cost of renewal shall not be less than \$100,000. Any renewal fees shall be deposited into the Gaming Revenue Fund.”



Massachusetts Gaming Commission

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law as to what form the process must take. The renewal processes for each category of license must, however, include the assessment of a renewal fee. See id. The renewal fees must be “based on the cost of fees associated with the evaluation of” each licensee . See G.L. c.23K, §§10(d)³ and 20(f). As for the Category 2 license, the law provides that the fee “shall not be less than \$100,000.” G.L. c.23K, §20(f). There are otherwise no statutorily prescribed minimum or maximum renewal fees associated with the Category 1 licenses. All renewal fees “shall be deposited into the Gaming Revenue Fund.” G.L. c.23K, §§10(d) and 20(f).

The only other reference in Chapter 23K to the renewal process is included in section 17(b) which mandates that “[a] gaming licensee's compliance with [ILEV] agreements shall be considered upon a gaming licensee's application for renewal of the gaming license.”

III. Other jurisdictions

Though each is unique, it may be helpful to consider the manner in which some of the other jurisdictions that allow expanded gaming address renewal or review of gaming licenses. This is a high level overview:

New Jersey- Casino licenses are issued for 5 year terms. After an initial grant, there is a resubmission, rather than renewal, process. This means that a full investigation into the entities and individuals as to their suitability as well as a full financial review of the operations is conducted, but if there are no issues of concern a hearing before the Casino Control Commission is not required. It is essentially a call-forward process, i.e. - the license continues unless the Division of Gaming Enforcement seeks to bring forth an issue for hearing.

Nevada- Casino licenses in Nevada are not issued for any set period of time. Accordingly there is no formal renewal process; nor is there any formal periodic review process. However, gaming licensees and executives are required to appear before the Commission regularly for a variety of different approvals (e.g.- financial audits, changes in employment, amendments to “Order of Registration”). This affords the Commission an opportunity to effectively maintain oversight of its licensees.

Mississippi- Casino licenses are issued for a 3 year term. A shorter license term can be imposed if there are concerns about the company, but generally all licenses are for 3 years. The commission may simply “continue” the license at its expiration if there has not been any

³ G.L. c.23K, §10(d) provides: “The commission shall set any renewal fee for such license based on the cost of fees associated with the evaluation of a category 1 licensee under this chapter which shall be deposited into the Gaming Revenue Fund. Such renewal fee shall be exclusive of any subsequent licensing fees under this section.”

“substantial changes” in the applicant’s information since initial licensure. However, at the end of a 3 year license period the commission does not typically “continue” the license but rather reissues the license for another 3 years if the applicant is found to be in good standing. There is frequently substantial change in a company over the course of three years. So when it comes time for re-licensure, a casino submits an application again on the same “Mississippi Addendum” form for an initial applicant and just updates its information. The review/investigation for a renewal is not quite as arduous as an initial application as the Commission already has a history of the company. However, updated financial information, changes in ownership, changes in officers, etc. are reviewed (officers and owners of a company get a suitability approval for 9 years, so if they are still with the company they do not have to be renewed every time the company does and only new officers or owners have to submit new fingerprint forms and be investigated). The information required to be submitted by the applicant is the same at the time of initial licensure and at renewal (including things like terms and conditions of outstanding loans or indebtedness, balance sheets for the preceding 3 years, and profit loss statements for at least 3 years).

Supplementary information is also reviewed depending on the applicant. The Commission’s primary concerns involve things like whether the company still has sufficient capital to continue adequate operations in the state, and whether there are any active investigations or significant litigation involving the company. The licensees are generally required to keep the Commission updated on significant information during the course of their license period, so there are not usually many surprises.

Pennsylvania- Initially, casino operators were identified as Slot Machine Licensees and the initial term of their license was 1-year. Following that initial 1-year renewal term, all subsequent renewals were on a 3-year term. More recently, however, Pennsylvania’s General Assembly passed a gambling expansion bill signed into law in October 2017. One provision of that bill was to extend the license renewal term for all categories of licenses to 5 years. A few other characteristics of the Slot Machine License renewal process are the following:

1. A renewal application must be submitted by the casino 180 days prior to the expiration of the license.
2. Renewal application fees are to be included with the renewal application.
3. Once the renewal application is deemed complete, a public input renewal hearing is scheduled in the municipality where the casino is located. This hearing includes testimony from casino management as well as any government officials, community groups and members of the public who register in advance to speak. There are time limits on all persons who wish to speak.
4. Two or three months later, a license renewal hearing is held for one of the Board’s regularly scheduled public meetings. At this time, the casino makes a presentation and answers any questions from the Board members. During this

regularly scheduled public meeting, the Board will make a motion and take a vote on the renewal application.

Michigan- Casino licenses are subject to annual renewal. An abbreviated form of a business entity disclosure form and personal disclosure (including a net worth statement) for each individual qualifier are required. There is a \$25,000 annual renewal fee.

IV. Policy questions

In order to effectively craft regulations governing the renewal process for gaming licenses, the Commission should first address some threshold policy questions. The answers to the following non-exhaustive list of questions will help shape the resulting regulations.

1. *What should the license renewal fee be?* The initial license fees for the Category 1 and Category 2 licenses were \$85 million and \$25 million respectively. See G.L. c.23K, §§10(d) and 11(b). In setting the initial licensing fee, the Commission took a long view, and elected to set the fees at the statutory minimums (as opposed to setting up a bidding process or increasing the fee to a higher amount) in order to enable the licensee to put as many funds as feasible into the construction and operation of the respective gaming establishments.
2. *What will the term of the renewal be?* The law clearly sets the initial terms of the Category 1 and Category 2 gaming licenses as 15 years and 5 years, respectively. See G.L. c.23K, §§19(b) and 20(f)(“A category 1 license issued by the commission in any region shall be valid for an initial period of 15 years” G.L. c.23K, §19(b); “A category 2 license issued pursuant to this chapter shall be for a period of 5 years.” G.L. c.23K, §20(f)). By its reference to the term as an “initial period of 15 years,” section 19(b) left open the question as to whether a term of renewal of a Category 1 gaming license would similarly be required to be 15 years. By contrast, the language applicable to the term of a Category 2 license provides no such opening in that it makes clear that the license “shall be for a period of 5 years.” G.L. c.23K, §20(f).
3. *What issues should the renewal process focus on?* As part of the initial RFA-2 process, the Commission comprehensively reviewed and considered nearly every component of the construction and operation of each gaming establishment. While the Commission may elect not to engage in such a comprehensive review as part of the renewal process, it will have to determine which elements will be part of the renewal review. For example, it may include any or all of the following:
 - Review of compliance with existing conditions of gaming license;
 - Review of status and compliance with host community agreements;

- Review of status and compliance with surrounding community agreements;
- Review of status and compliance with ILEV agreements;
- Review of capital expenditure plan;
- Review of suitability of individual qualifiers (filing of Multi-jurisdictional Personal History Disclosure Form and Massachusetts Supplement);
- Review of suitability of entity qualifiers (filing of Business Entity Disclosure Form);
- Review of existing conditions of gaming license and associated commitments and requirements including onsite and offsite mitigation;
- Review of financial suitability (overall health, debt/equity ratio, debt obligations); and
- Review of business ability to operate a successful gaming establishment.

4. *Are any amendments to G.L. c.23K needed in order to implement the renewal process?*
 Pursuant to G.L. c.23K, §19(b), the Commission shall “submit to the clerks of the senate and house of representatives any legislative recommendations that may be necessary to implement those procedures, not less than 180 days before the expiration of the first license granted pursuant to this chapter.” This language appears in the section pertaining to the Category 1 gaming licenses, so does not seem to apply to the renewal of the Category 2 license. However, it provides an opening to make such recommendations in the near term if deemed helpful.



TO: Chair Judd-Stein, Commissioners Cameron, O'Brien, Stebbins and Zuniga

FROM: Bruce Band, IEB – Gaming Agents Division Chief

Mark Vander Linden, Director of Research and Responsible Gaming

CC: Ed Bedrosian, Karen Wells


DATE: September 12, 2019


RE: "Switching" Enforcement and Regulations

Background

The Investigations and Enforcement Bureau – Gaming Agents Division has been focusing its' attention on surveillance of incidents of "Switching" – the practice involving a slot machine player switching seats after a jackpot of \$1200 or more with a friend, accomplice or other player. This act is illegal and hinders enforcement of MGL Chapter 23K Section 51 and 205 CMR 133.06 (7)(a) because it allows players, who may be on the Self Exclusion List or Voluntary Self Exclusion list or owe monies directly to the Massachusetts Department of Revenue or US Government, to improperly collect winnings.

Recently, MGC Gaming Agents have reviewed surveillance footage from Plainridge Park Casino, MGM Springfield and Encore Boston Harbor of slot machine winners where a player "Switched" seats with another player. Below is their reporting from March through August 2019:

 Jackpot Switches Plainridge Park Casino			
Month	Reviews Conducted by IEB	Jackpot Switches Observed & Documented by IEB	PPC Surveillance Found Jackpot Switch Attempts
19-Mar	244	4	3
19-Apr	178	3	3
19-May	145	0	4
19-Jun	205	0	5
19-Jul	242	0	3
19-Aug	174	1	9
19-Sep			
19-Oct			
19-Nov			
19-Dec			
19-Jan			
19-Feb			
TOTAL	1188	8	27

 Jackpot Switches MGM Springfield			
Month	Reviews Conducted by IEB	Jackpot Switches Observed & Documented by IEB	MGM Surveillance Found Jackpot Switch Attempts
19-Mar	122	2	0
19-Apr	119	1	1
19-May	158	1	0
19-Jun	186	0	0
19-Jul	132	0	0
19-Aug	112	1	1
19-Sep			
19-Oct			
19-Nov			
19-Dec			
19-Jan			
19-Feb			
TOTAL	829	5	2



Massachusetts Gaming Commission



Jackpot Switches
Encore Boston Harbor

Month	Reviews Conducted by IEB	Jackpot Switches Observed & Documented by IEB	EBH Surveillance Found Jackpot Switch Attempts
19-Mar			
19-Apr			
19-May			
19-Jun			
19-Jul	107	0	0
19-Aug	86	1	0
19-Sep			
19-Oct			
19-Nov			
19-Dec			
19-Jan			
19-Feb			
TOTAL	193	1	0

Through the end of August, agents at all three properties have reviewed a combined 2210 hand-paid jackpots. Out of those reviewed, the IEB has found 14 incidents where a patron successfully switched seats or allowed another patron to claim the jackpot. After alerting the properties, the surveillance teams began conducting their own reviews and prevented another 29 attempted switches.

Going forward, agents will continue to review possible jackpot switches by reviewing any jackpot over the \$1,200.00 threshold.

Impact on VSE

Individuals who place themselves on the Massachusetts Gaming Commission’s Voluntary Self Exclusion (VSE) list or a family member who places an individual on the third-party exclusion list do so in an effort to mitigate the negative impact gaming may have on the individual by restricting their ability to gamble. Pursuant to MGL c.23K-§45(f), “during any period of voluntary exclusion, the person shall not collect any winnings or recover any losses resulting from any gaming activity at a gaming establishment.” Under 205 CMR 133.06 (7)(a), “[a] gaming licensee shall not pay any winnings derived from gaming to an individual who is prohibited from gaming in a gaming establishment by virtue of having placed their name on the voluntary self-exclusion list in accordance with 205 CMR 133.00.” If a VSE list participant is located on the gaming floor, they are escorted from the property



Massachusetts Gaming Commission

and must forgo any winnings. The VSE agreement may be circumvented if a VSE patron merely switches seats and allows another player to accept their winnings.

Impact on Massachusetts Department of Revenue and Federal Tax Obligations

The Expanded Gaming Act of 2011 specifically spelled out in MGL c.23K, § 51 the need for jackpot winners in excess of \$600 (later updated to \$1200 in Section 14 of the FY 2015 Supplemental Appropriations Bill to be aligned with federal law) to be reviewed to ascertain whether the winner of the cash or prize owes past-due child support to the commonwealth or to ascertain whether the winner of the cash or prize owes any past-due tax liability to the Commonwealth. Prohibiting “switching” would help prevent a player from avoiding their current liabilities.

Conclusion

Though the recent records and footage research show that “switching” does not occur frequently, the need to monitor any such activity should be reinforced with our licensees. Slot attendants, who attend to a slot machine or electronic gaming device jackpot of \$1200 or more, should have sufficient time to ask their surveillance department to review footage and determine if “switching” occurred. There does not seem to be any inconvenience to the player with respect to the amount of time it would take property surveillance to review footage and report back to the slot attendant.

We remind our licensees to abide by our regulations and provide assistance to help prevent VSE list participants from gaming and evasion by players seeking to avoid paying any outstanding taxes or penalties.



Massachusetts Gaming Commission



TAXABLE JACKPOT “SWITCHING” BETWEEN PATRONS

MARCH 2019 TO AUGUST 2019

SEPTEMBER 12, 2019



IEB MEMO

(see accompanying memo)



JACKPOT SWITCHING

Slot Machine Jackpot Process:

- Casinos in Massachusetts submit policies and procedures in 205 CMR 138.56 governing the payments of Jackpots.
- Slot machines are programmed to lock out upon registering a winning combination that pays in the amount of \$1200 or more.
- Included in the policies and procedures are a requirement from MGL Chapter 23K Section 51 to review information submitted by the winner with the Department of Revenue to ascertain whether the winner owes past-due child support OR past-due tax liability to the commonwealth.



JACKPOT SWITCHING

Gaming Agent Review:

- The IEB Gaming Agent have reviewed jackpot switching from March 2019 through August 2019. During this time the gaming agents have reviewed 2210 jackpot payments at the three casinos in the commonwealth.
- The IEB Gaming Agents found 14 incidents where patrons successfully switched seats or allowed another patron to claim the jackpot.
- After alerting the casinos, the surveillance teams began monitoring jackpot payouts more closely and prevented another 29 attempted switches.



JACKPOT SWITCHING

Plainridge Park Casino:




Jackpot Switches Plainridge Park Casino

Month	Reviews Conducted by IEB	Jackpot Switches Observed & Documented by IEB	PPC Surveillance Found Jackpot Switch Attempts
19-Mar	244	4	3
19-Apr	178	3	3
19-May	145	0	4
19-Jun	205	0	5
19-Jul	242	0	3
19-Aug	174	1	9
19-Sep			
19-Oct			
19-Nov			
19-Dec			
19-Jan			
19-Feb			
TOTAL	1188	8	27



JACKPOT SWITCHING


MGM Casino:

 Jackpot Switches MGM Springfield			
Month	Reviews Conducted by IEB	Jackpot Switches Observed & Documented by IEB	MGM Surveillance Found Jackpot Switch Attempts
19-Mar	122	2	0
19-Apr	119	1	1
19-May	158	1	0
19-Jun	186	0	0
19-Jul	132	0	0
19-Aug	112	1	1
19-Sep			
19-Oct			
19-Nov			
19-Dec			
19-Jan			
19-Feb			
TOTAL	829	5	2



JACKPOT SWITCHING

Encore Boston Harbor:

 Jackpot Switches Encore Boston Harbor			
Month	Reviews Conducted by IEB	Jackpot Switches Observed & Documented by IEB	EBH Surveillance Found Jackpot Switch Attempts
19-Mar			
19-Apr			
19-May			
19-Jun			
19-Jul	107	0	0
19-Aug	86	1	0
19-Sep			
19-Oct			
19-Nov			
19-Dec			
19-Jan			
19-Feb			
TOTAL	193	1	0

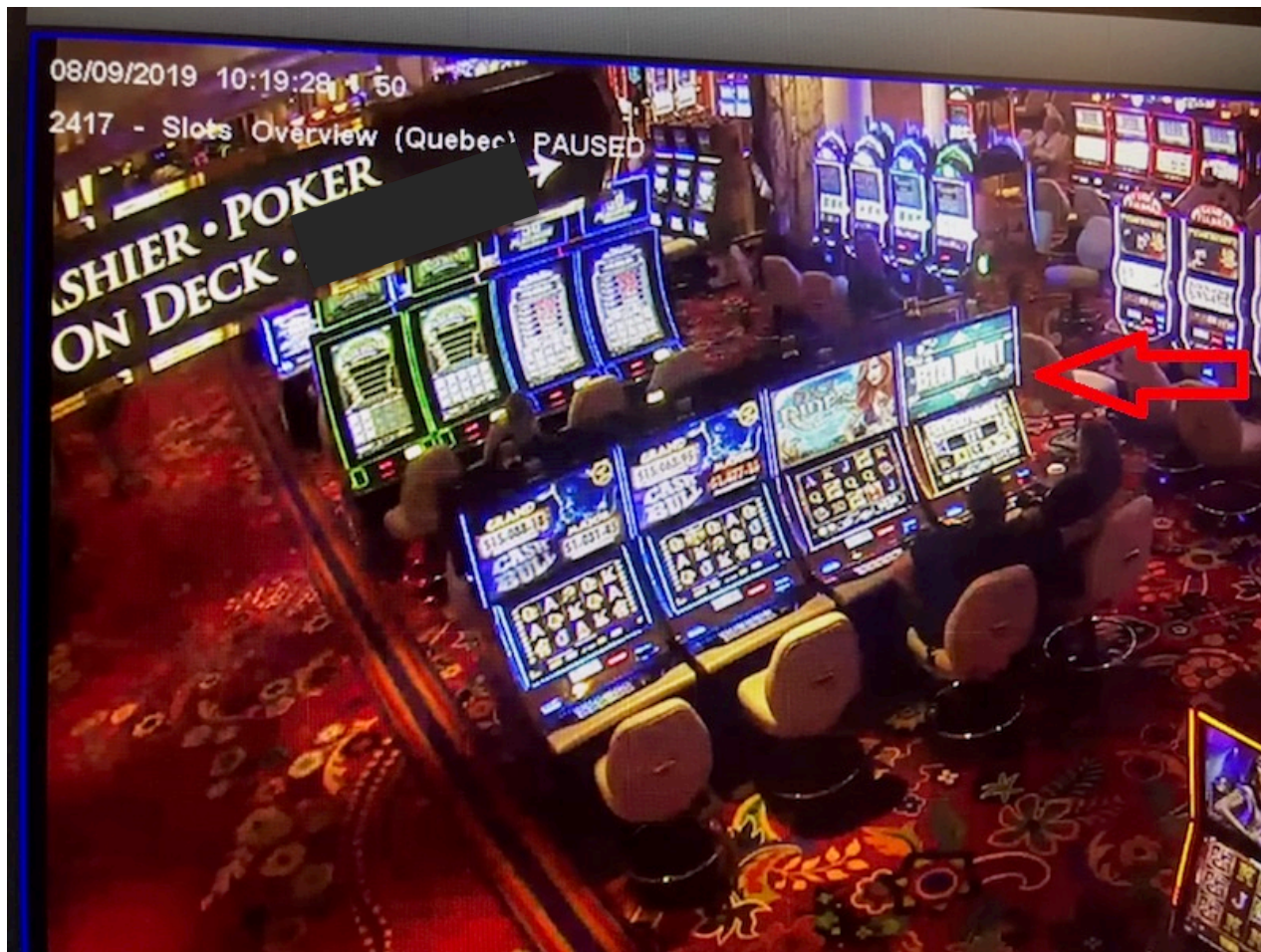


SECTION TWO

JACKPOT SWITCH: EXAMPLE ONE

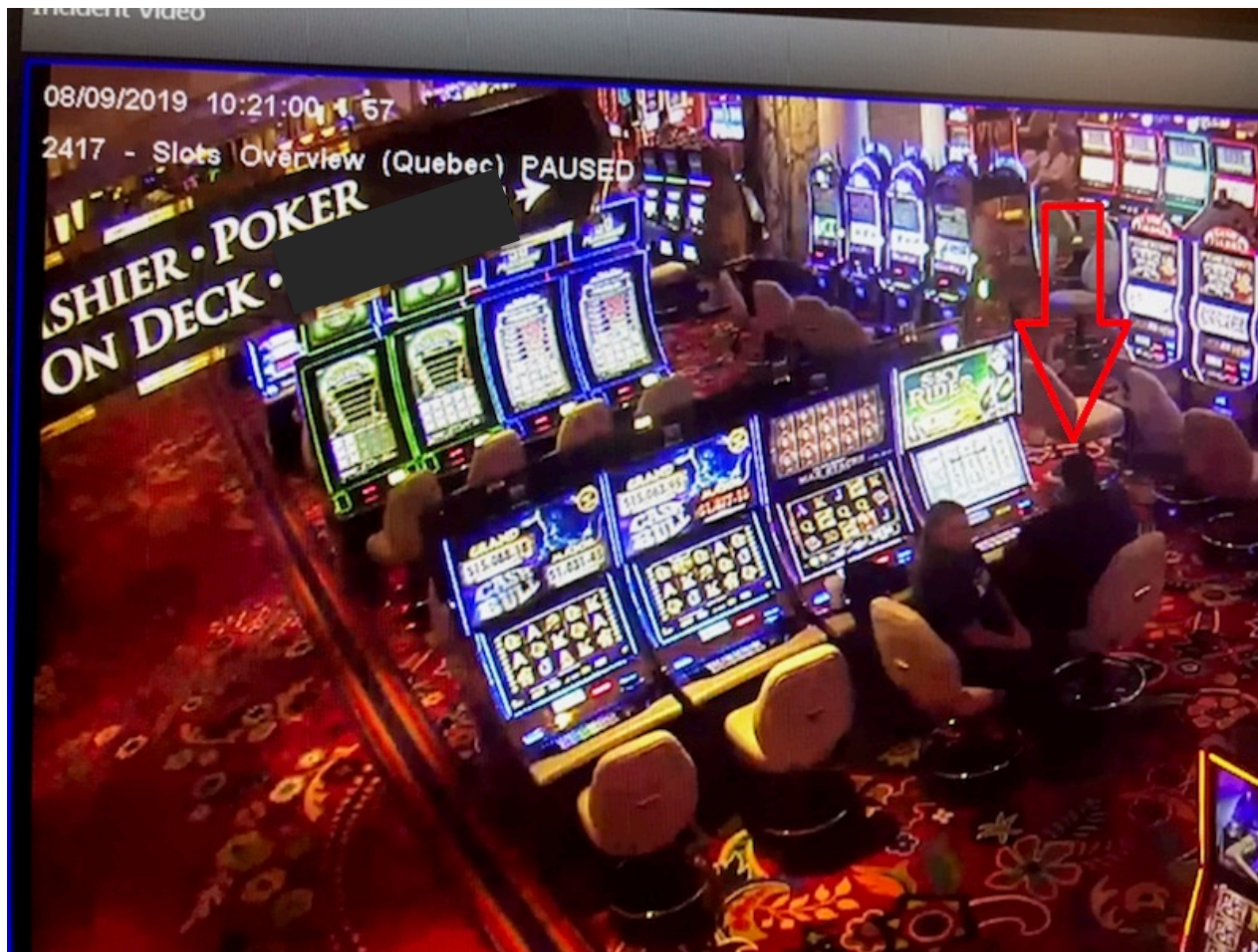


FEMALE PATRON ACTIVATES JACKPOT



The female gaming at seat one is playing the machine and hits the jackpot at 1019hrs.

THE SWITCH



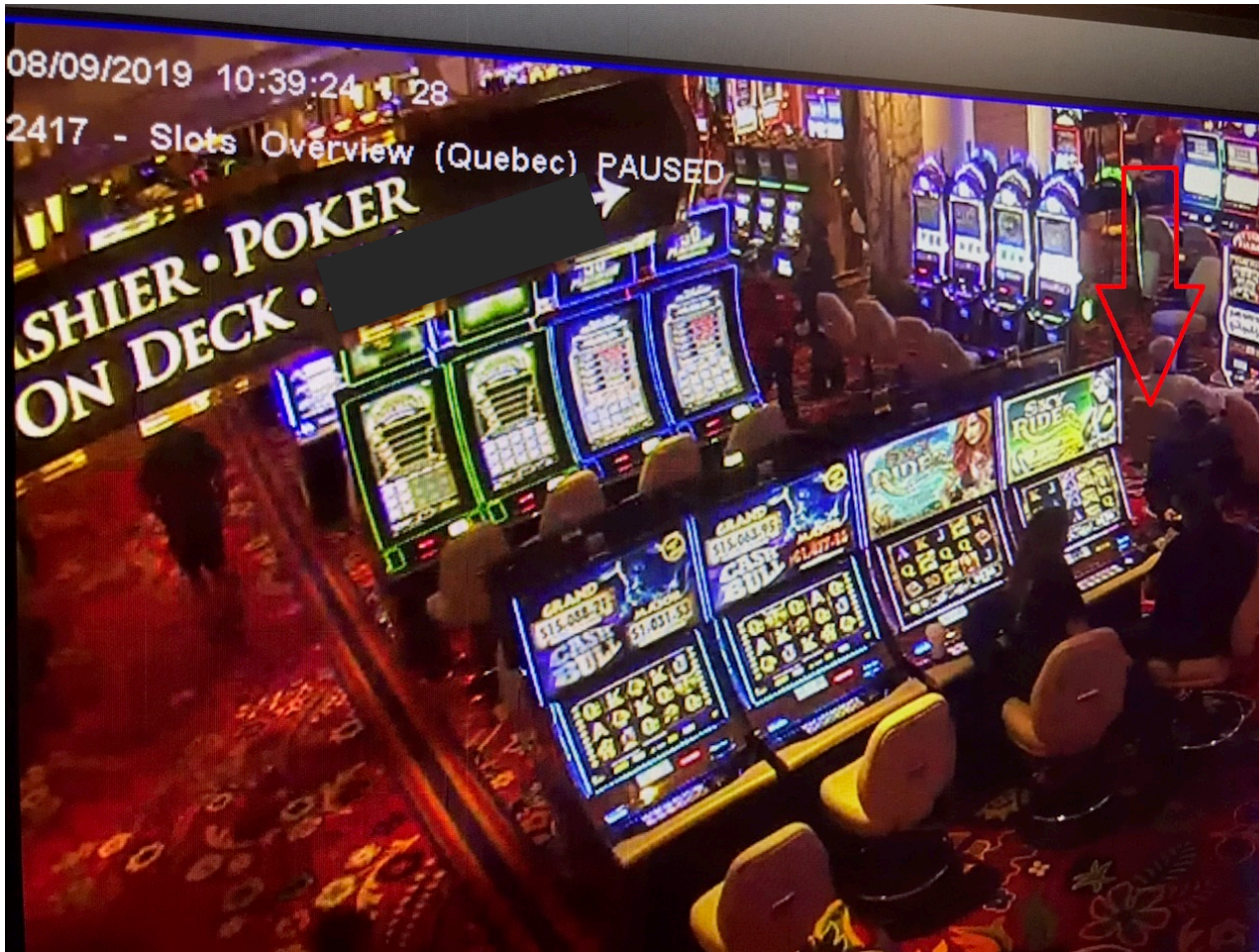
The male switches seats with the female at 1021hrs and they both wait for a Slot Attendant.

COLLECTION OF INFORMATION



At 1029hrs the Slot Attendant retrieves the male patron information for the W-2 form.

THE PAYMENT

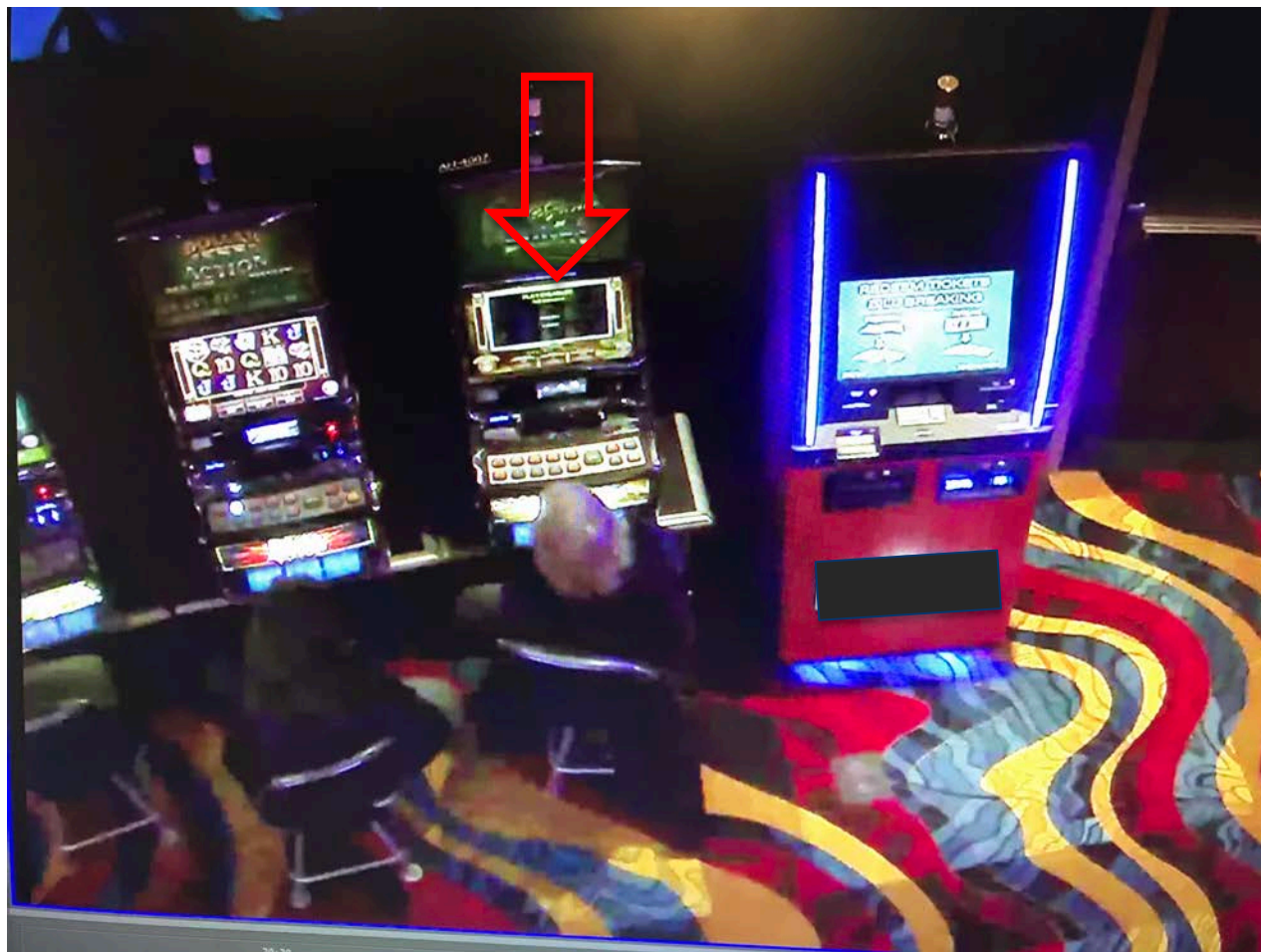


The same Slot Attendant who processed the W-2 form is the same attendant who pays the male patron.

JACKPOT SWITCH: EXAMPLE TWO

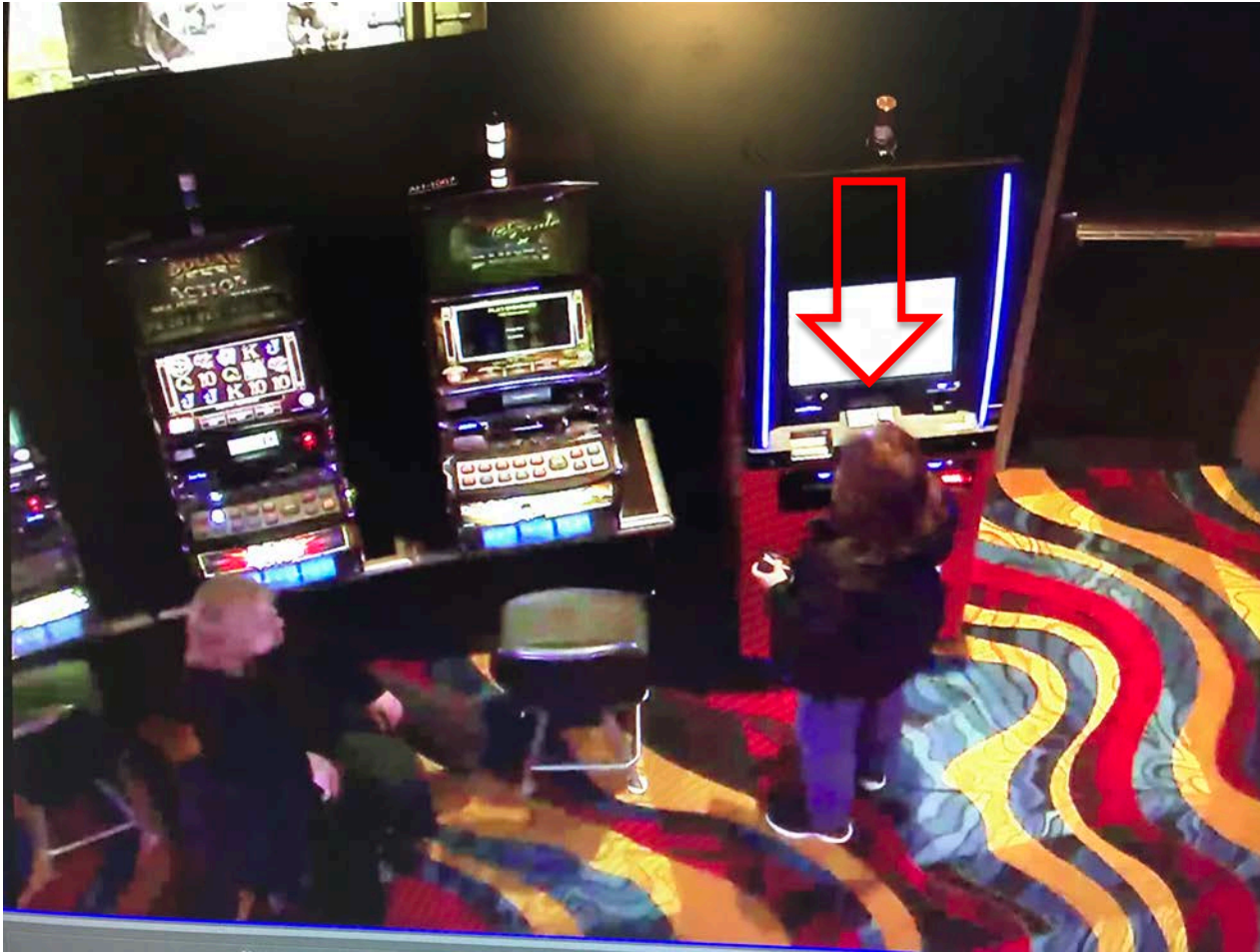


BLONDE HAIR PATRON ACTIVATES JACKPOT



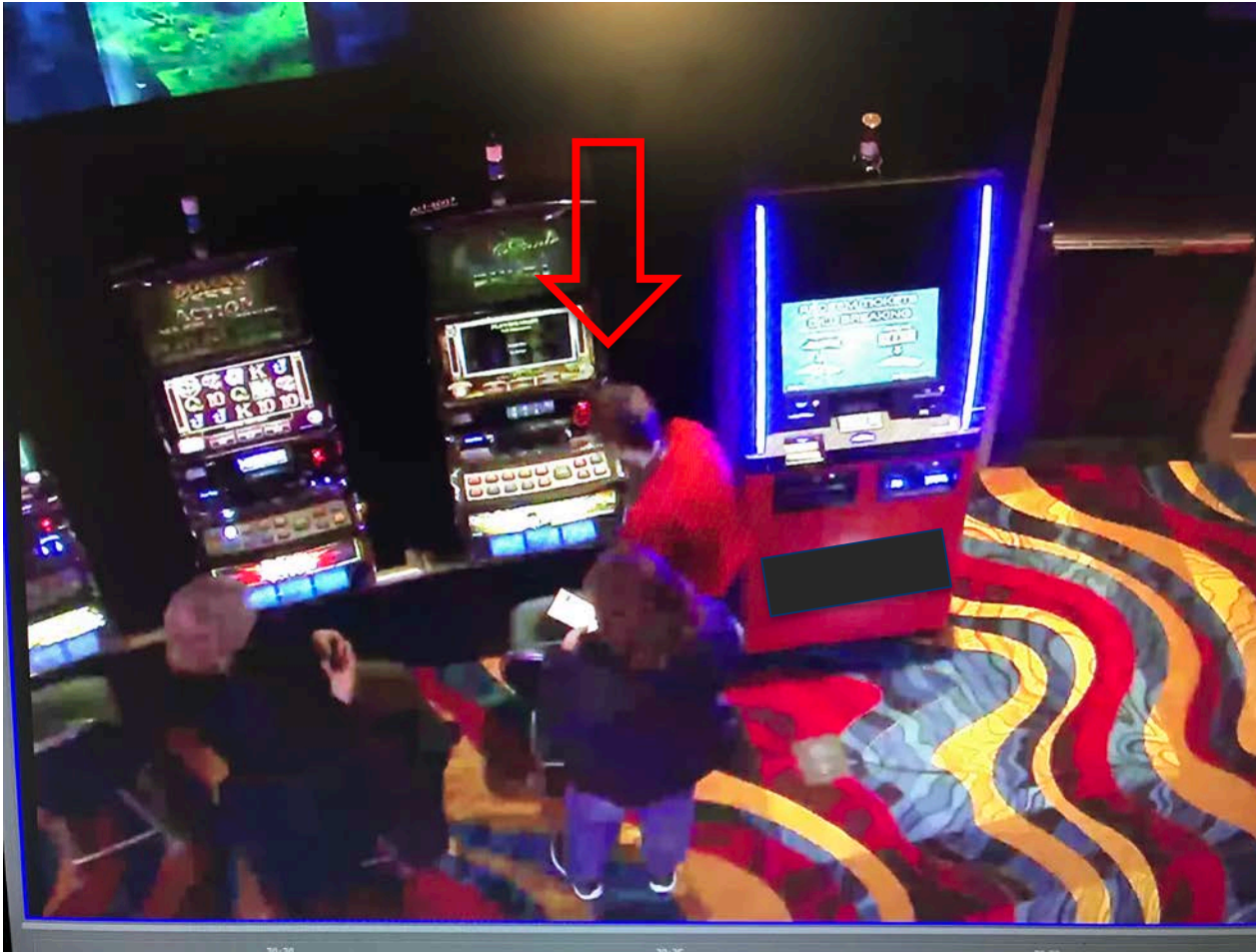
The blonde hair patron gaming at seat one is playing the machine and hits the jackpot at 2021hrs.

THE SWITCH



The two patrons switch seats immediately and wait for a slot attendant

COLLECTION OF INFORMATION



At 2025hrs the Slot Attendant retrieves the information for the W-2 form from the dark hair patron.

THE PAYMENT

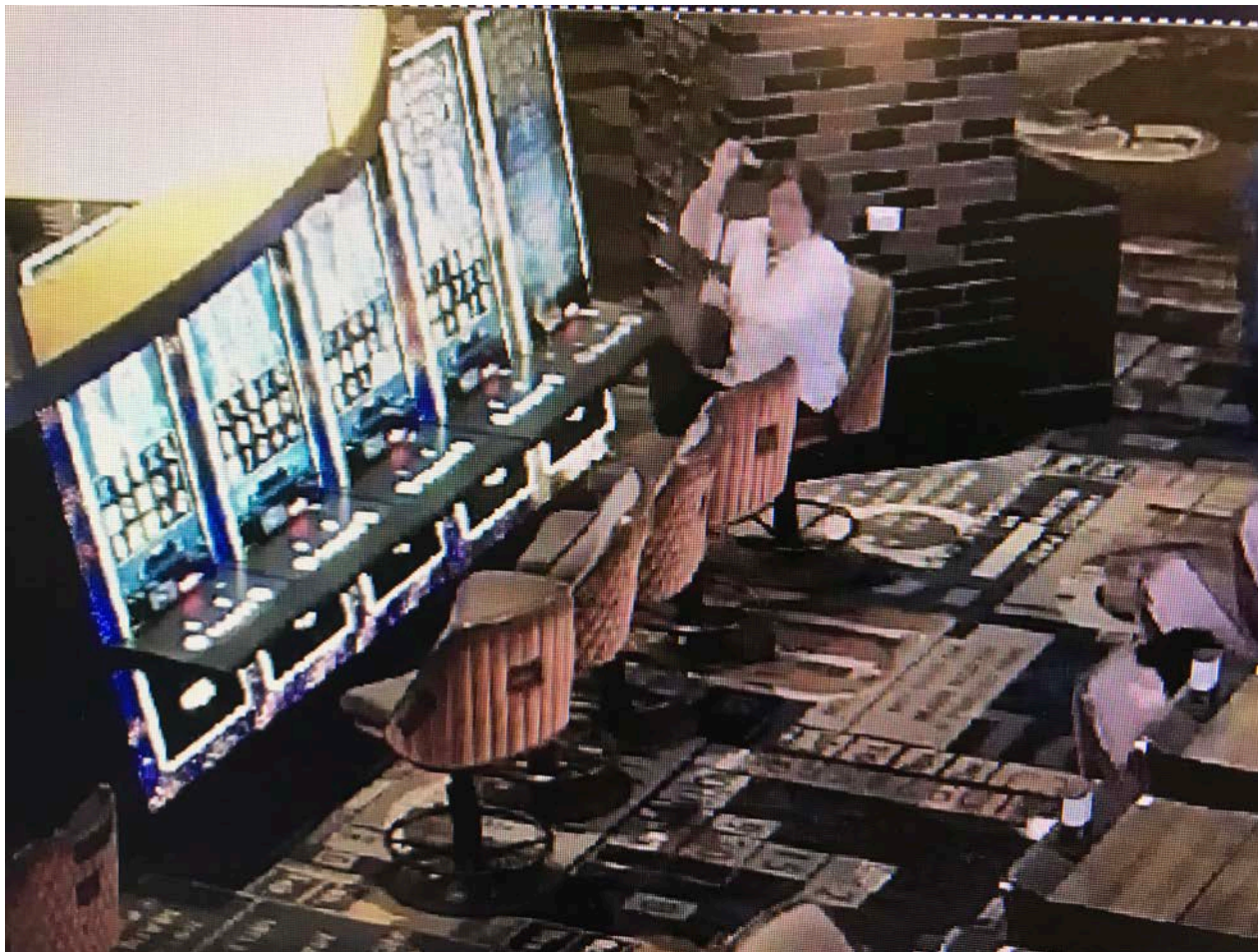


The same Slot Attendant who processed the W-2 form is the same attendant who pays the dark hair patron.

JACKPOT SWITCH: EXAMPLE THREE



FEMALE PATRON ACTIVATES JACKPOT

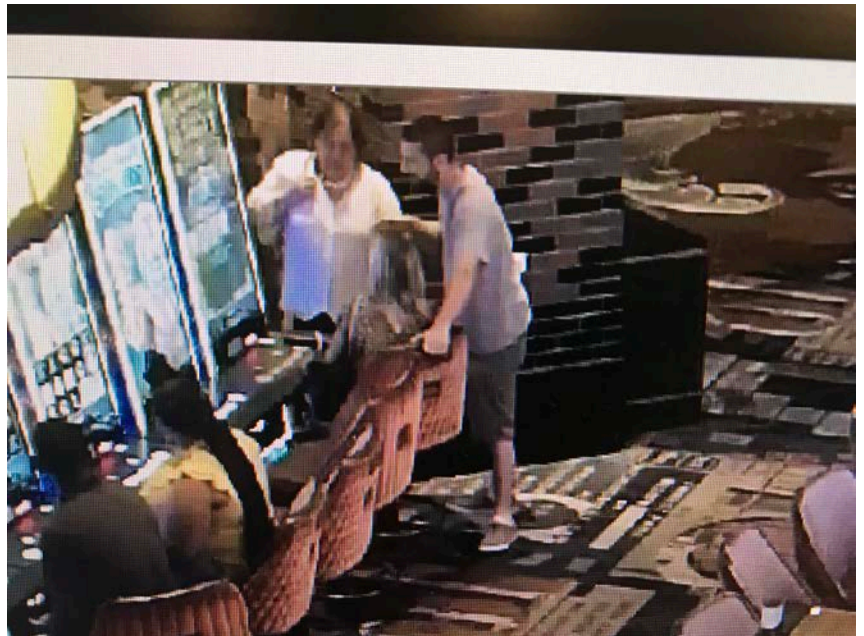


The female patron gaming at the machine triggered a jackpot.

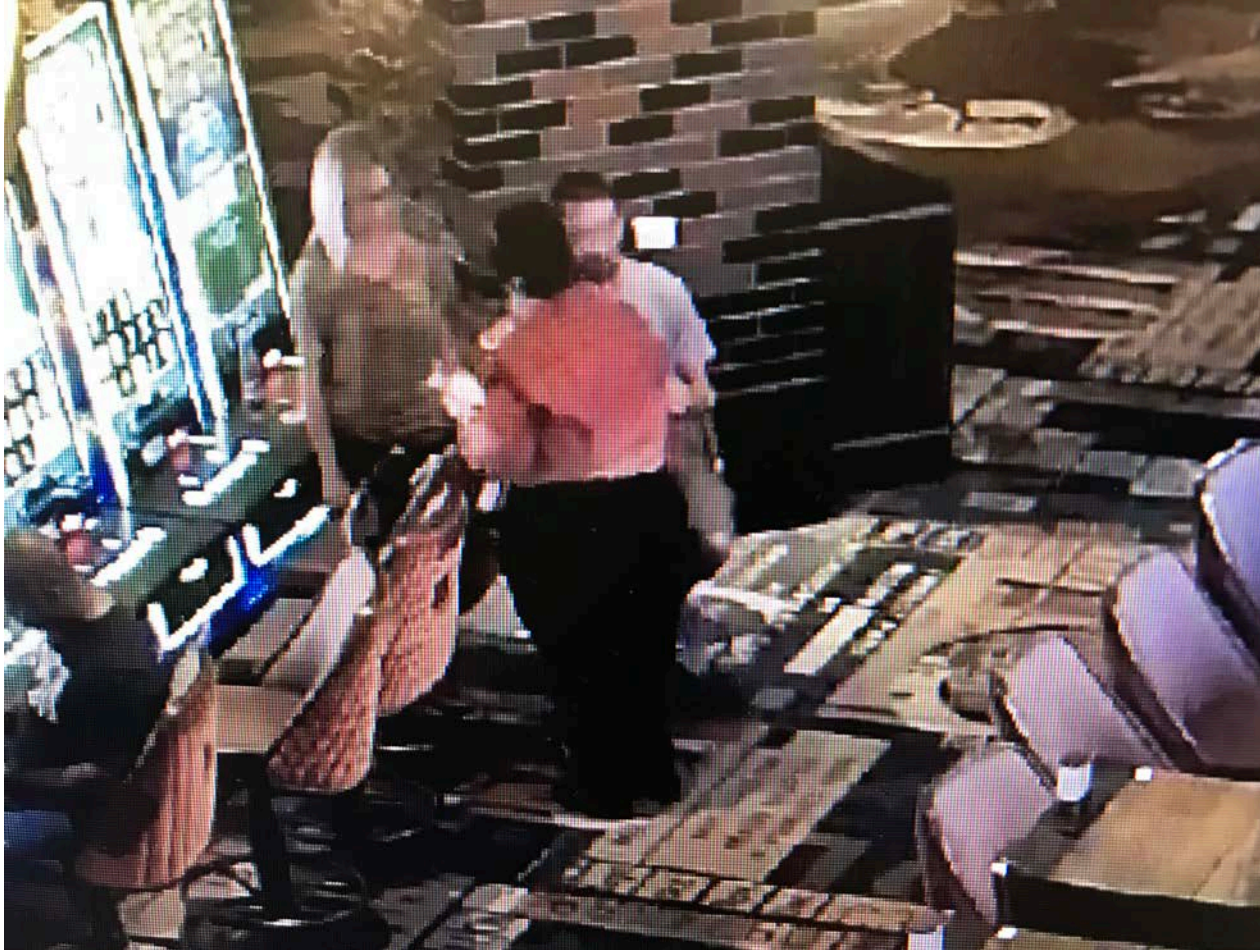
THE SWITCH



The patron locates two other players on the casino floor to claim her jackpot

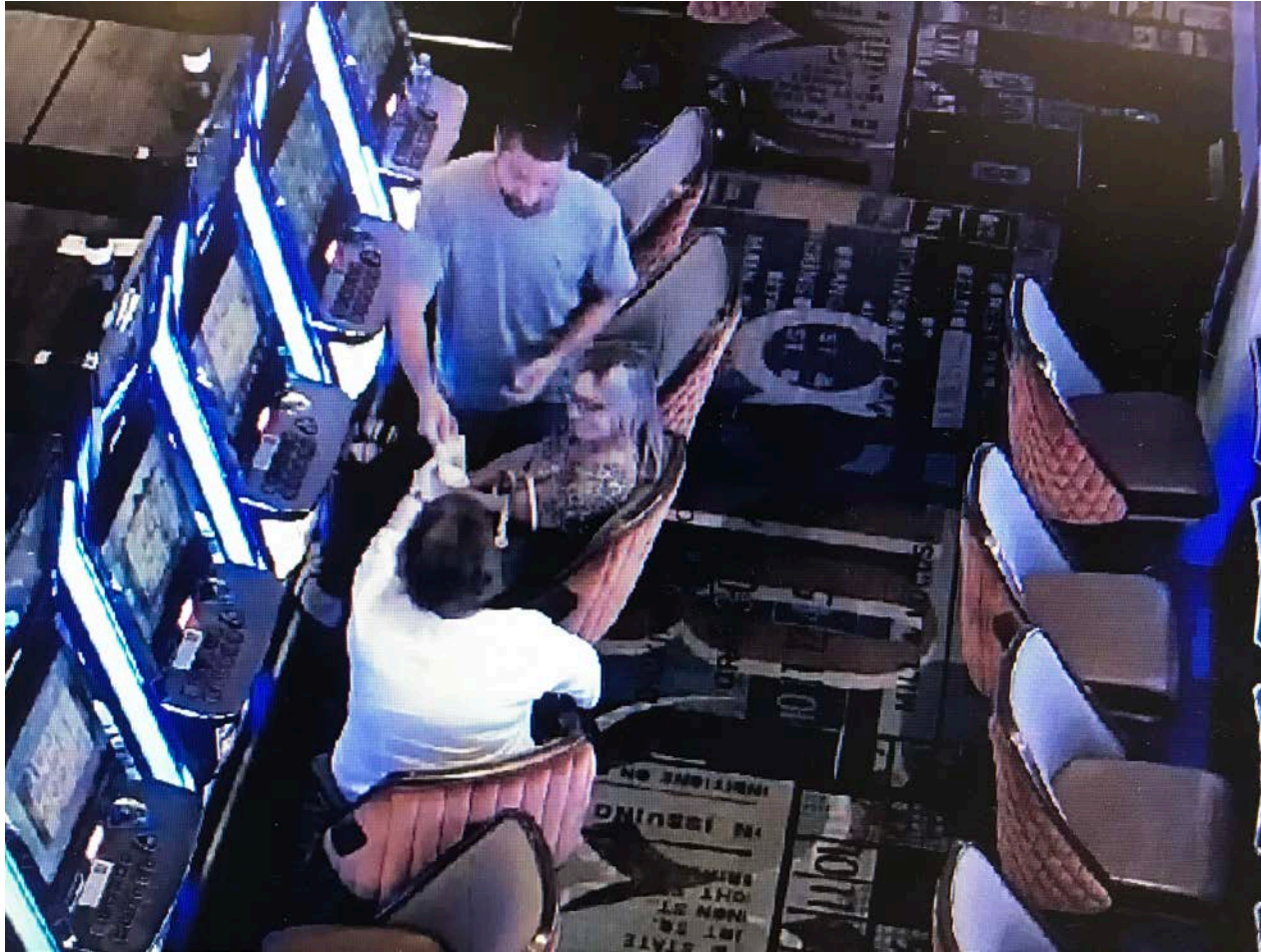


COLLECTION OF INFORMATION



The slot attendant retrieves the information from the male patron who is attempting to claim the jackpot

THE PAYMENT



The male patron then gives the cash collected from the jackpot to the original female patron who activated the jackpot

SUMMARY

- In short, the patrons who were actively gaming on the slot machines were not the same patrons who received payment for winning the jackpot
- In the first two examples, the total jackpot amount was \$1,832 and \$1,505, respectively
- In the third example, the female patron was a VSE gaming on the floor. She triggered a jackpot for \$1,740.
- IEB documented all three observations as an incident report and shared the findings with the licensee



**MASSACHUSETTS
SUPPLEMENTAL FORM**



Applicant: _____

**MASSACHUSETTS SUPPLEMENTAL FORM FOR KEY GAMING EMPLOYEE EXECUTIVE
AND CASINO QUALIFIER APPLICANTS**

PLEASE PRINT OR TYPE THE ANSWERS TO THE FOLLOWING QUESTIONS IN THE SPACES PROVIDED

NAME AND ADDRESS

NAME: LAST (INCLUDE SR., JR., ETC., IF APPLICABLE) _____ FIRST _____ MIDDLE _____

MAILING ADDRESS: NUMBER AND STREET _____ APT# _____ CITY _____ STATE _____ ZIP CODE _____

HOME ADDRESS: IF DIFFERENT THAN MAILING ADDRESS _____ APT# _____ CITY _____ STATE _____ ZIP CODE _____

PRESENT BUSINESS ADDRESS: NUMBER AND STREET _____ CITY _____ STATE _____ ZIP CODE _____

HOME TELEPHONE NUMBER _____ CELL TELEPHONE NUMBER _____ WORK TELEPHONE NUMBER _____ EMAIL ADDRESS _____

DESCRIPTIVE INFORMATION

DATE OF BIRTH: _____ HEIGHT: _____ FT _____ IN WEIGHT: _____ LBS SOCIAL SECURITY NUMBER: _____
(MM/DD/YYYY)

HAIR COLOR

- BLACK BROWN
 BLONDE RED
 GRAY WHITE
 BALD

EYE COLOR

- BLACK BROWN
 HAZEL BLUE
 GRAY GREEN

SEX

- MALE
 FEMALE

RACE

- AMERICAN INDIAN / ALASKAN NATIVE HISPANIC
 BLACK / AFRICAN AMERICAN WHITE
 ASIAN / PACIFIC ISLANDER
 OTHER _____

HAVE YOU EVER BEEN KNOWN BY ANY OTHER NAME OR NAMES? YES NO IF YES, LIST THE ADDITIONAL NAMES BELOW AND SPECIFY

DATES OF USE FOR EACH. (INCLUDE MAIDEN NAME, ALIASES, NICKNAMES, OR ANY OTHER NAME) _____

PLACE OF BIRTH: _____
CITY/TOWN _____ STATE/PROVINCE _____ COUNTRY _____

**MANUALLY AFFIX A COLOR
2" X 2" WITH
A FULL-FACE, FRONT VIEW
PHOTOGRAPH
TAKEN WITHIN THE PAST
6 MONTHS.**

Initials/Date: _____

IMPORTANT
FAILURE TO ANSWER ANY QUESTION ON THIS APPLICATION COMPLETELY AND TRUTHFULLY
MAY RESULT IN THE DENIAL OF YOUR LICENSE APPLICATION OR A NEGATIVE SUITABILITY DETERMINATION

1. Provide the following information about the gaming license applicant or licensee with which you are, or are seeking to be, associated:

NAME OF ENTITY _____

ADDRESS OF ENTITY: NUMBER AND STREET _____ CITY _____ STATE _____ ZIP CODE _____

NATURE OF APPLICANT'S POSITION WITH OR INTEREST IN SUCH ENTITY _____

2. Check the appropriate box, either A or B below, indicating the reason for submitting this application.

A. I am an applicant for a Key Gaming Employee:

Executive

OR

B. I am a Casino Qualifier because I am a(n):

Owner Principal Employee Investor Stockholder

Officer Partner Director Other

C. If applicable, list the name of the holding company(ies) of the gaming license applicant or licensee with which the applicant is associated and the nature of the position with, or interest in, such entity.

3. Do you have any ownership interest, financial interest or financial investment in any business which is applying to, or presently licensed by, the Massachusetts Gaming Commission?

Yes No

If you checked yes, complete the following chart:

NAME OF BUSINESS	NATURE AND AMOUNT OF YOUR INTEREST / INVESTMENT	% OF OWNERSHIP IN THE BUSINESS

Note: Should you require additional space, attach a separate sheet of paper in the same format and label it **attachment to question 3.**

4. Are you a citizen of the United States?

Yes No

5. If you are a naturalized citizen of the United States, attach a copy of your Certificate of Naturalization to this form labeled as **attachment to question 5.**

Yes No

If you answered "YES" to Question 5 and if applicable provided the certificate of naturalization, please continue to Question 8.

6. If you are not a citizen of the United States, please indicate:

A. The country of which you are a citizen: _____

Initials/Date: _____

B. Your place of birth: _____
CITY STATE COUNTRY

C. Your port of entry to the United States: _____

D. Name and address of your sponsor upon arrival:

7. If you are not a United States citizen, but you are a legally authorized permanent resident alien or you are authorized to be employed in the United States, please provide your "USCIS A" number or other USCIS authorization number in the space provided below. Attach to this form a copy of your USCIS identification card and/or any other USCIS document that conditions or restricts your employment label as **attachment to question 7**.

USCIS "A" number: _____

8. During the last ten year period, have you held a 5% or greater interest in or been a director, officer or principal employee of any business that:

A. Has held a foreign bank account or has had authority to control disbursements from a foreign bank account?
Yes No

B. Has maintained a bank account, or other account, whether domestic or foreign, which was not reflected on the books or records of the business?
Yes No

C. Has maintained a domestic or foreign numbered bank account or other bank account in a name other than the name of the business?
Yes No

D. Has donated or loaned corporate funds or corporate property for the use or benefit of, or for the purpose of opposing, any government, political party, candidate or committee either domestic or foreign?
Yes No

E. Has compensated any of its directors, officers or employees for time and expenses incurred in performing services for the benefit of or in opposition to any government or political party either domestic or foreign?
Yes No

F. Has made any loans, donations or other disbursements to its directors, officers or employees for the purpose of making political contributions or reimbursing such individuals for political contributions?
Yes No

9. State when you filed your last Federal Income Tax Return 1040, to what IRS Center was it sent, and the tax period it covered.

Date Filed: _____ Period Covered: _____

IRS Location: _____

Attach to the back of this form and label as **attachment to question 9**, a copy of each IRS Form 1040 and Form 1040X (Amended Return) and all appropriate schedules filed by you in the last five years. If you and your spouse filed separate tax returns for any year in the last five years, also attach a copy of your spouse's tax returns.

10. Has your Federal Income Tax Return ever been audited or adjusted? Yes No

If you checked yes, for what tax year(s)? _____

11. Have you ever failed to file required Federal or State Income Tax Returns? Yes No

If you checked yes, for what year(s)? _____

Initials/Date: _____

12. Have you or your spouse filed any type of tax return, statement or form in any jurisdiction outside the United States within the last ten years?

Yes No

If you checked yes, complete the following chart:

TAX YEAR(S) FILED	COUNTRY FILED	AMOUNT OF TAX

Note: Should you require additional space, attach a separate sheet of paper in the same format and label it **attachment to question 12.**

13. (A) Are you a party to **any currently pending** lawsuit? (Include matrimonial matters, negligence matters, auto accident matters, contract matters, collection matters, debt matters, foreclosure matters, etc.)

Yes No

(B) Have you had any financial liens or judgments filed against you **in the last ten years**? (Include federal tax liens, state tax liens, unemployment judgments, defaulted student loans, delinquent child support obligations, etc.)

Yes No

If you checked yes to either question, complete the following chart:

DATE FILED	JURISDICTION	DOCKET NUMBER	OTHER PARTIES TO THE LAWSUIT	NATURE OF THE LAWSUIT	DISPOSITION (IF APPLICABLE)	DATE OF DISPOSITION (IF APPLICABLE)

Note: Should you require additional space, attach a separate sheet of paper in the same format and label it **attachment to question 13-A or B.**

14. Have you filed a petition for any type of bankruptcy or insolvency or been adjudicated bankrupt or insolvent under any bankruptcy or insolvency law **in the last ten years**?

Yes No

If you checked yes, attach to this application, labeled as **attachment to question 14**, a copy of the bankruptcy petition and discharge (if available).

15. Have your wages, earnings, or other income been subject to garnishment, attachment, charging order, voluntary wage execution, or the like **in the last ten years**?

Yes No

If you checked yes, complete the following chart:

DATE FILED	DOCKET NUMBER	NAME AND ADDRESS OF THE COURT	NATURE OF OBLIGATION	AMOUNT OF OBLIGATION	NAME AND ADDRESS OF OBLIGATION HOLDER

Note: Should you require additional space, attach a separate sheet of paper in the same format and label it **attachment to question 15.**

Initials/Date: _____

SETTLEMENTS, ALLEGATIONS, AND ADDITIONAL DISCLOSURES

17. Have you ever reached a settlement or had a settlement reached by another person or entity, on your behalf, prior to or in the absence of litigation or criminal charges being filed?

Yes No

If you checked "Yes", provide a detailed explanation below:

NOTE: Should you require additional space, attach a separate sheet of paper and label it **attachment to question 17.**

18. Have you ever reached a settlement or had a settlement reached by another person or entity, on behalf of a company with which you were/are affiliated, prior to or in the absence of litigation or criminal charges being filed?

Yes No

If you checked "Yes", provide a detailed explanation below:

NOTE: Should you require additional space, attach a separate sheet of paper and label it **attachment to question 18.**

19. Have you participated in any type of sexual harassment, sexual misconduct, or unlawful discrimination?

Yes No

If you checked "Yes", provide a detailed explanation below:

NOTE: Should you require additional space, attach a separate sheet of paper and label it **attachment to question 19.**

Initials/Date: _____

20. Have any allegations of sexual harassment, sexual misconduct, or unlawful discrimination been made concerning your behavior (including by employees and/or subordinates)?

Yes No

If you checked "Yes", provide a detailed explanation below:

NOTE: Should you require additional space, attach a separate sheet of paper and label it **attachment to question 20.**

21. In the interest of full disclosure and your obligation to be forthcoming in your application, is there any other information which might reflect adversely in an evaluation of your honesty, integrity, or good character, or otherwise impact a determination on your suitability for gaming licensure/qualification?

Yes No

If you checked "Yes", provide a detailed explanation below:

NOTE: Should you require additional space, attach a separate sheet of paper and label it **attachment to question 21.**

Initials/Date: _____

22. Provide the information requested below for three (3) references over the age of 18 who have known you for at least one year and can attest to your good character and reputation. No person who is a member of your family can be used as a reference. (i.e. spouse, parents, grandparents, children, grandchildren, siblings, uncles, aunts, nephews, nieces, fathers-in-law, mothers-in-law, sons-in-law, daughters-in-law, brothers-in-law and sisters-in-law whether by whole or half blood, by marriage, adoption or natural relationship.)

REFERENCE ONE

Name _____ Business Address _____
Address _____

Telephone number _____ Occupation _____
How long have you known this reference?
Email address _____

REFERENCE TWO

Name _____ Business Address _____
Address _____

Telephone number _____ Occupation _____
How long have you known this reference?
Email address _____

REFERENCE THREE

Name _____ Business Address _____
Address _____

Telephone number _____ Occupation _____
How long have you known this reference?
Email Address _____

Initials/Date: _____

WAIVER OF LIABILITY AND CONSENT AND STATEMENT OF TRUTH

Waiver of Liability

I, _____, hereby waive liability as to the Commonwealth of Massachusetts and
(Print Name)
its instrumentalities and agents, for any damages resulting to me from any disclosure or publication in any manner, other than a willfully unlawful disclosure or publication, of any material or information acquired during the licensing, registration or permitting process or during any inquiries, investigations or hearings related thereto.

Consent

I, _____, hereby consent to fingerprinting, photographing and the supplying of
handwriting exemplars as authorized by 205 CMR 134.07.

Statement of Truth

I, _____, hereby state under the pains and penalties of perjury:

1. The information contained herein and accompanying this application is true and accurate to the best of my knowledge and understanding.
2. I personally supplied and/or reviewed the information contained in this form.
3. I understand and read the English language or I have had an interpreter read, explain and record the answer to each and every question on this application form.
4. Any document accompanying this application that is not an original document is a true copy of the original document.
5. I am aware that if any of the foregoing statements made by me are false, this application may be denied.

I understand if I have questions regarding this form, I should ask an employee of the Licensing Division.

(Signature)

(Type or Print Name)

(Date)

CIVIL, CRIMINAL AND INVESTIGATORY PROCEEDINGS

The next question asks about any arrests, charges, or offenses you may have committed. Prior to answering this question, carefully review the definitions and instructions which follow:

DEFINITIONS:

For purposes of this question:

- A. **Arrest:** means being taken into custody by any police or other law enforcement authority.
- B. **Charge:** includes any indictment, complaint, information or other notice of the alleged commission of any "offense," including juvenile charges.
- C. **Conviction:** includes the finding of guilty of any "offense" upon a trial or a plea of guilty. Findings of delinquency from a juvenile court must be disclosed and may be considered by the MGC in determining overall suitability; however, a finding of delinquency will not lead to automatic disqualification of your application.
- D. **Crime or Offense:** includes all felonies, misdemeanors, and juvenile delinquency matters.
- E. **Disposition:** is the way the case was resolved, for example: guilty, not guilty, continued without a finding, dismissed, pending, delinquent, not delinquent.

INSTRUCTIONS:

- A. Please note, this is not an application for employment. Accordingly, you must answer all questions completely and may not omit information. Answer "yes" and provide all information to the best of your ability **EVEN IF:**
 - 1. You did not commit the offense charged;
 - 2. The charges were dismissed or subsequently downgraded to a lesser charge;
 - 3. You completed a diversionary program or the equivalent thereof;
 - 4. The charge(s) or offense(s) occurred when you were a juvenile;
 - 5. You were not convicted or found delinquent;
 - 6. You were not placed in handcuffs;
 - 7. You did not serve any time in prison or jail;
 - 8. The charge(s) or offense(s) happened a long time ago.
- B. Answer "No" **IF:** You have never been arrested or charged with any crime or offense.
- C. You are **NOT** required to disclose records of criminal appearances, criminal dispositions, and/or any information concerning acts of delinquency that have been sealed.

IMPORTANT

The Massachusetts Gaming Commission will make inquiries to establish whether you have had any involvement with law enforcement agencies. Failure to disclose any such involvement will be taken into account in assessing your character, honesty, and integrity.

1. Have you ever been arrested, charged and/or convicted of **any crime or offense in any jurisdiction (including Massachusetts)**?

Yes No

If you checked "Yes", complete the following chart below and on the next page:

CHARGE OR OFFENSE (LIST ALL CHARGES ARISING FROM EACH INCIDENT)	DATE OF CHARGE OR OFFENSE	NAME AND ADDRESS OF LAW ENFORCEMENT OR COURT INVOLVED	DISPOSITION (EG: GUILTY, NOT GUILTY, DISMISSED, CONTINUED WITHOUT A FINDING, DELINQUENT, NOT DELIQUENT)	SENTENCE

Initials/Date: _____

NOTE: If you require additional space, continue this answer under **"Supplemental Answers"** which can be found at the end of this document.

Initials/Date: _____

NOTE

- A. The registration of a gaming service employee is subject to revocation if the registrant has been convicted of a felony or other crime involving embezzlement, theft, fraud or perjury; submitted an application under M.G.L. c.23K, §30 and 205 CMR 134.00 that contains false or misleading information; and/or committed prior acts which have not been prosecuted or in which the applicant was not convicted but form a pattern of misconduct that makes the applicant unsuitable.
- B. In determining whether an applicant for registration is suitable for purposes of being issued a gaming service employee registration, the Bureau evaluates and considers the overall reputation of the applicant including, without limitation: the integrity, honesty, good character and reputation of the applicant.
- C. The Bureau may, in its discretion, decline to deny or revoke the registration of a person who affirmatively demonstrates rehabilitation in accordance with 205 CMR 134.11(4) if the disqualifying offense(s) occurred before the ten-year period immediately preceding submission of the registration.

Initials/Date: _____



UNIVERSITY OF MASSACHUSETTS SCHOOL OF PUBLIC HEALTH AND HEALTH SCIENCES

September 12, 2019

ANALYSES ACROSS THREE WAVES

Rachel A. Volberg, PhD



Overview of Presentation

- Defining key terms
- Background
- Study goals & current status
- Key findings
- Implications
- Future directions



Type of Study

SEIGMA:

REPEAT CROSS-SECTIONAL STUDY

- Collecting data “*snapshots*” at designated points over a period of time
- **Not** the same people in each snapshot

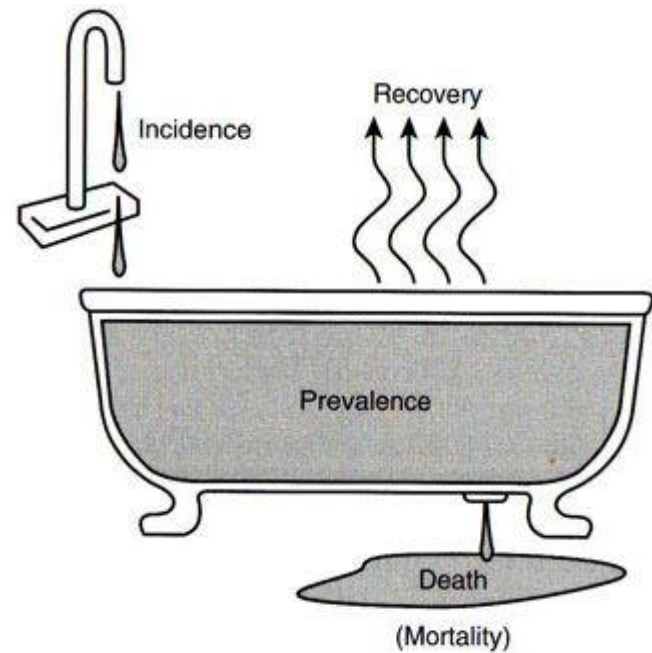
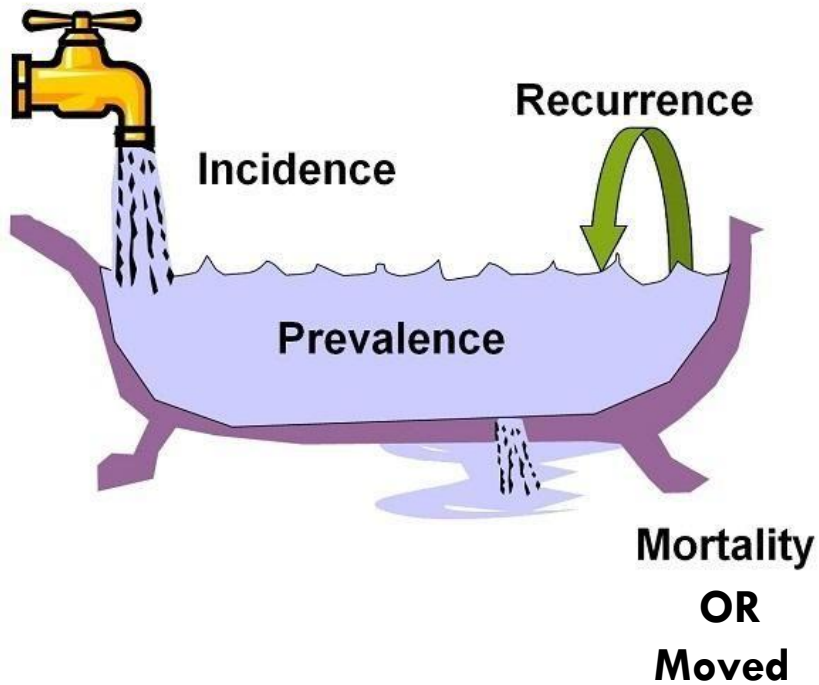
MAGIC:

LONGITUDINAL COHORT STUDY

- Collecting a “*moving picture*” of data from a group of people at designated time points
- Following **the same people** over a period of time



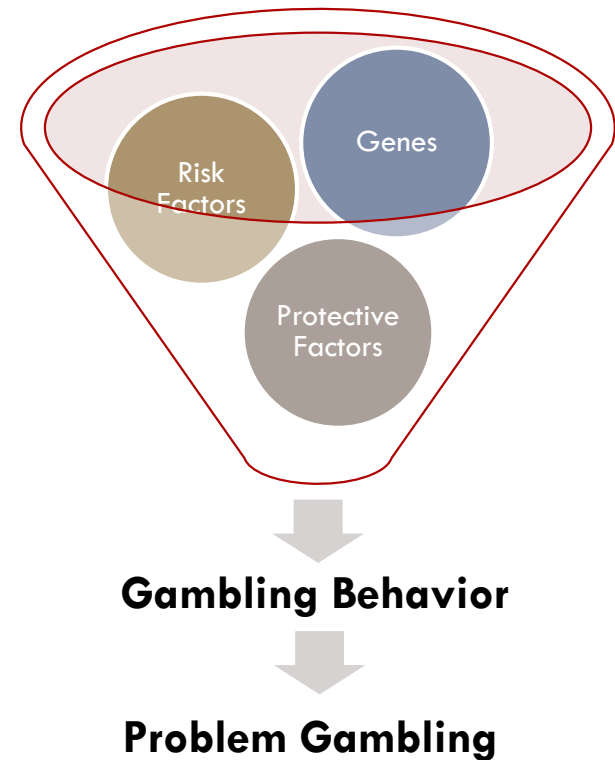
Epidemiological bathtubs





Etiology

- The study of causation, or what causes a particular condition
- The study of how a condition, in this case problem gambling, develops and fluctuates over time





Background

- Early small-scale cohort studies of gambling & problem gambling all had serious limitations
- These limitations led to launch of 5 large-scale cohort studies in 4 countries



Comparing Large-scale Cohort Studies

	Alberta, Canada LLP	Ontario, Canada QLS	Sweden Swelogs	Australia VGS	New Zealand NGS
Data collection period	2006-2011	2006-2011	2008-2014	2008-2012	2012-2015
Recruited sample	1,808	4,123	8,165	15,000	6,251
Assessment length	2-3 hour	1-2 hour	15-25 min	15-25 min	45 min
Interval (months)	17-22 ¹	12	12 ²	12	12
PG Measure	CPGI 5+	PPGM	CPGI 5+	CPGI 8+	CPGI 8+
Baseline PG prevalence	3.6%	3.1%	1.0%	2.6%	2.5%
Wave 2 PG prevalence	2.0%	2.9%	1.1%	1.5%	2.0%
Incidence (Wave 1 – Wave 2)	N/A	1.4%	0.8%	0.12%	0.28%
Proportion of Wave 2 PGs that are new cases	N/A	49.0%	73.5%	33.3%	51.6%

¹ This is the median elapsed time between waves for all respondents.

² Between Wave 1 and Wave 2; the interval between subsequent waves was 24 months.



Why MAGIC?

- There have been no major cohort studies of gambling in the US
- Change in gambling availability in MA during this study will be greater than for other cohort studies conducted internationally
- Addresses limitations & builds on findings of previous studies
- Synergistic with SEIGMA, producing results richer than either study alone



Goals

- Examine **incidence** of problem gambling in Massachusetts
 - ▣ Proportion of a population that newly develops a condition over a specified period of time
 - ▣ New cases vs. relapsing cases require different mix of services

- Examine **stability and transitions** associated with problem gambling
 - ▣ Patterns of continuity and discontinuity among different risk groups

- Develop an **etiological model** of problem gambling
 - ▣ Etiology – cause or causes of a disease or condition
 - ▣ Identifies risk & protective factors
 - ▣ Utility in guiding development of prevention, intervention, treatment, recovery support strategies



Current Status

- Wave 1 = Baseline General Population Survey (BGPS) (n=9,578)
 - ▣ Stratified sample drawn based on risk profile (n=4,860)

- Wave 2
 - ▣ Data collection launched March 2015, completed Sept 2015
 - ▣ Cohort established (n=3,139)

- Wave 3
 - ▣ Expanded questionnaire to capture etiological factors more comprehensively
 - ▣ Data collection launched April 2016, completed August 2016 (n=2,450)

- Wave 4
 - ▣ Expanded questionnaire includes additional etiological factors
 - ▣ Data collection launched March 2018, completed July 2018 (n=2,443)

- Wave 5
 - ▣ Few changes to questionnaire
 - ▣ Data collection launched March 2019, completed July 2019 (n~2,300)

- Wave 6
 - ▣ Few changes to questionnaire
 - ▣ Data collection to launch March 2020



Weighting

- Weighted data used in calculating incidence to allow for more confident generalizing to MA adult population

- Weighting not used in assessing changes in gambling behavior, stability and transitions, or etiology
 - ▣ Weighting accounts for stratified sample design and differential response rates by risk group

 - ▣ Weights include adjustments for gender, age, race/ethnicity, education

 - ▣ Additional weighting to adjust for likely participation bias



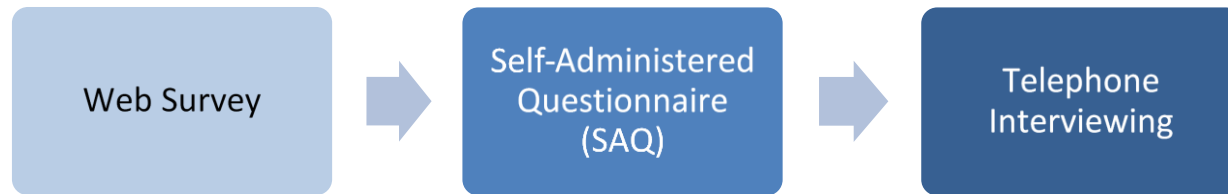
Establishing the Cohort

Group	Sample Drawn from BGPS	Achieved Cohort	Response Rate by Group %
Problem Gambler	133	81	61.4
At-Risk Gambler	450	295	65.7
Spends \$1,200+ annually	1,088	726	67.2
Gambles weekly	792	534	67.6
Military service Sept 2001 or later	49	37	78.7
All other BGPS participants	2,348	1,466	63.1
Total	4,860	3,139	65.1

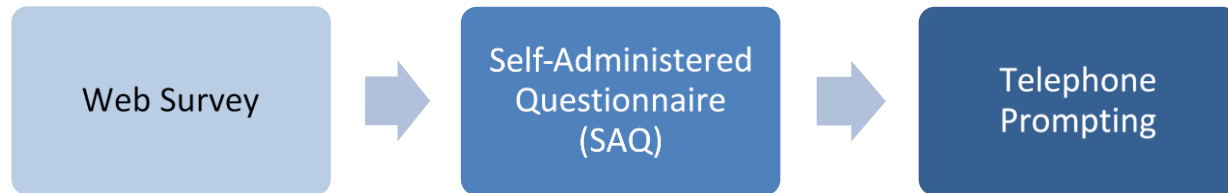


Data Collection Modes

Multi-Mode Data Collection Approach for Wave 1 and Wave 2



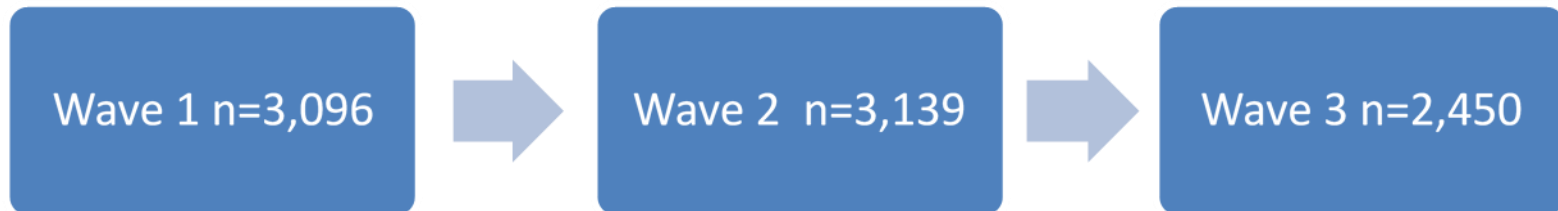
Multi-Mode Data Collection Approach for Wave 3





Matching Participants Across Waves

Sample Size Across Waves

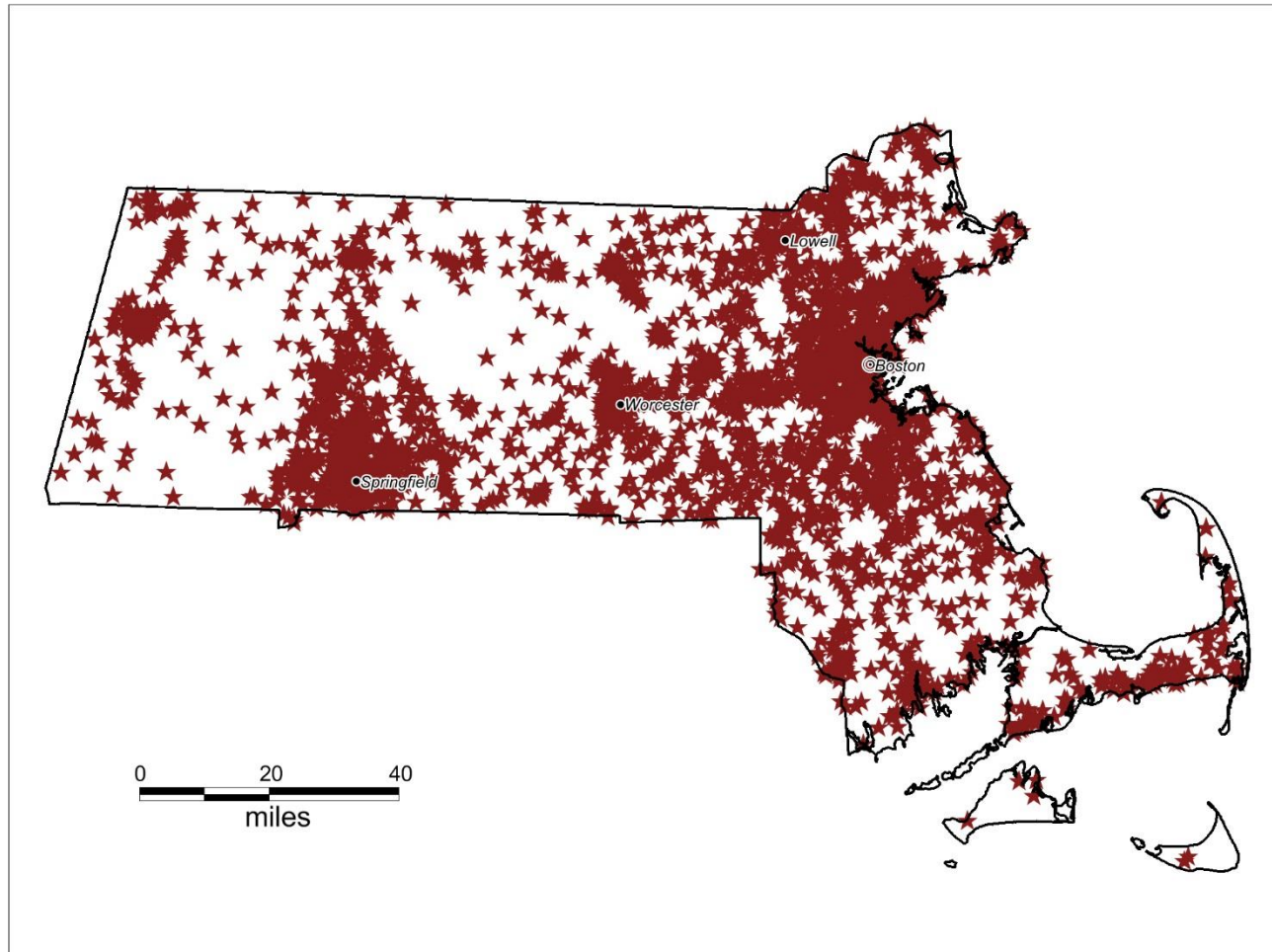


Completion Across Waves

Wave 1 (2013-2014)	Wave 2 (March-Sept 2015)	Wave 3 (April-August 2016)	Frequency	Percent
1=no	2=yes	1=no	21	0.67
1=no	2=yes	2=yes	22	0.70
2=yes	2=yes	1=no	668	21.3
2=yes	2=yes	2=yes	2428	77.3

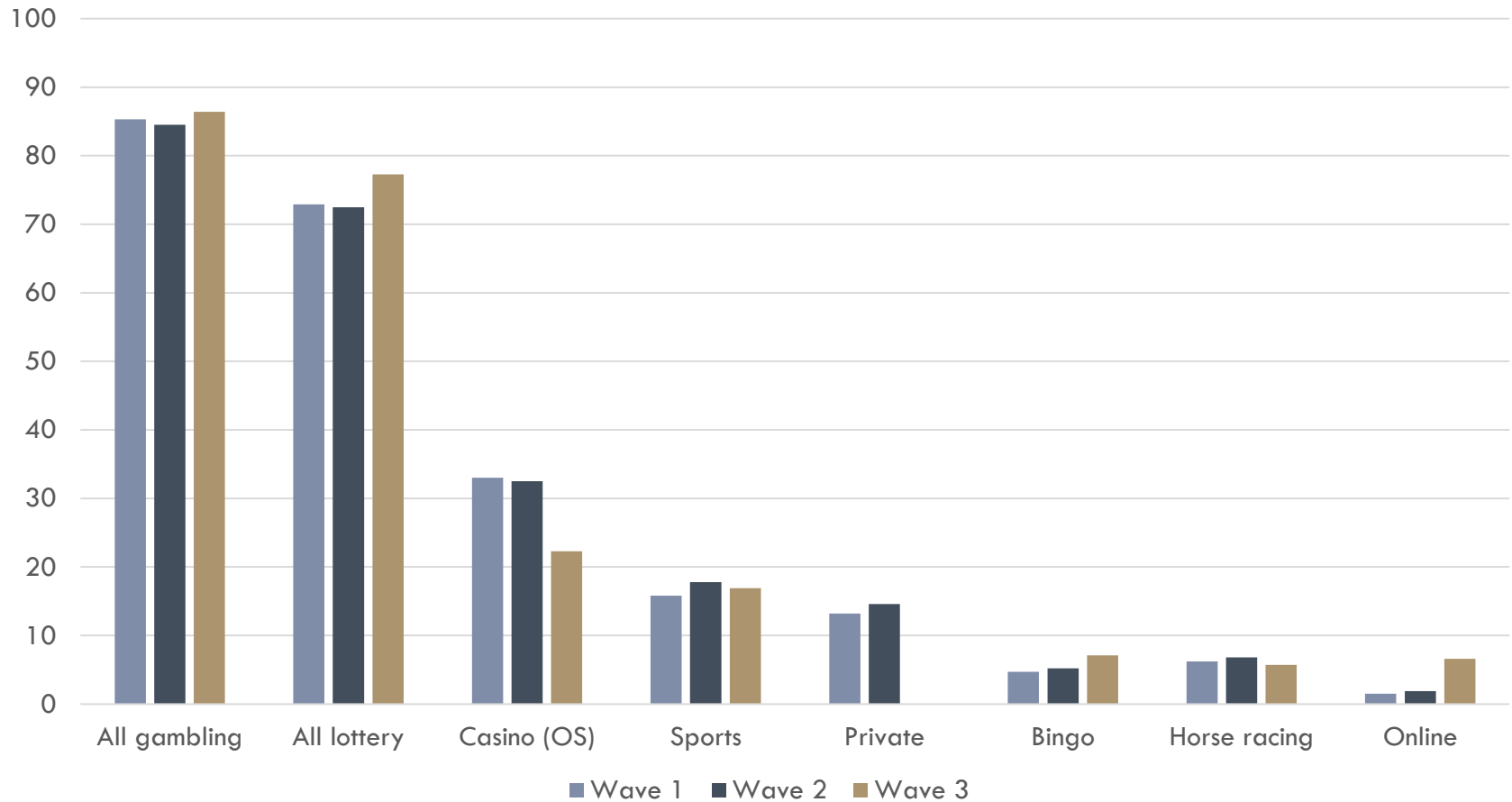


Where the cohort comes from





Changes in Gambling Participation





Change in PG Status

Problem Gambling Status in Wave 1 and Wave 2

Wave 1	Wave 2	Frequency
Not a problem gambler	Not a problem gambler	2,943
Not a problem gambler	Problem gambler	60
		3,003
Problem gambler	Not a problem gambler	40
Problem gambler	Problem gambler	39
		3,082
Missing	Not a problem gambler	45
Missing	Problem gambler	---
Not a problem gambler	Missing	8
		3,139

Dash (---) indicates value suppressed due to small cell size

Problem Gambling Status in Wave 2 and Wave 3

Wave 2	Wave 3	Frequency
Not a problem gambler	Not a problem gambler	2,330
Not a problem gambler	Problem gambler	35
		2,365
Problem gambler	Not a problem gambler	38
Problem gambler	Problem gambler	40
		2,443
Missing	Not a problem gambler	---
Not a problem gambler	Missing	---
		2,450
Missing	Did not complete Wave 3	5
Not a problem gambler	Did not complete Wave 3	659
Problem gambler	Did not complete Wave 3	25
		3,139

Dash (---) indicates value suppressed due to small cell size



PG Incidence and Remission

Incidence and Remission Rates, Wave 1 to Wave 2

Problem Gambler	Wave 1 to Wave 2	
	UN ¹	N ²
No → No	2,943	5,032,690
No → Yes	60	123,631
Incidence rate	2.0%	2.4%
Yes → No	40	57,385
Yes → Yes	39	58,764
Remission rate	50.6%	49.4%

¹ Unweighted N refers to the total number of respondents who completed the PPGM

² Weighted N is the total number of respondents who completed the PPGM weighted to the MA population

Incidence and Remission Rates, Wave 2 to Wave 3

Problem Gambler	Wave 2 to Wave 3	
	UN ¹	N ²
No → No	2,330	5,054,316
No → Yes	35	58,899
Incidence rate	1.5%	1.2%
Yes → No	38	82,090
Yes → Yes	40	104,496
Remission rate	48.7%	44.0%

¹ Unweighted N refers to the total number of respondents who completed the PPGM

² Weighted N is the total number of respondents who completed the PPGM weighted to the MA population



Stability & Change Across 3 Waves

- Recreational Gamblers
 - 70.2% remained in this category across 3 waves
- Non-Gamblers
 - 48.1% remained in this category across 3 waves
- Problem/Pathological Gamblers
 - 32.8% remained in this category across 3 waves
- At-Risk Gamblers
 - 20.4% remained in this category across 3 waves



Stability & Change Across 3 Waves

- Others moved in and out of risk categories across waves
 - Some individuals experienced **decrease** in risk category
 - Problem → At-Risk
 - At-Risk → Recreational
 - Recreational → Non-Gambler
 - Some individuals experienced **increase** in risk category
 - Non-Gambler → Recreational
 - Recreational → At-Risk
 - At-Risk → Problem
 - Recreational → Problem
 - Some individuals were **'in transition'** moving to lower or higher category at Wave 2 and then back at Wave 3

Transitions Between PPGM Groups Across Three Waves (unweighted)

Wave 1	Wave 2	Wave 3	Frequency	Percent	% change in risk classification from Wave 1
at risk gambler	non gambler	non gambler	---	---	54.4
at risk gambler	non gambler	recreational gambler	---	---	
at risk gambler	recreational gambler	non gambler	---	---	
at risk gambler	recreational gambler	recreational gambler	112	4.63	
at risk gambler	at risk gambler	non gambler	---	---	
at risk gambler	at risk gambler	recreational gambler	42	1.74	20.4
at risk gambler	at risk gambler	at risk gambler	63	2.61	
at risk gambler	recreational gambler	at risk gambler	37	1.53	18.1
at risk gambler	recreational gambler	problem or pathological gambler	---	---	
at risk gambler	problem or pathological gambler	non gambler	---	---	
at risk gambler	problem or pathological gambler	recreational gambler	6	0.25	7.1
at risk gambler	problem or pathological gambler	at risk gambler	10	0.41	
at risk gambler	at risk gambler	problem or pathological gambler	9	0.37	
at risk gambler	problem or pathological gambler	problem or pathological gambler	13	0.54	
			309		
problem or pathological gambler	non gambler	recreational gambler	---	---	48.5
problem or pathological gambler	recreational gambler	recreational gambler	7	0.29	
problem or pathological gambler	at risk gambler	recreational gambler	---	---	
problem or pathological gambler	at risk gambler	at risk gambler	10	0.41	
problem or pathological gambler	problem or pathological gambler	recreational gambler	---	---	
problem or pathological gambler	problem or pathological gambler	at risk gambler	8	0.33	32.8
problem or pathological gambler	problem or pathological gambler	problem or pathological gambler	21	0.87	
problem or pathological gambler	recreational gambler	at risk gambler	---	---	
problem or pathological gambler	recreational gambler	problem or pathological gambler	---	---	18.8
problem or pathological gambler	at risk gambler	problem or pathological gambler	6	0.25	
			64		

Dash (---) indicates value suppressed due to small cell size

Risk Classification Legend: White = no change in risk Light blue = decrease in risk

Dark blue = increase in risk

Black = in transition



Discussion

- Small increases in gambling participation but Wave 2-3 changes appear to be due to changes in how questions were phrased
- Notable that out-of-state casino gambling decreased significantly from Wave 2 to Wave 3
 - Suggests that slot parlor (which opened in June 2015) has been successful at 'recapturing' MA residents who previously gambled at out-of-state casinos
- PG incidence Wave 1-2 (prior to casinos) was high (2.4%) but is subject to methodological limitations
 - Differential response rates may have resulted in over-enrollment of heavier gamblers
 - Longer inter-assessment interval (16.5 months vs. 12 months)
 - Reliability of PG measures based on self-report
- PG incidence Wave 2-3 declined (1.2%) and remission was substantial (44%)
 - Number of individuals becoming PGs and number remitting within cohort were almost equal



Discussion

- Stability and transition rates similar to cohort studies in other jurisdictions

- One difference is larger proportion of MA cohort that transitioned over assessments
 - ▣ Victoria = 4.3% transitioned down, 5.6% transitioned up
 - ▣ MA = 13.0% transitioned down, 14.2% transitioned up, 13.2% moved at both Wave 2 and 3

- Possible reasons for differences
 - ▣ May be due to how PG was measured in each study
 - ▣ May be due to longer inter-assessment period from Wave 1-2
 - ▣ MA cohort includes much higher proportion of individuals selected from high risk strata of BGPS



Discussion

- Recent addiction research suggests that these disorders are more unstable than historically thought
 - ▣ Chronic in the sense that there is a higher lifetime risk for relapse, continuation
 - ▣ Those experiencing addictions tend NOT to have unremitting manifestations

- Evolving understanding of gambling addiction led to introduction of “past 12-month” timeframe for Disordered Gambling in DSM-5

- Some people merit clinical attention even if they do not meet the more stringent “unremitting” definition of addiction
 - ▣ DSM-5 recognizes mild, moderate, and severe levels of Disordered Gambling



Limitations

- Not all sampling biases can be accounted for with weighting
- Individuals recruited into cohort were aware that the study was about gambling and decision to participate could have been shaped by this knowledge
- Repeated surveys known to influence self-report of behavior with respondents seeking to convey some improvement to researchers
- Observed changes over time are sensitive to the reliability of the measurement instrument



Implications for Prevention & Treatment

- Stable prevalence rate over time can be due to:
 - ▣ Ongoing unremitting PG in same individuals OR
 - ▣ Rate of new cases roughly equal to rate of remission

- Two scenarios have different implications
 - ▣ If PG is chronic, new cases uncommon = preferable to devote more resources to treatment rather than prevention
 - ▣ If incidence & recovery both high = greater emphasis on prevention in addition to treatment, recovery support



Implications for Prevention & Treatment

- Number of new PGs in Wave 2 (n=60) higher than ongoing unremitting cases (n=39)
- Number of new PGs in Wave 3 (n=35) lower than ongoing unremitting cases (n=40)
- Relatively high remission rate continued from Wave 2 to Wave 3
- Suggests that both prevention and treatment resources may be beneficial to further decrease incidence & accelerate remission in Massachusetts



Implications for Prevention & Treatment

- Stability & transitions in MA cohort suggest that PGs and At-Risk Gamblers are unlikely to transition to Non-Gambler status

- When Recreational Gamblers transition, they are also unlikely to transition to Non-Gambler status

- Consistent with research that ‘controlled’ gambling may not be incompatible with recovery from PG
 - ▣ Treatment providers may want to consider offering moderate gambling consumption as a treatment goal to increase likelihood of treatment-seeking & treatment adherence
 - ▣ Eventual transition to abstinence may emerge from controlled consumption



Future Directions

- Goal of study is to uncover high-risk populations in MA

- Inform development of effective and efficient prevention and treatment programs in the Commonwealth

- Next report will examine longitudinal predictors of PG across 4 waves
 - ▣ Focus on differences in incidence, transitions by gender, race/ethnicity, income, region, severity of disorder
 - ▣ Examine involvement w/specific types of gambling
 - ▣ Examine predictors of remission inc. accessing treatment



Questions?



For more information, visit:

www.umass.edu/macohort



UNIVERSITY OF MASSACHUSETTS SCHOOL OF PUBLIC HEALTH AND HEALTH SCIENCES

THE MA GAMBLING IMPACT COHORT: ANALYSES ACROSS THREE WAVES

Abstract

This report details analyses and findings from the first three waves of the Massachusetts gambling impact cohort—the first adult longitudinal cohort study of gambling and problem gambling in the US. Principally, we focus on Wave 3 data collection and changes across the three waves in terms of (1) gambling participation, (2) incidence of problem gambling, and (3) transitions within the cohort.

Alissa Mazar
Rachel A. Volberg
Robert J. Williams
Edward J. Stanek III
Martha Zorn

June 28, 2019

Authorship

Alissa Mazar, PhD, Research Associate and Project Manager, University of Massachusetts Amherst School of Public Health and Health Sciences, is lead author of the current report.

Rachel A. Volberg, Research Associate Professor, University of Massachusetts Amherst School of Public Health and Health Sciences, is the study Principal Investigator and responsible for overall leadership of the project as well as oversight of the cohort study design, implementation, and analysis. Dr. Volberg is a co-author of the current report.

Robert J. Williams, Professor, University of Lethbridge, Faculty of Health Sciences, is Co-Principal Investigator on the project and provided oversight of the study design, implementation, and analysis. Dr. Williams is a co-author of the current report.

Edward J. Stanek, Professor Emeritus, University of Massachusetts Amherst School of Public Health and Health Sciences, provided technical oversight and review of the study design and analysis. Dr. Stanek contributed sections of the report related to weighting and imputation.

Martha Zorn, Data Manager, University of Massachusetts Amherst School of Public Health and Health Sciences, was responsible for data management, data cleaning, and data analysis and contributed to all sections of the report.

Acknowledgements

Support for this study came from the Massachusetts Gaming Commission under ISA MGC10500001UMS15A establishing the Massachusetts Gambling Impact Cohort (MAGIC) study. This multi-year project was competitively bid via a Massachusetts Gaming Commission Request for Proposals (RFP) issued on November 20, 2013 and awarded to the University of Massachusetts Amherst in April 2014.

This study could not have been carried out without the cooperation and good will of the thousands of Massachusetts residents who agreed and continue to participate in our cohort study. We are also grateful to the many individuals at NORC at the University of Chicago who helped in collecting the data for this unique and important study.

We would like to thank Valerie Evans, SEIGMA Biostatistician, who participated in weekly discussions of the analytic findings.

We would also like to thank the members of the Massachusetts Gaming Commission's Research Review Committee (RRC). Members of this committee represent a range of perspectives and their careful review of draft versions of this report contributed to its clarity as well as utility to multiple audiences.

Finally, we would like to thank Mark Vander Linden, Director of Research and Responsible Gaming, former Chairman Stephen P. Crosby, and Commissioner Enrique Zuniga of the Massachusetts Gaming Commission for their thoughtful input and clear guidance over the course of the project. The Commission's broad vision for the expansion of gambling in Massachusetts and commitment to the research needed to maximize the benefits and minimize harms related to gambling in the Commonwealth made this project possible.

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A PDF OF THIS REPORT CAN BE DOWNLOADED AT: www.umass.edu/macohort

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Abbreviations/Glossary

AAPOR – American Association of Public Opinion Research
ABS – Address Based Sampling
BGPS – Baseline General Population Survey
CASRO – Council of American Survey Research Organizations
CATI – Computer Assisted Telephone Interview
CAWI – Computer Assisted Web Interview
CI – Confidence Interval
CPGI – Canadian Problem Gambling Index
DSM – Diagnostic and Statistical Manual of Mental Disorders
EGM – Electronic Gaming Machines
Etiology – the cause or causes of a disease or condition
Incidence – proportion of a population that newly develops a condition over a specified period of time
IRB – Institutional Review Board
LLLP – Leisure, Lifestyle, Lifecycle Project
MAGIC – Massachusetts Gambling Impact Cohort
MGC – Massachusetts Gaming Commission
NORC – National Opinion Research Center at the University of Chicago
NZ NGS – New Zealand National Gambling Study
PG – Problem Gambling
PPGM – Problem and Pathological Gambling Measure
Prevalence – proportion of a population that has a condition at a given point in time
PUMS – Public Use Microdata Sample
QLS – Quintile Longitudinal Study
SAQ – Self Administered Questionnaire
SEIGMA – Social and Economic Impacts of Gambling in Massachusetts
SFTP - Secure File Transfer Protocol
Swelogs - Swedish Longitudinal Gambling Study
UMass – University of Massachusetts
VGS – Victorian Gambling Study

Executive Summary

Between September 2013 and May 2014, a Baseline General Population Survey (BGPS) of 9,578 Massachusetts adults (18+) was assessed to establish the impacts of the introduction of new casinos in Massachusetts between 2015 and 2019. This is known as the Social and Economic Impacts of Gambling in Massachusetts ([SEIGMA](#)) study. In April 2014, a contract to conduct a cohort study utilizing the BGPS sample was awarded to the present research team. A total of 4,860 individuals from the BGPS were deemed eligible for the new cohort study (Massachusetts Gambling Impact Cohort: [MAGIC](#)), in part due to having characteristics making them at greater risk for developing gambling problems. Of these individuals, 3,139 agreed to participate and completed the inaugural MAGIC questionnaire between March 2015 and September 2015.

The cohort begins with the BGPS in 2013/2014, which we are calling Wave 1. Typically, the date a cohort study begins and is established is the date of initial contact with respondents. In this case, however, initial contact was made through the BGPS study. Therefore, we use the term *established* to note the date when BGPS respondents were asked to participate in the cohort study. Using this terminology, the cohort study began in 2013/2014 (Wave 1) and the cohort was established in 2015 (Wave 2). The appropriate description of who continues from Wave 1 to Wave 2 is *response rate*, whereas the appropriate description of who continues from Wave 2 and beyond is *retention rate*.

The questionnaire completed in the BGPS (Wave 1) was very similar to the questionnaire completed in Wave 2. The response rate from Wave 1 to Wave 2 was 65.1%. These respondents established the MAGIC cohort. The Wave 3 questionnaire was significantly expanded to more comprehensively assess variables of etiological significance to problem gambling and administered between March and August 2016. A total of 2,450 individuals completed Wave 3, for a cohort retention rate of 78.1%.

The current report presents results across the first three waves of MAGIC with a focus on Wave 3 data collection and changes in (1) gambling participation, (2) incidence of problem gambling, and (3) gambling behavior across the first three waves. Subsequent reports will more comprehensively analyze and identify variables predictive of future problem gambling as well as remission from problem gambling. As this is a longitudinal cohort study, readers should exercise caution when generalizing findings to the population of Massachusetts residents.

Changes in Gambling Participation

Changes in gambling participation within the cohort were examined by comparing the self-reported past-year behaviors of the 2,428 members of the cohort who completed all three waves. There was a statistically significant increase in daily lottery games, sports betting, and private betting from Wave 1 to Wave 2. The magnitude of these increases, however, was small.

From Wave 2 to Wave 3, there was a statistically significant increase in overall gambling participation, all lottery, traditional lottery, instant games, daily games, bingo, sports betting, and online gambling. However, the magnitude of many of these changes was either small or medium. These increases (especially the larger increases) may be a result of changes in how the questions were asked from Wave 2 to Wave 3. For instance, the large increase in daily games may in part be due to a wording change in the question in Wave 3 which included more examples of daily games compared to Wave 2 (i.e., Wave 3 included Mass Cash and the Numbers Game). There was also a large increase in online gambling participation from Wave 2 to Wave 3. This change, however, was also likely driven by a questionnaire change whereby in Wave 3, unlike in previous waves, all questions concerning participation in specific

gambling formats were followed up by a question as to whether the individual participated in this format online.

It is notable that out-of-state casino gambling significantly decreased from Wave 2 (2015) to Wave 3 (2016) and the magnitude of this change was large. This change may reflect the introduction of Massachusetts' first slot parlor, Plainridge Park Casino, which opened in June 2015. This may have resulted in fewer Massachusetts residents gambling in out-of-state casinos.

From Wave 1 to Wave 2, there was a statistically significant decrease in the average maximum frequency of gambling, yet the size of this change was small. This decrease continued from Wave 2 to Wave 3 and again the size of this change was small. From Wave 2 to Wave 3, there was a significant decrease in total gambling expenditures and the magnitude of this change was large. This change, however, was likely affected by outliers which affected the estimate at Wave 2. From Wave 2 to Wave 3, there was a statistically significant increase in the average number of gambling formats engaged in. The size of this change, however, was small. Overall, there does not seem to be a notable change in these measures of gambling intensity.

Once again, since this is a cohort study, caution should be taken when generalizing these findings to the Massachusetts population.

Incidence of Problem Gambling

Incidence in this study is defined as the number of individuals classified using the Problem and Pathological Gambling Measure (PPGM) as Non-Gamblers, Recreational Gamblers, and At-Risk Gamblers in one wave who are classified as Problem or Pathological Gamblers in the next wave. These estimates are based on behavior reported over the past 12 months and are weighted to the Massachusetts population.

The 'natural' (prior to the opening of casinos in Massachusetts) problem gambling incidence rate within the cohort from Wave 1 (2013/2014) to Wave 2 (2015) in Massachusetts was 2.4% (95% CI [1.5%, 3.7%]). From Wave 2 (2015) to Wave 3 (2016), the problem gambling incidence rate within the cohort was 1.2% (95% CI [0.6%, 2.2%]). While the incidence rate from Wave 1 to Wave 2 is high relative to other jurisdictions—which tend to range from 0.12% to 1.4%—the incidence rate substantially declined from Wave 2 to Wave 3.

'Remission' refers to individuals who meet criteria for a disorder at one point in time but not at a subsequent point in time. Remission is defined as a temporary end of signs and symptoms of a disorder. From Wave 1 to Wave 2, the remission rate (49.4%, 95% CI [29.2%, 69.8%]) within the cohort indicated that approximately half of the Problem Gamblers in Wave 1 were no longer classified as Problem Gamblers in Wave 2. From Wave 2 to Wave 3, the remission rate was 44.0% (95% CI [25.6%, 64.2%]). It appears that the high rate of remitting cases continued from Wave 2 to Wave 3 as the number of people becoming a problem gambler and remitting from problem gambling was almost equal, with slightly more individuals remitting compared to those becoming new problem gamblers.

With the unexpected finding of an unusually high incidence rate from Wave 1 to Wave 2, the research team endeavored to triangulate this finding using other data sources.¹ No corroborating evidence supported the high incidence found from Wave 1 (2013/2014) to Wave 2 (2015).

Part of the difference (and decline) in incidence across the three waves could be explained by variation in the inter-assessment windows from Wave 1 to Wave 2 (an average of 16.5 months) and from Wave 2 to Wave 3 (an average of 12.5 months).² While the questions assessing gambling behavior specified a 12 month recall window, the longer length of time between assessments may have independently contributed to the relatively higher incidence rate from Wave 1 to Wave 2. The higher incidence rate from Wave 1 to Wave 2 may have also been the result of factors influencing retention between Wave 1 and Wave 2, which may not have been as strong between Wave 2 and Wave 3 (see Volberg, Williams, Stanek, Zorn, and Mazar (2017) for a discussion of these issues).

Stability and Transitions of Gambling Behavior

Another goal of the present analyses is to elucidate the stability and transitions of gambling behavior experienced by members of the cohort across the three waves. Since we are interested in understanding transitions within the cohort, we do not extrapolate to the Massachusetts population and only include participants for whom we have complete PPGM information across all three waves (n=2,418).

The most stable group of gamblers were Recreational Gamblers, with 70.2% of Recreational Gamblers at Wave 1 remaining in this category across the next two waves. This represents 49.2% (n=1,189) of the cohort. The second most stable group of gamblers were Non-Gamblers—48.1% of Non-Gamblers at Wave 1 remained Non-Gamblers across the next two waves, representing 7.0% (n= 169) of the cohort. Of those who were Problem/Pathological Gamblers at Wave 1, 32.8% remained Problem/Pathological Gamblers at Wave 2 and Wave 3. This represents 0.87% (n=21) of the cohort. The least stable group were At-Risk Gamblers, where only 20.4% of At-Risk Gamblers at Wave 1 remained in this category across all three waves. This represents 2.6% (n=63) of the cohort.

Interestingly, none of the Problem Gamblers at Wave 1 moved to Non-Gambling by Wave 3 and only one transitioned into a Non-Gambler at Wave 2 (and then moved to Recreational Gambling at Wave 3). Only 4.9% (15 of the 309) of At-Risk Gamblers at Wave 1 moved to become Non-Gamblers at either Wave 2 or Wave 3. Like Problem/Pathological Gamblers, this suggests that At-Risk Gamblers rarely transition to Non-Gambler status. Recreational Gamblers also seem unlikely to transition into becoming Non-Gamblers, as only 12.5% (211 of 1,694) of Recreational Gamblers at Wave 1 transitioned to become Non-Gamblers at Wave 2 or Wave 3.

¹ We specifically examined whether there were significant differences in (a) the prevalence rate of problem gambling in the Baseline Targeted Population Survey in Plainville and surrounding communities in 2014 compared to the Follow-Up Targeted Population Survey in 2016; (b) the prevalence rate of problem gambling in Springfield and surrounding communities subsample of the Baseline General Population Survey in 2013/2014 compared to the Baseline Targeted Population Survey in Springfield and surrounding communities in 2015; (c) the incidence of problem gambling in MAGIC Wave 3 in 2016 relative to Wave 2 in 2015; and (d) any secondary data sources pertaining to problem gambling (i.e., Department of Public Health admissions data, Massachusetts Council on Compulsive Gambling helpline calls, Gamblers Anonymous chapters). No significant changes were found.

² The average time between assessments was computed using an unweighted pairwise comparison of the dates that each respondent completed the Wave 2 or Wave 3 questionnaire compared to the previous wave of the questionnaire. The weighted interval was 16.5 months between Wave 1 and Wave 2 and 12.5 months between Wave 2 and Wave 3.

Limitations

Generalizing findings from the MAGIC study to the Massachusetts population should be undertaken with care since there are several factors that deserve attention when interpreting results. One important limitation concerns whether all sampling biases have been accounted for. The response rate was 36.6% for Wave 1 and 65.1% for Wave 2 and the retention rate was 78.1% for Wave 3. This produces ample opportunity for differential response and retention rates for subgroups of the population. Various adjustments and weighting partially accounted for some differential response and retention rates within the cohort, but the methods, by necessity, were limited to a few factors and available information. Other factors could be related to response and retention rates and affect estimates and interpretation. In particular, the first wave of the study (BGPS/Wave 1) was introduced as a survey of “health and recreation” in an effort to prevent participation bias related to respondents’ attitudes toward gambling. In Wave 2 and Wave 3, however, respondents were aware that the survey was predominantly about gambling, which may have influenced their decision to join and remain in the cohort or to drop out.

There are several other limitations of all cohort studies. For one, repeated surveying is known to have some influence on self-report of behavior (e.g., social desirability to convey ‘improvement’), as well as some influence on actual behavior (i.e., intensive scrutiny of one’s behavior may serve as a sort of intervention). Observed changes over time are also sensitive to the reliability of the measurement instruments. For less reliable measures, repeated assessments typically lead to regression to the mean, resulting in some artifactual accentuation of transitions from more to less severe states.

Key Findings, Implications, and Future Directions

The following takeaways can be gleaned from this report:

- Out-of-state casino gambling significantly decreased from Wave 2 (2015) to Wave 3 (2016).
 - The magnitude of this change was large.
 - This change may reflect the introduction of Massachusetts’ first slot parlor, Plainridge Park Casino, which opened in June 2015.
- No notable changes in measures of gambling intensity were detected across the three waves.
- Prior to the opening of casinos in Massachusetts, the problem gambling incidence rate from Wave 1 (2013/2014) to Wave 2 (2015) in Massachusetts was 2.4% (95% CI [1.5%, 3.7%]).
 - Compared to other jurisdictions, this is surprisingly high. This result is likely artifactual and driven by the 16-month inter-assessment window.
- From Wave 1 to Wave 2, the remission rate was 49.4% (95% CI [29.2%, 69.8%]).
- From Wave 2 (2015) to Wave 3 (2016), the problem gambling incidence rate within the cohort declined to 1.2% (95% CI [0.6%, 2.2%]).
- From Wave 2 to Wave 3, the remission rate was 44.0% (95% CI [25.6%, 64.2%]).
 - Slightly more individuals were remitting rather than becoming new problem gamblers.
- Concerning stability (remaining in the same gambling behavior subtype classification across waves), Recreational Gamblers were the most stable, followed by Non-Gamblers. Problem/Pathological Gamblers and At-Risk Gamblers were the least stable.
- Individuals who gamble were unlikely to transition to non-gambling across the three waves.

The finding of out-of-state casino gambling significantly decreasing from Wave 2 to Wave 3 adds to the evidence that the opening of Plainridge Park Casino in Plainville, Massachusetts in June 2015 may have been successful in ‘recapturing’ Massachusetts residents who were previously gambling at out-of-state

casinos (see *Plainridge Park Casino First Year of Operation: Economic Impacts Report*—umass.edu/seigma/reports—for a detailed discussion of Plainridge Park Casino’s ‘recapture’ of Massachusetts residents’ casino spending).

Results from the Massachusetts cohort study suggest that while findings from Wave 1 to Wave 2 evinced a relatively high incidence rate of problem gambling (2.4%), this high rate has not continued from Wave 2 to Wave 3 (1.2%). While the number of people who remitted was approximately half the number of people who became problem gamblers from Wave 1 to Wave 2, we see from Wave 2 to Wave 3 that the number of people who became problem gamblers and the number of people who remitted was almost equal. In fact, slightly more individuals remitted compared to becoming problem gamblers. This suggests that additional treatment resources and prevention efforts may be especially beneficial in continuing the higher remission over incidence rate.

Examining the stability and transitions within the cohort across the three waves also proved instructive. Overall, these three waves of data suggest that both Problem/Pathological and At-Risk Gamblers are unlikely to transition to become Non-Gamblers. These findings suggest that when individuals move to less harmful gambling behaviors, they are unlikely to abstain from gambling altogether, but pursue more moderate forms of gambling behavior. While the majority of Recreational Gamblers remained Recreational Gamblers across all three waves, when individuals in this category did transition, they also seemed unlikely to transition into Non-Gamblers.

These results are consistent with findings that some ‘controlled’ gambling may not be incompatible with recovery from Problem/Pathological Gambling (Slutske, Piasecki, Blaszczynski, & Martin, 2010). More broadly, treatment providers may consider not insisting on abstinence from gambling as a treatment goal since this can reduce treatment seeking by those experiencing problem gambling (Ladouceur, Lachance, & Fournier, 2009). Eventual transition to abstinence as a goal by the patient may emerge from controlled consumption (Dowling & Smith, 2007). Overall, our findings corroborate evidence that Problem/Pathological Gambling recovery tends to occur without abstinence. Nonetheless, these findings only represent three waves of data and, since gambling problems can be transitory and episodic, we look forward to examining how our cohort members transition in future waves and whether this pattern persists.

The goal of the MAGIC study is to uncover high-risk populations in Massachusetts and inform the development of effective and efficient prevention and treatment programming in the Commonwealth. Our next MAGIC report will examine longitudinal predictors of problem gambling across waves and whether there are racial/ethnic, income, gender, and/or regional differences in these predictors. We will also examine the predictors of problem gambling remission and the extent to which accessing treatment is one of these factors (compared to financial exhaustion, self-care, etc.). In later waves, we hope to conduct in-depth interviews with a cross-section of At-Risk and Problem/Pathological Gamblers who remit, do not remit, and relapse to more fully understand pathways to remission.

Introduction

The MGC Research Agenda

In November, 2011, an [Act Establishing Expanded Gaming in the Commonwealth](#) was passed by the Legislature and signed by Governor Deval Patrick (Chapter 194 of the Acts of 2011). This legislation permits casinos and slot parlors to be introduced in Massachusetts under the regulatory auspices of the Massachusetts Gaming Commission (MGC). Section 71 of the Expanded Gaming Act requires the MGC to establish “an annual research agenda” and identifies three essential elements of this research agenda:

- Understanding the social and economic effects of expanded gambling
- Implementing a baseline study of problem gambling and the existing prevention and treatment programs that address its harmful consequences
- Obtaining scientific information relative to the neuroscience, psychology, sociology, epidemiology, and etiology of gambling

In March 2013, the MGC selected a research team based at the University of Massachusetts Amherst School of Public Health and Health Sciences to carry out the first two elements of this research agenda through the Social and Economic Impacts of Gambling in Massachusetts (SEIGMA) project. While robust in many regards, the SEIGMA methodology provides population-based ‘snap shots’ of the dynamic process of behavior change during a time of gambling expansion. The cross-sectional design of the SEIGMA project is in contrast to a longitudinal cohort design that follows a group of people with a shared experience (exposure to expanded gambling) at intervals over time. A cohort study can provide etiological information about how gambling and problem gambling develops, progresses, and remits over time. The information collected through a cohort study has significant value as it can highlight risk and protective factors important in developing effective prevention, intervention, treatment, and recovery support services.

In October of 2013, the MGC recommended to the Legislature that a longitudinal cohort study be added to the MGC research agenda. In November of 2013, the MGC issued a Request for Proposals to conduct a multi-year cohort study to provide insight into the causes of problem gambling and variables influencing changes in gambling status. In April of 2014, the MGC selected the same University of Massachusetts Amherst School of Public Health and Health Sciences research team to conduct the cohort study. Due to uncertainties associated with possible repeal of the Expanded Gaming Act, the MGC directed that the study not begin until after the results of the referendum had been determined in November of 2014. The Massachusetts Gambling Impact Cohort (MAGIC) study was launched in December of 2014.

Cohort Studies of Gambling and Problem Gambling

Cohort studies are a specific type of study used to investigate the causes of disease and to establish links between risk factors and health outcomes. A cohort study examines a group of people with a shared experience (e.g., exposure to an increase in gambling opportunities) at intervals over time. There are two main types of cohort studies. ‘Retrospective’ cohort studies look at data that already exist and try to identify risk factors for particular conditions. While retrospective cohort studies tend to be less costly, interpretation of results can be limited due to missing data. ‘Prospective’ cohort studies are typically planned far in advance and conducted over an extended period of time.

Researchers began conducting prospective cohort studies of gambling and problem gambling in the early 1990s. These early studies involved relatively small groups of people. They had a number of other

limitations, including restrictive demographics, a short time span or small number of assessments, looking at either gambling or problem gambling but not both, a short questionnaire that examined only a subset of variables potentially involved in the development (or, 'etiology') of problem gambling, and poor retention rates. Several reviews of these studies have been published (M. W. Abbott & Clarke, 2007; el-Guebaly et al., 2008; W. Slutske, 2007; Williams et al., 2015).

The limitations of these smaller studies led to the launch of several large-scale longitudinal cohort studies of gambling and problem gambling in five countries. These are described below, followed by a brief summary of the factors most consistently linked to future problem gambling among all of the studies.

The Leisure, Lifestyle, Lifecycle Project (LLLP) was funded by the Alberta Gambling Research Institute and launched in 2006. A cohort of 1,808 Albertans was recruited with representative sampling from the major regions of the province. Five age cohorts were established at baseline (13–15; 18–20; 23–25; 43–45; 63–65) with equal numbers in each group. The sample included a subset of 524 'high risk' individuals presumed to be at higher risk for developing gambling problems because of their greater expenditure and frequency of gambling. All participants received a comprehensive 2–3 hour assessment of all variables of etiological relevance to gambling and problem gambling at each wave of the study. The LLLP had a 19–21 month interval between assessments. A total of 1,030 adults completed the fourth and final assessment, for an overall retention rate of 76.1%. A total of 313 adolescents completed the fourth and final assessment, for a retention rate of 71.8%. A final report on the results of the LLLP was published in 2015 (el-Guebaly et al., 2015).

The Quinte Longitudinal Study (QLS) was funded by the Ontario Problem Gambling Research Centre and also launched in 2006. A total of 4,123 Ontario adults aged 17–90 were recruited from the Quinte region in Ontario, Canada. A subset of 1,216 'high risk' individuals at elevated risk for developing gambling problems by virtue of their greater expenditure on gambling, past-year gambling on slot machines or horse races, or an intention to gamble at a proposed slots-at-racetrack facility, was included in the sample. All participants received a comprehensive 1–2 hour assessment of all variables of etiological relevance to gambling and problem gambling at each wave of the study. The QLS had five assessment periods, with a 12-month interval between the start of each period and a five-month assessment window. The final assessment period ended in 2011. An exceptionally high retention rate of 93.9% was attained in the QLS. A report summarizing the results of the QLS and comparing these with the LLLP was published in 2015 (Williams et al., 2015).

The Swedish Longitudinal Gambling Study (Swelogs) was funded by the Public Health Agency of Sweden and launched in 2008. The study began in 2008/2009 with an extensive telephone prevalence survey of gambling, problem gambling, and health in a random sample from the Swedish Register of the Total Population aged 16–84 stratified by gender, age, and risk for problem gambling. Those not reached by telephone received a postal survey that was followed up with a reminder. A total of 8,165 of the initial sample of 15,000 responded. Register data on sociodemographics from national registers was added to the response data and also used to calculate survey weights. Follow-up assessments of the 8,165 Swedes occurred in 2009/10 with 6,021 participants, in 2012 with 4,188 participants, and finally in 2014 with 3,559 participants. A total of 2,847 individuals participated in all four waves. A separate track used a case control design whereby all moderate risk and problem gamblers in the epidemiological track of the study and a sample of low-risk and non-problem gamblers (identified using the CPGI) were selected for interviews. Each moderate risk and problem gambler was matched on basic demographics with three people selected from the general population sample to form a control group. This in-depth

track included comprehensive telephone interviews completed in 2011 with 2400 participants, again in 2013, and a third qualitative wave completed 2015. A final feature of the study is a follow up of 578 people from a 1997/1998 Swedish gambling prevalence study (289 problem gamblers and a matched set of controls). There is a report for wave one and wave two, and several fact sheets describing the results, available in English at www.folkhalsomyndigheten.se.

The Swelogs research team has published four articles in English: (1) describing the study methodology (Romild, Volberg, & Abbott, 2014), (2) comparing the results of the 1997/1998 prevalence survey in Sweden with the Swelogs baseline epidemiological survey in 2009 (M. W. Abbott, Romild, & Volberg, 2014), (3) examining problem gambling prevalence and incidence in Sweden (M. Abbott, Romild, & Volberg, 2018), and (4) identifying the riskiness of different forms of gambling in Sweden (Binde, Romild, & Volberg, 2017). Data was also used in two doctoral theses, each with four articles that were also published separately.

The Victorian Gambling Study (VGS) was funded by the Victoria Department of Justice in Australia and launched in 2008. The study began with a general population representative survey of gambling behaviour and health among 15,000 adults in Victoria, with oversampling of local government areas that showed higher EGM expenditure. There were three subsequent waves roughly 12 months apart in 2009, 2010, and 2011. The retention rate at the end of the study was 24.7%. The assessment consisted of a 15 to 25 minute telephone interview focusing on gambling behaviour, health and well-being, important life events in the past 12 months, and demographic information. Reports on the results of the VGS have been published by the Victoria Department of Justice (Victoria Department of Justice, 2009, 2011) and the Victorian Responsible Gambling Foundation (Billi, Stone, Marden, & Yeung, 2014; Victorian Responsible Gambling Foundation, 2012a, 2012b). Four technical reports with additional analyses of the VGS (Stone, Yeung, & Billi, 2016a, 2016b, 2016c, 2016d) are also freely available from the Victorian Responsible Gambling Foundation.

The New Zealand National Gambling Study (NZ NGS) is funded by the New Zealand Ministry of Health and began in 2012. The study started with a face-to-face prevalence survey of gambling and problem gambling among 6,251 people aged 18 years and older living in private households. This study oversamples important ethnic groups in the country, including Māori, Pacific people, and Asian people. The assessment consisted of a 45-60 minute structured interview focusing on gambling behaviour, problem gambling, life events, mental health, alcohol and substance use and misuse, health conditions, social connectedness, level of deprivation, and demographics. The NZ NGS has had four assessment periods from 2012 to 2015, with a 12-month interval between the start of each period. Reports and articles on the results of each wave of the study are available online (M. Abbott, Bellringer, Garrett, & Kolandai-Matchett, 2017; M. W. Abbott, Bellringer, Garrett, & Mundy-McPherson, 2014a, 2014b, 2015a, 2015b, 2016, 2018). A further cohort of 106 high risk gamblers was recruited from gambling venues and via advertisements in 2014/15, and re-assessed in 2015/16, with the purpose of assessing their similarity to the NGS high risk gamblers for potential sample combination, thereby increasing statistical power for sub-group analyses. In 2018, a sub-sample of 50 participants is taking part in semi-structured interviews to understand how and why people transition between different gambling states.

Table 1 summarizes key features of the five large cohort studies.

Table 1: Comparing Five Cohort Studies of Gambling and Problem Gambling

	Alberta, Canada LLP	Ontario, Canada QLS	Sweden Swelogs	Australia VGS	New Zealand NGS
Data collection period	2006-2011	2006-2011	2008-2014	2008-2012	2012-2018
Recruited sample	1,808	4,123	8,165	15,000	6,251
Assessment length	2-3 hour	1-2 hour	15-25 min	15-25 min	45 min
Interval (months)	17-22 ¹	12	12 ²	12	12
PG Measure	CPGI 5+	PPGM	CPGI 5+	CPGI 8+	CPGI 8+
Baseline PG prevalence	3.6% ³	3.1% ³	1.0% ⁴	2.6% ⁴	2.5% ⁴
Wave 2 PG prevalence	2.0% ³	2.9% ³	1.1% ⁴	1.5% ⁴	2.0% ⁴
Incidence (Wave 1 – Wave 2)	N/A	1.4% ³	0.8% ⁴	0.12% ⁴	0.28% ⁴
Proportion of Wave 2 PGs that are new cases	N/A	49.0%	73.5%	33.3%	51.6%

¹ This is the average elapsed time between waves for all respondents.

² Between Wave 1 and Wave 2; the interval between subsequent waves was 24 months.

³ Unweighted

⁴ Weighted

Some consistent findings emerge from the full body of longitudinal studies of gambling and problem gambling (Williams et al., 2015). First, gambling categorization is surprisingly unstable, with people moving into and out of problem or at-risk gambling status over time. In general, recreational gamblers and non-gamblers tend to be most stable over time. Less than half of people with gambling problems tend to have a gambling problem in the next assessment period, and only a small minority of problem gamblers remain in this status over multiple consecutive assessments. Another consistent finding from the longitudinal studies is that no single variable is overwhelmingly present in people who develop gambling problems and absent in those who do not. Instead, there are many different variables that increase the risk of future problem gambling. This is consistent with what has been found in other areas of addiction.

There are some factors that are much stronger predictors than others of future problem gambling. In general, gambling-related variables most strongly predict future problem gambling. Specifically, future problem gambling is best predicted by currently being a problem gambler, followed by being in the at-risk category. The latter variable is primarily associated with the continuation of problem gambling, as well as relapse, rather than in the onset of problem gambling.

Other strong gambling-related predictors of future problem gambling include a big gambling win in the past year, intensity of overall gambling involvement, higher frequency of involvement in continuous forms of gambling (e.g., EGMs), rating gambling as an important leisure activity, having family members and/or close friends who gamble heavily, gambling to escape or distract oneself, higher levels of gambling fallacies, and shorter distance to the nearest EGM venue.

Personality is the next most important category of variables that predict future problem gambling. Particularly important traits include impulsivity, vulnerability to stress, lower agreeableness, and lower conscientiousness. These personality traits have not been assessed in all of the prospective cohort studies; still, this profile is consistent with the personality profile of people with gambling problems that

seek treatment, as well as people with gambling problems drawn from community samples. These traits are also commonly found in people who abuse substances.

The third category of variables associated with future problem gambling includes mental health problems. Depression has long been known to be a strong correlate of problem gambling and it is the second most commonly identified predictor of problem gambling across the large prospective cohort studies. Having any mental health disorder has also been found to be a consistent predictor of future problem gambling, such as having behavioral addictions or substance abuse (including tobacco use).

When these variables are included in multivariate models, the complexity of future problem gambling becomes even more apparent. Even after eliminating variables with overlapping predictive power, there are still many variables that predict future problem gambling. In multivariate approaches, gambling category is again the strongest individual predictor, but the individual gambling variables lose some predictive power. Beyond the gambling-related variables, the only variables that robustly add predictive power to multivariate results are impulsivity, having a behavioral addiction, having a lifetime history of addiction to drugs or alcohol, and having a family history of mental health problems.

An important finding from the longitudinal cohort studies is that different variables predict the first onset of problem gambling versus relapse and the continuation of problem gambling. Almost all of the gambling-related predictors tend to be first onset predictors. In contrast, non-gambling variables have a greater role in problem gambling continuation and relapse. In particular, the presence of certain personality traits as well as comorbid mental health disorders, a lifetime history of mental health or substance abuse problems, lower intellectual ability, and anti-sociality make it more difficult for people with gambling problems to recover and leave them more susceptible to relapse once they have recovered.

The Massachusetts Gambling Impact Cohort Study

The design of the Massachusetts longitudinal cohort study of gambling and problem gambling builds on existing longitudinal problem gambling research. As the prior discussion illustrates, significant progress has been made in understanding the incidence and etiology of problem gambling in other countries. However, there are several reasons why a Massachusetts longitudinal cohort study of gambling and problem gambling is warranted:

- First, there have been no longitudinal research studies of gambling and problem gambling in Massachusetts (and no major cohort studies of gambling in the United States). There are important differences between Massachusetts and other jurisdictions where longitudinal cohort studies have been conducted. These differences include demographic composition, the availability of casino gambling, the extent of efforts to prevent problem gambling, and the time period in which incidence within the cohort will be examined. It is possible that the nature, incidence, and etiology of problem gambling may be somewhat different in Massachusetts compared with other jurisdictions where similar studies have been carried out.
- Second, the change in gambling availability in Massachusetts during the course of this study (due to the introduction of at least three and possibly four major new gambling venues) will be greater than the fairly stable availability of gambling that occurred in the Alberta, New Zealand, Ontario, Sweden, and Victorian studies. Thus, Massachusetts presents a much better opportunity to understand the role of increased gambling availability, and casino gambling specifically, in the development of problem gambling.

- Third, this research addresses two important limitations of previous research: (a) a low number of problem gamblers, limiting the robustness of the findings and (b) a limited and circumscribed time frame (2 years to 6 years), which precludes a fuller understanding of transitions in and out of problem gambling. MAGIC endeavors to rectify these shortcomings with a much greater oversampling of high risk groups and a longer time frame.
- Finally, the findings from the MAGIC study will be synergistic with those of the [SEIGMA](#) study, producing results much richer than either study on its own. While the emphasis in the MAGIC study is on incidence and etiology of problem gambling, and the emphasis in the SEIGMA study is on the prevalence of problem gambling—in addition to a broader focus on the social and economic impacts—both studies will produce considerable evidence pertaining to the other study’s focus. The impacts identified in SEIGMA can be explored in greater depth in MAGIC and the factors contributing to incidence and relapse can be explored in greater depth in SEIGMA.

Principal Study Questions

The three primary research goals of the MAGIC study are to determine the **incidence** of problem gambling, understand the **stability and transitions** associated with problem gambling, and to develop an **etiological model** of problem gambling. We discuss each of these goals in detail below.

Determine the Incidence of Problem Gambling

Incidence studies in the context of a longitudinal cohort can provide a full picture of the nature of the disorder. For example, a stable prevalence rate over time can be the result of either (a) ongoing unremitting problem gambling in the same group of individuals or (b) the rate of new cases is roughly equivalent to the rate of remission among existing problem gamblers. In the context of a longitudinal cohort, we want to understand which of these two different scenarios is occurring, as they have different implications for prevention and treatment. A cohort study is best suited to examine these issues and establish incidence.

Determine the Stability and Transitions Associated with Problem Gambling

Previous research has found the duration of Problem Gambling to be relatively short, with one year being the modal duration. In contrast, persons classified as Recreational Gamblers and Non-Gamblers have been found to be much more stable gambling classifications over time. This same research has also found high rates of problem gambling relapse following recovery. The present research will re-examine these same issues. An important advantage of the present research is potentially having a greater number of problem gamblers as well as a longer timeframe to examine these transitions.

Develop an Etiological Model of Problem Gambling

Internationally, considerable effort is currently going into the development of strategies to prevent problem gambling. Unfortunately, the majority of these initiatives appear to be fairly ineffectual (Williams, West, & Simpson, 2012). This is partly due to the fact that most of these educational and policy initiatives have been put in place because they “seemed like good ideas” and/or were being used in other jurisdictions, rather than having demonstrated scientific efficacy or being derived from a clear understanding of effective prevention practices. However, it is also due to the fact that there is no comprehensive and well established etiological model of disordered gambling to guide these efforts.

While there are many well established correlates of problem gambling (e.g., gambling fallacies, mental health problems, etc.), their association with problem gambling may occur either because they *caused* problem gambling, developed *concurrently* with problem gambling, or developed as a *consequence* of problem gambling. From a prevention standpoint, knowing how and where to effectively intervene hinges on having research that clearly identifies the variables that are etiologically involved in problem

gambling, their temporal sequence, and their causal connections. Similarly, knowing the factors implicated in sustained recovery from problem gambling is very important for the purposes of treatment. Longitudinal research is the best way of disentangling these complex relationships and understanding the chronology and causal directions, potentially allowing for the creation of a detailed etiological model of how gambling and problem gambling develops, continues, and remits. Longitudinal research has been applied successfully many times in the fields of health, mental health, and addiction to elucidate these connections. To date, however, comprehensive longitudinal studies are relatively uncommon in the area of gambling and problem gambling.

Organization of Report

This report is organized into several sections for clarity of presentation. Following this *Introduction*, an *Overview of Methods* details the selection and recruitment of the study sample. The next sections present findings in the following areas:

- Changes in gambling participation
- Changes in problem gambling status
- Incidence of problem gambling
- Stability and transitions of gambling behavior

The report concludes with a summary of the results and a discussion of the implications of these findings for problem gambling prevention and treatment. Appendices to the report include a detailed explanation of the study methodology and a copy of the questionnaire.

Overview of Methods

This section presents an overview of the methods used in selecting and recruiting the sample for the study. Additional information on the study methodology, intended for technical readers, is provided in Appendices A1 through A4. A copy of the questionnaire is provided in Appendix B.

Sampling Strategy

Baseline General Population Survey (BGPS)

Responses to the SEIGMA Baseline General Population Survey (BGPS) constituted Wave 1 of the MAGIC study. The BGPS was completed in several stages. In the first stage of the survey, the SEIGMA research team and staff from the National Opinion Research Center (NORC) at the University of Chicago worked together to finalize the questionnaire and sampling frame. NORC programmed the questionnaire for computer-assisted web interviewing (CAWI) and computer-assisted telephone interviewing (CATI) administration, as well as creating a self-administered paper-and-pencil questionnaire (SAQ) and advance materials such as letters, postcards, and brochures. All materials were translated into Spanish and back-translated to verify consistency.

In the second stage, the survey was completed by 9,578 Massachusetts adults (aged 18 years and older) between September 2013 and May 2014. Participants were selected by means of address-based sampling (ABS), a method that ensured that each Massachusetts household had a known probability of selection into the sample, independent of their telephone status (i.e., landline, cell, or no telephone) (Iannacchione, 2011; Link, 2008). To achieve a random sample, the study targeted the adult in the household who had the most recent birthday.

The third stage of the survey involved data cleaning and data weighting to increase confidence in generalizing results to the adult population of Massachusetts and preparation of a comprehensive report. Descriptive results from the BGPS were originally published in June 2015 with an updated report published in September 2017 (Volberg, Williams, Stanek, Houpt, et al., 2017). A report on deeper, multivariate analyses of the BGPS results was published in March 2017 (Williams et al., 2017). These reports can be found at www.umass.edu/seigma/reports.

Establishing the Cohort

A cohort study follows a group of people with a shared experience (exposure to expanded gambling) at intervals over time. The MAGIC cohort is a subset of participants from the BGPS.

To establish the cohort, a stratified sample of 4,860 adult residents of Massachusetts aged 18 and older was selected from the 9,578 respondents in the BGPS. The sample was drawn to ensure that a cohort of at least 2,600 would be achieved (assuming a 55% participation rate among selected BGPS respondents).³ The sample was selected from five high-risk strata, including respondents to the baseline survey who were (a) Problem Gamblers, (b) At-Risk Gamblers, (c) gamblers who spent \$1,200 or more annually on gambling, (d) those who gambled weekly, and (e) those who had served in the military since September 2001. The remaining BGPS respondents constituted a single low-risk stratum. All of the respondents in the high-risk strata were selected for the MAGIC study along with a randomly selected third of respondents from the low-risk stratum.

³ The assumption of a 55% participation rate among selected BGPS respondents was based on experience at NORC with other longitudinal cohort studies.

Table 2 illustrates the sampling strategy for the MAGIC study. The first column lists the strata, while the second column lists the number of respondents from the BGPS in each stratum. In the third column, under the heading *Sampling Framework*, we show the *Sampling Proportion* for each stratum. The next column presents the *number of respondents sampled* for the MAGIC cohort in each stratum. For example, 450 respondents in the BGPS were classified as At-Risk Gamblers and the sampling proportion is 1 (100%), so 450 At-Risk Gamblers were included in the sample drawn for MAGIC.

Table 2: Sampling Strategy for MAGIC

Strata	BGPS	Sampling Framework	
	N	Sampling Proportion	# in Sample
Problem Gambler	133	1	133
At-Risk Gambler	450	1	450
Spends \$1,200+ annually	1,088	1	1,088
Gambles weekly	792	1	792
Military service Sept 2001 or later	49	1	49
All other BGPS participants	7,066	0.33	2,348
Totals	9,578		4,860

Wave 2 of MAGIC started with a sample of 4,860 participants who previously participated in BGPS. Those who completed the second wave of data collection would establish and define the MAGIC cohort for future rounds of data collection. Based on an anticipated response rate of 55%, we expected that the MAGIC cohort would consist of 2,673 participants.

Questionnaire

Two instruments were used to assess problem gambling in the MAGIC survey: the Canadian Problem Gambling Index (CPGI) (Ferris & Wynne, 2001) and the Problem and Pathological Gambling Measure (PPGM) (Williams & Volberg, 2010, 2014). Worldwide, the CPGI is presently the most common instrument for the assessment of problem gambling (surpassing both the South Oaks Gambling Screen (SOGS) and the DSM-IV criteria for pathological gambling) (Williams, Volberg, & Stevens, 2012). However, the PPGM has superior sensitivity, positive predictive power, diagnostic efficiency, and overall classification accuracy compared to the CPGI as well as other problem gambling instruments (Williams & Volberg, 2014).

The Wave 2 survey instrument was largely the same as the Wave 1 questionnaire.⁴ The questionnaire included sections on recreation, physical and mental health, alcohol and drug use, gambling attitudes, gambling behavior, gambling motivations, importance of gambling as a recreational activity, awareness of problem gambling services, gambling-related problems, and demographics.

Five questions were added to the Wave 2 instrument. These new questions related to the respondent's internet access, whether the respondent had gambled at an underground casino or slot parlor, and

⁴ The BGPS/Wave 1 questionnaire is available in Appendix B of *Gambling and Problem Gambling in Massachusetts: Results of a Baseline Population Survey* and the Wave 2 questionnaire is available in Appendix B of *Analysis of MAGIC Wave 2: Incidence and Transitions* (www.umass.edu/seigma/reports).

whether the respondent had gambled at the new Plainridge Park Casino, which opened in Plainville, Massachusetts in June 2015. The new questions were:

- Do you have an internet connection either at home or at work? (Yes/No)
- Overall, how often do you use the internet? (Daily, A few times a week, A few times a month, A few times a year, Not at all)
- Have you gambled at any “underground” casino or slot parlor in Massachusetts in the past 12 months? (Yes/No)
- The Plainridge Park Casino recently opened in Plainville, Massachusetts. Have you gambled at this new casino? If you visited the casino, but did not gamble, please select No. (Yes/No)
- How many times have you gambled at the Plainridge Park Casino?

The two questions related to gambling at Plainridge Park Casino were added late in the field period to coincide with the opening of the new venue on June 24, 2015 and were available only in Web and CATI.

The basis for the Wave 3 questionnaire was the Wave 2 questionnaire with several significant changes (see Appendix B in this report for a copy of the Wave 3 questionnaire). Questionnaire changes to the Wave 3 instrument include the addition of a Lifetime Gambling Measure and Levenson’s Primary Psychopathy Scale. Three additional questions were also added:

- Prior to the past 12 month, do you have any significant history of mental health problems such as depression, post-traumatic stress, panic attacks, generalized anxiety, agoraphobia, obsessive-compulsive disorder, bipolar disorder, schizophrenia, bulimia, etc.? (Yes/No)
- Is there any significant history of mental health problems, drug or alcohol addictions, or behavioral addictions in your parents, siblings, or children? (Yes/No/Unsure)
- Were you abused as a child (physically, sexually, or emotionally)? (Yes/No)

As with the Wave 1 and Wave 2 questionnaires, if respondents reported experiencing problems with certain issues while completing the Wave 3 questionnaire, contact information for treatment providers was provided. In contrast to Wave 1, all surveys were completed in English in Wave 2 and Wave 3, regardless of interview mode.⁵

Ethical Review

All waves of data collection efforts were subject to approval by the Institutional Review Boards (IRBs) from both NORC and UMass Amherst. For Wave 3, NORC received IRB approval on February 24, 2016; UMass Amherst received approval shortly thereafter on March 11, 2016. As part of the IRB submission, NORC requested that the IRB waive the requirement of obtaining informed consent documentation in exchange for including informed consent statements in each survey mode.

For web respondents, the informed consent statement was read as part of the screening process, with a hyperlink to the Federal Certificate of Confidentiality printed within the frequently asked questions (FAQs) document. If the respondent clicked ‘Next’ to move past the informed consent screen, he or she was presumed to be informed of his or her rights as a participant. For mail, the informed consent statement was printed on the inside cover of the hardcopy questionnaire with a printed link to the Federal

⁵ A small number of the BGPS respondents drawn for the cohort (n=73, 1.5%) completed the BGPS in Spanish. Among these respondents, 39.7% (n=29) participated in Wave 2 and 15% (n=11) participated in Wave 3. While the decision to administer the MAGIC survey only in English was based on budget constraints, the overall impact on the results is likely small since these respondents represent less than 1% of the cohort.

Certificate of Confidentiality. Respondents returning a booklet with valid response data were considered to have provided consent. Finally, in Wave 1 and Wave 2, respondents completing by telephone were read the informed consent script. Interviewers gained consent by clicking “Continue” if the respondent did not voice any objections. Respondents were also notified that the calls would be recorded. If the respondent objected, the interviewer would select that the respondent refused to be recorded and the interview would continue unrecorded.

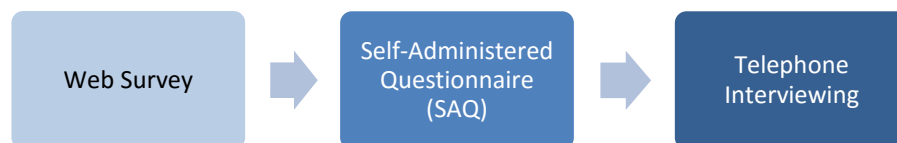
All materials provided to potential respondents (letters, brochure, and questionnaire) were submitted to the two IRBs for review. As data collection progressed, any materials requiring modification or new materials not included in the original submission were sent as an amendment to both IRBs for review.

Data Collection

Wave 1 was conducted from September 2013 to May 2014 and Wave 2 was conducted from March 2015 to September 2015. Wave 3 began in April 2016 and ended in August 2016. A series of mailings were scheduled to encourage respondent participation, to inform households about the survey and how they were selected, and to provide contact information for NORC and UMass Amherst. Mailings were scheduled approximately two weeks apart to give respondents enough time to receive and complete the questionnaire and so that NORC could remove completed cases from follow-up mailings. Prior to each mailing, households that had already completed the survey were removed from the mailing list.

To enhance the overall response rate, the survey was offered in three modes – web, mail, and telephone for Wave 1 and Wave 2. Participants were introduced to these modes sequentially. Figure 1 illustrates the multi-mode approach that was employed for reaching the sampled respondents in Wave 1 and Wave 2.

Figure 1: Multi-Mode Data Collection Approach for Wave 1 and Wave 2

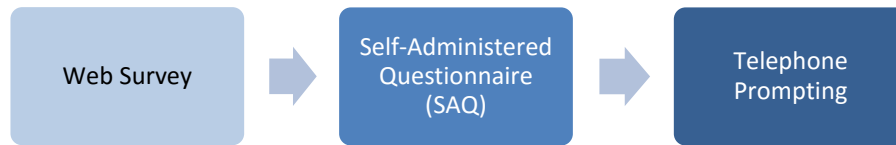


Respondents were first invited to participate in the survey online.⁶ If respondents did not complete the survey online, they were sent a hardcopy questionnaire with a postage-paid business reply envelope. Respondents who did not reply in the first two modes were contacted by telephone. Respondents could also call the study’s toll-free line to complete the survey over the telephone at any time. All cases not reached via any of the three modes were sent to a “locating case management system,” as described below.

The cohort of respondents that was established in Wave 2 (n=3,139) was contacted again in April 2016 to complete Wave 3 of the study. In contrast to the data collection procedures used in previous waves, the MAGIC Wave 3 questionnaire was administered online and via paper mail-in questionnaire (SAQ) only. Telephone dialing was only conducted for the purpose of contacting respondents who had not yet completed the survey and prompting them to complete via the web instrument or to return their completed SAQ.

⁶ The web survey remained open throughout the data collection period.

Figure 2: Multi-Mode Data Collection Approach for Wave 3



Locating Procedures

The locating case management approach involved the following:

- Calling to determine the status of any existing telephone numbers for the respondent or any telephone numbers for contacts provided by the respondent during Wave 1 and Wave 2
- Performing extensive internet searches for the person
- Conducting searches using a third party locating vendor (Accurant)

All locating activities were reviewed and approved by the NORC IRB and the UMass Amherst IRB.

In the first approach for Wave 2 and Wave 3, locators dialed any telephone numbers associated with the case from Wave 1. Locators also followed up with the three contacts provided by respondents in Wave 1 to find alternate telephone numbers for the respondent. In Wave 2, when locators successfully identified a respondent, the case was opened in the telephone survey and the case was completed. In Wave 3, non-respondents were called as a prompt to complete the online or paper survey.

In the second approach for Wave 2 and Wave 3, after all alternate telephone numbers were exhausted, locators conducted internet searches for contact leads. Internet sites used during this approach included Google, White Pages, and LinkedIn. As leads were generated, locators followed steps to: confirm the respondent and complete the telephone survey in Wave 2 or, in Wave 3, complete the online or paper survey; schedule an appointment to complete the telephone survey in Wave 2, or, in Wave 3, complete the online or paper survey; probe for new address and telephone information if the respondent no longer lived in the household; and leave information about how to contact the project if an informant refused to provide new contact information.

In the third approach for Wave 2 and Wave 3, specially trained locators used Accurant to obtain new address and telephone information for respondents by matching a combination of respondent name, address, telephone number, gender, and age. If all protocols were followed and no further leads identified, indicating that the respondent could not be found, the case was finalized as not locatable.

Data Collection Procedures

This section describes data collection procedures specifically for Wave 3. Readers interested in the data collection procedures for the previous waves should consult *Analysis of MAGIC Wave 2: Incidence and Transitions* (www.umass.edu/seigma/reports).

Respondents who completed Wave 3 of the survey were first mailed a web packet asking them to complete the survey online. Enclosed with this mailing was a web invitation letter, survey brochure, web insert outlining how to access the web survey, and a list of Frequently Asked Questions (FAQs). The invitation letter informed respondents of the purpose of the study and provided a web link and Personal Identification Number (PIN) to access the survey. The letter also offered sending a \$50 incentive check

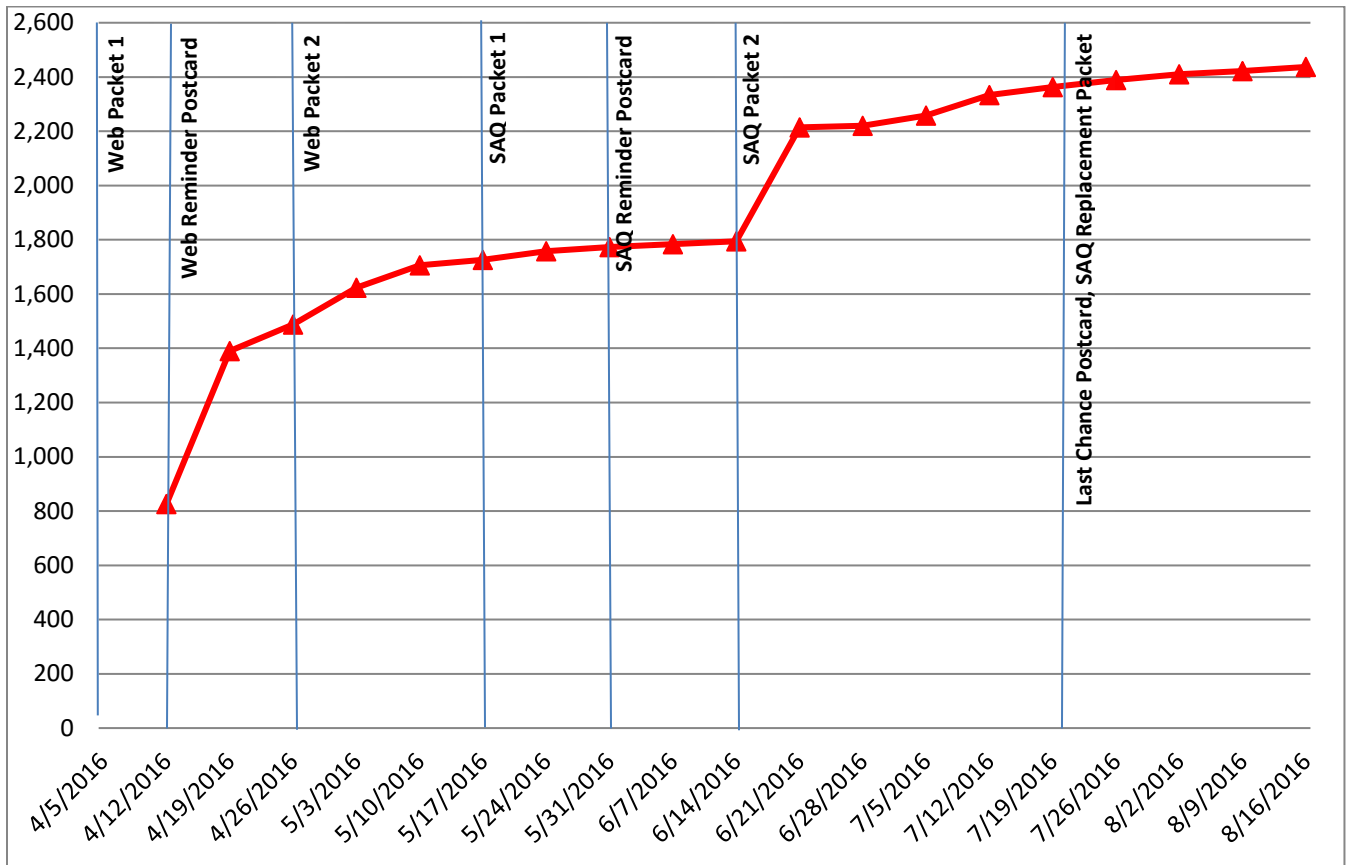
along with an additional \$20 if the respondent completed the survey online by the Early Bird date (completed within 14 days) printed on the letter. A reminder postcard was mailed thanking those who had previously completed the survey, while reminding non-responders to complete the survey online. A second web packet mailing followed the postcard mailing. The letter encouraged respondents to complete the survey online and included the web link and PIN to access the survey. The letter also reminded respondents of the \$50 incentive check if the respondent completed the survey.

The first self-administered printed questionnaire (SAQ) was mailed approximately a month and a half after the first “web packet” mailing. The SAQ packet included a letter, hardcopy questionnaire, postage-paid business reply envelope (BRE), \$50 incentive reminder language, and survey brochure. The letter also provided instructions for completing the questionnaire online if desired. A second reminder postcard was mailed thanking those who had previously completed the survey while reminding non-responders to complete the survey. The final mailing was a replacement questionnaire to the remaining non-responders with a letter emphasizing the importance of the study. Telephone prompting was conducted for the purpose of prompting respondents to complete the survey over the web or to return their completed SAQ. Telephone prompting began July 5, 2016 and lasted for three weeks. Respondents who requested to be “taken off the list” or refused in a hostile manner were removed from the contact list immediately. Near the end of the data collection period, NORC sent pending non-respondents a final “last chance” postcard. This postcard alerted respondents that data collection would be ending July 29, 2016 and encouraged their participation before this date.

Key to this study, and the overall validity of the data collected, was ensuring that the respondent who completed the Wave 3 questionnaire was the same respondent from Waves 1 and 2. In order to confirm that the same respondent was being screened into the Wave 3 survey, respondent demographic information (name, address, age, and gender) collected during Wave 1 (and validated during Wave 2) was preloaded into the main screener question. The screener question was programmed to use the available preloaded information when screening the Wave 3 respondent. Since several respondents from Wave 1 and 2 did not provide all of the requested demographic information, the screener question had alternate text that would display based on the level of demographic information available. The Wave 2 interview month and year was also preloaded as a text fill within the screener question text in order to help respondent’s recall.

Figure 3 presents the progress in recruiting respondents into the MAGIC study over the entire data collection period:

Figure 3: MAGIC Wave 3 Recruitment Progress



A total of 76% of the questionnaires completed by the cohort were self-administered online and 24% were completed using the self-administered paper-and-pencil format.

Data Processing

Before delivering the data to the UMass Amherst research team, NORC completed a series of data editing and cleaning procedures. Throughout data collection, SAS programs were run to identify any errors that occurred in the Web system. This allowed NORC to reconcile inconsistencies in the data and fix system or questionnaire errors as they occurred, which minimized data cleaning required after data collection was complete. NORC then combined the data from all data collection modes into a single analytic file which included a variable to indicate the mode of data collection used to complete each interview. NORC delivered the data to the UMass Amherst team via a Secure File Transfer Protocol (SFTP).

The dataset delivered to the UMass Amherst research team contained 2,455 complete records. A case was considered complete when 7 or more of the GY (gambling in the past 12 months) questions were answered. After the dataset was received, skip patterns and outliers were reviewed and a cleaned dataset was created. Using the cleaned data, several additional composite variables were created and added to the final dataset. Finally, a variable was added to the dataset to link Wave 1 and Wave 2 data with the Wave 3 respondents.

The UMass Amherst team also reviewed verbatim responses for several questions that offered an “Other” response category. The verbatim responses were back-coded into existing response categories. Both the original verbatim and the original response to the root question were maintained in the final dataset.

Matching Respondents Across Waves

Procedures used by NORC to screen respondents from Wave 1 into Wave 2 and from Wave 2 into Wave 3 involved the use of programmed questions based on preloaded information (name, address, gender, year of birth, month and year of the previous wave survey completion) in the Web mode. For most of the respondents, gender and year of birth exactly matched the respondent from Wave 1 to Wave 2 (n=3,052, 97%) and from Wave 2 to Wave 3 (n=2,439, 99%). For these respondents, it seemed reasonable to assume the same person in the household responded to each wave.

There were discrepancies in gender and/or year of birth for a small number of respondents (n=87, 3.0%) from Wave 1 to Wave 2 and for a small number of respondents from Wave 2 to Wave 3 (n=16, 0.6%). Among the small group of respondents with discrepancies in gender and/or year of birth, 51% of the Wave 2 respondents were deemed to be the same individual who completed the BGPS and 69% of Wave 3 respondents were deemed to be the same as Wave 2 respondents. The 43 respondents whose gender and/or year of birth could not be matched to BGPS data are included in the cohort but have missing data for Wave 1 of the study. These 43 individuals were not included in any of the Wave 1 to Wave 2 analyses. Table 3 presents information about the different types of disagreement and number of respondents with each type of disagreement in the cohort.

Looking across the three waves, the largest group (n=77, 75%) included respondents whose gender matched but whose year of birth did not match. A smaller group (n=26, 25%) included respondents whose gender did not match or whose gender and year of birth did not match across two waves.

Table 3: Respondent Mismatches in Gender, Year of Birth, or Both Across Three Waves

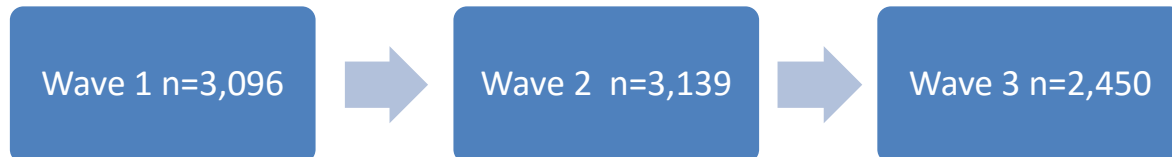
Gender	Year of Birth	Wave 1 to Wave 2 Frequency	Wave 2 to Wave 3 Frequency	Match
Match	Mismatch 1-2 years difference	36	10	Yes
Match	Mismatch 3-5 years difference	6	1	Yes
Match	Mismatch >5 years difference 2 digit year	2	0	Yes
Match	Mismatch >5 years difference	20	2	No
Mismatch	Match	9	2	No
Mismatch	Mismatch	14	1	No
TOTAL		87	16	

Among the respondents with matching gender and mismatching year of birth from Wave 1 to Wave 2 or from Wave 2 to Wave 3, 53 respondents reported a mismatch in year of birth of five years or less. Review of these individuals’ responses to other items in the subsequent survey led the research team to conclude that the same respondent completed both questionnaires. Another two respondents from

Wave 1 to Wave 2 with matching gender but with year of birth mismatched by more than five years appeared to have indicated their age using a two-digit response rather than year of birth in Wave 1. Based on this assumption, these respondents' year of birth matched across the two waves and the research team concluded that the same respondent had completed both questionnaires.

There were 22 instances where respondents' gender matched across Wave 1 and Wave 2 or Wave 2 and Wave 3 but the difference in year of birth was greater than five years. There were also 11 instances where respondents' year of birth matched across two waves but gender did not and 15 instances where neither gender nor year of birth matched across two waves. For the Wave 1 data analytic file, this equalled the exclusion of 43 individuals since we considered the Wave 1 data to come from a different respondent. As a consequence, the MAGIC cohort includes Wave 1 data on 3,096 respondents and Wave 2 data on 3,139 respondents. The 3,139 Wave 2 respondents establish the MAGIC cohort. From Wave 2 to Wave 3, five respondents were not included in the analytic file since we suspect the data comes from a different respondent. The analytic file for Wave 3 includes 2,450 respondents.

Figure 4: Sample Size Across Waves



Missing Data

Missing data is anticipated in the MAGIC study due to incomplete responses to the questionnaire and sample attrition. A consequence of missing data is (a) reduction in power to address key hypotheses and (b) the potential for bias in reporting results and interpreting conclusions.

Item non-response was similar for each of the data collection modes. Respondents were allowed to refuse to answer any question or to give a "don't know" response. The percentage of complete responses was extremely high for nearly all of the items. The non-response rate was greater than 10% for only one question in Wave 1 and Wave 2: household income. In Wave 3, several additional variables had non-response rates of greater than 10%, including: life events; symptoms as a result of life events; association with alcohol or drug use; percentage of time spent on EGM and/or casino table games; amount of money spent on out-of-state gambling; and age gambled for money for the first time. For interested readers, the response rate for individual questions by data collection mode for each wave is shown in Appendix A4.

Weighting and Comparability Across Three Waves

MAGIC is a longitudinal study of a cohort of Massachusetts residents aged 18 and over who were selected using a probability sample of respondents in the SEIGMA Baseline General Population Survey (BGPS). For this reason, the weights for Wave 2 and Wave 3 of MAGIC are closely related to the weights developed for the BGPS. A total of 4,860 addresses were selected for the MAGIC study from addresses for the 9,578 BGPS respondents. Wave 2 respondents (n=3,139) define and establish the MAGIC cohort. The Wave 3 survey attempted to interview each subject in the MAGIC cohort approximately 12.5 months after Wave 2. A total of 2,450 respondents completed the Wave 3 survey.

Weights were developed for respondents at Wave 2, and these weights were used for estimating Wave 1 to Wave 2 differences. The weights accounted for: 1) the stratified BGPS design; 2) unknown eligibility of addresses (region, language, and last mode of contact—Web, SAQ, CATI); 3) non-response to the BGPS (including several sampling frame variables); 4) the MAGIC probability sample design; 5) non-response to Wave 2 (own/rent status of household, presence of children, education of respondent, and past-year gambling participation); 6) household size; 7) the 2013 MA population (region, gender, age, race/ethnicity, education); 8) weight trimming. More details are provided in the Appendix of the Wave 2 data report.

Weights were developed for respondents at Wave 3, and these weights were used for estimating Wave 2 to Wave 3 differences. The weights accounted for: 1) the stratified BGPS design; 2) unknown eligibility of addresses (region, language, and last mode of contact—Web, SAQ, CATI); 3) non-response to the BGPS (including several sampling frame variables); 4) the MAGIC probability sample design; 5) response rates to Wave 2 of MAGIC; 6) differential non-response to Wave 3 (last mode of attempted interview in the BGPS, born in the US, education, disability, and number of gambling formats participated in); 7) household size by region; 8) the 2016 MA population (region, age, gender, race/ethnicity, and education); 9) weight trimming. Here, we detail the weighting procedures for Wave 3. For technical readers, Appendix A3 fully details the Wave 3 weighting procedures.

The BGPS was a stratified, multi-mode address-based (ABS) probability sample survey with Massachusetts addresses serving as the primary sampling frame. One individual per household aged 18 and over with the closest birthday to the mailing date was invited to participate in the survey. The steps in the weighting make use of weights from the BGPS that accounted for address based probability sampling of the BGPS and completion rates for the BGPS. Since the MAGIC cohort is defined by respondents to the Wave 2 MAGIC survey, the weights account for the probability sample rates for the MAGIC cohort and completion rates for the Wave 2 MAGIC respondents. Finally, the weights account for the completion rates for the Wave 3 survey, household size, and raking by region, age, gender, race, and education to align the respondents to the 2016 Massachusetts population.

Weight Accounting for Respondents to the BGPS Survey (MW3WT1)

The initial step in the weighting makes use of weights from the BGPS that accounted for:

1. Baseline stratified sampling weight (Baseline Design weight: *WT1*)
2. Adjustment for unknown eligibility (Eligibility weight: *WT2*)
3. Adjustment for completion of the questionnaire (Completion weight: *WT3*)

The weights corresponded to inverse probability sampling weights that accounted for the stratified BGPS design (*WT1*), adjustment for unknown eligibility (based on the frame variables for region, language, and address type) (*WT2*), and adjustment for survey completion (based on the variables for region, language, and last mode of contact (Web, SAQ, CATI)) (*WT3*). The development of these weights ensures that the total weight in each region matches the number of addresses in each region and similarly that totals match Massachusetts totals by type of address, language, and last mode of contact. Details on the development of weights for the BGPS are given in Appendix A of *Gambling and Problem Gambling in Massachusetts: Results of a Baseline Population Survey* (www.umass.edu/seigma/reports).

Weight Accounting for Respondents to the Wave 2 Survey (MW3WT2)

The MAGIC cohort is defined by respondents to a stratified probability sample of BGPS respondents. Two additional factors were used to adjust the weights for the MAGIC cohort:

4. Adjust for the MAGIC probability sample design (MAGIC Design weight: *MWT1*)
5. Adjust for response rates to the Wave 2 MAGIC study (MAGIC Wave 2 Completion weight: *MWT2*)

Details of the development of these weights are given in Appendix A3 of *Analysis of MAGIC Wave 2: Incidence and Transitions* (www.umass.edu/seigma/reports).

Weight Accounting for Respondents to the Wave 3 Survey (MW3WT3)

The third adjustment to the weights accounts for differential non-response. All 3,139 MAGIC cohort participants were contacted for interview in Wave 3. Completed surveys were obtained from 2,450 of the 3,139 subjects in the MAGIC cohort. The first step in adjusting the weights for response is to drop from the cohort the 22 subjects who were deceased/ineligible. The total number of addresses represented by the remaining 3,117 Wave 3 cohort members is 2,699,451. Among these 3,117 cohort members, completed responses were obtained for 2,450 (78.6%) subjects.

A stepwise logistic regression was used to determine the most significant variables related to the rate of response. The dependent variable of interest was whether a survey was completed. Eighteen variables were used in the logistic regression (gender, age, race, education, children, home ownership, born in US, disabilities, employment, marital status, family gambling issues, saliency of gambling, frequency of gambling, number of gambling formats, region, type of address, language, and BGPS mode attempt). Nearly all variables (except region and type of address) were significantly related to response rates at the 0.10 level. Five variables (given in order of inclusion: BGPS mode attempt, US born, education, disability, and number of gambling formats) were significant at the 0.05 level. Addresses where one or more of the variables was missing (n=179) were not included in the logistic analysis.

We examined the response rates for cohort addresses for the five variables (with no missing data) that were statistically significant at the 0.05 level in the logistic regression model. We note that the lowest completion rates occurred for addresses where the BGPS contact was via telephone (CATI) (63.75%), where the respondent was not born in the US (65.91%), and where the respondent reported a disability (68.53%). We developed address groups based on response to the five variables (last mode of attempted interview in the BGPS, born in the US, education, disability, and number of gambling formats participated in) that had different response rates in Wave 3.

Adjustment for household size (MW3WT4)

The sample was also adjusted for household size (# age 18+=1, 2, 3, or 4+) by region.

Adjusting weights using raking based on cross-classified pairs of the variables region, age, gender, age, race/ethnicity, education (MW3WT5)

We adjusted weights assigned to respondents to more closely align with the distribution of 19 years and older persons in MA by region (Western, Eastern MA), age (19-34, 35-49, 50-64, 65+), gender (male, female), race/ethnicity (Hispanic, Black (only), Asian (only), White, Other), and education (high school or less, some college/college graduate, some post graduate education). We determined raking variables via a preliminary analysis of the 2016 one-year American Community Survey Public Use Microdata Sample (PUMS) files. In an ideal setting, reliable PUMS data for population totals would be available for a full cross-classification of adjustment variables. In practice, estimates of the population based on the PUMS data are based on an approximate 1% sample of the MA population, and the PUMS data themselves are weighted to estimate the number of subjects in each post-stratum. For this reason, we did not use a

cross-classification of all 5 variables to define post-strata for weighting. Instead, we constructed pairs of variables, using 10 pairs (i.e., region x age, region x gender, etc.).

Trimming of weights by setting the minimum weight to be the average weight/8, and the maximum weight to be average weight x 8 (MW3WT6)

The process of weighting to account for the sample design and response rates leads to different weights for different respondents. The weights are constructed so that an unbiased estimate can be made for the Massachusetts adult population. The weights ensure that if the expected value of response (such as the incidence of problem gambling) varies between respondents with different weights, the overall weighted estimator is an unbiased estimate for the population mean. An additional consequence of varying weights is a decrease in the precision of the estimator. When there is a weak relationship between the variables used for weighting and the expected value of response, reducing the range of weights can increase the precision of the estimator, while not creating appreciable bias. Such a reduction in the range of weights is accomplished by reducing the maximum weight and increasing the minimum weight. This process is called weight trimming. By trimming weights appropriately, a more accurate estimator may be constructed. The same criteria for weight trimming used for the BGPS and Wave 2 were used for Wave 3. The maximum weight was set to be 8 times the mean weight and the minimum weight was assigned as 1/8 the mean weight.

MAGIC Wave 2 and Wave 3 Response and Retention Rates by Strata

Table 4 presents information about the number of BGPS respondents drawn for the MAGIC cohort, the size of the achieved sample from each risk group (or stratum), and the AAPOR RR3 response rate (Wave 2) and retention rate (Wave 3) for each group.⁷

Table 4: Sample Composition by Risk Groups

	BGPS Drawn Sample	Wave 2 Achieved Sample	Wave 2 Response Rate (%)	Wave 3 Achieved Sample	Wave 3 Retention Rate (%)
Problem Gambler	133	81	61.4	66	81.5
At-Risk Gambler	450	295	65.7	227	76.9
Spends \$1,200+ annually	1,088	726	67.2	575	79.2
Gambles weekly	792	534	67.6	410	76.8
Military service Sept 2001 or later	49	37	78.7	27	73.0
All other BGPS participants	2,348	1,466	63.1	1,145	78.1
Total	4,860	3,139	65.1	2,450	78.1

The overall response rate for Wave 2 was 65.1% and the retention rate for Wave 3 was 78.1%. For both Wave 2 and Wave 3, Table 4 shows that the response and retention rate differed somewhat by risk group. In Wave 2, a lower proportion of Problem Gamblers and “All other BGPS participants” completed the questionnaire and a higher proportion of veterans who served after 9/11 completed the questionnaire. The Wave 3 retention rate pattern is largely the inverse of the Wave 2 response rate—in

⁷ The AAPOR RR3 is equivalent to the CASRO response rate; both take into account the proportion of households whose eligibility status could not be determined. The response rate also accounts for the resolution rate, screener completion rate, and interview completion rate. Retention rate is calculated by dividing the number of individuals who completed the survey by those eligible to complete the survey.

Wave 3, Problem Gamblers completed the questionnaire at the highest proportion instead of the lowest while veterans who served after 9/11 completed at the lowest proportion instead of the highest. This inversion may be explained by categories of individuals who are particularly enamored with gambling (i.e., Problem Gamblers) and who have continued with the survey after Wave 2 (when it became clear that the questionnaire centrally focused on gambling) being more likely to complete subsequent gambling focused surveys than other groups.

Table 5 provides an overview of the: intervals of assessment, assessment window, average time since previous assessment, eligible sample, number of completed surveys, content of the questionnaire, survey modalities, and the response and retention rate across the three Waves. It is interesting that the percent of respondents completing the survey online has steadily climbed from Wave 1 (44%) to Wave 3 (76%). This may be a result of comfort with online mediums more generally increasing through the years. In Wave 3, the option to complete the survey by telephone was no longer available.

The main consideration with survey administration concerns whether it is self-administered or administered via a personal interview. Self-administered gambling surveys (paper or web) produce significantly more accurate self-report compared to telephone interviews because of greater anonymity and being able to proceed at one's own pace (Williams & Volberg, 2009). In this regard, it is important to recognize that 94% or more of surveys have been self-administered in Wave 1 and Wave 2, and the change to 100% in Wave 3 likely does not make a significant difference in terms of the validity of responses. The movement from paper to web self-administration is increasing over time in all surveys and studies have generally found no evidence of differential responding in self-administered web surveys compared to self-administered paper surveys (Dodou & de Winter, 2014).

With the loss of telephone interviewing in Wave 3, the main effect, if any, is potential higher dropout rates of older individuals who previously completed the survey via telephone interview. However, even if true, this would not affect our main results as this demographic has the lowest rates of problem gambling. Moreover, we examined the number of participants who completed the survey by telephone in Wave 2 and found no statistically significant within-group differences in demographics or PPGM status.

Table 5. Details of the Different Waves of MAGIC

Wave	Date	Assessment Window	Average Time Since Previous Assessment	Eligible Sample	Completed Surveys	Survey Content	Survey Modality	Response/Retention Rate
1	Sep 11, 2013 – May 31, 2014	8.5 months	Not applicable	Not applicable	3,096	Short	44% web, 50% paper, 6% phone	36.6%
2	Mar 17, 2015 – Sep 11, 2015	6 months	16.5 months	4,860	3,139	Short	58% web; 36% paper; 5% phone	65.1%
3	Mar 31, 2016 – Aug 15, 2016	4.5 months	12.5 months	3139	2,450	Comprehensive	76% web; 24% paper	78.1%
4	<i>Mar 2017 – Jul 2017</i>	<i>Postponed due to budgetary constraints</i>						
4	Apr 6, 2018 – Jul 24, 2018					Comprehensive		
5	Mar 2019 – Jul 2019					Comprehensive		
6	Mar 2020 – Jul 2020					Comprehensive		

Assessment Window: length of time the survey is open to complete

Average Time Since Previous Assessment: average length of time since the previous assessment for the average participant

Eligible Sample: members of the designated cohort (i.e., people who completed Wave 2) minus individuals unable to participate due to death or permanent medical incapacitation

Completed Surveys: total number of surveys from the eligible sample deemed complete, defined as having completed at least 7 of the 10 primary questions on participation in gambling

Survey Content: whether the survey was short, due to a focus on casino impacts, or comprehensive due to a focus on the etiological predictors of problem gambling

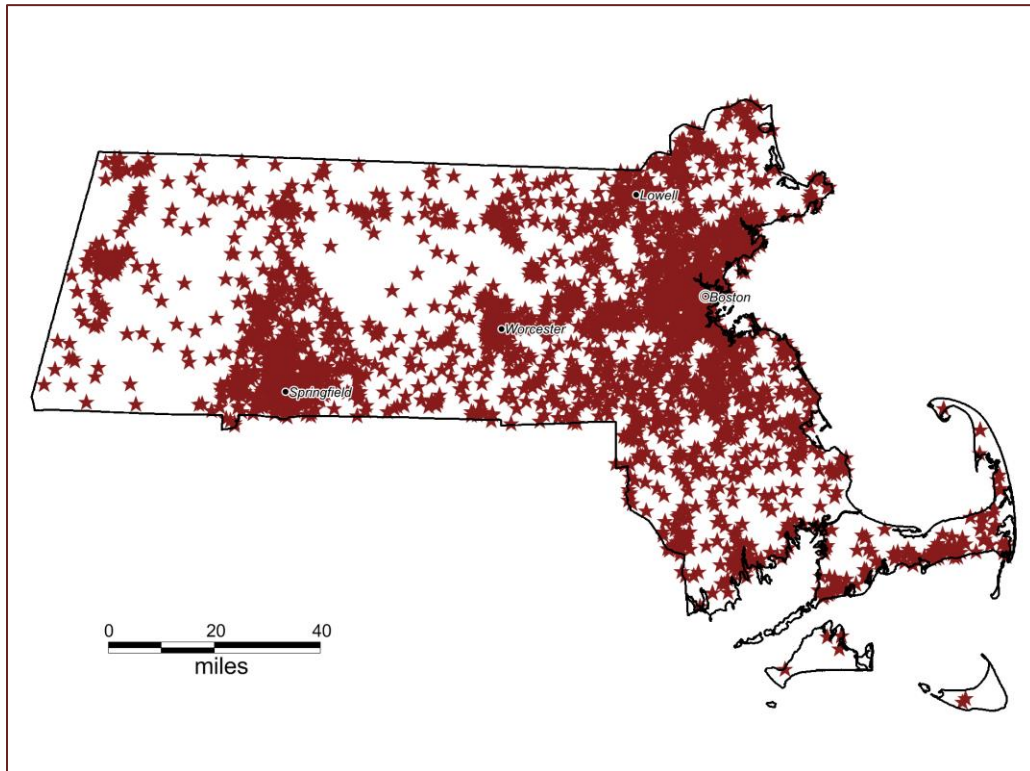
Survey Modality: percent of surveys self-administered online; self-administered via a mailed paper survey; and administered via a telephone interview

Response Rate: accounts for the proportion of households whose eligibility status could not be determined while accounting for the resolution rate, screener completion rate, and interview completion rate

Retention Rate: number of completed surveys as a percentage of the eligible sample

Finally, it is helpful to understand where in Massachusetts the members of the cohort reside. Figure 5 displays the distribution of addresses of the participants who completed the questionnaire in Wave 2. This shows that the distribution of the cohort is quite similar to the distribution of the population of Massachusetts. The majority of the cohort lives in the Greater Boston and Southeastern regions of the Commonwealth and there is a sizable proportion of respondents from the Pioneer Valley in Western Massachusetts.

Figure 5: Residential Location of the MAGIC Cohort



Statistical Analyses

Statistical analyses of survey data where respondents have unequal weights is more complex than standard statistical analyses due to the need to properly account for the weights in estimating parameters and their variance. Special software and statistics have been developed for such situations. All three waves were analyzed using SAS-callable SUDAAN, release 11.0.1. SUDAAN enables the appropriate calculation of variance estimations for data from surveys using complex sampling strategies. When exact expressions for the variance were not possible, the Taylor series linearization method was used combined with variance estimation formulas specific to the sample design.

Results

The cohort is not intended to be a representative sample of the adult population of Massachusetts. Following the approach taken in some other gambling cohort studies (e.g., Victoria Department of Justice, 2011), we do use weighted data in the calculation of the incidence rate to correct for non-response bias and to more confidently generalize to the Massachusetts adult population. We also use weighted data to correct for non-response bias to examine changes in gambling participation rates. Nonetheless, as this is a cohort study, care should be taken when generalizing to the population since weighting cannot overcome all biases. Findings pertaining to transitions, however, are based on unweighted data and refer only to the study cohort.

The BGPS established the baseline prevalence of problem gambling in Massachusetts prior to the opening of any casinos and also provided other important information about gambling participation and problem gambling. This included prevalence rates among important demographic groups and among past-year participants in different gambling activities (Volberg, Williams, Stanek, Houpt, et al., 2017). A follow-up general population survey of Massachusetts is planned in 2020 once all of the casinos are operational.

Our focus in this section of the report is on changes in cohort gambling participation across three waves of the cohort. Transitions from Wave 1 to Wave 2 occurred before any casinos had opened in Massachusetts whereas transitions from Wave 2 to Wave 3 occurred after a slots parlor—Plainridge Park Casino in Plainville, Massachusetts—opened in June 2015. We also present information about the incidence of problem gambling within the cohort prior to the opening of any casinos in Massachusetts (Wave 1 to Wave 2) and after a slots parlor had opened (Wave 2 to Wave 3).⁸ Finally, we examine changes in problem gambling status between 2013/2014, 2015, and 2016 within the cohort.

Changes in Gambling Participation

In this section, we present information about changes in gambling participation between Wave 1, Wave 2, and Wave 3 based on participants who completed all three waves. Table 6 provides information on questionnaire completion across the three waves.

Table 6: Completion Across Waves

Wave 1 (2013-2014)	Wave 2 (March-Sept 2015)	Wave 3 (April-August 2016)	Frequency	Percent
1=no	2=yes	1=no	21	0.67
1=no	2=yes	2=yes	22	0.70
2=yes	2=yes	1=no	668	21.3
2=yes	2=yes	2=yes	2428	77.3

Table 6 shows that complete questionnaires from the first three waves of the study are available from 2,428 respondents or 77% of the original cohort. There are 43 respondents who participated in Wave 2 but could not be matched to respondents from the same address who completed Wave 1. Among these 43 respondents, about half completed Wave 3 and about half did not. Finally, there were 668

⁸ Plainridge Park Casino opened on June 24th 2015, shortly before Wave 2 data collection concluded. All but 5% of the Wave 2 questionnaires (n=167) were completed or returned before the opening of Plainridge Park Casino.

respondents who completed Wave 1 and Wave 2 but did not complete Wave 3. Since Wave 2 technically established the cohort, there were no “dropouts” from Wave 1 to Wave 2.

Table 7 presents differences in overall past-year gambling participation as well as past-year participation in specific activities for the 2,428 respondents who completed all three waves of the questionnaire. Table 7 shows that there was a statistically significant increase in daily lottery games, sports betting, and private betting from Wave 1 to Wave 2. However, looking at the odds ratios (OR), the magnitude of all of these changes is small. From Wave 2 to Wave 3, there is a statistically significant increase in overall gambling participation, all lottery, traditional lottery, instant games, daily games, bingo, sports betting, and online gambling. Nonetheless, the magnitude of many of these changes was either small or medium. It is notable that out-of-state casino gambling significantly decreased from Wave 2 to Wave 3 and the magnitude of this change was large.

The increases seen from Wave 2 to Wave 3 may be partly artifactual as the manner in which the questions were asked changed. For instance, online gambling was asked as a single question in Wave 1 and Wave 2 but it was asked as a supplemental question for each individual type of gambling in Wave 3 (i.e., if the person indicated they participated in a particular type of gambling, they were asked whether it was online or land-based participation). Furthermore, daily fantasy sports (which is available online) was an additional question in Wave 3. Finally, the increase in participation in daily lottery games from Wave 2 to Wave 3 may reflect the addition of Mass Cash and the Numbers Game as examples. Obtained rates of participation tend to increase when questions about involvement are asked in a repeated and more specific fashion such as this.

Table 8 presents information about changes in overall gambling expenditure, maximum frequency of gambling, and number of gambling formats engaged in across all three waves. From Wave 1 to Wave 2, there was a statistically significant decrease in the average maximum frequency of gambling. The magnitude of this decrease, however, was small. This trend continued from Wave 2 to Wave 3 and, again, the magnitude of this change was small. From Wave 2 to Wave 3, there was a significant decrease in total gambling expenditures and the magnitude of this change was large. However, it is clear in looking at the median that this change was likely affected by outliers which particularly affected the estimate at Wave 2. From Wave 2 to Wave 3, there was a statistically significant increase in the average number of gambling formats engaged in. The size of this change, however, was small.

Table 7: Pairwise Comparison of Gambling Participation Activities Across Three Waves (unweighted)

Test for change														
		MAGIC Wave 1 (2013-2014)			MAGIC Wave 2 (March – Sept 2015)			MAGIC Wave 3 (April – August 2016)		Change Across Three Waves	Wave 1 to Wave 2		Wave 2 to Wave 3	
	N	%	95% CI	%	95% CI	%	95% CI	p-value ⁸	p-value ⁹	OR ¹⁰	p-value ⁹	OR ¹⁰		
Any gambling¹	2,420	85.3	(83.8, 86.6)	84.5	(83.0, 85.9)	86.4	(84.9, 87.7)	.0232	.2467	1.15	.0063	1.40		
All Lottery	2,408	72.9	(71.1, 74.7)	72.5	(70.7, 74.3)	77.3	(75.6, 79.0)	<.0001	.5832	1.07	<.0001	2.24		
Traditional Lottery	2,423	70.0	(68.1, 71.7)	69.6	(67.7, 71.4)	73.7	(71.9, 75.4)	<.0001	.6154	1.06	<.0001	1.75		
Instant Games	2,403	47.3	(45.3, 49.3)	46.9	(44.9, 48.9)	50.2	(48.2, 52.2)	.0007	.6292	1.04	.0003	1.40		
Daily Games²	2,395	18.0	(16.5, 19.6)	19.9	(18.3, 21.5)	35.3	(33.4, 37.2)	<.0001	.0131	1.32	<.0001	4.73		
Raffle	2,396	44.5	(42.6, 46.5)	42.9	(40.9, 44.9)	44.9	(42.9, 46.9)	.1457	.1368	1.12	.0609	1.16		
EGM	2,418	Not asked Wave 1			Not asked Wave 2			21.7	(20.1, 23.4)					
Table Games	2,417	Not asked Wave 1			Not asked Wave 2			12.1	(10.8, 13.4)					
Casino: Out of state³	2,212	33.0	(31.0, 34.9)	32.5	(30.6, 34.5)	22.3	(20.6, 24.1)	<.0001	.5820	1.06	<.0001	3.26		
Bingo⁴	2,394	4.7	(3.9, 5.6)	5.2	(4.4, 6.2)	7.1	(6.2, 8.2)	<.0001	.1851	1.34	.0001	2.07		
Racing⁵	2,403	6.2	(5.3, 7.3)	6.8	(5.9, 7.9)	5.7	(4.9, 6.7)	.0632	.2123	1.25	.0205	1.52		
Sports betting⁶	2,404	15.8	(14.4, 17.4)	17.8	(16.3, 19.4)	16.9	(15.4, 18.4)	.0382	.0093	1.34	.2287	1.14		
Private Betting	2,407	13.2	(11.9, 14.6)	14.6	(13.2, 16.0)	Not asked at Wave 3			.0481	1.26				
Online⁷	2,257	1.5	(1.1, 2.1)	1.9	(1.5, 2.6)	6.6	(5.6, 7.7)	<.0001	.1138	1.67	<.0001	6.53		
Other gambling	2,414	Not asked Wave 1			Not asked Wave 2			4.7	(3.9, 5.6)					

¹ Different in Wave 2 and Wave 3. Since the types of gambling asked about differed somewhat between waves, the calculation of “any past year gambling” is not equivalent.

² Wave 3 includes Mass Cash and Numbers Game

³ Question slightly different between waves

⁴ Wave 3 includes Online Bingo

⁵ Wave 3 includes Horse or Dog Racing and previous waves include only Horse Racing

⁶ Wave 3 includes Social Betting, Online Betting, and Fantasy Sports

⁷ For every gambling format, the Wave 3 questionnaire asked the respondent whether they engaged in this form of gambling online. This change in the questionnaire likely drove the large increase seen in online gambling from Wave 2 to Wave 3.

⁸ Cochran’s Q Test (unweighted): non-parametric test to evaluate changes at a dichotomous level over multiple time periods.

⁹ McNemar’s test (unweighted): non-parametric test designed to evaluate changes in dichotomous variables over two time periods.

¹⁰ Odds Ratio (OR): assesses the magnitude of the change/effect size.

Table 8: Pairwise Comparison of Gambling Involvement Measures Across Three Waves (unweighted)

Test for change																		
		MAGIC Wave 1 (2013-2014)				MAGIC Wave 2 (March – Sept 2015)				MAGIC Wave 3 (April – August 2016)				Change Across Three Waves	Wave 1 to Wave 2		Wave 2 to Wave 3	
		N	%	95% CI		%	95% CI		%	95% CI	p-value ³	p-value ⁴	Cohen's d		p-value ⁴	Cohen's d		
Total gambling expenditures	mean	2,420	-1416	(-1,823.3, -1,007.8)	*	-3197	(-5,410.5, -983.0)		-1106	(-1,439.9, -771.2)	0.0002	0.1310	-7.52	0.0051	8.87			
	median		-135	(-159.6, -109.8)		-122	(-139.7, -104.2)		-99.4	(-120.7, -78.1)								
Max. freq. of gambling	mean	2,418	48.5	(45.4, 51.6)		47.0	(43.9, 50.1)		46.2	(43.1, 49.2)	0.0030	0.0072	-0.19	0.0562	-0.11			
	median		7.8	(6.9, 8.6)		6.7	(5.9, 7.5)		5.9	(5.8, 6.1)								
Number of gambling formats ¹	mean	2,428	2.5	(2.5, 2.6)		2.6	(2.5, 2.6)		2.7	(2.6, 2.8)	<.0001	0.1533	0.03	<.0001	0.13			
	median		1.9	(1.8, 2.0)		2.0	(1.8, 2.1)		2.1	(2.0, 2.3)								
Number of gambling formats consistent across waves ²	mean	2,428	2.4	(2.3, 2.5)		2.4	(2.4, 2.5)		2.6	(2.5, 2.7)	<.0001	0.3493	0.02	<.0001	0.15			
	median		1.8	(1.7, 1.9)		1.8	(1.7, 1.9)		2.1	(2.0, 2.2)								

¹ Waves 1 and 2 include 10 formats (lottery, instant, raffle, daily, sports, bingo, horse racing, private betting, online, out of state casino) while Wave 3 includes 10 formats (lottery, instant, raffle, daily, sports, bingo, racing, EGM, table games, other).

² Waves 1, 2, and 3 include 9 formats (lottery, instant, raffle, daily, sports, bingo, racing, online, out of state casino)

³ Friedman's test (unweighted): non-parametric test that evaluates within group changes on continuous measures over two or more occasions.

⁴ Wilcoxon Signed Rank test (unweighted): non-parametric test that evaluates whether there are changes within the same group over time via a pairwise comparison.

Note: Asterisks indicate estimates are unreliable, relative standard error > 30%

Total gambling expenditures: minus sign for expenditures refers to dollars lost

Maximum frequency of gambling: refers to days per year

Changes in Problem Gambling Status

Beyond gambling participation, it is important to consider changes in problem gambling status among the members of the cohort between 2013/2014, 2015, and 2016. Changes between Wave 1 and 2 are presented in Table 9 and changes between Wave 2 and 3 are presented in Table 10.

Examining changes between Wave 1 and 2, the largest group by far was composed of individuals who were not problem gamblers in both waves. In addition, a total of 60 individuals became problem gamblers for the first time in Wave 2, 40 individuals who were problem gamblers in Wave 1 remitted in Wave 2, and 39 individuals remained problem gamblers across both time periods. Similarly, the largest group of people across Wave 2 to Wave 3 was made up of individuals who were not problem gamblers in both waves. From Wave 2 to Wave 3, 35 individuals became problem gamblers in Wave 3, 38 individuals who were problem gamblers in Wave 2 remitted in Wave 3, and 40 individuals remained problem gamblers across both time periods.

Table 9: Problem Gambling Status in Wave 1 and Wave 2

Wave 1	Wave 2	Frequency
Not a problem gambler	Not a problem gambler	2,943
Not a problem gambler	Problem gambler	60
		3,003
Problem gambler	Not a problem gambler	40
Problem gambler	Problem gambler	39
		3,082
Missing	Not a problem gambler	45
Missing	Problem gambler	---
Not a problem gambler	Missing	8
		3,139

Dash (---) indicates value suppressed due to small cell size

Table 10: Problem Gambling Status in Wave 2 and Wave 3

Wave 2	Wave 3	Frequency
Not a problem gambler	Not a problem gambler	2,330
Not a problem gambler	Problem gambler	35
		2,365
Problem gambler	Not a problem gambler	38
Problem gambler	Problem gambler	40
		2,443
Missing	Not a problem gambler	---
Not a problem gambler	Missing	---
		2,450
Missing	Did not complete Wave 3	5
Not a problem gambler	Did not complete Wave 3	659
Problem gambler	Did not complete Wave 3	25
		3,139

Dash (---) indicates value suppressed due to small cell size

Missing information from Wave 1 to Wave 2 and from Wave 2 to Wave 3 affects the number of respondents that can be used to evaluate changes in problem gambling incidence. From Wave 1 to Wave 2, 57 people were not included in the calculation of incidence because their problem gambling status was unavailable at either Wave 1 or Wave 2 (Table 9). “Missing” problem gambling status in Table 9 for Wave 1 indicates either obtaining different respondents in Wave 1 and Wave 2 (n=43) or missing responses to PPGM items (n=6). “Missing” problem gambling status for Wave 2 is due to missing responses to PPGM items (n=8). The bottom of Table 10 shows 696 people who were not included in the calculation of incidence because their problem gambling status was unavailable at either Wave 2 or Wave 3. “Missing” problem gambling status in Wave 2 is due to missing responses to PPGM items (n=3) and “missing” problem gambling status in Wave 3 indicates missing responses to PPGM items (n=4) or individuals who did not complete Wave 3 (n=689). It is also notable that 25 problem gamblers at Wave 2 did not complete Wave 3. This loss of information may bias the remission rate in an unknown direction between Wave 2 and Wave 3.

Table 11 presents information about problem gambling status as a proportion of the overall sample from Wave 1 to Wave 2 for the 3,082 individuals with complete data and from Wave 2 to Wave 3 for the 2,443 individuals with complete data.

Table 11: Problem Gambling Status, Wave 1 to Wave 2 and Wave 2 to Wave 3

Problem Gambler	Wave 1 to Wave 2				Wave 2 to Wave 3			
	UN ¹	N ²	% ²	95% CI ²	UN ¹	N ²	% ²	95% CI ²
No → No	2,943	5,032,690	95.5	(93.9, 96.6)	2,330	5,054,316	95.4	(93.5, 96.7)
No → Yes	60	123,631	2.3	(1.5, 3.6)	35	58,899	1.1	(0.6, 2.1)
Yes → No	40	57,385	1.1	(0.6, 2.0)	38	82,090	1.5	(0.9, 2.7)
Yes → Yes	39	58,764	1.1	(0.6, 2.1)	40	104,496	2.0	(1.1, 3.6)
Total	3,082	5,272,470	100.0		2,443	5,299,801	100.0	

¹ Unweighted N refers to the total number of respondents who completed the PPGM

² Weighted N is the total number of respondents who completed the PPGM weighted to the MA population

Note: Italics indicate estimates are unreliable, relative standard error > 30%

Incidence of Problem Gambling

We will be reporting two estimates of problem gambling incidence—from Wave 1 to Wave 2 and from Wave 2 to Wave 3. **Incidence** in this study is defined as the number of individuals classified as PPGM Non-Gamblers, Recreational Gamblers, and At-Risk Gamblers in one wave who are classified as Problem Gamblers or Pathological Gamblers in the next wave. To calculate incidence, the number of individuals who transitioned to problem gambling is divided by the number of individuals who had the possibility of transitioning from non-problem gambling to problem gambling. The calculation of incidence excludes any respondents classified as Problem Gamblers in Wave 1.

From Wave 1 to Wave 2, the calculation of the incidence rate includes 3,003 respondents for whom we have complete information from both Wave 1 and Wave 2 (see Table 9 above). It does not include:

- Respondents who were problem gamblers at Wave 1 (n=79)
- Respondents for whom we could not determine problem gambling status at Wave 1 (n=49)
- Respondents for whom we could not determine problem gambling status at Wave 2 (n=8)

Based on this approach and using population weighting, the incidence of problem gambling within the cohort in 2015 (Wave 2) was 2.4% (95% CI [1.5%, 3.7%]) (Table 12).⁹ In Wave 2, the incidence rate in Massachusetts was high relative to other jurisdictions where longitudinal cohort studies have been conducted. In other jurisdictions, incidence rates have ranged from 0.12% to 1.4%.¹⁰ The remission rate within the cohort was 49.4% (95% CI [29.2%, 69.8%]) as half of the Problem Gamblers in Wave 1 were no longer classified as Problem Gamblers in Wave 2.¹¹

Table 12. Incidence and Remission Rates, Wave 1 to Wave 2

Problem Gambler	Wave 1 to Wave 2	
	UN ¹	N ²
No → No	2,943	5,032,690
No → Yes	60	123,631
Incidence rate	2.0%	2.4%
Yes → No	40	57,385
Yes → Yes	39	58,764
Remission rate	50.6%	49.4%

¹ Unweighted N refers to the total number of respondents who completed the PPGM

² Weighted N is the total number of respondents who completed the PPGM weighted to the MA population

From Wave 2 to Wave 3, the calculation of the incidence rate includes 2,365 respondents for whom we have complete information from both Wave 2 and Wave 3 (see Table 10 above). It does not include:

- Respondents who were problem gamblers at Wave 2 (n=78)
- Respondents for whom we could not determine problem gambling status at Wave 2 or Wave 3 (n=7)
- Respondents who did not complete Wave 3 (n=689)

⁹ Incidence is calculated based on the weighted Ns in Table 12. For Wave 2 incidence: $123,631 / (123,631 + 5,032,690) = 123,631 / 5,156,321 = 2.4\%$. In contrast, the unweighted incidence rate for Wave 2 is 2.0% ($60 / (60 + 2943) = 60 / 3003 = 2.0\%$). The higher weighted incidence rate is related to higher weights associated with the demographic characteristics of members of the cohort who became problem gamblers in Wave 2 of the study.

¹⁰ The 16.5-month inter-assessment window from Wave 1 to Wave 2 may have independently contributed to the unusually high incidence rate. With this in mind, the annualized incidence rate from Wave 1 to Wave 2 is 1.8% (weighted) and 1.5% (unweighted). This annualized incidence rate calculation is quite crude, however, since the 16.5-month inter-assessment window is an average across all participants in addition to the gambling subtype classification questions containing a 12-month recall window.

¹¹ Remission is calculated based on the weighted Ns in Table 12. For Wave 2 remission: $57,385 / (57,385 + 58,764) = 57,385 / 116,149 = 49.4\%$. In contrast, the unweighted remission rate for Wave 2 is 50.6% ($40 / (39 + 40) = 40 / 79 = 50.6\%$).

The incidence of problem gambling within the cohort in 2016 (Wave 3) was 1.2% (95% CI [0.6%, 2.2%]).¹² From Wave 2 to Wave 3, the remission rate was 44.0% (95% CI [25.6%, 64.2%]) (Table 13).¹³ From Wave 2 to Wave 3, we find that more individuals were remitting rather than becoming new problem gamblers.

Table 13. Incidence and Remission Rates, Wave 2 to Wave 3

Problem Gambler	Wave 2 to Wave 3	
	UN ¹	N ²
No → No	2,330	5,054,316
No → Yes	35	58,899
Incidence rate	1.5%	1.2%
Yes → No	38	82,090
Yes → Yes	40	104,496
Remission rate	48.7%	44.0%

¹ Unweighted N refers to the total number of respondents who completed the PPGM

² Weighted N is the total number of respondents who completed the PPGM weighted to the MA population

Stability and Transitions of Gambling Behavior

The second major goal in the present report was to determine whether respondents in the study moved from one risk category to another and, if so, whether they moved towards less severe or more severe problems. Assessing transitions in a three-wave study is generally done using a “transition table.” As a reminder, the results in this section are based on unweighted data and refer only to the individuals in the study rather than the broader Massachusetts adult population.¹⁴ To elucidate transitions across all three waves, we examine individuals who had complete PPGM information for each of the three waves (n= 2,418).

Table 14 examines the transitions between PPGM groups across the three waves. The table presents transitions across the three waves by grouping participants by risk transition category: no change in risk (white), decrease in risk (light blue), increase in risk (dark blue), and ‘in transition’ (black). ‘In transition’ is defined as moving from Wave 1 to higher and lower or lower and higher risk categories in Wave 2 and Wave 3. “Frequency” is the number of participants with a certain PPGM risk transition trend across waves. “Percent” describes the proportion of participants in the sample who displayed a certain PPGM risk transition trend across waves. “% change in risk classification from Wave 1” describes the proportion of participants with the same PPGM classification in Wave 1 and their subsequent transitions (or lack thereof) in risk across the waves.

Examining Table 14, the most stable group of gamblers were Recreational Gamblers, with 70.2% of Recreational Gamblers at Wave 1 remaining in this category across the next two waves of the study. This

¹² Incidence is calculated based on the weighted Ns in Table 13. For Wave 3 incidence: $58,899 / (58,899 + 5,054,316) = 58,899 / 5,113,210 = 1.2\%$. In contrast, the unweighted incidence rate for Wave 2 is 1.5% ($35 / (35 + 2330) = 35 / 2365 = 1.5\%$). The lower weighted incidence rate is related to lower weights associated with the demographic characteristics of members of the cohort who became problem gamblers in Wave 3 of the study.

¹³ Remission is calculated based on the weighted Ns in Table 13. For Wave 3 remission: $82,090 / (82,090 + 104,496) = 82,090 / 186,586 = 44.0\%$. In contrast, the unweighted remission rate for Wave 3 is $38 / (38 + 40) = 38 / 78 = 48.7\%$.

¹⁴ Very similar results were obtained using weighted data.

represents 49.2% (n=1,189) of the cohort. The second most stable group of gamblers were Non-Gamblers—48.1% of Non-Gamblers at Wave 1 remained Non-Gamblers across the next two waves, representing 7.0% (n= 169) of the cohort. Of those who were Problem/Pathological Gamblers at Wave 1, 32.8% remained Problem/Pathological Gamblers at Wave 2 and Wave 3. This represents 0.87% (n=21) of the cohort. The least stable group were At-Risk Gamblers, where only 20.4% of At-Risk Gamblers at Wave 1 remained in this category across all three waves. This represents 2.6% (n=63) of the cohort.

While some gamblers (and non-gamblers) display stability across waves, others move in and out of gambling risk categories across the waves. Of the Problem/Pathological Gamblers at Wave 1, 48.5% (31 of 64) experienced a decrease in risk in Wave 3. More specifically, 13 of the 31 (41.9%) moved to Recreational Gambling while 18 of the 31 (58.1%) moved to At-Risk Gambling in Wave 3. About two in ten (18.8%) of Problem/Pathological Gamblers (12 of 64) were considered ‘in transition,’ moving to a lower risk category—At-Risk or Recreational Gambler—at Wave 2 and then moving back into a higher risk category—At-Risk or Problem/Pathological Gambler—at Wave 3. Interestingly, none of the Problem Gamblers at Wave 1 moved to Non-Gambling by Wave 3 and only one transitioned into a Non-Gambler at Wave 2 (and then moved to Recreational Gambling at Wave 3). This may suggest that individuals who have experienced Problem/Pathological Gambling do not tend to abstain from gambling—at least across these three waves—even when their gambling problems remit.

Of those who were At-Risk Gamblers at Wave 1, 7.1% (22 of 309) experienced an increase in risk in Wave 3, moving to Problem/Pathological Gambling. A majority of At-Risk Gamblers at Wave 1 (54.4% or 168 of 309) moved to a lower risk categorization by Wave 3—either Non-Gambler or Recreational Gambler—with the large majority moving to Recreational Gambling (94.0% or 158 of 168). About two in ten (18.1% or 56 of 309) of At-Risk Gamblers at Wave 1 were ‘in transition,’ moving to a lower or higher risk category at Wave 2 and then back to a lower or higher risk category by Wave 3. Of these ‘in transition’ individuals, 69.6% (39 of 56) went from a lower risk category—Recreational Gambler—at Wave 2 to a higher risk category—At-Risk or Problem Pathological Gambler—at Wave 3. In addition, of these ‘in transition’ At-Risk Gamblers, none moved to Non-Gambling at Wave 2 and only one individual transitioned into a Non-Gambler at Wave 3. More generally, only 4.9% (15 of the 309) of At-Risk Gamblers at Wave 1 moved to become Non-Gamblers at either Wave 2 or Wave 3. Like Problem/Pathological Gamblers, this suggests that At-Risk Gamblers rarely transition to Non-Gambler status.

Recreational Gamblers were overwhelmingly stable. Only 10.3% (175 of 1,694) of Recreational Gamblers moved to a more risky gambling category (either At-Risk or Problem/Pathological Gambling) in Wave 3. This suggests that for the majority of individuals, Recreational Gambling is not a risky form of gambling behavior. Of those who were Recreational Gamblers at Wave 1, 12.7% (215 of 1,694) were considered ‘in transition,’ moving to a higher or lower risk category at Wave 2 and then back to a lower risk category at Wave 3. In fact, all 215 ‘in transition’ Recreational Gamblers moved back to Recreational Gambling at Wave 3. Recreational Gamblers also seem unlikely to transition into becoming Non-Gamblers, as only 12.5% (211 of 1,694) of Recreational Gamblers at Wave 1 transitioned to become Non-Gamblers at Wave 2 or Wave 3. While Recreational Gamblers are the most stable group (70.2% of Recreational Gamblers maintain this categorization across all three waves), this suggests that when Recreational Gamblers do transition (29.8%, 505 of 1,694), they are likely to move into riskier forms of gambling behavior (58.2% or 294 of 505).

While 41.9% (147 of 351) of Non-Gamblers at Wave 1 did move to more risky gambling categorizations by Wave 3, almost all of these individuals moved into Recreational Gambling (95.2% or 140 of 147).

Whether this in fact represents an increase in risk depends on the level of gambling involvement by these individuals. The Recreational Gambler category includes a broad range of gambling behaviors. This ranges from those who may have only purchased a few lottery tickets over a 12 month period to those who gamble more regularly (but display no problem gambling symptomology and have gambling frequency and expenditure below levels of Problem Gamblers). Non-Gamblers ‘in transition’ represented 10.0% (35 of 351) of those who were Non-Gamblers at Wave 1. Almost all ‘in transition’ Non-Gamblers (32 of 35) moved back to Non-Gambling at Wave 3 and none moved to Problem/Pathological Gambling at either Wave 2 or Wave 3.

Table 14: Transitions Between PPGM Groups Across Three Waves (unweighted)

Wave 1	Wave 2	Wave 3	Frequency	Percent	% change in risk classification from Wave 1
non gambler	non gambler	non gambler	169	6.99	48.1
non gambler	recreational gambler	non gambler	32	1.32	10.0
non gambler	at risk gambler	non gambler	---	---	
non gambler	at risk gambler	recreational gambler	---	---	
non gambler	recreational gambler	recreational gambler	85	3.52	41.9
non gambler	non gambler	recreational gambler	55	2.27	
non gambler	non gambler	problem or pathological gambler	---	---	
non gambler	recreational gambler	at risk gambler	---	---	
non gambler	recreational gambler	problem or pathological gambler	---	---	
non gambler	at risk gambler	at risk gambler	---	---	
			351		
recreational gambler	non gambler	non gambler	42	1.74		6.8
recreational gambler	recreational gambler	non gambler	73	3.02	
recreational gambler	recreational gambler	recreational gambler	1,189	49.17	70.2
recreational gambler	non gambler	recreational gambler	92	3.80	
recreational gambler	at risk gambler	recreational gambler	116	4.80	12.7
recreational gambler	problem or pathological gambler	recreational gambler	7	0.29	
recreational gambler	non gambler	at risk gambler	---	---	10.3
recreational gambler	recreational gambler	at risk gambler	94	3.89	
recreational gambler	recreational gambler	problem or pathological gambler	---	---	
recreational gambler	at risk gambler	at risk gambler	54	2.23	
recreational gambler	at risk gambler	problem or pathological gambler	9	0.37	
recreational gambler	problem or pathological gambler	at risk gambler	---	---	
recreational gambler	problem or pathological gambler	problem or pathological gambler	6	0.25	
			1,694		
at risk gambler	non gambler	non gambler	---	---	54.4
at risk gambler	non gambler	recreational gambler	---	---	
at risk gambler	recreational gambler	non gambler	---	---	
at risk gambler	recreational gambler	recreational gambler	112	4.63	
at risk gambler	at risk gambler	non gambler	---	---	
at risk gambler	at risk gambler	recreational gambler	42	1.74	
at risk gambler	at risk gambler	at risk gambler	63	2.61	20.4
at risk gambler	recreational gambler	at risk gambler	37	1.53	18.1
at risk gambler	recreational gambler	problem or pathological gambler	---	---	
at risk gambler	problem or pathological gambler	non gambler	---	---	
at risk gambler	problem or pathological gambler	recreational gambler	6	0.25	
at risk gambler	problem or pathological gambler	at risk gambler	10	0.41	
at risk gambler	at risk gambler	problem or pathological gambler	9	0.37	7.1

at risk gambler	problem or pathological gambler	problem or pathological gambler	13	0.54	
			309		
problem or pathological gambler	non gambler	recreational gambler	---	---	48.5
problem or pathological gambler	recreational gambler	recreational gambler	7	0.29	
problem or pathological gambler	at risk gambler	recreational gambler	---	---	
problem or pathological gambler	at risk gambler	at risk gambler	10	0.41	
problem or pathological gambler	problem or pathological gambler	recreational gambler	---	---	
problem or pathological gambler	problem or pathological gambler	at risk gambler	8	0.33	
problem or pathological gambler	problem or pathological gambler	problem or pathological gambler	21	0.87	32.8
problem or pathological gambler	recreational gambler	at risk gambler	---	---	18.8
problem or pathological gambler	recreational gambler	problem or pathological gambler	---	---	
problem or pathological gambler	at risk gambler	problem or pathological gambler	6	0.25	
			64		

Dash (---) indicates value suppressed due to small cell size

Risk Classification Legend:

White = no change in risk

Light blue = decrease in risk

Dark blue = increase in risk

Black = in transition

Finally, it is helpful to consider the potential of the Massachusetts cohort study to inform etiological research on problem gambling. In preparing this report, we sought information from other research teams that have conducted large-scale gambling cohort studies internationally regarding the total number of problem gamblers identified over the course of each study as well as the total number of “new” or first-onset problem gamblers beyond Wave 1 of each study. The total number of problem gamblers identified over the entire course of each study (involving four or five assessments) ranged from 277 in the Quinte Longitudinal Study (QLS) to 134 in the Leisure, Lifestyle, Lifecycle Project (LLLP). The total number of “new” problem gamblers beyond Wave 1 of each study ranged from 134 in the QLS to 43 in the LLLP. Examining the MAGIC cohort with complete PPGM information across the three waves, 137 Problem/Pathological Gamblers and 73 “new” Problem/Pathological Gamblers beyond Wave 1 were identified. The number of problem gamblers and “new” problem gamblers in MAGIC compares very favorably with previous studies and it appears that the MAGIC study continues to be well positioned to produce new and more detailed information about the etiology of problem gambling.

Table 15 provides a description of previous cohort studies and how the MAGIC study compares. In presenting this information, we have dropped the Alberta LLLP from the comparison since the incidence rate from Wave 1 to Wave 2 in this study was not reported.

Table 15. Comparing Previous Cohort Studies and MAGIC

	Ontario, Canada QLS	Sweden Swelogs	Australia VGS	New Zealand NGS	Massachusetts MAGIC
Data collection period	2006-2011	2008-2014	2008-2012	2012-2018	2013-ongoing
Recruited sample	4,123	8,165	15,000	6,251	3,139
Assessment length	1-2 hour	15-25 min	15-25 min	45 min	15-40 min
Interval (months)	12	12 ¹	12	12	16.5 ²
PG Measure	PPGM	CPGI 5+	CPGI 8+	CPGI 8+	PPGM
Incidence (Wave 1 – Wave 2)	1.4% ³	0.8% ⁴	0.12% ⁴	0.28% ⁴	2.4% ⁴
Proportion of Wave 2 PGs that are new cases	49.0%	73.5%	33.3%	51.6%	60.6%

¹ Between Wave 1 and Wave 2; the interval between subsequent waves was 24 months.

² This is the average elapsed time from Wave 1 – Wave 2. The average elapsed time from Wave 2 – Wave 3 is 12.5 months.

³ Unweighted

⁴ Weighted

Discussion

This report presents results from a new cohort study of gambling and problem gambling underway in Massachusetts. While recent large-scale cohort studies have been carried out in Australia, Canada, New Zealand, and Sweden, there have been no major adult cohort studies of gambling in the United States. This report focused on Wave 3 data collection and changes in (1) gambling participation, (2) incidence of problem gambling, and (3) gambling risk categorization within the cohort across Wave 1 (2013/2014), Wave 2 (2015), and Wave 3 (2016). As this is a longitudinal cohort study, readers should exercise caution in generalizing findings to the population of Massachusetts.

Changes in Gambling Participation

Change in gambling participation within the cohort was examined by comparing the self-reported behaviors of the 2,428 members of the cohort who completed all three waves of the study to date. There was a statistically significant increase in daily lottery games, sports betting, and private betting from Wave 1 to Wave 2. The magnitude of these increases, however, was small.

From Wave 2 to Wave 3, there was a statistically significant increase in overall gambling participation, all lottery, traditional lottery, instant games, daily games, bingo, sports betting, and online gambling. Nonetheless, the magnitude of many of these changes was either small or medium. These increases (especially the larger increases) may be a result of changes in how the questions were asked from Wave 2 to Wave 3). For instance, the large increase in daily games may in part be due to a wording change in the question in Wave 3 which included more examples of daily games compared to Wave 2 (i.e., Wave 3 included Mass Cash and the Numbers Game).

It is notable that out-of-state casino gambling significantly decreased from Wave 2 (2015) to Wave 3 (2016) and the magnitude of this change was large. This decline occurred after the opening of Plainridge Park Casino in Plainville, Massachusetts. This piece of evidence suggests that Plainridge Park Casino has been successful in “recapturing” Massachusetts residents who were once gambling out-of-state and corroborates findings from the first patron survey at Plainridge Park Casino (Salame et al., 2017) (www.umass.edu/seigma/reports).

From Wave 1 to Wave 2, there was a statistically significant decrease in the average maximum frequency of gambling. The magnitude of this decrease, however, was small. This trend continued from Wave 2 to Wave 3 and, again, the magnitude of this change was small. From Wave 2 to Wave 3, there was a significant decrease in total gambling expenditures and the magnitude of this change was large. This change, however, was likely affected by outliers which skewed the estimate at Wave 2. From Wave 2 to Wave 3, there was a statistically significant increase in the average number of gambling formats engaged in. The size of this change, however, was small.

Incidence of Problem Gambling

The “natural” problem gambling incidence rate within the cohort between 2013/2014 to 2015, prior to the opening of casinos in Massachusetts, was 2.4% (95% CI [1.5%, 3.7%]). This rate is relatively high compared to other jurisdictions where longitudinal cohort studies have been conducted. Internationally, incidence rates have ranged from 0.12% to 1.4%. Possible methodological reasons for this difference are discussed below. In addition to incidence, it is interesting that remission within the cohort was also quite high, with half of the Problem Gamblers in Wave 1 no longer classified as such in Wave 2.

From Wave 2 to Wave 3, the incidence rate declined to 1.2% (95% CI [0.6%, 2.2%]) and the remission rate was 44.0% (95% CI [25.6%, 64.2%]). Again, the number of people becoming problem gamblers and remitting from problem gambling within the Massachusetts cohort were almost equal, with slightly more individuals remitting rather than becoming new problem gamblers. Indeed, while the high incidence rate declined, the high instance of remitting cases continued across Wave 2 and Wave 3. This finding corroborates the high remission rates found in other longitudinal studies. For instance, in two Canadian longitudinal studies, the remission rate was 52.7% (QLS) and 39.1% (LLLP) from Wave 1 to Wave 2 and 50.5% (QLS) and 41.7% (LLLP) from Wave 2 to Wave 3.

If the relatively high incidence rate from Wave 1 to Wave 2 was accurate, the basis for it is somewhat unclear given that there was no significant change in the actual availability of legal gambling opportunities in Massachusetts during this time. We examined several other data sources in an effort to triangulate this unexpected finding of higher incidence. No corroborating evidence supported the high incidence rate found from Wave 1 (2013/2014) to Wave 2 (2015).¹⁵

Part of the difference (and decline) in incidence rates between Wave 1 to Wave 2 and Wave 2 to Wave 3 could be explained by variation in the inter-assessment windows from Wave 1 to Wave 2 (an average of 16.5 months) and from Wave 2 to Wave 3 (an average of 12.5 months). While the questions assessing gambling behavior specified a 12 month recall window, the longer time between assessments may still have independently contributed to the relatively higher incidence rate from Wave 1 to Wave 2. In addition, the higher incidence rate from Wave 1 to Wave 2 may be the result of factors influencing retention between Wave 1 and Wave 2 which may not have been as strong between Wave 2 and Wave 3 (Volberg, Williams, Stanek, Zorn, et al., 2017).

Stability and Transitions of Gambling Behavior

Another goal of the present analyses is to determine the stability and transitions of gambling behavior. These results are similar to cohort studies in other jurisdictions, which have generally found Recreational Gamblers to be the most stable group, with Non-Gamblers being moderately stable, and At-Risk and Problem Gamblers the least stable. One difference between Massachusetts and gambling cohort studies in other jurisdictions is the somewhat larger proportion of the Massachusetts cohort that transitioned over assessments. In Victoria, for example, 4.3% of the cohort transitioned down while 5.6% transitioned up. In contrast, across three waves, 14.2% of the Massachusetts cohort transitioned to a higher PPGM status, 13.0% transitioned to a lower PPGM status, and 13.2% were 'in transition' with movement at both Wave 2 and Wave 3.

Some portion of the differences between the Massachusetts and Victoria transition rates may be due to differences in how problem gambling was measured (i.e., MAGIC used the PPGM and the Victoria study used the CPGI). Another difference is the longer time period from Wave 1 to Wave 2 (16.5 months) in the MAGIC study relative to most other studies (typically 12 months). Another important difference is

¹⁵ We specifically examined whether there were significant differences in (a) the prevalence rate of problem gambling in the Baseline Targeted Survey in Plainville and surrounding communities in 2014 compared to the Follow-Up Targeted Population Survey in 2017; (b) the prevalence rate of problem gambling in Springfield and surrounding communities subsample of the Baseline General Population Survey in 2013/2014 compared to the Baseline Targeted Population Survey in Springfield and surrounding communities in 2015; (c) the incidence of problem gambling in MAGIC Wave 3 in 2016 relative to Wave 2 in 2015; and (d) any secondary data sources pertaining to problem gambling (i.e., Department of Public Health admissions data, Massachusetts Council on Compulsive Gambling helpline calls, Gamblers Anonymous chapters). No significant changes were found.

that the Massachusetts cohort study includes a much higher proportion of individuals selected from the baseline survey because of their high risk of developing gambling problems over the course of the study.

It is also important to understand the transitions demonstrated in the MAGIC study relative to changes in the understanding and assessment of addictions in the last 20 years, largely driven by longitudinal research. First, this research has shown that addictions are more unstable than historically thought. Addictions are chronic in the sense that there is a lifetime higher risk for relapse and continuation. Nonetheless, those experiencing addiction do not tend to have unremitting manifestations. In fact, the most typical course for manifestations of addiction is a year or two followed by remission followed by relapse. While all addictions are beset by high rates of relapse and chronicity, monetary constraints appear to preclude unremitting manifestations of the disorder in problem gambling.

This more recent understanding of gambling addiction is one of the reasons that the DSM introduced a “past 12-month” time frame for Disordered Gambling in DSM-5 in 2013 whereas it was previously a lifetime measure. This 12-month time frame change was previously adopted for Substance Use Disorders in the DSM-IV in 1994 (SUDs had only a lifetime framework in DSM-III). Understanding of problem gambling as more transitory also led to the change in the name of the diagnostic entity in the DSM-5 from “pathological gambling” (pathological means disease-like) to “gambling disorder” along with the introduction of an episodic/persistent specifier.

Second, there are people who merit clinical attention even though they do not meet the older, more stringent definitions of addictions. This continuum of harm is one of the reasons that the DSM has historically made a distinction between substance abuse and substance dependence. This is also why the number of criteria needed for Disordered Gambling in the DSM-5 was lowered from 5 to 4 and mild, moderate, and severe levels were introduced. As less severe forms of the disorder have been included, more recovery and therefore more instability are to be expected. It is worth noting that if analyses were restricted to the pathological gambling subtype, more chronicity would indeed be found. Table 16 demonstrates the higher stability of pathological gamblers compared to problem gamblers.

Table 16: Stability of Pathological Gamblers compared to Problem Gamblers

	Wave 1 → Wave 2	Wave 2 → Wave 3
Pathological Gambler → Problem/Pathological Gambler	12/21 = 57.1%	19/26 = 73.1%
Problem Gambler → Problem/Pathological Gambler	19/43 = 44.2%	21/52 = 40.4%

Ultimately, while the PPGM is the most sophisticated measure available to capture problem gambling at the population level, the construct of problem gambling is complex and difficult to measure. The reader should take this into account when interpreting results.

Limitations

Large-scale cohort studies using an ostensibly representative sample with weighting to correct for any known sampling biases are the best way of trying to establish incidence for a population. Cross-sectional studies can also be used, but in situations where the presence or absence of something is based on self-report (e.g., problem gambling), accurate incidence rates are dependent on accurate long-term retrospective reports, even though these are typically unreliable.

Nevertheless, cohort studies come with limitations. As a result, our estimates may be subject to biases and should be interpreted with caution. One important limitation concerns whether all sampling biases have been accounted for. The response rate to the BGPS/Wave 1 was 36.6%, the response rate to Wave 2 was 65.1%, and the retention rate to Wave 3 was 78.1%. This provides ample opportunity for differential rates of response for subgroups of the population despite our best efforts to identify and rectify any biases. The BGPS/Wave 1 was introduced as a survey of “health and recreation” in an effort to prevent participation bias related to respondents’ attitudes toward gambling. In Wave 2 and Wave 3, however, eligible respondents were aware that the survey they were being invited to complete was about gambling. Therefore, their decision of whether to participate in Wave 2 and Wave 3 could have been shaped by knowing that the topic of the survey was gambling. In weighting the data, we made extensive efforts to control for this bias by accounting for gambling involvement in addition to other demographic variables which influenced response. Nevertheless, there may be other unknown factors influencing the likelihood of response.

Population mobility (i.e., people moving into the state since baseline who have no probability of being included in the cohort sample) and aging of the cohort may create additional biases in the estimates. While these factors are relatively minor concerns at this stage of the study, they will pose a growing challenge in future waves.

Another factor to consider is that repeated surveying is known to have some influence on self-report of behavior. More specifically, it is not uncommon for people with problems to progressively report fewer problems simply because of the desire to convey some improvement to the researchers. A related issue is that the survey itself might have a real impact on the person’s behavior. For individuals who have never sought treatment for their problems, having to provide a comprehensive report on their behavior may cause them to re-evaluate their actions and potentially moderate their behavior.

An additional factor concerns the inter-assessment time interval, which was longer from Wave 1 to Wave 2 (16.5 months) than the 12.5 months used from Wave 2 to Wave 3 (i.e., the typical interval used in other gambling cohort studies is 12 months). Although the questions ask about behavior in the past 12 months, the last time reporting on their behavior often serves as an easier time marker for individuals. Even if people are reliably reporting on the past 12 months, the fact that more time has elapsed means that inherently unstable entities (e.g., problem gambling) have more time to both appear and remit (i.e., accentuating the ostensible rate of transitions).

A final issue is that observed changes over time are sensitive to the reliability of the measurement instrument. For less reliable instruments, repeated assessments typically lead to regression to the mean, resulting in some artifactual accentuation of transitions from more to less severe states. Unlike many clinical entities where highly reliable diagnostic measures are possible (e.g., diabetes, cancer), all measures of problem gambling have limitations in their reliability. This is due to the fact that the assessments are based on a person’s self-reported perception of their behavior and mental state over the past year. The accuracy of this perception is compromised by incomplete recall, recency bias, self-deception, mood state, social desirability, the short period of time participants are given to answer the questions, and genuine uncertainty about whether they meet the criteria being asked about. Thus, the identification of the presence or absence of problem gambling as well as apparent transitions from one gambling category to another over time are partly a function of this measurement error. It is important to note that the present study employed the PPGM (Williams & Volberg, 2010, 2014) because of its superior classification accuracy in population-based research of problem gambling. It is also the case that this instrument has lower measurement error compared to the Canadian Problem Gambling Index

(CPGI) (Ferris & Wynne, 2001), which has been employed in most other longitudinal studies of gambling.¹⁶ While this compromises potential comparisons between studies, it is worth noting that the PPGM includes all of the nine items that make up the CPGI.

Implications for Problem Gambling Prevention and Treatment

One of the main negative social impacts of expanded gambling availability is the potential for an increase in problem gambling (Williams, Rehm, & Stevens, 2011). Despite increases in the availability of gambling, the prevalence of problem gambling has stabilized or gone down in most Western jurisdictions since the late 1990s to early 2000s (Williams, Volberg, et al., 2012). Many people have taken this to mean that gambling-related harm is reducing and that further efforts to mitigate this harm may be unnecessary.

However, a stable prevalence rate over time can either be a result of: (a) ongoing unremitting problem gambling in the same group of individuals or (b) the rate of new cases is roughly equivalent to the rate of remission. These different scenarios have very different implications for problem gambling prevention and treatment. If problem gambling is a chronic condition and new cases are relatively uncommon, then it may be preferable to devote resources primarily to treatment rather than prevention. However, if both incidence and recovery from problem gambling are quite high, an argument can be made that a greater emphasis be placed on prevention in addition to treatment and recovery support. This would function to forestall the development of “new” problem gamblers and to support the continued remission of problem gamblers in recovery.

Relative to the overall rate of problem gambling, the proportion of new problem gamblers in Wave 2 (n=60, 60.6%) is higher than the number of ongoing unremitting cases (n=39, 39.4%). From Wave 1 to Wave 2, approximately twice the number of people became problem gamblers compared to those who remitted. While findings from Wave 1 to Wave 2 suggested a relatively high incidence rate of problem gambling (2.4%), this high rate has not continued from Wave 2 to Wave 3 (1.2%). In Wave 3, relative to the overall rate of problem gambling, the proportion of new problem gamblers (n=35, 46.7%) was lower than the number of ongoing unremitting cases (n=40, 53.3%). The relatively high remission rate continued from Wave 2 to Wave 3 as the number of new problem gamblers was almost equal to the number of remitting cases, with slightly more individuals remitting rather than becoming new problem gamblers. This suggests that additional prevention and treatment resources may be especially beneficial in further decreasing incidence and accelerating remission.

From Wave 2 to Wave 3, out-of-state casino gambling significantly decreased. This finding suggests that the opening of Plainridge Park Casino in Plainville, Massachusetts in June 2015 may have been successful in “recapturing” Massachusetts residents who were previously gambling in out-of-state casinos.

Examining stability and transitions within the cohort across the three waves also proved instructive. Overall, these findings suggest that both Problem/Pathological and At-Risk Gamblers—while likely to experience transitions—are unlikely to transition to become Non-Gamblers. When individuals move to

¹⁶ The Reliable Change Index (RCI) was developed by Jacobson and Truax (1991) to detect genuine differences in scores above and beyond the natural variation in scores that are simply reflective of measurement error at each time point. The size of the difference between two scores that is needed to represent statistically significant change at $p < .05$ level (i.e., the RCI) is a function of the test-retest reliability of the instrument and the standard deviation of test scores. Applying the RCI in the five year Quinte Longitudinal Study of Gambling found only 7 out of 1,180 (0.6%) of gambling categorizations were changed, compared to 7.0% of CPGI categorizations (Williams et al., 2015).

less harmful gambling behaviors, this result suggests that they are unlikely to abstain from gambling altogether, but instead pursue more moderate forms of gambling behavior. While the majority of Recreational Gamblers remain Recreational Gamblers across all three waves, when individuals in this category do transition, they also seem unlikely to transition into Non-Gamblers.

These results are consistent with findings that “controlled” gambling may not be incompatible with recovery from Problem/Pathological Gambling (Slutske et al., 2010). More broadly, treatment providers may want to consider offering moderate consumption of gambling as a treatment goal since this may also increase the likelihood that those experiencing gambling problems will seek treatment (Ladouceur et al., 2009). Eventual transition to abstinence as a goal by the patient may also emerge from controlled consumption (Dowling & Smith, 2007). Overall, our findings corroborate evidence that Problem/Pathological Gambling recovery tends to occur without abstinence. Nonetheless, these findings only represent three waves of data and, since gambling problems are transitory and episodic, we look forward to examining how our cohort members transition in future waves.

Future Directions

The goal of the MAGIC study is to uncover high-risk populations in Massachusetts and inform the development of effective and efficient prevention and treatment programming in the Commonwealth. The next MAGIC report will examine longitudinal predictors of problem gambling across waves, which will focus on differences in problem gambling incidence and problem gambling stability and transitions by race/ethnicity, income, gender, region, and the severity of the disorder. We are also interested in examining whether involvement with specific types of gambling in one wave is predictive of problem gambling status in subsequent waves. We will also examine the predictors of problem gambling remission and the extent to which accessing treatment is one of these factors. In later waves, we hope to conduct in-depth interviews with a cross-section of At-Risk and Problem/Pathological Gamblers who remit, do not remit, and are ‘in transition’ to more fully understand pathways to remission.

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Appendix A1: NORC Methodology Report

Appendix A1 describes in detail how the Wave 3 survey was fielded. This includes information about ethical and peer review, development and final content of the questionnaire, and how the survey was conducted. This section includes discussion of several obstacles encountered and addressed during data collection and concludes with a description of our data preparation procedures, including cleaning and weighting.

For a detailed discussion of how the Wave 2 survey was fielded, please see the Wave 2 report, *Analysis of MAGIC Wave 2: Incidence and Transitions* (Volberg, Williams, Stanek, Zorn, et al., 2017) (<https://www.umass.edu/macohort/publications>).

Section 1. Introduction and Background

1.1 Background

In November 2011, the state of Massachusetts passed new legislation permitting the introduction of casinos and slots parlors in Massachusetts for the first time (Chapter 194 of the Acts of 2011). As part of this legislation, the Massachusetts Gaming Commission (MGC) was created and was assigned the task of developing and conducting a research agenda that seeks to understand the social and economic impacts of gambling within the state. As part of this agenda, the University of Massachusetts Amherst (UMass Amherst) and NORC at the University of Chicago (NORC) conducted the Social and Economic Impacts of Gambling in Massachusetts (SEIGMA) study and its counterpart, the Massachusetts Gambling Impact Cohort (MAGIC) study.

SEIGMA (Wave 1)

Data collection for the Baseline General Population Survey of Massachusetts was conducted from September 2013 through May 2014. SEIGMA provided a unique opportunity to collect pre-casino baseline data on the status of resident health, participation in recreational activities including gambling, attitudes pertaining to the introduction of gambling within the state, and issues associated with problem gambling. Participants were selected by means of address-based sampling (ABS), a method that ensured that each Massachusetts household had an equal probability of selection into the sample, independent of their telephone status (i.e. landline, cell, or no telephone) (Iannacchione, 2011; Link et al., 2008). To achieve a random sample, the study targeted an adult in the household (18 years of age or older) who had the most recent birthday. Conducted in both English and Spanish, the survey was offered in three modes – web, mail, and telephone. Approximately 10,000 Massachusetts residents participated in the baseline study, which, moving forward, we refer to as Wave 1.

MAGIC (Wave 2)

In October 2013, the MGC recommended the addition of a longitudinal component to the research agenda to expand upon the research from the baseline survey. As a result, MAGIC was developed as the longitudinal component that would provide information on the etiology of gambling over time. The MAGIC study aims to collect data from a cohort of individuals within Massachusetts; Wave 2 started with a subset of participants who previously participated in Wave 1 (n=4,860). Similar to Wave 1, Wave 2 of the study was offered in three modes (web, mail, and telephone); however, interviews were conducted only in English for Wave 2. Those who completed the second wave of data collection formed the cohort for future rounds of data collection.

MAGIC (Wave 3)

The cohort of respondents that was identified in Wave 2 (n=3,139) was contacted again in April 2016 to complete Wave 3 of the study. In contrast to the data collection procedures used in previous waves, the MAGIC Wave 3 questionnaire was administered online (WEB) and via paper mail-in questionnaire (SAQ) only. Telephone dialing was conducted for the purposes of contacting respondents who had not yet completed the survey and prompting them to complete via the web instrument or to return their completed SAQ. As with Wave 2, the Wave 3 survey was fielded in English only. This methodology report details the core design and procedures of Wave 3, including an overview of the data collection procedures and the data cleaning and preparation processes.

Section 2. Questionnaire

2.1 Overview of the Questionnaire

The primary goal of the MAGIC study is to understand how gambling problems develop over time. The MAGIC study is a multi-year cohort study of gambling and problem gambling. NORC worked alongside UMass Amherst to finalize the questionnaire (see Appendix B for a copy of the Wave 3 questionnaire).

2.2 Questionnaire Development

The research team at UMass Amherst created the initial questionnaire for Wave 3. NORC reviewed the questionnaire and provided feedback on content, formatting, and overall layout. Upon receipt of the final questionnaire, NORC's Desktop Publishing staff formatted the self-administered questionnaires (SAQ) that would be mailed to respondents. NORC IT staff programmed the web survey and developed a prompting system for telephone prompting. Extensive testing was completed in order to verify the survey functioned as intended including checking question text, skip logic, case disposition assignment, and callback rules. NORC utilized Voxco, a commercial online case management system (CMS) that stores data for each case. The CMS was designed to manage telephone, web, and mixed-mode surveys in addition to allowing for extensive flexibility in manipulating test data to accommodate various testing scenarios. Following development, the research team conducted mock interviews to review the flow and logic of the survey and also to gauge completion time.

2.2.1 Questionnaire Content

The basis for the Wave 3 questionnaire was the Wave 2 questionnaire with several significant changes. Modifications included additional questions on leisure activity, physical health, mental health, substance use, and behavioral addictions. In Wave 3, a Lifetime Gambling measure and Levenson's Primary Psychopathy Scale were added. Other sensitive topics were added to the questionnaire, such as detailed questions on drug and alcohol use. As with all other waves, if respondents reported experiencing problems with any of these issues, contact information was provided for treatment providers.

Comorbidities

All respondents were asked general questions about their preferred recreational activities and their physical and mental health status before more specific questions were posed about their use of tobacco, alcohol, and illicit drugs. Additional questions in this section inquired about respondents' perception of their physical health, experience of stress, and overall level of happiness. Three additional questions were added:

- Prior to the past 12 month, do you have any significant history of mental health problems such as depression, post-traumatic stress, panic attacks, generalized anxiety, agoraphobia, obsessive-compulsive disorder, bipolar disorder, schizophrenia, bulimia, etc.? (Yes/No)
- Is there any significant history of mental health problems, drug or alcohol addictions, or behavioral addictions in your parents, siblings, or children? (Yes/No/Unsure)
- Were you abused as a child (physically, sexually, or emotionally)? (Yes/No)

Gambling Attitudes

All respondents were asked questions about their beliefs about the benefit versus harm of gambling, the morality of gambling, whether gambling should be legal, and their opinion about the availability of gambling opportunities in Massachusetts and in their own communities. Additional questions in this section assessed views about the anticipated impacts of expanded gambling in Massachusetts.

Past-Year Gambling Behavior

All respondents were asked about the frequency of their participation and their expenditure on 11 types of gambling, using questions with optimal wording for obtaining this information (Wood & Williams, 2007). Participation and expenditure were assessed for traditional, large jackpot lottery games, instant lottery tickets, daily lottery games, charitable raffles, sports events, bingo, casino gambling, pari-mutuel wagering on horse races, private wagering, high risk stocks and online gambling.

Gambling Motivation

All respondents who had gambled in the past year were asked one question about their primary motivation for gambling.

Gambling Recreation/Entertainment

All respondents who had gambled in the past year were asked about the importance to them of gambling as a recreational activity and whether gambling had replaced other recreational activities.

Gambling Context

All respondents who had gambled in the past year were asked about whether they gamble alone or with friends and the availability of gambling opportunities.

Lifetime Gambling

All respondents who had gambled in the past year were asked about the first time they gambled for money and whether family members had ever been regular gamblers or experienced problems.

Gambling Fallacies

All respondents who had gambled in the past year were asked about various gambling situations in relation to fallacious beliefs.

Prevention Awareness

All respondents were asked questions to assess their awareness of problem gambling prevention activities in Massachusetts. Prevention activities included media campaigns and programs offered in schools, workplaces, or in the community. Respondents were asked if they had participated in any problem gambling prevention programs and, if so, whether any of these programs had led them to alter their gambling behavior.

Gambling Problems (Others)

All respondents were asked questions about people in their own social circle who gambled regularly and whether there was anyone in their social circle who they felt gambled too much. Respondents who indicated that there was such a person were asked about that person's relationship to them and how that person's gambling had affected them.

Gambling Problems (Self)

All respondents who had engaged in one or more of the gambling activities included in the Gambling Behavior section once a month or more often or indicated that gambling was an important recreational activity or had replaced other recreational activities with gambling in the past five years were administered two validated problem gambling instruments.

The first nine questions of this section comprise the Problem Gambling Severity Index (PGSI) from the Canadian Problem Gambling Index (CPGI) (Ferris & Wynne, 2001). The PGSI has very good internal consistency ($\alpha = .89$) and good test-retest reliability ($r = .78$). Criterion validity is established by its correlation ($r = .83$) with the SOGS and DSM-IV. Construct validity of the PGSI is established by its significant correlations with gambling involvement.

The remaining questions in this section comprise the Problem and Pathological Gambling Measure (PPGM). The PPGM is a relatively new instrument with superior sensitivity, positive predictive power, diagnostic efficiency, and overall classification accuracy compared to the PGSI/CPGI, DSM-IV, and SOGS (Williams & Volberg, 2010, 2014). The PPGM serves as the primary problem gambling measure in both MAGIC and SEIGMA while the PGSI/CPGI provides a direct comparison to other gambling surveys conducted worldwide.

Several branching questions were added to many of the CPGI and PPGM questions if the person answered the “stem” question in the affirmative. These supplemental questions provide an important quantification of the social and economic impacts of gambling in Massachusetts by assessing the number of bankruptcies, health care visits, suicide attempts, incidents of domestic violence, divorces, cases of child welfare involvement, illegal acts, arrests, incarcerations, and lost work/school days attributable to problem gambling.

Social Functioning/Levenson’s Primary Psychopathy Scale

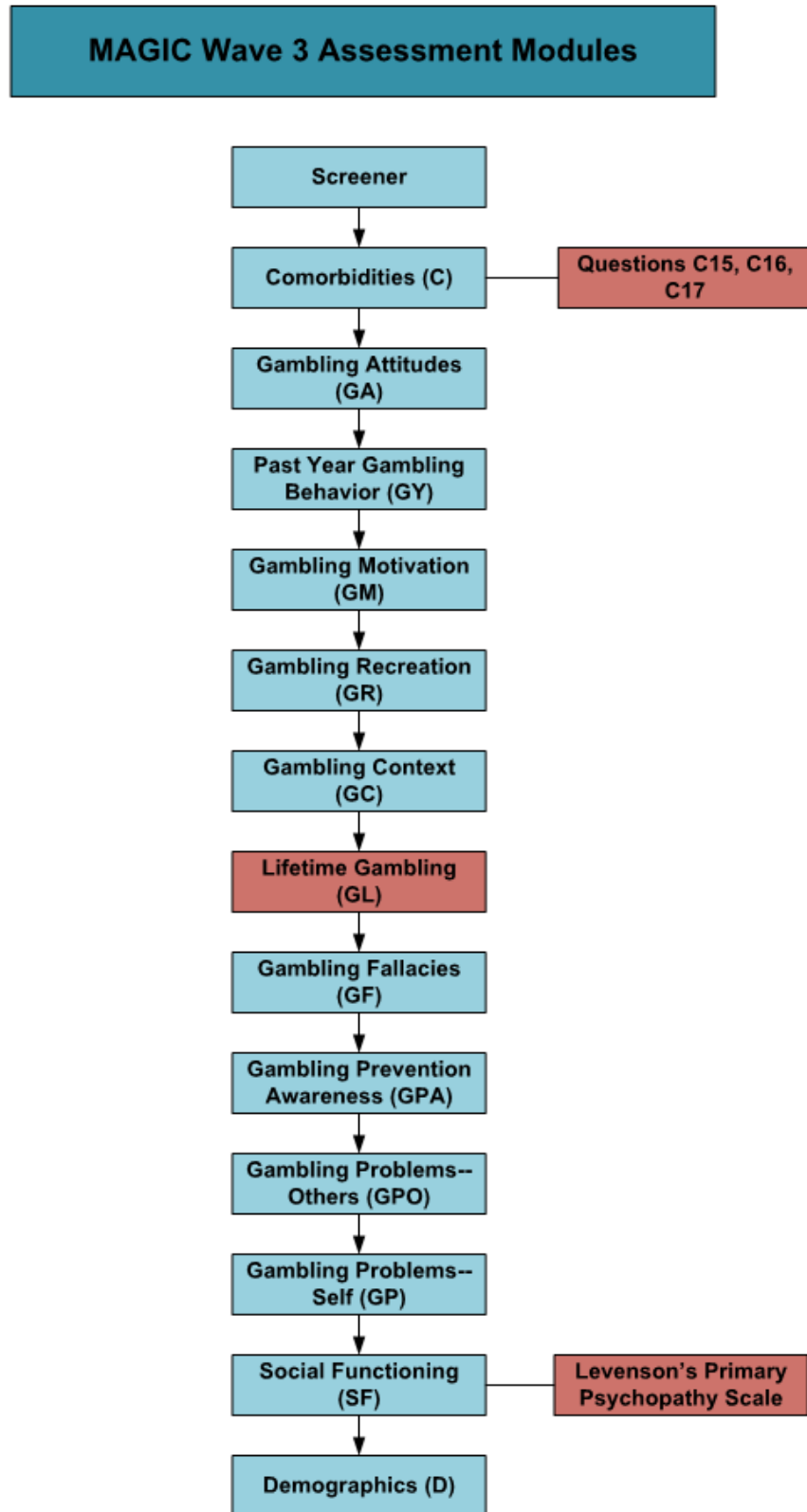
All participants were asked about family and social relationships and administered Levenson’s Primary Psychopathy Scale (LSRP). The LSRP is regarded as the best instrument for assessing psychopathy—a personality disorder characterized by a lack of empathy for others—in non-institutionalized populations. The LSRP is comprised of two scales: 1) primary psychopathy (psychopathic emotional affect) and 2) secondary psychopathy (psychopathic lifestyle).

Demographics

All respondents were asked about gender, age, marital status, number of children in the household, highest level of education, employment status, veteran status, healthcare coverage, household income, household debt, immigrant status, Massachusetts residence status, and race/ethnicity. All respondents were also asked to provide contact information to allow the SEIGMA research team to reach them in the future and invite them to participate in related studies.

See Figure 6 below for a Wave 3 questionnaire module overview.

Figure 6: MAGIC Wave 3 Assessment Modules

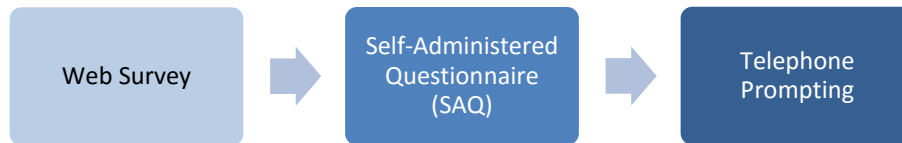


Section 3. Survey Design

3.1 Multi-Mode Process

In an effort to increase overall response rates, the survey was offered in two modes – web and mail; respondents who had not completed the survey via either mode were prompted to do so via telephone. Participants were introduced to these modes sequentially. Figure 7 below demonstrates the multi-mode approach that was employed for reaching sampled Wave 3 respondents.

Figure 7: Multi-Mode Data Collection Approach, Wave 3



3.2 Sample Size and Selection

As mentioned earlier, those who completed Wave 2 formed the cohort for future waves. Thus, 3,139 individuals comprised the study for Wave 3. The sample was divided into six risk groups based on the respondent’s calculated problem gambling status at Wave 1. Table 17 below provides a breakdown of the different risk groups, including the target number of completes for each group.

Table 17: Sample Breakdown by Risk Groups

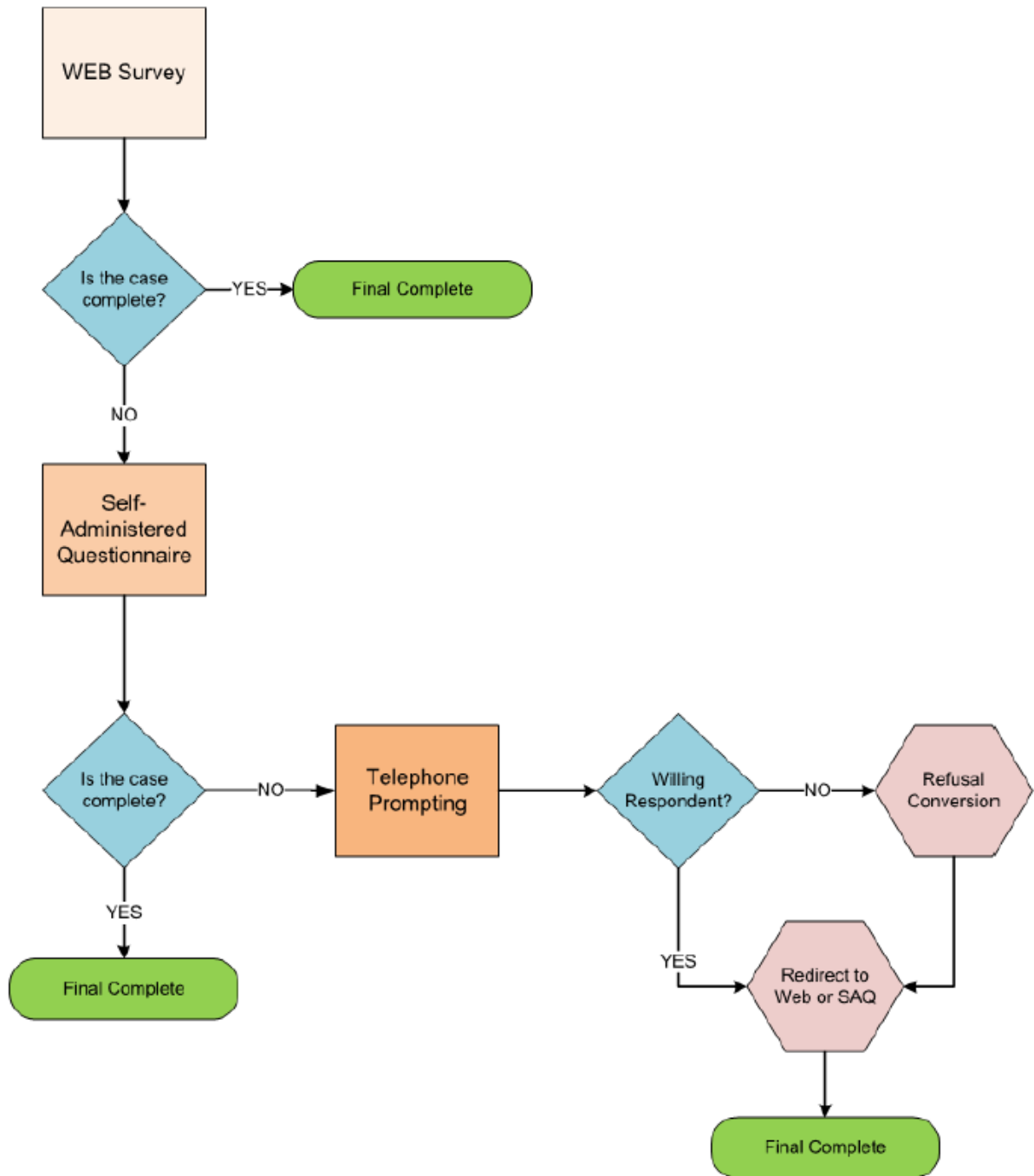
Group	Total Sample Number, Wave 3	Target Number of Completes, Wave 3
Group 1: <i>Problem Gambler</i>	81	66
Group 2: <i>At risk of becoming a Problem Gambler</i>	295	229
Group 3: <i>Expends \$1,200 or more annually</i>	726	575
Group 4: <i>Gambling weekly</i>	534	410
Group 5: <i>Served Sept 2001 or later</i>	37	27
Group 6: <i>Low risk of problem gambling</i>	1,466	1,148
Total	3,139	2,455

3.3 Case Flow

Respondents were first invited to participate in the survey online.¹⁷ If respondents did not complete the survey online, they were sent a hardcopy questionnaire with a postage-paid business reply envelope. Respondents who did not reply in the first two modes were contacted by telephone and reminded of the survey. Dialing was conducted for the purpose of prompting respondents to complete the survey over the web or to return their completed SAQ. Respondents who requested to be “taken off the list” or refused in a hostile manner were finalized immediately. Figure 8 below details the case flow lifecycle for Wave 3 sample cases.

¹⁷ The web survey remained open throughout data collection.

Figure 8: MAGIC Wave 3 Case Flow Lifecycle



Section 4. Data Collection

Data collection began in April 2016 with the mailing of the first web invitation packet. Mailings were scheduled approximately two weeks apart to give respondents enough time to receive and complete the questionnaire, so that NORC could remove completed cases from follow-up mailings.

4.1 IRB Review

All data collection efforts were subject to approval by the Institutional Review Boards (IRB) from both NORC and UMass Amherst. NORC received IRB approval on February 24, 2016; UMass Amherst received approval shortly thereafter on March 11, 2016. As part of the IRB submission, NORC requested that the IRB waive the requirement of obtaining informed consent documentation in exchange for including informed consent statements in each survey mode. The informed consent statement read as follows:

“The University of Massachusetts is conducting a longitudinal study about gambling in Massachusetts. This survey is private and confidential. We have a Federal Certificate of Confidentiality that is designed to protect the confidentiality of your research data from a court order or subpoena. We can provide you with more information if you would like. Taking part is up to you. You don’t have to answer any question you don’t want to, and you can stop at any time. Almost everyone will be able to finish the survey within 15 to 20 minutes.”

For web respondents, the informed consent statement was read as part of the screening process, with a hyperlink to the Federal Certificate of Confidentiality printed within the frequently asked questions (FAQs) document. If the respondent clicked ‘Next’ to move past the informed consent screen, he or she was presumed to be informed of his or her rights as a participant. For mail, the informed consent statement was printed on the inside cover of the hardcopy questionnaire with a printed link to the Federal Certificate of Confidentiality. Respondents returning a booklet with valid response data were considered to have provided consent.

NORC submitted all materials (letters, brochures, and questionnaire) to the IRB for review. As data collection progressed, any materials requiring modification or new materials not included in the original submission were sent as an amendment to the IRB for review.

4.2 Advance Letter Mailings

A series of mailings were scheduled to encourage respondent participation, to inform households about the survey and how they were selected, and to provide contact information for NORC and UMass Amherst. Following protocol outlined by Don Dillman and colleagues (2009), NORC utilized the following contacts:

- **Web invitation letter.** Respondents were first mailed a web packet asking them to complete the survey online. Enclosed with this mailing was a web invitation letter, survey brochure, web insert outlining how to access the web survey, and a list of Frequently Asked Questions (FAQs). The invitation letter informed respondents of the purpose of the study and provided a web link and Personal Identification Number (PIN) to access the survey. The letter also offered sending a \$50 incentive check along with an additional \$20 if the respondent completed the survey online by the Early Bird date printed on the letter.
- **Thank you/reminder postcard.** A reminder postcard was mailed thanking those who had previously completed the survey, while reminding non-responders to complete the survey online.

- **Initial questionnaire mailing.** Those who had not completed the survey via the web were sent a SAQ packet. The SAQ packet included a letter, hardcopy questionnaire, postage-paid business reply envelope (BRE), \$50 incentive reminder language, and survey brochure. The letter provided instructions for completing the questionnaire online and for returning the hardcopy questionnaire.
- **Thank you/reminder postcard.** A second reminder postcard was mailed thanking those who had previously completed the survey while reminding non-responders to complete the survey.
- **Second questionnaire mailing.** The final mailing was a replacement questionnaire to the remaining non-responders with a letter emphasizing the importance of the study.
- **Last chance postcard.** Near the end of the data collection period, NORC sent pending non-respondents a final “last chance” postcard. This postcard alerted respondents that data collection would be ending July 29, 2016 and encouraged their participation before this date.

Prior to each mailing, households that had already completed the survey were removed from the mailing list. Letters were typed on project letterhead (displaying the MAGIC logo) with the signature of Dr. Rachel Volberg, Co-Principal Investigator. Each mailing provided the study’s toll-free number and email address so that the respondents could contact NORC with questions or requests for assistance. Two versions of each letter were prepared to accommodate those cases where we did not have the respondent’s full name. For these cases, the letter was addressed to the “MAGIC Participant.”

The data collection schedule for the mailing component for Wave 3 is outlined in Table 18 below. NORC also sent several “ad hoc” mailings during the final month of data collection to individuals who requested another hardcopy questionnaire during the telephone prompting phase of data collection.

Table 18: Wave 3 Mailing Schedule

Mailing Item	2016						
	4/5	4/11	4/27	5/17	5/31	6/14	7/21
Web Packet 1							
Web Reminder Postcard							
Web Packet 2							
SAQ Packet 1							
SAQ Reminder Postcard							
SAQ Packet 2							
Last Chance Postcard							
SAQ Replacement Packet							

4.3 Web Survey Procedures

The first mailing packet that was sent to Wave 3 respondents included a web letter, a brochure about the survey, a web instruction card, and a list of frequently asked questions. The web letter outlined the purpose of the survey and requested that the individual who completed the Wave 2 questionnaire participate in Wave 3. The invitation letter included a link to the survey’s website along with the respondent’s unique Personal Identification Number (PIN) to use when accessing the survey. The

invitation letter also specified that all respondents will receive \$50 upon completion of the survey, with an additional \$20 available to those who completed by the Early Bird date. All respondents received a thank you/reminder postcard approximately one week after the initial mailing. The 14-day early bird extra incentive was offered with the initial web packet mailing and reminder postcard only.

Upon accessing the survey website, a welcome screen asked respondents to enter their assigned PIN. Respondents first were asked if they were the individual who completed the last round of MAGIC. If a respondent indicated that he/she was not that person, he/she was taken to an exit screen.

The survey also asked the respondents to confirm additional demographic information they had provided during the last round of MAGIC. These questions helped any cases where the new demographic information conflicted with past information. The process for investigating and resolving these cases is discussed in *Section 5: Validation Protocol*.

Eligible respondents progressed past the screener into the online instrument. Respondents could skip any question they did not wish to answer. If the web survey was completed within the 14 -day window, respondents were asked at the end of the survey if they would like to receive the \$70 incentive check. If the respondent answered yes, the next screen displayed asked the respondent to confirm their contact information for the incentive mailing. Respondents who completed the survey after the 14-day period were similarly asked to confirm their mailing address; however, they received a \$50 check.

4.4 Self-Administered Questionnaire (SAQ) or Mailed Survey Procedures

The first SAQ packet was mailed a little over a one month after the first web packet mailing. The letter asked respondents to complete the enclosed hardcopy questionnaire and to return it in the postage paid envelope. The letter also provided the URL and PIN for completing the questionnaire online. The letter also mentioned the \$50 incentive upon completing the survey. The hardcopy questionnaire outlined instructions for completing the survey and contained the confidentiality statement. The back cover contained instructions for returning the completed questionnaire to NORC, the study's toll-free number to complete the survey over the phone, and the survey link and assigned PIN to complete online. This information was included in each mailing to provide respondents with several options for completing the survey. Respondents who received the first SAQ packet were sent a thank you/reminder postcard approximately two weeks after the mailing of the SAQ packet. Nonrespondents received a second, similar packet approximately four weeks after the initial SAQ packet.

The Telephone Survey and Support Operations (TSSO) department at NORC processed returned SAQs. A barcode was printed on each letter and SAQ allowing trained mail clerks to code each returned mailing efficiently. Completed or partially completed SAQs were sent to Data Services, Inc. (DSI) for data entry. NORC provided DSI with a set of data cleaning rules to follow when entering responses. DSI sent electronic data files to NORC each week followed by the returned hardcopy questionnaires. Electronic data files were shared safely using a Secure File Transfer Protocol (SFTP) site.

4.5 Web and Telephone Screening

Key to this study, and the overall validity of the data collected, was ensuring that the respondent who completed the Wave 3 questionnaire was the same respondent from Waves 1 and 2. In order to confirm that the same respondent was being screened into the Wave 3 survey, respondent demographic information (name, age, and gender) collected during Wave 1 (and validated during Wave 2) was preloaded into the main screener question. The screener question was programmed to use the available preload information when screening the Wave 3 respondent. Since several respondents from

Wave 1 and 2 did not provide all of the requested demographic information, the screener question had alternate text that would display based on the level of demographic information available. The Wave 2 interview month and year was also preloaded as a text fill within the screener question text in order to help respondent’s recall. Below are the versions of the screener questions that were created to confirm that the Wave 3 respondent was the same respondent from Waves 1 and 2.

Screener Text 1: For cases that provided full name (first and last name), the following screener question was used:

- Web: Please confirm that you are [NAME], the individual who completed the Massachusetts Survey of Health and Recreation in [INTERVIEW MONTH AND YEAR].

Screener Text 2: Cases that did not provide adequate name information to use as a text fill, but previously provided gender and age information, were prompted with the following screener confirmation text:

- Web: Please confirm that you are [female respondent/male respondent/individual], who previously completed the Massachusetts Survey of Health and Recreation, which was conducted in [INTERVIEW MONTH AND YEAR]. [IF AGE AND GENDER WERE NOT MISSING THEN ASK: The person who filled out that survey told us [he was/she was/they were] [AGE] years old at the time of the survey.]

Screener Text 3: For cases that provided insufficient demographic information, a generic confirmation screener text was prompted at the screener question instead:

- Web: Please confirm that you are the individual who previously completed the Massachusetts Survey of Health and Recreation, which was conducted in [INTERVIEW MONTH AND YEAR].

Section 5. Validation Protocol

Two main approaches (internal vs. external) were developed with general scenarios within each to help confirm that the Wave 3 survey data was collected for the right person.

5.1 Internal Validation

Below were the set of scenarios and steps that were used when validating Wave 3 respondents. These approaches used existing demographic information that was collected for the case in previous waves of the project. The scenarios depended on the type of information that was available for the cases in order to determine the steps to take for validation.

Scenario 1: We have a complete first name and a last name preload for the respondent (these respondents were prompted the Respondent Confirmation Text #1 in the screener).

Scenario 1	First Name	Last Name	Overall	Action
1-A	Match	Match	Match	No Action Needed
1-B	Match	Non Match	Non Match	Follow Up Needed
1-C	Non Match	Match	Non Match	Follow Up Needed
1-D	Non Match	Non Match	Non Match	Follow Up Needed

1-A) If the respondent confirmed the preload first name and last name at the screener confirmation question, no further action was necessary for follow up.

1-B, 1-C, 1-D) If the respondent did not identify that the preload first and last names were correct, then the case was flagged for further review. If more than one of the items in the listed questions below contained conflicting information then the case was moved to the ‘requires further review’ bucket where further validating steps were taken in order to determine how best to proceed with the case (see Section 5.2.2 External Validation):

1. **Name:** Did the respondent provide a new first and/or last name?
 - Does the new name match any part of the preload name (for example: did the respondent provide initials instead of full name in the Wave 3 that match the full name in Wave 2)
2. **Address:** Did the respondent confirm their preload address and that they received the advance letter?
3. **Gender:** Did the respondent provide the same gender value as the value provided in previous waves?
4. **Age:** Did the respondent provide the same age value as the value provided in previous waves

Scenario 2: We did not have a complete first name and a last name preload for the respondent in Wave 3; however, we had preload age and gender values (these respondents were prompted the Respondent Confirmation Text #2 in the screener).

Scenario 2	Age	Gender	Overall	Action
2-A	Match	Match	Match	No Action Needed
2-B	Match	Non Match	Non Match	Follow Up Needed
2-C	Non Match	Match	Non Match	Follow Up Needed
2-D	Non Match	Non Match	Non Match	Follow Up Needed

2-A) If the respondent’s gender and age values in MAGIC Wave 3 matched the preload values for those variables in previous waves, then no further action was necessary for follow up.

2-B, 2-C, 2-D) If the respondent provided gender and/or age values in the MAGIC Wave 3 questionnaire that conflicted with the preload values for those variables then the case was flagged for further review. If more than one of the items in the listed questions below contained conflicting information then the case gets moved to the ‘requires further review’ bucket where further validating steps taken in order to determine how best to proceed with the case (see Section 5.2.2 External Validation):

1. **Address:** Did the respondent confirm their preload address and that they received the study’s advance letter?
2. **Gender:** Did the respondent provide the same gender value as the value provided in previous waves?
3. **Age:** Did the respondent provide the same age value as the value provided in in previous waves?

5.2 External Validation

Cases that were moved to the ‘requires further review’ bucket were sent for further validation. Specially trained locators used Accurint® to search for, and locate, new information for the respondent. These locators could search for new contact information using a combination of respondent name with

address, phone number, gender, or age. For each case, Accurint[®] may provide one or more of the following pieces of information:

- New phone number for the respondent;
- New address for a given phone number or person;
- Any names associated with a phone number or address (and when they were associated).

Section 6. Data Preparation

6.1 Sample Disposition and Response Rate

NORC prepared weekly production reports throughout data collection, utilizing the standard AAPOR Response Rate 3 calculation. NORC also calculated the resolution rate, screener completion rate, and interview completion rate. At the end of data collection, each case was assigned a final disposition code, which identified the ending status of the case. Table 19 lists the available disposition codes and corresponding descriptions.

Table 19: Wave 3 Disposition Codes

Disposition Code	Description
U1	Confirmed household, unconfirmed address (only for CATI)
U2	Assumed household/No contact
U0	Confirmed address, known household, unscreened
NR	Non-residential
MM	Mail received
ER	Eligible household, no member completes (only partial complete)
C	Complete

6.2 Data Editing and Cleaning

A series of data editing and cleaning procedures were implemented in order to provide UMass Amherst with the most accurate and comprehensive data files. Throughout data collection, SAS programs were run to identify any errors that occurred in the Web system. This allowed NORC to reconcile inconsistencies in the data and fix system or questionnaire errors as they occurred, minimizing additional data cleaning that would be required at the end of data collection.

NORC worked alongside UMass Amherst to establish a series of data cleaning steps in order to ensure that the data files for delivery met the expected standards and criteria set out by UMass Amherst. Interview data from all data collection modes were combined into a single analytic file, which included a variable to indicate the mode of data collection used to complete each interview.

6.3 Coding of Verbatim Answers into Question Responses

Some questions in the survey offered an “Other” response category that, if selected, would direct the respondent to an open-end follow-up question to specify his or her answers. The UMass Amherst team conducted back-coding where verbatim responses for open-end questions were back-coded

into existing response categories. Both the original verbatim and the original response to the root question were maintained in the raw variables. Table 20 provides the variables which required back-coding.

Table 20: Wave 3 Variables Requiring Back-Coding

Question	Root Variable	Verbatim Variable	Question Type
Which internet sites do you most often use to play daily fantasy sports?	GY4E	GY4E_O	Check all that apply
Where did you seek help from?	GP23C	GP23C1	Check all that apply
What would you say have been the main cause or causes of your gambling problems?	GP24		Open ended
What would you say is responsible for this improvement?	GP25A	GP25B	Open ended

6.4 Derived Variables

Several derived variables were created for the final dataset in order to provide additional descriptive information for each household. For example, derived variables were created to indicate if a respondent was active in each mode – web, mail, and phone [Wave 1 and Wave 2 only]. SAS programs were written utilizing data from existing variables to create the derived variables.

Section 7. Strengths and Limitations of the Study

7.1 Strengths

One of the primary strengths to MAGIC is that as a longitudinal study, it allows NORC and UMass Amherst to follow a cohort of individuals at regular intervals over a period of five to ten years in order to determine the incidence of problem gambling in Massachusetts. Wave 1 offered a robust and unique contribution to the existing literature in that it was the first problem gambling survey to collect data in a state prior to the introduction of casino gambling. Wave 2 and Wave 3 were an extension of that contribution, which will allow researchers and policymakers to gain access to etiological information about how gambling problems develop and progress over time. The MAGIC study overall will allow researchers to understand what individual, social, and environmental variables (e.g., casino proximity, public attitudes, gambling advertising, media coverage) are most predictive of, and mediate the development of, future gambling and problem gambling. This in turn will provide a comprehensive understanding of the types of risks and protective factors that would help adapt and develop effective prevention, treatment, and recovery support services to the population.

Also of importance is the final response rate from Wave 2, as those who completed this wave formed the cohort for the future waves. The initial target response rate was 2,768 completes, or 57.0% of the overall sample. At the end of Wave 2, 3,139 individuals in the initial sample completed the survey. This higher than anticipated response not only provided additional data for analysis in Wave 2, but also helped establish a larger cohort of respondents moving forward in future waves of data collection.

The multi-mode data collection strategy offered was also a strength for Wave 2. Offering the survey in three modes (web, mail, and telephone) increased opportunity for response and allowed for a more expansive demographic to be included. For example, respondents without access to a computer or the internet were able to complete by hardcopy or phone. Due to budget restrictions in Wave 3, surveys were not completed by telephone, but telephone prompting was conducted to remind potential participants to complete the survey by either web or hardcopy.

Further, data validity was improved through the implementation of a screener question confirmation text as well as utilizing locators to find new respondent contact information. By confirming that the same respondent completed all three waves of the survey, further support was established for the overall validity of data collected across waves.

7.2 Limitations

A primary concern for MAGIC is maintaining high retention rates amongst the study cohort participants. In order to ensure that the research maintains both internal and external validity, retention of survey participants in the longitudinal study is of primary importance. Research has shown that males, young people, ethnic minorities, substance users, and individuals with mental health problems are generally more prone to have higher attrition (Claus et al., 2002; de Graaf et al., 2000; Eaton et al., 1992; Morrison et al., 1997). Many of these characteristics are typical amongst problem gamblers, which makes retention rates a particular challenge for studies such as MAGIC. By employing the right research methods, the UMass Amherst and NORC team has developed a methodological framework that borrows from past research (such as the Quinte Longitudinal Study) as well as past experiences on longitudinal studies that NORC has become proficient at employing (see NORC's National Longitudinal Surveys of Youth) in order to mitigate challenges associated with retention.

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Appendix A2: AAPOR Response Rates

Appendix A2 provides the final disposition report submitted by NORC to the SEIGMA research team with enough information to allow technical readers to calculate alternate response rates for the survey.

Table 21 below presents a summary of AAPOR response rate categories, descriptions, and counts following AAPOR standards. Table 22 presents the response rates for the MAGIC Wave 3 alone using AAPOR-recommended calculations. Table 23 presents the cumulative AAPOR standard rates for the first three waves. The AAPOR standard reference is https://www.aapor.org/AAPOR_Main/media/publications/Standard-Definitions20169theditionfinal.pdf.

Table 21: Counts by AAPOR Disposition Category

AAPOR Category	Description	AAPOR Dispositions Included*	MAGIC Wave 3	MAGIC Wave 2	SEIGMA Baseline 1	Note
I	Complete interview	1.1	2,455 (1,148 from Low risk group, and 1,307 from Other risk groups)	3,139 (1,466 from Low risk group, and 1,673 from Other risk groups)	9,581	
P	Partial interview	1.2	8 (3 from Low risk group, and 5 from Other risk groups)	16 (9 from Low risk group, and 7 from Other risk groups)	261	
R	Eligible household, refusal or break-off	2.1	0	0	0	MAGIC considered all identified eligible households to be "Partial interview".
NC	Eligible household, non-contact	2.2	522	1,665	0	MAGIC considered all unidentified households to be eligible non-contact.

AAPOR Category	Description	AAPOR Dispositions Included*	MAGIC Wave 3	MAGIC Wave 2	SEIGMA Baseline 1	Note
O	Eligible household, other	2.3	0	0	0	MAGIC considered all unidentified households to be eligible non-contact.
UH	Unknown if household/occupied HU	3.1	0	0	19,647	MAGIC considered all unidentified households to be eligible non-contact.
UO	Household, eligibility undetermined	3.2	0	0	923	MAGIC considered all unidentified households to be eligible non-contact.
<i>e</i>	Estimated proportion of cases of unknown eligibility that is eligible.		100%	100%	79.40%	Assume that all the sample selected from SEIGMA baseline survey is eligible
J**	Ineligible household	4.7	22 (9 from Low risk group, and 13 from Other risk groups)	0	10	
NR**	Non-residential or otherwise out of scope	4.50, 4.60	132 (57 from Low risk group, and 75 from Other risk groups)	40 (26 from Low risk group, and 14 from Other risk groups)	2,946	

AAPOR Category	Description	AAPOR Dispositions Included*	MAGIC Wave 3	MAGIC Wave 2	SEIGMA Baseline 1	Note
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* Dispositions included in each AAPOR category taken from p. 40 of 2011 AAPOR Standard Definitions report. These dispositions are defined in Table 2 of that report.

** AAPOR does not include these categories on p. 40 of the 2011 AAPOR Standard Definitions report, but we include them here so as to have a complete accounting of all released cases. These are cases that are ineligible, either because they are not residential housing units or because there were no eligible members in the household.

Table 22: MAGIC AAPOR Response Rates, Wave 3

Response Rates	Formula	%
RR1	$\frac{I_3}{(I_3 + P_3) + (R_3 + NC_3 + O_3) + (UH_3 + UO_3)}$	82.2
RR2	$\frac{(I_2 + P_2)}{(I_3 + P_3) + (R_3 + NC_3 + O_3) + (UH_3 + UO_3)}$	82.5
RR3**	$\frac{I_3}{(I_3 + P_3) + (R_3 + NC_3 + O_3) + e_3(UH_3 + UO_3)}$	82.2
RR4**	$\frac{(I_3 + P_3)}{(I_3 + P_3) + (R_3 + NC_3 + O_3) + e_3(UH_3 + UO_3)}$	82.5
RR5**	$\frac{I_3}{(I_3 + P_3) + (R_3 + NC_3 + O_3)}$	82.2
RR6**	$\frac{(I_3 + P_3)}{(I_3 + P_3) + (R_3 + NC_3 + O_3)}$	82.5

**MAGIC Wave 3 targeted individuals are completed interviews from MAGIC Wave 2 survey. From RR3 to RR6, we assume that everyone is eligible. Thus, RR3 and RR5 is the same as RR1; RR4 and RR6 is the same as RR2.

Table 23: MAGIC Cumulative AAPOR Response Rates, Cumulative Rates of Three Waves

Response Rates	Formula*	%
RR1	$\frac{I_3 \text{ of Low risk group} \times 3 + I_3 \text{ of Other risk groups}}{(I_1 + P_1) + (R_1 + NC_1 + O_1) + (UH_1 + UO_1) - (NR_2 + NR_3 + J_3) \text{ of Other risk groups} - (NR_2 + NR_3 + J_3) \text{ of Low risk group} \times 3}$	15.8
RR2	$\frac{(I_3 + P_3) \text{ of Low risk group} \times 3 + (I_3 + P_3) \text{ of Other risk groups}}{(I_1 + P_1) + (R_1 + NC_1 + O_1) + (UH_1 + UO_1) - (NR_2 + NR_3 + J_3) \text{ of Other risk groups} - (NR_2 + NR_3 + J_3) \text{ of Low risk group} \times 3}$	15.9
RR3	$\frac{I_3 \text{ of Low risk group} \times 3 + I_3 \text{ of Other risk groups}}{(I_1 + P_1) + (R_1 + NC_1 + O_1) + e_1(UH_1 + UO_1) - (NR_2 + NR_3 + J_3) \text{ of Other risk groups} - (NR_2 + NR_3 + J_3) \text{ of Low risk group} \times 3}$	18.4
RR4	$\frac{(I_3 + P_3) \text{ of Low risk group} \times 3 + (I_3 + P_3) \text{ of Other risk groups}}{(I_1 + P_1) + (R_1 + NC_1 + O_1) + e_1(UH_1 + UO_1) - (NR_2 + NR_3 + J_3) \text{ of Other risk groups} - (NR_2 + NR_3 + J_3) \text{ of Low risk group} \times 3}$	18.5

RR5**	$\frac{I_3 \text{ of Low risk group} \times 3 + I_3 \text{ of Other risk groups}}{(I_1 + P_1) + (R_1 + NC_1 + O_1) - (NR_2 + NR_3 + J_3) \text{ of Other risk groups} - (NR_2 + NR_3 + J_3) \text{ of Low risk group} \times 3}$	50.2
RR6**	$\frac{(I_3 + P_3) \text{ of Low risk group} \times 3 + (I_3 + P_3) \text{ of Other risk groups}}{(I_1 + P_1) + (R_1 + NC_1 + O_1) - (NR_2 + NR_3 + J_3) \text{ of Other risk groups} - (NR_2 + NR_3 + J_3) \text{ of Low risk group} \times 3}$	50.3

*The denominators are counts of SEIGMA baseline cases minus the number of non-residential and ineligible cases determined in MAGIC. Since we randomly sampled one third of the SEIGMA respondents in the “Low risk” group for MAGIC Wave 2, we weight any MAGIC respondents, partial completes, and NRs from the “Low risk” group by three.

**SEIGMA targeted households with adult age 18 and above. RR5 and RR6 assume that everyone not screened and not identified is ineligible, which is not a realistic assumption. Thus, it is not appropriate to use RR5 and RR6.

Appendix A3: Weighting Procedures

Appendix A3 describes the procedures used in weighting the MAGIC Wave 3 sample for analyses.

Details of the weighting procedures for the BGPS are available in the BGPS report (Volberg et al., 2017). Details of the weighting procedures for MAGIC Wave 2 are available in the Wave 2 report (Volberg et al., 2017).

Summary of Weighting for the MAGIC Wave 3 Longitudinal Survey

Prepared by Edward J. Stanek III

Introduction

The MAGIC study is a longitudinal investigation of adults aged 18 and over who were selected via probability sampling from respondents to an address-based probability sample in Massachusetts (the Baseline General Population Survey [BGPS]). A total of 4,860 addresses were selected for the MAGIC study from addresses for the 9,578 BGPS respondents. The 3,139 Wave 2 respondents define the MAGIC cohort. The surveys were completed between March 2015 and September 2015 and correspond to the Wave 2 MAGIC survey (MW2S).

The Wave 3 survey attempted to interview each member of the MAGIC cohort approximately one year later. A total of 2,450 surveys were completed between April 2016 and August 2016. This report provides a detailed description of the development of weights for Wave 3 respondents (MW3S). The weights for the third wave of the MAGIC survey, MW2S weights and BGPS weights are closely connected.

A weighting plan was developed and reviewed by the MGC's Research Review Committee (RRC). The steps in the weighting make use of weights from the BGPS that accounted for address based probability sampling and completion rates for the BGPS. Since the MAGIC cohort is defined by respondents to the Wave 2 MAGIC survey, the weights account for the probability sample rates for the MAGIC cohort and completion rates for the Wave 2 MAGIC respondents. Finally, the weights account for the completion rates for the Wave 3 survey, household size, and raking by region, age, gender, race, and education to align the respondents to the 2016 MA population.

Weight Accounting for Respondents to the BGPS Survey (MW3WT1)

The initial step in the weighting made use of weights from the BGPS that accounted for:

1. Baseline stratified sampling weight (Baseline Design weight: $WT1$)
2. Adjustment for unknown eligibility (Eligibility weight: $WT2$)
3. Adjustment for completion of the questionnaire (Completion weight : $WT3$)

The weights corresponded to inverse probability sampling weights that accounted for the BGPS design ($WT1$), adjustment for unknown eligibility (based on the frame variables for region, language, and address type) ($WT2$), and adjustment for survey completion (based on the variables for region, language, and last mode of contact (Web, SAQ, CATI) ($WT3$). The development of these weights ensures that the total weight in each region matches the number of addresses in each region, and similarly that totals match Massachusetts totals by type of address, language, and last mode of contact. Details on the development of weights for the BGPS are given in the *Gambling and Problem Gambling in Massachusetts: Results of a Baseline Population Survey* report, Appendix A3 (umass.edu/seigma/reports).

Using the completion weight for the BGPS ($WT3$), the total of the weight assigned to BGPS respondents is the total number of addresses in the Massachusetts sampling frame. Let $j = 1, \dots, J$ index addresses for the $J = 9,578$ BGPS respondents, and $w_{0,j}$ represent $WT3$ for respondent j . The sum of the respondent's weight totals to the number of addresses in the Massachusetts frame used to select the

BGPS sample, $\sum_{j=1}^J W_{0,j} = 2,714,193$. We refer to the weight $w_{0,j}$ by the variable MW3WT1 in the Wave 3

MAGIC survey. The weights were assigned to 29 address categories as illustrated in Table 1.

Table 1. Weights for 29 Address Classes from the BGPS

Obs	region	addtyp	langsp	mode_at	mw3wt1	mw3wt1_n	mw3wt1_sum
1	1=West	1=SFDU-SFam	0=Non-Span	1=Web	104.603	619	64749.55
2	1=West	1=SFDU-SFam	0=Non-Span	2=SAQ	107.057	1183	126648.58
3	1=West	1=SFDU-SFam	0=Non-Span	3=CATI	114.565	162	18559.52
4	1=West	2=MFDU-MFam	0=Non-Span	1=Web	129.270	151	19519.70
5	1=West	2=MFDU-MFam	0=Non-Span	2=SAQ	132.302	251	33207.75
6	1=West	2=MFDU-MFam	0=Non-Span	3=CATI	141.580	41	5804.78
7	1=West	9=PO Box	0=Non-Span	1=Web	147.148	10	1471.48
8	1=West	9=PO Box	0=Non-Span	2=SAQ	150.599	23	3463.79
9	1=West	9=PO Box	0=Non-Span	3=CATI	161.161	1	161.16
10	1=West	1=SFDU-SFam	1=Spanish	1=Web	174.320	41	7147.14
11	1=West	1=SFDU-SFam	1=Spanish	2=SAQ	180.437	132	23817.67
12	1=West	2=MFDU-MFam	1=Spanish	1=Web	207.681	34	7061.16
13	1=West	1=SFDU-SFam	1=Spanish	3=CATI	210.387	18	3786.96
14	1=West	2=MFDU-MFam	1=Spanish	2=SAQ	214.968	96	20636.96
15	1=West	2=MFDU-MFam	1=Spanish	3=CATI	250.650	11	2757.15
16	2=East	1=SFDU-SFam	0=Non-Span	1=Web	290.715	1373	399152.08
17	2=East	1=SFDU-SFam	0=Non-Span	2=SAQ	297.431	2608	775698.82
18	2=East	1=SFDU-SFam	0=Non-Span	3=CATI	322.187	454	146272.98
19	2=East	2=MFDU-MFam	0=Non-Span	1=Web	408.650	551	225166.24
20	2=East	2=MFDU-MFam	0=Non-Span	3=CATI	408.650	180	73557.03
21	2=East	2=MFDU-MFam	0=Non-Span	2=SAQ	418.154	987	412717.65
22	2=East	1=SFDU-SFam	1=Spanish	1=Web	429.747	61	26214.57
23	2=East	1=SFDU-SFam	1=Spanish	2=SAQ	445.834	170	75791.74
24	2=East	1=SFDU-SFam	1=Spanish	3=CATI	524.626	26	13640.28
25	2=East	9=PO Box	0.08695652	1.2174	550.791	23	12668.19
26	2=East	2=MFDU-MFam	1=Spanish	1=Web	559.237	75	41942.75
27	2=East	2=MFDU-MFam	1=Spanish	2=SAQ	559.237	203	113525.04
28	2=East	9=PO Box	0=Non-Span	2=SAQ	563.600	43	24234.81
29	2=East	2=MFDU-MFam	1=Spanish	3=CATI	682.704	51	34817.93
						=====	=====
						9578	2714193.45

Weight Accounting for Respondents to the Wave 2 Survey (MW3WT2)

The MAGIC cohort is defined by respondents to a stratified probability sample of BGPS respondents. Two additional factors were used to adjust weights for the MAGIC cohort, given by

4. Adjust for the MAGIC probability sample design (MAGIC Design weight: MWT1)
5. Adjust for response rates to the MW2S study (MAGIC Wave 2 Completion weight: MWT2)

Details of the development of these weights are given in Appendix A3 to the report *Analysis of MAGIC Wave 2: Incidence and Transitions* (www.umass.edu/seigma/reports).

The MAGIC sample was selected from completed respondents of the 2014 BGPS who were stratified into six risk groups according to gambling behaviors, $k = 1, \dots, 6$. The weight adjusting for the MAGIC sampling design is formed by multiplying the weight MW3WT0 by the inverse of the probability of selection π_k for each of six strata. The probability of selection of the i^{th} address from each of the first

five risk groups is $\pi_k = 1$ for $k=1, \dots, 5$. The probability of selection of the low risk group is $\pi_6 = \frac{2348}{7066}$.

We represent the BGPS weight $w_{0,j}$ for respondent j as $w_{0,ik}$, the weight assigned to the respondent's address i in risk group k . The weight adjusted for the MAGIC sampling design is defined by

$$W_{1,ik}^* = \left(\frac{1}{\pi_k} \right) W_{0,ik}.$$

The total of the weights $W_{1,ik}^*$ for the 4,860 MAGIC sample subjects is 2,721,061.67. We multiply $W_{1,ik}^*$ by $2,714,193.45/2,721,061.67$ to preserve the total weight, such that

$$W_{1,ik} = \left(\frac{2,714,193.45}{2,721,061.67} \right) W_{1,ik}^*.$$

Table 2 summarizes the number of sample addresses in each of the six strata by characteristics of the addresses used in the BGPS non-response adjustment. Notice that the total number of sample addresses is 4,860.

Table 2. Number of Respondents in MAGIC Wave 2 Sample by Risk Class and Address Characteristics from the BGPS

Massachusetts Region: REGION	Language (Pooled): LANGSP2	Attempted Mode: MODE_AT	Type of Address: ADDTYP	PG	At Risk	\$1200 per y	Gamb Weekly	Vet 2001+	Low Risk	All
1=West	0=Non-Span	1=Web	1=SFDU-SFam	7	19	49	71	7	147	300
1=West	0=Non-Span	1=Web	2=MFDU-MFam	3	4	11	7	1	51	77
1=West	0=Non-Span	1=Web	9=PO Box	0	2	2	0	0	3	7
1=West	0=Non-Span	2=SAQ	1=SFDU-SFam	15	55	183	108	6	253	620
1=West	0=Non-Span	2=SAQ	2=MFDU-MFam	8	11	21	25	1	65	131
1=West	0=Non-Span	2=SAQ	9=PO Box	1	0	3	3	0	7	14
1=West	0=Non-Span	3=CATI	1=SFDU-SFam	0	6	14	19	1	36	76
1=West	0=Non-Span	3=CATI	2=MFDU-MFam	0	1	2	1	1	12	17
1=West	0=Non-Span	3=CATI	9=PO Box	0	0	0	0	0	1	1
1=West	1=Spanish	1=Web	1=SFDU-SFam	1	3	2	4	0	8	18
1=West	1=Spanish	1=Web	2=MFDU-MFam	2	3	3	4	0	8	20
1=West	1=Spanish	2=SAQ	1=SFDU-SFam	1	11	15	10	5	38	80
1=West	1=Spanish	2=SAQ	2=MFDU-MFam	1	8	9	12	0	27	57
1=West	1=Spanish	3=CATI	1=SFDU-SFam	0	1	3	2	0	2	8
1=West	1=Spanish	3=CATI	2=MFDU-MFam	0	2	0	1	0	0	3
2=East	0=Non-Span	1=Web	1=SFDU-SFam	10	65	121	116	8	362	682
2=East	0=Non-Span	1=Web	2=MFDU-MFam	6	29	39	26	5	140	245
2=East	0=Non-Span	2=SAQ	1=SFDU-SFam	34	118	353	201	7	625	1338
2=East	0=Non-Span	2=SAQ	2=MFDU-MFam	21	44	113	80	4	242	504
2=East	0=Non-Span	3=CATI	1=SFDU-SFam	4	14	56	39	2	113	228
2=East	0=Non-Span	3=CATI	2=MFDU-MFam	3	8	17	14	1	47	90
2=East	2=Any Lang	1=Web	9=PO Box	0	0	1	1	0	2	4
2=East	2=Any Lang	2=SAQ	9=PO Box	1	1	7	5	0	12	26
2=East	2=Any Lang	3=CATI	9=PO Box	0	0	0	0	0	0	0
2=East	1=Spanish	1=Web	1=SFDU-SFam	1	6	4	3	0	17	31
2=East	1=Spanish	1=Web	2=MFDU-MFam	2	6	2	4	0	19	33
2=East	1=Spanish	2=SAQ	1=SFDU-SFam	2	8	24	15	0	42	91
2=East	1=Spanish	2=SAQ	2=MFDU-MFam	8	14	24	11	0	52	109

2=East	1=Spanish	3=CATI	1=SFDU-SFam	0	3	4	3	0	9	19
2=East	1=Spanish	3=CATI	2=MFDU-MFam	2	7	6	7	0	8	30
2=East	2=Any Lang	1=Web	9=PO Box	0	1	0	0	0	0	1
2=East	2=Any Lang	2=SAQ	9=PO Box	0	0	0	0	0	0	0
				=====	=====	=====	=====	=====	=====	=====
				133	450	1088	792	49	2348	4860

We summarize the average weight assigned to the Wave 2 sample addresses after accounting for the Wave 2 survey design in Table 3.

Table 3. Average BGPS weight for Sample Addresses in the MAGIC Wave 2 Sample after accounting for Wave 2 Sample Design

Massachusetts Region:	Language (Pooled):	Attempted Mode:	Type of Address:	PG	At Risk	\$1200 per y	Gamb Weekly	Vet 2001+	Low Risk
REGION	LANGSP2	MODE_AT	ADDTYP						
1=West	0=Non-Span	1=Web	1=SFDU-SFam	104	104	104	104	104	314
1=West	0=Non-Span	1=Web	2=MFDU-MFam	129	129	129	129	129	388
1=West	0=Non-Span	1=Web	9=PO Box	0	147	147	0	0	442
1=West	0=Non-Span	2=SAQ	1=SFDU-SFam	107	107	107	107	107	321
1=West	0=Non-Span	2=SAQ	2=MFDU-MFam	132	132	132	132	132	397
1=West	0=Non-Span	2=SAQ	9=PO Box	150	0	150	150	0	452
1=West	0=Non-Span	3=CATI	1=SFDU-SFam	0	114	114	114	114	344
1=West	0=Non-Span	3=CATI	2=MFDU-MFam	0	141	141	141	141	425
1=West	0=Non-Span	3=CATI	9=PO Box	0	0	0	0	0	484
1=West	1=Spanish	1=Web	1=SFDU-SFam	174	174	174	174	0	523
1=West	1=Spanish	1=Web	2=MFDU-MFam	207	207	207	207	0	623
1=West	1=Spanish	2=SAQ	1=SFDU-SFam	180	180	180	180	180	542
1=West	1=Spanish	2=SAQ	2=MFDU-MFam	214	214	214	214	0	645
1=West	1=Spanish	3=CATI	1=SFDU-SFam	0	210	210	210	0	632
1=West	1=Spanish	3=CATI	2=MFDU-MFam	0	250	0	250	0	0
2=East	0=Non-Span	1=Web	1=SFDU-SFam	290	290	290	290	290	873
2=East	0=Non-Span	1=Web	2=MFDU-MFam	408	408	408	408	408	1,227
2=East	0=Non-Span	2=SAQ	1=SFDU-SFam	297	297	297	297	297	893
2=East	0=Non-Span	2=SAQ	2=MFDU-MFam	417	417	417	417	417	1,255
2=East	0=Non-Span	3=CATI	1=SFDU-SFam	321	321	321	321	321	967
2=East	0=Non-Span	3=CATI	2=MFDU-MFam	408	408	408	408	408	1,227
2=East	2=Any Lang	1=Web	9=PO Box	0	0	549	549	0	1,653
2=East	2=Any Lang	2=SAQ	9=PO Box	562	562	562	562	0	1,692
2=East	2=Any Lang	3=CATI	9=PO Box	0	0	0	0	0	0
2=East	1=Spanish	1=Web	1=SFDU-SFam	429	429	429	429	0	1,290
2=East	1=Spanish	1=Web	2=MFDU-MFam	558	558	558	558	0	1,679
2=East	1=Spanish	2=SAQ	1=SFDU-SFam	445	445	445	445	0	1,338
2=East	1=Spanish	2=SAQ	2=MFDU-MFam	558	558	558	558	0	1,679
2=East	1=Spanish	3=CATI	1=SFDU-SFam	0	523	523	523	0	1,575
2=East	1=Spanish	3=CATI	2=MFDU-MFam	681	681	681	681	0	2,049
2=East	2=Any Lang	1=Web	9=PO Box	0	549	0	0	0	0
2=East	2=Any Lang	2=SAQ	9=PO Box	0	0	0	0	0	0

The second adjustment to weights for Wave 2 accounts for four factors (education [HS or less, some college or college grad, some post-graduate education], presence of children [none/some], housing [own/rent], and past year frequency of gambling [none, some]) that were related to Wave 2 response rates. When cross-classified, these variables were used to classify the Wave 2 sample addresses into 25 groups (including one group where one or more variables were missing). Wave 2 response rates were calculated and ranged from 31% to 79% between groups. Smaller groups were combined with other

groups with similar response rates to form 19 groups for non-response adjustment. We change the indices for the sample addresses representing the weight for address i in risk group k , $w_{1,ik}$, now by sample address $j=1, \dots, n_m$ in group $m=1, \dots, M=19$, $w_{1,jm}$. The total number of sample addresses in Wave 2 is $\sum_{m=1}^{M=19} n_m = 4,860$.

The adjustment to the weights for Wave 2 non-response is made using the design weight $w_{1,jm}$ for sample addresses in each of the $m=1, \dots, M=19$ groups. Let c_{jm} to be an indicator variable that has a value of 1 if subject j completes the survey, and 0 otherwise. The completion adjusted weights are given by

$$w_{2,jm} = \left(\frac{T_m}{C_m} \right) w_{1,jm}$$

where $C_m = \sum_{j=1}^{n_m} c_{jm} w_{1,jm}$ and $T_m = \sum_{j=1}^{n_m} w_{1,jm}$. We refer to the weight $w_{2,jm}$ as MW3WT2.

Table 4 describes the number of addresses with respondents to the MAGIC Wave 2 survey by characteristics of the addresses used to account for non-response in the BGPS.

Table 4. Number of Respondent Addresses in the MAGIC Wave 2 Sample by Risk Class and Address Characteristics from the BGPS

Massachusetts Region:	Language (Pooled):	Attempted Mode:	Type of Address:	PG	At Risk	\$1200 per y	Gamb Weekly	Vet 2001+	Low Risk	All
REGION	LANGSP2	MODE_AT	ADDTYP							
1=West	0=Non-Span	1=Web	1=SF DU-SFam	6	13	42	54	5	116	236
1=West	0=Non-Span	1=Web	2=MF DU-MFam	2	3	9	5	1	29	49
1=West	0=Non-Span	1=Web	9=PO Box	0	2	1	0	0	3	6
1=West	0=Non-Span	2=SAQ	1=SF DU-SFam	7	34	132	70	5	153	401
1=West	0=Non-Span	2=SAQ	2=MF DU-MFam	5	9	13	14	1	28	70
1=West	0=Non-Span	2=SAQ	9=PO Box	1	0	1	2	0	3	7
1=West	0=Non-Span	3=CATI	1=SF DU-SFam	0	4	7	15	1	21	48
1=West	0=Non-Span	3=CATI	2=MF DU-MFam	0	0	1	0	0	6	7
1=West	0=Non-Span	3=CATI	9=PO Box	0	0	0	0	0	0	0
1=West	1=Spanish	1=Web	1=SF DU-SFam	1	2	2	3	0	5	13
1=West	1=Spanish	1=Web	2=MF DU-MFam	1	3	3	2	0	5	14
1=West	1=Spanish	2=SAQ	1=SF DU-SFam	1	8	11	6	5	20	51
1=West	1=Spanish	2=SAQ	2=MF DU-MFam	0	4	4	7	0	16	31
1=West	1=Spanish	3=CATI	1=SF DU-SFam	0	1	0	1	0	1	3
1=West	1=Spanish	3=CATI	2=MF DU-MFam	0	2	0	0	0	0	2
2=East	0=Non-Span	1=Web	1=SF DU-SFam	8	53	95	95	6	277	534
2=East	0=Non-Span	1=Web	2=MF DU-MFam	4	15	26	18	2	94	159
2=East	0=Non-Span	2=SAQ	1=SF DU-SFam	22	78	224	136	5	397	862
2=East	0=Non-Span	2=SAQ	2=MF DU-MFam	11	23	66	53	3	122	278
2=East	0=Non-Span	3=CATI	1=SF DU-SFam	1	8	33	16	2	59	119
2=East	0=Non-Span	3=CATI	2=MF DU-MFam	2	7	13	9	1	23	55
2=East	2=Any Lang	1=Web	9=PO Box	0	0	0	0	0	2	2
2=East	2=Any Lang	2=SAQ	9=PO Box	1	1	4	4	0	8	18
2=East	2=Any Lang	3=CATI	9=PO Box	0	0	0	0	0	0	0
2=East	1=Spanish	1=Web	1=SF DU-SFam	1	6	4	2	0	11	24
2=East	1=Spanish	1=Web	2=MF DU-MFam	1	3	1	3	0	8	16

2=East	1=Spanish	2=SAQ	1=SF DU - SFam	2	1	17	8	0	23	51
2=East	1=Spanish	2=SAQ	2=MF DU - MFam	3	10	15	7	0	26	61
2=East	1=Spanish	3=CATI	1=SF DU - SFam	0	0	2	1	0	6	9
2=East	1=Spanish	3=CATI	2=MF DU - MFam	1	4	0	3	0	4	12
2=East	2=Any Lang	1=Web	9=PO Box	0	1	0	0	0	0	1
2=East	2=Any Lang	2=SAQ	9=PO Box	0	0	0	0	0	0	0
				=====	=====	=====	=====	=====	=====	=====
				81	295	726	534	37	1466	3139

Table 5 gives the average weight assigned to addresses where there was a Wave 2 response. The total weight over all 3,139 addresses is 2,714,193.

Table 5. Average weight for Wave 2 Respondent Addresses in the MAGIC study after accounting for Wave 2 Non-Response

Massachusetts Region:	Language (Pooled):	Attempted Mode:	Type of Address:	PG	At Risk	\$1200 per y	Gamb Weekly	Vet 2001+	Low Risk
REGION	LANGSP2	MODE_AT	ADDTYP						
1=West	0=Non-Span	1=Web	1=SF DU - SFam	170	156	154	151	161	455
1=West	0=Non-Span	1=Web	2=MF DU - MFam	204	364	226	219	228	681
1=West	0=Non-Span	1=Web	9=PO Box	0	232	182	0	0	621
1=West	0=Non-Span	2=SAQ	1=SF DU - SFam	160	172	160	169	162	481
1=West	0=Non-Span	2=SAQ	2=MF DU - MFam	226	215	211	228	224	719
1=West	0=Non-Span	2=SAQ	9=PO Box	214	0	230	222	0	672
1=West	0=Non-Span	3=CATI	1=SF DU - SFam	0	175	170	183	184	509
1=West	0=Non-Span	3=CATI	2=MF DU - MFam	0	0	245	0	0	974
1=West	0=Non-Span	3=CATI	9=PO Box	0	0	0	0	0	0
1=West	1=Spanish	1=Web	1=SF DU - SFam	247	403	317	255	0	845
1=West	1=Spanish	1=Web	2=MF DU - MFam	406	395	372	359	0	1,265
1=West	1=Spanish	2=SAQ	1=SF DU - SFam	318	287	272	274	257	937
1=West	1=Spanish	2=SAQ	2=MF DU - MFam	0	410	389	395	0	1,122
1=West	1=Spanish	3=CATI	1=SF DU - SFam	0	322	0	322	0	968
1=West	1=Spanish	3=CATI	2=MF DU - MFam	0	434	0	0	0	0
2=East	0=Non-Span	1=Web	1=SF DU - SFam	420	447	431	425	429	1,299
2=East	0=Non-Span	1=Web	2=MF DU - MFam	957	816	674	673	580	2,029
2=East	0=Non-Span	2=SAQ	1=SF DU - SFam	485	483	445	456	458	1,389
2=East	0=Non-Span	2=SAQ	2=MF DU - MFam	926	735	699	795	667	2,060
2=East	0=Non-Span	3=CATI	1=SF DU - SFam	457	495	487	482	399	1,564
2=East	0=Non-Span	3=CATI	2=MF DU - MFam	759	687	709	960	798	1,911
2=East	2=Any Lang	1=Web	9=PO Box	0	0	0	0	0	2,202
2=East	2=Any Lang	2=SAQ	9=PO Box	1,101	800	774	1,014	0	2,397
2=East	2=Any Lang	3=CATI	9=PO Box	0	0	0	0	0	0
2=East	1=Spanish	1=Web	1=SF DU - SFam	690	856	716	600	0	2,522
2=East	1=Spanish	1=Web	2=MF DU - MFam	968	961	1,791	1,065	0	3,106
2=East	1=Spanish	2=SAQ	1=SF DU - SFam	930	633	671	740	0	2,027
2=East	1=Spanish	2=SAQ	2=MF DU - MFam	952	1,132	1,094	1,671	0	3,245
2=East	1=Spanish	3=CATI	1=SF DU - SFam	0	0	774	909	0	2,951
2=East	1=Spanish	3=CATI	2=MF DU - MFam	1,334	1,638	0	1,334	0	4,076
2=East	2=Any Lang	1=Web	9=PO Box	0	842	0	0	0	0
2=East	2=Any Lang	2=SAQ	9=PO Box	0	0	0	0	0	0

Weight Accounting for Respondents to the Wave 3 Survey (MW3WT3)

The third adjustment to the weights accounts for differential non-response in Wave 3. All 3,139 MAGIC cohort subjects were attempted to be interviewed in Wave 3. The results of the interviews are summarized in Table 6 which provides the completion status for each subject.

Table 6. Completion Status for MAGIC Cohort Subjects in Wave 3

	Wave3: MW3WT2	

	N in	
	Cohort	Total MW3WT2

Disposition		

C: Completed Survey	2,450	2,079,611

C1: Different resp	5	4,743

ER: Not Complete	8	6,710

J: Deceased/ineligible	22	14,742

NR:Undeliverable	132	142,457

UO:Confirmed HH, unscreened	23	20,301

U2:No contact	499	445,629

All	3,139	2,714,193

Completed surveys were obtained from 2,450 of the 3,139 subjects in the MAGIC cohort. The first step in adjusting the weights for response is to drop from the cohort the 22 subjects who were deceased/ineligible. The total number of addresses represented by the remaining 3,117 Wave 3 cohort members is 2,699,451. Among these 3,117 cohort members, completed response was obtained for 2,450 (78.6%) individuals.

A stepwise logistic regression was used to determine the most significant variables related to the rate of response. Variables included in the model, along with p-values of the test of homogeneity of response rates, are given in Table 7.

For eight variables (gender, age, race, education, children in household, home ownership, US born, and disability), when the response was missing in Wave 2, the response from the BGPS was used, if available. For other variables (employment, marital status, and family issues around gambling) as well as gambling variables (saliency of gambling, frequency of gambling, and number of gambling formats), the Wave 2 response was used. Finally, four variables from the address frame were examined for differential response rates. Many of these variables were statistically significant in relation to the response rate for Wave 3.

Table 7. Variables Used to Identify Groups of Sample Addresses with Different Response Rates for Wave 2

Variable	Source	Categories	Variable Name	P-Value (excluding Missing Values)
Gender	Wave-2, if Missing BGPS	Male, Female	Gender_W2	0.0258
Age	Wave-2, if Missing BGPS	19-34;35-49;50-64;65+	AGE_w2	0.7686
Race	Wave-2, if Missing BGPS	Black, Hispanic, Asian, White/other	Race_Magic	0.0001
Education	Wave-2, if Missing BGPS	HS or less; some college/grad; some post-grad	Education_d6	0.0001
Children	Wave-2, if Missing BGPS	none; some	Children_d5	0.0976
Home Ownership	Wave-2, if Missing BGPS	own; rent/other	Own_d9	0.0029
Born in US	Wave-2, if Missing BGPS	Yes; No	D12_RMC	0.0001
Disabilities	Wave-2, if Missing BGPS	Yes; No	C12_RMC	0.0001
Employment	Wave-2	employed; other	D7A_RM	0.4119
Marital Status	Wave-2	Never married; living with partner; married; separated; divorced; widowed	D4_RM	0.0084
Family Gambling Issues around gambling	Wave-2	Yes; No	GPo2_RM	0.8791
Saliency of Gambling	Wave-2	Very harmful; harmful; neutral; beneficial; very beneficial	GA5_RM	0.1226
Frequency of Gambling	Wave-2	none; in past year; monthly; weekly	ANYGAMEF1	0.0515
# of Gambling Formats	Wave-2	0-2 or 3+	NGAMBF_r	0.0102
Region	BGPS	East; West	REGION	0.5299
Type of Address	BGPS	Single Family; Multiple Family; PO Box	ADDTYP	0.1113
Language	BGPS	Non-Spanish; Spanish; Other	LANGSP2	0.734
BGPS Mode Attempt	BGPS	Web; SAQ; CATI	MODE_AT	0.0001
Source: gmed18p11.sas				
Table in MAGIC2018-documentation-stanek.xlsx				

The non-response adjustment is an adjustment to the weights (*MW3WT2*) to compensate for differences in completed response rates across subgroups for addresses selected in the MW3S. The weights are adjusted to account for varying completion rates. The adjustment is made by forming non-response adjustment cells (ℓ).

A stepwise logistic regression analysis was used to determine the variables most strongly related to completing the MW3S survey. The dependent variable of interest was whether a survey was completed. The independent variables used in the logistic regression are the 18 variables summarized in Table 7. Nearly all variables (except region and type of address) were significantly related to response rates at the 0.10 level, and five variables (given in order of inclusion as BGPS mode attempt, US born, education, disability, and number of gambling formats) were significant at the 0.05 level. Addresses where one or more of the variables was missing (n=179) were not included in the logistic analysis.

We limit subsequent investigation of non-response to cells formed by a cross-classification of the five variables that were significantly related to response at the 0.05 level. Our goal in this investigation was to define non-response adjustment cells, each of which had a minimum of 50 sample addresses, where the response rates for the addresses were homogeneous.

Among the 5 variables that were statistically significantly related to non-response, one or more of the variables was missing for n=10 of the addresses at Wave 2.

Completed questionnaires at Wave 3 were obtained for 4 of these addresses, resulting in a 40% response rate. We examined the response rates for the 3,107 cohort addresses for the five variables

(with no missing data) that were significant at the 0.05 level in the logistic regression model. A description of these rates is given in Table 8.

Table 8. Completion Status for MAGIC Cohort Subjects in Wave 3

	Wave3 Complete	
	N in Cohort	Percent Complete
BGPS Mode Attempt		
1=Web	1,048	85.78%
2=SAQ	1,808	76.71%
3=CATI	251	63.75%
US Born?		
No	352	65.91%
Yes	2,755	80.36%
Education		
HS	577	71.06%
College	1,674	79.27%
Grad	856	82.83%
Disability?		
No	2,856	79.62%
Yes	251	68.53%
# Gambling Formats		
0-2	1,620	76.79%
3-10	1,487	80.83%

We note that the lowest completion rates occurred for addresses where the BGPS contact was via telephone (CATI) (63.75%), where the respondent was not born in the US (65.91%), and where the respondent reported a disability (68.53%). We developed address groups based on response to the five variables (last mode of attempted interview in the BGPS, born in the US, education, disability, and number of gambling formats participated in) that had different response rates in Wave 3. A total of 18 address groups with 50 or more sample addresses were developed, as summarized in Table 9.

Table 9. Response Rates By Address Groups Formed from 5 Variables for Wave 3

Wave 3 Non-response Groups: GROUPW3	N Sample Addresses	N Response	Percent Response
1= CATI BornUS?=N Any Edu Disab=Y Any#Formats	87	42	48.28%
7= Web BornUS?=Y MixedEd Disab=Y Mixed Fmts	83	51	61.45%
3= SAQ BornUS?=N HS/Coll Disab=N Any#Formats	142	90	63.38%
6= Web BornUS?=N Any Edu Disab=N 0-2 Formats	80	52	65.00%
4= CATI BornUS?=Y Oth Edu Disab=N Any#Formats	127	83	65.35%
8= Web BornUS?=Y HS Disab=N 0-2 Formats	146	105	71.92%
11= Web BornUS?=Y HS AnyDisab 3+Formats	193	140	72.54%
2= SAQ BornUS?=N Grad Disab=N Any#Formats	58	43	74.14%
9= Web BornUS?=Y College Disab=N 0-2 Formats	349	267	76.50%
5= CATI BornUS?=Y College Disab=N 3+Formats	53	41	77.36%
12= Web BornUS?=Y College AnyDisab 3+Formats	452	370	81.86%
10= Web BornUS?=Y Grad AnyDisab 0-2 Fmts	237	197	83.12%
14= Web BornUS?=Y HS Mixed Any#Formats	89	75	84.27%
18= Web BornUS?=Y Grad Mixed 3+Formats	135	116	85.93%
13= Web BornUS?=Y Grad Disab=N 3+Formats	138	119	86.23%
15= Web BornUS?=Y College Mixed 0-2 Formats	243	210	86.42%
16= Web BornUS?=Y College Mixed 3+Formats	319	281	88.09%
17= Web BornUS?=Y Grad Mixed 0-2 Formats	186	168	90.32%
	=====	=====	
	3117	2450	

The smallest group had 53 sampled addresses. The response rate ranged from 48.28% to 90.32% between the groups.

The adjustment to the weights for the completion status is made using the Wave 2 weight (MW3WT2) for sample addresses in each of the $p=1, \dots, P=18$ groups. Let $w_{1,jp}$ represent the MW3WT2 weight for the j^{th} sample subject in group p , where $j=1, \dots, n_p$ indexes the subjects in group p . Also, define c_{jp} to be an indicator variable that has a value of 1 if subject j completes the Wave 3 survey, and 0 otherwise. The completion adjusted weights are given by

$$w_{3,jp} = \left(\frac{S_p}{R_p} \right) w_{2,jp}$$

where $R_p = \sum_{j=1}^{n_p} c_{jp} w_{2,jp}$ and $S_p = \sum_{j=1}^{n_p} w_{2,jp}$.

The ratios, $\frac{S_p}{R_p}$, determine how different the Wave 2 weight, $w_{1,jp}$ i.e. MW3WT2, is from the weight adjusted for Wave 3 non-response, $w_{3,jp}$ i.e. MW3WT3. The reciprocal of this ratio is closely related to the completion rate (i.e. the proportion of sample addresses where a Wave 3 survey was completed). When there are few sample subjects in a group, the relative standard deviation of the completion rate is large. This is particularly true when the completion rate is low, leading to large ratios $\frac{S_p}{R_p}$. Table 10 illustrates the non-response weight ratios and relative standard deviation.

Table 10. Non response weighting for wave 3

Wave3 BGPS Mode	Non-Resp Born US?	Groups			Total Sample mw3wt2: MW3WT2_S	Total Complete mw3wt2: MW3WT2C_S	Wave 3 Non-Response Adj Ratio: RATIO_W3	N Sample: MW3WT2_N	N Complete: MW3WT2C_N	Wave 3 Response Rate: RESP_W3	Relative SE in MW3WT3 weight	
		Born	Disab?	Fmts								
1	CATI	N	Any	Y	Any	97,231	45,492	2.14	87	42	48.3%	11.1%
2	SAQ	N	Grad	N	Any	66,551	51,493	1.29	58	43	74.1%	7.8%
3	SAQ	N	HS/Co	N	Any	156,164	93,158	1.68	142	90	63.4%	6.4%
4	CATI	Y	Oth	N	Any	133,784	86,569	1.55	127	83	65.4%	6.5%
5	CATI	Y	Coll	N	3+	38,502	29,869	1.29	53	41	77.4%	7.4%
6	Web	N	AnyEdu	N	0-2	114,849	73,386	1.57	80	52	65.0%	8.2%
7	Web	Y	Mixed	Y	Mix	72,010	46,564	1.55	83	51	61.4%	8.7%
8	Web	Y	HS	N	0-2	118,076	81,900	1.44	146	105	71.9%	5.2%
9	Web	Y	Coll	N	0-2	357,462	271,198	1.32	349	267	76.5%	3.0%
10	Web	Y	Grad	Any	0-2	248,891	206,275	1.21	237	197	83.1%	2.9%
11	Web	Y	HS	Any	3+	117,948	86,440	1.36	193	140	72.5%	4.4%
12	Web	Y	Coll	Any	3+	285,684	229,435	1.25	452	370	81.9%	2.2%
13	Web	Y	Grad	N	3+	89,009	77,167	1.15	138	119	86.2%	3.4%
14	Web	Y	HS	Mix	Any	70,438	54,960	1.28	89	75	84.3%	4.6%
15	Web	Y	Coll	Mix	0-2	242,168	209,800	1.15	243	210	86.4%	2.5%
16	Web	Y	Coll	Mix	3+	193,368	168,689	1.15	319	281	88.1%	2.1%
17	Web	Y	Grad	Mix	0-2	198,803	180,042	1.10	186	168	90.3%	2.4%
18	Web	Y	Grad	Mix	3+	98,513	87,173	1.13	135	116	85.9%	3.5%

We note that none of the relative standard deviations are greater than 30%, indicating adequate stability in the response-weight adjustment. A summary of the weights adjusting for non-response is given in Table 11.

We define the MAGIC Wave 3 weight adjusted for non-response groups $p=1,\dots,P=18$ as $w_{3,j}$, where $j=1,\dots,2,450$ indexes the MAGIC Wave 3 sample subjects who completed the questionnaire.

Table 11. Wave 3 Non-response Adjusted Weights

Wave3 Non-Resp Groups					N Sample	Total Sample	N Wave 3	Total Complete	
BGPS	Born	#			Address:	mw3wt2:	Complete:	mw3wt3:	
Mode	US?	Edu	Disab?	Fmts	MW3WT2_N	MW3WT2_S	MW3WT3_N	MW3WT3C_S	
1	CATI	N	Any	Y	Any	87	97,231	42	97,231
2	SAQ	N	Grad	N	Any	58	66,551	43	66,551
3	SAQ	N	HS/Co	N	Any	142	156,164	90	156,164
4	CATI	Y	Oth	N	Any	127	133,784	83	133,784
5	CATI	Y	Coll	N	3+	53	38,502	41	38,502
6	Web	N	AnyEdu	N	0-2	80	114,849	52	114,849
7	Web	Y	Mixed	Y	Mix	83	72,010	51	72,010
8	Web	Y	HS	N	0-2	146	118,076	105	118,076
9	Web	Y	Coll	N	0-2	349	357,462	267	357,462
10	Web	Y	Grad	Any	0-2	237	248,891	197	248,891
11	Web	Y	HS	Any	3+	193	117,948	140	117,948
12	Web	Y	Coll	Any	3+	452	285,684	370	285,684
13	Web	Y	Grad	N	3+	138	89,009	119	89,009
14	Web	Y	HS	Mix	Any	89	70,438	75	70,438
15	Web	Y	Coll	Mix	0-2	243	242,168	210	242,168
16	Web	Y	Coll	Mix	3+	319	193,368	281	193,368
17	Web	Y	Grad	Mix	0-2	186	198,803	168	198,803
18	Web	Y	Grad	Mix	3+	135	98,513	116	98,513
					=====	=====	=====	=====	
					3,117	2,699,451	2,450	2,699,451	

Adjustment for Household Size (MW3WT4)

The fourth adjustment in the weights is for household size. The number of persons 18 years or older living the household was recorded in the MAGIC survey or recovered from the Wave 2 or the BGPS if missing in Wave 3. The distribution of household size (truncated to a maximum of 7) for completed respondents is given in Table 12.

Table 12. Number of 18+ persons in HH by Region with Completed Wave 3 Survey

Frequency	1=West	2=East	Total
.	23	49	72
1	207	409	616
2	382	870	1252
3	99	240	339
4	27	96	123
5	5	35	40
6	0	5	5
7	0	3	3
Total	743	1707	2450

In Western MA, the total number of persons age 19+ based on the 2016 PUMS data is 650,287, while the total weight (MW3WT3, which is equal to the number of addresses, or households) for addresses with a Wave 3 respondent in Western MA is 352,709. We use age 19 and older for the PUMS data since the MAGIC cohort will have aged one year since it was established in Wave 2. This corresponds to an average household size of $1.84 = \frac{650,287}{352,709}$. In Eastern MA, the total number of persons age 19+ based

on the 2016 PUMS data is 4,675,299 (see gmed18p016.sas), while the total weight (MW3WT3, which is equal to the number of addresses, or households) for addresses with a Wave 3 respondent in Western MA is 2,346,742. This corresponds to an average household size of $1.99 = \frac{4,675,299}{2,346,742}$. We assign an

average household size of 2 to addresses of respondents where the household size was missing. We further truncated the household size, represented by h_j for respondent j , to a maximum of 4 in an effort to limit the variability of the survey weights. The weight adjusted for household size is given by

$$w_{4,j}^* = h_j w_{3,j}$$

The average weight assigned by household size and region is given in Table 13.

Table 13. Initial Household Size (Max=4) Adjusted Weight for MAGIC Wave 3 by Region

Massachusetts Region: REGION									

1=West			2=East			All			

	N	Ave MW3WT4A	Sum MW3WT4A	N	Ave MW3WT4A	Sum MW3WT4A	N	Ave MW3WT4A	Sum MW3WT4A

HH Size									

1.00	207	535	110,779	409	1,567	640,755	616	1,220	751,534

2.00	405	900	364,554	919	2,621	2,408,609	1324	2,095	2,773,162

3.00	99	1,451	143,672	240	4,099	983,787	339	3,326	1,127,459

4.00	32	1,470	47,050	139	5,000	695,017	171	4,340	742,067

All	743	896	666,055	1707	2,770	4,728,167	2450	2,202	5,394,222

We compare the total weight in Western MA and Eastern MA with the number of persons 19+ years of age based on the 2016 PUMS data by region. In Western MA, the 2016 PUMS total is 650,287, while the total weight accounting for household size is 666,055. In order to have the weights total to the MA PUMS total in Western MA, we multiply the household size adjusted weights in Western MA by

$k_w = \frac{650,287}{666,055}$. As a result, the household size adjusted weight in Western MA is given by

$$W_{4,j} = k_w W_{4,j}^* \\ = k_w h_j W_{3,j}$$

Similarly, in Eastern MA, the 2016 PUMS total is 4,675,299, while the total weight accounting for household size is 4,728,167. In order to have the weights total to the MA PUMS total in Eastern MA, we multiply the household size adjusted weights in Eastern MA by $k_e = \frac{4,675,299}{4,728,167}$. As a result, the

household size adjusted weight in Eastern MA is given by

$$W_{4,j} = k_e W_{4,j}^* \\ = k_e h_j W_{3,j}$$

With these adjustments, the total weight of 5,394,222 matches the 19+ year old MA population in 2016.

Adjusting weights using raking based on cross-classified pairs of the variables region, age, gender, age, race/ethnicity, education (MW3WT5)

We adjusted weights assigned to respondents to more closely align with the distribution of 19+ year old persons in MA by region (Western, Eastern MA), age (19-34, 35-49, 50-64, 65+), gender (male, female), race/ethnicity (Hispanic, Black [only], Asian [only], White and other), and education (high school or less, some college/college graduate, some post graduate education). We determined raking variables via a preliminary analysis of the 2016 one-year American Community Survey Public Use Microdata Sample (PUMS) files. In an ideal setting, reliable PUMS data for population totals would be available for a full

cross-classification of adjustment variables. In practice, estimates of the population in the PUMS data are based on an approximate 1% sample of the MA population, and the PUMS data themselves are weighted to estimate the number of subjects in each post-stratum. For this reason, we did not use a cross-classification of all 5 variables to define post-strata for weighting. Instead, we constructed pairs of variables, using 10 pairs (i.e., region x age, region x gender, etc.).

The maximum coefficient of variation of the mean statistical weight for subjects in a stratum was 48.2% (for n=176 Western MA, Asian PUMS respondents). The coefficient of variation for all other strata (except Black respondents with some graduate education, cvm=31.02% n=245) was less than 30% and all strata had more than 200 subjects. We elected to rake on pairs of primary variables and to use all possible pairs of the primary variables as raking variables. By cross-classifying pairs of primary variables, a large number of PUMS respondents were in each cell for the cross classifications. Smaller numbers of subjects were present in cells based on subjects with completed MAGIC surveys.

Raking by pairs of the primary variables guarantees a representative weight (i.e., a weight that matches the population weight) for each pair. This means that fitted models using weighting will properly represent the population distribution for up to two-way interactions with the primary outcome variables.

Region was reported for all respondents, but each of the other variables was missing for one or more respondents. Age was missing on 13 respondents (0.53%), race was missing on 10 respondents, while there was no missing data for gender or education. A summary of the respondents by a detailed cross-classification of the raking variables is given in Table 14a and Table 14b.

Table 14a. Summary of age, race, gender, and education for Magic Wave 3 Respondents

Massachusetts Region: REGION=1=West

		1=<=HS		2=Col.		3=Grad			
Age		1=Male	2=Fem.	1=Male	2=Fem.	1=Male	2=Fem.	All	
	RACE_PS								
1=19-34	1=Hisp.	.	2	2	4	.	1	9	
	2=White	.	2	9	15	4	8	38	
	3=Black	.	.	.	.	.	1	1	
	4=Asian	.	.	.	1	.	.	1	
2=35-49	1=Hisp.	1	3	1	2	.	2	9	
	2=White	3	9	27	34	14	18	105	
	3=Black	1	.	2	1	1	.	5	
	4=Asian	.	.	1	.	.	3	4	
	5=Miss	.	.	.	1	.	.	1	
3=50-64	1=Hisp.	2	2	1	9	.	.	14	
	2=White	16	29	65	80	12	24	226	
	3=Black	1	.	4	3	1	3	12	
	4=Asian	.	.	.	.	.	2	2	
	5=Miss	.	.	1	.	.	.	1	
4=65+	1=Hisp.	1	1	1	1	.	.	4	
	2=White	40	44	71	66	45	31	297	
	3=Black	.	2	2	2	.	.	6	
	4=Asian	.	.	.	.	1	1	2	
5=Miss	2=White	.	1	.	4	.	1	6	
All		65	95	187	223	78	95	743	

Table 14b. Summary of age, race, gender, and education for Magic Wave 3 Respondents

Massachusetts Region: REGION=2=East

		1=<=HS		2=Col.		3=Grad		
Age		1=Male	2=Fem.	1=Male	2=Fem.	1=Male	2=Fem.	All
	RACE_PS							
1=19-34	1=Hisp.	1	2	2	4	.	3	12
	2=White	1	5	28	36	15	24	109
	3=Black	.	.	3	3	1	1	8
	4=Asian	.	.	3	5	5	1	14
2=35-49	1=Hisp.	1	1	1	4	1	5	13
	2=White	7	6	69	77	39	69	267
	3=Black	1	.	5	2	.	1	9
	4=Asian	.	.	7	3	7	8	25
	5=Miss	.	.	.	.	.	2	2
3=50-64	1=Hisp.	1	2	4	4	.	1	12
	2=White	34	35	133	156	77	93	528
	3=Black	1	2	5	1	3	1	13
	4=Asian	2	3	1	4	1	3	14
	5=Miss	.	.	.	1	.	1	2
4=65+	1=Hisp.	4	1	1	2	.	1	9
	2=White	63	75	176	156	115	55	640
	3=Black	3	4	3	4	.	1	15
	4=Asian	1	.	1	.	2	1	5
	5=Miss	.	.	.	.	2	1	3
5=Miss	2=White	.	.	.	2	.	.	2
	3=Black	.	.	.	.	1	.	1
	4=Asian	.	.	.	1	.	2	3
	5=Miss	.	.	.	.	1	.	1
All		120	136	442	465	270	274	1707

We allowed for missing values for the primary variables when defining cells for raking. For example the first raking variable, V1, was region x age. If each of the primary variables was known on each respondent, V1 would have 8 categories corresponding to a cross-classification of the region x age categories=2 x 4. Since age was not reported by all respondents, we added a 5th category to age corresponding to “missing age.” As a result, the variable V1 used for raking had 10=2 x 5 categories.

With 5 primary variables, there are 10 ways of pairing primary variables to form raking variables. Each raking variable corresponds to a different pair of primary variables. Raking was accomplished in steps, by consecutively using each of the raking variables to align the sample weighted marginal to the population marginal. We refer to the consecutive raking of all 10 raking variables as an iteration. This process was continued until the sample weights converged to the population weights for each of the raking variables.

Each of the MAGIC respondents was assigned a survey weight, MW3WT4, based on other characteristics prior to raking. The weights were assigned so that the total weight for the respondents matched the PUMS 2016 weight for MA.

Description of a Step in the Raking

Raking was accomplished using a SAS program written for this purpose. We summarize the process here using the first raking variable, V1, corresponding to region x age. The first step was to evaluate the total weight (MW3WT4) in each of the 2 x 5 =10 cells for the sample. Let us refer to these weights by x_{ij} for $i=1,\dots,2$ (corresponding to regions), and $j=1,\dots,5$ (corresponding to age categories, where $j=5$ corresponds to ‘missing age’). The population weights, p_{ij} , were based on the 2016 PUMS data (created by gmed17p017.sas). Among the population data, there were no missing values. Using the categories of region and age, the total population was the sum over 2 x 4 = 8 cells, $p_{++} = \sum_{i=1}^2 \sum_{j=1}^4 p_{ij}$. As a result, when raking by the variable V1, we first re-allocated PUMS data to form categories representing “missing age.”

Forming Adjusted Population Weights Accounting for Missing Values in Primary Variables

We illustrate the process of forming adjusted population weights using the adjustment for V1, region x age, as an example. Let the total sample and population weight in region i be given by $x_{i+} = \sum_{j=1}^5 x_{ij}$ and

$p_{i+} = \sum_{j=1}^4 p_{ij}$, respectively. We assign population weights to cells in a region where age is missing

proportional to the weight assigned to these cells in the sample in the region, $p_{i5}^* = p_{i+} \left(\frac{x_{i5}}{x_{i+}} \right)$. We refer

to these population weights as ‘adjusted’ weights, since they are adjusted for missing values in the primary variables. Population weights for individual cells with age known in a region are adjusted to

preserve the overall population weight in the region, p_{i+} , such that $p_{ij}^* = p_{ij} \left(\frac{p_{i+} - p_{i5}^*}{p_{i+}} \right)$, for $i=1,\dots,2$ and

$j=1,\dots,4$.

We illustrate this for V1, corresponding to Region x Age in Table 15. The first column contains the initial 2016 PUMS data, while the second column has the PUMS totals adjusted for missing data. The third column contains the totals based on MW3WT4 prior to accounting for missing values.

Table 15. PUMS and MWT3 Weight Totals For Wave 2 MAGIC Respondents Adjusting for Missing Data for V1

	1=PUMS Original	2=PUMS Adjusted	3=Sample
1=W 18-34	189,633	187,644	56,203
2=W 35-49	143,445	141,941	126,360
3=W 50-64	174,293	172,465	215,495
4=W 65+	142,916	141,417	245,408
5=W Miss	0	6,820	6,820
6=E 18-34	1,356,969	1,347,487	608,192
7=E 35-49	1,145,751	1,137,745	906,996
8=E 50-64	1,239,045	1,230,387	1,657,371
9=E 65+	933,534	927,011	1,470,070
10=E Miss	0	32,670	32,670
All	5,325,586	5,325,586	5,325,586

A similar process was followed to adjust the population weights for missing values with other primary variables.

Matching Sample to Population Marginals for Steps with Raking Variables 1-10

The total sample weight assigned to a cell for a raking variable is the sum of MWT4 assigned to respondents in that cell. We index categories for the 5 primary variables by $i=1,2$ for region, $j=1,\dots,5$ for age, $k=1,\dots,2$ for gender, $l=1,\dots,5$ for race, and $m=1,\dots,3$ for education. Respondents within a cell are indexed by $q=1,\dots,n_{ijklm}$. The total sample weight assigned to a cell for the first raking variable, V1, is given by

$$\begin{aligned}
 x_{ij} &= \sum_{k=1}^2 \sum_{l=1}^5 \sum_{m=1}^3 x_{ijklm} \\
 &= \sum_{k=1}^2 \sum_{l=1}^5 \sum_{m=1}^3 \left(\sum_{q=1}^{n_{ijklm}} x_{ijklmq} \right)
 \end{aligned}$$

where $x_{ijklm} = \sum_{q=1}^{n_{ijklm}} x_{ijklmq}$. The first step in an iteration of raking aligns the sample marginal to the

population marginal by forming the new weight for cells based on the full cross-classification of the five variables, such that

$$x_{ijklm}^{(1)} = x_{ijklm} \left(\frac{p_{ij}^*}{x_{ij}^{(1)}} \right).$$

Using these weights, the total weight is evaluated for each cell corresponding to the next raking variable, V2 (corresponding to region x sex), i.e. $x_{ik}^{(1)} = \sum_{j=1}^5 \sum_{l=1}^5 \sum_{m=1}^3 x_{ijklm}^{(1)}$. Once again, using the population marginal weights, we align the sample marginal to the population marginal for V2, such that

$$x_{ijklm}^{(2)} = x_{ijklm}^{(1)} \left(\frac{p_{ik}^*}{x_{ik}^{(1)}} \right).$$

This process is continued for each of the 10 raking variables, resulting in the marginal total weights in each cell after one iteration given by $r_{ijklm}^1 = x_{ijklm}^{(10)}$. Table 16 summarizes the sample and aligned population weights prior to raking for each of the 10 raking variables.

Table 16a. Magic (Wave 3) Sample and Aligned Population Weights Prior to Raking on 10 Variables

Step 1: Region x Age		Western MA					Eastern MA				
		18-34	35-49	50-64	65+	Missing	18-34	35-49	50-64	65+	Missing
Pop Margin		187,644	141,941	172,465	141,417	6,820	1,347,487	1,137,745	1,230,387	927,011	32,670
Samp Margin		56,203	126,360	215,495	245,408	6,820	608,192	906,996	1,657,371	1,470,070	32,670

Step 2: Region x Sex		Western MA		Eastern MA	
		Male	Female	Male	Female
Pop Margin		307,577	342,710	2,240,193	2,435,106
Samp Margin		248,515	401,772	2,141,689	2,533,610

Step 3: Region x Race		Western MA					Eastern MA				
		Hispanic	White	Black	Asian	Missing	Hispanic	White	Black	Asian	Missing
Pop Margin		84,037	513,644	33,694	17,118	1,794	431,982	3,580,778	305,895	318,476	38,168
Samp Margin		77,866	523,050	33,019	14,557	1,794	265,226	3,933,230	175,770	262,905	38,168

Step 4: Region x Edu		Western MA			Eastern MA		
		LE HS	College	Grad	LE HS	College	Grad
Pop Margin		249,671	319,531	81,085	1,546,418	2,301,156	827,725
Samp Margin		154,827	351,389	144,071	680,923	2,482,987	1,511,389

Step 5: Age x Sex		18-34		35-49		50-64		65+		Miss	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Pop		766,352	768,782	625,162	654,475	677,118	725,740	460,247	608,221	13,405	26,086
Samp		231,057	433,338	417,520	615,837	786,426	1,086,440	941,796	773,682	13,405	26,086

Table 16b. Magic (Wave 3) Sample and Aligned Population Weights Prior to Raking on 10 Variables

Step 6: Age x Race

	18-34					|	35-49				
	Hisp	White	Black	Asian	Miss		Hisp	White	Black	Asian	Miss
Pop	220,950	1,058,311	118,262	129,518	0	156,944	922,222	93,093	100,632	13,194	
Samp	98,888	447,311	40,808	77,387	0	85,839	798,344	32,831	103,149	13,194	
	50-64					|	65+				
	Hisp	White	Black	Asian	Miss		Hisp	White	Black	Asian	Miss
Pop	92,194	1,159,522	79,925	63,821	6,918	43,146	933,084	46,592	40,012	7,755	
Samp	83,921	1,662,442	59,324	60,262	6,918	74,445	1,538,264	74,517	20,497	7,755	
	Miss Age										
	Hisp	White	Black	Asian	Miss						
Pop	0	9,919	1,309	16,167	12,096						
Samp	0	9,919	1,309	16,167	12,096						

Step 7: Age x Edu

	18-34			|	35-49			|	35-49		
	HS	Coll	Grad		HS	Coll	Grad		HS	Coll	Grad
Pop	438,381	904,480	192,273	373,664	628,661	277,312	493,766	668,196	240,895		
Samp	55,510	426,762	182,123	85,306	535,095	412,955	293,680	1010262	568,925		
	65+			|	Missing						
	HS	Coll	Grad		HS	Coll	Grad				
Pop	476,960	399,917	191,591	1,420	15,669	22,401					
Samp	399,833	846,589	469,056	1,420	15,669	22,401					

Step 8: Sex x Race

	Male					|	Female				
	Hisp	White	Black	Asian	Miss		Hisp	White	Black	Asian	Miss
Pop	251,790	1,956,012	162,626	158,223	16,287	264,117	2,138,348	177,006	177,501	23,675	
Samp	114,208	2,020,766	123,518	115,425	16,287	228,885	2,435,514	85,271	162,037	23,675	

Table 16c. Magic (Wave 3) Sample and Aligned Population Weights Prior to Raking on 10 Variables

Step 9: Sex x									
	Male			Female					
	HS	Coll	Grad	HS	Coll	Grad			
Pop	927,529	1,203,367	416,874	868,560	1,417,320	491,936			
Samp	346,721	1,254,382	789,101	489,029	1,579,994	866,359			
Step 10: Race x Edu									
	Hispanic			White			Black		
	HS	Coll	Grad	HS	Coll	Grad	HS	Coll	Grad
Pop	295,179	189,625	31,103	1,247,287	2,104,904	742,170	146,235	164,864	28,533
Samp	108,683	183,517	50,893	660,552	2,400,181	1,395,546	39,771	139,057	29,961
	Asian			Missing					
	HS	Coll	Grad	HS	Coll	Grad			
Pop	93,910	141,629	100,185	0	3,093	36,869			
Samp	26,744	108,529	142,190	0	3,093	36,869			

Iterating Raking

We repeat the process of aligning the marginals over the 10 raking variables using the raked marginal, $r_{ijklm}^{(t-1)}$, until the marginal totals based on the raked weights, i.e. $r_{ij}^t = \sum_{k=1}^3 \sum_{l=1}^5 \sum_{m=1}^4 r_{ijklm}^t$ for cells in V1-V10 at

iteration t , are sufficiently close to the population marginal weights, p_{ij}^* . The criterion for closeness is the maximum (over all cells) of the percent difference in weight between the raked sample weight and the population weight. This criterion is determined by evaluating the maximum percent difference in marginal weight for each raking variable, given by

$$m_1^t = \max \left[100 \left(\frac{r_{ij}^t - p_{ij}^*}{p_{ij}^*} \right); i = 1, 2; j = 1, \dots, 5 \right]$$

for V1, $m_2^t = \max \left[100 \left(\frac{r_{ik}^t - p_{ik}^*}{p_{ik}^*} \right); i = 1, 2; k = 1, \dots, 3 \right]$ for V2, etc., and then taking the maximum of these

percent differences, given by $m^t = \max(m_1^t, m_2^t, m_3^t, \dots, m_{10}^t)$.

The raking procedure stops when m^t is below a value that is set as the largest possible acceptable percent difference between sample and population marginal weights. This difference is set at $m(\max) = 10\%$, implying that the maximum difference between the raked weights and the population weights is at most 10%.

The criterion for stopping iterations for raking is based in part on the coefficient of variation for population values for the marginals and in part on the performance of the raking procedure using the 10 raking variables. The population marginals are constructed from PUMS data, which in turn are based on a weighted one percent sample of MA subjects. Using the basic PUMS data, we calculated the coefficient of variation of the total for each marginal population cell. While most of the coefficients of variation are less than 1 or 2 percent, the coefficient of variation for "Asians in Western MA" is 5.9% (based on 202 respondents in the PUMS 2015 data). A value of $m(\max) = 10\%$ is large enough to account for this level of population variability.

The second factor leading to setting $m(\max) = 10\%$ is based on experience with the raking program.

We initially set the raking to evaluate 50 iterations, stopping when $m(\max) < 10\%$. After 50 iterations, the maximum percent difference was $m = 5.24\%$ (for 35-49 year old Asians). The final raked weight totals are summarized in Table 17.

Table 17a. MAGIC (Wave 3) Comparison of Raking Variable Weights with Population Weights

Step 1: Region x Age		Western MA					Eastern MA				
		18-34	35-49	50-64	65+	Missing	18-34	35-49	50-64	65+	Missing
Pop Margin		187,644	141,941	172,465	141,417	6,820	1,347,487	1,137,745	1,230,387	927,011	32,670
Samp Margin		186,963	141,707	172,308	141,334	6,685	1,345,560	1,138,370	1,231,996	928,565	32,098

Step 2: Region x Sex		Western MA		Eastern MA	
		Male	Female	Male	Female
Pop Margin		307,577	342,710	2,240,193	2,435,106
Samp Margin		307,486	342,801	2,239,553	2,435,746

Step 3: Region x Race		Western MA					Eastern MA				
		Hispanic	White	Black	Asian	Missing	Hispanic	White	Black	Asian	Missing
Pop Margin		84,037	513,644	33,694	17,118	1,794	431,982	3,580,778	305,895	318,476	38,168
Samp Margin		84,061	513,582	33,704	17,136	1,803	432,074	3,580,031	305,964	318,881	38,349

Step 4: Region x Edu		Western MA			Eastern MA		
		LE HS	College	Grad	LE HS	College	Grad
Pop Margin		249,671	319,531	81,085	1,546,418	2,301,156	827,725
Samp Margin		248,201	318,171	83,915	1,534,033	2,286,440	854,827

Step 5: Age x Sex		18-34		35-49		50-64		65+		Miss	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Pop		766,352	768,782	625,162	654,475	677,118	725,740	460,247	608,221	13,405	26,086
Samp		769,494	768,364	625,606	651,913	678,828	724,197	461,434	606,955	13,233	25,562

Table 17b. MAGIC (Wave 3) Comparison of Raking Variable Weights with Population Weights

Step 6: Age x Race

	18-34					|	35-49				
	Hisp	White	Black	Asian	Miss		Hisp	White	Black	Asian	Miss
Pop	220,950	1,058,311	118,262	129,518	0	156,944	922,222	93,093	100,632	13,194	
Samp	224,257	1,067,422	119,482	123,972	0	157,680	920,743	93,101	95,360	12,752	
	50-64					|	65+				
	Hisp	White	Black	Asian	Miss		Hisp	White	Black	Asian	Miss
Pop	92,194	1,159,522	79,925	63,821	6,918	43,146	933,084	46,592	40,012	7,755	
Samp	92,970	1,161,958	80,229	60,989	6,711	43,403	932,781	46,654	38,123	7,506	
	Miss Age										
	Hisp	White	Black	Asian	Miss						
Pop	0	9,919	1,309	16,167	12,096						
Samp	0	10,243	1,350	15,842	12,055						

Step 7: Age x Edu

	18-34			|	35-49			|	35-49		
	HS	Coll	Grad		HS	Coll	Grad		HS	Coll	Grad
Pop	438,381	904,480	192,273	373,664	628,661	277,312	493,766	668,196	240,895		
Samp	438,201	900,174	188,665	377,858	632,947	275,280	496,198	668,556	237,627		
	65+			|	Missing						
	HS	Coll	Grad		HS	Coll	Grad				
Pop	476,960	399,917	191,591	1,420	15,669	22,401					
Samp	480,292	400,940	189,358	1,438	15,790	22,263					

Step 8: Sex x Race

	Male					|	Female				
	Hisp	White	Black	Asian	Miss		Hisp	White	Black	Asian	Miss
Pop	251,790	1,956,012	162,626	158,223	16,287	264,117	2,138,348	177,006	177,501	23,675	
Samp	249,678	1,948,404	161,975	165,150	16,392	262,533	2,135,154	176,721	185,694	23,885	

Table 17c. MAGIC (Wave 3) Comparison of Raking Variable Weights with Population Weights

Step 9: Sex x		Male			Female					
	HS	Coll	Grad	HS	Coll	Grad				
Pop	927,529	1,203,367	416,874	868,560	1,417,320	491,936				
Samp	921,532	1,200,908	422,498	864,395	1,416,831	499,421				
Step 10: Race x Edu		Hispanic			White			Black		
	HS	Coll	Grad	HS	Coll	Grad	HS	Coll	Grad	
Pop	295,179	189,625	31,103	1,247,287	2,104,904	742,170	146,235	164,864	28,533	
Samp	296,930	190,423	30,012	1,257,406	2,118,384	717,726	147,128	165,586	27,538	
	HS	Coll	Grad	HS	Coll	Grad				
Pop	93,910	141,629	100,185	0	3,093	36,869				
Samp	94,626	143,127	97,262	0	3,167	36,273				

Trimming of weights by setting the minimum weight to be the average weight/8 and the maximum weight to be average weight x 8 (MW3WT6)

The process of weighting to account for the sample design and response rates leads to different weights for different respondents. The weights ensure that if the expected value of response (such as the prevalence of problem gambling) varies between respondents with different weights, the overall weighted estimator is an unbiased estimate for the population mean. An additional consequence of varying weights is a decrease in the precision of the estimator. When there is a weak relationship between the variables used for weighting and the expected value of response, reducing the range of weights can increase the precision of the estimator, while not creating appreciable bias. Such a reduction in the range of weights is accomplished by reducing the maximum weight and increasing the minimum weight. This process is called weight trimming. By trimming weights appropriately, a more accurate estimator may be constructed.

We first review the impact of raking on MW3WT4. Raking will increase or decrease a weight in an effort to make the marginal weights based on the raking variables more closely match the PUMS 2016 data. For some groups of subjects, this may alter the weight by a large amount. Table 18 lists the most extreme (less than 0.333, or more than 3) alterations in the ratio of total weights ($rMW3WT4_S/MW3WT4_S = \text{Raked total}/\text{MW3WT4 total}$) by respondent group characteristics.

Table 18. List of the Smallest and Largest Raking Weight factors

region	age_ps	sex_ps	race_ps	edu_ps	Multiplier for Raked MW3WT5: RMW3WT5M	Total MW3WT4 for cell: MW3WT4_S	Total Raked rMW3WT4 for cell: RMW3WT4_S
2=East	3=50-64	1=Male	4=Asian	3=Grad	0.013	6,301	82
2=East	3=50-64	1=Male	4=Asian	2=Col.	0.018	2,765	49
2=East	3=50-64	2=Fem.	4=Asian	3=Grad	0.021	9,048	192
2=East	3=50-64	2=Fem.	4=Asian	2=Col.	0.030	13,789	413
1=West	4=65+	1=Male	3=Black	2=Col.	0.030	1,873	56
2=East	4=65+	1=Male	3=Black	2=Col.	0.032	29,131	924
1=West	3=50-64	2=Fem.	4=Asian	3=Grad	0.035	3,048	106
2=East	4=65+	1=Male	4=Asian	2=Col.	0.116	3,093	359
2=East	4=65+	1=Male	4=Asian	3=Grad	0.117	10,638	1,241
1=West	4=65+	2=Fem.	3=Black	2=Col.	0.177	2,026	360
1=West	4=65+	1=Male	1=Hisp.	2=Col.	0.184	2,299	424
1=West	4=65+	1=Male	4=Asian	3=Grad	0.198	947	187
2=East	4=65+	2=Fem.	3=Black	2=Col.	0.255	8,589	2,190
2=East	4=65+	1=Male	1=Hisp.	2=Col.	0.291	12,914	3,761
2=East	4=65+	1=Male	2=White	3=Grad	0.293	257,742	75,545
1=West	4=65+	1=Male	2=White	3=Grad	0.293	29,226	8,574
1=West	4=65+	1=Male	2=White	2=Col.	0.304	48,923	14,871
2=East	4=65+	1=Male	2=White	2=Col.	0.309	349,075	107,965
1=West	2=35-49	2=Fem.	1=Hisp.	3=Grad	0.311	4,097	1,273
1=West	4=65+	2=Fem.	1=Hisp.	1<=HS	0.327	1,098	359
1=West	1=19-34	1=Male	1=Hisp.	2=Col.	3.051	3,922	11,967
2=East	2=35-49	2=Fem.	2=White	1<=HS	3.128	23,574	73,735
1=West	2=35-49	1=Male	1=Hisp.	1<=HS	3.148	4,594	14,461
2=East	3=50-64	1=Male	4=Asian	1<=HS	3.247	4,854	15,760
2=East	1=19-34	2=Fem.	3=Black	2=Col.	3.319	18,902	62,735
2=East	1=19-34	2=Fem.	1=Hisp.	1<=HS	3.327	22,543	75,004
1=West	1=19-34	2=Fem.	3=Black	3=Grad	3.407	248	846
1=West	1=19-34	2=Fem.	1=Hisp.	1<=HS	3.429	2,122	7,276
2=East	1=19-34	1=Male	2=White	2=Col.	3.537	89,973	318,261
1=West	1=19-34	2=Fem.	4=Asian	2=Col.	3.618	2,602	9,415
1=West	1=19-34	1=Male	2=White	3=Grad	3.664	4,467	16,364
2=East	2=35-49	1=Male	1=Hisp.	1<=HS	5.690	12,096	68,823
2=East	3=50-64	1=Male	3=Black	1<=HS	5.827	2,350	13,694
1=West	2=35-49	1=Male	2=White	1<=HS	7.045	3,100	21,836
1=West	3=50-64	1=Male	3=Black	1<=HS	7.369	439	3,235
1=West	1=19-34	1=Male	2=White	2=Col.	7.568	9,172	69,415
2=East	3=50-64	2=Fem.	3=Black	1<=HS	7.735	3,734	28,883
2=East	1=19-34	2=Fem.	2=White	1<=HS	8.051	24,022	193,391
2=East	2=35-49	1=Male	2=White	1<=HS	8.200	11,851	97,178
1=West	1=19-34	2=Fem.	2=White	1<=HS	12.882	2,601	33,512
2=East	1=19-34	1=Male	1=Hisp.	1<=HS	21.806	3,164	68,994
1=West	2=35-49	1=Male	3=Black	1<=HS	22.315	215	4,806
2=East	4=65+	1=Male	4=Asian	1<=HS	23.833	1,432	34,140
2=East	2=35-49	1=Male	3=Black	1<=HS	26.907	1,986	53,429
2=East	1=19-34	1=Male	2=White	1<=HS	57.618	1,058	60,962

The largest adjustment down (i.e. 0.013) in the weight occurred for Asian, male, age 50-64 respondents with graduate education in Eastern MA, while the largest adjustment up (i.e. 57.618) occurred for male, white, HS or less educated, 19-34 year old respondents in Eastern MA.

The distribution of weights for the 2,450 respondents is summarized in Table 19 for each step in the weight development. Notice the large differences that occur in the maximum weight when accounting for household size, or aligning the weights to the Massachusetts population (using the raked weights).

Table 19. Description of MAGIC Wave 3 Weights Prior to Trimming

Weight	Min	Median	Mean	Max
MW3WT1- BGPS	105	297	274	683
MW3WT2- Wave2	130	573	849	5,294
MW3WT3- Wave3	143	730	1102	8,875
MW3WT4- HHSIZE	140	1417	2174	22,279
MW3WT5- Raked	15	980	2174	96,949

Trimming Raked Weights

We describe the procedure for trimming raked weights next. Let w_{\min} represent the minimum weight, w_{mean} represent the mean weight and w_{\max} represent the maximum weight. We define trimmed weight by setting the minimum and maximum weight to be a simple multiplier, m , times the average weight, w_{mean} . The initial trimmed weight is given by

$$w_{i,m}^0 = \begin{cases} w_{\max,m} & \text{if } w_i \geq w_{\max,m} \\ w_i & \\ w_{\min,m} & \text{if } w_i \leq w_{\min,m} \end{cases} .$$

where $w_{\max,m} = m(w_{\text{mean}})$ and $w_{\min,m} = (w_{\text{mean}})/m$. By changing the minimum and maximum weight, the total weight is changed. In order to insure that the total weight is equal to the total population size in each region (which is equal to $T_{4R} = \sum_{j \in \text{Region}} w_{4,j}$, where j indexes the respondents in region R) we

adjust the initial trimmed weight by a factor $\frac{T_{4R}}{T_{mR}}$, where $T_{mR} = \sum_{j \in \text{Region}} w_{6j}^{(m)}$ represents the total trimmed raked weight in a region. The final step in forming the trimmed weight is to multiply the initial trimmed weight in region R by $\frac{T_{4R}}{T_{mR}}$ to form the trimmed weight

$$w_{6j} = \left(\frac{T_{4R}}{T_{mR}} \right) w_{5,j}^{(m)} .$$

Determining the Extent of Trimming

We used the same criteria for weight trimming that was used in the BGPS and the Wave 2 MAGIC survey. Using the average weight $\bar{W} = 2,174$, we truncated weights so they fell in the range determined by (min, max), where $\min = \frac{\bar{W}}{8} = 272$, and $\max = 8\bar{W} = 17,390$. This resulted in adjusting 324 weights up to the minimum and adjusting 29 weights down to the maximum. The total weight in each region based on weights adjusted for household size (MW3WT4) and trimmed raked weights (MW3WT5) are given in Table 20.

Table 20. Total weight by region for Wave 3 Respondents

	Magic-W3 HH Size Aligned weight: MW3WT4	Magic-W3 Raked Weight: MW3WT5	Magic-W3 Trimmed Wt before centering: MW3WT6
	Sum	Sum	Sum
Massachusetts Region: REGION			
1=West	650,287	648,997	671,779
2=East	4,675,299	4,676,589	4,196,439
All	5,325,586	5,325,586	4,868,218

After adjusting the weights so that the average total weight, when multiplied by the number of respondents, will equal the total MA population based on the 2016 PUMS. We note that the weight aligned to HH size is calibrated to match the 2016 PUMS weight by region. The final weight is called MW3WT7, with a minimum of 263 and a maximum of 19,374. The weight MW3WT7 is the weight that should be used in analyses of the MAGIC Wave 3 data.

Table 21. Description of MAGIC Wave 3 Weights After Trimming

Weight	Min	Median	Mean	Max
MW3WT1- BGPS	105	297	274	683
MW3WT2- Wave2	130	573	849	5,294
MW3WT3- Wave3	143	730	1102	8,875
MW3WT4- HHSIZE	140	1417	2174	22,279
MW3WT5- Raked	15	980	2174	96,949
MW3WT7- Final	263	1051	2174	19,374

Demographic Characteristics of the Cohort

Table 24 compares key demographic characteristics of the cohort with information about the Massachusetts adult population. The comparison summarizes the success of weighting in aligning the cohort with the Massachusetts adult population.

Comparison of percentages in the Wave 2 weighted column and the PUMS 2015 column and the Wave 3 weighted column and the PUMS 2016 column in Table 24 shows that the weighted sample is a relatively close match for gender, age, race/ethnicity, and education. This is to be expected since these factors were used in the weighting. However, the age and education categories reported in Table 24 are more detailed than the categories used for weighting, revealing the limitations of the weighting procedure.

Table 24: Demographics of MAGIC Wave 2 and Wave 3 Sample

		WAVE 2				WAVE 3			
		PUMS 2015 ¹		MAGIC 2015		PUMS 2016 ²		MAGIC 2016	
		%	SE	%	SE	%	SE	%	SE
Gender	Male	47.9	0.3	47.0	1.6	47.9	0.3	47.0	1.8
	Female	52.1	0.3	53.0	1.6	52.1	0.3	53.0	1.8
Age	1=18-20	5.6	0.1	1.6	0.6	5.9	0.1	---	
	2=21-24	7.3	0.1	6.3	1.1	7.1	0.1	5.2	1.2
	3=25-34	17.4	0.2	19.8	1.5	17.5	0.2	19.4	1.7
	4=35-54	33.6	0.2	33.8	1.5	32.9	0.2	33.3	1.7
	5=55-64	16.8	0.2	18.9	1.1	16.8	0.2	20.0	1.3
	6=65-79	13.9	0.2	14.3	0.8	14.5	0.2	16.1	1.0
	7=80+	5.3	0.1	5.2	0.5	5.3	0.1	4.9	0.6
Ethnicity	1=Hispanic	9.6	0.2	8.2	1.0	9.9	0.2	7.7	1.2
	2=white alone	75.5	0.2	76.3	1.5	75.0	0.2	79.0	1.7
	3=black alone	6.4	0.1	5.9	0.9	6.4	0.1	5.1	1.0
	4=asian alone	6.4	0.1	6.5	0.9	6.4	0.1	6.4	1.1
	5=some other race alone	0.8	0.1	<i>0.8</i>	<i>0.3</i>	0.9	0.1	<i>0.4</i>	<i>0.1</i>
	6=two or more races	1.3	0.1	2.3	0.5	1.5	0.1	1.4	0.3
Education	1=less than high school	9.7	0.2	5.3	0.8	9.7	0.2	4.0	0.8
	2=HS or GED	25.5	0.2	25.7	1.6	24.8	0.2	24.0	1.8
	3=some college	26.2	0.2	23.8	1.3	26.0	0.2	22.9	1.4
	4=BA	22.4	0.2	27.4	1.4	22.8	0.2	29.4	1.7
	5=Graduate or professional degree	13.7	0.2	14.2	0.8	14.4	0.2	15.9	1.0
	6=PHD	2.4	0.1	3.6	0.4	2.4	0.1	3.9	0.5
Income	1=Less than \$15,000	6.9	0.1	10.4	1.2	6.6	0.1	8.6	1.2
	2=\$15,000-<\$30,000	8.7	0.2	12.9	1.3	7.8	0.1	8.7	1.1
	3=\$30,000-<\$50,000	12.6	0.2	15.2	1.3	12.3	0.2	16.5	1.6
	4=\$50,000-<\$100,000	27.9	0.2	30.6	1.6	27.4	0.2	32.8	1.9
	5=\$100,000-<\$150,000	20.6	0.2	16.0	1.2	20.4	0.2	17.3	1.3
	6=\$150,000 and more	23.2	0.2	15.0	1.1	25.6	0.2	16.1	1.2

¹ Source: Census Bureau, 2015 American Community Survey PUMS

² Source: Census Bureau, 2016 American Community Survey PUMS

Note: Italics indicate estimates are unreliable, relative standard error > 30%

If cell size is 5 or less, results are set to dash (---)

For example, the youngest age category used in weighting the Wave 2 and Wave 3 sample is 18-24. The percentage of MA adults in this category is 12.9% and 13% for 2015 and 2016, respectively. This is compared to 7.9% for the weighted Wave 2 sample and 6.4% for the weighted Wave 3 sample. This is not surprising since the cohort had aged on average 18 months since the baseline survey and another 12 months since Wave 2. Since our cohort is aging, we have less than 5% of our sample 18-20 years of age by Wave 3. The difference in percentages is in the opposite direction for 25-34 year olds, with 17.4% and 17.5% of the MA adults in this category in 2015 and 2016, compared with 19.8% and 19.4% of the weighted Wave 2 and Wave 3 sample. This illustrates that using the broader age category of 18-34 fails to properly adjust for the more detailed age distribution.

A similar situation arises for education, where the category of high school or less education (35.2% and 34.5% of the PUMS 2015 and 2016 sample and 31.0% and 28.0% of the weighted Wave 2 and Wave 3 sample) fails to account for the larger difference in the category of less than high school education (9.7% of the PUMS 2015/2016 sample versus 5.3% and 4.0% of the weighted Wave 2 and Wave 3 sample).

The under-representation of persons 18-24 years old and persons with less than a high school education in the weighted Wave 2 and Wave 3 samples suggests that households with lower income might also be under-represented since younger individuals and those with lower education typically have lower incomes. However, this is not the case, as a comparison of the distribution of household income in the weighted Wave 2 and Wave 3 sample and PUMS 2015 and 2016 sample demonstrates. The Wave 2 and Wave 3 weighted samples over-represent adults in lower income households compared to the PUMS samples and under-represent adults in higher income households. The impact of these differences will be examined further in future analyses of the data.

Appendix A4: Item Response Rate by Mode and Wave

Appendix A4 presents response rates for each question in the survey separately by mode of data collection (online, SAQ and, telephone [Wave 1 and Wave 2 only]).

Item response rate by data collection mode across waves

	Percent Complete							
	Wave 1			Wave 2			Wave 3	
	WEB	SAQ	PHONE	WEB	SAQ	PHONE	WEB	SAQ
d1_R RECODED: How many members of your household, including yourself, are 18 years of age or older?	98.4	1.6	100.0	98.7	95.7	97.6	99.4	96.8
d2_R RECODED: Are you male or female?	99.5	98.8	100.0	99.9	99.8	100.0	99.5	99.3
c1_RBC RECODED AND BACKCODED: Which of the following is your preferred recreational activity? Would you say...?	99.9	98.3	98.4	100.0	99.3	100.0	NA	
c2_R RECODED: Do you enjoy participating in extreme sports such as hang gliding or sky diving?	99.9	99.7	100.0	99.9	100.0	100.0	NA	
c2a_R RECODED: Do you have an internet connection either at home or at work?	NA			99.8	99.5	99.4	99.8	98.5
c2b_R RECODED: Overall, how often do you use the Internet?	NA			99.9	99.0	100.0	99.8	97.6
C3_R RECODED: Over the past 12 months, would you say that in general your health has been...?	99.9	99.9	100.0	99.8	99.8	99.4	99.9	99.3
C4_R RECODED: In the past 12 months, how would you rate your overall level of stress?	99.6	99.9	99.5	99.6	99.6	99.4	100.0	99.2
C4A_1_R RECODED: Check off any events that have happened to you in the past 12 months. -- Started school	NA			NA			79.6	83.0
C4A_2_R RECODED: Check off any events that have happened to you in the past 12 months. -- Experienced significant difficulties at school	NA			NA			79.6	83.0
C4A_3_R RECODED: Check off any events that have happened to you in the past 12 months. -- Dropped out of school	NA			NA			79.6	83.0
C4A_4_R RECODED: Check off any events that have happened to you in the past 12 months. -- Started a new job	NA			NA			79.6	83.0
C4A_5_R RECODED: Check off any events that have happened to you in the past 12 months. -- Had a significant change in work hours, work demands, or work type	NA			NA			79.6	83.0
C4A_6_R RECODED: Check off any events that have happened to you in the past 12 months. -- Received an important promotion	NA			NA			79.6	83.0
C4A_7_R RECODED: Check off any events that have happened to you in the past 12 months. -- Had serious conflict(s) at work	NA			NA			79.6	83.0
C4A_8_R RECODED: Check off any events that have happened to you in the past 12 months. -- Suffered a significant business loss or failure	NA			NA			79.6	83.0
C4A_9_R RECODED: Check off any events that have happened to you in the past 12 months. -- Had difficulty finding employment	NA			NA			79.6	83.0
C4A_10_R RECODED: Check off any events that have happened to you in the past 12 months. -- Was laid off or fired	NA			NA			79.6	83.0
C4A_11_R RECODED: Check off any events that have happened to you in the past 12 months. -- Retired	NA			NA			79.6	83.0

	Percent Complete								
	Wave 1			Wave 2			Wave 3		
	WEB	SAQ	PHONE	WEB	SAQ	PHONE	WEB	SAQ	
C4A_12_R RECODED: Check off any events that have happened to you in the past 12 months. -- Moved to new location/house	NA			NA			79.6	83.0	
C4A_13_R RECODED: Check off any events that have happened to you in the past 12 months. -- Became pregnant (or spouse became pregnant)	NA			NA			79.6	83.0	
C4A_14_R RECODED: Check off any events that have happened to you in the past 12 months. -- Experienced a miscarriage or abortion	NA			NA			79.6	83.0	
C4A_15_R RECODED: Check off any events that have happened to you in the past 12 months. -- Had a new addition to the family through birth or adoption	NA			NA			79.6	83.0	
C4A_16_R RECODED: Check off any events that have happened to you in the past 12 months. -- Son or daughter left home	NA			NA			79.6	83.0	
C4A_17_R RECODED: Check off any events that have happened to you in the past 12 months. -- Started a relationship with a new boyfriend/girlfriend	NA			NA			79.6	83.0	
C4A_18_R RECODED: Check off any events that have happened to you in the past 12 months. -- Got married	NA			NA			79.6	83.0	
C4A_19_R RECODED: Check off any events that have happened to you in the past 12 months. -- Had serious conflicts or difficulties with spouse or partner	NA			NA			79.6	83.0	
C4A_20_R RECODED: Check off any events that have happened to you in the past 12 months. -- Broke up with boyfriend/girlfriend	NA			NA			79.6	83.0	
C4A_21_R RECODED: Check off any events that have happened to you in the past 12 months. -- Separated or divorced	NA			NA			79.6	83.0	
C4A_22_R RECODED: Check off any events that have happened to you in the past 12 months. -- Had serious conflicts with family members	NA			NA			79.6	83.0	
C4A_23_R RECODED: Check off any events that have happened to you in the past 12 months. -- Had serious conflicts with close friend(s)	NA			NA			79.6	83.0	
C4A_24_R RECODED: Check off any events that have happened to you in the past 12 months. -- Had serious conflicts with neighbor(s)	NA			NA			79.6	83.0	
C4A_25_R RECODED: Check off any events that have happened to you in the past 12 months. -- Had serious conflicts with ex-spouse	NA			NA			79.6	83.0	
C4A_26_R RECODED: Check off any events that have happened to you in the past 12 months. -- Death of spouse or partner	NA			NA			79.6	83.0	
C4A_27_R RECODED: Check off any events that have happened to you in the past 12 months. -- Death of other close family member	NA			NA			79.6	83.0	
C4A_28_R RECODED: Check off any events that have happened to you in the past 12 months. -- Death of close friend	NA			NA			79.6	83.0	
C4A_29_R RECODED: Check off any events that have happened to you in the past 12 months. -- Serious illness or injury in family member or close friend	NA			NA			79.6	83.0	
C4A_30_R RECODED: Check off any events that have happened to you in the past 12 months. -- Death of important family pet	NA			NA			79.6	83.0	
C4A_31_R RECODED: Check off any events that have happened to you in the past 12 months. -- Suffered a significant financial loss	NA			NA			79.6	83.0	

	Percent Complete								
	Wave 1			Wave 2			Wave 3		
	WEB	SAQ	PHONE	WEB	SAQ	PHONE	WEB	SAQ	
C4A_32_R RECODED: Check off any events that have happened to you in the past 12 months. -- Declared bankruptcy	NA			NA			79.6	83.0	
C4A_33_R RECODED: Check off any events that have happened to you in the past 12 months. -- Went on social support or welfare	NA			NA			79.6	83.0	
C4A_34_R RECODED: Check off any events that have happened to you in the past 12 months. -- Suffered a significant loss or damage of property	NA			NA			79.6	83.0	
C4A_35_R RECODED: Check off any events that have happened to you in the past 12 months. -- Borrowed a significant amount of money (e.g., mortgage)	NA			NA			79.6	83.0	
C4A_36_R RECODED: Check off any events that have happened to you in the past 12 months. -- Had a significant financial improvement	NA			NA			79.6	83.0	
C4A_37_R RECODED: Check off any events that have happened to you in the past 12 months. -- Arrested or charged with a crime	NA			NA			79.6	83.0	
C4A_38_R RECODED: Check off any events that have happened to you in the past 12 months. -- Placed in jail	NA			NA			79.6	83.0	
C4A_39_R RECODED: Check off any events that have happened to you in the past 12 months. -- Became involved in lawsuit	NA			NA			79.6	83.0	
C4A_40_R RECODED: Check off any events that have happened to you in the past 12 months. -- Received serious threats or harassment	NA			NA			79.6	83.0	
C4A_41_R RECODED: Check off any events that have happened to you in the past 12 months. -- Was assaulted	NA			NA			79.6	83.0	
C4A_42_R RECODED: Check off any events that have happened to you in the past 12 months. -- Was robbed	NA			NA			79.6	83.0	
C4A_43_R RECODED: Check off any events that have happened to you in the past 12 months. -- Was a victim of some other crime	NA			NA			79.6	83.0	
C4A_44_R RECODED: Check off any events that have happened to you in the past 12 months. -- Caused a serious accident that injured or killed someone	NA			NA			79.6	83.0	
C4A_45_R RECODED: Check off any events that have happened to you in the past 12 months. -- Witnessed a serious accident that injured or killed someone	NA			NA			79.6	83.0	
C4A_46_R RECODED: Check off any events that have happened to you in the past 12 months. -- Suffered a serious injury as a result of an accident	NA			NA			79.6	83.0	
C4A_47_R RECODED: Check off any events that have happened to you in the past 12 months. -- Became seriously overweight or underweight	NA			NA			79.6	83.0	
C4A_48_R RECODED: Check off any events that have happened to you in the past 12 months. -- Developed a serious physical illness	NA			NA			79.6	83.0	
C4A_49_R RECODED: Check off any events that have happened to you in the past 12 months. -- Developed a serious mental illness	NA			NA			79.6	83.0	
C4A_50_R RECODED: Check off any events that have happened to you in the past 12 months. -- Developed a drug or alcohol addiction	NA			NA			79.6	83.0	
c4b_1_R RECODED: Did any of the following symptoms occur for at least a month as a result of... -- Recurrent intrusive distressing memories of the event	NA			NA			62.1	60.3	

	Percent Complete								
	Wave 1			Wave 2			Wave 3		
	WEB	SAQ	PHONE	WEB	SAQ	PHONE	WEB	SAQ	
c4b_2_R RECODED: Did any of the following symptoms occur for at least a month as a result of... -- Recurrent distressing dreams about the event	NA			NA			62.1	60.3	
c4b_3_R RECODED: Did any of the following symptoms occur for at least a month as a result of... -- Flashbacks, in which you felt you were reliving the event	NA			NA			62.1	60.3	
c4b_4_R RECODED: Did any of the following symptoms occur for at least a month as a result of... -- Intense psychological distress to reminders of the event	NA			NA			62.1	60.3	
c4b_5_R RECODED: Did any of the following symptoms occur for at least a month as a result of... -- Intense physical reactions to reminders of the event	NA			NA			62.1	60.3	
c4b_6_R RECODED: Did any of the following symptoms occur for at least a month as a result of... -- Avoidance of distressing memories, thoughts, or feelings about the event	NA			NA			62.1	60.3	
c4b_7_R RECODED: Did any of the following symptoms occur for at least a month as a result of... -- Avoidance of external reminders (people, places, etc.) that might lead to memories, thoughts, or feelings	NA			NA			62.1	60.3	
c4b_8_R RECODED: Did any of the following symptoms occur for at least a month as a result of... -- Inability to remember an important part of the event	NA			NA			62.1	60.3	
c4b_9_R RECODED: Did any of the following symptoms occur for at least a month as a result of... -- Persistent and exaggerated negative beliefs or expectations about oneself, others, or the world (e.g.,	NA			NA			62.1	60.3	
c4b_10_R RECODED: Did any of the following symptoms occur for at least a month as a result of... -- Persistent, distorted beliefs about the cause or consequences of the event that has led you to blame y	NA			NA			62.1	60.3	
c4b_11_R RECODED: Did any of the following symptoms occur for at least a month as a result of... -- Persistent negative emotions (fear, horror, anger, guilt, shame)	NA			NA			62.1	60.3	
c4b_12_R RECODED: Did any of the following symptoms occur for at least a month as a result of... -- Markedly decreased interest or participation in activities	NA			NA			62.1	60.3	
c4b_13_R RECODED: Did any of the following symptoms occur for at least a month as a result of... -- Feelings of detachment from others	NA			NA			62.1	60.3	
c4b_14_R RECODED: Did any of the following symptoms occur for at least a month as a result of... -- Persistent inability to experience positive emotions	NA			NA			62.1	60.3	
c4b_15_R RECODED: Did any of the following symptoms occur for at least a month as a result of... -- Irritable behavior and angry outbursts	NA			NA			62.1	60.3	
c4b_16_R RECODED: Did any of the following symptoms occur for at least a month as a result of... -- Reckless or self-destructive behavior	NA			NA			62.1	60.3	
c4b_17_R RECODED: Did any of the following symptoms occur for at least a month as a result of... -- Over-vigilance or over-alertness	NA			NA			62.1	60.3	
c4b_18_R RECODED: Did any of the following symptoms occur for at least a month as a result of... -- Exaggerated startled response	NA			NA			62.1	60.3	

	Percent Complete								
	Wave 1			Wave 2			Wave 3		
	WEB	SAQ	PHONE	WEB	SAQ	PHONE	WEB	SAQ	
c4b_19_R RECODED: Did any of the following symptoms occur for at least a month as a result of... -- Difficulty concentrating	NA			NA			62.1	60.3	
c4b_20_R RECODED: Did any of the following symptoms occur for at least a month as a result of... -- Difficulty sleeping	NA			NA			62.1	60.3	
C5_R RECODED: In the past 12 months, how would you rate your overall level of happiness?	99.6	99.7	99.5	99.1	99.6	100.0	99.9	98.3	
C6A_R RECODED: Have you smoked at least 100 cigarettes in your entire life?	99.9	99.3	99.5	99.9	99.2	99.4	NA		
C6B_R RECODED: Would you say you now smoke cigarettes...	99.9	97.2	99.5	99.8	96.8	99.4	NA		
C6C_R RECODED: Do you currently smoke cigars, pipe tobacco, or hookah tobacco (shisha), or use dipping tobacco (including snus), chewing tobacco, or snuff...?	99.8	99.2	100.0	99.8	99.4	100.0	NA		
C6D_R RECODED: During the past 30 days, how many days would you estimate you have used any form of tobacco?	98.4	93.8	100.0	98.4	91.8	99.4	NA		
C7A_R RECODED: Have you used alcohol in the past 12 months?	99.9	99.7	100.0	99.8	99.5	100.0	NA		
C7C_R RECODED: One drink is equivalent to a 12-ounce beer, a 5-ounce glass of wine, or a drink with one shot of liquor. During the past 30 days, on the days when you drank, about how many drinks did y	96.6	98.1	93.2	95.2	97.5	95.3	NA		
C7_R RECODED: How often have you used alcohol in the past 12 months?	NA			NA			99.9	99.5	
C8_R RECODED: In the past 12 months have you used any marijuana, hallucinogens (such as LSD, mushrooms, or PCP), cocaine, heroin or opium, or any other drugs not intended for medical use?	99.6	98.6	100.0	99.7	99.7	100.0	NA		
C8_RX RECODED (BEWARE W PRIOR WAVES): In the past 12 months how often have you used any marijuana, hallucinogens (such as LSD, mushrooms, or PCP), cocaine, heroin or opium, or any other drugs not inte	NA			NA			99.4	98.5	
C9A_R RECODED: Have you had any problems with drugs or alcohol in the past 12 months? By this we mean difficulties in controlling their use that have led to negative consequences for you or other people	99.7	98.7	100.0	99.5	98.9	100.0	NA		
C9A_1_R RECODED: In the past 12 months has your use of alcohol or other drugs been associated with any of the following? -- Often taken in larger amounts or over a longer period than intended.	NA			NA			38.3	44.1	
C9A_2_R RECODED: In the past 12 months has your use of alcohol or other drugs been associated with any of the following? -- A persistent desire or unsuccessful efforts to cut down or control use	NA			NA			38.3	44.1	
C9A_3_R RECODED: In the past 12 months has your use of alcohol or other drugs been associated with any of the following? -- A great deal of time spent in activities necessary to obtain the substance	NA			NA			38.3	44.1	
C9A_4_R RECODED: In the past 12 months has your use of alcohol or other drugs been associated with any of the following? -- Strong cravings for the substance	NA			NA			38.3	44.1	
C9A_5_R RECODED: In the past 12 months has your use of alcohol or other drugs been associated with any of the following? -- Recurrent use resulting in a failure to fulfill major role obligations at wo	NA			NA			38.3	44.1	

	Percent Complete								
	Wave 1			Wave 2			Wave 3		
	WEB	SAQ	PHONE	WEB	SAQ	PHONE	WEB	SAQ	
C9A_6_R RECODED: In the past 12 months has your use of alcohol or other drugs been associated with any of the following? -- Continued use despite the substance causing or worsening social or interpers	NA			NA			38.3	44.1	
C9A_7_R RECODED: In the past 12 months has your use of alcohol or other drugs been associated with any of the following? -- Continued use despite the substance causing or worsening a physical or psych	NA			NA			38.3	44.1	
C9A_8_R RECODED: In the past 12 months has your use of alcohol or other drugs been associated with any of the following? -- Important social, occupational, or recreational activities given up or reduc	NA			NA			38.3	44.1	
C9A_9_R RECODED: In the past 12 months has your use of alcohol or other drugs been associated with any of the following? -- Recurrent use in situations in which it was physically dangerous	NA			NA			38.3	44.1	
C9A_10_R RECODED: In the past 12 months has your use of alcohol or other drugs been associated with any of the following? -- Tolerance to the substance (needing more of it to have the same effect)	NA			NA			38.3	44.1	
C9A_11_R RECODED: In the past 12 months has your use of alcohol or other drugs been associated with any of the following? -- Withdrawal symptoms when not using the substance	NA			NA			38.3	44.1	
C9B_R RECODED: During the past 12 months, have you sought help for your use of alcohol or drugs?	99.7	98.7	100.0	99.5	98.9	100.0	98.8	44.1	
C9C_R RECODED: Prior to the past 12 months, have you had any significant problems with overuse of drugs or alcohol?	NA			NA			99.6	99.7	
C10A_R RECODED: In the past 12 months, have you had problems with other behavior such as overeating, sex or pornography, shopping, exercise, Internet chat lines, or other things?	99.4	98.8	99.5	99.5	99.1	98.8	99.7	99.3	
C10b_1_R RECODED and backcoded: Which specific behaviors have you had problems with? Have you had problems with overeating?	99.3	98.6	99.5	99.5	99.1	98.8	NA		
C10b_1_R RECODED: Which specific behaviors have you had problems with? -- Overeating	NA			NA			100.0	99.5	
C10b_2_R RECODED and backcoded: Which specific behaviors have you had problems with? Have you had problems with sex or pornography?	99.3	98.6	99.5	99.5	99.1	98.8	NA		
C10b_2_R RECODED: Which specific behaviors have you had problems with? -- Sex or pornography	NA			NA			100.0	99.5	
C10b_3_R RECODED and backcoded: Which specific behaviors have you had problems with? Have you had problems with exercise?	99.3	98.6	99.5	99.5	99.1	98.8	NA		
C10b_3_R RECODED: Which specific behaviors have you had problems with? -- Exercise	NA			NA			100.0	99.5	
C10b_4_R RECODED and backcoded: Which specific behaviors have you had problems with? Have you had problems with shopping?	99.3	98.6	99.5	99.5	99.1	98.8	NA		
C10b_4_R RECODED: Which specific behaviors have you had problems with? -- Shopping	NA			NA			100.0	99.5	
C10b_5_R RECODED and backcoded: Which specific behaviors have you had problems with? Have you had problems with Internet chat lines?	99.3	98.6	99.5	99.5	99.1	98.8	NA		
C10b_5_R RECODED: Which specific behaviors have you had problems with? -- Internet chat lines	NA			NA			100.0	99.5	

	Percent Complete								
	Wave 1			Wave 2			Wave 3		
	WEB	SAQ	PHONE	WEB	SAQ	PHONE	WEB	SAQ	
C10b_6_R RECODED and backcoded: Which specific behaviors have you had problems with? Have you had problems with video or Internet gaming?	99.3	98.6	99.5	99.5	99.1	98.8	NA		
C10b_6_R RECODED: Which specific behaviors have you had problems with? -- Video or Internet gaming	NA			NA			100.0	99.5	
C10b_91_R RECODED and backcoded: Which specific behaviors have you had problems with? Have you had problems with other activities?	99.3	98.6	99.5	99.5	99.1	98.8	NA		
C10b_91_R RECODED: Which specific behaviors have you had problems with? -- Other activities	NA			NA			100.0	99.5	
c10c_RX RECODED (BEWARE W PRIOR WAVES): Prior to the past 12 months, have you had any significant problems with excessive involvement in overeating, sex or pornography, shopping, exercise, Internet ch	NA			NA			99.8	98.1	
C11A_R RECODED: In the past 30 days, have you had any serious problems with depression, anxiety or other mental health problems?	99.5	98.5	98.9	99.6	99.3	99.4	NA		
C11A_RX RECODED (BEWARE W PRIOR WAVES): In the past 12 months, was there ever a period of 2 weeks or longer where you had a depressed mood most of the day nearly every day and/or a loss of interest or	NA			NA			99.7	98.8	
C11B_R RECODED: How about in the last 12 months?	98.9	90.3	98.9	99.3	92.2	98.8	NA		
C11B_1_R RECODED: Check off any of the following that occurred during this time period. -- Significant weight loss or weight gain or an increase or decrease in appetite	NA			NA			99.7	99.5	
C11B_2_R RECODED: Check off any of the following that occurred during this time period. -- Problems sleeping or excessive sleeping nearly every day	NA			NA			99.7	99.5	
C11B_3_R RECODED: Check off any of the following that occurred during this time period. -- Physical agitation or being slowed down nearly every day	NA			NA			99.7	99.5	
C11B_4_R RECODED: Check off any of the following that occurred during this time period. -- Fatigue or loss of energy nearly every day	NA			NA			99.7	99.5	
C11B_5_R RECODED: Check off any of the following that occurred during this time period. -- Feelings of worthlessness or excessive or inappropriate guilt	NA			NA			99.7	99.5	
C11B_6_R RECODED: Check off any of the following that occurred during this time period. -- Decreased ability to think or concentrate or indecisiveness nearly every day	NA			NA			99.7	99.5	
C11B_7_R RECODED: Check off any of the following that occurred during this time period. -- Recurrent thoughts of death or suicide	NA			NA			99.7	99.5	
C11D_R RECODED: During the past 12 months, did you ever seriously consider attempting suicide?	99.5	98.8	98.9	99.6	88.8	99.4	NA		
C11E_R RECODED: During the past 12 months, did you actually attempt suicide?	99.5	98.8	98.9	99.6	88.8	99.4	NA		
C12_R RECODED: Do you now have any health problem that requires you to use special equipment, such as a cane, a wheelchair, a special bed, or a special telephone?	99.8	98.8	100.0	99.6	99.2	100.0	NA		

	Percent Complete								
	Wave 1			Wave 2			Wave 3		
	WEB	SAQ	PHONE	WEB	SAQ	PHONE	WEB	SAQ	
C12a_R RECODED: Would you describe yourself as chronically anxious (i.e., having excessive anxiety and worry most days about a variety of things)?	NA			NA			99.7	98.5	
C12b_R RECODED: Does this anxiety cause significant distress or impairment in your social functioning, employment, or other areas?	NA			NA			99.5	98.1	
C12c_1_R RECODED: Do you also have any of the following symptoms? -- Restlessness or feeling keyed up or on edge	NA			NA			99.4	98.0	
C12c_2_R RECODED: Do you also have any of the following symptoms? -- Easily fatigued	NA			NA			99.4	98.0	
C12c_3_R RECODED: Do you also have any of the following symptoms? -- Difficulty concentrating or mind going blank	NA			NA			99.4	98.0	
C12c_4_R RECODED: Do you also have any of the following symptoms? -- Irritability	NA			NA			99.4	98.0	
C12c_5_R RECODED: Do you also have any of the following symptoms? -- Muscle tension	NA			NA			99.4	98.0	
C12c_6_R RECODED: Do you also have any of the following symptoms? -- Difficulty sleeping	NA			NA			99.4	98.0	
C13_R RECODED: How would you describe your childhood?	99.7	98.6	100.0	99.7	99.3	99.4	NA		
C13a_R RECODED: In the past 12 months have you had recurrent unexpected panic attacks during which 4 or more of the following symptoms occur: pounding heart, sweating, trembling, shortness of breath,	NA			NA			99.6	98.1	
C13b_R RECODED: Have these attacks been followed by either a persistent worry about having additional attacks and/or avoidance of activities (e.g., exercise) or unfamiliar places?	NA			NA			99.6	97.6	
C14_R RECODED: In the past 12 months have you had any other significant mental health problem that has not been mentioned (e.g., bipolar disorder, schizophrenia, bulimia, obsessive-compulsive disorder	NA			NA			99.6	98.5	
C15_R RECODED: Prior to the past 12 months, do you have any significant history of mental health problems such as depression, post-traumatic stress...?	NA			NA			99.2	98.8	
C16_R RECODED: Is there any significant history of mental health problems, drug or alcohol addictions, or behavioral addictions in your parents, siblings, or children?	NA			NA			99.9	98.7	
C17_R RECODED: Were you abused as a child (physically, sexually, or emotionally)?	NA			NA			99.7	98.3	
GA1_R RECODED: Which best describes your belief about the benefit or harm that gambling has for society?	99.3	97.5	93.2	99.6	97.3	90.6	99.2	97.3	
GA2_R RECODED: Do you believe that gambling is morally wrong?	99.6	98.1	100.0	99.7	98.2	100.0	99.8	98.5	
GA3A_R RECODED: Which of the following best describes your opinion about legalized gambling?	99.6	96.9	94.2	99.7	97.8	95.9	99.8	98.5	
ga3b_1_R RECODED and BACKCODED: Which types of gambling do you believe should be illegal? Lottery? (CATI)	99.6	49.7	84.7	99.7	97.8	84.1	NA		

	Percent Complete								
	Wave 1			Wave 2			Wave 3		
	WEB	SAQ	PHONE	WEB	SAQ	PHONE	WEB	SAQ	
ga3b_2_R RECODED and BACKCODED: Which types of gambling do you believe should be illegal? Instant Ticket? (CATI)	99.6	46.3	84.7	99.7	97.8	84.1	NA		
ga3b_3_R RECODED and BACKCODED: Which types of gambling do you believe should be illegal? KENO? (CATI)	99.6	46.0	84.7	99.7	97.8	84.1	NA		
ga3b_4_R RECODED and BACKCODED: Which types of gambling do you believe should be illegal? BINGO? (CATI)	99.6	46.1	84.7	99.7	97.8	84.1	NA		
ga3b_5_R RECODED and BACKCODED: Which types of gambling do you believe should be illegal? SLOT MACHINES (CATI)	99.6	51.8	84.7	99.7	97.8	84.1	NA		
ga3b_6_R RECODED and BACKCODED: Which types of gambling do you believe should be illegal? VIDEO POKER MACHINES (CATI)	99.6	46.0	84.7	99.7	97.8	84.1	NA		
ga3b_7_R RECODED and BACKCODED: Which types of gambling do you believe should be illegal? CASINO TABLE GAMES (CATI)	99.6	51.9	84.7	99.7	97.8	84.1	NA		
ga3b_8_R RECODED and BACKCODED: Which types of gambling do you believe should be illegal? POKER (CATI)	99.6	47.5	84.7	99.7	97.8	84.1	NA		
ga3b_9_R RECODED and BACKCODED: Which types of gambling do you believe should be illegal? horse racing (does not include cruelty to animals or fighting)	99.6	52.2	84.7	99.7	97.8	84.1	NA		
ga3b_10_R RECODED and BACKCODED: Which types of gambling do you believe should be illegal? dog racing (does not include cruelty to animals or fighting)	99.6	53.4	84.7	99.7	97.8	84.1	NA		
ga3b_11_R RECODED and BACKCODED: Which types of gambling do you believe should be illegal? sports betting (sports, bookies, not state run)	99.6	50.4	84.7	99.7	97.8	84.1	NA		
ga3b_12_R RECODED and BACKCODED: Which types of gambling do you believe should be illegal? High risk stocks	99.6	45.9	84.7	99.7	97.8	84.1	NA		
ga3b_13_R RECODED and BACKCODED: Which types of gambling do you believe should be illegal? online gambling	99.6	46.9	84.7	99.7	97.8	84.1	NA		
ga3b_14_R RECODED and BACKCODED: Which types of gambling do you believe should be illegal? Harm to animals or humans	62.6	58.2	48.4	69.7	64.4	52.9	NA		
ga3b_15_R RECODED and BACKCODED: Which types of gambling do you believe should be illegal? Don't know	41.5	46.9	37.9	41.5	48.2	37.1	NA		
ga3b_91_R RECODED and BACKCODED: Which types of gambling do you believe should be illegal? Other	89.4	81.7	84.2	99.7	97.8	84.1	NA		
GA4_R RECODED: Which of the following best describes your opinion about gambling opportunities in Massachusetts?	98.5	97.4	93.2	99.2	97.0	92.9	99.1	98.0	
GA5_R RECODED: There may be 3 new casinos and a slot parlor built in Massachusetts in the next few years. What sort of overall impact do you believe these may have?	99.7	98.8	96.3	99.7	99.2	95.9	NA		
GA6A_RBC RECODED AND BACKCODED: What do you believe will be the single most positive impact for Massachusetts? Would you say...	99.7	98.8	95.3	99.6	99.5	98.2	NA		
GA6B_RBC RECODED AND BACKCODED: What do you believe will be the single most negative impact for Massachusetts? Would you say...	99.4	99.0	94.2	99.5	98.4	97.1	NA		
GA7_R RECODED: What sort of overall impact do you believe a new casino or slot parlor would have for your own community?	99.3	99.2	97.9	99.5	98.9	97.6	NA		

	Percent Complete								
	Wave 1			Wave 2			Wave 3		
	WEB	SAQ	PHONE	WEB	SAQ	PHONE	WEB	SAQ	
GY1A_R RECODED: In the past 12 months, how often have you purchased lottery tickets such as Megabucks...?	100.0	99.7	100.0	99.8	99.5	100.0	99.9	99.8	
GY2A_R RECODED: In the past 12 months, how often have you purchased instant tickets or pull tabs?	99.6	99.3	99.5	99.5	99.3	97.6	99.8	99.3	
GY2C_R RECODED: In the past 12 months, how often have you purchased raffle tickets?	99.6	98.8	100.0	99.8	98.6	98.8	99.7	99.7	
GY3A_R RECODED: In the past 12 months, how often have you purchased daily lottery games such as Keno or Jackpot Poker?	99.6	98.6	100.0	99.6	98.9	100.0	NA		
GY3A_RX RECODED (BEWARE W PRIOR WAVES): In the past 12 months, how often have you purchased daily lottery games such as Mass Cash, Keno, Jackpot Poker, Numbers Game?	NA			NA			99.4	99.5	
GY4A_R RECODED: In the past 12 months, how often have you bet money on sporting events (this includes sports pools)?	99.6	99.8	100.0	99.4	99.6	100.0	NA		
GY4A_RX RECODED (BEWARE W PRIOR WAVES): In the past 12 months, how often have you bet money or gambled on sports (this includes social betting, online betting, and fantasy sports)?	NA			NA			99.7	98.7	
gy4c_1_R RECODED: What type of sports betting did you engage in? -- Office sports pools or social betting against friends or family	NA			NA			98.9	97.6	
gy4c_2_R RECODED: What type of sports betting did you engage in? -- Placing bets with a legal land-based sportsbook outside of Massachusetts	NA			NA			98.9	97.6	
gy4c_3_R RECODED: What type of sports betting did you engage in? -- Placing bets with an illegal/underground land-based sportsbook or bookmaker in Massachusetts	NA			NA			98.9	97.6	
gy4c_4_R RECODED: What type of sports betting did you engage in? -- Placing bets on sporting events with an online sportsbook	NA			NA			98.9	97.6	
gy4c_5_R RECODED: What type of sports betting did you engage in? -- Online fantasy sports	NA			NA			98.9	97.6	
gy4d_R RECODED: Do you play traditional fantasy sports (where results are determined at the end of the season) or daily fantasy sports (where results are determined on a daily or weekly basis)?	NA			NA			98.9	97.6	
gy4e_1_R RECODED: Which internet sites do you most often use to play daily fantasy sports? -- DraftKings	NA			NA			98.8	97.5	
gy4e_2_R RECODED: Which internet sites do you most often use to play daily fantasy sports? -- FanDuel	NA			NA			98.8	97.5	
gy4e_3_R RECODED: Which internet sites do you most often use to play daily fantasy sports? -- DraftDay	NA			NA			98.8	97.5	
gy4e_91_R RECODED: Which internet sites do you most often use to play daily fantasy sports? -- Other	NA			NA			98.8	97.5	
GY4f_R RECODED: In the past 30 days, on the days that you played, how many hours on average did you spend on daily fantasy sports?	NA			NA			98.9	97.5	
GY4g_R RECODED: In the past 30 days, what has your usual balance been in your daily fantasy sports account(s)?	NA			NA			98.9	97.5	
GY4h_R RECODED: In the past 30 days, how much have you deposited into your daily fantasy sports account(s)?	NA			NA			98.9	97.5	

	Percent Complete								
	Wave 1			Wave 2			Wave 3		
	WEB	SAQ	PHONE	WEB	SAQ	PHONE	WEB	SAQ	
GY4i_R RECODED: In the past 30 days, how much money have you cashed out from your daily fantasy sports account(s)?	NA			NA			98.9	97.5	
GY4j_R RECODED: Considering all the time you spend on all your gambling activities, what percentage of time involves playing daily fantasy sports?	NA			NA			98.9	97.5	
GY5A_R RECODED: In the past 12 months, how often have you gone to a bingo hall to gamble?	99.6	99.2	99.5	99.6	98.9	100.0	NA		
GY5A_RX RECODED (BEWARE W PRIOR WAVES): In the past 12 months, how often have you played bingo either in person or online?	NA			NA			99.7	98.7	
GY5c_1_R RECODED: How and where do you play bingo? -- In person at a bingo hall in Massachusetts	NA			NA			99.2	97.1	
GY5c_2_R RECODED: How and where do you play bingo? -- In person at a bingo hall outside Massachusetts	NA			NA			99.2	97.1	
GY5c_3_R RECODED: How and where do you play bingo? -- At an online bingo site	NA			NA			99.2	97.1	
GY8A_R RECODED: In the past 12 months, how many times have you gambled at a casino, racino, or slots parlor outside of Massachusetts?	99.6	90.5	100.0	99.8	90.3	100.0	NA		
GY8A_RX RECODED (BEWARE W PRIOR WAVES): In the past 12 months, how often have you spent money on electronic gambling machines (i.e., slot machines, video lottery terminals, electronic casino table gam	NA			NA			99.7	99.3	
GY8C_RX RECODED (BEWARE W PRIOR WAVES): In the past 12 months how often have you bet money on any casino table game such as poker, blackjack, baccarat, roulette, craps, mah-jong, sic-bo, pai gow, eith	NA			NA			99.8	98.8	
gy8d_rbc - RECODED and BACKCODED:Please Specify the State	99.9	90.7	100.0	99.9	91.8	100.0	NA		
GY8E_Rbc RECODED and BACKCODED: Which specific casino, racino, or slots parlor do you most often go to? (CATI)	99.4	89.2	98.4	99.7	91.2	98.8	NA		
GY8E_1_R RECODED: Where did you play these electronic gambling machines and/or casino table games? -- At the Plainridge Park Casino in Plainville, Massachusetts	NA			NA			97.5	94.1	
GY8E_2_R RECODED: Where did you play these electronic gambling machines and/or casino table games? -- At a land-based casino, slot parlor, slots at racetrack, or card room outside of Massachusetts	NA			NA			97.5	94.1	
GY8E_3_R RECODED: Where did you play these electronic gambling machines and/or casino table games? -- At an online casino or card/poker room	NA			NA			97.5	94.1	
GY8E_4_R RECODED: Where did you play these electronic gambling machines and/or casino table games? -- At an underground/illegal casino, slot parlor, or card room in Massachusetts	NA			NA			97.5	94.1	
GY8E_5_R RECODED: Where did you play these electronic gambling machines and/or casino table games? -- At a private residence	NA			NA			97.5	94.1	
GY8f_1_R RECODED: Roughly what percentage of your spending on electronic gambling machines and/or casino table games is done at each location? -- Plainridge Park Casino in Plainville, Massachusetts	NA			NA			74.8	84.5	
GY8f_2_R RECODED: Roughly what percentage of your spending on electronic gambling machines and/or casino table games is done at each location? -- Land-based casino, slot parlor, slots at racetrack, or	NA			NA			74.8	84.5	

	Percent Complete							
	Wave 1			Wave 2			Wave 3	
	WEB	SAQ	PHONE	WEB	SAQ	PHONE	WEB	SAQ
GY8f_3_R RECODED: Roughly what percentage of your spending on electronic gambling machines and/or casino table games is done at each location? -- Online casino or card/poker room	NA			NA			74.8	84.5
GY8f_4_R RECODED: Roughly what percentage of your spending on electronic gambling machines and/or casino table games is done at each location? -- Underground/illegal casinos, slot parlor, or card room	NA			NA			74.8	84.5
GY8f_5_R RECODED: Roughly what percentage of your spending on electronic gambling machines and/or casino table games is done at each location? -- At a private residence	NA			NA			74.8	84.5
GY8G_R RECODED: Have you gambled at any underground casino or slots parlor in Massachusetts in the past 12 months?	NA			99.8	99.5	100.0	NA	
GY8G_RX RECODED (BEWARE W PRIOR WAVES): In the past 12 months, how many times have you played electronic gambling machines or casino table games at a casino, slots parlor, slots at racetrack, or card	NA			NA			99.9	99.2
GY8H_R RECODED: The Plainridge Park Casino recently opened in Plainville, Massachusetts. Have you gambled at this new casino?	NA			0.4		73.5	NA	
GY8H_RX RECODED (BEWARE W PRIOR WAVES): Roughly how much money do you spend on gambling per visit in out of state casinos, slots parlors, slots at racetracks, and card rooms?	NA			NA			81.1	86.5
GY8I_R RECODED: How many times have you gambled at the Plainridge Park Casino?	NA			0.4		73.5	NA	
GY8I_RX RECODED (BEWARE W PRIOR WAVES): Roughly how much money do you spend on nongambling activities (such as food, travel, lodging, entertainment) per visit in out of state casinos, slots parlors, s	NA			NA			99.4	98.7
GY8J_R RECODED: Which specific casino or slots parlor do you most often go to?	NA			NA			99.9	93.4
GY8L_R RECODED: Is this a rewards card for a Massachusetts casino?	NA			NA			94.2	89.7
GY8M_R RECODED: Have you used the Play Management System on your card (allowing you to put limits on your time and expenditure)?	NA			NA			94.2	89.7
GY8N_R RECODED: Have you found these features useful in managing your gambling?	NA			NA			94.2	89.7
GY9A_R RECODED: In the past 12 months, how often have you bet on a horse race at either a horse race track or an off-track site?	99.6	99.4	100.0	99.8	99.6	100.0	NA	
GY9A_R RECODED: In the past 12 months, how often have you bet on a horse race at either a horse race track or an off-track site?	99.6	99.4	100.0	99.8	99.6	100.0	NA	
GY9A_RX RECODED (BEWARE W PRIOR WAVES): In the past 12 months, how often have you bet on a horse race or dog racing at either in person, by phone, or online?	NA			NA			99.6	99.0
GY9B_RX RECODED (BEWARE W PRIOR WAVES): Roughly how much money do you spend on horse or dog racing in a typical month?	NA			NA			97.0	94.3
gy9C_RBC- RECODED and BACKCODED:Please specify where you go most often?	99.8	98.5	100.0	99.9	98.6	100.0	NA	
GY9C_RX RECODED (BEWARE W PRIOR WAVES): Where do you most often go to bet on horse or dog racing?	NA			NA			99.6	98.8

	Percent Complete								
	Wave 1			Wave 2			Wave 3		
	WEB	SAQ	PHONE	WEB	SAQ	PHONE	WEB	SAQ	
GY10A_R RECODED: In the past 12 months, how often have you gambled or bet money against other people on things such as card games; golf, pool, darts, bowling; video games; board games, or poker outside	99.6	98.6	100.0	99.7	99.5	99.4	NA		
GY10A_RX RECODED (BEWARE W PRIOR WAVES): In the past 12 months how often have you gambled or bet money on other types of gambling that have not yet been mentioned, such as betting on card games other	NA			NA			99.7	98.3	
GY10B_1_R RECODED: What are these other types of gambling you bet money on? -- Non-casino card games	NA			NA			99.4	98.7	
GY10B_2_R RECODED: What are these other types of gambling you bet money on? -- Board games	NA			NA			99.4	98.7	
GY10B_3_R RECODED: What are these other types of gambling you bet money on? -- Television events	NA			NA			99.4	98.7	
GY10B_4_R RECODED: What are these other types of gambling you bet money on? -- Political events	NA			NA			99.4	98.7	
GY10B_5_R RECODED: What are these other types of gambling you bet money on? -- Video games	NA			NA			99.4	98.7	
GY10B_6_R RECODED: What are these other types of gambling you bet money on? -- Cock fights	NA			NA			99.4	98.7	
GY10B_7_R RECODED: What are these other types of gambling you bet money on? -- Dog fights	NA			NA			99.4	98.7	
GY10B_8_R RECODED: What are these other types of gambling you bet money on? -- Financial indices betting	NA			NA			99.4	98.7	
GY10B_91_R RECODED: What are these other types of gambling you bet money on? -- Other	NA			NA			99.4	98.7	
GY10C_1_R RECODED: Did you make these bets in person or remotely via computer, phone, television, or other device? -- In person	NA			NA			99.5	98.3	
GY10C_2_R RECODED: Did you make these bets in person or remotely via computer, phone, television, or other device? -- Remotely via a computer, phone, television, or other device	NA			NA			99.5	98.3	
GY11A_R RECODED: In the past 12 months, how often did you purchase high risk stocks, options or futures or day trade on the stock market?	99.6	98.3	100.0	99.6	99.0	98.2	NA		
GY11A_RX RECODED (BEWARE W PRIOR WAVES): Do you personally manage most of your own stock market investments (i.e., make your own decisions and purchases of stocks, bonds, etc. independent of a financial advisor)	NA			NA			99.6	96.5	
GY11B_1_R RECODED: In the past 12 months, which of the following financial products/activities have you purchased, sold, or engaged in? -- Mutual funds	NA			NA			95.8	92.9	
GY11B_2_R RECODED: In the past 12 months, which of the following financial products/activities have you purchased, sold, or engaged in? -- Bonds	NA			NA			95.8	92.9	
GY11B_3_R RECODED: In the past 12 months, which of the following financial products/activities have you purchased, sold, or engaged in? -- Individual stocks	NA			NA			95.8	92.9	

	Percent Complete								
	Wave 1			Wave 2			Wave 3		
	WEB	SAQ	PHONE	WEB	SAQ	PHONE	WEB	SAQ	
GY11B_4_R RECODED: In the past 12 months, which of the following financial products/activities have you purchased, sold, or engaged in? -- Penny stocks	NA			NA			95.8	92.9	
GY11B_5_R RECODED: In the past 12 months, which of the following financial products/activities have you purchased, sold, or engaged in? -- Options	NA			NA			95.8	92.9	
GY11B_6_R RECODED: In the past 12 months, which of the following financial products/activities have you purchased, sold, or engaged in? -- Futures	NA			NA			95.8	92.9	
GY11B_7_R RECODED: In the past 12 months, which of the following financial products/activities have you purchased, sold, or engaged in? -- Other derivatives	NA			NA			95.8	92.9	
GY11B_8_R RECODED: In the past 12 months, which of the following financial products/activities have you purchased, sold, or engaged in? -- Shorting stocks	NA			NA			95.8	92.9	
GY11B_9_R RECODED: In the past 12 months, which of the following financial products/activities have you purchased, sold, or engaged in? -- Day trading	NA			NA			95.8	92.9	
GM0_R RECODED: To what extent do you agree with the statement: Wealth is a good measure of success in life?	NA			NA			99.8	97.1	
GY12A_R RECODED: In the past 12 months, have you gambled online?	99.3	98.3	100.0	99.6	99.3	98.8	NA		
GY12C_RBC- RECODED and BACKCODED:What is the main type of online gambling you engage in?	99.6	98.1	100.0	99.9	99.3	98.8	NA		
GY12_R RECODED: How often do you use automatic teller machines at casinos, slot parlors, racetracks, or bingo halls?	NA			NA			99.5	99.7	
GY13A_R RECODED: In the past 12 months what was the largest amount of money you have won gambling in a single day?	NA			NA			98.5	94.6	
GY13B_R RECODED: In the past 12 months what was the largest amount of money you have lost gambling in a single day?	NA			NA			98.2	94.4	
GM1_RBC- RECODED and BACKCODED:What would you say is the main reason that you gamble?	95.1	90.0	96.8	96.0	91.4	92.9	NA		
GM1_R RECODED: What would you say is the main reason that you gamble?	NA			NA			95.6	90.1	
GR1_R RECODED: How important is gambling to you as a recreational activity?	99.4	98.6	98.9	99.7	99.2	98.2	99.2	96.5	
GR2A_R RECODED: Has gambling replaced other recreational activities for you in the past year?	99.5	98.3	98.9	99.6	98.6	98.8	99.1	97.3	
GC1_R RECODED: Do you typically gamble alone or with friends?	NA			NA			90.0	82.7	
GC2_R RECODED: How available are gambling opportunities at your workplace or school?	NA			NA			94.3	84.3	
GC3_R RECODED: How close is the nearest casino to you?	NA			NA			99.2	90.4	
GL1_R RECODED: At what age do you recall gambling for money for the first time?	NA			NA			84.3	75.3	

	Percent Complete								
	Wave 1			Wave 2			Wave 3		
	WEB	SAQ	PHONE	WEB	SAQ	PHONE	WEB	SAQ	
GL2A_R RECODED: Have any of your parents, brothers or sisters, or children ever been regular gamblers?	NA			NA			99.7	99.0	
GL2B_R RECODED: Have any of your parents, brothers or sisters, or children ever been problem gamblers (i.e., had difficulty controlling their gambling to the extent that it caused significant problems	NA			NA			99.6	98.7	
GF1_R RECODED: The next set of questions will ask your opinion about various gambling situations. Which of the following set of lottery numbers has the greatest probability of being selected as the win	NA			NA			98.0	94.3	
GF2_R RECODED: Which gives you the best chance of winning the jackpot on a slot machine?	NA			NA			97.4	91.1	
GF3_R RECODED: How lucky are you? If 10 people's names were put into a hat and one name drawn for a prize, how likely is it that your name would be chosen?	NA			NA			99.4	96.8	
GF4_R RECODED: If you were to buy a lottery ticket, which would be the best place to buy it from?	NA			NA			99.1	97.0	
GF5_R RECODED: A positive attitude or doing good deeds increases your likelihood of winning money when gambling.	NA			NA			99.1	97.0	
GF6_R RECODED: A gambler goes to the casino and wins 75% of the time. How many times has he or she likely gone to the casino?	NA			NA			98.4	95.1	
GF7_R RECODED: You go to a casino with \$100 hoping to double your money. Which strategy gives you the best chance of doing this?	NA			NA			97.7	95.1	
GF8_R RECODED: Which game can you consistently win money at if you use the right strategy?	NA			NA			98.5	96.1	
GF9_R RECODED: Your chances of winning a lottery are better if you are able to choose your own numbers.	NA			NA			98.1	95.1	
GF10_R RECODED: You have flipped a coin and correctly guessed 'heads' 5 times in a row. What are the odds that heads will come up on the next flip. Would you say...	NA			NA			98.4	96.1	
PA1_R RECODED: In the past 12 months have you seen or heard any media campaigns to prevent problem gambling in Massachusetts?	99.0	98.2	98.9	99.5	98.5	98.2	99.6	98.3	
PA2A_R RECODED: In the past 12 months have you been aware of any programs to prevent problem gambling (other than media campaigns) offered at your school, your place of work, in your community or else	98.9	98.9	99.5	99.6	99.3	98.2	99.2	98.1	
PA2B_R RECODED: Did you participate in any of the problem gambling prevention programs that you heard of in the past 12 months?	99.6	100.0	98.9	100.0	99.9	97.6	99.8	99.2	
PA3_R RECODED: Did any of these media campaigns or programs cause you to alter your own gambling behavior?	99.3	99.5	98.4	99.5	99.6	98.2	99.3	95.5	
GPO1_R RECODED: What portion of your close friends and family members are regular gamblers?	99.6	98.8	96.8	99.8	99.0	97.6	99.5	97.5	
GPO2_R RECODED: During the last 12 months, has there been a person in your life that you consider gambles too much?	99.3	99.1	97.9	99.8	99.6	97.1	99.5	98.1	
GPO3_RBC- RECODED and BACKCODED: Please specify this persons relationship to you.	99.3	99.0	97.4	99.7	99.3	95.9	NA		
GPO3_R RECODED: What is this person's relationship to you?	NA			NA			99.4	92.8	

	Percent Complete								
	Wave 1			Wave 2			Wave 3		
	WEB	SAQ	PHONE	WEB	SAQ	PHONE	WEB	SAQ	
GPO4_1_Rbc RECODED and backcoded: In what ways has this persons gambling affected you during the last 12 months? Reduced time spent socializing? (CATI)	99.3	87.6	94.7	99.8	99.7	93.5	NA		
GPO4_2_Rbc RECODED and backcoded: In what ways has this persons gambling affected you during the last 12 months? Not fulfilled household or family duties? (CATI)	99.3	87.6	94.7	99.8	99.7	93.5	NA		
GPO4_3_Rbc RECODED and backcoded:In what ways has this persons gambling affected you during the last 12 months? Failed to do something they had promised or were supposed to do (including work-related	99.3	87.6	94.7	99.8	99.7	93.5	NA		
GPO4_4_Rbc RECODED and backcoded: In what ways has this persons gambling affected you during the last 12 months? Emotional pain, neglect, concern, or frustration? (CATI)	99.3	87.6	94.7	99.8	99.7	93.5	NA		
GPO4_5_Rbc RECODED and backcoded: In what ways has this persons gambling affected you during the last 12 months? Financial strife, borrowing, or difficulty covering household expenses? (CATI)	99.3	87.6	94.7	99.8	99.7	93.5	NA		
GPO4_6_Rbc RECODED and backcoded:In what ways has this persons gambling affected you during the last 12 months? Stolen money or valuables? (CATI)	99.3	87.6	94.7	99.8	99.7	93.5	NA		
GPO4_91_Rbc RECODED and backcoded: In what ways has this persons gambling affected you during the last 12 months? Other ways? (CATI)	99.3	87.6	94.7	99.8	99.7	93.5	NA		
GPO5_R RECODED: Overall, on a scale from 1 to 10 how much has this person's gambling affected you negatively during the last 12 months?	99.2	98.3	97.9	99.7	99.1	97.1	NA		
GP1_R RECODED: In the past 12 months, have you bet more than you could really afford to lose?	99.7	99.5	99.5	99.6	99.8	98.2	93.5	96.0	
GP2_R RECODED: In the past 12 months, have you felt guilty about the way you gamble or what happens when you gamble?	99.4	99.5	98.4	99.7	99.8	98.2	93.5	96.0	
GP3_R RECODED: In the past 12 months, have you needed to gamble with larger amounts of money to get the same feeling of excitement?	99.2	99.5	98.4	99.7	99.7	98.2	93.4	95.8	
GP4_R RECODED: In the past 12 months, when you gambled, did you go back another day to try to win back the money you lost?	99.1	99.4	98.4	99.5	99.6	97.1	93.6	96.0	
GP5A_R RECODED: In the past 12 months, have you borrowed money or sold anything to get money to gamble?	99.6	99.4	98.4	99.5	99.6	97.6	93.4	96.0	
GP5B_R RECODED: In the past 12 months, about how much money have you borrowed or obtained from selling possessions in order to gamble?	99.9	99.9	98.4	99.9	99.6	97.6	NA		
GP6A_R RECODED: In the past 12 months, has your gambling caused any financial problems for you or your household?	99.5	99.0	98.4	99.7	99.4	97.1	93.4	95.6	
GP6B_R RECODED: In the past 12 months, have you filed for bankruptcy because of gambling?	99.9	100.0	98.4	99.9	99.8	97.6	NA		
GP7A_R RECODED: In the past 12 months, has your gambling caused you any health problems, including stress or anxiety?	99.3	99.4	98.4	99.6	99.5	97.1	93.6	95.5	
GP7B_R RECODED: In the past 12 months have these health problems caused you to seek medical or psychological help?	99.9	99.9	98.4	99.9	99.9	97.1	NA		
GP8_R RECODED: In the past 12 months, have people criticized your betting or told you that you had a gambling problem, regardless of whether or not you thought it was true?	99.6	99.4	98.4	99.7	99.7	97.6	93.6	95.5	

	Percent Complete								
	Wave 1			Wave 2			Wave 3		
	WEB	SAQ	PHONE	WEB	SAQ	PHONE	WEB	SAQ	
GP9_R RECODED: In the past 12 months, have you felt that you might have a problem with gambling?	99.4	99.4	98.4	99.8	99.6	97.6	93.5	95.5	
GP10A_R RECODED: Has your involvement in gambling caused significant mental stress in the form of guilt, anxiety, or depression for you or someone close to you in the past 12 months?	99.3	99.5	98.4	99.7	99.6	97.1	93.4	95.5	
GP10B_R RECODED: In the past 12 months, have you thought of committing suicide because of gambling?	99.9	99.7	98.4	99.9	99.6	96.5	NA		
GP10C_R RECODED: In the past 12 months, have you attempted suicide because of gambling?	99.9	100.0	98.4	99.9	99.9	96.5	NA		
GP10D_R RECODED: Would you like to know about the free gambling and mental health treatment services in your local area?	99.9	99.8	98.4	99.9	99.9	96.5	NA		
GP11A_R RECODED: Has your involvement in gambling caused significant problems in your relationship with your spouse/partner or important friends or family in the past 12 months?	99.1	99.2	97.9	99.3	99.1	97.1	93.3	95.6	
GP11B_R RECODED: In the past 12 months, has your involvement in gambling caused an instance of domestic violence in your household?	99.9	100.0	98.4	99.9	99.9	97.1	NA		
GP11C_R RECODED: In the past 12 months, has your involvement in gambling resulted in separation or divorce?	99.9	100.0	98.4	99.9	99.9	97.1	NA		
GP12A_R RECODED: In the past 12 months, has your involvement in gambling caused you to repeatedly neglect your children or family?	99.1	99.3	98.4	99.6	99.4	97.1	93.4	95.6	
GP12B_R RECODED: In the past 12 months, has child welfare services become involved because of your gambling?	99.9	100.0	98.4	99.9	99.9	97.1	NA		
GP13A_R RECODED: Has your involvement in gambling caused significant work or school problems for you or someone close to you in the past 12 months or caused you to miss a significant amount of time of	99.0	99.4	98.4	99.7	99.6	97.1	93.3	95.1	
GP13B_R RECODED: In the past 12 months, about how many work or school days have you lost due to gambling?	99.9	99.9	98.4	99.9	99.7	97.1	NA		
GP13C_R RECODED: In the past 12 months, have you lost your job or had to quit school due to gambling?	99.9	100.0	98.4	99.9	99.9	97.1	NA		
GP13D_R RECODED: In the past 12 months, did anyone in this household receive public assistance or other welfare payments as a result of losing your job because of gambling?	99.9	100.0	98.4	99.9	99.9	97.1	NA		
GP13E_R RECODED: Roughly how much money did you receive from public assistance in the past 12 months?	99.9	100.0	98.4	99.9	99.8	97.1	NA		
GP14A_R RECODED: In the past 12 months, has your involvement in gambling caused you or someone close to you to write bad checks, take money that didn't belong to you or commit other illegal acts to su	99.2	99.4	98.4	99.5	99.4	95.9	93.3	95.5	
GP14B_R RECODED: In the past 12 months, about how much money have you illegally obtained in order to gamble?	99.9	99.9	98.4	99.9	99.9	96.5	NA		
GP14C_R RECODED: In the past 12 months, has your gambling been a factor in your committing a crime for which you have been arrested?	99.9	99.9	98.4	99.9	99.9	96.5	NA		
GP14D_R RECODED: Were you convicted for this crime?	99.9	100.0	98.4	99.9	99.9	96.5	NA		
GP14G_R RECODED: Were you incarcerated for this crime?	99.9	100.0	98.4	99.9	99.9	96.5	NA		

	Percent Complete								
	Wave 1			Wave 2			Wave 3		
	WEB	SAQ	PHONE	WEB	SAQ	PHONE	WEB	SAQ	
GP14H_R RECODED: For how many days were you incarcerated?	99.9	100.0	98.4	99.9	99.9	96.5	NA		
GP15_R RECODED: In the past 12 months, have you often gambled longer, with more money or more frequently than you intended to?	99.3	98.3	98.4	99.7	98.9	97.1	93.5	95.3	
GP16A_R RECODED: In the past 12 months, have you made attempts to either cut down, control or stop gambling?	99.1	97.6	97.9	99.4	98.5	95.9	93.2	95.3	
GP16B_R RECODED: Were you successful in these attempts to cut down, control or stop gambling?	99.9	99.8	97.9	99.9	99.7	95.9	93.6	96.1	
GP17_R RECODED: In the past 12 months, is there anyone else who would say that you had difficulty controlling your gambling, regardless of whether you agreed with them or not?	99.3	98.5	98.4	99.4	98.7	95.3	93.4	95.5	
GP18_R RECODED: In the past 12 months, would you say you have been preoccupied with gambling?	99.3	98.5	98.4	99.5	98.6	95.3	93.4	96.0	
GP19_R RECODED: In the past 12 months, when you did try cutting down or stopping did you find you were very restless or irritable or that you had strong cravings for it?	98.3	97.0	97.4	98.7	97.6	92.4	92.7	95.1	
GP20_R RECODED: In the past 12 months, did you find you needed to gamble with larger and larger amounts of money to achieve the same level of excitement?	99.0	98.3	97.9	99.5	98.8	94.1	93.4	95.5	
GP21_R RECODED: Are there particular types of gambling that have contributed to your problems more than others?	99.6	99.3	98.4	99.7	99.1	97.1	93.7	96.1	
GP22_1_RBC recoded and backcoded: Which types of gambling have contributed to your problems? Lottery	98.6	96.8	96.3	98.6	96.8	96.5	NA		
GP22_1_R RECODED: Which types of gambling have contributed to your problems? -- Lottery	NA			NA			93.7	96.1	
GP22_2_RBC recoded and backcoded: Which types of gambling have contributed to your problems? Instant tickets	98.6	96.8	96.3	98.6	96.8	96.5	NA		
GP22_2_R RECODED: Which types of gambling have contributed to your problems? -- Instant Tickets	NA			NA			93.7	96.1	
GP22_3_RBC recoded and backcoded: Which types of gambling have contributed to your problems? Keno	98.6	96.8	96.3	98.6	96.8	96.5	NA		
GP22_3_RX RECODED (BEWARE W PRIOR WAVES): Which types of gambling have contributed to your problems? -- Daily Lotteries	NA			NA			93.7	96.1	
GP22_4_RBC recoded and backcoded: Which types of gambling have contributed to your problems? Bingo	98.6	96.8	96.3	98.6	96.8	96.5	NA		
GP22_4_R RECODED: Which types of gambling have contributed to your problems? -- Bingo	NA			NA			93.7	96.1	
GP22_5_RBC recoded and backcoded: Which types of gambling have contributed to your problems? slot machines	98.6	96.8	96.3	98.6	96.8	96.5	NA		
GP22_5_RX RECODED (BEWARE W PRIOR WAVES): Which types of gambling have contributed to your problems? -- Slot Machines or Video Lottery Terminals	NA			NA			93.7	96.1	
GP22_6_RBC recoded and backcoded: Which types of gambling have contributed to your problems? Video Poker	98.6	96.8	96.3	98.6	96.8	96.5	NA		

	Percent Complete								
	Wave 1			Wave 2			Wave 3		
	WEB	SAQ	PHONE	WEB	SAQ	PHONE	WEB	SAQ	
GP22_7_RBC recoded and backcoded: Which types of gambling have contributed to your problems?Casino Table Games (i.e., Blackjack, Baccarat, Roulette, Craps, etc.?)	98.6	96.8	96.3	98.6	96.8	96.5	NA		
GP22_7_R RECODED: Which types of gambling have contributed to your problems? -- Casino Table Games	NA			NA			93.7	96.1	
GP22_8_RBC recoded and backcoded: Which types of gambling have contributed to your problems?Poker	98.6	96.8	96.3	98.6	96.8	96.5	NA		
GP22_8_R RECODED: Which types of gambling have contributed to your problems? -- Poker	NA			NA			93.7	96.1	
GP22_9_RBC recoded and backcoded: Which types of gambling have contributed to your problems?Horse racing	98.6	96.8	96.3	98.6	96.8	96.5	NA		
GP22_9_RX RECODED (BEWARE W PRIOR WAVES): Which types of gambling have contributed to your problems? -- Horse Racing or Dog Racing	NA			NA			93.7	96.1	
GP22_10_RBC recoded and backcoded: Which types of gambling have contributed to your problems?Dog racing	98.6	96.8	96.3	98.6	96.8	96.5	NA		
GP22_10_R RECODED: GP22_10	NA			NA			92.5	94.3	
GP22_11_RBC recoded and backcoded: Which types of gambling have contributed to your problems?Sports betting	98.6	96.8	96.3	98.6	96.8	96.5	NA		
GP22_11_R RECODED: Which types of gambling have contributed to your problems? -- Sports Betting	NA			NA			93.7	96.1	
GP22_12_RBC recoded and backcoded: Which types of gambling have contributed to your problems?High risk stocks	98.6	96.8	96.3	98.6	96.8	96.5	NA		
GP22_13_RBC recoded and backcoded: Which types of gambling have contributed to your problems?Online	98.6	96.8	96.3	98.6	96.8	96.5	NA		
GP22_13_R RECODED: Which types of gambling have contributed to your problems? -- Online Gambling	NA			NA			93.7	96.1	
GP22_91_RBC recoded and backcoded: Which types of gambling have contributed to your problems?Other	98.6	96.8	96.3	98.6	96.8	96.5	NA		
GP22_91_R RECODED: Which types of gambling have contributed to your problems? -- Other	NA			NA			93.7	96.1	
GP23A_R RECODED: Have you wanted help for gambling problems in the past 12 months?	99.6	99.4	98.4	99.7	99.3	97.1	93.7	96.1	
GP23B_R RECODED: Have you sought help for gambling problems in the past 12 months?	99.6	99.4	98.4	99.7	99.3	97.1	93.7	96.1	
GP23c_1_R RECODED: Where did you seek help from? -- Friends or family	99.6	99.4	98.4	99.7	99.3	97.1	93.7	96.1	
GP23c_2_R RECODED: Where did you seek help from? -- Gamblers Anonymous	99.6	99.4	98.4	99.7	99.3	97.1	93.7	96.1	
GP23c_3_R RECODED: Where did you seek help from? -- Gam Anon	99.6	99.4	98.4	99.7	99.3	97.1	93.7	96.1	
GP23c_4_R RECODED: Where did you seek help from? -- Family Doctor	99.6	99.4	98.4	99.7	99.3	97.1	93.7	96.1	
GP23c_5_R RECODED: Where did you seek help from? -- Private Psychologist/Psychiatrist/Counselor	99.6	99.4	98.4	99.7	99.3	97.1	93.7	96.1	

	Percent Complete								
	Wave 1			Wave 2			Wave 3		
	WEB	SAQ	PHONE	WEB	SAQ	PHONE	WEB	SAQ	
GP23c_6_R RECODED: Where did you seek help from? -- Problem Gambling Treatment Center/Clinic	99.6	99.4	98.4	99.7	99.3	97.1	93.7	96.1	
GP23c_7_R RECODED: Where did you seek help from? -- Pastor/Minister/Priest/Etc.	99.6	99.4	98.4	99.7	99.3	97.1	93.7	96.1	
GP23c_8_R RECODED: Where did you seek help from? -- Telephone Help/Hotline	99.6	99.4	98.4	99.7	99.3	97.1	93.7	96.1	
GP23c_9_R RECODED: Where did you seek help from? -- Online Help	99.6	99.4	98.4	99.7	99.3	97.1	93.7	96.1	
GP23c_10_R RECODED: Where did you seek help from? -- Gamesense Information Centre	NA			NA			93.7	96.1	
GP23c_91_R RECODED: Where did you seek help from? -- Other	99.6	99.4	98.4	99.7	99.3	97.1	93.7	96.1	
GP23D_R RECODED: How helpful was this?	99.6	99.4	98.4	99.7	99.3	97.1	93.7	96.1	
GP23E_R RECODED: Have you excluded yourself from any casino or slots parlor in the past 12 months?	99.6	99.3	98.4	99.7	99.3	97.1	93.7	96.1	
GP23F_RBC RECODED AND BACKCODED: In which state?	NA			100.0	100.0	100.0	NA		
GP23F_R RECODED: In which state? (CATI)	100.0	100.0	100.0	NA			NA		
GP23F_0_R RECODED: In which states have you excluded yourself? -- Massachusetts	NA			NA			100.0	100.0	
GP23F_1_R RECODED: In which states have you excluded yourself? -- Connecticut	NA			NA			100.0	100.0	
GP23F_2_R RECODED: In which states have you excluded yourself? -- Rhode Island	NA			NA			100.0	100.0	
GP23F_3_R RECODED: In which states have you excluded yourself? -- New Jersey	NA			NA			100.0	100.0	
GP23F_4_R RECODED: In which states have you excluded yourself? -- New York	NA			NA			100.0	100.0	
GP23F_5_R RECODED: In which states have you excluded yourself? -- Pennsylvania	NA			NA			100.0	100.0	
GP23F_6_R RECODED: In which states have you excluded yourself? -- Maine	NA			NA			100.0	100.0	
GP23F_7_R RECODED: In which states have you excluded yourself? -- Nevada	NA			NA			100.0	100.0	
GP23F_91_R RECODED: In which states have you excluded yourself? -- Other	NA			NA			100.0	100.0	
GP24_R RECODED: Have you had problems with gambling in your lifetime prior to the past 12 months?	99.6	99.4	98.4	99.7	99.3	97.1	NA		
GP25A_R RECODED: Do you believe you are having fewer gambling problems than last year?	NA			NA			92.7	93.9	
Canadian Problem Gambling Index	99.6	99.4	98.4	99.7	99.4	97.6	93.7	96.1	
SF1_R RECODED: How would you rate your current family relationships?	NA			NA			99.8	99.2	
SF2_R RECODED: How would you rate your current marital relationship?	NA			NA			99.6	97.8	

	Percent Complete								
	Wave 1			Wave 2			Wave 3		
	WEB	SAQ	PHONE	WEB	SAQ	PHONE	WEB	SAQ	
SF3_R RECODED: How would you rate your current level of social support?	NA			NA			99.7	98.3	
SF4_R RECODED: How important is religion in your life?	NA			NA			99.8	99.5	
SF5_R RECODED: Have you committed any illegal activities in the past year?	NA			NA			99.7	99.7	
SF6_R RECODED: Do you have a criminal record?	NA			NA			99.7	99.5	
SF7_R RECODED: Success is based on survival of the fittest; I am not concerned about the losers.	NA			NA			99.4	97.3	
SF8_R RECODED: For me, what's right is whatever I can get away with.	NA			NA			99.4	98.0	
SF9_R RECODED: In today's world, I feel justified in doing anything I can get away with to succeed.	NA			NA			99.4	98.1	
SF10_R RECODED: My main purpose in life is getting as many goodies as I can.	NA			NA			99.0	98.0	
SF11_R RECODED: Making a lot of money is my most important goal.	NA			NA			99.0	97.3	
SF12_R RECODED: I let others worry about higher values; my main concern is with the bottom line.	NA			NA			98.4	96.6	
SF13_R RECODED: People who are stupid enough to get ripped off usually deserve it.	NA			NA			99.1	97.5	
SF14_R RECODED: Looking out for myself is my top priority.	NA			NA			98.7	98.0	
SF15_R RECODED: I tell other people what they want to hear so that they will do what I want them to do.	NA			NA			98.5	97.8	
SF16_R RECODED: I would be upset if my success came at someone else's expense.	NA			NA			99.0	97.3	
SF17_R RECODED: I often admire a really clever scam.	NA			NA			99.0	97.6	
SF18_R RECODED: I make a point of trying not to hurt others in pursuit of my goals.	NA			NA			99.1	97.5	
SF19_R RECODED: I enjoy manipulating other people's feelings.	NA			NA			99.1	98.1	
SF20_R RECODED: I feel bad if my words or actions cause someone else to feel emotional pain.	NA			NA			99.3	98.1	
SF21_R RECODED: Even if I were trying very hard to sell something, I wouldn't lie about it.	NA			NA			99.2	97.8	
SF22_R RECODED: Cheating is not justified because it is unfair to others.	NA			NA			99.0	98.0	
D4_R RECODED: At present are you...?	97.8	98.6	96.8	98.1	99.0	94.1	98.5	99.0	
D5_R RECODED: How many children under 18 years old live in your household?	95.1	95.9	97.9	96.0	95.3	93.5	96.1	92.1	
D6_R RECODED: What is the highest degree or level of school you have completed?	99.2	98.6	97.4	98.9	98.9	92.9	NA		
D6_R RECODED: What is the highest degree or level of school you have completed?	NA			NA			99.5	98.7	
D7A_R RECODED: Are you currently...?	98.3	98.7	96.8	98.7	98.8	94.1	99.2	99.0	

	Percent Complete								
	Wave 1			Wave 2			Wave 3		
	WEB	SAQ	PHONE	WEB	SAQ	PHONE	WEB	SAQ	
D7B_R RECODED: Have you ever served on active duty in the U.S. Armed Forces, military Reserves, or National Guard?	99.0	98.1	97.9	98.8	98.0	94.1	99.1	98.7	
D8_RBC RECODED and BACKCODED: What type of healthcare coverage do you have?	96.9	98.0	94.7	96.0	98.5	94.1	NA		
D9_RBC RECODED AND BACKCODED: Do you own the place where you currently live, pay rent or something else?	98.1	98.4	96.8	97.6	97.8	94.1	NA		
D12_R RECODED: Were you born in the United States?	99.0	98.6	97.4	98.7	98.2	94.7	99.1	98.7	
D12A_R RECODED: Do you live in Massachusetts for 6 or more months out of the year?	99.0	97.6	97.4	99.3	96.7	94.1	99.2	97.3	
D13_R RECODED: Are you Hispanic or Latino?	98.2	97.5	97.4	98.3	96.8	94.7	98.4	96.8	
Age	93.1	97.4	97.9	95.9	99.3	98.2	98.5	98.3	
Alcohol use (3 categories)	99.9	99.7	100.0	99.8	99.5	100.0	NA		
Current tobacco use	99.6	97.1	99.5	99.7	96.8	99.4	NA		
Education (6 categories)	99.2	98.6	97.4	98.9	98.9	92.9	99.5	98.7	
Employment (6 categories)	98.3	98.7	96.8	98.7	98.8	94.1	99.2	99.0	
Household income (6 categories)	81.8	91.8	85.8	79.8	90.1	83.5	86.2	94.9	
Marital status (5 categories)	97.8	98.6	96.8	98.1	99.0	94.1	98.5	99.0	
ethnicity1	96.5	98.1	96.8	97.1	97.7	92.9	97.5	98.5	
Current debt	87.2	93.5	79.5	85.2	92.7	72.9	90.2	94.9	

Appendix B: Questionnaire for Wave 3

Massachusetts Gambling Impact Cohort Study



**Please have the adult in your household (18 years or older)
who previously participated in the last round of the Massachusetts
Gambling Impact Cohort Study complete this survey.**

MAGIC  **MASSACHUSETTS GAMBLING
IMPACT COHORT STUDY**

UNIVERSITY OF MASSACHUSETTS SCHOOL OF PUBLIC HEALTH AND HEALTH SCIENCES

Instructions for Completing the Booklet

This booklet contains several types of questions. Each question should be answered only about yourself, not anyone else in your household.

- For some questions, you answer the question by marking a box, like this:

¹ Yes

² No

- For some questions, you answer the question by filling in one number per box, like this:

Number of Days

- You will sometimes be instructed to skip one or more questions. In this example, if your choice is 'No', you skip to question 10; otherwise, you continue to the next question.

³ Yes

⁴ No → GO TO 10

- This survey asks many questions about gambling as a recreational activity. We would like you to participate even if you have never gambled. It is important that we collect information that is representative of the state of Massachusetts.

Definitions

For the purposes of this survey, please refer to the definitions below for the following terms.

- “Non-medical” drug use means using it to get high or experience pleasurable effects, see what the effects are like, or use with friends.
- “Serious” means something that either you or someone else would say is considerable, important, or major, either because of its frequency or significance.
- A high risk stock is a stock from a company that has a real risk of going out of business and/or having their stock price double or triple in value in the next year.
- An “underground” casino is a place with unlicensed slot machines or casino game tables.
- A “sportsbook” is a venue where someone can place a bet on a sporting event.
- A “bookmaker” or “bookies” is an organization or person that takes bets on sporting events

The University of Massachusetts is conducting a longitudinal study about gambling in Massachusetts. This survey is private and confidential. We have a Federal Certificate of Confidentiality that is designed to protect the confidentiality of your research data from a court order or subpoena. We can provide you with more information if you would like. You don't have to answer any question you don't want to, and you can stop at any time. Almost everyone will be able to finish the survey within 20 to 40 minutes.

If you have questions about the Federal Certificate of Confidentiality, please visit:

<http://grants.nih.gov/grants/policy/coc/faqs.htm#187>.

Health Section

We would like to start by asking you questions about your health.

1. Over the past 12 months, would you say that in general your health has been...?

- ¹ Excellent
- ² Very good
- ³ Good
- ⁴ Fair
- ⁵ Poor

2. Do you have any physical disability or chronic health problem that limits the amount or kind of activity you can do at home, work or school?

- ¹ Yes
- ² No

3. In the past 12 months, how would you rate your overall level of stress? Would you say...?

- ¹ Very high
- ² High
- ³ Moderate
- ⁴ Low
- ⁵ Very low

4. Check off any events that have happened to you in the past 12 months.

Check all that apply.

Work/School

- ¹ Started school
- ² Experienced significant difficulties at school
- ³ Dropped out of school
- ⁴ Started a new job
- ⁵ Had a significant change in work hours, work demands, or work type
- ⁶ Received an important promotion
- ⁷ Had serious conflict(s) at work
- ⁸ Suffered a significant business loss or failure
- ⁹ Had difficulty finding employment
- ¹⁰ Was laid off or fired
- ¹¹ Retired

Family and Friends

- ¹² Moved to new location/house
- ¹³ Became pregnant (or spouse became pregnant)
- ¹⁴ Experienced a miscarriage or abortion
- ¹⁵ Had a new addition to the family through birth or adoption

Family and Friends (continued)

- ¹⁶ Son or daughter left home
- ¹⁷ Started a relationship with a new boyfriend/girlfriend
- ¹⁸ Got married
- ¹⁹ Had serious conflicts or difficulties with spouse or partner
- ²⁰ Broke up with boyfriend/girlfriend
- ²¹ Separated or divorced
- ²² Had serious conflicts with family member(s)
- ²³ Had serious conflicts with close friend(s)
- ²⁴ Had serious conflicts with neighbor(s)
- ²⁵ Had serious conflicts with ex-spouse
- ²⁶ Death of spouse or partner
- ²⁷ Death of other close family member
- ²⁸ Death of close friend
- ²⁹ Serious illness or injury in family member or close friend
- ³⁰ Death of important family pet

Property and Finances

- ³¹ Suffered a significant financial loss
- ³² Declared bankruptcy
- ³³ Went on social support or welfare
- ³⁴ Suffered a significant loss or damage of property
- ³⁵ Borrowed a significant amount of money (e.g., mortgage)
- ³⁶ Had a significant financial improvement

Legal Matters/Crime

- ³⁷ Arrested or charged with a crime
- ³⁸ Placed in jail
- ³⁹ Became involved in lawsuit
- ⁴⁰ Received serious threats or harassment
- ⁴¹ Was assaulted
- ⁴² Was robbed
- ⁴³ Was a victim of some other crime
- ⁴⁴ Caused a serious accident that injured or killed someone

Health

- ⁴⁵ Witnessed a serious accident that injured or killed someone
- ⁴⁶ Suffered a serious injury as a result of an accident
- ⁴⁷ Became seriously overweight or underweight
- ⁴⁸ Developed a serious physical illness
- ⁴⁹ Developed a serious mental illness
- ⁵⁰ Developed a drug or alcohol addiction

If at Question 4, you selected any of the options below, please go to Question 5. If none of these items were selected, please go to Question 6:

Death of spouse or partner
Death of other close family member
Death of close friend
Serious illness or injury in family member or close friend
Received serious threats or harassment
Was assaulted
Was robbed
Was a victim of some other crime
Caused a serious accident that injured or killed someone
Witnessed a serious accident that injured or killed someone
Suffered a serious injury as a result of an accident

5. Did any of the following symptoms occur for at least a month as a result of [specify the specific event(s) checked off]

Check all that apply.

- 1 Recurrent intrusive distressing memories of the event
- 2 Recurrent distressing dreams about the event
- 3 Flashbacks, in which you felt you were reliving the event
- 4 Intense psychological distress to reminders of the event
- 5 Intense physical reactions to reminders of the event
- 6 Avoidance of distressing memories, thoughts, or feelings about the event
- 7 Avoidance of external reminders (people, places, etc.) that might lead to memories, thoughts, or feelings about the event
- 8 Inability to remember an important part of the event
- 9 Persistent and exaggerated negative beliefs or expectations about oneself, others, or the world (e.g., "I am bad", "No one can be trusted", "The world is dangerous")
- 10 Persistent, distorted beliefs about the cause or consequences of the event that has led you to blame yourself or others
- 11 Persistent negative emotions (fear, horror, anger, guilt, shame)
- 12 Markedly decreased interest or participation in activities
- 13 Feelings of detachment from others
- 14 Persistent inability to experience positive emotions
- 15 Irritable behavior and angry outbursts

- 16 Reckless or self-destructive behavior
- 17 Over-vigilance or over-alertness
- 18 Exaggerated startled response
- 19 Difficulty concentrating
- 20 Difficulty sleeping

6. In the past 12 months, how would you rate your overall level of happiness? Would you say...?

- 1 Very high
- 2 High
- 3 Moderate
- 4 Low
- 5 Very low

7. Have you used tobacco or e-cigarettes in the past 12 months? (includes cigarettes, cigars, pipe tobacco, shisha tobacco, chewing tobacco, dipping tobacco, snuff)

- 1 Yes
- 2 No → GO TO 10

8. Which of the following products have you used? Check all that apply.

- 1 Cigarettes
- 2 Electronic cigarettes (e-cigarettes)
- 3 Cigars
- 4 Pipe tobacco
- 5 Shisha tobacco
- 6 Chewing tobacco
- 7 Dipping tobacco
- 8 Snuff

9. Have you used tobacco or e-cigarettes in the past 30 days? (includes cigarettes, cigars, pipe tobacco, shisha tobacco, chewing tobacco, dipping tobacco, snuff)

- 1 Yes
- 2 No

10. How often have you used alcohol in the past 12 months?

- 1 4 or more times a week
- 2 2-3 times a week
- 3 Once a week
- 4 2-3 times a month
- 5 Once a month
- 6 Less than once a month
- 7 Not at all

11. In the past 12 months how often have you used any marijuana, hallucinogens (such as LSD, mushrooms, or PCP), cocaine, heroin or opium, or any other drugs not intended for medical use? *If you are not sure what is considered non-medical drug use, please refer to the definitions on the inside cover.*

- ¹ 4 or more times a week
- ² 2-3 times a week
- ³ Once a week
- ⁴ 2-3 times a month
- ⁵ Once a month
- ⁶ Less than once a month
- ⁷ Not at all

*"If you selected "Less than once a month" or "Not at all" for Question 10 **AND** Question 11, go to Question 14. Otherwise, continue to Question 12.*

12. In the past 12 months has your use of alcohol or other drugs been associated with any of the following? *Check all that apply.*

- ¹ Often taken in larger amounts or over a longer period than intended
- ² A persistent desire or unsuccessful efforts to cut down or control use
- ³ A great deal of time spent in activities necessary to obtain the substance
- ⁴ Strong cravings for the substance
- ⁵ Recurrent use resulting in a failure to fulfill major role obligations at work, school, or home
- ⁶ Continued use despite the substance causing or worsening social or interpersonal problems
- ⁷ Continued use despite the substance causing or worsening a physical or psychological problem
- ⁸ Important social, occupational, or recreational activities given up or reduced because of use
- ⁹ Recurrent use in situations in which it was physically dangerous
- ¹⁰ Tolerance to the substance (needing more of it to have the same effect)
- ¹¹ Withdrawal symptoms when not using the substance

13. During the past 12 months, have you sought help for your use of alcohol or drugs?

- ¹ Yes
- ² No

If you would like information regarding treatment resources, please see page 19 for contact information.

14. Prior to the past 12 months, have you had any significant problems with overuse of drugs or alcohol?

- ¹ Yes
- ² No

15. In the past 12 months have you had any problems with other behavior such as overeating, sex or pornography, shopping, exercise, Internet chat lines, or other things? What we mean is difficulties controlling the behavior which has led to significant negative consequences for you or other people.

- ¹ Yes
- ² No → GO TO 17

16. Which specific activities have you had problems with? *Check all that apply.*

- ¹ Overeating
- ² Sex or pornography
- ³ Exercise
- ⁴ Shopping
- ⁵ Internet chat lines
- ⁶ Video or internet gaming
- ⁹¹ Other

17. Prior to the past 12 months, have you had any significant problems with excessive involvement in overeating, sex or pornography, shopping, exercise, Internet chat lines, or other things?

- ¹ Yes
- ² No

18. In the past 12 months, was there ever a period of 2 weeks or longer where you had a depressed mood most of the day nearly every day and/or a loss of interest or pleasure in most activities?

- ¹ Yes
- ² No → GO TO 20 ON PAGE 4

19. Check off any of the following that occurred during this time period. Check all that apply.

- ¹ Significant weight loss or weight gain or an increase or decrease in appetite
- ² Problems sleeping or excessive sleeping nearly every day
- ³ Physical agitation or being slowed down nearly every day
- ⁴ Fatigue or loss of energy nearly every day
- ⁵ Feelings of worthlessness or excessive or inappropriate guilt
- ⁶ Decreased ability to think or concentrate or indecisiveness nearly every day
- ⁷ Recurrent thoughts of death or suicide

20. Would you describe yourself as chronically anxious? (i.e., having excessive anxiety and worry most days about a variety of things)?

- ¹ Yes
- ² No → GO TO 23

21. Does this anxiety cause significant distress or impairment in your social functioning, employment, or other areas?

- ¹ Yes
- ² No → GO TO 23

22. Do you also have any of the following symptoms? Check all that apply.

- ¹ Restlessness or feeling keyed up or on edge
- ² Easily fatigued
- ³ Difficulty concentrating or mind going blank
- ⁴ Irritability
- ⁵ Muscle tension
- ⁶ Difficulty sleeping

23. In the past 12 months have you had recurrent unexpected panic attacks during which 4 or more of the following symptoms occur:

- Pounding heart
- Sweating
- Trembling
- Shortness of breath
- Feelings of choking
- Chest pain
- Nausea
- Dizziness
- Chills or hot flashes
- Numbness
- Feelings of unreality
- Fear of losing control
- Fear of dying?

- ¹ Yes
- ² No → GO TO 25

24. Have these attacks been followed by either a persistent worry about having additional attacks and/or avoidance of activities (e.g., exercise) or unfamiliar places?

- ¹ Yes
- ² No

25. In the past 12 months have you had any other significant mental health problem that has not been mentioned (e.g., bipolar disorder, schizophrenia, bulimia, obsessive-compulsive disorder, agoraphobia)?

- ¹ Yes
- ² No

26. Prior to the past 12 months, do you have any significant history of mental health problems such as depression, post-traumatic stress, panic attacks, generalized anxiety, agoraphobia, obsessive-compulsive disorder, bipolar disorder, schizophrenia, bulimia, etc.?

- ¹ Yes
- ² No

27. Is there any significant history of mental health problems, drug or alcohol addictions, or behavioral addictions in your parents, siblings, or children?

- ¹ Yes
- ² No
- ³ Unsure

28. Were you abused as a child (physically, sexually, or emotionally)?

- ¹ Yes
- ² No

If you would like information regarding mental health treatment resources, please see page 19 for contact information.

Gambling Attitudes

Now we would like to ask you some questions about gambling.

We define gambling as betting money or material goods on an event with an uncertain outcome in the hopes of winning additional money or material goods. It includes things such as lottery tickets, scratch tickets, bingo, betting against a friend on a game of skill or chance, betting on horse racing or sports, investing in high risk stocks, etc.

29. Which best describes your belief about the benefit or harm that gambling has for society? Would you say...?
- 1 The harm far outweighs the benefits
 - 2 The harm somewhat outweighs the benefits
 - 3 The benefits are about equal to the harm
 - 4 The benefits somewhat outweigh the harm
 - 5 The benefits far outweigh the harm
30. Do you believe that gambling is morally wrong?
- 1 Yes
 - 2 No
31. Which of the following best describes your opinion about *legalized* gambling? Would you say...?
- 1 All types of gambling should be legal
 - 2 Some types of gambling should be legal and some should be illegal
 - 3 All types of gambling should be illegal
32. Which of the following best describes your opinion about gambling opportunities in Massachusetts? Would you say...?
- 1 Gambling is too widely available
 - 2 Gambling is not available enough
 - 3 The current availability of gambling is fine

Past Gambling Behaviors

The following questions ask about frequency of participation and spending on each type of gambling. Spend means how much you are ahead (+\$) or behind (-\$), or your net win or loss in an average month in the past 12 months.

33. In the past 12 months, how often have you purchased *lottery tickets* such as Megabucks, Powerball, or Lucky for Life? This does not include daily lottery games (e.g., Mass Cash, Numbers Game, Keno, Jackpot Poker) or instant tickets, pull tabs, or raffle tickets. Would you say...?
- 1 4 or more times a week
 - 2 2-3 times a week
 - 3 Once a week
 - 4 2-3 times a month
 - 5 Once a month
 - 6 Less than once a month
 - 7 Not at all → GO TO 35
34. Roughly how much money do you spend on lottery tickets in a typical month?
- \$, ,
35. In the past 12 months, how often have you purchased *instant tickets* or *pull tabs*? Would you say...?
- 1 4 or more times a week
 - 2 2-3 times a week
 - 3 Once a week
 - 4 2-3 times a month
 - 5 Once a month
 - 6 Less than once a month
 - 7 Not at all → GO TO 37
36. Roughly how much money do you spend on instant tickets or pull tabs in a typical month?
- \$, ,
37. In the past 12 months, how often have you purchased *raffle tickets*? Would you say...?
- 1 4 or more times a week
 - 2 2-3 times a week
 - 3 Once a week
 - 4 2-3 times a month
 - 5 Once a month
 - 6 Less than once a month
 - 7 Not at all → GO TO 39 ON PAGE 6

38. Roughly how much money do you spend on raffle tickets in a typical month?

- \$, ,

39. In the past 12 months, how often have you played *daily lottery games* such as *Mass Cash, Keno, Jackpot Poker, Numbers Game*? Would you say...?

- 1 4 or more times a week
- 2 2-3 times a week
- 3 Once a week
- 4 2-3 times a month
- 5 Once a month
- 6 Less than once a month
- 7 Not at all → GO TO 41

40. Roughly how much money do you spend on daily lottery games in a typical month?

- \$, ,

41. In the past 12 months, how often have you bet money or gambled on *sports* (this includes social betting, online betting, and fantasy sports)? Would you say...?

- 1 4 or more times a week
- 2 2-3 times a week
- 3 Once a week
- 4 2-3 times a month
- 5 Once a month
- 6 Less than once a month
- 7 Not at all → GO TO 51 ON PAGE 7

42. Roughly how much money do you spend on sports betting in a typical month?

- \$, ,

43. What type of sports betting did you engage in? For a definition of sportsbook, please refer to inside cover. Check all that apply.

- 1 Office sports pools or social betting against friends or family
- 2 Placing bets with a legal land-based sportsbook outside of Massachusetts
- 3 Placing bets with an illegal/underground land-based sportsbook or bookmaker in Massachusetts
- 4 Placing bets on sporting events with an online sportsbook
- 5 Online fantasy sports

If you selected "Online fantasy sports," then go to Question 44. If you did NOT select "Online fantasy sports," then go to Question 51 on page 7.

44. Do you play traditional fantasy sports (where results are determined at the end of the season) or daily fantasy sports (where results are determined on a daily or weekly basis)?

- 1 Traditional fantasy sports
→ GO TO 51 ON PAGE 7
- 2 Daily fantasy sports
- 3 Both traditional and daily fantasy sports

45. Which internet sites do you most often use to play daily fantasy sports?

Check all that apply.

- 1 DraftKings
- 2 FanDuel
- 3 DraftDay
- 91 Other (specify)

46. In the past 30 days, on the days that you played, how many hours on average did you spend on daily fantasy sports?

47. In the past 30 days, what has your usual balance been in your daily fantasy sports account(s)?

\$, ,

48. In the past 30 days, how much have you deposited into your daily fantasy sports account(s)?

\$, ,

49. In the past 30 days, how much money have you cashed out from your daily fantasy sports account(s)?

\$, ,

50. Considering all the time you spend on all your gambling activities, what percentage of time involves playing daily fantasy sports?

%

51. In the past 12 months, how often have you played *bingo* either in person or online? Would you say...?

- 1 4 or more times a week
- 2 2-3 times a week
- 3 Once a week
- 4 2-3 times a month
- 5 Once a month
- 6 Less than once a month
- 7 Not at all → GO TO 54

52. Roughly how much money do you spend on bingo in a typical month?

-\$, ,

53. How and where do you play bingo?

Check all that apply.

- 1 In person at a bingo hall in Massachusetts
- 2 In person at a bingo hall outside Massachusetts
- 3 At an online bingo site

54. In the past 12 months, how often have you spent money on *electronic gambling machines* (i.e., slot machines, video lottery terminals, electronic casino table games) either in person or online?

- 1 4 or more times a week
- 2 2-3 times a week
- 3 Once a week
- 4 2-3 times a month
- 5 Once a month
- 6 Less than once a month
- 7 Not at all → GO TO 56

55. Roughly how much money do you spend on electronic gambling machines in a typical month?

-\$, ,

56. In the past 12 months how often have you bet money on any *casino table game* such as poker, blackjack, baccarat, roulette, craps, mah-jong, sic-bo, pai gow, either in person or online? *This does not include automated electronic versions of these games, which should be reported in the question about electronic gambling machines.*

- 1 4 or more times a week
- 2 2-3 times a week
- 3 Once a week
- 4 2-3 times a month
- 5 Once a month
- 6 Less than once a month
- 7 Not at all

If you did not bet money on electronic gambling machines or casino table games in the past 12 months, please go to Question 68 on page 8. Otherwise continue to Question 58.

57. Roughly how much money do you spend on casino table games in a typical month?

- \$, ,

58. Where did you play these electronic gambling machines and/or casino table games? Check all that apply.

- 1 At the Plainridge Park Casino in Plainville, Massachusetts
- 2 At a land-based casino, slot parlor, slots at racetrack, or card room outside of Massachusetts
- 3 At an online casino or card/poker room
- 4 At an underground/illegal casino, slot parlor, or card room in Massachusetts
- 5 At a private residence

59. Roughly what percentage of your spending on electronic gambling machines and/or casino table games is done at each location? *The percentages should add up to 100%.*

1 % Plainridge Park Casino in Plainville, Massachusetts

2 % Land-based casino, slot parlor, slots at racetrack, or card room outside of Massachusetts

3 % Online casino or card/poker room

4 % Underground/illegal casinos, slot parlor, or card room in Massachusetts

5 % At a private residence

At a land-based casino, slot parlor, slots at racetrack, or card room outside of Massachusetts” at Question 58, go to Question 60. If you did **NOT** select this option, go to Question 64.

60. In the past 12 months, how many times have you played electronic gambling machines or casino table games at a casino, slots parlor, slots at racetrack, or card room outside of Massachusetts?

number of times

61. Roughly how much money do you spend on gambling per visit in out of state casinos, slots parlors, slots at racetracks, and card rooms?

- \$, ,

62. Roughly how much money do you spend on nongambling activities (such as food, travel, lodging, entertainment) per visit in out of state casinos, slots parlors, slots at racetracks, and card rooms?

\$,

63. Which specific casino or slots parlor do you most often go to?

- ¹ Atlantic City Casino (NJ)
- ² Nevada Casino
- ³ Empire City (Yonkers, NY)
- ⁴ Foxwood (Ledyard, CT)
- ⁵ Hollywood Slots (Bangor, ME)
- ⁶ Mohegan Sun (Uncasville, CT)
- ⁷ Monticello (Monticello, NY)
- ⁸ Newport Grand (Newport, RI)
- ⁹ Oxford Casino (Oxford, ME)
- ¹⁰ Resorts World (Queens, NY)
- ¹¹ Saratoga Casino & Raceway (Saratoga, NY)
- ¹² Turning Stone (Verona, NY)
- ¹³ Twin River (Lincoln, RI)
- ¹⁴ Vernon Downs (Vernon, NY)
- ⁹¹ Other

64. Do you have a casino player rewards card (e.g., Marquee Rewards)?

- ¹ Yes
- ² No → GO TO 68

65. Is this a rewards card for a Massachusetts casino?

- ¹ Yes
- ² No → GO TO 68

66. Have you used the Play Management system on your card (allowing you to put limits on your time and expenditure)?

- ¹ Yes
- ² No → GO TO 68

67. Have you found these features useful in managing your gambling?

- ¹ Yes
- ² No

68. In the past 12 months, how often have you bet on horse racing or dog racing either in person, by phone, or online? Would you say...?

- ¹ 4 or more times a week
- ² 2-3 times a week
- ³ Once a week
- ⁴ 2-3 times a month
- ⁵ Once a month
- ⁶ Less than once a month
- ⁷ Not at all → GO TO 71

69. Roughly how much money do you spend on horse or dog racing in a typical month?

- \$, ,

70. Where do you most often bet on horse or dog racing?

- ¹ Suffolk Downs
- ² Plainridge Racecourse
- ³ Raynham Park
- ⁴ Other Massachusetts racecourse (e.g., Brockton)
- ⁵ Online racebook
- ⁹¹ Other

71. In the past 12 months how often have you gambled or bet money on other types of gambling that have not yet been mentioned, such as betting on card games other than poker, blackjack, and baccarat; board games (e.g., chess, backgammon); television events; political events; video games; cock fighting; dog fights; financial indices betting on a gambling website (including spread betting); or anything else?

- ¹ 4 or more times a week
- ² 2-3 times a week
- ³ Once a week
- ⁴ 2-3 times a month
- ⁵ Once a month
- ⁶ Less than once a month
- ⁷ Not at all → GO TO 75 ON PAGE 9

72. What are these other types of gambling you bet money on? Check all that apply.

- ¹ Non-casino card games
- ² Board games
- ³ Television events
- ⁴ Political events
- ⁵ Video games
- ⁶ Cock fights
- ⁷ Dog fights
- ⁸ Financial indices betting
- ⁹¹ Other

73. Did you make these bets in person or remotely via a computer, phone, television, or other device? Check all that apply.

- ¹ In person
- ² Remotely via a computer, phone, television, or other device

74. Roughly how much money do you spend on these other types of gambling in a typical month?

\$, ,

75. Do you personally manage most of your own stock market investments (i.e., make your own decisions and purchases of stocks, bonds, etc. independent of a financial advisor or fund manager)?

- ¹ Yes
- ² No → GO TO 78
- ³ I have no stock market investments → GO TO 78

76. In the past 12 months, which of the following financial products/activities have you purchased, sold, or engaged in? Check all that apply.

- ¹ Mutual funds
- ² Bonds
- ³ Individual stocks
- ⁴ Penny stocks
- ⁵ Options
- ⁶ Futures
- ⁷ Other derivatives (e.g., Swaps)
- ⁸ Shorting stocks
- ⁹ Day trading

77. What do you estimate your net loss or gain in a typical month is from your stock market activity?

\$, ,

78. To what extent do you agree with the statement: "wealth is a good measure of success in life"?

- ¹ Strongly agree
- ² Agree
- ³ Neutral
- ⁴ Disagree
- ⁵ Strongly disagree

79. How often do you use automatic teller machines at casinos, slot parlors, racetracks, or bingo halls?

- ¹ Never
- ² Occasionally
- ³ Most times that I go

80. In the past 12 months what was the largest amount of money you have won gambling in a single day?

- ¹ \$0
- ² +\$1 to +\$199
- ³ +\$200 to +\$499
- ⁴ +\$500 to +\$999
- ⁵ +\$1000 to +\$1999
- ⁶ +\$2000 or more

81. In the past 12 months what was the largest amount of money you have lost gambling in a single day?

- ¹ \$0
- ² -\$1 to -\$199
- ³ -\$200 to -\$499
- ⁴ -\$500 to -\$999
- ⁵ -\$1000 to -\$1999
- ⁶ -\$2000 or more

Gambling Motivation

The following questions ask about your current gambling activities and the availability of gambling in your area.

82. What would you say is the main reason that you gamble? Would you say...?

- ¹ For excitement/entertainment
- ² To win money
- ³ To escape or distract yourself
- ⁴ To socialize with family or friends
- ⁵ To support worthy causes
- ⁶ Because it makes you feel good about yourself
- ⁹¹ Other

Gambling Recreation

83. How important is gambling to you as a recreational activity? Would you say...?

- Very important
- Somewhat important
- Not very important
- Not at all important

84. Has gambling replaced other recreational activities for you in the past year?

- Yes
- No → GO TO 86

85. Which recreational activities has gambling replaced?

Gambling Context

86. Do you typically gamble alone or with friends?

- More often alone
- More often with friends

87. How available are gambling opportunities at your workplace or school?

- Not available
- Somewhat available
- Extensively available

88. How close is the nearest casino to you?

- More than a 30 minute drive from either home, work, or school
- A 16 to 30 minute drive from either home, work, or school
- A 5 to 15 minute drive from either home, work, or school
- Less than a 5 minute drive from either home, work, or school

Lifetime Gambling

89. At what age do you recall gambling for money for the first time?

90. Have any of your parents, brothers or sisters, or children ever been regular gamblers?

- Yes
- No → GO TO 92
- Unsure

91. Have any of your parents, brothers or sisters, or children ever been problem gamblers (i.e., had difficulty controlling their gambling to the extent that it caused significant problems)?

- Yes
- No
- Unsure

Gambling Fallacies

The next set of questions will ask your opinion about various gambling situations.

92. Which of the following set of lottery numbers has the greatest probability of being selected as the winning combination?

- 1, 2, 3, 4, 5, 6
- 8, 18, 3, 55, 32, 28
- Each of the above have an equal probability of being selected

93. Which gives you the best chance of winning the jackpot on a slot machine?

- Playing a slot machine that has not had a jackpot in over a month.
- Playing a slot machine that had a jackpot an hour ago.
- Your chances of winning the jackpot are the same on both machines.

94. How lucky are you? If 10 people's names were put into a hat and one name drawn for a prize, how likely is it that your name would be chosen?

- About the same likelihood as everyone else
- Less likely than other people
- More likely than other people

95. If you were to buy a lottery ticket, which would be the best place to buy it from?

- A place that has sold many previous winning tickets
- A place that has sold few previous winning tickets
- One place is as good as another

96. A positive attitude or doing good deeds increases your likelihood of winning money when gambling.

- Disagree
- Agree

97. A gambler goes to the casino and wins 75% of the time. How many times has he or she likely gone to the casino?

- ¹ 4 times
- ² 100 times
- ³ It is just as likely that he has gone either 4 or 100 times

98. You go to a casino with \$100 hoping to double your money. Which strategy gives you the best chance of doing this?

- ¹ Betting all your money on a single bet
- ² Betting small amounts of money on several different bets
- ³ Either strategy gives you an equal chance of doubling your money

99. Which game can you consistently win money at if you use the right strategy?

- ¹ Slot machines
- ² Roulette
- ³ Bingo
- ⁴ None of the above

100. Your chances of winning a lottery are better if you are able to choose your own numbers.

- ¹ Disagree
- ² Agree

101. You have flipped a coin and correctly guessed 'heads' 5 times in a row. What are the odds that heads will come up on the next flip. Would you say...?

- ¹ 50%
- ² More than 50%
- ³ Or less than 50%

Prevention Awareness

Now we would like to ask you a few questions about media campaigns and gambling behaviors.

102. In the past 12 months have you seen or heard any media campaigns to prevent problem gambling in Massachusetts?

- ¹ Yes
- ² No

103. In the past 12 months have you been aware of any programs to prevent problem gambling (other than media campaigns) offered at your school, your place of work, in your community or elsewhere?

- ¹ Yes
- ² No

*If you selected "No" to both Question 102 **AND** Question 103, then go to Question 106.*

104. Did you participate in any of the problem gambling prevention programs that you heard of in the past 12 months?

- ¹ Yes
- ² No

105. Did any of these media campaigns or programs cause you to alter your own gambling behavior?

- ¹ Yes
- ² No

Gambling Problems - Others

106. What portion of your close friends and family members are regular gamblers? Would you say...?

- ¹ None of them
- ² Some of them
- ³ Most of them
- ⁴ All of them

107. During the last 12 months, has there been any person in your life that you consider gambles too much?

- ¹ Yes
- ² No → GO TO 109 ON PAGE 12

108. What is this person's relationship to you?

- ¹ Spouse/partner
- ² Parent/step parent
- ³ Child/step child
- ⁴ Other person (in your household)
- ⁵ Other family member (not living in your household)
- ⁶ Ex-partner
- ⁷ Work colleague
- ⁸ Friend
- ⁹ Neighbor
- ⁹¹ Someone else

Gambling Problems - Self

Please answer all of the following questions, even if you think they do not apply to you.

109. In the past 12 months, have you bet more than you could really afford to lose?

Would you say...?

- 1 Never
- 2 Sometimes
- 3 Most of the time
- 4 Almost always

110. In the past 12 months, have you felt guilty about the way you gamble or what happens when you gamble? Would you say...?

- 1 Never
- 2 Sometimes
- 3 Most of the time
- 4 Almost always

111. In the past 12 months, have you needed to gamble with larger amounts of money to get the same feeling of excitement? Would you say...?

- 1 Never
- 2 Sometimes
- 3 Most of the time
- 4 Almost always

112. In the past 12 months, when you gambled, did you go back another day to try to win back the money you lost? Would you say...?

- 1 Never
- 2 Sometimes
- 3 Most of the time
- 4 Almost always

113. In the past 12 months, have you borrowed money or sold anything to get money to gamble? Would you say...?

- 1 Never
- 2 Sometimes
- 3 Most of the time
- 4 Almost always

114. In the past 12 months, has your gambling caused any financial problems for you or your household? Would you say...?

- 1 Never
- 2 Sometimes
- 3 Most of the time
- 4 Almost always

115. In the past 12 months, has your gambling caused you any health problems, including stress or anxiety? Would you say...?

- 1 Never
- 2 Sometimes
- 3 Most of the time
- 4 Almost always

116. In the past 12 months, have people criticized your betting or told you that you had a gambling problem, regardless of whether or not you thought it was true? Would you say...?

- 1 Never
- 2 Sometimes
- 3 Most of the time
- 4 Almost always

117. In the past 12 months, have you felt that you might have a problem with gambling? Would you say...?

- 1 Never
- 2 Sometimes
- 3 Most of the time
- 4 Almost always

118. Has your involvement in gambling caused significant mental stress in the form of guilt, anxiety, or depression for you or someone close to you in the past 12 months?

- 1 Yes
- 2 No

119. Has your involvement in gambling caused significant problems in your relationship with your spouse/partner or important friends or family in the past 12 months?

- 1 Yes
- 2 No

120. In the past 12 months, has your involvement in gambling caused you to repeatedly neglect your children or family?

- 1 Yes
- 2 No

121. Has your involvement in gambling caused significant work or school problems for you or someone close to you in the past 12 months or caused you to miss a significant amount of time off work or school?

- 1 Yes
- 2 No

122. In the past 12 months, has your involvement in gambling caused you or someone close to you to write bad checks, take money that didn't belong to you or commit other illegal acts to support your gambling?

- 1 Yes
2 No

123. In the past 12 months, have you often gambled longer, with more money or more frequently than you intended to?

- 1 Yes
2 No

124. In the past 12 months, have you made attempts to either cut down, control or stop gambling?

- 1 Yes
2 No → GO TO 126

125. Were you successful in these attempts to cut down, control or stop gambling?

- 1 Yes
2 No

126. In the past 12 months, is there anyone else who would say that you had difficulty controlling your gambling, regardless of whether you agreed with them or not?

- 1 Yes
2 No

127. In the past 12 months, would you say you have been preoccupied with gambling?

- 1 Yes
2 No

128. In the past 12 months, when you did try cutting down or stopping did you find you were very restless or irritable or that you had strong cravings for it?

- 1 Yes
2 No

129. In the past 12 months, did you find you needed to gamble with larger and larger amounts of money to achieve the same level of excitement?

- 1 Yes
2 No

130. Are there particular types of gambling that have contributed to your problems more than others?

- 1 Yes
2 No → GO TO 132

131. Which types of gambling have contributed to your problems? Check all that apply.

- 1 Lottery
2 Instant ticket
3 Daily lotteries
4 Bingo
5 Slot machines or video lottery terminals
6 Casino table games (i.e., Blackjack, Baccarat, Roulette, Craps, etc.)
7 Poker
8 Horse racing or dog racing
9 Sports betting
10 Speculative high risk stocks, options, futures, or day trading
11 Online gambling
91 Other

132. Have you wanted help for gambling problems in the past 12 months?

- 1 Yes
2 No → GO TO 136

133. Have you sought help for gambling problems in the past 12 months?

- 1 Yes
2 No → GO TO 136

134. Where did you seek help from?

Check all that apply.

- 1 Friends or family
2 Gamesense Information Centre
3 Gamblers Anonymous
4 Gam Anon (This is a support group for friends/family of problem gamblers)
5 Family doctor
6 Private Psychologist/Psychiatrist/Counselor
7 Problem gambling treatment center/clinic
8 Pastor/Minister/Priest/etc.
9 Telephone help/hotline
10 Online help
91 Other

135. How helpful was this? Would you say...?

- 1 Very helpful
2 Somewhat helpful
3 Not very helpful
4 Not at all helpful

136. Have you excluded yourself from any casino or slots parlor in the past 12 months?

- 1 Yes
2 No → GO TO 138 ON PAGE 14

137. In which states have you excluded yourself?

Check all that apply.

- ¹ Massachusetts
- ² Connecticut
- ³ Rhode Island
- ⁴ New Jersey
- ⁵ New York
- ⁶ Pennsylvania
- ⁷ Maine
- ⁸ Nevada
- ⁹¹ Other

138. What would you say have been the main cause or causes of your gambling problems (provide as much detail as needed)?

139. Do you believe you are having fewer gambling problems than last year?

- ¹ Yes
- ² No → GO TO 141

140. What would you say is responsible for this improvement (provide as much detail as needed)?

If you would like information regarding treatment resources, please see page 19 for contact information.

Social Functioning

We would now like to switch focus and ask a few questions about family and social relationships.

141. How would you rate your current family relationships?

- ¹ Excellent
- ² Very good
- ³ Average
- ⁴ Below average
- ⁵ Poor

142. How would you rate your current marital relationship?

- ¹ Excellent
- ² Very good
- ³ Average
- ⁴ Below average
- ⁵ Poor
- ⁶ Not applicable

143. How would you rate your current level of social support?

- ¹ Excellent
- ² Very good
- ³ Average
- ⁴ Below average
- ⁵ Poor

144. How important is religion in your life?

- ¹ Very important
- ² Somewhat important
- ³ Not too important
- ⁴ Not at all important

145. Have you committed any illegal activities in the past year?

- ¹ Yes
- ² No

146. Do you have a criminal record?

- ¹ Yes
- ² No

Please rate the extent to which you agree or disagree with each of the following statements.

	Disagree Strongly	Disagree Somewhat	Agree Somewhat	Agree Strongly
147. Success is based on survival of the fittest; I am not concerned about the losers	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
148. For me, what's right is whatever I can get away with	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
149. In today's world, I feel justified in doing anything I can get away with to succeed	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
150. My main purpose in life is getting as many goodies as I can	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
151. Making a lot of money is my most important goal	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
152. I let others worry about higher values; my main concern is with the bottom line	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
153. People who are stupid enough to get ripped off usually deserve it	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
154. Looking out for myself is my top priority	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
155. I tell other people what they want to hear so that they will do what I want them to do	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
156. I would be upset if my success came at someone else's expense	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
157. I often admire a really clever scam	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
158. I make a point of trying not to hurt others in pursuit of my goals	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
159. I enjoy manipulating other people's feelings	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
160. I feel bad if my words or actions cause someone else to feel emotional pain	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
161. Even if I were trying very hard to sell something, I wouldn't lie about it	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
162. Cheating is not justified because it is unfair to others	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>

Demographics

The last few questions are about your background so we can keep track of the characteristics of people who respond to the survey.

163. Are you male or female?

- Male
- Female

164. In what year were you born?

Year

165. At present are you...?

- Married
- Living with your partner
- Separated, but still legally married
- Divorced
- Widowed
- Never been married

166. How many children under 18 years old live in your household?

Number of children

167. What is the highest degree or level of school you have completed?

- Never attended school or only attended kindergarten
- Grades 1 through 8
- Grades 9 through 11
- Regular High School Diploma or GED
- Some college credit, but less than 1 year of college credit
- 1 or more years of college credit, but no degree
- Associate Degree
- Bachelor's Degree
- Master's Degree
- Professional Degree beyond a Bachelor's Degree
- Doctorate Degree

168. Are you currently...?

- Employed for wages
- Self-employed
- Out of work for more than 1 year
- Out of work for less than 1 year
- A Homemaker
- A Student
- Retired
- Unable to work

169. Have you ever served on active duty in the U.S. Armed Forces, military Reserves, or National Guard? Active duty does not include training for the Reserves or National Guard, but DOES include activation, for example, for the Persian Gulf War.

- Yes, now on active duty
- Yes, on active duty in the past, but not during the last 12 months
- No, training for Reserves or National Guard only
- No, never served in the military

170. Do you own the place where you currently live, pay rent or something else?

- Own
- Rent
- Something else

171. Is your approximate annual household income from all sources...?

- Less than \$15,000
- \$15,000 - \$29,999
- \$30,000 - \$49,999
- \$50,000 - \$69,999
- \$70,000 - \$99,999
- \$100,000 - \$124,999
- \$125,000 - \$149,999
- \$150,000 or more

172. What do you estimate your current debt to be? Please include mortgages, credit cards, loans, car payments, etc.

- \$0 (no debt)
- Less than \$10,000
- \$10,000 - \$19,999
- \$20,000 - \$39,999
- \$40,000 - \$59,999
- \$60,000 - \$79,999
- \$80,000 - \$99,999
- \$100,000 - \$119,999
- \$120,000 - \$139,999
- \$140,000 - \$159,999
- \$160,000 - \$179,999
- \$180,000 - \$199,999
- \$200,000 - \$299,999
- \$300,000 - \$399,999
- \$400,000 - \$499,999
- \$500,000 or more

173. Were you born in the United States?

- Yes
- No

174. Many people only live in Massachusetts for part of the year. Do you live in Massachusetts for 6 or more months out of the year? *If you recently moved to Massachusetts and plan on staying for 6 months or longer, mark yes. If you are planning on moving out of Massachusetts but have lived there for at least 6 months in 2015, mark yes.*

- ¹ Yes
- ² No

175. Are you Hispanic or Latino?

- ¹ Yes
- ² No

176. Which one or more of the following would you say is your race? *Check all that apply.*

- ¹ White or Caucasian
- ² Black or African American
- ³ Asian
- ⁴ Native Hawaiian or Other Pacific Islander
- ⁵ Native American or Alaskan Native
- ⁹¹ Some other race

177. How many members of your household, including yourself, are 18 years of age or older?

 Number of adults (18 or older)

178. Do you have an internet connection either at home or at work?

- ¹ Yes
- ² No

179. Overall, how often do you use the Internet?

- ¹ Daily
- ² A few times a week
- ³ A few times a month
- ⁴ A few times a year
- ⁵ Not at all

Because we are interested in how opinions change over time, you may be re-contacted in the future to participate in related studies. If you are contacted to participate in future surveys, you have the right to refuse. To document who completed the survey from your household, please provide any edits to your name, email and phone number.

180. First Name:

181. Last Name:

182. What is the best phone number to reach you if we have more questions about your household? *This number will only be used to contact you about this study. We are prohibited from sharing, distributing, or selling your information to anyone outside this project.*

() -

183. Please enter your email address.

You have reached the end of the survey. You will be re-contacted again each year about this same time to retake the survey. If any of your contact information changes in the next year please contact NORC via email or by phone at MAHealth@norc.org or 866-900-9601. It is also possible you may be re-contacted to participate in related studies. If you are contacted to participate in any future surveys, you have the right to refuse. I'd like to thank you on behalf of the University of Massachusetts for the time and effort you've spent answering these questions. If you have any questions about this survey, you may contact Dr. Rachel Volberg at 413-545-6700.

Thank you again.

If you would like information regarding treatment resources, please contact:

Massachusetts Substance Abuse Information and Education Helpline
800-327-5050
TTY: 617-536-5872

Drug & Alcohol Treatment Hotline
800-662-HELP

National Alliance on Mental Illness
1-800-950-6264

Samaritans
877-870-4673

National Suicide Prevention Lifeline
1-800-273-8255
1-800-799-4889

To help us contact you, please provide any edits to the names and contact information you previously provided for 3 people who are likely to know where you can be reached. *Please do not include someone who lives in your household.*

Contact #1

Name

Address

Phone

Email

Contact #2

Name

Address

Phone

Email

Contact #3

Name

Address

Phone

Email

Please return your completed questionnaire using the enclosed pre-paid envelope to:

University of Massachusetts Amherst
C/O NORC at the University of Chicago
55 East Monroe Street, 16th Floor
Chicago, IL 60603

If you have misplaced the pre-paid envelope, please call 1-866-900-9601 for a new one.

NORC at the University of Chicago is conducting this study on behalf of the University of Massachusetts Amherst. If you have questions or would prefer to complete the survey by phone, please call NORC toll-free at 1-866-900-9601.

If you have questions about your rights as a study participant, you may call the NORC Institutional Review Board toll-free, at 1-866-309-0542.

If you would prefer to complete this survey online, please go to:
<https://MACohort.norc.org/go/MAGIC>.

Your unique survey Personal Identification Number (PIN) is: **XXXXXX**.

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Receipt		CADE		Verification		Adjudication	
Initials	Date	Initials	Date	Initials	Date	Initials	Date