



**MASSACHUSETTS GAMING COMMISSION
PUBLIC MEETING #237**

March 1, 2018
10:00 AM

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



Massachusetts Gaming Commission

101 Federal Street, 12th Floor, Boston, Massachusetts 02110 | TEL 617.979.8400 | FAX 617.725.0258 | www.massgaming.com



NOTICE OF MEETING and AGENDA
March 1, 2018

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, March 1, 2018
10:00 a.m.

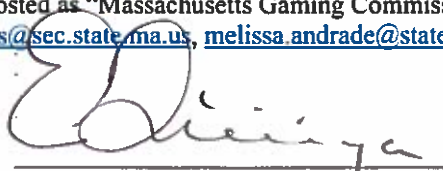
Massachusetts Gaming Commission
101 Federal Street, 12th Floor
Boston, MA

PUBLIC MEETING - #237

1. Call to order
2. Administrative Update – Ed Bedrosian, Executive Director
 - a. General Update
 - b. MGM - Opening Update
 - c. Sports Betting White Paper – J. Stempeck, Staff Attorney and P. Connelly, Director of Licensing
3. Ombudsman – John Ziemba
 - a. Plainridge Park Casino Quarterly Report
4. Research and Responsible Gaming – Mark Vander Linden, Director
 - a. Responsible Gaming Framework Review
 - b. Two Year Public Safety Report – Christopher Bruce, Crime Analyst
 - c. National Problem Gambling Month – M. Warner, Executive Director, MA Council on Compulsive Gambling
5. Commissioner's Updates
6. 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.

2/27/18
DATE


Enrique Zuniga, Commissioner

Date Posted to Website: February 27, 2018 at 10:00 a.m.



Massachusetts Gaming Commission

101 Federal Street, 12th Floor, Boston, Massachusetts 02110 | TEL 617.979.8400 | FAX 617.725.0258 | www.massgaming.com

THE COMMONWEALTH OF MASSACHUSETTS



White Paper on Sports Betting

MASSACHUSETTS GAMING COMMISSION

Paul Connelly, Director of Licensing
Justin Stempeck, Associate Counsel

February 28, 2018

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INTRODUCTION

The goal of this white paper is to provide a roadmap for those seeking to learn about the current landscape of the sports betting discussion in the country and its possibilities in Massachusetts. While the basics of the Supreme Court argument are summarized in passing, this is not a detailed legal analysis of the arguments put forth in that forum. Instead, this paper examines the facts concerning illegal and legal sports betting in the United States and the various policy approaches to a regulated sports betting market in the Commonwealth. The possible fall of the federal ban on sports betting provides an opportunity coinciding with the rise of a nascent casino industry in Massachusetts. Recognizing that the first step in any decision is proper education on the subject, the Massachusetts Gaming Commission respectfully submits this white paper to the Legislature to aid in this endeavor.

I. What factors are important to the Commonwealth for consideration in a discussion of Sports Betting?

A. Historical Perspective

The gaming landscape in Massachusetts has changed drastically over the past seven years. Where previously the Commonwealth was known primarily for its horse racing and the success of its state lottery, since the passage of the 2011 Expanded Gaming Act (M.G.L. c. 23K), Massachusetts has been at the forefront of discussions concerning the future of gaming, both with respect to the impressive brick and mortar casino facilities being currently constructed as well as with respect to advances in online gaming, daily fantasy sports (DFS) and sports betting. These discussions have included thoughtful consideration of new gaming questions as well as the careful and responsible implementation of the Expanded Gaming Act.

The Expanded Gaming Act was crafted as a job creation and economic stimulus bill to take advantage of the untapped gaming market in Massachusetts. That consumer market had

long filled the coffers of neighboring states that provided legal gaming opportunities. The Gaming Act sought to create jobs, spur investment and development in the Commonwealth and retain local gaming dollars that had previously been spent in other states. In order to achieve these lofty goals, the Act provided for the licensing of three resort casinos in three separate areas of the state. The Act also permitted the construction and operation of a slots-only casino. Currently, MGM Resorts holds the Region B license and is nearing completion of the construction of a casino complex in Springfield which is slated to open in September 2018. Wynn Resorts holds the Region A license and is deep into construction of a facility set to open in June 2019. Plainridge Park Casino, the state's sole slot parlor opened in June 2015.

Recently, during the pendency of The Special Commission to conduct a comprehensive study relative to the regulation of online gaming, fantasy sports gaming and daily fantasy sports, that group heard testimony from representatives from the three casino licensees with respect to a number of cutting-edge issues, including sports betting. All three licensees favored the introduction of a sports betting product at their facilities. While there was no in-depth discussion of the details of how sports betting would be presented by the licensees, it is clear that the opportunity to add a sportsbook to their locations would not be overlooked.

The Expanded Gaming Act also placed the existing Racing Commission under the jurisdiction of the newly created Massachusetts Gaming Commission (MGC), placing oversight of Thoroughbred and Standardbred racing within the authority of the MGC. As horse racing has a long and storied history in the Commonwealth, it also provides a concrete example of a type of legal sports betting that has prevailed for decades. Further, many are unaware of the fact that the horse racing industry in Massachusetts introduced a form of online betting through advance

deposit wagering (ADW) back in 2001.¹ ADW allows a bettor to prefund an account and then place bets from that account on local and national horse races through telephone calls or the websites of numerous ADW providers, including Hollywood Races, XpressBet, TVG, Twinspires and NYRAbets. Notably, each of these ADW providers have corresponding mobile applications that any bettor can use on a smartphone, thus providing mobile, legal horse betting to any citizen of the Commonwealth.

B. What is the Potential Sports Betting Market Size?

One of the inherent difficulties with estimating the potential legal sports betting market size is the uncertainty that comes with any estimate of the illegal market size. Further complicating the matter has been the fact that most of the figures advanced in public reports are based on a national estimate of total betting handle and not revenue. Understanding the difference between the handle and revenue is critical for realistic expectations of sports betting revenue. The “handle” in sports betting refers to the total amount wagered, which is not the amount that would typically be taxed. Sports book operators typically clear roughly 5% of handle as gross gaming revenue. “Gross gaming revenue,” (GGR) is the amount wagered minus the winnings returned to players (before paying taxes and operating costs). For example, a handle of \$50 million would result in only \$2.5 million in GGR. So while there may be an extremely large handle for illegal sports betting, the taxable GGR is a much smaller percentage of that figure.²

¹ As used in this section, “account wagering” shall mean a form of pari-mutuel wagering in which an individual may deposit money to an account established through an agreement with a person licensed to conduct a running horse, harness horse or dog racing meeting and use the account balance to make and pay for wagers by the holder of the account which wagers may be made in person, by direct telephone call or by communication through other electronic media by the holder of the account to the licensee. G.L. c. 128A, § 5C.

² For example, in Nevada, the gross gaming revenue is taxed at 6.75%, thus using the scenario posed; the tax would only return \$168,750.00 on \$2.5 million in revenue.

Many estimates of the size of the illegal sports betting market in the United States have significantly exceeded \$100 billion annually, with the American Gaming Association estimating a \$150 billion annual market size and a recent study by H2 Gambling Capital estimating a \$192 billion annual market size.³ In contrast, a September report by the firm of Eilers & Krejcik Gaming estimates a black market size at a more conservative \$50-\$60 billion. Regardless of the exact figure it is safe to assume that the illegal sports betting market is in the tens of billions of dollars, if not over \$100 billion.

Although relatively little research has been conducted on state specific market size, the American Gaming Association did retain Oxford Economics to examine the economic impact of sports betting in May 2017.⁴ Oxford conducted numerous analyses of national and state data to estimate the tax revenue to various states based on a number of different scenarios. These scenarios examined three GGR tax rates: a “low” tax rate of 6.75%, a “base” tax rate of 10% and a “high” tax rate of 15%. The study also looked at three different models concerning the availability of sports betting: a **limited availability model** (sportsbooks only available at casinos, no online/mobile), a **moderate availability model** (casino sportsbooks and retail locations, no online/mobile) and a **convenient availability model** (casino sportsbooks, retail locations and online/mobile). Analyzing each availability model with the three prospective tax rates returned the following possible tax revenues⁵ for Massachusetts:

³ See “Illegal sports wagering reaches \$196bn or 97% of US market, according to H2”

<http://www.igamingbusiness.com/news/illegal-sports-wagering-reaches-196bn-or-97-us-market-according-h2-0>

⁴ <https://www.americangaming.org/sites/default/files/AGA-Oxford%20-%20Sports%20Betting%20Economic%20Impact%20Report1.pdf>

⁵ These revenues are derived from the various scenarios posed by the Oxford study.

| REVENUE | LOW TAX OF 6.75% GGR | BASE TAX OF 10% GGR | HIGH TAX OF 15% GGR |
|--|-------------------------|------------------------|------------------------|
| Limited availability Revenue | \$8.6 million | \$11.9 million | \$15.2 million |
| Moderate availability Revenue | \$19.5 million | \$27.2 million | \$34.7 million |
| Convenient availability Revenue | \$31.9 million | \$45.2 million | \$61.3 million |

To date this is the only Massachusetts specific market research we have discovered. While it necessarily can only provide an estimate based on the nine scenarios, the study shows the revenue generating potential of various versions of legal sports betting.

C. The Evolving Nature of Sports Betting

Given that opportunities for legal sports betting in the United States are currently limited, many are unaware of the advances in the field that have modernized the product in both the legal and the illegal contexts. Sports betting's increasing popularity is reflected in the record setting handle of over \$500 million a month reported by the Nevada Gaming Commission for September, October and November of 2017. While bettors in Nevada can still physically place a bet at a sportsbook much of the business has now turned to placing bets online or via smartphone applications, the first of which was approved in 2010. As of 2018, there are eight different sports betting apps available in Nevada. These apps generate 25-50% of the entire sports betting handle for the state.⁶ Sportsbooks offer a variety of different types of traditional bets (point spread, money line, parlay, etc.) but the fastest growing area of betting is "in play bets." "In play bets" allow a bettor to place a wager on a game that is already in progress.

While regulated sports betting in Nevada enjoys resurgent interest, sophisticated online illegal sports betting is easily available. A simple Google search for "online sportsbook" returns

⁶ <https://www.legalsportsreport.com/nevada/>

numerous providers that offer online betting options to U.S. customers regardless of the legal status of sports betting in one's state. Many of these operators also provide mobile apps that integrate seamlessly with the sportsbook to allow for bettors to place bets wherever they have access to their smartphone. These black market operators may appear legitimate at first glance, but they are unlicensed and unregulated. As a result, a disgruntled customer has limited recourse in the event of any complaint and no guarantee of any consumer protections for their money once it is sent to the operator.

Beyond the easy access to sports betting for anyone with an internet connection or a smartphone, there has been a significant advancement from the typical local bookie to the development of a "pay per head" model of sports betting. A "pay per head" sportsbook provides a software as a service type product where bookies receive access to a custom sports betting website where they can direct their customers. A "pay per head" has all of the accessories to rival online sports books including a betting menu, 24/7 player access, a wide variety of betting types including in-play bets, player profiles, live agents to take bets over the phone, technical support and a full slate of varied sports on which to bet. The service further allows the bookie to modify player profiles to set limits or cut off betting, both of which are integral where a bettor is allowed to make bets on credit. A sophisticated bookie can even change the lines on a particular game to balance out risk exposure. Using "pay per head" software, the bookie pays a weekly service fee to the software operator based on the number of players he brings in, generally the more players he brings in, the lower the average cost per player per week. While the software does all of the calculations for wins and losses, the bookie still collects losses and pays out winnings. The "pay per head" model offers the advantages of both worlds, combining the local

relationships that support a small sportsbook with the sophistication and technology of a polished online operation.

Just as the betting operations have become more sophisticated, bettors themselves have embraced technology, particularly in the age of cryptocurrency.⁷ With the popularity of bitcoin and other similar currencies, entrepreneurs began offering sportsbooks that accepted such anonymous tender without requiring any details of ownership. Many of the sites that host such operations do not even require users to provide an email address thus raising very real concerns about a host of consumer protection issues including player fund protection, fairness of contests, access to funds, as well as money laundering.

D. How are Other States Approaching Sports Betting?

There is no uniform approach emerging as other states grapple with the legalization of sports betting. There was extensive legislative activity in many states in 2017. That pace has only continued into the beginning of 2018, as reflected in the 2018 legislation filed to date and shown in this chart:

| STATE | BILL | DESCRIPTION |
|------------|------------------------------|--|
| California | ACA 18 | Allows the legalization of sports betting if PASPA is overturned. |
| Illinois | H4214, S2478, S 3125, H 5186 | Legalizes sports betting unless at existing gaming facilities unless prohibited by federal law |
| Indiana | S405, H1325 | Legalizes sports betting unless at existing gaming facilities unless prohibited by federal law |
| Iowa | H592 | Legalizes sports betting for existing licensees if PASPA is overturned. |
| Kansas | H2533 | Legalizes sports betting solely at racetrack gaming |

⁷ "Cryptocurrency is a digital asset designed to work as a medium of exchange that uses cryptography to secure its transactions, to control the creation of additional units, and to verify the transfer of assets. Cryptocurrencies are a form of digital currencies, alternative currencies and virtual currencies. Cryptocurrencies use decentralized control as opposed to centralized electronic money and central banking systems. The decentralized control of each cryptocurrency works through a blockchain, which is a public transaction database, functioning as a distributed ledger." <https://en.wikipedia.org/wiki/Cryptocurrency>

| | | |
|----------------|-------------------------------------|---|
| | | facilities. |
| Kentucky | BR155 | Legalizes sports betting under the Kentucky Racing Commission |
| Maryland | S856, HB1346 | Legalizes and regulates sports betting via referendum |
| Michigan | H4060, H4261, H4926 | The first bill legalizes sports betting via a referendum. The second allows for parlay wagering. The final bill legalizes online sports betting (as long as consistent with federal law), casino games and poker. |
| Mississippi | H1113, H1154 | The first bill legalizes sports betting on the physical premise of licensees. The second bill studies tax rates for sports betting. |
| Missouri | H2320, H2406, S 1005, H 2535, S 767 | These bills provide differing approaches to legalizing and regulating sports betting . |
| New York | S1282, A5438 | The bills legalize sports betting at racetracks and simulcast venues. New York has already legalized sports betting at its commercial casinos in the event that PASPA is overturned. |
| Oklahoma | H3375, S1175 | These bills legalize sports betting. |
| Rhode Island | S2045 | Subject to a change in federal law this bill legalizes sports betting at casinos. |
| South Carolina | H3102 | This bill legalizes sports betting. |
| West Virginia | H2751, S106, S415, H4396 | These bills legalize sports betting if PASPA is overturned. |

As demonstrated above, proposed legislation varies in detail and complexity from state to state. The basic common thread is the march of many states from around the country towards the legalization of sports betting.

II. What are the possible legal outcomes of the pending Supreme Court Decision and what would their effects be in Massachusetts?

A. The Professional and Amateur Sports Protection Act and Christie v. NCAA, et al.

In order to place the current discussion over the future of sports betting in context, it is important to understand both the Professional and Amateur Sports Protection Act (PASPA), 28 U.S.C. § 3701 (1992), as well as New Jersey's challenge to the statute. PASPA basically serves as a prohibition against any state action that would make sports betting legal (except for certain

grandfathered states, including Nevada). The most relevant and oft-discussed section of PASPA states:

It shall be unlawful for-

- (1) A governmental entity to sponsor, operate, advertise, promote, license, or authorize by law or compact or
- (2) a person to sponsor, operate, advertise, or promote, pursuant to the law or compact of a governmental entity,

a lottery, sweepstakes, or other betting, gambling, or wagering scheme based, directly or indirectly (through the use of geographical references or otherwise), on one or more competitive games in which amateur or professional athletes participate, or are intended to participate, or on one or more performances of such athletes in such games.

28 U.S.C. § 3702 (emphasis added). These so-called PASPA ‘verbs:’ “sponsor, operate, advertise, promote, license or authorize by or law or compact” have been much discussed as their exact limits are murky.

The current fight over PASPA began in November 2011, when the voters of New Jersey approved a referendum which granted the state legislature the authority to amend the New Jersey Constitution to allow sports wagering. Subsequently in January 2012, the legislature passed a bill allowing the state to issue licenses to the state’s casinos and racetracks to permit gambling on sporting events. The bill was then signed into law. Before any regulations were promulgated, the NCAA, NBA, NFL, NHL and MLB filed an action in the United States District Court for the District of New Jersey to prevent the state from implementing the law asserting that it violated PASPA. The District Court found in favor of the leagues in February 2013. The state then appealed to the United State Court of Appeals for the Third Circuit to challenge the District Court’s decision. In a two-to-one decision, the Third Circuit affirmed the District Court’s decision against New Jersey.

Approximately a year later, New Jersey filed a motion with the District Court asking for clarification that the state was not required to criminalize sports betting and thus could eliminate laws on sports betting without technically violating PASPA. In October of 2014, New Jersey decriminalized sports betting at licensed racetracks and casinos. The leagues filed suit again and New Jersey lost. In March 2015, New Jersey appealed to the Fourth Circuit Court of Appeals and a three judge panel upheld the lower court ruling in a 2-1 decision. New Jersey then requested a full or “en banc” hearing by the Appeals Court. After the request was granted, the full court ruled against New Jersey in a 9-3 ruling. New Jersey then appealed the decision to the Supreme Court, which heard the case in December 2017. The primary question posed by New Jersey to the Supreme Court was whether PASPA “commandeers” states and requires them to maintain state-law bans on sports betting, thus violating the 10th Amendment.

B. Possible Supreme Court Outcomes and Potential Impact in Massachusetts

Since oral argument in December, legal experts have scrutinized the briefs and the questions posed by the Justices to speculate as to which way the Court is leaning. The general consensus from legal scholars and those that have been following New Jersey’s path to the Supreme Court is that New Jersey has a slight edge in obtaining a favorable verdict. Despite this opinion, there is no clear answer as to what such a favorable ruling would look like.

The various routes the Supreme Court could take fall into the following broad categories (these are not the only possibilities, simply the ones most widely considered):

(1) The Court fully upholds PASPA

Although it is possible that the Supreme Court would uphold PASPA in its entirety, it seems unlikely given that the Court chose to hear the case and extensively questioned counsel during legal argument with respect to the commandeering issue at the heart of the case. The

Supreme Court could have simply denied the writ of certiorari if it was going to leave PASPA unchanged. The Supreme Court receives 7,000 to 8,000 writs of certiorari each year and only hears approximately 80 oral arguments (roughly 1%). Thus, the decision to hear this case in that context cannot be overlooked. If PASPA is entirely upheld by the Supreme Court, there would be no effect on Massachusetts; sports betting is currently illegal and would continue to be illegal under state and federal law.

(2) The Court Issues a Narrow Ruling Authorizing New Jersey's Sports Betting

Alternatively, the Court could issue a narrow ruling that would grant New Jersey the right to offer sports betting but only in the context of the “partial repeal” of its existing laws, while maintaining the legality of PASPA as a whole. As noted above, New Jersey’s current dispute with the leagues came when it decriminalized sports betting at licensed racetracks and casinos. Thus, arguably New Jersey did not take any affirmative actions to “sponsor, operate, advertise, promote, license, or authorize” sports betting in contravention of PASPA. The Court could agree with New Jersey’s argument in this respect.

A decision on these grounds would create some practical difficulties for New Jersey because although it would technically have legal sports betting at licensed racetracks and casinos, there would be no state rules or regulations to govern its operation. In the event that the state attempts to impose such regulations, New Jersey could once again run into a conflict with PASPA and whether its actions constitute “authorization” of sports betting. It could seem counterintuitive to approve of New Jersey’s actions to allow sports betting in an unregulated form but curtail its ability to ensure that the industry was well managed and provided consumer protections. In reaching such a ruling, the Supreme Court could point out these dangers in an

effort to spur Congress to revisit PASPA to address these deficiencies in light of a changed gaming landscape.

In the event that such a narrow ruling is reached, the ruling would provide a roadmap for other states to follow. Such a ruling could lead to a number of states eliminating laws criminalizing sports betting at their licensed casinos, racinos and racetracks. The potential for other states to avoid PASPA prohibitions on sports betting by eliminating their own laws addressing the subject strongly suggests that the Supreme Court will do more than simply approve of New Jersey's approach.

Under this type of a ruling Massachusetts could follow the New Jersey approach and repeal prohibition on sports betting limited solely to licensed casinos / racetracks. However, it would run into the same problems with ensuring the integrity of the practice if actual regulation would simply lead to another PASPA violation.

(3)The Court Fully Strikes Down PASPA.

Alternatively, the Supreme Court could fully strike down PASPA, thus allowing states to address the issue of sports betting themselves. Many states would still need to address state constitutional bans or other state law prohibitions if they are interested in sports betting. However, states would no longer have to be concerned with their actions stepping into the vague penumbra of the PASPA 'verbs' mentioned above. A number of states have already prepared for this possible outcome and have enacted legislation that legalizes sports betting in the event that PASPA is overturned. These states currently include: Connecticut, Delaware, New York, New Jersey, Pennsylvania and Mississippi. Of course, many other states have pending legislation seeking to do the same thing, as referenced in section E above.

In the event that PASPA is overturned by the Supreme Court and Massachusetts is interested in legalizing sports betting in the Commonwealth, a number of state laws could be modified to address the topic. One efficient way to accomplish that goal would be to decriminalize sports betting under certain circumstances, such as when conducted with a state approved sportsbook operator. Additionally, Massachusetts would need to determine if regulation of the industry would be addressed specifically via statute or by regulation, as well as who should regulate the field. There has not been a consistent approach taken by other states that have addressed this issue. Some have crafted dense, detailed bills and others proposed broad legislative language that empowers an administrative agency with the ability to regulate the granular details. An additional option under this scenario would be the “omnibus approach” previously referenced in the MGC’s White Paper on Daily Fantasy Sports. Under that approach a regulatory body would be provided the authority to address the broad subject of online gaming (including sports betting) and thus could quickly react to an industry where change is constant. Settling on a Massachusetts approach is important where both neighboring Rhode Island and Connecticut have either proposed or passed legislation that would legalize sports betting in their respective states if PASPA falls.

C. If PASPA Falls, are There Other Legal Obstacles?

Even in a scenario where PASPA is eliminated, prospective sports book operators would still need to understand the potential application of another federal law, the Federal Wire Act 18 U.S.C. §1081. The Wire Act states in relevant part:

Whoever being engaged in the business of betting or wagering knowingly uses a wire communication facility for the transmission in interstate or foreign commerce of bets or wagers or information assisting in the placing of bets or wagers on any sporting event or contest, or for the transmission of a wire communication which entitles the recipient to receive money or credit as a result of bets or wagers, or for information assisting in the placing of bets or

wagers, shall be fined under this title or imprisoned not more than two years, or both.

18 U.S.C. §1084(a) (emphasis added).

The Wire Act, which was signed into law in 1961, was originally crafted and used to fight organized crime and illegal betting rings. Recently, due to some confusion as to the reach of the Wire Act, the Department of Justice was formally asked for a clarifying opinion and produced one in 2011. In that opinion, the Department of Justice's Office of Legal Counsel (OLC) stated that "interstate transmissions of wire communications that do not relate to a 'sporting event or contest' fall outside the reach of the Wire Act."⁸ While this likely was a positive development for those seeking to offer other forms of online gaming, this clarification made clear that the main focus of the Wire Act is on sports betting.

Given the Wire Act's clear focus on sports betting, the question then becomes what practical effect would it have on a legalized sports environment in the Commonwealth? By the language cited above, the Wire Act prohibits the (1) interstate transmission of bets; (2) interstate transmission of a "wire communication which entitles the recipient to receive money or credit as a result of bets or wagers;" or (3) interstate transmission of "information assisting in the placing of bets or wagers." Importantly, some of these prohibitions are easier to understand than others. For example, under the Wire Act, Massachusetts sportsbook operators could accept bets only from those within Massachusetts in an effort to ensure that there is no "interstate" action. Similarly, a "wire communication which entitles the recipient to receive money or credit as a result of bets or wagers" strongly suggests that any payment processor associated with a legal sportsbook would need to be based in-state. The phrase "information assisting in the placing of

⁸ "Whether Proposals by Illinois and New York State to Use the Internet and Out-of-State Transaction Processors to Sell Lottery Tickets to In-State Adults Violate the Wire Act" United States Department of Justice. September 20, 2011. p. 1. Retrieved February 7, 2018.

bets or wagers,” is not as clear. Legal experts have questioned whether that phrase would prohibit professional sports leagues from transmitting sports data to legal sportsbooks or prohibit a national sportsbook operator from transmitting information on betting lines to other state based affiliates or subsidiaries. The Wire Act does contain an exemption that states:

Nothing in this section shall be construed to prevent the transmission in interstate or foreign commerce of information for use in news reporting of sporting events or contests, or for the transmission of information assisting in the placing of bets or wagers on a sporting event or contest from a State or foreign country where betting on that sporting event or contest is legal into a State or foreign country in which such betting is legal.

18 U.S.C. §1084(b)

In accordance with this exemption, the “transmission of information assisting in the placing of bets or wagers on a sporting event” from one state where sports betting is legal to another state where sports betting is legal would potentially be permitted as long as no bets are communicated between the states. Nonetheless, there is not yet an exact definition of “information assisting in the placing of bets or wagers.” Thus at its inception legalized sportsbooks will have to plan to only accept and process bets entirely within the Commonwealth.

III. Framework For Approach

As the Legislature considers whether or not to legalize sports betting, its evaluation will be guided by certain policy objectives. The introduction of a new aspect of the emerging gaming industry in Massachusetts presents an opportunity to bring a significant amount of gaming activity and revenues out of the shadows and into the legal market. With that transition would come the opportunity to cultivate the associated economic benefits – including tax revenues – while providing consumers of sports betting with protections not afforded them by illegal

bookmakers. While certainly not an exhaustive list, we would posit that among those policy objectives under consideration by the Legislature could be:

- A desire to transition sports betting activity from the black market to legal, regulated markets
- A desire to capture tax revenues from legal sports betting activities
- A desire to expand economic opportunities to potential local providers of sports betting and related industries
- A desire to identify and mitigate any potential negative externalities associated with the introduction of sports betting, including efforts to promote responsible gaming

The Legislature's appetite for legalization and the particular perspective it takes on addressing the policy objectives under consideration will have significant impact on the nature and conduct of a potential sports betting landscape in Massachusetts. Here are some of the high-level considerations to frame some of the most important issues and serve as a starting point for further analysis.

A. Minimizing the Black Market

Because of the advanced nature of illegal online sportsbooks, the "pay per head" operations and bettors utilizing cryptocurrencies to anonymize their actions, any legal competitor will need to offer a competitive product to minimize the appeal of the black market. While some bettors may choose to move into a legal alternative simply because it is legal, fewer will do so if the legal product is less sophisticated than what is easily available on the black market. Reducing the black market has multiple advantages to a state government considering sports betting legalization as doing so will drive bettors to legal, taxable alternatives that are regulated and provide for consumer protections of the public, thus benefiting both the state as well as the

bettors themselves. Reducing the size of the black market also has the potential to reduce enforcement costs associated with investigating and prosecuting illegal sports betting. There are a number of important elements to consider as critical for competing with the black market if sports betting is ultimately legalized, they include:

- **Online availability:** internet based sports betting is already here as exemplified by the multiple off shore sportsbook websites that are easily available to anyone with an internet connection. A legal alternative to these sites must be as convenient and as accessible to challenge the pervasive black market.
- **Mobile availability:** Much as with online, if current black market bettors are accustomed to the ubiquity of a mobile app for their illegal product, any legal version will need to offer similar convenience or risk being ignored.
- **Similar offerings:** Legal sportsbooks will need to offer a similar slate of contests to bet on and types of bets to make, including in-game betting. Any constraints on the most popular types of bets or types of games will discourage adoption of the legal product.
- **Taxes and Fees⁹:** Understanding the economics of a sportsbook and the relatively small margins involved in their operation, taxes and fees should be carefully considered. The active black market operators pay no taxes and no regulatory costs. So they already enjoy an advantage over any legal operator that would only be compounded by a high tax rate on legal operators.

⁹ There has been extensive recent discussion and lobbying efforts by the NBA and MLB to include a 1% fee on handle payable to the leagues in any sports betting legislation. Importantly, a 1% fee on handle equates to roughly a 20% tax on gross gaming revenue, significantly higher than many state tax rates and nearly three times Nevada's existing sportsbook tax.

- **Security/Consumer Protection:** Any legal sports betting product should be prepared to demonstrate its security credentials as well as its consumer protection policies. These elements, when backed by law and regulation, would allow legal sports betting products to distinguish themselves from black market offerings. Such characteristics could be aggressively advertised and marketed as a means to persuade black market bettors to move into the legal market.
- **Responsible Gaming:** A legal market presents the opportunity to provide responsible gaming tools to allow participants to monitor and manage their betting activity.

These are just some of the most relevant elements that should be examined when determining the specifics of a legal market product. Once relevant stakeholders enter the conversation in earnest, there will likely be dozens of nuanced issues to further assess; however, the six broad categories above encapsulate the lion's share of discussions taking place in state legislatures throughout the country.

B. Implementation Considerations

When considering the potential introduction of sports betting in Massachusetts and its attendant impacts, it is helpful to think through the following fundamental questions regarding how and where sports betting would be made available, and to what extent it would be allowed.

Who (i.e. which providers) should be allowed to participate in offering sports betting?

Where (i.e. through which access channels) should sports betting be allowed; brick & mortar, online, or both?

What types of bets and on which types of contests should sports betting be allowed?

When, and at what pace should sports betting be allowed; gradual rollout or all-at-once?

How should sports betting be taxed and regulated?

These questions, when contemplated within the framework of the overarching policy objectives bring to light many of the important issues regarding both the scope of a potential sports betting regime and the potential legalization strategies necessary for a thoughtful regulatory approach.

C. Implementation Considerations: WHO

The question of who will be allowed to provide sports betting is in some sense a function of whether it is seen as an activity suitable for new (and perhaps market-disruptive) entrants, or an extension of an existing regulated market. The Legislature will need to consider how broadly it wants to extend the opportunity to offer sports betting amongst a field of potential providers that ranges from established interests to as-yet-unknown entrants. Any stakeholder vying to provide sports betting will, however, have an interest in limiting the number of entrants in the market, as demand for sports betting is strong, but not unlimited. Additionally, stakeholders will likely perceive first-mover advantages in a marketplace that could get crowded as other northeast states consider legalization, as well.

Some potential providers are already invested in the gaming landscape of the Commonwealth such as the three casino licensees, as well as racetracks and off-track-betting facilities. These stakeholders may seek to maintain exclusivity over expanded gaming in Massachusetts in the case of the former (given existing investments and expectations of the market they entered), and seek additional economic security in the case of the latter. If sports betting is legalized and authorized to be offered online, there are potential implications with the Mashpee Wampanoag tribe that would need to be considered (see chart below)¹⁰. Additionally, the Massachusetts Lottery will certainly want to understand what impact, if any, sports betting

¹⁰ The Aquinnah Wampanoag Tribe is restricted to Class II games (e.g. bingo) which would not include sports betting.

might have on lottery sales and activity, and could consider becoming a provider of sports betting products as is the case in Delaware. Finally, depending on the approach a potential legalization strategy might take, there may be opportunities for new entrants into the market, whether existing operators looking to expand (either in brick and mortar shops, or offering online products) or new startups attempting to introduce innovative ideas and products to the market.

The table below provides an overview of potential providers of sports betting along with some relevant considerations:

| POTENTIAL PROVIDER | DESCRIPTION | CONSIDERATIONS |
|----------------------------------|---|--|
| Existing Gaming Licensees | <ul style="list-style-type: none"> - Plainridge Park Casino (Penn National Gaming) - MGM Springfield (MGM Resorts) - Wynn Boston Harbor (Wynn Resorts) | <ul style="list-style-type: none"> - Have already made significant investments (licensing fee, capital investments) in MA - Have proven track record in other jurisdictions with sports betting - Already licensed and found suitable in MA - Have already expressed interest in offering sports betting, if legal |
| Racetracks / OTB | <ul style="list-style-type: none"> - Plainridge Park - Suffolk Downs - Raynham Park | <ul style="list-style-type: none"> - Have experience with sports betting - Have experience with (online) Advanced Daily Wagering (ADW) services - Have economic need to support industry |
| Tribal Interests | <ul style="list-style-type: none"> - Mashpee Wampanoag Tribe | <ul style="list-style-type: none"> - Can offer internet sports betting if internet gaming is authorized under Commonwealth and Federal law (See: Tribal-State Compact Part 4.3.2) |
| Lottery | <ul style="list-style-type: none"> - Massachusetts Lottery - Lottery Retailers | <ul style="list-style-type: none"> - Have interest re: potential impact of sports betting on Lottery sales - Model of Lottery as a provider exists: Delaware |

| | | |
|--|--|---|
| | | <p>offers limited sports betting through state Lottery</p> <ul style="list-style-type: none"> - Availability could be restricted or extend to all Lottery retailers (akin to retail and kiosk model in UK and Quebec) - Adoption of sports betting as a product entails Lottery assuming increased risks |
| Brick & Mortar (New Entrants) | <ul style="list-style-type: none"> - Existing sports betting operators not currently licensed in MA could enter market as stand-alone providers | <ul style="list-style-type: none"> - Existing sports books operating in US and Europe have extensive experience and are eager to enter a legal and regulated market in the US |
| Online Providers (New Entrants) | <ul style="list-style-type: none"> - Virtually all existing sports betting operators have online platforms - Existing fantasy sports operators could add products to include traditional sports betting - New entrants could enter the market, including “white box” providers offering standard sports betting platforms | <ul style="list-style-type: none"> - While commonly accepted as the primary driver of industry growth and transition to legal market, concerns by policymakers about online may encourage a “wait-and-see” approach - Provides a wealth of data available for Know your customer measures, spotting problem gaming trends and providing assistance - Customer usage data can be used to aggressively market and encourage betting activity (push notifications, customized offers) - Robust data to support enhanced integrity monitoring |

D. Implementation Considerations: WHERE

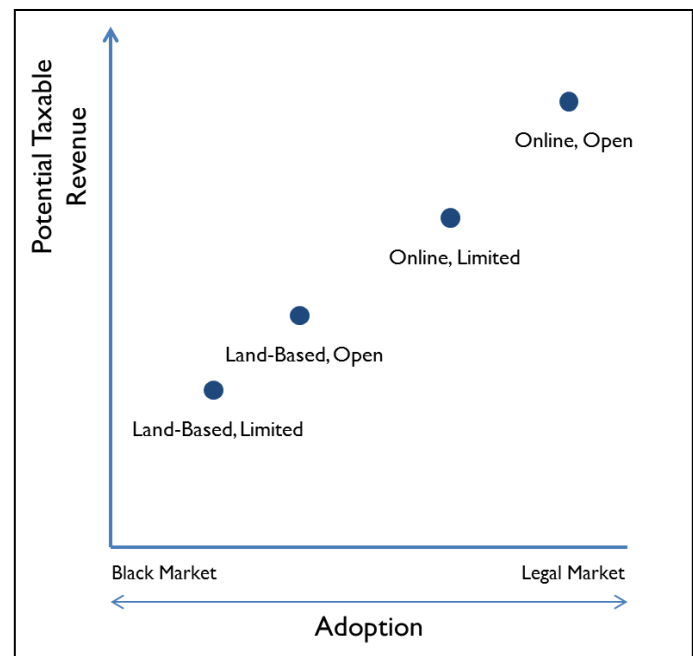
Where sports betting might be made available and through which modalities is an extension of who is allowed to provide it and is the primary driver of the accessibility of the product. For simplicity sake, one can consider two basic models: **brick and mortar** (where bets must be placed in person at an authorized provider), and **online** (where bets can be placed over the internet, using computers, tablets or smartphones). While complimentary and often offered together, there is an obvious tension between the two models. Unlike slots or table games, sports betting, as mentioned earlier, is a low-margin business (about 5%) and is viewed by brick and mortar casinos as a way to attract customers to spend on additional activities. In a February 2018 earnings call, Penn National Gaming's CEO Timothy Wilmott remarked "(W)e think the big advantage for us is the increased visitation that we'll see by having sportsbook operations at our regional properties where we can take advantage of that visitation with higher room rates, higher volumes of food and beverage revenues."¹¹ Most versions of online sports betting can be conducted without ever stepping foot in a casino, removing the opportunity to generate this additional spending. That being said, online sports betting comes in a variety of forms, from online betting allowed only within the physical bounds of a brick and mortar casino (supported by sophisticated geolocation technology), to online sports betting where customers must sign up at a land-based casino and bet through that casino's online presence, to completely independent sports betting platforms that can be set-up, wagered on and paid out entirely online.

Offering sports betting in brick and mortar casinos is the norm, however it co-exists with online betting in most jurisdictions where sports betting is legal. In most European countries, online sports betting is easily accessible, with accounts created and maintained entirely online and age and identity verification often performed by third party providers. In Nevada, all online

¹¹ <https://www.legalsportsreport.com/18322/penn-national-ceo-sports-betting-future/>

sports betting accounts must be initiated at a land-based provider, with age and ID verification conducted in person. Additionally, sports bettors in Nevada generally have to return to the brick and mortar operator to add funds to, or receive payouts from, their accounts. In many European jurisdictions these activities can be performed online using credit or debit accounts.

Most analyses indicate that online sports betting – based on its convenience and ability to rapidly evolve to match consumer demand – is the most attractive and overall lucrative channel for offering sports betting, and the most effective way to transition bettors from existing black markets to the legal market¹². In fact, online offerings are seen by many as essential to disrupting the existing relationships between sports bettors



ONLINE / BRICK & MORTAR MARKET MODEL

and illegal bookmakers.¹³ Eilers & Krejci Gaming – an independent research firm – conducted an analysis of the sports betting market in their paper *Regulated Sports Betting: Defining the U.S. Opportunity* and assert, “Our model suggests that a market incorporating both land-based and online sports betting products could be worth over two times a market that is restricted to land-based sports betting alone.” This model is echoed by the Oxford Economics study previously cited in this paper which found that, “Considering the impacts across the availability

¹² Oxford Economics projects sports betting markets (as measured by handle) ranging from \$83 million to \$287 million based on limited (land-based only) to convenient (land-based and online) availability.

¹³ (re: “Online/Brick & Mortar Market Model”) Additional factors influencing number of entrants into the market include: tax rate, licensing fees, other set-up costs. Adoption rate will also be affected by: quality and variety of products offered, ease of access

scenarios, the largest impacts are associated with the Convenient Availability Scenarios”¹⁴ (which includes brick-and-mortar plus online sports betting). However, recognizing the cultural leap that online betting represents (notwithstanding existing Advanced Daily Wagering activity currently underway in horse racing), along with the fact that existing land-based casinos often work to protect the investments they made in jurisdictions where they operate, Eilers & Krejcik Gaming conclude, “But we are of the strong opinion that many – perhaps even most – states will choose to delay or forgo online.” While online sports betting offers the potential to provide rich, real-time user data that might be used to identify – and potentially mitigate – problematic gambling behavior, concerns abound about that same data being used to “reach out” and target consumers in sophisticated ways, which coupled with easy access to gambling platforms could stimulate problem gambling activity that otherwise would not occur.

E. Implementation Considerations: WHAT

In addition to where and how bettors can access sports betting, any legalized framework should consider what kinds of bets individuals are allowed to make and on which sports (or contests). Sports bets are traditionally placed on horse racing or other professional or collegiate sports (notwithstanding league or NCAA objections). However, increasingly eSports – multiplayer video game competitions – are attracting not only millions of viewers, but also significant betting activity. These contests present straightforward betting opportunities that fit within most Americans’ understanding of sports betting. Other, more exotic forms of betting include virtual sports, where the outcome of a computer generated event (such as a virtual soccer game) is determined by an algorithm, as well as a form of “futures” betting which where election and entertainment (e.g. reality show) outcomes are the contest on which wagers are made. Additionally, in-game betting where bettors place wagers on specific plays or events after a

¹⁴ Economic Impact of Sports Betting, Oxford Economics, p. 6

game or contest has already started, is increasingly popular. The range of available bets and contests present a varied set of products for customers to choose from, while each poses potential unique issues regarding the integrity of the underlying contests. Each of these types of bets are offered in various jurisdictions around the world and would need to be contemplated in any legalized sports betting schema.

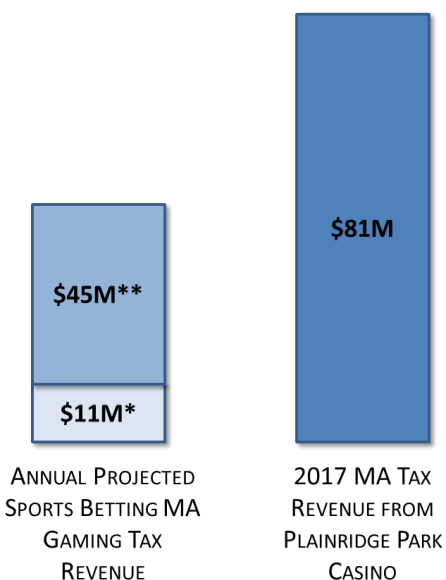
It goes without saying that the integrity of the underlying contests is of paramount importance in ensuring fair and viable sports betting. The organizations that offer the contests that are being bet on have a shared interest in ensuring the integrity of the games, as it goes to the core of why fans want to watch and bettors want to bet. Any doubt that games/contests are not totally spontaneous and not predetermined could be fatal to both the game/contest and the betting environment. The issue of integrity monitoring has been highlighted recently, as some professional sports leagues have argued that when states consider legalization efforts, that they mandate operators pay the leagues “integrity fees” to fund additional integrity monitoring. There are a number of public and very divergent viewpoints on the necessity, feasibility (and even equity) of such “integrity fees” to be paid to the leagues, that this white paper will not discuss. That being said, integrity fees (proposed as a percentage of handle instead of gross gaming revenue) must be considered within the context of the profitability of sports betting and the public policy desire to transition sports betting activity from the black market to the legal market. Simply stated, anything that reduces the limited profitability of sports betting (including taxation discussed later) will impact the odds and products that legal sports betting operators will offer. If the betting options are not attractive to bettors, there will be little incentive for bettors to leave the illegal market. Therefore, a careful impact analysis should be conducted when considering

the appropriate level of fees, taxes and other requirements that would have a direct impact on profitability.

F. Implementation Considerations: WHEN

As previously noted, anticipation of a New Jersey-friendly decision in the Christie case has inspired a number of states to make attempts to proactively legalize sports betting. Should the Commonwealth decide to join the move to introduce legalized sports betting, it will also need to consider at what pace to introduce it. Clearly, this will be impacted significantly by decisions on questions regarding which entities will be allowed to offer sports betting and whether there will be managed or open competition. This decision may differ slightly from the introduction of traditional casino gaming in Massachusetts in 2011, Sports betting may be largely seen as an extension of current casino gaming. The national implications of a potential PASPA repeal may spur a group of early adopters throughout the Northeast (a region that Eilers & Krejcik identified as potentially the most active region to adopt sports betting - in all its forms - in the country).

G. Implementation Considerations: HOW (Taxation)



** Projection based on Online, Open scenario

* Projection based on Land-Based, Open scenario

(Source: Oxford Economics Study)

Finally, one of the primary incentives for legalizing sports betting is to create a legal marketplace that is safer for bettors while also providing the Commonwealth the opportunity to collect tax revenues. Just as with the Commission's White Paper on Daily Fantasy Sports, the issue of whether and how to impose taxes on sports betting is an issue solely for deliberation by the Legislature. We again note that the tax rates are high on casino gaming (i.e. slot and table games) where

the profit margins are high, and that typically sports betting is a lower margin (5%) endeavor. Also, while legalized sports betting presents an opportunity to capture significant, much needed tax revenue, it only represents a portion of the tax revenues that traditional casino gaming represents. By way of example, the Oxford Economics Study conducted for the American Gaming Association concludes that at a base tax rate of 10% of gross gaming revenue (Nevada, by contrast imposes a tax rate of 6.75% of gross gaming revenue) Massachusetts would stand to collect anywhere between \$11 million and \$45 million annually in tax revenue, depending on how widely available sports betting is allowed. In contrast, Plainridge Park Casino alone generated \$81 million in tax revenue (including the Horse Racing Development Fund) in 2017.

H. Implementation Considerations: HOW (Regulation)

When the Legislature considered allowing expanded casino gaming in Massachusetts with the introduction of M.G.L. 23K, it established a strong and clear framework for the economic landscape in which casino gaming would compete, and how it would be regulated. If the Legislature considers expanding the legal gaming environment in Massachusetts to include sports betting, a basic question is whether to employ a similar approach and craft a statute that anticipates both the policy and regulatory issues that will need to be addressed. Who will be allowed to enter the market as sports betting providers; how and to what extent will they be licensed; will online sports betting be allowed and by whom; what types of bets (e.g. “in-play” betting) will they be allowed to offer and on which contests (e.g. eSports, virtual sports); how will players be protected and what role will responsible gaming occupy in this activity are all questions that could be answered by statute. Alternatively, a statute could address the questions that impact the strategic landscape of who, where, what, and how and leave the particulars of the implementation of these questions to an empowered regulatory body.

When the Commission wrote its White Paper on Daily Fantasy Sports, the very legality of Daily Fantasy Sports (DFS) was in question. Discussion of DFS (which is conducted exclusively online) spurred conversations regarding online gaming, in general, and how it could and should be addressed. The concept of online gaming is again central to the discussion of sports betting, as sports betting activity increasingly moves online. Unlike DFS at the time (the lines between DFS and sports betting are beginning to blur as the potential for legal sports betting becomes clearer), sports betting is very much a known entity that fits quite cleanly into our existing understanding of gambling activity. Its online aspect, however, is potentially transformative in terms of redefining a gambling landscape to include this whole new class of gaming. Should the Legislature decide to allow online sports betting it may be prudent to consider the concept of an “Omnibus Regulatory Approach” that the Commission introduced in the Fantasy Sports White Paper. The concept was to define overriding public policy objectives and regulatory principles in statute and to broadly empower a regulatory body to tackle the issues regulating online gaming activity. This approach was suggested recognizing that online gaming is unique in that it is quickly deployed, highly malleable and responsive to new consumer demands. The concern is that with online gaming the pace of innovation and technological change can quickly outpace even the most nimble and contemplative statute. It would be important, should online sports betting be allowed, to consider and protect against online sports betting becoming the “Trojan Horse” for other forms of online gaming. This could be articulated in statute by strong definitional language or delegated to a regulator to monitor and address using an omnibus approach with jurisdiction broad enough to evaluate online gaming activities, and determine whether they meet the definition of allowed gaming.

CONCLUSION

This white paper is an attempt to provide some background, context and a high-level analytical framework should the Legislature consider legalizing sports betting, (which itself is a dependent on the outcome of the upcoming Supreme Court ruling in the Christie case). As noted, the decision in the Christie case alone may not determine the future of sports betting in Massachusetts, as there are still open questions as to the applicability of the WIRE act, and the potential of future legislation that may re-clarify the legality of sports betting. However, should Massachusetts have the opportunity to legalize sports betting, there are a number of questions at hand that will have broad impact, not only on who will benefit from sports betting as an operator, but also whether the overall gaming landscape in Massachusetts will be fundamentally transformed by the introduction of online gaming. The success of transitioning sports bettors from illegal to legal markets may depend substantially on how sports betting is made available as well as the quality of the sports betting products that are offered. Finally, a thoughtful taxation and regulatory approach can maximize the benefits to consumers through increased protections, maximize economic benefits to providers and downstream industries, and create a market that ultimately benefits all Commonwealth citizens by maximizing the potential tax revenues associated with sports betting.



Report to the Massachusetts Gaming Commission Q4 2017



PLAINRIDGE PARK
YOUR HOMETOWN CASINO

Gaming Revenue & Taxes



| Net Slot Revenue | | | State Taxes | Race Horse Taxes | Total Taxes |
|------------------|-------|---------------|--------------|------------------|--------------|
| 2016 | 1st | \$38,663,540 | \$15,481,836 | \$3,479,719 | \$18,961,555 |
| | 2nd | \$39,185,244 | \$15,641,803 | \$3,526,672 | \$19,168,475 |
| | 3rd | \$39,756,060 | \$15,923,121 | \$3,578,045 | \$19,501,166 |
| | 4th | \$37,388,890 | \$14,973,358 | \$3,365,000 | \$18,338,358 |
| | Total | \$154,993,734 | \$62,020,118 | \$13,949,436 | \$75,969,554 |
| 2017 | 1st | \$38,440,289 | \$15,352,221 | \$3,459,626 | \$18,811,847 |
| | 2nd | \$42,615,790 | \$17,057,566 | \$3,843,926 | \$20,901,492 |
| | 3rd | \$44,545,357 | \$17,821,836 | \$4,009,082 | \$21,830,918 |
| | 4th | \$39,129,389 | \$15,679,114 | \$3,521,645 | \$19,200,759 |
| | Total | \$164,730,825 | \$65,910,737 | \$14,834,279 | \$80,745,016 |

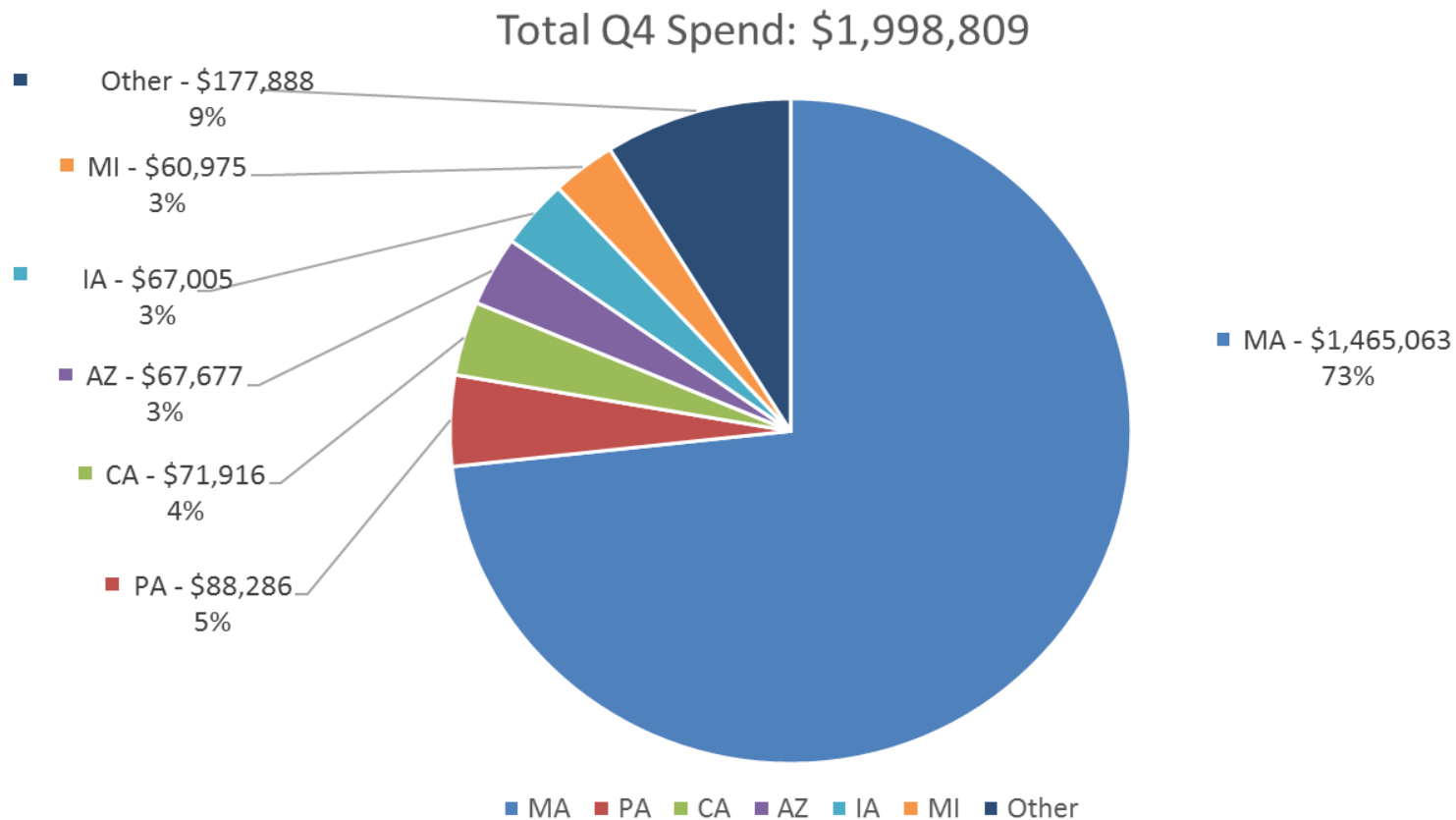
Lottery Sales



| Quarter | 2016 | 2017 | \$ Difference | % Difference |
|--------------|--------------------|--------------------|------------------|---------------|
| 1st | \$705,304 | \$750,871 | \$45,567 | 6.46% |
| 2nd | \$758,852 | \$843,294 | \$84,442 | 11.13% |
| 3rd | \$738,116 | \$891,181 | \$153,065 | 20.74% |
| 4th | \$748,919 | \$822,037 | \$73,118 | 9.76% |
| Total | \$2,951,191 | \$3,307,383 | \$356,192 | 12.07% |

- PPC currently has 5 instant ticket machines and 4 online terminals on site
- Prior to the Casino opening the Property had 1 instant ticket machine and 2 online machines

Spend by State

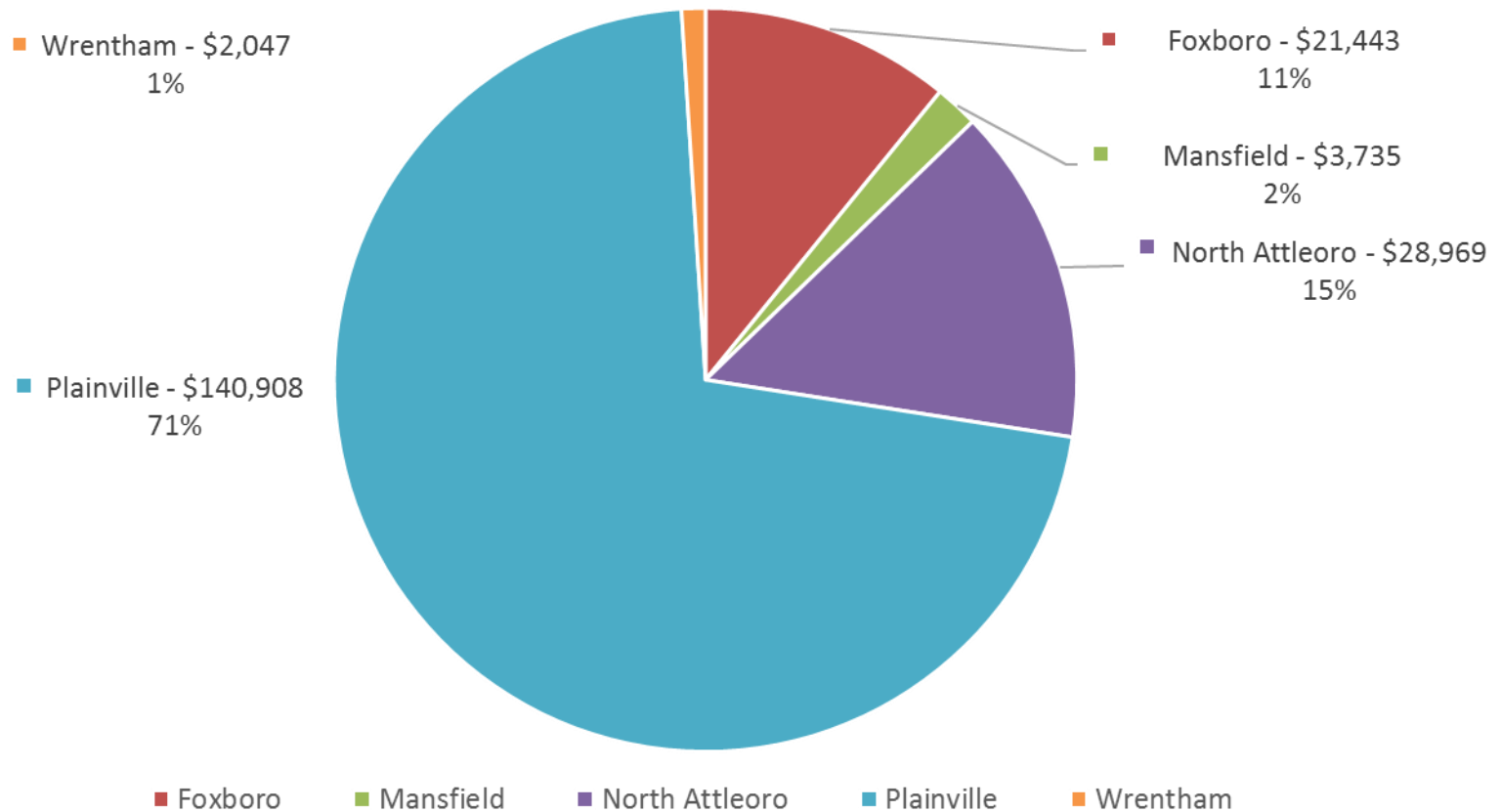


Total 2017 Annual Spend: \$6, 700,847 of which 75% of the spend was in the Commonwealth of Massachusetts

Local Spend

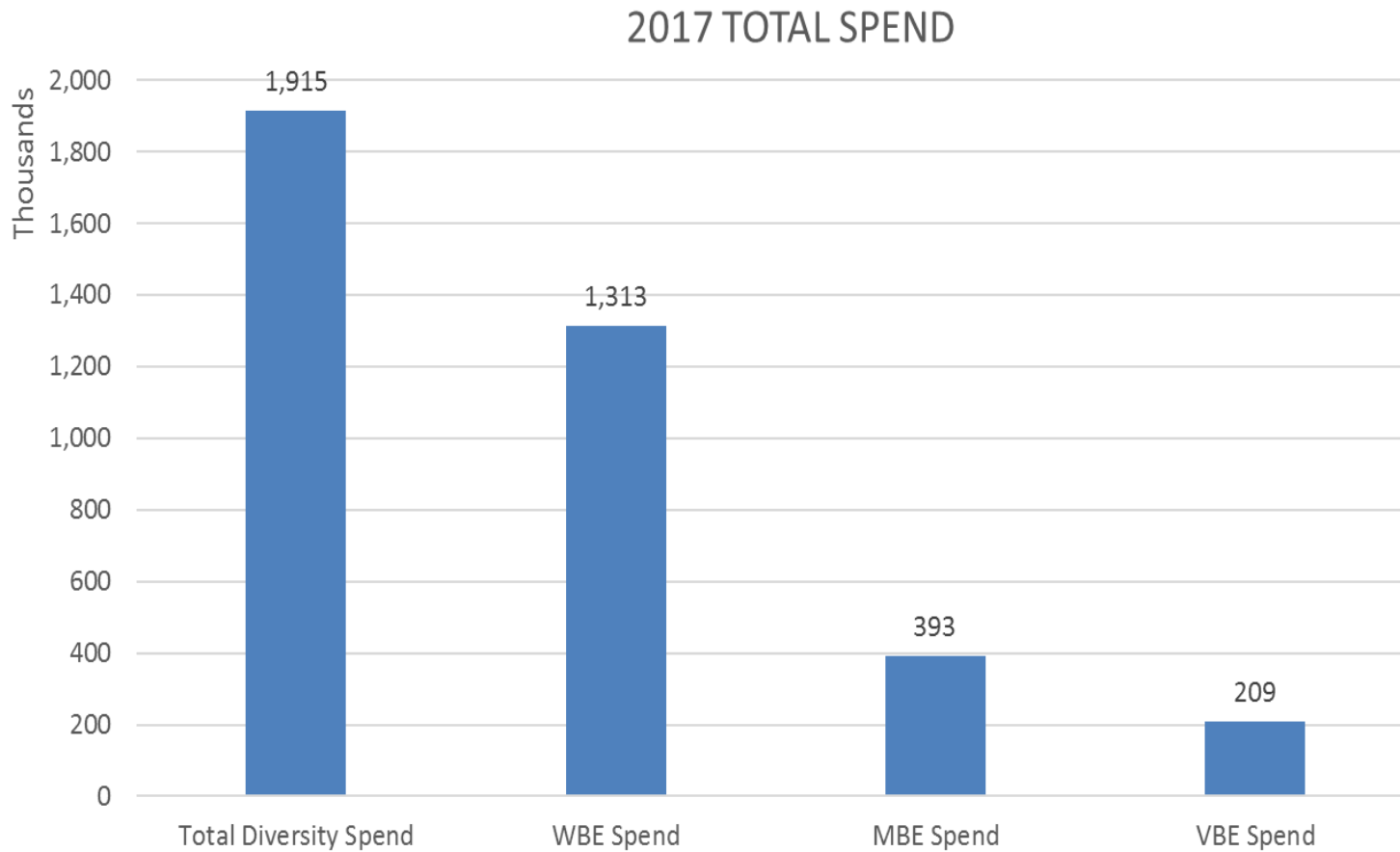


Total Q4 Host & Surrounding Community Spend: \$197,102



Total 2017 Host & Surrounding Community Spend: \$470,975

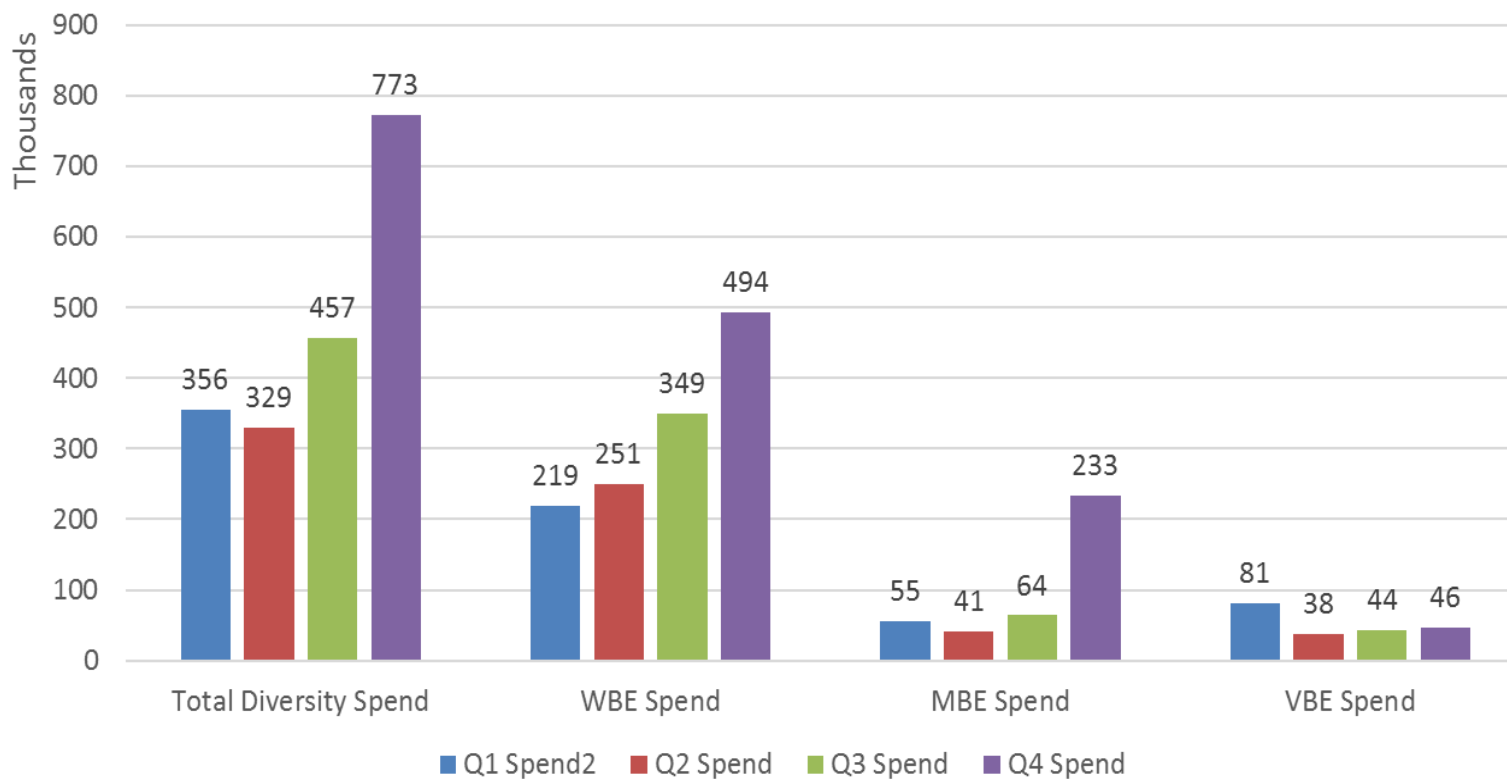
Vendor Diversity



Vendor Diversity



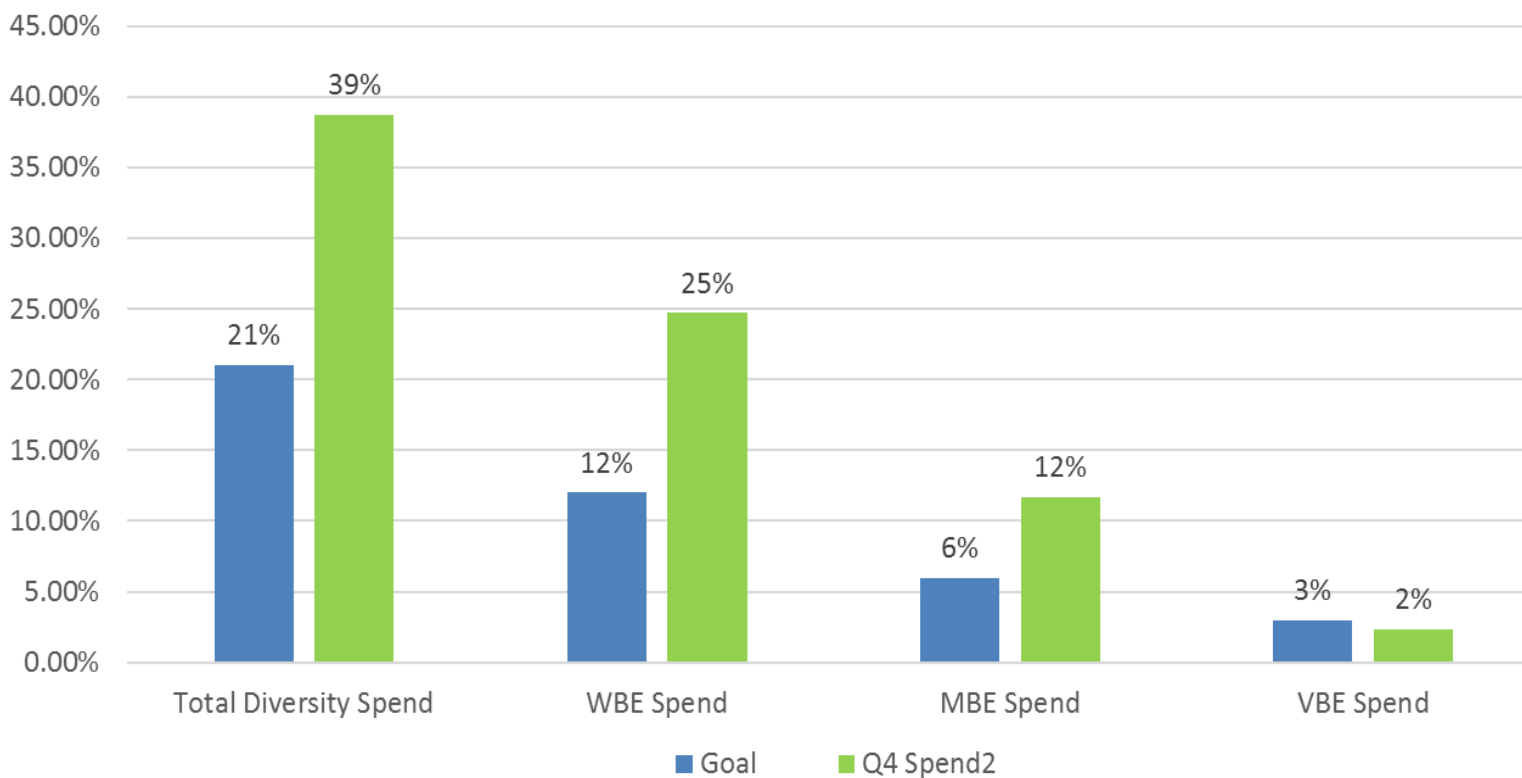
2017



Vendor Diversity



Q4 2017



Compliance



| Month | Number of Patron ID Checks | Prevented from entering gaming Establishment | | | Expired, Invalid, no ID | Fake ID | Minors and Underage Escorted from the gaming area | Minors and Underage gambling at slot machines | Minors and Underage consuming alcoholic beverages |
|--------------|----------------------------|--|---------------------|-----------------------|-------------------------|----------|---|---|---|
| | | Total | Minors ¹ | Underage ² | | | | | |
| October | 7,911 | 176 | 6 | 23 | 146 | 1 | 0 | 0 | 0 |
| November | 7,972 | 188 | 11 | 31 | 145 | 1 | 0 | 0 | 0 |
| December | 8,083 | 151 | 0 | 36 | 115 | 1 | 3 | 0 | 0 |
| Total | 23,966 | 515 | 17 | 90 | 406 | 3 | 3 | 0 | 0 |

1 Person is under 18 years of age

2 Person is 18-21 years of age

Employment



As of December 31, 2017:

| | Employees | Full-Time | Part-time |
|------------|-----------|-----------|-----------|
| Totals | 465 | 308 | 157 |
| % of Total | 100% | 66.2% | 33.8% |

| | Employees |
|---------------|-----------|
| Diversity | 23% |
| Veterans | 5% |
| Massachusetts | 65% |
| Local | 35% |
| Male/Female | 52%/48% |

Women Leading at Penn



Program Goals

To encourage women to pursue leadership roles

Have visible Female executive & Leadership championing growth & development for women at their property (Organic Mentorship)

To increase the number of women in leadership, specifically at the manager level on an Annual Basis

Participants

Plainridge female employees who have aspirations to be in leadership or grow career

All departments

Hourly & Salary

Women Leading at Penn



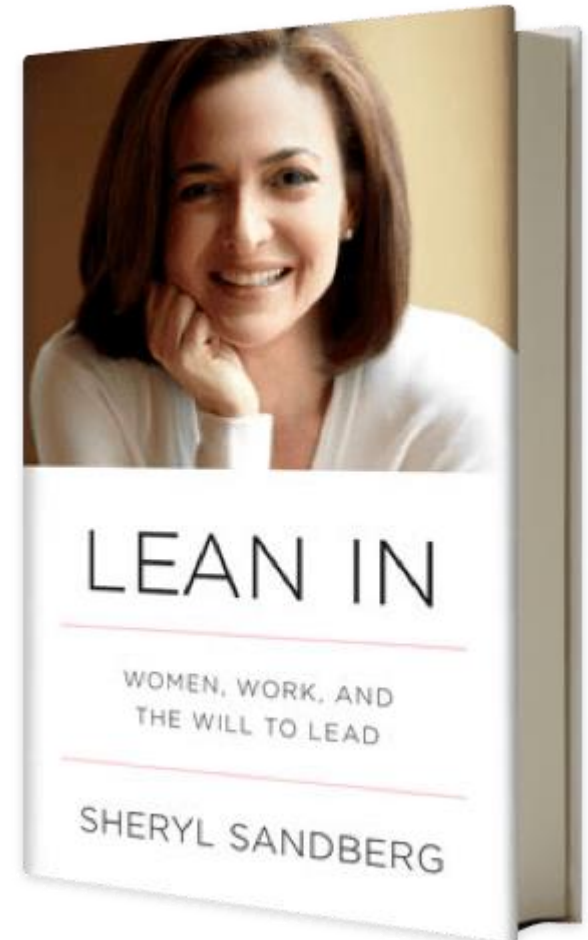
Program Timeline

March

- Identify Participants
- Lean-In Distribution
- Guest Speakers

April

- Focus Group
- Leadership
- Courage



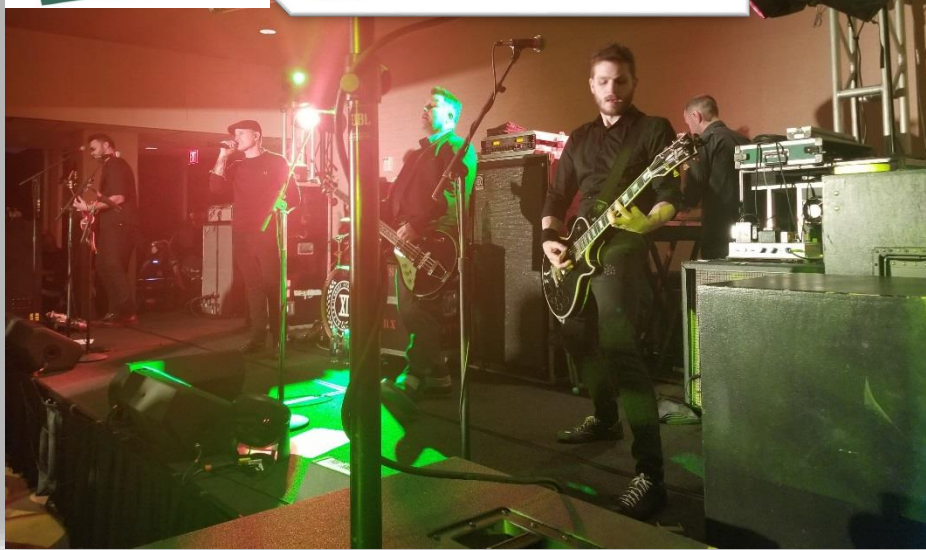
Local Community



- Taste of the Region
- Mega Business Expo
- Toys for Tots
- Claddagh Fund Holiday Concert
- Be a Santa to a Senior



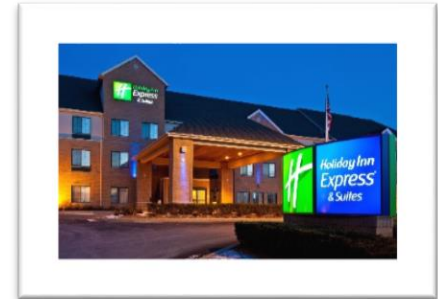
CLADDAGH FUND
Cairdeas, Grá agus Dílseacht
Friendship, Love, Loyalty



Q4 Partnerships



- Hotel Stay and Play
 - Renaissance Inn / Hilton Garden Inn Stay and Play Packages
 - Holiday Inn Plainville
- Wrentham Village Premium Outlets
- NESN – Bruins
- 98.5 Radio – Patriots
- NBC Sports - Celtics

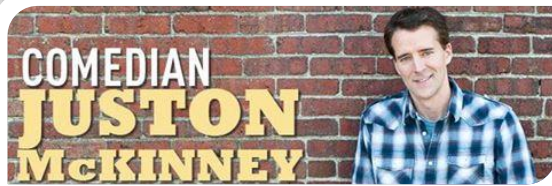


Marketing Highlights

- Q4 Highlights
 - Veteran's Day Meal
 - New Year's Eve Mardis Gras
 - Murphy's Boxing Event
- Q1 2018 Highlights
 - Comedians
 - Swing Band



Murphys Boxing shared Joe Keiley's photo.
December 19, 2017 · 🌐





TO: Chairman Crosby, Commissioners Cameron, Macdonald, Stebbins, and Zuniga

FROM: Mark Vander Linden, Director of Research and Responsible Gaming

CC: Teresa Fiore, Program Manager

DATE: March 1, 2018

RE: Draft Massachusetts Responsible Gaming Framework, Version 2

Background

In 2013 the Massachusetts Gaming Commission (MGC) began a process to build a responsible gaming program that would meet, and even exceed, the stringent mandate set forth by the Expanded Gaming Act. The founding goals of the program aimed to mitigate the negative and unintended consequences of introducing casino gambling to the state. This process incorporated the advice and consultation of numerous industry experts, a review of international jurisdictional policy, and consideration of the body of relevant research. The summation of this work was drafted into the [Massachusetts Responsible Gaming Framework](#) (RGF) which the MGC formally adopted in 2014. The RGF is intended to inform gaming regulation in Massachusetts and provide an overall orientation to responsible gaming practice and policy adopted by the MGC and gaming licensees. Several important policies and innovative programs have been launched based on the strategies as outlined in the RGF:

- GameSense, the first on-site, responsible gaming program in the United States.
- Play My Way, a pioneering play management tool that allows patrons to set a daily, weekly, and/or monthly budget and receive real-time notifications as they approach it.
- The Voluntary Self Exclusion program, which allows individuals struggling with their gambling to exclude themselves from the gaming floor and remove themselves from gaming communication and promotional incentives. Program design is based on a uniquely patron-centered model intended to connect people with additional treatment and support resources.

The RGF strategies and tactics are intended to retain flexibility to respond to emerging evidence, evolving technology, and shifting sociocultural factors. In December 2016 the MGC agreed that it was time to review of the framework to identify gaps, expand the scope and consider the role it plays with other key partners.



Massachusetts Gaming Commission

Process Used to Develop Version 2 of the Responsible Gaming Framework

The MGC engaged Dr. Jeff Marotta of Problem Gambling Solutions, to help draft version 2 of the RGF. Once the MGC gave approval to review and update the RGF, the following process was used: (1) Form Work Group; (2) Develop project plan; (3) Conduct semi-structured interviews with key stakeholders including the Public Health Trust Fund Executive Committee, hold focus groups with consumers and GameSense staff, and solicit public comment on how to evolve and update the current RGF; (4) Review updates within the responsible gaming literature and review other jurisdiction's responsible gaming approaches; (5) Review all suggested stakeholder and contractor revisions with Work Group and develop draft Version 2.

Overview of Revisions

I. Updated Key Principles and Concepts

- Introduced the concept of Positive Play and integrated concept throughout framework.
- Introduced the concept of a Stepped Care Approach as a guiding principle.
- Set expectation for Licensees to go beyond MGC responsible gaming required practices and to take a role to “innovate”.

II. Expanded Number of Responsible Gaming Strategies

- Added seventh strategy: “Commit to continuous improvement and reporting” to increase accountability.
 - Licensees are required to develop a Responsible Gaming Plan, create a Responsible Gaming Committee, and report findings to the MGC.

III. Updated Content within Strategies

- Updated terminology throughout document to reflect current nomenclature.
- Made numerous house-keeping revisions including corrections to spelling and grammar; updates to reflect changes in the MGC regulations and codes (“should” became “must” when referring to codified practices).
- Revised key terms to be consistent with those used in other MGC sponsored materials.
- Updated descriptions of tactics to describe current practices and how those practice may evolve with newly emerging evidence.
- Added language to address marketing casino through non-age restricted social gambling sites.
- Incorporated responsible gaming into digital gaming applications.
- Increased focus on promoting public health and safety by renaming strategy 3 from “Provide Protections with the Physical Environment” to “Promote Public Health and Safety within the Physical Environment” and expanded list of protections.
- Revised Strategy 4 to ensure responsible marketing better aligns with the new AGA codes while expanding upon AGA marketing guidelines.



Massachusetts Gaming Commission

- Revised Strategy 5 extensively by reorganizing tasks to fit MGC rules and expanding on debit card transaction protections.
- Expanded Strategy 6 “Engage the Community” by differentiating between internal and external communities, and increased descriptive language as to important groups to collaborate with.

IV. Provided New Look and Feel to Document to Create Broader Appeal

- Updated format of the document to provide more contemporary look
- Expanded introduction to better position document as an information resource for various MGC stakeholders; designed primarily but not exclusively for Licensees.
- Streamlined document by removing appendixes and integrating information from appendixes into the body of the document.

V. Increased User Friendliness

- Restructured strategy descriptions to increase readability by adding introduction to each strategy and more logically presented strategy components.
- Provided hyperlinks to referenced documents.
- Added source endnotes to key terms and concepts.
- Added new section to provide background information taken from MGC sponsored research.
- Weaved relationship between RG practices and MGC research agenda throughout document, including a new section on Evaluating Responsible Gaming Initiatives.

Next Steps

The goal is to complete the review and revision of the draft by May 1, 2018. However, there are several steps in order to accomplish this, including;

- Vet draft of RGF v.2 with MGC Commissioners and the Public Health Trust Fund Executive Committee;
- Vet draft with other stakeholders through the MA Partnership on Responsible Gaming and MA Council on Compulsive Gambling annual Conference March 20th and 21st;
- Revise based on comments;
- Receive formal MGC approval of the revised RGF.



Massachusetts Gaming Commission

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RESPONSIBLE GAMING FRAMEWORK

VERSION 2.0 | MARCH 2018



MISSION STATEMENT

The mission of the Massachusetts Gaming Commission is to create and maintain a fair, transparent, and participatory process for implementing the expanded gaming law passed by the Legislature and signed by the Governor in November, 2011.

The Commission strives to ensure that its decision-making and regulatory systems engender the confidence of the public and participants, and that they provide the greatest possible economic development benefits and revenues to the people of the Commonwealth, reduce to the maximum extent possible the potentially negative or unintended consequences of expanded gaming, and allow an appropriate return on investment for gaming providers that assures the operation of casino-resorts of the highest quality.





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INTRODUCTION

The Responsible Gaming Framework is intended to inform gaming regulation in Massachusetts and provide an overall orientation to responsible gaming practice and policy adopted by the MGC and gaming licensees. The framework is not designed to function as a regulation, but to guide the Commission's decisions as it promulgates regulation and develops programs and practices to support responsible gaming. The Responsible Gaming Framework is based on the commitment by the MGC and its licensees to the guiding value of ethical and responsible behavior.

The Responsible Gaming Framework provides an approach through which licensees can ensure their general gaming practices are consistent with the Commission's expectations that gaming in the Commonwealth will be conducted in a manner to minimize harm.

The MGC Responsible Gaming Framework supports the implementation of the expanded gaming law ([Chapter 194 of the Acts of 2011, M.G.L. chapter 23K, or "the Gaming Act"](#)) of the Commonwealth of Massachusetts. The legislation includes a number of key mandates to ensure the successful implementation of expanded gaming including, protection for host and surrounding communities and the prevention and mitigation of social impacts and costs. For further information about Massachusetts' public health response to expanded gaming view the [Strategic Plan: Services to Mitigate the Harms Associated with Gambling in Massachusetts](#).

Responsible Gaming

The provision of gambling services designed to encourage players to maintain their gambling at a healthy level and minimize harm to consumers and the community.¹

Problem Gambling

Difficulties in limiting money and/or time spent on gambling which leads to adverse consequences for the gambler, others, or for the community.²



GAMBLING BEHAVIOR IN MASSACHUSETTS

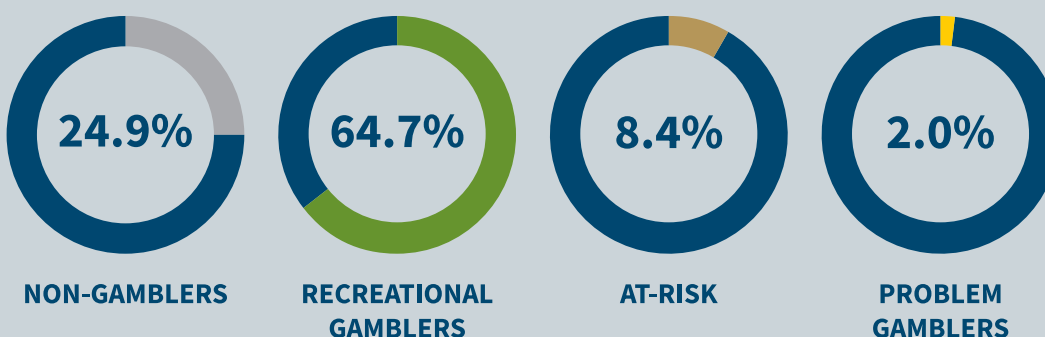
The MGC has funded and will continue to fund [studies](#) to better understand the impact of expanded gambling in Massachusetts and to evaluate efforts to reduce gambling related harm. Key study areas include, but are not limited to, social, economic, lottery, real estate, public safety, traffic and employment impacts of expanded gaming.

One such study was the [Baseline General Population Survey](#) conducted to assess gambling behavior and problem gambling before any of the state's new casinos became operational. In late 2013 and early 2014, 9,578 Massachusetts residents responded to questions about their gambling behaviors over the previous 12-months. This study found:

- **24.9%** of the population does not gamble, **34.6%** gamble yearly, **20.4%** gamble monthly, and **18.1%** gamble weekly.



- Of Massachusetts adults who do gamble, just under one quarter (**21.5%**) report visiting casinos to gamble.
- The prevalence of problem gambling in Massachusetts is 2.0% of the adult population with an additional 8.4% of the population considered to be at-risk. Based on these percentages combined with July 1, 2017 U.S. Census estimates, it is estimated that 109,483 adult residents are problem gamblers, and 459,827 adult residents are at-risk gamblers.



There are significant differences in overall gambling participation associated with gender, age, race/ethnicity, education, employment, income level, and geographic region. Notably:

- Men are more likely to gamble than women
- Adults aged (25-64) are more likely to gamble than younger adults (18-24) or older adults (65+)
- Whites are more likely to gamble than Hispanics, Blacks, or Asians
- Nearly 2 in 10 Massachusetts adults (18.5%) reported knowing someone who they considered gambled too much.

PERCENTAGE WHO GAMBLE

MALE 77.3%

FEMALE 69.6%

18-34 67.0%

35-64 78.6%

65+ 71.0%

HISPANIC 63.1%

BLACK 65.6%

WHITE 76.4%

ASIAN 56.1%

In 2015, the first adult longitudinal cohort study of gambling and problem gambling was launched in Massachusetts. The following data highlights changes between Wave I (2013/2014) and Wave II (2015) of the cohort (n=3,096).

INCIDENCE:

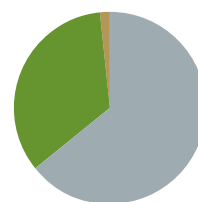
The problem gambling incidence rate within the cohort from 2013/2014 to 2015 in Massachusetts (prior to the opening of any casinos) was 2.4%.

TRANSITIONS, STABILITY, AND CHANGE:

The [MAGIC](#) study examined whether respondents moved from one risk category to another and, if so, whether they moved towards less severe or more severe problems.

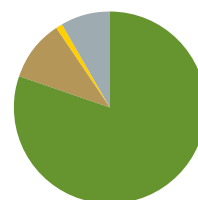
NON-GAMBLERS IN WAVE I

64.4% of remained in this category in Wave II.
34.1% moved into the Recreational Gambler category.
1.5% moved into the At-Risk Gambler category.*
0.0% moved into the Problem/Pathological Gambler category.



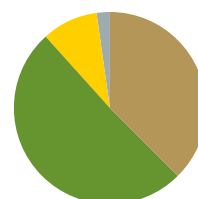
RECREATIONAL GAMBLERS IN WAVE I

80.3% of remained in this category in Wave II.
10.4% moved into the At Risk Gambler category.
1.0% moved into the Problem/Pathological Gambler category.
8.3% moved into the Non-Gambler category.



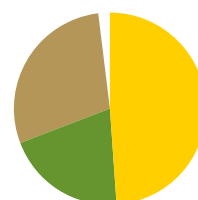
AT-RISK GAMBLERS IN WAVE I

37.5% remained in this category in Wave II.
50.9% moved into the Recreational Gambling category.
9.6% moved into the Problem/Pathological Gambler category.
2.0% moved into the Non-Gambler category.*



PROBLEM/PATHOLOGICAL GAMBLERS IN WAVE I

49.4% remained in this category in Wave II.
20.3% moved into the Recreational Gambling category.
29.1% moved into the At-Risk Gambler category.



*Indicates estimates are unreliable, relative standard error >30%



GUIDING VALUES AND APPROACH

The Responsible Gaming Framework is guided by the values expressed in the mission statement of the Massachusetts Gaming Commission:

The Massachusetts Gaming Commission will strive to ensure that its decision-making and regulatory systems engender the confidence of the public and participants, and that they provide the greatest possible economic development benefits and revenues to the people of the Commonwealth, reduce to the maximum extent possible the potentially negative or unintended consequences of the new legislation, and allow an appropriate return on investment for gaming providers that assures the operation of casino-resorts of the highest quality.

To this end, the MGC Responsible Gaming Framework aims is to create an effective, sustainable, measurable, socially responsible, and accountable approach to gaming. This Responsible Gaming Framework is buttressed by the MGC's annual research agenda. Information obtained from MGC sponsored research informs the strategies and tactics described within this Responsible Gaming Framework.

The Responsible Gaming Framework has adopted an evidence-based approach to responsible gaming measures where sound research or evidence is available. Where evidence is lacking, uncertain or ambiguous, and there is reasonable concern that gambling related harm may occur, a precautionary approach has been applied. The precautionary approach rejects the notion that risks are acceptable until harm has been proven or that risks can continue unmitigated until the effectiveness of a harm minimization measure is proven. Responsible gaming measures will be evaluated and information from those evaluations will be used to continually improve responsible gaming practices and programs. Responsible gaming efforts in their entirety will retain flexibility to respond to emerging evidence, and the evolving technological and cultural environment.

The MGC Responsible Gaming Frameworks generally follows a stepped care approach towards harm prevention. This approach suggests the riskier or more problematic the playing behavior, the more focused the intervention needs to be resulting in a hierarchy of potential interventions ranging from information provision to casino exclusion.

As gaming regulators, the MGC Responsible Gaming Framework's focus is on gaming Licensees' practices. However, the MGC believes Licensees do not have an isolated role in minimizing the potential harm of gambling. Government, science, industry, media, and gaming consumers must all take part to most effectively minimize harm caused or exacerbated by gambling.

Stepped Care Approach

The Responsible Gaming Framework is organized into seven broad strategies. To carry out these strategies, licensees should apply a stepped care approach to maximize positive player outcomes. A stepped care approach recognizes that players differ from one another, as each player plays in a different manner and is to a different degree susceptible to harm. This means that there should be a hierarchy of potential interventions designed for different player groups, ranging from a focus on promoting positive play, to providing access to self-management tools and help resources, to offering casino exclusion.³



The Precautionary Approach

The current knowledge base regarding the effectiveness of responsible gaming interventions is limited. In this context, whilst an evidence-based approach is desirable, it is not always possible. Moreover, from a practical perspective, it will not always be desirable or possible for the MGC to defer regulatory decisions until definitive evidence is available to support a particular intervention or technology. Under such circumstances a precautionary approach is warranted.

In essence, the precautionary approach ‘recognizes that the absence of full scientific certainty shall not be used as a reason for postponing decisions where there is a risk of serious or irreversible harm’.⁴ The precautionary approach ‘gives primacy in policy debates to those upon whom the risk of harm is imposed’. It contrasts with approaches that prioritize the rights of those who would impose risks on others.^{5,6}

KEY POINTS

The Precautionary Approach:

- ‘recognizes that the absence of full scientific certainty shall not be used as a reason for postponing decisions where there is a risk of serious or irreversible harm’.
- ‘gives primacy in policy debates to those upon whom the risk of harm is imposed’. It contrasts with approaches that prioritize the rights of those who would impose risks on others.



GOAL AND OBJECTIVES

GOAL: To create an effective, sustainable, measurable, socially responsible and accountable approach to gaming.

REGULATORY OBJECTIVES:

- Minimize harm from gambling to individuals, families, and communities while serving the good of the Commonwealth and gaming licensees.
- Promote best and promising responsible gaming practices in all aspects of licensee activities.
- Utilize principles of responsible gaming in introducing all new and emerging technologies.

RESEARCH OBJECTIVES⁷:

- Inform best practice in responsible gaming strategies and methods, problem gambling treatment and prevention, and responsible gaming messaging.
- Create and translate knowledge to support evidence-informed decision making about gambling policy and regulation.

EDUCATION OBJECTIVES:

- Provide accurate and balanced information to promote positive play.
- Provide patrons adversely affected by gambling with timely access and appropriate information on problem gambling; and counsel to where assistance in dealing with such matters can be obtained.
- Create a shared understanding of responsible gaming practices among individuals, communities, the gambling industry and the government.

STRATEGIES

The Responsible Gaming Framework compels the MGC Licensees to implement responsible gaming strategies, with a particular focus on prevention and player protection.

The Responsible Gaming Framework is organized into the following broad strategies:

- 1. Commit to corporate social responsibility**
- 2. Support positive play**
- 3. Promote public health and safety within the physical environment**
- 4. Ensure responsible marketing**
- 5. Manage high-risk financial transactions**
- 6. Engage the community**
- 7. Commit to continuous improvement and reporting**

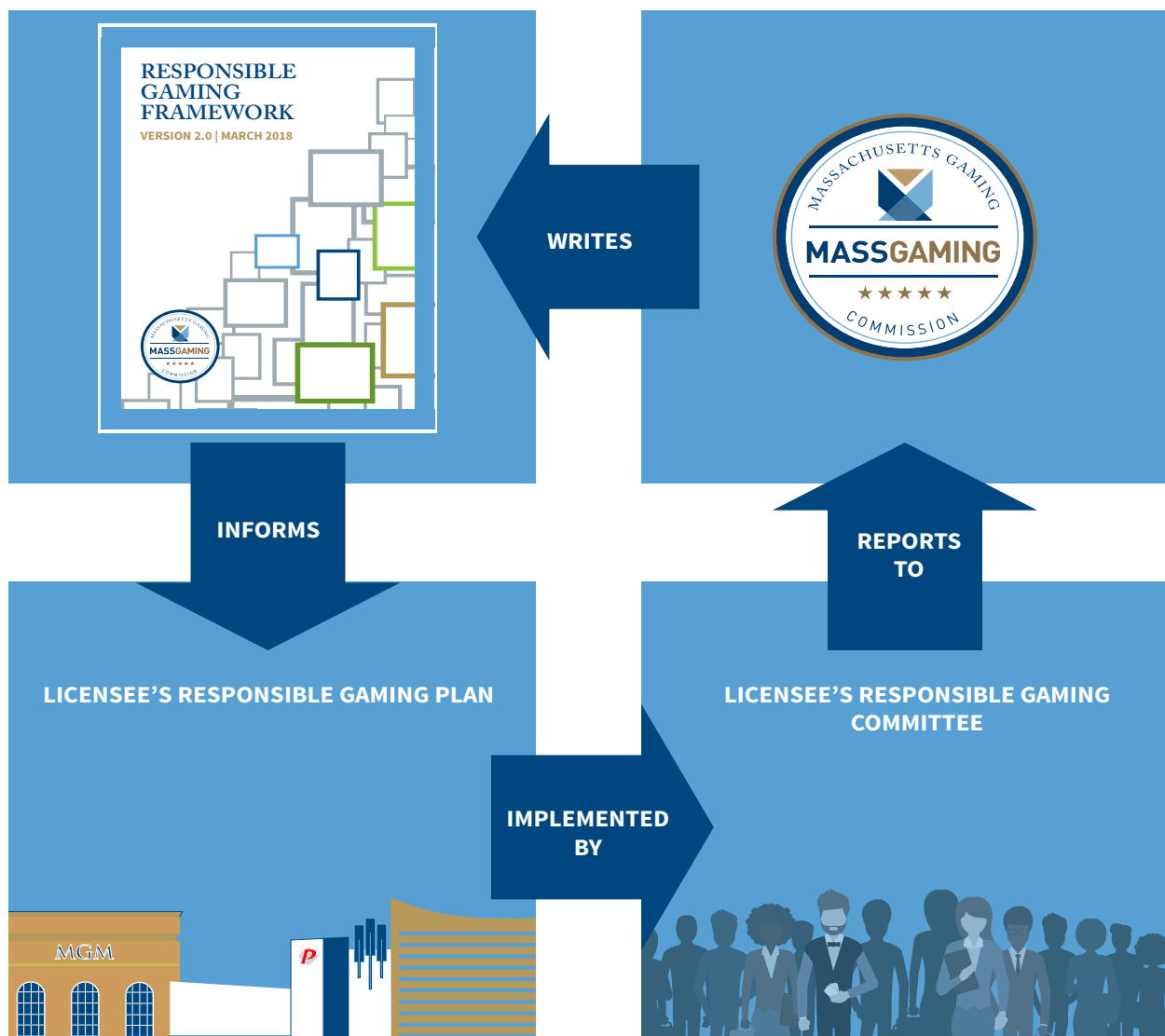
Each strategy contains a number of related practices. MGC Licensees are responsible for ensuring their commitment to the relevant practices and compliance with related regulations. The Responsible Gaming Framework, strategies, and practices, will be monitored and evaluated regularly by the MGC for effectiveness and fidelity. Where appropriate, policies and practices will be promulgated into regulation.

Responsible gaming strategies and practices will continue to evolve in response to innovation and new evidence related to problem gambling and responsible gaming. The MGC Responsible Gaming Framework strategies and practices will be periodically reviewed and revised.

STRATEGY 1 2 3 4 5 6 7

COMMIT TO CORPORATE RESPONSIBILITY

The aim of Corporate Social Responsibility is to minimize the negative environmental and social impacts and maximize the positive impacts. Social responsibility, sustainability, consumer protection and product safety are central to public confidence and therefore need to constitute a core business approach driven from the top by strong corporate leadership, built into business purpose and strategy, and woven into the organization's culture. For MGC licensees, attention to responsible gaming broadly and the GameSense program specifically, is an important component of a larger commitment to Corporate Social Responsibility. To demonstrate a commitment to promoting responsible gaming and addressing problem gambling, it's important that each MGC Licensee include responsible gaming policies within their code of ethics, create a Responsible Gaming Committee, and implement a Responsible Gaming Plan.



1.1 RESPONSIBLE GAMING COMMITTEE

Each Licensee shall establish a Responsible Gaming Committee comprised of members from leadership positions. Each Licensee's Responsible Gaming Committee is responsible for maintaining compliance to the practices and policies described in their Responsible Gaming Plan and reporting their findings to the MGC.

1.2 RESPONSIBLE GAMING PLAN

Each Licensee's Responsible Gaming Plan should reflect the strategies outlined in the MGC Responsible Gaming Framework and include detailed practices and procedures for assuring effective implementation of their Responsible Gaming Plan by conducting internal audits, surveying employees, and reviewing relevant data on a regular basis. Licensee Responsible Gaming Plans shall include commitments specific to licensee operations in order to:

- Provide ongoing education to employees about responsible gaming and their role in promoting a responsible gaming environment inclusive of the requirement that all employees participate in MGC approved responsible gaming employee training programs.
- Reduce the risk of employee gambling related problems through policies and practices inclusive of educational programs and resources for employees in need of assistance.
- Ensure that an appropriate level of awareness relating to responsible gaming is maintained throughout the licensed organization and key contractors, so that responsible gaming is made an integral part of daily operations.
- Provide employees with clear statements of expectations and responsibilities including an emphasis on the importance of employees in promoting responsible gaming and creating a healthy gaming environment.
- Designate responsible gaming duties for senior management and other leadership positions.
- Support and collaborate with on-site GameSense programs and initiatives.

STRATEGY 1 2 3 4 5 6 7

SUPPORT POSITIVE PLAY

The majority of casino patrons engage in “positive play” or in other words exhibit no problems or concerns with their gambling. To help players to avoid persistent negative play experiences, efforts are in place to support continued positive play including programs that enable patrons to have the information they need to make informed gambling decisions. This includes information on behaviors, attitudes, and motivations of players that show no signs of at-risk or problem gambling behavior as well as information about how games work. For persons who are unable to maintain positive play, Licensees must offer information about problem gambling and options for help. Programs to support positive play are expected to continually evolve as new information and technologies become available. Licensees and others have a role to innovate and assure programs and materials that support positive play and address problem play are woven into gaming establishment practices and policies.

Positive Play

Positive Play is when a player undertakes positive playing experiences and holds attitudes and beliefs that do not put them at risk for developing gambling problems. More specifically, this means only spending what is affordable to lose and sticking to personally allocated spend and time limits (formal or informal). Responsible play includes honesty and openness with self and others about personal gambling habits. Belief in luck or other superstitions may be present, but they do not have a significant negative impact on play. There is recognition that gambling will always involve some degree of chance.⁸

2.1 INFORMED DECISION MAKING⁹

Informed decision making requires that patrons have the information they need to make gambling decisions. The Informed Decision Making framework, based on the stepped-care approach, specifies three separate information strategies aimed at three different primary gambler types:

- **Casual Gamblers** may benefit from programs that enhance their gambling literacy – i.e., how gambling works and low risk gambling guidelines.
- **Frequent Gamblers** may benefit from a deeper understanding of how gambling works such as electronic gaming machines (EGMs) use of random number generators, probabilities and odds for table games, as well as information dispelling common gambling myths.
- **Intensive Gamblers** may benefit from information about their play activity, the use of self-assessment tools and the options available for help.

If individuals move from casual, to frequent, to intensive gambling, these changes have important implications for information objectives, content and delivery. The objective for the casual gambler is to promote basic gambling literacy; for the frequent gambler to promote self-awareness of one's gambling, and for the intensive gambler is to provide cautionary information and raise awareness of options to reduce risk. Information guided by the Informed Decision-Making Framework should be made available through a variety of practices and methods including displaying materials throughout the gaming establishment utilizing Play Information and Management Systems and the accessibility to the GameSense Info Center.

2.2 PLAY INFORMATION AND MANAGEMENT SYSTEMS

Informed player choice is enhanced through the use of voluntary play information and management systems. The current system, branded as PlayMyWay, serves as a budgeting tool designed to allow patrons the ability to monitor the amount of money they spend on electronic gaming machines, and to inform their decision to continue or stop play. The PlayMyWay tool is intended to help players make decisions about their gambling, allow them to monitor and understand their gambling behavior in real time, and provide information to support their choices. The current system enables players to voluntarily choose to set loss amounts that trigger simple pop-up reminders when they approach their pre-determined budget. Additionally, the current system provides players with access to daily, weekly and monthly statements including the total bets, wins, and losses; tips on maintaining positive play, and information on how to access assistance. The MGC utilizes third-party evaluation data to continually improve the systems effectiveness. As new information becomes available from evaluation efforts and research from the broader field, the MGC will explore refining and adding system features such enabling players with the option to compare their perceptions and beliefs about their gambling with information collected by the system to display the actual time they played, their actual wins and losses, and how that compares to system wide player group averages.



2.3 GAMESENSE INFO CENTER

Each gaming establishment is required to provide a GameSense Info Center to serve as an on-site responsible gaming resource staffed by third-party vendors contracted through the MGC. To receive maximum visibility, each establishment's GameSense Info Center is located near a high traffic gaming area of the casino to serve as the patrons' central point of contact for information about programs to support positive play including: Information about play management tools and enrollment assistance, educational tools to provide personalized feedback, materials on low risk gambling guidelines, and information on how games work. The GameSense Info Center also serves as a primary location to obtain information on resources and programs to assist players and their family members for when gambling becomes a problem. Individuals can learn about and enroll in voluntary self-exclusion programs at the GameSense Info Center. GameSense Advisors will be available during peak hours and individuals will have access to a phone where they can call the 24-hour Massachusetts Problem Gambling Helpline (1.800.426.1234).



2.4 VOLUNTARY SELF-EXCLUSION

As required by statute, Voluntary Self-Exclusion programs are available to assist patrons who recognize that they have experienced a loss of control over their gambling and wish to invoke external controls. Licensees will inform the public and make available to patrons different forms of Voluntary Self-Exclusion including:

- Exclusion from marketing lists including Licensee's social casino sites;
- Exclusion from receiving house-credit and/or check cashing privileges; and
- Physical exclusion from MGC-licensed gambling venues state-wide.

Additionally, the MGC will investigate the feasibility, and effectiveness of offering patrons the ability to exclude themselves from ATM usage located on Licensee property and participation in regional casino exclusion programs.

The Self-Exclusion process utilizes an engaged approach, ensuring that the patron obtains the assistance needed, is responded to in a respectful, timely, discreet manner, and feels supported. Licensees will set mechanisms and procedures in place to support an engaged approach during all aspects of the self-exclusion service including enrollment, enforcement, and assisting individuals that attempt or break their agreement. Gaming wins and losses by banned individuals will be transferred to the MGC Gaming Revenue Fund.

Individuals utilizing the Voluntary Self-Exclusion Program will select the duration of their self-exclusion. At any time after the expiration of the selected duration of exclusion, an individual may request that their name be removed from the voluntary self-exclusion list by participating in a reinstatement session. During this brief session, the following topics will be covered: safe gaming tips, risks of gambling, and referrals to additional help, as appropriate.

OPT-OUT

STRATEGY 1 2 3 4 5 6 7

PROMOTE PUBLIC HEALTH AND SAFETY WITHIN THE PHYSICAL ENVIRONMENT

MGC Licensees' commitment to corporate social responsibility extends beyond what is traditionally thought of as responsible gaming provisions to broader daily operations designed to promote public health and safety. The majority of the below listed protections are codified into state law and are provided here to demonstrate the scope of measures taken to provide public protections within the physical environments managed by Licensees.

3.1 PREVENT UNDERAGE GAMBLING

Licensees shall implement policies and practices designed to prevent legally underage persons from participating in any gambling at casinos, loitering in the gaming area of a casino or betting area of a racetrack or from gaining access to online, mobile or in-room gambling opportunities. Licensees should take all reasonable steps to ensure that staff understands their responsibilities in preventing underage gambling. Gaming wins and losses by underage persons will be transferred to the MGC Gaming Revenue Fund.



3.2 PROVIDE PROTECTIONS AGAINST CHILD AND ELDER NEGLECT OR AMANDONMENT

Licensees shall establish policies and practices to safeguard children and dependent elderly from neglect or abandonment by patrons including:

- Discourage patrons from bringing dependents within close proximity to the gaming floor.
- Increase patron awareness of policies and practices designed to protect children and dependent elderly.
- Place signage in parking areas explicitly disallowing unattended dependents in vehicles.
- Monitor premises and motor vehicles parked within Licensee's grounds.
- Clearly indicate to patrons and staff those areas within the property where minors are and are not allowed.
- If aware of a patron violating child or elder endangerment laws while gambling at their facility, the Licensee should notify local law authorities and consider banning the patron from the property.

3.3 CREATE SMOKE-FREE ENVIRONMENTS

To maintain a safe and healthy work environment for all employees and patrons, Licensees will establish and enforce a prohibition of smoking in all enclosed areas of the gaming establishment, and prohibit the use of e-cigarettes in accordance with local regulation.

3.2 SERVE ALCOHOLIC BEVERAGES RESPONSIBLY

Licensees will observe a responsible beverage service policy including making a diligent effort to:

- Not serve alcoholic beverages to a minor.
- Not serve alcoholic beverages to a visibly intoxicated patron.
- Not permit casino gambling by a visibly intoxicated patron.
- Escort visibly intoxicated persons from the gaming area.
- Prohibit the distribution of alcoholic beverages during hours determined by the MGC
- Ensure that appropriate casino employees are trained in the company's responsible alcoholic beverage service policy and provide periodic refresher training to those employees.

3.5 ASSIST PATRONS IN NEED

Licensees should develop patron assistance policies and practices to appropriately identify, understand and respond to patron asking for assistance, exhibiting behaviors disruptive to others, displaying emotional distress, and showing symptoms of fatigue or medical needs. Patron assistance programs should be designed to collaborate with onsite resources, when appropriate, to offer aid to any patron in need with emphasis placed on developing training, procedures, and evaluation methods for assisting:

- Persons who appear to be experiencing a problem with their gambling.
- Individuals threatening harm to themselves or others.
- Persons displaying irrational behavior or speech.
- Suspected victims of human trafficking.

3.6 INCORPORATE RESPONSIBLE GAMING FEATURES INTO INTERNET AND MOBILE GAMING APPLICATIONS

As technology evolves and new tools and methods are developed that utilizes internet and mobile devices, licensees shall ensure that responsible gaming features are considered in the design, development, and delivery of gaming products and services, including:

- As gambling and gaming are converging in different ways, Licensees shall regularly consult with experts to discuss strategies for minimizing harms associated with any new and existing internet and mobile gaming products.
- Practice games should include information about responsible and problem gambling, be clearly labelled as for adult use only, and should not be advertised in a way that is appealing to youth.

3.7 ENCOURAGE BREAKS IN PLAY

To encourage breaks in play licensees should take the following measures:

- Display clocks in prominent locations in the gaming area to help patrons track the passage of time.
- Offer amenities including hospitality services and non-gaming forms of entertainment in areas on and off the gaming floor.
- Encourage patrons to visit the GameSense Info Center.
- Train employees on when and how to encourage patrons to take breaks in play.
- Provide lounge or seating areas outside of a retail setting



3.7 ENFORCE THIRD-PARTY EXCLUSIONS

In an effort to protect individuals who manifest a severe gambling disorder and are unable or unwilling to exclude themselves from an MGC licensed gaming facility, third-party exclusions will be made available. Licensees will enforce the exclusion of individuals who are banned from gaming establishments by an entity other than the excluded individual.

STRATEGY 1 2 3 4 5 6 7

ENSURE RESPONSIBLE MARKETING

Licensees should develop and implement strategies to ensure advertising and promotions are delivered in a responsible manner and advertising is sensitive to concerns about youth exposure to gambling promotion, including casino marketing on non-age restricted social casino apps or online free-play sites. An important aspect of responsible marketing is including messaging related to promoting positive play and advertising problem gambling help resources. This is accomplished through several actions including:

- Integrating responsible gaming messaging into casino marketing materials.
- Participating in Responsible Gaming Education Week and Problem Gambling Awareness Month.
- Coordinating responsible gaming marketing efforts with the MGC and other entities promoting MGC sanctioned responsible gaming awareness efforts.

As a minimum standard for Licensee advertising and marketing, the below guidelines, adapted from the American Gaming Association's Code of Conduct for Responsible Gaming, should be followed.

For the purposes of this strategy, advertising and marketing includes, among other media, radio and television, print ads, direct mail, social media, billboards and Internet promotions.

4.1 ADVERTISING AND MARKETING CONSIDERATIONS

Gambling advertising and marketing will:

- Contain a responsible gaming message and/or a toll-free help line number where practical.
- Reflect generally accepted contemporary standards of good taste.
- Make no false or misleading claims or create a suggestion that the probabilities of winning or losing at the various games offered by the casino are different than those actually experienced.

4.2 ADVERTISING AND MARKETING PROHIBITIONS

Gambling advertising and marketing will not:

- Contain images, symbols, cartoon figures, celebrity/entertainer endorsements and/or language directed to or intended to appeal specifically to persons below the legal age.
- Feature anyone who is or appears to be below the legal age to participate in gambling activity.
- Be placed before any audience where most of the audience is ordinarily expected to be below the legal age to participate in gambling activity.
- Be promoted on college or university campuses or in college or university publications.
- Be placed on billboards or other outdoor displays that are adjacent to schools or other primarily youth-oriented locations.
- Contain claims or representations that gambling activity will guarantee an individual's social, financial or personal success.
- Imply or suggest any illegal activity of any kind.
- Encourage people to play beyond their means.
- Exaggerate the chances of winning.
- Encourage excessive or irresponsible play.

STRATEGY 1 2 3 4 **5** 6 7

MANAGE HIGH-RISK FINANCIAL TRANSACTIONS

To reduce the risk of players spending more on gaming activities than they can afford, Licensees will take several measures to manage high-risk financial transactions including developing policies that ensure all legal, statutory, and regulatory requirements relating to financial transactions are implemented, with particular attention to the following:

5.1 HOUSE CREDIT

Gambling on borrowed money is considered a high-risk practice that necessitates consumer protections. The following safeguards are intended to assure that risks associated with issuing house credit are minimized:

- Credit worthiness of an applicant will be verified using MGC regulations.
- House credit will only be extended to patrons who qualify for a minimum \$10,000 threshold and will not exceed the amount requested by the patron.
- Credit applications will include an MGC approved problem gambling self-assessment.
- Credit officers will obtain verbal verification from credit applicants that they are comfortable losing up to the amount of credit requested and granted.
- House credit will not be offered to persons who self-identify as a problem gambler, place themselves on a voluntary credit suspension list, or are on public assistance.
- A temporary credit increase for a patron's single trip to the casino is restricted to 25% and limited to once every 30 days.
- Credit requests, including extensions, may not be accepted from patrons who are visibly intoxicated or exhibiting behaviors suggestive of impaired mental competency.



5.2 CASH AND CREDIT TRANSACTIONS

For many players, limiting access to cash on the gaming floor is an important strategy in supporting positive play. For patrons whose play has become problematic, preventing high risk cash and credit transactions to fund gambling is paramount in reducing personal financial harm. In addition to the below measures to manage high risk financial transactions, the MGC and Licensees will continue to explore technological solutions and innovative practices to prevent high risk transactions.

- Using credit cards to finance gambling results in high fees and interest rates charged by credit card institutions and may lead to serious debt problems. For these reasons, credit card transactions are not allowed for the purposes of gaming.
- To restrict access to cash while gambling, debit card transactions are not permitted to be initiated within 15 feet of the gaming area.
- Cashless gaming systems must follow current Gaming Laboratories International (GLI) standards and obtain MGC approval. Until determined to be safe by the MGC, “Smart Card” technology and other cashless gaming systems enabling players to transfer money from a bank account to their players card, for the purpose of gaming, are not allowed.
- Licensees are encouraged to participate in a ATM exclusion program that offers gamblers a way to block access to cash across ATMs within the gaming establishment, cash access kiosks, and booth services. ATM exclusion authorization forms should be widely available including at the GameSense Info Centers and player services.
- Licensees must develop and implement a system of internal controls relative to the acceptance of checks presented by patrons for gaming purposes. These controls must comply with MGC regulations that prohibit cashing government-issued checks or third party checks other than bank issued cashier’s checks or traveler’s checks.
- For payout wins where federal taxes must be reported, written information should be made available alerting patrons of the association between large wins and problem gambling.

STRATEGY 1 2 3 4 5 6 7

ENGAGE THE COMMUNITY

Community engagement is an important feature of corporate social responsibility. Engaging the community is a way to understand, engage in and act upon critical workplace, marketplace, and environmental issues. Licensees should connect at all possible levels from within their organization to integrate within host and neighboring communities' governing bodies, economic, social and environmental life. Focused efforts should be placed on building collaborations and partnerships with individuals and entities addressing problem gambling and health promotion.

6.1 ENGAGING COMMUNITIES WITHIN THE GAMING ESTABLISHMENT

Licensees should develop practices and programs to engage individuals and entities directly involved with the gaming establishment to innovate, educate, problem solve, and improve relationships.

- Establish policies and practices to gather patron comments and to respond to patron complaints.
- Provide opportunities for employees to anonymously voice relevant concerns or questions.
- Designate easy to access space within the casino property for a GameSense Info Center. Within the GameSense Info Center, Licensees will designate an office for private meetings between patrons with concerns related to their gambling and counselors or other staff trained in crisis intervention, mental health triage, and the facilitation of a self-exclusion process.
- Educate the public about how gaming machines work including differences between gaming machines offered and features of newly introduced games.
- Actively engage with MGC funded researchers to facilitate access to needed information and enhance the exchange of information between evaluators and licensees.

6.2 AT-LARGE COMMUNITY ENGAGEMENT

Partnerships and collaborations are based on shared responsibilities. For Licensees to do their part, they should utilize findings from MGC-sponsored research to inform their efforts to actively engage the community, promote broad-based citizen participation in addressing concerns, and strengthen community relationships.

- Regularly engage with the Massachusetts Council on Compulsive Gambling, the Massachusetts Partnership on Responsible Gambling, and other entities interested in issues related to problem gambling and responsible gaming.
- Utilize findings from MGC-sponsored research and Massachusetts Department of Public Health-funded problem gambling prevention and treatment programs to inform ethical and responsible practices.
- Respond to community requests for participation with events and representative inclusion in coalitions, boards, or other community organizations.
- Work collaboratively with the academic community to better understand the positive and negative impact of practices and policies through information exchange including providing researchers access to employees, patrons, and data bases.
- Engage in outreach activities aimed at developing relationships with relevant host and surrounding community organizations that provide problem gambling treatment and problem gambling prevention activities.

STRATEGY 1 2 3 4 5 6 7

COMMIT TO CONTINUOUS IMPROVEMENT AND REPORTING

All MGC Licensees are responsible for continually improving their responsible gaming strategies and practices and reporting on their accomplishments. To meet these objectives Licensees will:

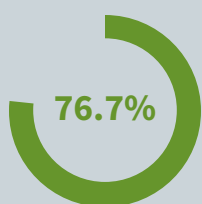
- Maintain appropriate records relating to the practices in the Responsible Gaming Framework.
- Provide responsible gaming related updates throughout the year through participation within the Massachusetts Partnership for Responsible Gambling.
- Submit an annual Responsible Gaming Plan progress report according to MGC standards.
- Participate and cooperate with MGC-sponsored responsible gaming program evaluation research.
- Fully engage in responsible gaming program reviews conducted or sponsored by MGC.
- Utilize evaluation and review findings to strengthen responsible gaming practices.

EVALUATION ON RESPONSIBLE GAMING INITIATIVES

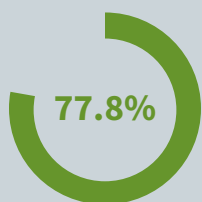
The Massachusetts Gaming Commission has contracted with the Division on Addiction, Cambridge Health Alliance, to provide evaluation of three MGC responsible gaming initiatives as outlined in **STRATEGY 2: SUPPORT POSITIVE PLAY**. Findings from these evaluations are used to refine and update the initiatives to ensure the highest reasonable level of efficacy. The MGC considers evaluations to be essential to good program health and for this reason will fund evaluations on regular basis. The full evaluations which are referenced below can be accessed on the [MGC Research Agenda](#) webpage.

GAMESENSE

The GameSense program at Plainridge Park Casino was available to casino guests at the time of the casino's grand opening in June 2015. While key program objectives have remained the same, program managers noted that there was a period of adjustment during the first six months which has levelled out as Advisors have refined their roles to be as effective as possible. The GameSense program has undergone multiple waves of evaluation with various data collection methodologies which ranged from an electronic checklist used by GameSense Advisors, GameSense Info Center visitor surveys, general casino patron surveys and casino staff surveys. Some key findings from Wave I and II of the evaluation include:



GameSense Info Center survey respondents who reported that by visiting GameSense, they learned strategies about how to keep gambling fun.



GameSense Info Center survey respondents who reported that their visit to GameSense enhanced their overall visit to Plainridge Park Casino.



GameSense Info Center survey respondents who reported that they would visit GameSense again.

PLAYMYWAY

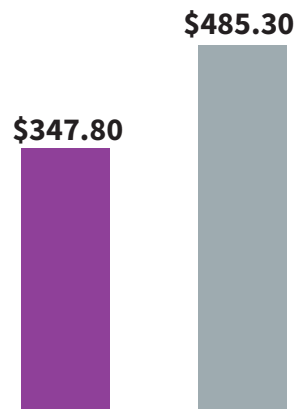
PlayMyWay was launched in June of 2016 to help players make decisions about gambling, allow them to monitor and understand their playing behavior in real time, and support their decisions. The First Year Analysis of the Program found that:



Of the 101,024 Plainridge Park Casino visitors who were eligible to enroll in the program during the study period, **8.8%** (8,856) enrolled in PlayMyWay.

PlayMyWay users tended to wager less money as well as lose less money per day compared to non-users. Whereas the median PlayMyWay-user wagered \$347.80 and lost \$47.50 per day, their non-user counterparts wagered \$485.30 and lost \$62.90.

MEDIAN PER DAY WAGERED



MEDIAN PER DAY LOST



PLAYMYWAY USERS



PLAYMYWAY NON-USERS

VOLUNTARY SELF-EXCLUSION

The Voluntary Self-Exclusion Program was launched just before the opening of Plainridge Park Casino in June 2015. Data collection consisted of an optional questionnaire which was included as part of the Voluntary Self-Exclusion form. Additionally, newly enrolled individuals were given the chance to participate in two more detailed surveys which were administered telephonically by researchers.

Key findings of the Preliminary Evaluation of the Massachusetts Voluntary Self-Exclusion Program include:



97% of Voluntary Self-Exclusion Program enrollees who participated in the study reviewed a resource packet with the enrolling agent.



88% of Voluntary Self-Exclusion Program enrollees who participated in the study reported that they had a better experience with the Massachusetts program than they did with other jurisdictions or states.



Enrollees who participated in the study experienced significant problems with their gambling and well-being upon enrollment. Six months after enrollment, their reported gambling problems declined and their reported well-being improved.

ACKNOWLEDGMENTS

The development of the Massachusetts Gaming Commission Responsible Gaming Framework consisted of an extensive research process involving the review of a broad range of academic papers and studies, policy papers, investigative reports, jurisdictional reviews, corporate reporting documents, and legislation relating to gambling issues in Massachusetts, other United States jurisdictions, and abroad. From this review, materials produced by the following entities most notably informed the Framework:

- American Gaming Association
- Australian Gaming Council
- Australian Government Productivity Commission
- British Columbia Lottery Corporation
- Netherlands Ministry of Security and Justice
- New Zealand Department of Internal Affairs
- New Zealand Ministry of Health
- Nova Scotia Government (multiple agencies)
- Massachusetts Department of Public Health
- Ontario Problem Gambling Research Centre
- Ontario Responsible Gambling Council
- Queensland Government Office of Liquor and Gaming Regulation
- Responsible Gambling Strategy Board
- United Kingdom Gambling Commission

Scholarly papers of notable significance to the development of the Framework include:

- Blaszczynski, A., Collins, P., Fong, D., Ladouceur, R., Nower, L., Shaffer, H. J., & Venisse, J. L. (2011). Responsible gambling: General principles and minimal requirements. *Journal of Gambling Studies*, 27(4), 565-573.
- Hancock, L., Schellinck, T., & Schrans, T. (2008). Gambling and corporate social responsibility (CSR): Re-defining industry and state roles on duty of care, host responsibility and risk management. *Policy and Society*, 27(1), 55-68
- Wood, R. T., & Griffiths, M. D. (2015). Understanding positive play: An exploration of playing experiences and responsible gambling practices. *Journal of gambling studies*, 31(4), 1715-1734.

Key to the refinement and updating of the Framework was input and information gathered from the Massachusetts Department of Public Health, Massachusetts Council on Compulsive Gambling, participants of the Massachusetts Partnership for Responsible Gaming, Problem Gambling Solutions, Inc., and other stakeholders from government agencies, the gambling industry, advocacy groups, academicians, not-for-profit organizations, and concerned citizens of Massachusetts.

ENDNOTES

¹ McMillen, J., & McAllister, G. (2000, May). Responsible gambling: Legal and policy issues. In 3rd National Gambling Regulation Conference, Rex Hotel, Sydney (pp. 11-12).

² Neal, P. N., Delfabbro, P. H., & O'Neil, M. G. (2005). Problem gambling and harm: Towards a national definition.

³ Adapted from: Ministry of Security and Justice (2014). Advice on the framework for the prevention of problem gambling and addiction: Final Report. Prepared by Gaming Integrity Services & Assissa Consultancy Europe for the Government of the Netherlands.
<https://www.rijksoverheid.nl/binaries/rijksoverheid/documenten/rapporten/2015/04/03/tk-bijlage-advice-on-the-framework-for-the-prevention-of-problem-gambling-and-addiction/lp-v-j-0000007920.pdf>

⁴ A Framework for the Application of Precaution in Science-based Decision Making and Risk', Government of Canada Privy Council Office, p.2.

⁵ 'The Precautionary Principle', Centre for Progressive Regulation (CPR) (2003), p.3.
<http://www.progressivereform.org/perspprecaution.cfm>

⁶ Adapted from: Ministry of Security and Justice (2014). Advice on the framework for the prevention of problem gambling and addiction: Final Report. Prepared by Gaming Integrity Services & Assissa Consultancy Europe for the Government of the Netherlands.

⁷ The Gaming Act requires that the Commission establish an “annual research agenda” in order to understand the social and economic impacts of expanded gaming in the Commonwealth. Research grantees will collaborate with gaming operators, governmental agencies, and others to meet research objectives.

⁸ Positive Play Definition. R. Wood, personal communication, December 22, 2017.

⁹ Responsible Gambling Council (2011). Insight 2010: Informed Decision Making. Ontario, Canada

Assessing the Impact of Gambling on Public Safety in Massachusetts

ANALYSIS OF PLAINRIDGE PARK'S
FIRST TWO YEARS

Christopher W. Bruce

Crime analysis consultant



Summary

Plainridge Park opened at the end of June 2015.

Since that time, it has reported a number of crimes and calls for service commensurate with facilities of similar size and number of visitors.

As for the surrounding community (including six towns), the totality of the evidence shows little impact on most crimes and calls for service.

The types of calls for service to increase are those highly correlated with the number of cars and visitors to a community, such as traffic issues and reports of lost property and suspicious activity.

One potential crime increase concerns the use of stolen credit cards in the area, but this did not persist past the first year.

The analysis is complicated by changes in reporting practices at several of the participating agencies.

Legend

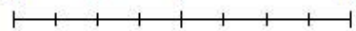


Plainridge Park



Contributing Towns

0 1 2 4 Miles



Methodology

Data collected from records systems of Plainville, Attleboro, Foxborough, Mansfield, North Attleborough, Wrentham

Merged and translated into common database.

Period of July 2015 - June 2017 compared against past periods since 2010. Unusual changes noted.

Any category significantly higher than normal fully analyzed with collected data, plus narratives from samples of reports. Summaries provided in full report.

Reviewed by Research Advisory Committee

Agencies given chance to comment by e-mail and at February meeting.

Signs of a casino relationship

| Sign | Hypothetical example | Hypothetical opposite |
|--|--|--|
| Type of crime logically tied to activity at casino | Increase in robberies in surrounding area | Increase of thefts of property at schools |
| More offenders and victims from outside the local area | Increase in domestic dispute and violence calls at area hotels | Increase in domestic dispute and violence calls at homes |
| Same category increasing in multiple agencies | 3 of 5 communities see increase in thefts from cars | 1 community reports increase in burglary while 4 report decreases |
| Complementary increases in related offenses | Theft, robbery, and fraud all increase in area | Only identity theft increases in area |
| Casino specifically mentioned by offenders/victims | Drunk drivers mention they were last drinking at casino | Serial burglar admits to stealing for heroin |
| Increase is spatially related to location of casino | Traffic collisions increase on Route 1 in Plainville | Traffic collisions increase on residential roads in Attleboro |
| Increase only happened in Plainville area, not in control communities or statewide | Thefts from vehicles went up 20% in Plainville area but went down 5% everywhere else | Identity theft increased 20% in Plainville area but also increased 20% statewide |

Comparison communities

| Area | Communities | Population (2010) | Square Miles | 2014 IBR Total |
|---------------|--|----------------------|-----------------|-------------------|
| Study | Plainville, Attleboro, Foxborough, Mansfield, North Attleborough, Wrentham | 131,401 | 122.9 | 3,924 |
| Comp 1 | Berlin, Hudson, Marlborough, Northborough, Shrewsbury, Southborough, Westborough | 139,230 | 124.9 | 3,519 |
| Comp 2 | Canton, Dedham, Norwood, Randolph, Westwood | 121,622 | 62.4 | 3,953 |
| Comp 3 | Bedford, Concord, Lexington, Lincoln, Waltham, Weston | 140,638 | 102.2 | 2,910 |

Notes from previous research

Previous research has generally depended on summary statistics and only for Part 1 crimes as reported to the FBI.

Previous studies are mixed when it comes to the impact of casinos on crime in the surrounding communities.

Changes in crime may fluctuate across temporal “bands” after the casino’s introduction.

Studies that show an increase do not establish a causal relationship between gambling *specifically* and crime.

“Crime does not inevitably increase with the introduction of a casino...The effects of casinos on crime appear to be related to a variety of variables which are only poorly understood.” (Stitt, Nichols, & Giacomassi, 2003, p. 253)

Major findings

Violent crime up in area, property and total crimes down

Incidents at the casino itself led to a 10% increase in property crime and a 12% increase in total crime in Plainville

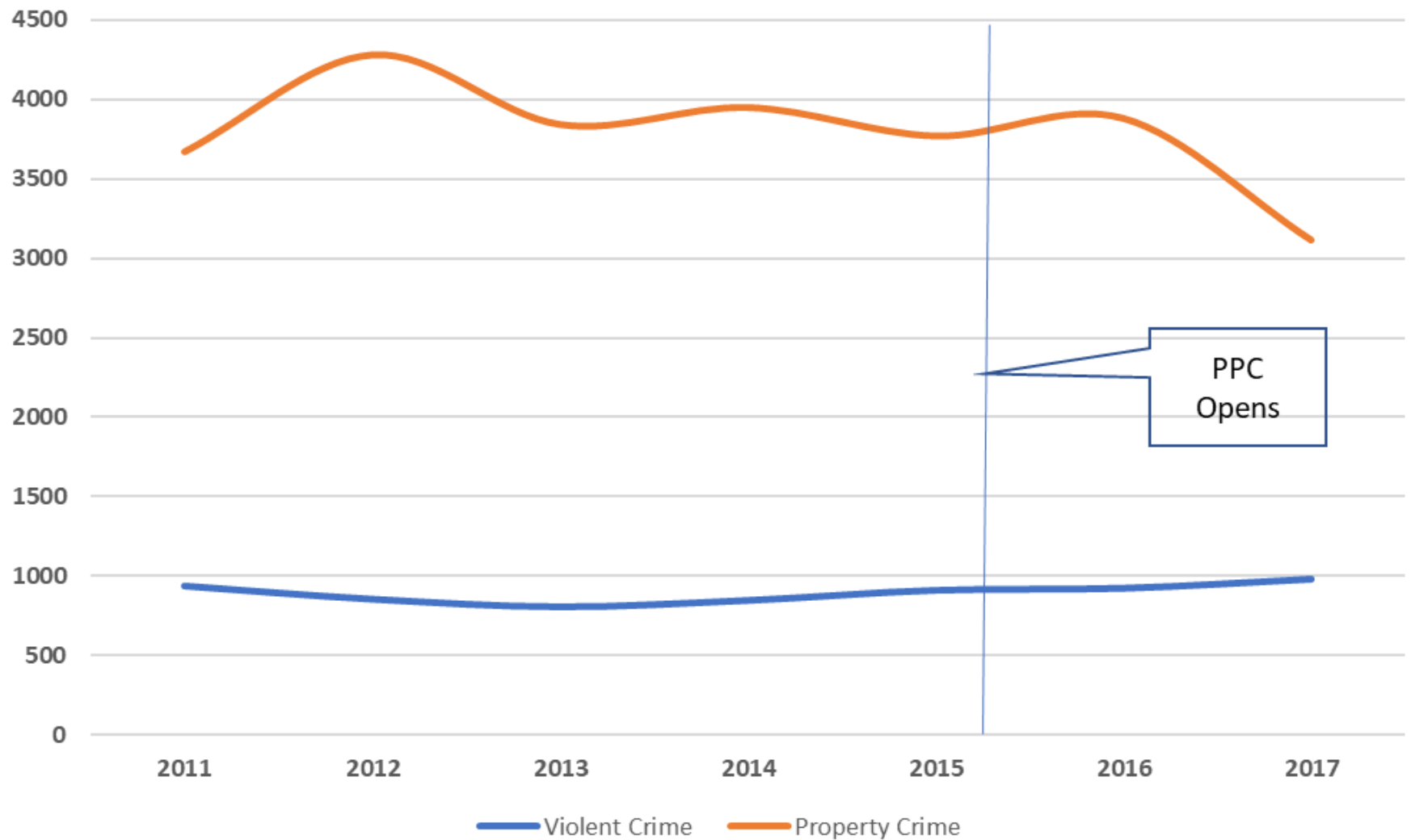
Total arrests/charges down significantly, particularly for liquor offenses

In the surrounding area, increases “likely” related to PPC:

- Credit card fraud throughout region during first year
- Traffic collisions on feeder routes in several communities
- “Lost property” calls in Plainville
- “Suspicious activity” calls in Plainville
- Traffic/parking complaints in Plainville
- General increase at hotels, convenience stores, gas stations

Crime Trends in the 6 PPC-Area Communities

Years starting 1 July and ending 30 June



Selected crimes and calls

| Type | Pre-PPC Avg. | St. Dev. | Post-PPC Avg. | Z-Score |
|-----------------------|--------------|----------|---------------|---------|
| Robbery | 33.0 | 8.22 | 23.0 | -1.22 |
| Simple Assault | 607.4 | 47.01 | 676.0 | +1.46 |
| Burglary | 516.0 | 88.05 | 345.5 | -1.94 |
| Thefts from Vehicles | 311.4 | 96.57 | 234.5 | -0.80 |
| Auto Theft | 109.4 | 10.37 | 80.0 | -2.84 |
| Credit Card Fraud | 104.0 | 14.87 | 1430 | +2.62 |
| Drug Offenses | 226.0 | 14.68 | 207.0 | -1.29 |
| Liquor Law Violations | 418.0 | 144.56 | 112.5 | -2.11 |
| Drunk Driving | 269.6 | 29.29 | 286.5 | +0.58 |
| Traffic Collisions | 4583.2 | 182.50 | 4975.0 | +2.15 |

Compared to controls (18 mo.)

| Crime | PPC Area | Control |
|------------------|----------|---------|
| Sex Assault | +1% | -5% |
| Robbery | -20% | -30% |
| ★ Kidnapping | +22% | -53% |
| Agg. Assault | -8% | -3% |
| ★ Simple Assault | +18% | -11% |
| Burglary | -28% | -34% |
| Auto Theft | -26% | -6% |
| Theft from Veh. | -21% | -18% |
| Vandalism | -13% | -24% |

| Crime | PPC Area | Control |
|------------------|----------|---------|
| Forgery | +4% | +4% |
| Credit Card Frd. | +51% | +2% |
| Con Games | +22% | +25% |
| ID Theft | +79% | +79% |



Trends at PPC

| Trend | At least | Notes |
|-------------------------------|----------|------------------------------|
| Theft of gaming credits/TITO | 80 | High solvability rate |
| Drug use/distribution outside | 40 | Cocaine, heroin, marijuana |
| Drunk/angry/obnoxious patrons | 32 | |
| Theft of personal property | 20 | Again, high solvability rate |
| Fake ID | 12 | More banned than underage |
| Patrons damaging machines | 10 | Often by pouring drinks |
| Domestic disputes/assaults | 10 | Male assailants, alcohol |
| Children left alone in cars | 6 | |
| Money laundering | 4 | |

Effects on Plainville's Statistics

0% increase in violent crime

10% increase in property crime

12% increase in total crime

3% increase in calls for service

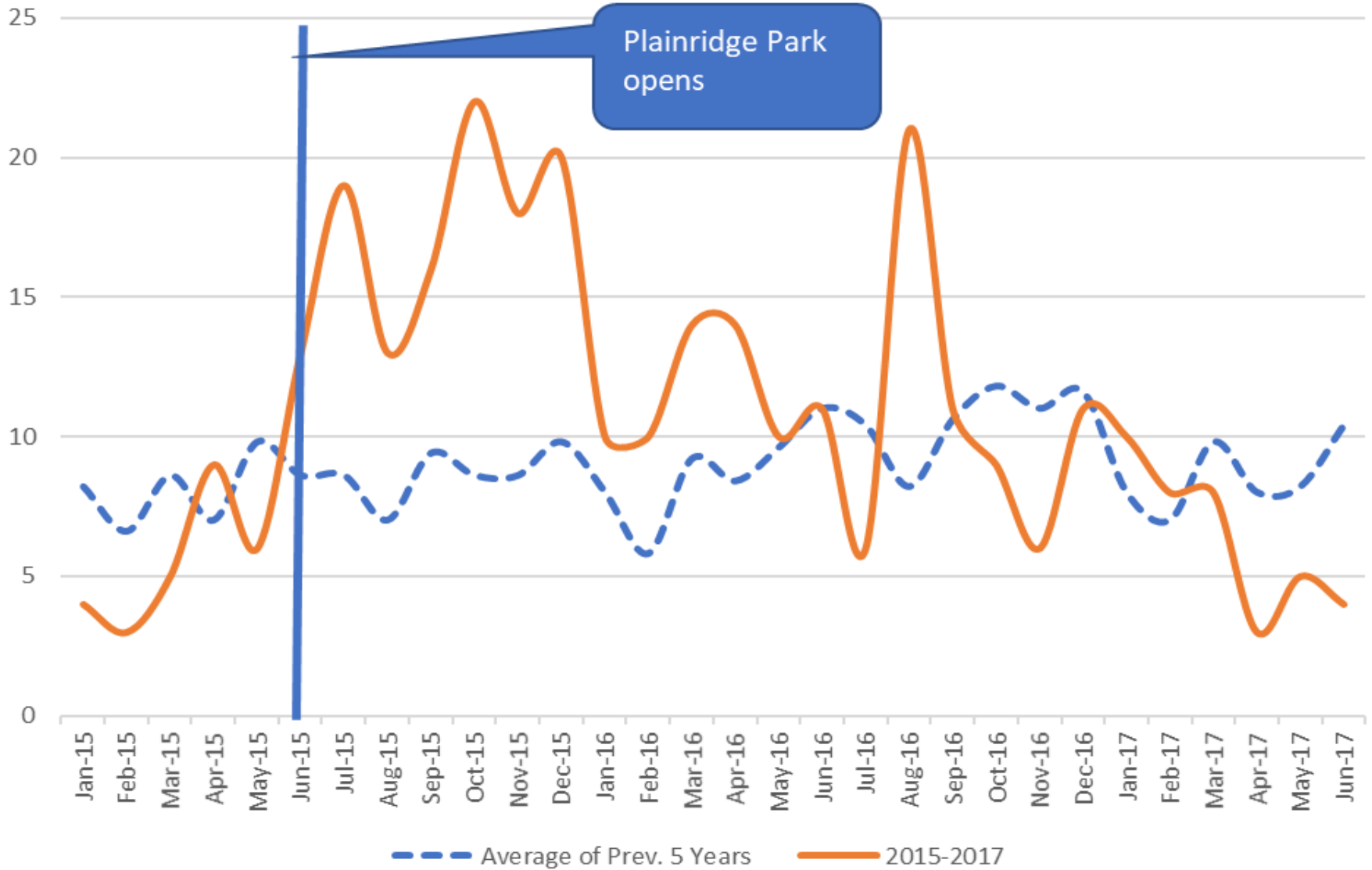
Balanced by 36%
increase in sworn
officers at Plainville
PD (14 to 19)

Percentage of activity at top locations, June 2015–July 2017

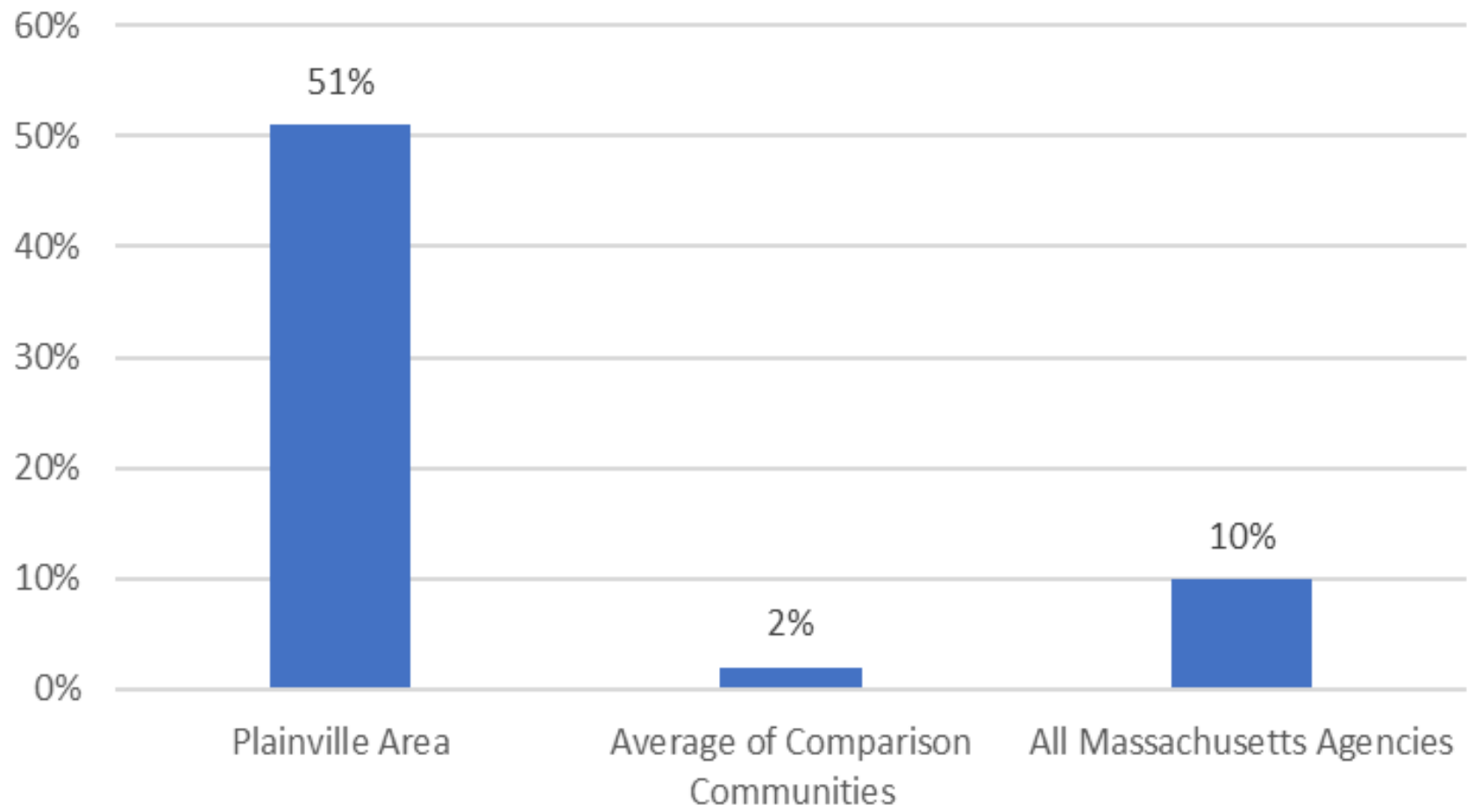
| Community | Top Offense Location | % Violent Crimes | % Property Crimes | % Total Crimes | % Calls for Service |
|-----------------|-----------------------|------------------|-------------------|----------------|---------------------|
| Plainville | Plainridge Park | 0% | 11% | 13% | 9% |
| Plainville #2 | Plainville Commons | 0% | 12% | 10% | 2% |
| Attleboro | Bristol Place | 1% | 9% | 8% | 3% |
| Mansfield | Xfinity Center* | 24% | 4% | 58% | <1% |
| N. Attleborough | Emerald Square | 6% | 23% | 17% | 11% |
| Wrentham | Wrentham Vlg. outlets | 12% | 62% | 59% | 24% |

Credit Card Fraud in the 6 Communities

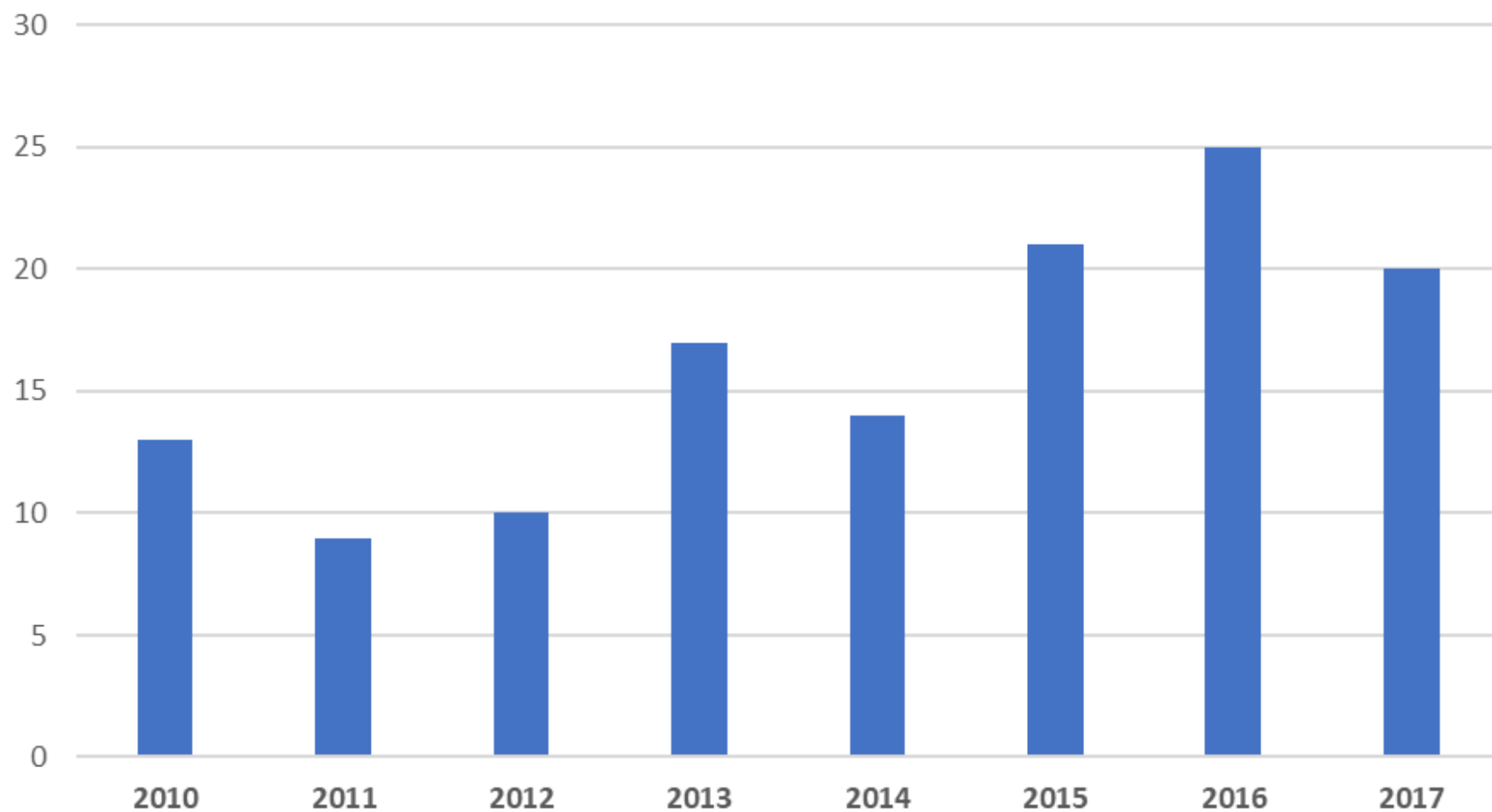
Plainridge Park
opens



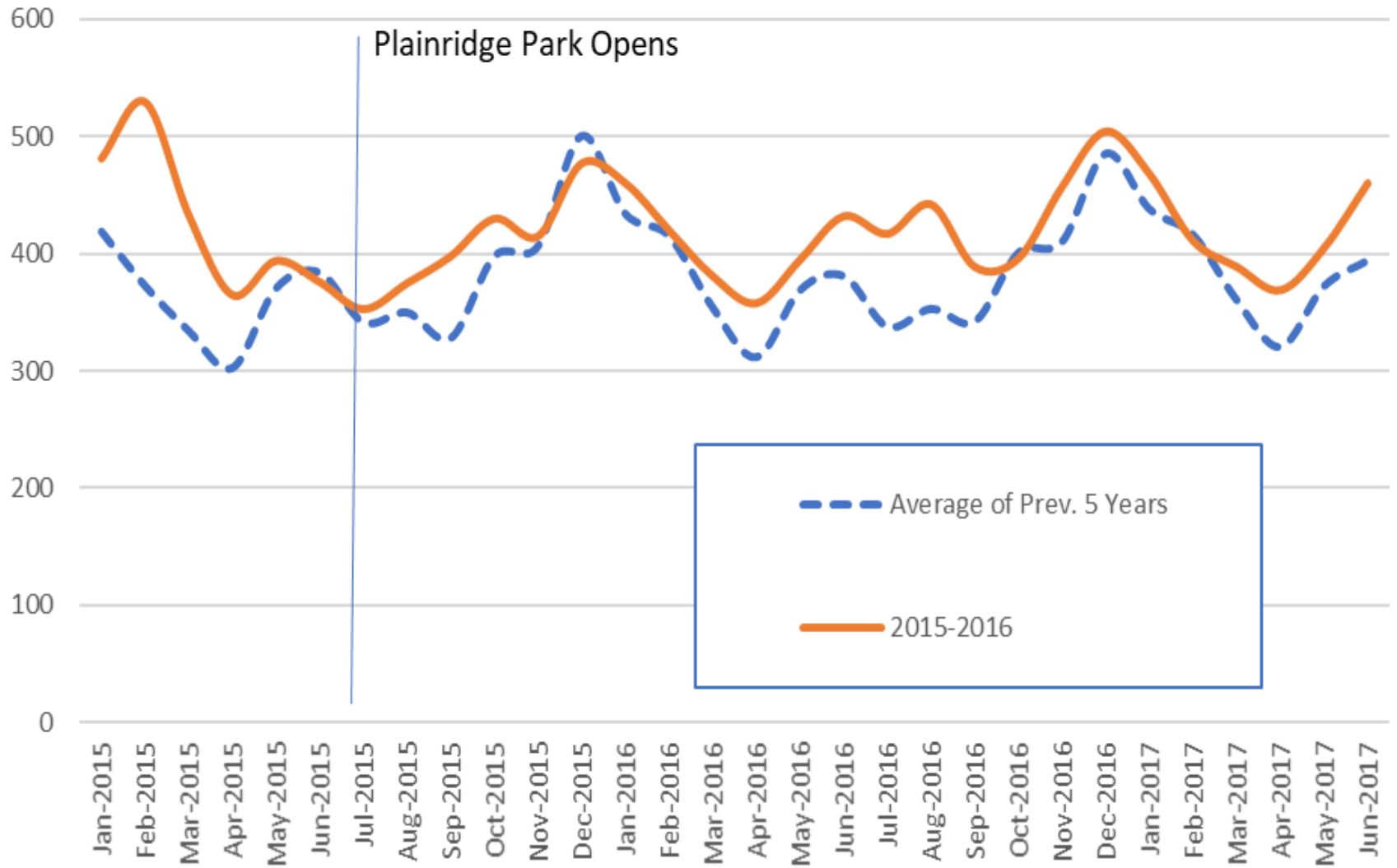
Changes in Credit Card Fraud 1 July 2015-31 December 2016



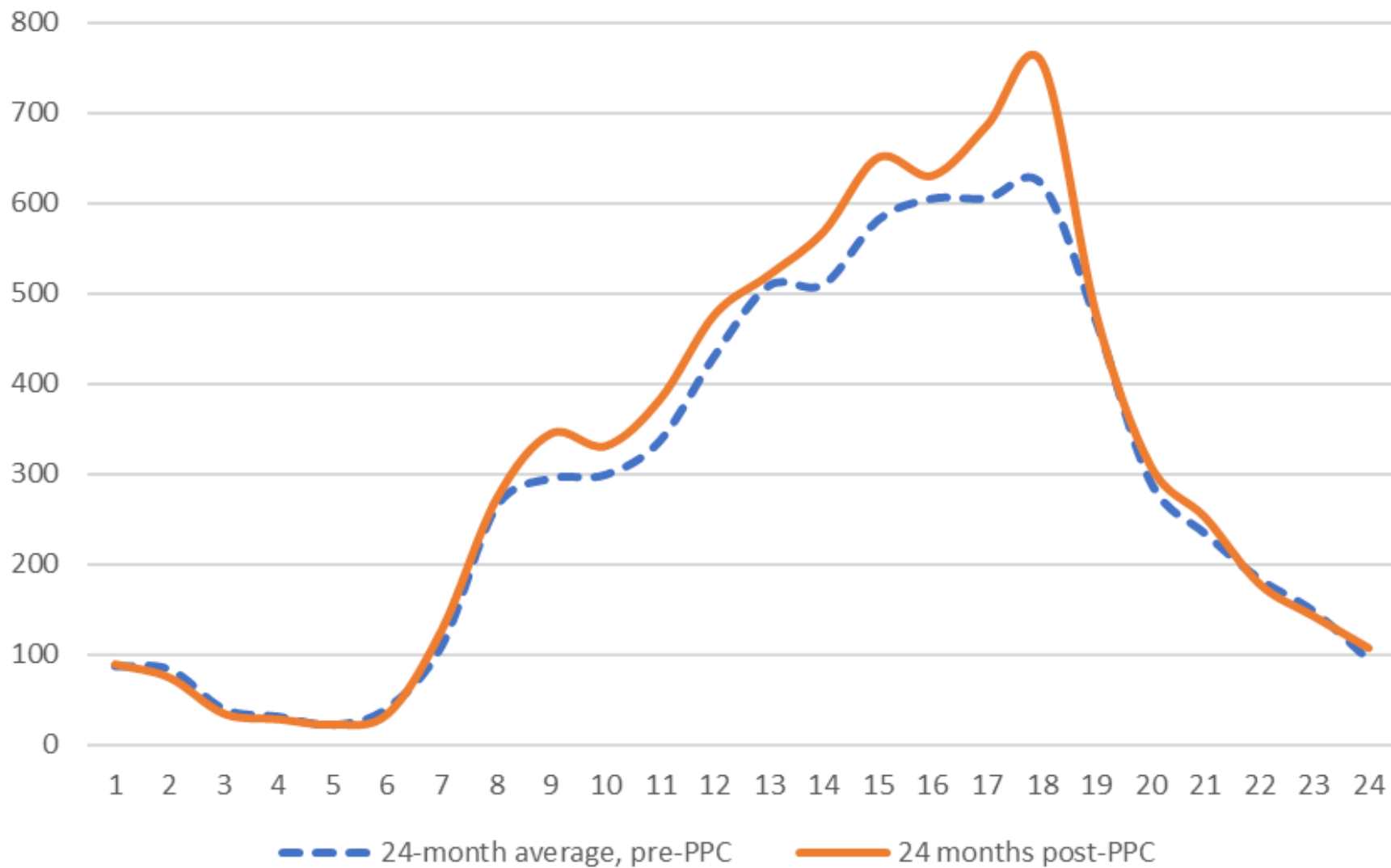
Percentage of Illegal Credit Card Use in 6 Communities for Food, Liquor, or Cigarettes, Years Ending 30 June



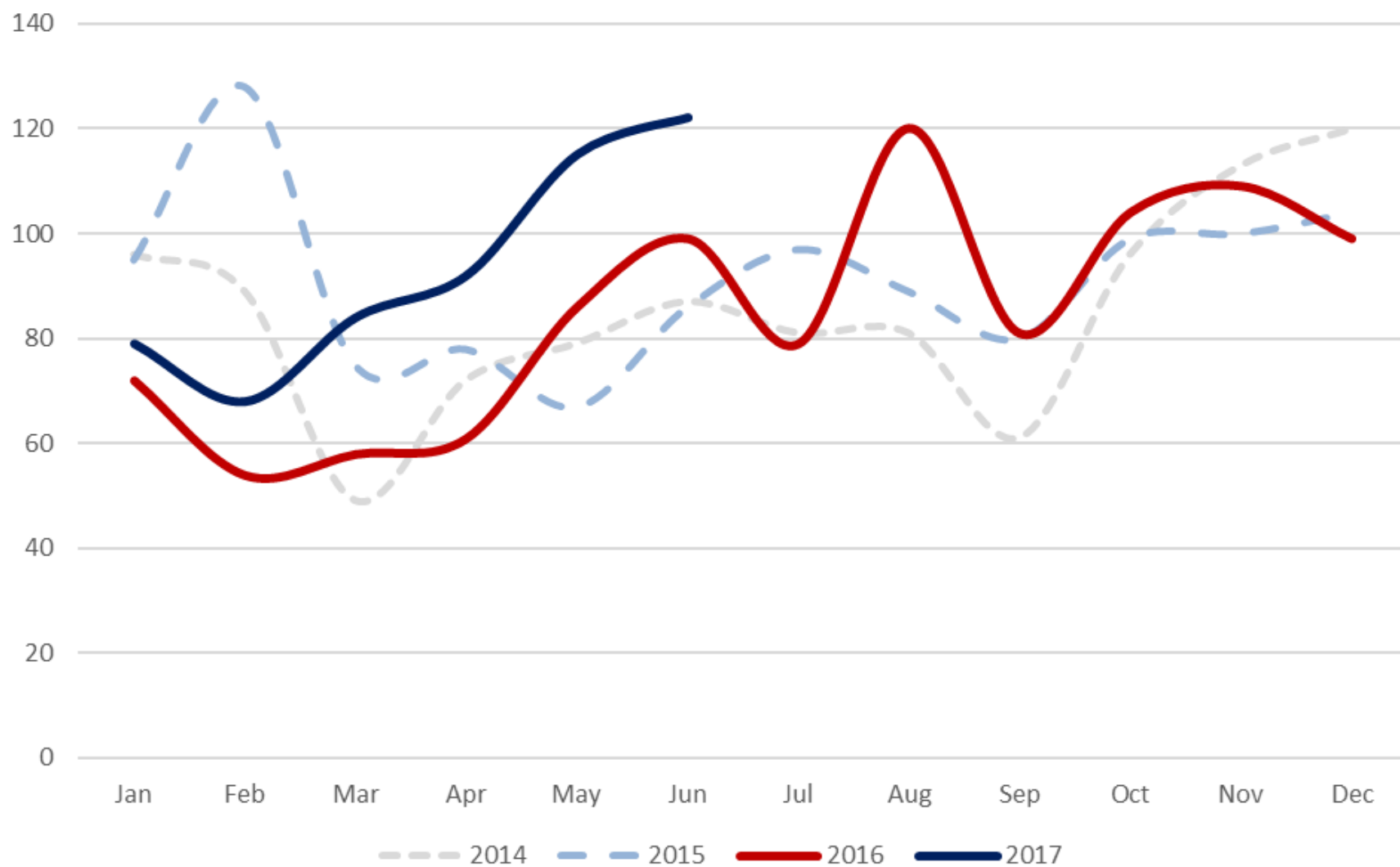
Motor Vehicle Collisions in the 6 Communities



Traffic Collisions in 6 Communities by Hour of Day



Collisions reported to Massachusetts State Police in the 6 communities



Troubling trends (non-PPC)

Increases in fraud

- Telephone scams in particular (IRS, credit bureau, family in trouble)
- Overpayment in online purchases
- A lot of mis-coding in this category (~20%)

Increases in identity theft

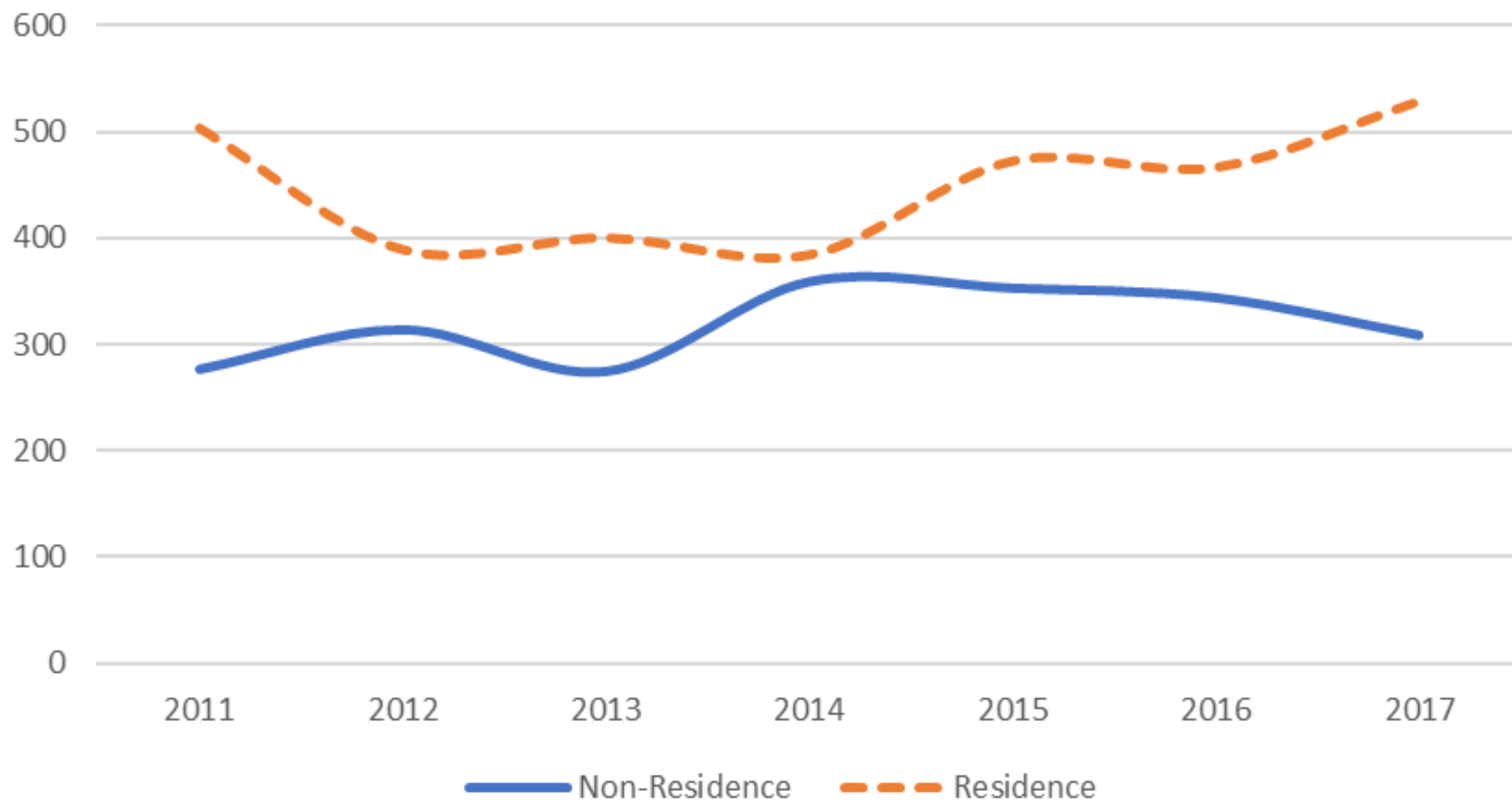
- High in 2015, got better (but still high) in 2016 and 2017
- Mirrors state increase

Increases in domestic simple assault and “family offenses”

Wrentham: Premium Outlets

Simple and Aggravated Assault by Location Type

Years ending 30 June



Upcoming reports and events

| | |
|-----------------------|---|
| April 2018: | PPC 30-month report |
| May 2018: | Access/IMC training (May 10-11, Chicopee) |
| June 2018: | PPC traffic study |
| June 2018: | MGM baseline |
| Summer 2018: | [Wynn] kick-off meeting |
| December 2018: | PPC 3-year report |
| March 2019: | MGM 90-day report |

Thank You!

Christopher W. Bruce

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Assessing the Impact of Gambling on Public Safety in Massachusetts Cities and Towns

Analysis of changes in police data after two years of operation at Plainridge Park Casino

Christopher W. Bruce

Consultant to the Massachusetts Gaming Commission

14 January 2018

v. 1.1

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Important notes

This report was prepared for the Massachusetts Gaming Commission and Plainville-area police agencies by a contracted consultant. Although both the Commission and the chief executives of the agencies were allowed to review, comment, and offer alternate viewpoints, the final conclusions are the consultant's and do not necessarily reflect the views of the Gaming Commission nor the contributing police agencies.

Many statistics are offered in this report that show increases and decreases in certain categories in Plainville and surrounding communities. In all cases, when aberrations have appeared, I have done my best to analyze them and determine their cause. Until analyzed, statistics that indicate notable increases or decreases in activity are simply *indicators* worthy of further analysis, and not proof of any particular "cause" of the changes. **No statistic offered in this report should be taken, by itself, as proof of a casino relationship.** Anyone who cites or reports the statistics without a thorough consideration of additional factors is using this report irresponsibly.

Executive summary

Briefest summary possible

Plainridge Park opened at the end of June 2015. Since that time, it has reported a number of crimes and calls for service commensurate with facilities of similar size and number of visitors. As for the surrounding community (including six towns), the totality of the evidence shows little impact on most crimes and calls for service. The types of calls for service to increase are those highly correlated with the number of cars and visitors to a community, such as traffic issues and reports of lost property and suspicious activity. One potential crime increase concerns the use of stolen credit cards in the area, but this did not persist past the first year. The analysis is complicated by changes in reporting practices at several of the participating agencies.

About this report

- The primary purpose of this report is to conduct an analysis of the increases and decreases in activity in the communities surrounding Plainridge Park since the casino opened and to identify which changes in activity might be attributable to the casino.
- Data was collected from the records management systems of Plainville, Attleboro, Foxborough, Mansfield, North Attleborough, and Wrentham since 2010. The period of 1 July 2015 through 30 June 2017 (2 years post-casino) was compared to the same periods of previous years. Both crimes and non-crime calls for service were included.
- Overall crime was down in the communities, but there were significant variations across communities and across crime categories within individual communities.
- Any significant increases were analyzed in more detail with both quantitative and qualitative data. Rarely was I able to establish a casino relationship, and the general sense from the participating agencies was that they did not feel that Plainridge Park had contributed significantly to crime or calls for service. Two agencies cited a heroin epidemic as more likely causing their crime increases.
- To determine likelihood of a casino relationship, I used a rubric of my own design that analyzes the data for several variables: logical connection to a casino, complementary increases in other communities, complementary increases in similar crimes, evidence of increased participation from individuals outside the local area, spatial proximity to the casino, comparison to control communities, and specific mention of the casino or gambling in the police reports.
- Some of the variances can be explained by changes in reporting practices, particularly in North Attleborough.

Major findings

- During Plainridge Park's first two years of operation, the Gaming Enforcement Unit reported 2,906 "incidents" at the casino, of which 504 incidents were actual crimes. Trends include thefts of gaming credits, drug use and distribution in the parking areas, angry and intoxicated patrons, and thefts of personal property.
- The casino directly (i.e., incidents on casino property) led to a 10% increase in property crime (+41 incidents), a 12% increase in total crime (+80 incidents), and a 3% increase in calls for service (+436 incidents) for the Plainville Police Department.
- Statistics at the casino are similar to those at the top call-for-service locations in other communities (see page 21). I have not yet had a chance to study its similarity to other casinos specifically.

- Based on a totality of the quantitative and qualitative evidence, my judgement is that the following trends in the surrounding community are “likely” to be related to the presence of Plainridge Park:
 - Increases in credit card fraud in multiple communities during the first year. (The trend abated in the second year.)
 - At least part of an increase in traffic collisions in the area, including those reported to the State Police
 - An increase in “lost property” reports in Plainville
 - An increase in “suspicious activity” reports in Plainville
 - An increase in traffic complaints in Plainville
- There was a general increase in crimes at hotels, convenience stores, and gas stations that might show a PPC influence on some of the crimes.
- There were other increases among the six communities but evidence cast doubt on a Plainridge Park relationship or directly implicated other factors.
- Analysis was complicated by changes in reporting practices in some of the communities.
- Total arrests and other charges were down significantly in the area, particularly for liquor-related offenses at the major event venues. Even controlling for liquor-related offenses, arrests were down (though not significantly) in most communities.
- There were 152 arrests at Plainridge Park specifically during its first two years of operation.
- No increase was seen in state police crime statistics, excepting incidents at Plainridge Park specifically.

Background, purpose, and methodology

The present report is one of a sequence commissioned by the Massachusetts Gaming Commission and prepared by a crime analysis consultant. It is part of a larger initiative to assess the social and economic impacts of gambling in Massachusetts.

More than two years have passed since the opening of Massachusetts's first casino, Plainridge Park in Plainville. Previous reports assessed the casino's impact on crime and other police activity at 3-month, 6-month, 12-month, and 18-month intervals. This report builds up on the trends, themes, and lessons from the previous reports and offers the most comprehensive review yet.

Analysis in this report was performed by extracting data from the CAD and RMS systems of the six participating communities and comparing levels after the opening of Plainridge Park to levels in previous time periods. As such, it has the limitations of this kind of research, including the inability to prove—through statistics alone—that Plainridge Park was the direct cause of any of the increases seen in crime figures. To compensate for this, I have undertaken a detailed *qualitative* analysis of any major increases—looking directly at the crime reports for those offenses and exploring their contexts with personnel at the six agencies. I have also compared changes in the Plainville area to several comparison communities and to the Commonwealth as a whole.

Reports on changes in crime and police activity issued by this project

| Issued | Report | Notes |
|---------------|--|--|
| August 2015 | Report on baseline activity at Plainville area agencies | Established statistical measures for post-casino comparison |
| November 2015 | Evaluation of change in police data after the first three months of Plainridge Park | Noted initial increase in credit card fraud |
| April 2016 | Analysis of changes in police data after the first six months of operation at Plainridge Park Casino | Identified traffic-related calls for service as likely related to PPC. Noted increases in fraud-related crimes. |
| December 2016 | Analysis of changes in police data after the first year of operation at Plainridge Park Casino | Continued to note increases in traffic-related calls; established credit card fraud increases as "likely related." |
| July 2017 | Analysis of changes in police data after the first 18 months of operation at Plainridge Park Casino | First report to include contributions from Foxborough. |
| December 2017 | Analysis of changes in police data after the first 2 years of operation at Plainridge Park Casino | This report. Most comprehensive so far. |
| April 2018 | Analysis of changes in traffic collisions in Plainville area using statewide comparison data | Will look deeper at traffic issues including any increase in alcohol-related crashes. |
| June 2018 | Report on baseline activity in Springfield-area agencies | First report in preparation for MGM casino. |

Background

In 2014, the Massachusetts Gaming Commission, in an effort to better assess the impacts of new gaming facilities across the state, commissioned a series of efforts to study, assess, and prepare for the social and economic impacts of gambling. Primary work in this area is being done by the Social and Economic Impacts of Gambling in

Massachusetts (SEIGMA) study at the University of Massachusetts Amherst School of Public Health & Health Sciences, drawing upon research and experiences in many other states. For public safety issues specifically, however, the MGC felt it best to contract with someone with direct experience analyzing the crime, call-for-service, and collision records collected daily by Commonwealth police agencies.

Many studies had attempted to study the effects of gambling on rates for serious crimes, aggregated annually, but hardly any studies have attempted to analyze more specific and minute changes in public safety activity following the opening of casinos, including variations by hour, month, and season, changes in patterns and hot spots, and changes in non-crime activity such as traffic collisions and calls for service. The MGC was interested in the answers to these questions—in analyzing public safety at a level of detail that would directly help police agencies anticipate and respond to emerging and changing issues.

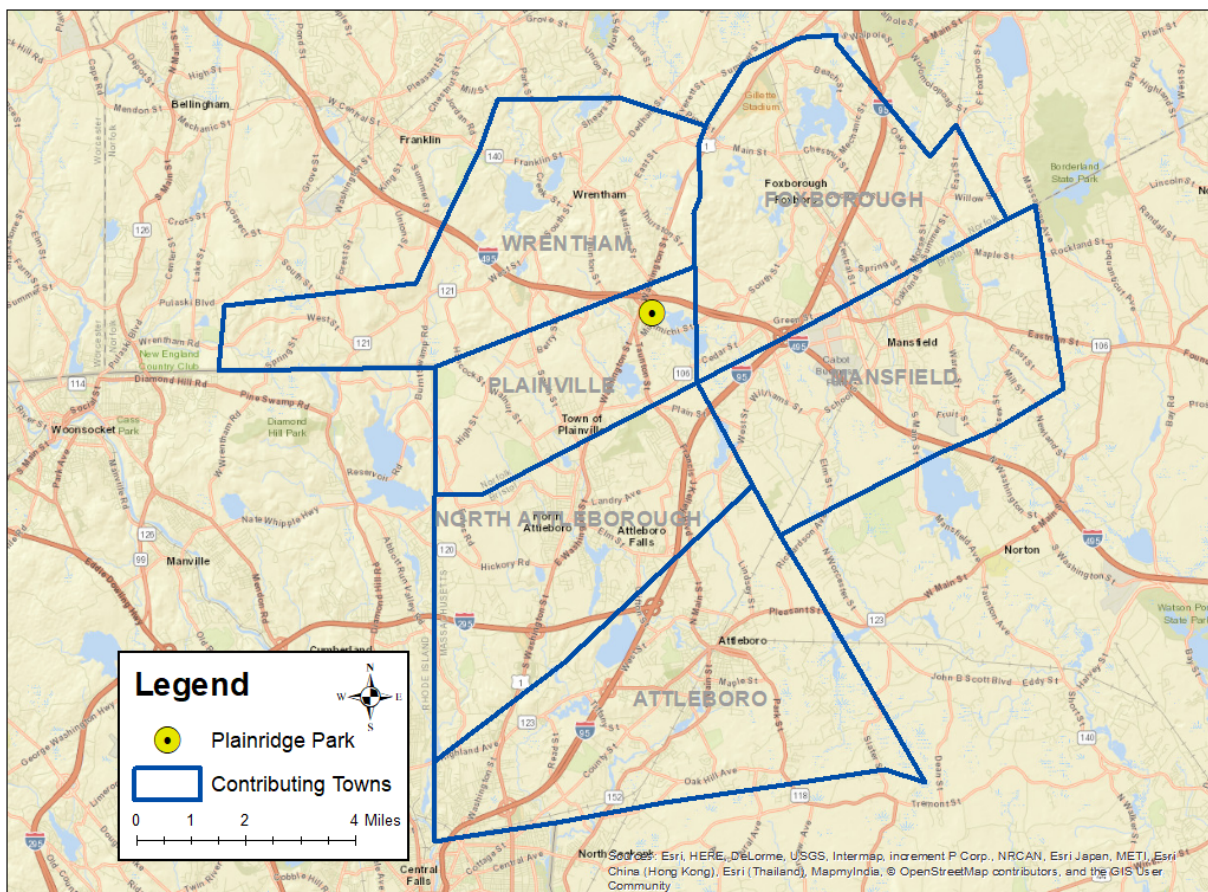


Figure 1: The area covered by this report includes Plainville, North Attleborough, Attleboro, Wrentham, Mansfield, and Foxborough.

Nature of this analysis

This analysis draws upon both quantitative and qualitative methods to reach conclusions about changes in crime and calls for service in the Plainville area after the opening of Plainridge Park. Statistics are offered, with crime in the area compared to both past figures in the same area and changes in comparison communities. But nothing rests purely on quantitative evidence, and I make no effort to assign probability values to these statistics. Instead, I use the statistics as indicators to determine what categories of activity to investigate more thoroughly with qualitative methods, including reviews of police narratives and discussions with officers and analysts at the participating agencies. My ultimate conclusions are an analytical judgement that considers both these qualitative

and quantitative factors. Instead of applying an artificial statistical threshold to accept or reject the likelihood of a casino relationship, I place that likelihood on a scale that considers several factors, discussed below.

Methodology

Data used in this report was extracted from the individual records management systems of the Plainville, Attleboro, Foxborough, Mansfield, North Attleborough, and Wrentham Police Departments. I first established an ODBC connection to each of these agencies' records management and computer-aided dispatch databases (Plainville, Wrentham, and North Attleborough use the Pamet records management system; Mansfield and Foxborough use IMC; and Attleboro uses QED). I then connected to the databases via Microsoft Access, and used a series of "make table" queries to copy the data into Access data tables. I then copied the Access databases to my own computer, password-protecting them in the process, but leaving the originals on the agencies' networks so they could be updated by designated agency members as needed.

I combined the agencies' individual data tables into a series of "master" tables. This required translating each dataset into a common set of codes. The uniformities imposed by the NIBRS reporting system and the Massachusetts crash reporting system facilitated the translation of those tables; it was a bit more difficult for CAD tables, which have no uniform data structure from system to system or even among agencies using the same system.

| incnum | agency | dtreceived | IncidentType | OrigIncidentType | Street |
|-----------------|-----------------|---------------------|---------------------|------------------|--------------------------|
| 15-15178 | Mansfield | 07/12/2015 18:38:00 | Crime Enforcement | | SCHOOL ST |
| 2015000005935 | Wrentham | 07/12/2015 18:37:43 | Traffic Collision | | Washington Street |
| 2015000018989 | North Attleboro | 07/12/2015 18:32:58 | Domestic Dispute | Domestic | SOUTH WASHINGTON S |
| 15072062 | Attleboro | 07/12/2015 18:31:54 | Building Check | SEC CHK | OAKHILL AVE |
| 2015000005934 | Wrentham | 07/12/2015 18:30:42 | Disorderly | | Premium Outlet Boulev |
| 2015-0H3-003706 | MSP | 07/12/2015 18:30:00 | Fire | Fire | RT 495 North, South of E |
| 2015000003935 | Plainville | 07/12/2015 18:27:02 | Lost Property | Lost and Found | Bacon Square |
| 2015000005933 | Wrentham | 07/12/2015 18:26:57 | Medical | | Washington Street |
| 2015000018988 | North Attleboro | 07/12/2015 18:26:12 | Building Check | Building Check | HOMEWARD LN |
| 15-15177 | Mansfield | 07/12/2015 18:26:00 | Crime Enforcement | | SOUTH MAIN ST |
| 2015000005932 | Wrentham | 07/12/2015 18:25:54 | General Service | | Premium Outlet Boulev |
| 2015000018987 | North Attleboro | 07/12/2015 18:25:29 | Investigation | Investigation | SOUTH WASHINGTON S |
| 15-15176 | Mansfield | 07/12/2015 18:17:00 | Traffic Enforcement | | MAPLE ST |
| 2015-0H3-003705 | MSP | 07/12/2015 18:16:00 | Road Conditions | Debris in Road | RT 295 South, South of E |
| 15072061 | Attleboro | 07/12/2015 18:14:43 | Suspicious Activity | SUSP PERS | PLEASANT ST |
| 2015000018986 | North Attleboro | 07/12/2015 18:11:41 | Traffic Collision | Accident NO/PI | CUMBERLAND AV |

Figure 2: Data combined into a master call-for-service table.

Interpreting the statistics in this report

This report compares two years of activity post-Plainridge Park to the average of activity prior to the opening of Plainridge Park. I offer statistics for the two individual years and then an average of the two years, with associated measures of change. In all cases, the year given is the time period **ending** on 30 June of that year. For instance, statistics for "2017" are for the period 1 July 2016–30 June 2017.

The report measures changes against an **average** (mean) number of incidents in terms of the number of **standard deviations** from the average. Change is measured not in percentages, which is somewhat meaningless, but in **z-scores**.

The z-score represents the number of standard deviations from the average above or below which the post-Plainridge Park figure falls. Consider the average and standard deviation together as creating a series of “windows” in which we might expect a certain percentage of the cases to fall. In a normal distribution, 68% of observations will fall within a 1 standard deviation “window” and 95% will fall within (roughly) a 2 standard deviation window. Since we have only 5 years of past data, these specific percentages don’t hold, but they come close. In the table below, for instance, we would expect at least 3 of the past 5 years of disabled vehicle calls to fall between 47.56 (57.8-10.24) and 68.04 (57.8+10.24), and they do. We would expect all of them (or, occasionally, all but one) to fall within two standard deviations: 37.32 to 78.28. Again, they do¹.

| Crime Type | 2011 | 2012 | 2013 | 2014 | 2015 | Pre Avg. | St. Dev. | 2016 | 2017 | Post Avg. | Z |
|------------------|------|------|------|------|------|----------|----------|------|------|-----------|-------|
| Alarm | 194 | 224 | 173 | 197 | 241 | 205.8 | 23.93 | 226 | 215 | 230.5 | 0.61 |
| Disabled Vehicle | 48 | 46 | 67 | 72 | 56 | 57.8 | 10.24 | 85 | 99 | 92.0 | 3.34 |
| Disorderly | 91 | 82 | 87 | 89 | 105 | 90.8 | 7.70 | 97 | 72 | 84.5 | -0.82 |
| General Service | 240 | 187 | 152 | 169 | 205 | 190.6 | 30.39 | 196 | 183 | 189.5 | -0.04 |

When a score for 2016–2017 is well above 1 standard deviation, as in the case of disabled vehicles here, two things are possible:

1. It is simply a random fluctuation. This is unlikely, but possible. In this case, we would only expect a z-score this high by random chance about 1% of the time, but given that we have hundreds of statistics in this report, such statistical flukes are bound to happen occasionally.

2. Some new factor has influenced the statistic to be unusually high in 2016–2017. In such cases, the factor *could* be the presence of Plainridge Park. But it could also be dozens of other factors, including other new businesses, significant economic and demographic changes, changes in weather, or changes in police policies and practices. **High z-scores indicate categories worthy of further study, but only a more detailed analysis can establish the likelihood of a casino relationship.** I have conducted that more detailed analysis with each of the significantly-increased crimes and calls for service in this report, and have reported on the results.

For the purposes of triaging further analysis, I have considered an increase *significant* if the z-score was greater than +1.75 in a given year and greater than +1.50 for the average of the two years combined. In a normal distribution of data, such an increase would be expected by random fluctuation only 4% of the time for individual years and 6% of the time for the combined average. There are, however, instances, in which I took the time to analyze less significant changes if some other factor was at work, including consistency across multiple agencies.

Determining likelihood of a casino relationship

As we will see in the historical review, past studies have generally limited themselves to a purely quantitative determination of whether a casino was a contributory factor in a crime increase. This study—which blends quantitative and qualitative approaches—is not content to use statistics alone to determine the likelihood that any

¹ Statisticians may object that we do not have enough past observations to establish a normal distribution, or for the significance levels associated with various z-scores to hold. These are valid criticisms. Unfortunately, there is no way out of the conundrum. It would be absurd to reach back dozens of years to collect enough annual totals to establish the true shape of the distribution, even if the agencies had such historical data, because we would be comparing 2016 with periods with radically different demographic and economic profiles for the jurisdiction. At the same time, seasonal variations in crime and calls for service make it unwise to use the month as the unit of analysis simply to obtain more variables. Our goal here in using the z-scores is not primarily to establish statistical significance but to identify combinations of incident types and geographic areas worthy of further study to identify potential casino relationships. For such purposes, the z-score is a useful triaging tool. The ultimate decision as to a casino relationship is made after a multi-factored analysis that considers both quantitative and qualitative data.

increase in activity was “caused” by the presence of Plainridge Park. Instead, I have created a model to better explain causality when increases are observed. The model demands a more in-depth analysis of the individual cases that make up “increased” activity during the study period, including a qualitative analysis of police narratives.

The model considers seven factors:

1. *Whether the type of activity increasing has a logical relationship to a casino.* Causality is more certain when it “makes sense” that such a crime or other activity would increase in the surrounding area in a particular way. Since casinos draw a large number of people to an area, and since cash plays a large role in their operation, there are very few crimes that would not fit this definition, but it’s still worth considering. An increase in theft or traffic issues has a logical connection to a facility like a casino; an increase in harassing telephone calls or animal complaints does not.
2. *Whether more offenders and victims are from outside the local area.* If there is a relationship between an observed increase in activity and the presence of Plainridge Park, one would expect a corresponding increase in the percentage of victims and offenders from outside the immediate community, as the majority of casino patrons are from outside the local community.
3. *Whether multiple agencies are reporting an increase in the same category.* If only one agency reports a major increase in a particular crime and call for service, the cause is more likely to be related to another factor specific to that jurisdiction than to Plainridge Park. Complementary increases reported by multiple agencies strengthen the likelihood of a casino relationship.
4. *Whether related offenses also report increases.* Some crime and call-for-service categories are closely related to each other, so that a factor that influences one is likely to influence the others. If the casino were to cause an increase in traffic collisions, for instance, we might expect a corresponding increase in disabled vehicles, traffic complaints, and other traffic related calls for service. An increase in a single category without increases in complementary categories is more likely to suggest a fluke specific to that category than a casino relationship.
5. *Whether the spatial distribution of offenses is related to the casino location.* For certain crimes and calls for service, if the presence of the casino caused their increase, we would expect to see a spatial distribution of incidents either near the casino or on routes to and from the casino. An increase in “disorderly conduct” in a residential neighborhood 15 miles from Plainridge Park is less likely to be caused by the casino than an increase in such activity at hotels and restaurants within 1 mile of the casino.
6. *Whether the casino is specifically mentioned by victims and offenders involved in cases.* If an increase in activity is causally tied to the casino, we would expect a certain percentage of victims to say that they were in town to visit the casino, or a certain percentage of offenders (if arrested) to admit that their crimes had something to do with the casino. If we cannot find any such evidence across multiple offenses, a casino relationship is less likely.
7. *Whether comparison agencies have failed to report a similar increase.* Consideration of this factor has only been possible for the first time with this report, since there is generally a one-year lag between the end of a year and the availability of statewide crime data for multiple jurisdictions. Note that we cannot consider this factor with non-crime calls for service since there is no standardized reporting of this data on a statewide basis.

The table below summarizes the factors in this model and provides hypothetical examples of when they might argue for or against a casino relationship. The “hypothetical examples” provided are just that—those particular increases were not actually observed.

| Factor | Hypothetical example (likely to be related) ² | Hypothetical opposite (not likely to be related) |
|--|--|--|
| Type of crime is logically tied to activity at casino (LOG) | Increase in robberies in surrounding area | Increase of thefts of property at schools |
| More offenders and victims are from outside the local area (COM) | Increase in domestic dispute and violence calls at area hotels | Increase in domestic dispute and violence calls at area homes |
| Same category is increasing in multiple agencies (REG) | 3 of 5 communities see increase in thefts from cars | 1 community reports increase in burglary while 4 report decreases |
| Complementary increases in related offenses (REL) | Theft, robbery, and fraud all increase in area | Only identity theft increases in area |
| Increase is spatially related to location of casino (MAP) | Traffic collisions increase on Route 1 in Plainville, N. Attleborough | Traffic collisions increase on residential streets in Attleboro |
| Casino is specifically mentioned by offenders/victims (NAR) | Drunk drivers mention they were last drinking at casino | Serial burglar admits to stealing for heroin |
| No similar increase in comparison communities (OTH) | Burglary is up 10% in the Plainville area but down 5% across the state | Shoplifting increased 15% in the Plainville area but also increased 15% in three control areas |

Application of this model helped us reach a conclusion as to whether the likelihood of an increase in crime or calls for service was related to the presence of Plainridge Park. However, the model is not *quantitative* and the determination of the likelihood of a casino relationship is not simply a matter of adding up the number of factors present. For certain incident types, one factor may outweigh the others. For instance, the spatial relationship is fairly important in considering the likelihood that an increase in traffic collisions is related to Plainridge Park, but it is less important for property crimes and hardly important at all for family violence.

Throughout the report, I have tagged each observed increase with an assessment on a scale indicating the likelihood of a relationship to Plainridge Park. The definitions of these assessments are:

- **Not Related:** Although the incident type increased, I was able to exhaustively review each individual case. None indicated that the offenders or victim had any association with Plainridge Park or were in the area to use Plainridge Park, and the sum of the cases posed an alternate explanation for the increase.
- **Unlikely:** After a review of all cases or a sample of cases, overall there were not enough factors to suggest a Plainridge Park relationship, and/or there was a compelling alternate explanation for the increase.
- **Uncertain:** There were some signs that might indicate a casino relationship, but the totality of factors was not compelling or sufficient data did not exist.
- **Likely:** A totality of the evidence suggests Plainridge Park as the most likely explanation for at least some of the increase, but we may still lack direct evidence.
- **Certain:** The evidence shows a direct and compelling causal relationship with Plainridge Park, including statements from participants that they patronized the casino.

In the end, the determination of the “likelihood” of a casino relationship is an *analytical judgement* that considers both qualitative and quantitative factors.

² I emphasize that these examples are all hypothetical. None of them reflect trends that actually happened in the area after Plainridge Park opened. They are simply examples of things that, if true, would trigger the associated factor.

Limitations and threats to validity

Crime figures fluctuate constantly in most agencies, and any given year often produces statistically significant increases. Such changes are sometimes simple to explain by changes in the jurisdiction or police strategies and practices, but equally as often they confound explanation. In the case of the Plainville area post-Plainridge Park, there are several additional factors that may be influencing the data. The identified ones are as follows:

1. *Greater attention to accuracy in crime coding.* Three of the participating agencies—Attleboro, North Attleborough, and Mansfield—replaced or hired new personnel in charge of coding offenses. North Attleborough appointed a new person to maintain the accuracy of their crime reports (and related data) in September 2014; Mansfield hired a new crime analyst in September 2015; and Attleboro hired a new crime analyst early in 2016. All three individuals found problems with the way many offense reports had been coded and classified before their employment and took steps to improve the data. Unfortunately, these improvements mean that more recent data is difficult to compare to past data. Specific issues are discussed in the relevant sections below.

2. *A surge in the opiate epidemic.* This trend is difficult to quantify, but many police agencies and communities in the northeast United States are reporting significant increases in crime related to heroin and other opiates. Widely reported in the media,³ this resurgence seems to have begun in late 2014 and has manifested itself in an increase in overdoses and heroin-motivated crime. In speaking about several of the increases in his town, a Wrentham Police lieutenant told me that he “would assume they are more related to the opiate epidemic than to the casino.”

3. *Low fuel prices.* With thousands of new visitors to an area, we expect increases in traffic-related incidents, including collisions and complaints. These factors, however, are also influenced by the number of miles driven by the population, which in turn is influenced by fuel prices. Such prices began a precipitous decline in June 2015, just as Plainridge Park opened, and continued to decline through the year, not hitting bottom until February 2016. This decrease likely contributed to an overall increase in driving in Massachusetts for that period, which in turn may have contributed to an increase in traffic-related issues. Prices had returned to pre-PPC averages by June 2016.

4. *A mild winter.* And old adage says that “rain is the best policeman.” The same might be said of snow. Across the country, agencies observe a strong negative correlation between temperature, precipitation, and crime: as the thermometer goes down and rain and snow go up, crime decreases. This is partly because no one, even a criminal offender, wants to be out in the cold and wet, but it’s also because bad weather reduces the opportunity for crime in the first place. If people stay home during snowstorms, their cars can’t be stolen or broken into, nor their pockets picked, nor their houses burglarized. Changes in weather patterns can have odd effects on traffic-related incidents; the reduced danger inherent in driving without snow and ice on the roads is balanced by an increase in overall traffic. The northeast had one of the mildest winters in recorded history in 2015–2016 (particularly compared to the year before).

5. *Incomplete data from North Attleborough for 2017.* At the time that this reported needed to be written, North Attleborough had not finished coding its criminal incidents for May and June of 2017, the last two months in the 24-month period. To avoid having to exclude North Attleborough from analysis, crime totals were estimated for those months based on call-for service data. The estimates were based on the following logic:

- For the previous two-year period, 84% of “shoplifting” calls for service led to an offense of “shoplifting.”
- There were 13 calls for service for “shoplifting” in May and June of 2017.
- Thus, we estimate $13 \times 0.84 = 10.92$, or 11 shoplifting offenses for those two months.

³ See, for instance: Seelye, K. Q. (2016, March 6). Heroin epidemic increasingly seeps into public view. *The New York Times*. Retrieved March 20, 2016, from <http://www.nytimes.com/2016/03/07/us/heroin-epidemic-increasingly-seeps-into-public-view.html>; Leonard, K. (2015, July 7). Heroin use skyrockets in U.S. Retrieved March 20, 2016 from U.S. News and World Report: <http://www.usnews.com/news/blogs/data-mine/2015/07/07/heroin-use-skyrockets-in-us-cdc-says>

The same math was repeated for every combination of call for service category and final offense, leading to a total estimate of 120 crimes for the two months. The average number of reported crimes in North Attleboro for any given two-month period in the previous six years is 115, so the estimated total seems commensurate with past patterns, and I am confident that the estimation method did not significantly affect the findings for North Attleborough or for the total number of offenses in the area.

Discussions with agency representatives

Throughout the life of this series of reports, the Massachusetts Gaming Commission has repeatedly convened meetings with the police executives in the Plainville area to review the results of these analyses and receive their comments and feedback. No information about changes in the area is published without giving the local chiefs a chance to comment first. Their feedback has been incorporated into each version of the report. General agreement with these findings has been widespread, and where anyone has disagreed or offered an alternative perspective, it has been noted in this report.

Acknowledgements

The analysis in this report would not have been possible without the cooperation and good will of the police executives and personnel in the Plainville area. Each executive evinced a sincere commitment to objective analysis of data and unfettered cooperation in providing that data. We owe a debt of gratitude to Chief James Alfred and Officer William McEvoy of the Plainville Police Department; Chief Kyle Heagney, Sergeant Kevin Blackwell, and crime analysts Lisa Schultz and Anthony Stevens of the Attleboro Police Department; Chief William Baker, Lieutenant Michael Grace, and Lieutenant Allan Haskell (ret.) of the Foxborough Police Department; Chief Ronald Sellon and crime analyst Erika Baburins of the Mansfield Police Department; Chief John Reilly, Captain Joseph DiRenzo, dispatcher Julie Cannata, and assistant IT director Steve Almeida of the North Attleborough Police Department; Chief James Anderson, Lieutenant George Labonte, and IT administrator Darrell True of the Wrentham Police Department; and Lieutenant Brian Connors and Lieutenant Matthew Murphy of the Massachusetts State Police.

About the author

Christopher W. Bruce is a career crime analyst with previous service at the Cambridge Police Department (1994–2001) and the Danvers Police Department (2001–2010). He was president of the Massachusetts Association of Crime Analysts from 2000 to 2004 and has served in three roles in the International Association of Crime Analysts: vice president of administration (2000–2006), president (2007–2012), and vice president of membership (2016–present). He has served as an instructor in criminal justice and crime analysis topics at Suffolk University (2001–2010), Westfield State University (2009–2010), the University of Massachusetts Lowell (2009–2010), Middlesex Community College (2007–2011), Tiffin University (2006–present), and Western Oregon University (2010–present).

Christopher is an internationally-recognized expert in police data systems and police data analysis. He currently consults with the U.S. Department of Justice, Bureau of Justice Assistance; the U.S. Department of Justice, Office of Justice Programs; the U.S. Department of Transportation, National Highway Traffic Safety Administration; and the International Association of Directors of Law Enforcement Standards and Training. He is the contracted analytical director for NHTSA's Data-Driven Approaches to Crime and Traffic Safety (DDACTS) program, and a subject matter expert for BJA's Smart Policing Initiative and its National Training and Technical Assistance Program.

Historical review

Before 1979, when the Seminole Tribe opened a high-stakes bingo hall on reservation land near Fort Lauderdale, Florida, the question of whether casinos impact crime and disorder in surrounding communities was largely moot. The only large-scale casino gambling in the United States was concentrated in Las Vegas, Reno, and Atlantic City—cities that had grown up (or, in the case of Atlantic City, re-organized) around the presence of casinos, and in which it would have been impossible to separate crime and disorder caused by gambling from that caused by general tourist activities.

In 1976, *Bryan v. Itasca County* (426 U.S. 373) established that the state does not have the right to regulate activities on Native American land in absence of a specific United States law allowing them to do so. The ruling thus established a legal foundation for organized gambling on reservations and tribal lands. Early attempts by Native Americans were met with police raids and prosecution, but a series of court rulings found in favor of the tribes and ended the debate. By the mid-1990s, more than three dozen Indian casinos dotted the United States, many of them quite close to urban areas and thus likely to impact surrounding communities.

Casinos proved so profitable for Native American communities that states and communities began to look to gaming for sources of tax revenue and general economic growth. In 1989, South Dakota became the first state outside Nevada and New Jersey to legalize gambling when they allowed a commercial slot casino in Deadwood. Iowa legalized riverboat gambling the same year. Colorado and Illinois followed in 1990; Missouri and Louisiana in 1991; Mississippi in 1992; and Indiana in 1993.⁴ As of the time of this writing, 23 U.S. states allow some form of commercial casino gambling, and an additional 18 have some form of tribal gambling.

With this growth has, of course, come concerns about the impact of casinos, both at the individual level (alcoholism, compulsive gambling, and mental health) and the societal level (community crime, traffic issues, and the non-gaming economy). These fears, though not unfounded, were exacerbated by historical ties between gambling and organized crime as well as general mores in the United States that historically regarded gambling as a “vice.” During the height of the Native American gaming debate, the president of the American Sheriffs Association said that gambling on Indian reservations would “open up new havens for organized crime in Indiana lands all over the country”; and an assistant U.S. Interior Secretary remarked that gambling is “known to be fraught with evil.”⁵ Concerns over crime increases have been raised in every state considering the establishment or expansion of casino gaming, all the way through the Massachusetts legislation of 2011 and the subsequent repeal referendums.

Not until the 1980s could these fears be confirmed or refuted with quasi-experimental studies and hard data. Among the first to study the relationship between casinos and urban crime was Niagara University researcher Jay Albanese. Using crime totals reported by the Atlantic City Police Department to the U.S. Federal Bureau of Investigation between 1978 and 1982, he found that although “index” crimes (murder, rape, robbery, aggravated assault, burglary, theft, and auto theft) increased significantly over the period, these increases disappeared when he controlled for population increases during the same period. While the growth of casinos had undoubtedly led to the population increases as well, on a *per capita* basis, crime did not significantly increase. “Based on this analysis of the Atlantic City experience,” he concluded, “the advent of casino gambling has no direct effect on serious crime.”⁶

⁴ For most of this summary, I am indebted to Fenich, G. G. (1996). A chronology of (legal) gaming in the U.S. *Gaming Research & Review Journal* 3(2): 65–78.

⁵ Indian gambling may attract organized crime, foes say. (1987, June 19). *The Spokane Chronicle*, p. 12.

⁶ Albanese, J. S. (1985). The effect of casino gambling on crime. *Federal Probation* 49(2): 39–44.

Studies since Albanese's have been mixed however, often even in the same study. For instance, a 2001 study by Ohio State University PhD candidate Jeremy M. Wilson found that after the passage of Indiana's riverboat gambling legislation, the considered crimes—including FBI index offenses, public intoxication, drunk driving, disorderly conduct, and prostitution—did not increase at all in one city (Hammond), but aggravated assaults and thefts increased in the area around another (Rising Sun).⁷ For every study indicating that casinos have caused an increase in crime in one area, an opposite study shows no increase in another.

Only as the body of literature has grown is it possible to discern key differences in the study areas. A "casino" is not the same thing across all geographies and demographics. There are variances in the types of casinos, size of casinos, types of gaming offered at casinos, other types of amenities and recreation offered at casinos, and the nature of the geography in which they are built, from dense, impoverished urban areas to the (literal) middle of the woods. Differences between the means of accessing the casinos, the surrounding road network, and the existing crime rate all have potential parts to play in any increases or decreases in crime and other social harms. Thus, when one body of researchers concludes that a neighborhood casino had no increase on crime in Philadelphia (see the Johnson and Ratcliffe study below), but another group says that video gambling terminals led to an additional 1,450–4,100 violent and property crimes in Chicago over four years⁸, the results are not necessarily in conflict. The nature of casino gambling differs from diffused video gambling terminals, and Chicago and Philadelphia are different cities with different histories, geographies, and demographics.

As part of its efforts to investigate the impact of casinos on crime, disorder, and traffic issues, Massachusetts will offer several very different testing grounds, including a slots-only parlor directly off a highway in a moderate-to-low populated area of the state (the subject of the present study), a full-service casino in an urban area easily accessible by public transportation, and a full-service casino in a city with higher-than-average poverty and crime rates. It is possible that each location will generate vastly different results. Acknowledgement of these complex variables came in a 2003 study by B. Grant Stitt, Mark Nichols, and David Giacomassi. Studying both Part 1 ("index") and Part 2 crimes across six casino communities and six non-casino communities, the researchers found widely varying results, from significant increases in casino communities to significant decreases. They ultimately conclude that "crime does not inevitably increase with the introduction of a casino" and "the effects of casinos on crime appear to be related to a variety of variables which are only poorly understood."⁹

Studies have also highlighted the danger of drawing conclusions too quickly. A landmark 2006 study by Earl L. Grinols and David B. Mustard, again using FBI part one crime statistics, this time comparing more than 3,000 casino and non-casino counties, found that the opening of casinos initially correlated with a decrease in crime, followed by a year of stability, followed by several years of increases. The findings suggest that the community—including the criminal community—takes time to adapt to the presence of the casino.¹⁰ This has implications for the Massachusetts project and suggests that repeated evaluations in subsequent years are necessary to truly assess the impact of casinos. No long-term conclusions should be drawn from a single-year study.

Throughout the history of casino-crime impact research, one major weakness has been the inability to analyze data beyond summary figures reported by police agencies annually to the FBI. Knowing that a community had 150 robberies in a given year tells us far less than having individual records of all 150 robberies, including time, location, victim, offender, and *modus operandi* factors. The former allows us to determine the presence of general increases and decreases; the latter allows us to identify *patterns* within the data. Researchers have generally failed

⁷ Wilson, J. M. (2001). Riverboat gambling and crime in Indiana: An empirical investigation. *Crime and delinquency* 47(4): 610–640.

⁸ Botton, N. L., Ham, A., & Sarmiento-Barbieri, I. (2017). Can't stop the one-armed bandits: The effects of access to gambling on crime. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3020332

⁹ Stitt, B. G., Nichols, M., & Giacomassi, D. (2003). Does the presence of casinos increase crime? An examination of casino and control communities. *Crime & Delinquency* 49(2): 253–284.

¹⁰ Grinols, E. L., & Mustard, D. B. (2006). Casinos, crime, and community costs. *The Review of Economics and Statistics* 88(1): 28–45.

to collect such incident-level data for three reasons: 1) the inability of many police agencies to extract the necessary data from their data systems; 2) the need to obtain cooperation from the agencies even if they had the ability; and 3) the difficulty involved in combining the data from multiple police agencies into a common format.

Perhaps the only study to have collected such specific data, allowing the researchers to look at individual crime locations instead of city- or county-level statistics, was conducted in 2014 by Lallen T. Johnson and Jerry H. Ratcliffe. Looking at crime incident data in the Fishtown neighborhood of Philadelphia 96 months after the opening of SugarHouse Casino, they found no effect on violent street crime, vehicle crime, drug crime, or residential burglary in the surrounding community—in fact, most of these crimes actually decreased, suggesting a possible diffusion of benefits from the extra police and security presence at the new facility. Vehicle crime in the neighborhoods surrounding Fishtown increased, however, suggesting a possible displacement effect.¹¹ The researchers were able to collect such detailed information because they had a longstanding personal relationship and research partnership with the Philadelphia Police Department and a familiarity with its data systems. It is on this type of study that we have modeled the present project—at least in terms of data collection—pulling incident-level data on crimes and calls for service from the data systems of the contributing police departments, thus giving us the ability to answer far more questions than simply “how many.”

Another major deficiency in previous casino research is any establishment of the relationship between crime and casinos *as casinos* and not simply as large entertainment venues that draw thousands of visitors. In other words, even studies that show an increase in crime after the introduction of a casino do not necessarily establish that gambling itself is a factor in those increases. Routine activities theory suggests that any facility that draws people to an area—shopping centers movie theaters, hotels, restaurants and bars, sports complexes—creates more potential interactions between offenders and victims, both at the facility and in the surrounding area. A study showing that crime in a city or county increased after the introduction of a casino answers only one question; the other question is whether crime would have also increased if the city had built a minor-league sports stadium instead.

The aforementioned Grinols and Mustard study surveyed previous research and identified two mechanisms by which crime might decrease (pp. 31-32)—improved wages and improved physical development—and five mechanisms by which crime might increase: (1) suppression of other types of development, (2) the presence of large amounts of cash among both the business and the patrons, (3) compulsive gamblers committing illegal acts to finance gambling, (4) attraction of visitors likely to commit crime or become victims of crime (the “routine activities” argument above), and (5) changes in the underlying labor force. Of these factors, only #2 and #3 are specific to casinos, and only #3 is truly *unique* to casinos. (#2 is less of a factor in an age of electronic currency; the image of a successful gambler leaving a casino with \$30,000 cash in satchel is by now an outdated cliché.) Thus, demonstrating a causal relationship between crime and the gambling nature of casinos would have to focus on offenders themselves, identifying those of whom are compulsive gamblers, and assessing the extent of their criminality compared to the population at large. Such a study is possible in Massachusetts, but as Grinols and Mustard point out, it takes time for compulsive gambling to develop within a population, and thus to influence crime.

Finally, partly because of the inability of previous researchers to collect incident-level data from police agencies, previous studies have tended to focus solely on crime and not on any other police-related issues that affect communities, including traffic collisions and non-criminal disorder, suspicious activity, disputes, and other demands for police service. We were determined to study all such factors in the present project.

Thus, despite a fair amount of previous research into casinos’ effects on crime, we begin this project with something of a blank slate, owing to the fact that:

¹¹ Johnson, L. T., & Ratcliffe, J. H. (2014). A partial test of the impact of a casino on neighborhood crime. *Security Journal* advance online publication, 30 June 2014; doi:10.1057/sj.2014.28.

- Previous research has found wildly varying results, from significant decreases to no change to significant increases.
- By the admission of researchers who have studied the impact of casinos, whether crime increases or decreases is related to a large number of poorly-understood variables.
- Previous research has generally considered only serious crime, generally ignoring less-serious crime and non-crime issues.
- Previous research has generally been based on annual summary statistics rather than incident-level data that considers a multitude of factor, including day, month, time, specific location, victim and offender factors, and property factors.
- Previous research has generally failed to establish a causal relationship between increases caused specifically by gambling versus those caused by any complex that draws large numbers of people.
- Previous research, as conducted under traditional academic models, has been focused on proving or disproving hypotheses at a pre-determined level of statistical significance, not specifically in generating findings useful for local criminal justice and policy-making agencies to use in combatting any negative trends.

This series of studies will not necessarily solve all of these problems, but it does have the advantage of being an ongoing series, considering multiple installations over multiple time periods, rather than a one-time study. Most important, it has the advantage of collecting incident-level data on both crime and non-crime issues, thus allowing for a far greater depth of analysis and operational utility of the results.

Incidents at Plainridge Park

Both the Massachusetts State Police and the Plainville Police Department respond to incidents occurring at Plainridge Park specifically, including the casino interior, exterior, parking lot, and street directly in front. (To further complicate matters, State Police responses are divided between the Gaming Enforcement Unit, which handles the bulk of the activity at the casino, and regular troopers from the local barracks.) Both agencies log incidents in their respective databases, and in many cases, these incidents overlap (e.g., both agencies respond and both take a report). A security department at Plainridge Park may handle minor incidents, in which case the activity would be reflected in neither database.

Two statistical sets are offered below: one for Plainville Police and one for the Gaming Enforcement Unit at Plainridge Park. An analysis of the two datasets suggests that the *crimes* reported in the Plainville Police dataset are almost all duplicated in the Gaming Enforcement Unit statistics but the other *calls for service* in the Plainville Police dataset are not. The Plainville Police dataset is a better snapshot on what is happening in the parking areas and perimeter roads, while the Gaming Enforcement Unit data better depicts what is happening in the casino interior.

Incidents at Plainridge Park reported by the Gaming Enforcement Unit

The following statistics were compiled by the Gaming Enforcement Unit from July 2015 to June 2017. These numbers should be considered the most authoritative of the sources for total figures at Plainridge Park; however, they might exclude some activity in the exterior reported to the Plainville Police. These numbers were supplied in summary form (statistics only) and are thus not subject to further analysis.

No distinction is made in this data between crimes and other incident types.

Crimes and other incidents, July 2015–June 2017

| Crime Type | July–Dec 2015 | Jan–Jun 2016 | Jul–Dec 2016 | Jan–Jun 2017 | Total |
|----------------------------|------------------|-----------------|-----------------|-----------------|-------------|
| Assault | 0 | 1 | 1 | 3 | 5 |
| Assistance to security | 281 | 180 | 215 | 301 | 977 |
| Assistance to other agency | 182 | 135 | 133 | 114 | 564 |
| Burglary | 5 | 0 | 0 | 0 | 5 |
| Child Abuse/Endangerment | NC | 3 | 0 | 0 | 3 |
| Firearms Offenses | 0 | 1 | 0 | 0 | 1 |
| Forgery/counterfeiting | 3 | 16 | 11 | 19 | 49 |
| Fugitive from justice | 1 | 0 | 1 | 1 | 3 |
| Gambling violations | 1 | 0 | 0 | 3 | 4 |
| Identity theft | 4 | 0 | 0 | 0 | 4 |
| Theft, fraud, embezzlement | 60 | 86 | 81 | 68 | 295 |
| Missing persons | 16 | 0 | 0 | 0 | 16 |
| Drug investigations | 37 | 40 | 42 | 24 | 143 |
| Intoxicated persons | 52 | 62 | 71 | 67 | 252 |
| Suspicious persons | 136 | 88 | 112 | 75 | 411 |
| Medical | 73 | 40 | 27 | 34 | 174 |
| Total | 851 | 652 | 694 | 709 | 2906 |

Trends seen among data supplied by the Gaming Enforcement Unit

The figures reported by the Gaming Enforcement Unit are commensurate with what we might expect at a large facility offering dining and entertainment services, serving alcohol, and maintaining large common areas and parking structures. And just like other such facilities, we can identify a few common trends and patterns within the Plainridge Park data.

The list of trends below is based on Gaming Enforcement Unit summaries of activity. Because not all activity is so summarized, I cannot attach exact numbers to the identified trends. In all cases, I have identified the *minimum* number of incidents associated with that trend since PPC opened.

I caution readers that pending further analysis with statistics from comparison casinos, the identification of these trends does not signify that Plainridge Park has *uniquely* high volumes in these areas.

Trends are presented in descending order by volume.

1. *Theft of gaming credits*, generally in the form of TITO tickets, committed by one patron against another (at least 80 in 2 years). The offending patron snatches a ticket printed by the victim and cashes it in, often before the victim notices that it's gone. Because of widespread surveillance, the GEU and casino security have generally been able to identify and charge the perpetrators. Casino policy is to make restitution to the victims in such cases so the casino, rather than the patron, takes the loss.
2. *Drug use and distribution outside the casino* (at least 40). The parking garages and lots have been sites for drug users to ingest cocaine, heroin, and marijuana in their vehicles. Such individuals are generally identified by security and reported to the GEU or the Plainville Police.
3. *Drunk, angry, obnoxious patrons on the casino floor* (at least 32). These represent intoxicated patrons expressing anger, bothering customers, or harassing employees.
4. *Drunk patrons getting into cars and/or attempting to drive away from the casino* (at least 22). The GEU, casino security, and the Plainville Police occasionally have identified intoxicated individuals in the parking areas preparing to drive away from the casino. They are typically placed into protective custody until they regain sobriety. In a couple of instances, the individuals have ignored police and driven away, resulting in subsequent stops and arrests for drunk driving.
5. *Theft of personal property* (at least 20). A number of patrons report losing personal electronic devices, jackets, wallets, and other small items of personal property in the busy casino floor. Copious surveillance often makes identification of the offender possible.
6. *Fake ID* (at least 12). Banned or underaged patrons or those with active warrants passing fraudulent identification to enter the casino floor.
7. *Angry patrons damaging casino machines* (at least 10). Patrons frustrated with losses breaking glass or pouring drinks into machines.
8. *Domestic disputes and assaults* (at least 10). Although a trend, this number seems low given the number of couples that must visit the casino. All so far have been male assailants victimizing girlfriends and wives, often while intoxicated.

6. *Small children left alone in cars by gambling parents* (at least 6). It's a small number, but enough to cause concern.

7. *Money laundering* (at least 4). There were several reports of individuals from out of state bringing large amounts of small bills into the casino, feeding them into machines, obtaining TITO tickets, and cashing them out for larger-denomination bills. The specific nature of their criminal enterprises is unknown.

Incidents at Plainridge Park reported to the Plainville Police Department

Crimes, July 2015–June 2017

| Crime Type | Jul–Dec 2015 | Jan–Jun 2016 | Jul–Dec 2016 | Jan–Jun 2017 | Total |
|--------------------------|-----------------|-----------------|-----------------|-----------------|-----------|
| Bad checks | 1 | | | | 1 |
| Burglary | 2 | | | | 2 |
| Credit card fraud | | 1 | 1 | | 2 |
| Drug offenses | 7 | 5 | 3 | | 15 |
| Drunkenness | 3 | 9 | 2 | 8 | 22 |
| Other theft | 3 | | | | 3 |
| Stolen property offenses | 2 | 1 | | | 3 |
| Theft from building | 9 | 4 | 7 | 7 | 27 |
| Theft from vehicle | | | 2 | 1 | 3 |
| Trespassing | 2 | 1 | | | 3 |
| Vandalism | 2 | | | 1 | 3 |
| Threats | | | 1 | | 1 |
| Family offenses | | 3 | | | 3 |
| Weapon offenses | | 1 | | | 1 |
| All other | | 1 | | | 1 |
| Total | 31 | 26 | 16 | 17 | 90 |

Calls for service, July 2015–June 2017

| Call Type | Jul–Dec 2015 | Jan–Jun 2016 | Jul–Dec 2016 | Jan–Jun 2017 | Total |
|------------------------|-----------------|-----------------|-----------------|-----------------|-------|
| Administrative | 186 | 183 | 190 | 181 | 740 |
| Animal complaint | 3 | 1 | 3 | 2 | 9 |
| Assault* | | | 2 | | 2 |
| Assist other agency | 5 | 3 | 8 | 2 | 18 |
| Building check | 1 | | | | 1 |
| Child abuse or neglect | | 1 | | | 1 |
| Crime enforcement | 2 | 1 | | 1 | 4 |
| Disabled vehicle | 11 | 4 | 7 | 8 | 30 |
| Disorderly | 9 | 7 | 5 | 8 | 29 |
| Domestic dispute | 3 | 1 | | 1 | 5 |
| Drugs* | 1 | 4 | | | 5 |
| Fire | 8 | 5 | 4 | | 17 |
| Fraud and forgery* | | | 2 | | 2 |

| Call Type | Jul-Dec 2015 | Jan-Jun 2016 | Jul-Dec 2016 | Jan-Jun 2017 | Total |
|----------------------------|-----------------|-----------------|-----------------|-----------------|-------------|
| General service | 19 | 16 | 21 | 12 | 68 |
| Investigation | 6 | 8 | 3 | 3 | 20 |
| Liquor* | 2 | | | 2 | 4 |
| Lost property | 2 | 1 | 1 | | 4 |
| Medical | 1 | 1 | | | 2 |
| Missing person | 1 | | | 1 | 2 |
| Municipal or utility prob. | | 1 | 1 | | 2 |
| Notification | 2 | | | | 2 |
| Other Theft* | 15 | 9 | 16 | 10 | 50 |
| OUI | | | | 1 | 1 |
| Prisoner transport | 6 | 4 | 2 | 2 | 14 |
| Suspicious activity | 74 | 48 | 31 | 19 | 172 |
| Theft from vehicle* | 1 | 1 | 1 | | 3 |
| Traffic collision | 14 | 11 | 14 | 12 | 51 |
| Traffic complaint | 37 | 51 | 41 | 25 | 154 |
| Traffic enforcement | | 2 | 1 | | 3 |
| Traffic offenses | 7 | 7 | 12 | 2 | 28 |
| Trespassing* | 3 | 1 | | | 4 |
| Vandalism* | | | | 1 | 1 |
| Vehicle stop | 33 | 23 | 24 | 20 | 100 |
| Warrant service | 1 | 3 | 3 | 2 | 9 |
| Well-being check | | 4 | 1 | 2 | 7 |
| Youth disorder | 1 | 1 | | | 2 |
| Total | 454 | 402 | 393 | 317 | 1566 |

*In the case of calls for service relating to crimes, the figures offered are for the call for service as originally dispatched. Sometimes when an officer arrives on scene, he determines that the actual crime committed was different than the crime dispatched. The table above this one, which records actual reported crimes, is a better indicator of criminal activity than the call-for-service table.

How much did Plainridge Park impact Plainville's statistics?

If we ask the question, "Did Plainridge Park cause an overall increase in crime and calls for service in Plainville," the answer is yes, obviously—if we include incidents that happened at Plainridge Park itself. Without the casino, the incidents that happened *at* the casino would not have happened.

The next sections of this report attempt to estimate the impact of the casino on the *surrounding community*, but if we want to answer the literal impact of the casino itself, the calculation is fairly simple: the percentage of activity at Plainridge Park divided by the total activity in the town. At least, it would be that simple if the casino was a brand-new complex, but the location has hosted a horse racing course since 1999, so we must subtract the average of the activity at that location pre-casino from the post-casino figures. The table below shows the results.

Plainville Activity, June 2015–July 2017

| Category | Number at Casino | Total Plainville Number | Prior 2-year Average at Racetrack | % New Caused by Casino |
|-------------------------|------------------|-------------------------|-----------------------------------|------------------------|
| Violent crime offenses | 0 | 80 | 0 | 0% |
| Property crime offenses | 47 | 419 | 6 | +10% |
| Total crime offenses | 90 | 689 | 10 | +12% |
| Calls for service | 1,566 | 16,594 | 1,130 | +3% |

Thus, in an extremely literal sense, in a two-year period, Plainridge Park is responsible for 10% more property crimes (41 total), 12% more total crimes (80 total), and 3% more calls for service (436 total) than the agency would have reported without the casino—not accounting for any surrounding community impact, which is analyzed in the next sections. The police department, it must be noted, received a 36% increase in sworn officers (14 to 19) to handle this increase in activity.

The casino became the Plainville Police Department’s top crime and call-for-service location in 2016 and 2017, surpassing the Plainville Commons shopping center at 91 Taunton Street. To put the figures above in context, we compare Plainville’s new top location to the top locations of its surrounding cities and towns, in terms of crime and call-for-service demand.

Percentage of activity at top locations, June 2015–July 2017

| Community | Top Offense Location | % Violent Crimes | % Property Crimes | % Total Crimes | % Calls for Service |
|--------------------|--------------------------|------------------|-------------------|----------------|---------------------|
| Plainville | Plainridge Park | 0% | 11% | 13% | 9% |
| Plainville #2 | Plainville Commons | 0% | 12% | 10% | 2% |
| Attleboro | Bristol Place | 1% | 9% | 8% | 3% |
| Mansfield | Xfinity Center* | 24% | 4% | 58% | <1% |
| North Attleborough | Emerald Square | 6% | 23% | 17% | 11% |
| Wrentham | Wrentham Village outlets | 12% | 62% | 59% | 24% |

As such, the activity experienced by the Plainville Police Department at Plainridge Park is not significantly different—and even compares favorably—to top hot spots in other towns, including its own second most-visited location.

Before and after analysis of crimes and calls for service

The following figures note changes in the region and for individual agencies for the periods of 1 July–30 June ending in both 2016 and 2017, along with the average of the two years. These figures exclude activity specifically at Plainridge Park, as they are meant to help assess notable changes in the surrounding community.

As a reminder, the goal here is not simply to identify what crimes increased or decreased in comparison to their norms. Crimes fluctuate all the time for any number of reasons. Our goal is:

1. To determine which crimes increased *significantly enough* that some external factor—and not just random fluctuations in data—is likely to be responsible for those increases; and
2. To analyze those significant increases for evidence that Plainridge Park is that “external factor.”

The “Z” score is a figure that helps us determine if an increase is significant. It indicates where the figure stands in the post-casino period compared to its normal value, in the context of its normal deviation or variance. Z-scores between -1 and +1 would be expected about 2/3 of the time from random fluctuations in the data alone. Z-scores higher than 1.5 would be expected only about 6% of the time due to random fluctuations. The higher the z-score, the more likely that something external is influencing the data. In the analysis below, **I set a threshold of $z=1.75$ for each individual year and $z=1.5$ for the combined years to determine which crimes and calls for service I fully investigated.**

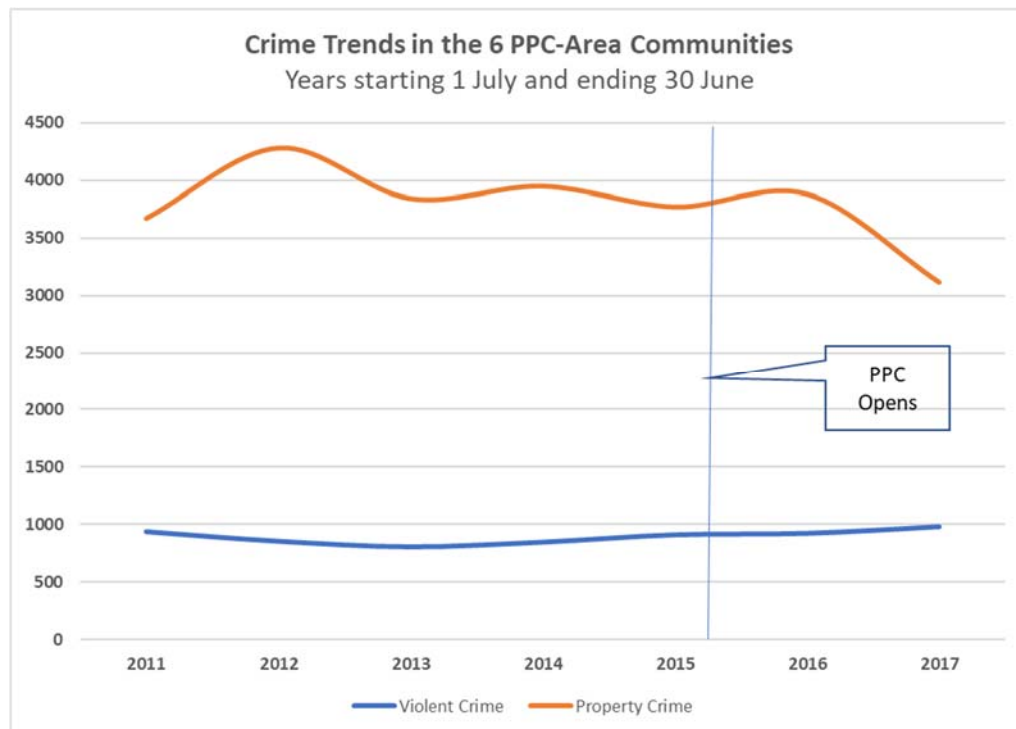


Figure 3: Property crimes decreased in the area after Plainridge Park opened while violent crimes showed a slight increase (though probably not related to the casino).

Two other important notes on the statistics below:

- The statistics do not apply a “hierarchy rule”; all offenses committed in all incidents are counted
- Please remember that 2017 totals for North Attleborough (and thus the total for all communities) are estimated for May and June 2017, as per the information in “threats to validity” above.

Summary of all communities’ activity

In aggregate, the six contributing communities have seen a significant net reduction in **total crime** and **property crime** since Plainridge Park opened. With a couple of exceptions, profit-motivated crimes like theft, burglary, and robbery have been average or low. Police have also not reported increases in vice-related crimes like drugs, liquor, and general disorder.

Unfortunately, the area has been struggling with an increase in **violent crime** particularly in the year ending 30 June 2017. Analysis shows that the bulk of the increase is in **domestic violence** (mirrored by a comparable increase in “**family offenses**,” which is primarily made up of restraining order violations). While Plainridge Park does not seem to have anything to do with this increase, it is analyzed in full later in this report.

There have been some significant increases in several non-criminal calls for police service, possibly reflecting (in part) the extra traffic in the community going to and from Plainridge Park. These categories include **lost property**, **traffic collisions**, and **traffic complaints**.

Incidents reported to all communities, 1 July–30 June

| Offense | 2010–2015 Average. | Standard Deviation | 2016 | 2017 | 2016 Z-Score | 2017 Z-Score | Post Avg. | Avg. Z-Score |
|----------------------------|-----------------------|-----------------------|------|------|-----------------|-----------------|--------------|-----------------|
| Murder | 1.2 | 0.75 | 1 | 1 | -0.27 | -0.27 | 1.0 | -0.27 |
| Sexual Assault | 52.2 | 7.83 | 59 | 65 | 0.87 | 1.63 | 62.0 | 1.25 |
| Robbery | 33.0 | 8.22 | 22 | 24 | -1.34 | -1.09 | 23.0 | -1.22 |
| Aggravated Assault | 170.6 | 9.95 | 157 | 187 | -1.37 | 1.65 | 172.0 | 0.14 |
| Simple Assault | 607.4 | 47.01 | 670 | 682 | 1.33 | 1.59 | 676.0 | 1.46 |
| Kidnapping | 6.0 | 3.35 | 12 | 6 | 1.79 | 0.00 | 9.0 | 0.90 |
| Burglary | 516.0 | 88.05 | 427 | 264 | -1.01 | -2.86 | 345.5 | -1.94 |
| Purse-Snatching | 4.4 | 1.62 | 2 | 2 | -1.48 | -1.48 | 2.0 | -1.48 |
| Shoplifting | 526.6 | 59.64 | 608 | 496 | 1.36 | -0.51 | 552.0 | 0.43 |
| Theft from Building | 230.2 | 33.89 | 213 | 251 | -0.51 | 0.61 | 232.0 | 0.05 |
| Theft from Machine | 1.0 | 1.26 | 2 | 1 | 0.79 | 0.00 | 1.5 | 0.40 |
| Theft from Persons | 8.0 | 2.19 | 14 | 14 | 2.74 | 2.74 | 14.0 | 2.74 |
| Theft from Vehicle | 311.4 | 96.57 | 221 | 248 | -0.94 | -0.66 | 234.5 | -0.80 |
| Theft of MV Parts | 55.4 | 8.36 | 64 | 37 | 1.03 | -2.20 | 50.5 | -0.59 |
| Other Theft | 1022.0 | 75.25 | 984 | 571 | -0.51 | -5.99 | 777.5 | -3.25 |
| Auto Theft | 109.4 | 10.37 | 88 | 72 | -2.06 | -3.61 | 80.0 | -2.84 |
| Arson | 7.4 | 2.42 | 8 | 6 | 0.25 | -0.58 | 7.0 | -0.17 |
| Bad Checks | 31.6 | 6.31 | 31 | 17 | -0.10 | -2.31 | 24.0 | -1.20 |

| Offense | 2010–2015 Average. | Standard Deviation | 2016 | 2017 | 2016 Z-Score | 2017 Z-Score | Post Avg. | Avg. Z-Score |
|-----------------------|-----------------------|-----------------------|-------------|-------------|-----------------|-----------------|---------------|-----------------|
| Credit Card Fraud | 104.0 | 14.87 | 177 | 109 | 4.91 | 0.34 | 143.0 | 2.62 |
| Employee Theft | 30.0 | 6.07 | 26 | 28 | -0.66 | -0.33 | 27.0 | -0.49 |
| Forgery | 92.2 | 9.52 | 95 | 63 | 0.29 | -3.07 | 79.0 | -1.39 |
| Fraud/Con Games | 139.0 | 9.01 | 192 | 171 | 5.88 | 3.55 | 181.5 | 4.72 |
| Identity Theft | 92.4 | 48.88 | 147 | 157 | 1.12 | 1.32 | 152.0 | 1.22 |
| Stolen Property | 53.2 | 12.51 | 67 | 56 | 1.10 | 0.22 | 61.5 | 0.66 |
| Vandalism | 570.4 | 54.72 | 542 | 461 | -0.52 | -2.00 | 501.5 | -1.26 |
| Drugs | 226.0 | 14.68 | 211 | 203 | -1.02 | -1.57 | 207.0 | -1.29 |
| Drunk Driving | 269.6 | 29.29 | 305 | 268 | 1.21 | -0.05 | 286.5 | 0.58 |
| Disorderly | 410.4 | 34.43 | 424 | 355 | 0.40 | -1.61 | 389.5 | -0.61 |
| Drunkenness | 1400.4 | 272.90 | 972 | 718 | -1.57 | -2.50 | 845.0 | -2.04 |
| Family Offenses | 420.6 | 41.15 | 514 | 553 | 2.27 | 3.22 | 533.5 | 2.74 |
| Liquor Laws | 418.0 | 144.56 | 148 | 77 | -1.87 | -2.36 | 112.5 | -2.11 |
| Pornography | 9.2 | 5.04 | 13 | 9 | 0.75 | -0.04 | 11.0 | 0.36 |
| Prostitution | 1.4 | 1.02 | 3 | 1 | 1.57 | -0.39 | 2.0 | 0.59 |
| Threats | 220.2 | 37.99 | 163 | 168 | -1.51 | -1.37 | 165.5 | -1.44 |
| Trespassing | 110.6 | 12.83 | 111 | 94 | 0.03 | -1.29 | 102.5 | -0.63 |
| Weapons | 44.0 | 7.54 | 39 | 40 | -0.66 | -0.53 | 39.5 | -0.60 |
| Violent Total | 870.4 | 45.82 | 921 | 965 | 1.10 | 2.06 | 943.0 | 1.58 |
| Property Total | 3904.6 | 211.21 | 3908 | 3024 | 0.02 | -4.17 | 3466.0 | -2.08 |
| Total Crimes | 8305.4 | 513.81 | 7732 | 6475 | -1.12 | -3.56 | 7103.5 | -2.34 |
| Alarm | 5748.0 | 79.02 | 5740 | 5623 | -0.10 | -1.58 | 5681.5 | -0.84 |
| Disabled Vehicle | 2179.2 | 185.87 | 2008 | 2002 | -0.92 | -0.95 | 2005.0 | -0.94 |
| Disorderly | 3503.0 | 246.74 | 3152 | 3249 | -1.42 | -1.03 | 3200.5 | -1.23 |
| General Service | 6037.6 | 356.07 | 6070 | 5393 | 0.09 | -1.81 | 5731.5 | -0.86 |
| Lost Property | 233.8 | 23.27 | 277 | 425 | 1.86 | 8.22 | 351.0 | 5.04 |
| Medical | 2797.2 | 368.23 | 3305 | 3975 | 1.38 | 3.20 | 3640.0 | 2.29 |
| Psychological | 381.0 | 24.11 | 470 | 425 | 3.69 | 1.83 | 447.5 | 2.76 |
| Suspicious Activity | 7166.6 | 406.09 | 7346 | 6959 | 0.44 | -0.51 | 7152.5 | -0.03 |
| Traffic Collision | 4583.2 | 182.50 | 4869 | 5081 | 1.57 | 2.73 | 4975.0 | 2.15 |
| Traffic Complaint | 1692.4 | 156.67 | 1954 | 1939 | 1.67 | 1.57 | 1946.5 | 1.62 |

Summary of notable increases: Total of all communities

| Incident Type | Significant in | Factors present | Likelihood of PP relationship | Notes |
|---------------|----------------|-----------------|-------------------------------|---|
| Kidnapping | 2016 | COM | Not related | What sounded like a troubling increased turned out to be a miscellany of domestic “confining” incidents with no PPC relationship. |

| Incident Type | Significant in | Factors present | Likelihood of PP relationship | Notes |
|----------------------------|-----------------------|------------------------------|--------------------------------------|---|
| Total violent crime | 2017 Total | REG | Unlikely | Heavily influenced by the simple assault increase, which is again studied in the “trends” section below. |
| Theft from persons | All periods | LOG, COM | Unlikely | Increase confined solely to Attleboro and rated “unlikely” there; see Attleboro analysis. |
| Credit card fraud | 2016 Total | LOG, COM, REG, REL, MAP, OTH | Likely | See trend analysis in ending sections. |
| Fraud/con games | All periods | LOG, COM, REG, REL | Uncertain | Analyzed in full in final section. |
| Family offenses | All periods | LOG, COM, REG, REL, MAP | Uncertain | See full analysis in “trends” section. |
| Lost property | All periods | LOG, REG | Uncertain | An increase in this type of activity is to be expected with more people visiting the area, but not quite at the volume we’ve seen. The call type does not show expected spatial patterns or location type patterns (e.g., increases at hotels, restaurants, and other places PPC visitors would frequent). Although I have rated this “likely” for some individual cities, I am cautious about applying that label to the total area. |
| Medical aids | 2017 Total | LOG | Unlikely | One might expect medical aids to increase to the area with an influx of people, but the increases are confined to Foxborough and Attleborough and not in the communities closer to the casino. See those agencies for an account of their increases. |
| Psychological calls | All periods | LOG, MAP | Uncertain | Increases in Plainville, Attleboro, and Mansfield. No direct evidence of casino relationship, but these are CAD-only incidents, so documentation is scant. Review of call remarks suggests increase in “suicidal” individuals in these communities. Determining any relationship with PPC will probably need to rely on data outside the scope of this analysis. |
| Traffic collisions | 2017 Total | LOG, REG, REL, MAP | Likely | See full analysis in “trends” section at end of report. |
| Traffic complaints | Total | LOG, REG, REL | Uncertain | While the increase in this call type seems logical given extra traffic in the area, spatial patterns do not support a PPC relationship. Overall, there is too little data with the CAD records to determine cause and to separate this category from self-directed traffic enforcement. I have rated the increase “likely” for some individual towns but it remains uncertain for the area as a whole. |

Summary of all Plainville activity



Two years after the opening of Plainridge Park, Plainville has not seen the increases feared in classic property crime categories (burglary, theft, robbery, auto theft) nor in vice-related crimes like drugs, liquor, and prostitution. Property crime actually declined significantly, although there were exceptions in **credit card fraud, identity theft, and vandalism**, all discussed below.

The agency did report a troubling increase in **violent crime** in the year ending in 2017, driven mostly by both **aggravated assault** and **simple assault**. These incidents coupled with a large increase in **family offenses** suggests an upward trend in domestic violence (not directly attributable to Plainridge Park), fully analyzed in the “trends” section.

Finally, the town continues to see an uptick in a variety of call-for-service types that might be expected to increase with extra people and vehicles in town, including **suspicious activity, traffic complaints, and lost property**.

Incidents reported to Plainville, 1 July–30 June

| Offense | 2010–2015 Average. | Standard Deviation | 2016 | 2017 | 2016 Z-Score | 2017 Z-Score | Post Avg. | Avg. Z-Score |
|---------------------|-----------------------|-----------------------|------|------|-----------------|-----------------|--------------|-----------------|
| Murder | 0.0 | 0.00 | 0 | 1 | NA | NA | 0.5 | NA |
| Sexual Assault | 2.4 | 1.36 | 3 | 3 | 0.44 | 0.44 | 3.0 | 0.44 |
| Robbery | 1.4 | 0.80 | 0 | 2 | -1.75 | 0.75 | 1.0 | -0.50 |
| Aggravated Assault | 4.6 | 1.50 | 7 | 13 | 1.60 | 5.61 | 10.0 | 3.61 |
| Simple Assault | 21.0 | 5.62 | 12 | 30 | -1.60 | 1.60 | 21.0 | 0.00 |
| Kidnapping | 0.2 | 0.40 | 4 | 0 | 9.50 | -0.50 | 2.0 | 4.50 |
| Burglary | 29.2 | 4.87 | 22 | 11 | -1.48 | -3.73 | 16.5 | -2.61 |
| Purse-Snatching | 0.0 | 0.00 | 0 | 0 | NA | NA | 0.0 | NA |
| Shoplifting | 26.2 | 5.64 | 27 | 36 | 0.14 | 1.74 | 31.5 | 0.94 |
| Theft from Building | 19.2 | 4.49 | 18 | 16 | -0.27 | -0.71 | 17.0 | -0.49 |
| Theft from Machine | 0.0 | 0.00 | 0 | 0 | NA | NA | 0.0 | NA |
| Theft from Persons | 0.0 | 0.00 | 0 | 0 | NA | NA | 0.0 | NA |
| Theft from Vehicle | 36.2 | 15.21 | 13 | 20 | -1.53 | -1.07 | 16.5 | -1.30 |
| Theft of MV Parts | 4.4 | 1.02 | 4 | 1 | -0.39 | -3.33 | 2.5 | -1.86 |
| Other Theft | 23.4 | 9.13 | 13 | 10 | -1.14 | -1.47 | 11.5 | -1.30 |
| Auto Theft | 5.2 | 1.47 | 3 | 3 | -1.50 | -1.50 | 3.0 | -1.50 |
| Arson | 0.2 | 0.40 | 0 | 0 | -0.50 | -0.50 | 0.0 | -0.50 |
| Bad Checks | 2.6 | 1.62 | 1 | 2 | -0.98 | -0.37 | 1.5 | -0.68 |
| Credit Card Fraud | 13.4 | 2.42 | 22 | 20 | 3.56 | 2.73 | 21.0 | 3.14 |
| Employee Theft | 1.2 | 1.47 | 0 | 1 | -0.82 | -0.14 | 0.5 | -0.48 |
| Forgery | 6.2 | 2.64 | 6 | 3 | -0.08 | -1.21 | 4.5 | -0.64 |
| Fraud/Con Games | 1.6 | 1.20 | 2 | 5 | 0.33 | 2.83 | 3.5 | 1.58 |
| Identity Theft | 2.4 | 2.06 | 8 | 6 | 2.72 | 1.75 | 7.0 | 2.23 |
| Stolen Property | 1.4 | 1.50 | 6 | 0 | 3.07 | -0.94 | 3.0 | 1.07 |

| Offense | 2010–2015 Average. | Standard Deviation | 2016 | 2017 | 2016 Z-Score | 2017 Z-Score | Post Avg. | Avg. Z-Score |
|-----------------------|-----------------------|-----------------------|------------|------------|-----------------|-----------------|--------------|-----------------|
| Vandalism | 35.8 | 7.14 | 54 | 42 | 2.55 | 0.87 | 48.0 | 1.71 |
| Drugs | 9.6 | 2.15 | 12 | 6 | 1.11 | -1.67 | 9.0 | -0.28 |
| Drunk Driving | 17.6 | 2.94 | 21 | 16 | 1.16 | -0.54 | 18.5 | 0.31 |
| Disorderly | 2.2 | 0.75 | 0 | 8 | -2.94 | 7.75 | 4.0 | 2.41 |
| Drunkenness | 18.2 | 2.32 | 13 | 7 | -2.25 | -4.84 | 10.0 | -3.54 |
| Family Offenses | 2.0 | 1.67 | 5 | 12 | 1.79 | 5.98 | 8.5 | 3.88 |
| Liquor Laws | 3.0 | 1.79 | 2 | 1 | -0.56 | -1.12 | 1.5 | -0.84 |
| Pornography | 0.0 | 0.00 | 0 | 0 | NA | NA | 0.0 | NA |
| Prostitution | 0.2 | 0.40 | 0 | 0 | -0.50 | -0.50 | 0.0 | -0.50 |
| Threats | 4.0 | 2.19 | 1 | 3 | -1.37 | -0.46 | 2.0 | -0.91 |
| Trespassing | 5.4 | 3.26 | 4 | 3 | -0.43 | -0.74 | 3.5 | -0.58 |
| Weapons | 1.4 | 1.02 | 4 | 3 | 2.55 | 1.57 | 3.5 | 2.06 |
| Violent Total | 29.6 | 6.34 | 26 | 49 | -0.57 | 3.06 | 37.5 | 1.25 |
| Property Total | 208.6 | 25.59 | 199 | 176 | -0.38 | -1.27 | 187.5 | -0.82 |
| Total Crimes | 301.8 | 33.33 | 287 | 284 | -0.44 | -0.53 | 285.5 | -0.49 |
| Alarm | 397.6 | 43.67 | 457 | 424 | 1.36 | 0.60 | 440.5 | 0.98 |
| Disabled Vehicle | 134.2 | 30.05 | 148 | 144 | 0.46 | 0.33 | 146.0 | 0.39 |
| Disorderly | 163.0 | 13.64 | 174 | 159 | 0.81 | -0.29 | 166.5 | 0.26 |
| General Service | 370.0 | 65.66 | 436 | 467 | 1.01 | 1.48 | 451.5 | 1.24 |
| Lost Property | 36.8 | 6.46 | 58 | 56 | 3.28 | 2.97 | 57.0 | 3.13 |
| Medical | 9.6 | 3.72 | 2 | 2 | -2.04 | -2.04 | 2.0 | -2.04 |
| Psychological | 29.4 | 4.03 | 30 | 37 | 0.15 | 1.89 | 33.5 | 1.02 |
| Suspicious Activity | 605.0 | 26.37 | 787 | 721 | 6.90 | 4.40 | 754.0 | 5.65 |
| Traffic Collision | 312.0 | 22.96 | 310 | 348 | -0.09 | 1.57 | 329.0 | 0.74 |
| Traffic Complaint | 234.8 | 31.86 | 312 | 347 | 2.42 | 3.52 | 329.5 | 2.97 |

Summary of notable increases: Plainville

| Incident Type | Significant in | Factors present | Likelihood of PP relationship | Notes |
|--------------------|----------------|-------------------------|-------------------------------|--|
| Aggravated Assault | 2017 | LOG, REL, OTH | Unlikely | Only agency to report a significant increase in this category, though others reported increases in simple assault. See more information in the trend analysis section. Increase related to domestic violence and shows no PPC or gambling nexus. |
| Kidnapping | 2016 Total | | Not Related | Individual analysis of all incidents shows that they concerned local domestic situations with no causal factors related to gambling or PPC. Increased did not continue in 2017. |
| Credit Card Fraud | All periods | LOG, COM, REG, REL, OTH | Likely | See the “trends” section at the end of this report. |

| Incident Type | Significant in | Factors present | Likelihood of PP relationship | Notes |
|----------------------------|----------------|--------------------------|-------------------------------|---|
| Fraud/Con Games | 2017 Total | LOG, COM, REG, REL | Uncertain | No patterns seen among individual incidents and no explicit mention of casino relationship, but this category is increasing throughout the area. See full analysis in “trends” section. |
| Identity Theft | All periods | LOG, COM, REG, REL | Unlikely | One of several agencies to report large increases. See the “trends” section for reasons why it is probably not PPC related. |
| Stolen Property | 2016 | LOG | Unlikely | Reports for a miscellany of incidents show no overt PPC connection, no comparable increase in other agencies, and did not continue in 2017. |
| Vandalism | 2016 Total | | Unlikely | Interesting pattern of residential vandalism in the town, with several one-night sprees during the first 18 months (see map below) after PPC opened. A lack of a logical relationship between a casino and residential vandalism, a failure to see the crime throughout the rest of the region, and a return to normal in 2017 all make a PPC connection unlikely. |
| Disorderly | 2017 Total | LOG, MAP | Uncertain | Small numeric increase (to 8 in the 24-month period) in rarely-reported crime. Three arrests at the Plainville Commons shops, three incidents at residences, and two on the street. In one of the Plainville Commons incidents, the disorderly individual, who threatened staff members, let the store and immediately went to Plainridge Park, where he was arrested. For this one incident, therefore—which makes up half of the “increase”—the relationship is certain, but less so for the overall spike. |
| Family Offenses | All periods | LOG, REL, REG | Unlikely | Related to an increase in domestic violence in the area. Unlikely relationship to PPC. |
| Weapon Offenses | 2016 Total | | Unlikely | None of the relevant factors present. No commonalities in type of weapon. Almost all incidents at residences for which officers were summoned for other offenses. |
| Violent Crime Total | 2017 | | Uncertain | Influenced primarily by simple and aggravated assault increases; see the full trend analysis. |
| Lost Property | All periods | LOG, REG, MAP | Likely | Though I rated this “uncertain” for the region, CAD notes specifically from Plainville show numerous lost wallets, cell phones, and ATM cards during this period, often from out-of-town visitors, at places that casino visitors are likely to frequent, such as restaurants, bank ATMs, and gas stations. The increase seems consistent with PPC-related traffic in the town. |

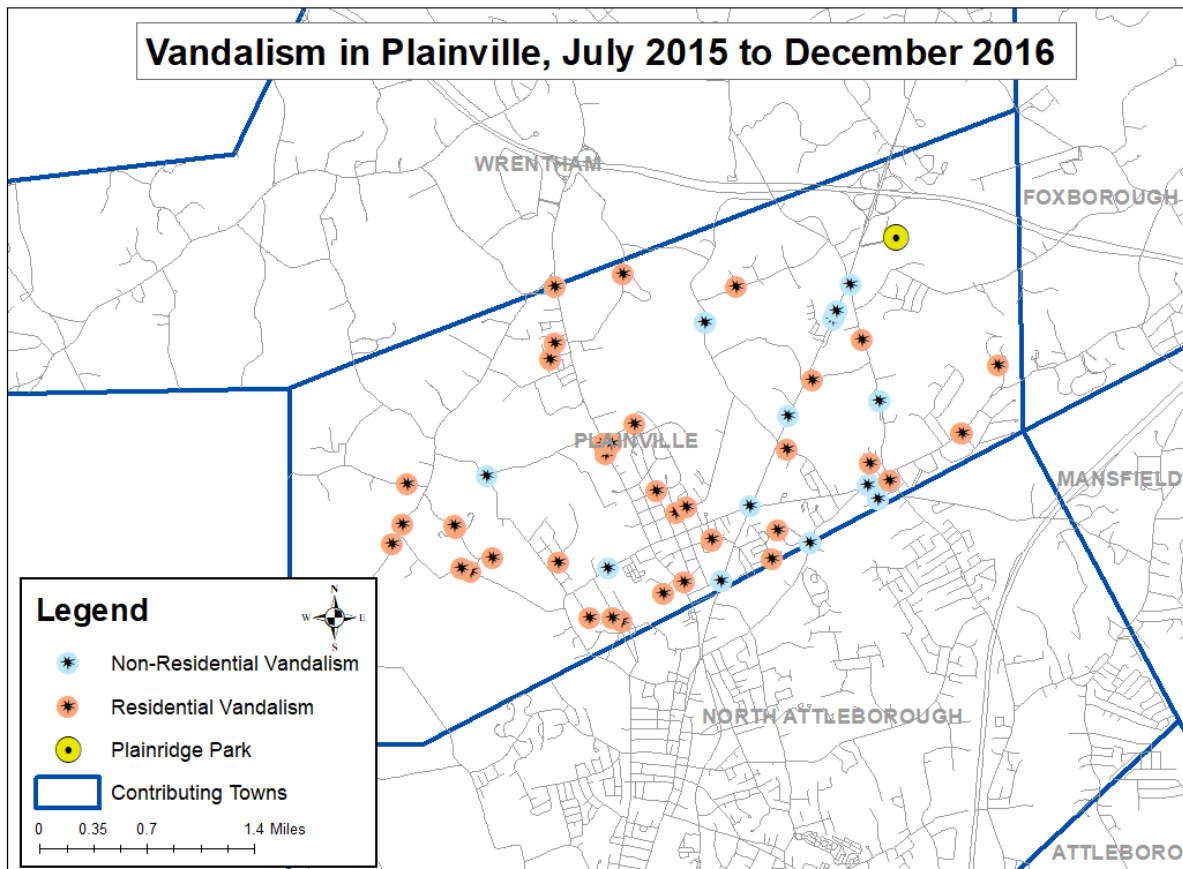


Figure 4: Plainville's increase in vandalism has been primary residential, with several one-night sprees of multiple incidents in each reporting period

| Incident Type | Significant in | Factors present | Likelihood of PP relationship | Notes |
|---------------------|----------------|-----------------|-------------------------------|---|
| Psychological Calls | 2017 | LOG | Unlikely | While it is possible for a facility like a casino to take a psychological toll on certain individuals, it seems unlikely to see the effects so rapidly concentrated in the immediate area. All of Plainville's increase in the 18-month period can be tied to three residential addresses. Without further details on the specific issues faced by those residents, a PPC relationship is uncertain but seems unlikely overall. |
| Suspicious Activity | All periods | LOG, REL, MAP | Likely | The dramatic increase in these calls perhaps suggests a local population on high-alert for "suspicious" out-of-towners. A review of CAD notes supports this hypothesis, with many calls for cars parked for long periods and/or furtive activity within them. The call type has a logical relationship to extra traffic in the community, and the map below shows a spatial relationship as well. |

| Incident Type | Significant in | Factors present | Likelihood of PP relationship | Notes |
|---------------------------|----------------|--------------------|-------------------------------|--|
| Traffic Complaints | All periods | LOG, REL, REG, MAP | Likely | The connection is logical: As more cars arrive in the town to make use of PPC, there are more opportunities for residents to complain about illegal parking, erratic drivers, and other traffic problems. Parking complaints quadrupled from the historical average while other traffic complaints increased by about 50%. Similar increases in all other cities except Attleboro (the furthest away) bolster the idea of a PPC relationship, as does a concentration of these incidents on Route 1 itself and other routes funneling traffic to and from PPC. Only a lack of specific data on drivers and origins keeps this from rating "Certain." |

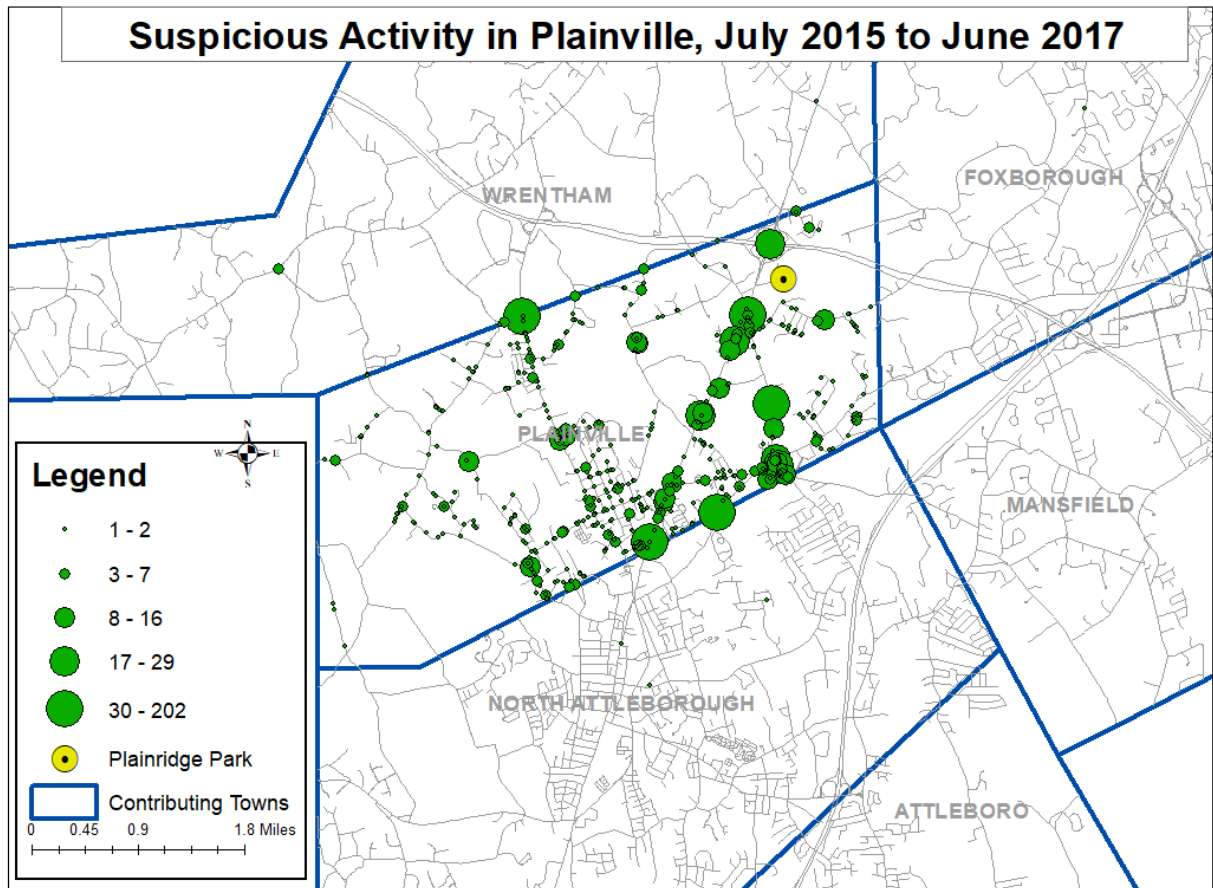


Figure 5: Hot spot of suspicious activity in Plainville show concentrations on routes to and from the casino.

Summary of all Attleboro activity



Overall, Attleboro saw a significant decrease in total crimes, and particularly **property crimes**, during the 24 months following the opening of Plainridge Park. The major exception was in the area of **credit card fraud**, which increased significantly in the city, as it did in the surrounding area.

Attleboro was the only jurisdiction in the area to see sustained increases in several of the theft categories. However, the increases in these categories are balance by a major decrease in the **other theft** category and my general sense is that most of these increases are a result of the new crime analyst doing a better job coding the data so the “other” category is used less often and the thefts are reported under their proper codes.

In addition to credit card fraud, Attleboro was part of the area-wide increase in **con games, identity theft, family offenses, and traffic collisions**, all of which receive fuller analysis in the last section of this report.

Attleboro was unique among area agencies in implementing a specific flag in its records management system to identify incidents that were casino-related, generally because the offender acknowledged that he was in the area to visit Plainridge Park. Understanding the vagaries of data quality, I did not rely exclusively on this code, but it was illustrative that in the two years since Plainridge Park opened, the Attleboro Police only used the code eight times, generally for crimes that did not otherwise see an increase in the area. Crimes tagged with the code include a robbery, a shoplifting incident, two miscellaneous thefts, a family offense, a drug incident, a drunk driving incident, and an “all other.” Attleboro’s experience suggests that the area communities may be seeing contributions to their crime volume caused by PPC-bound offenders, but not in enough volume to cause a statistically notable increase.

Incidents reported to Attleboro, 1 July–30 June

| Offense | 2010–2015 Average. | Standard Deviation | 2016 | 2017 | 2016 Z-Score | 2017 Z-Score | Post Avg. | Avg. Z-Score |
|---------------------|-----------------------|-----------------------|------|------|-----------------|-----------------|--------------|-----------------|
| Murder | 0.4 | 0.49 | 1 | 0 | 1.22 | -0.82 | 0.5 | 0.20 |
| Sexual Assault | 34.4 | 6.89 | 37 | 39 | 0.38 | 0.67 | 38.0 | 0.52 |
| Robbery | 20.6 | 7.26 | 14 | 15 | -0.91 | -0.77 | 14.5 | -0.84 |
| Aggravated Assault | 88.4 | 18.45 | 64 | 60 | -1.32 | -1.54 | 62.0 | -1.43 |
| Simple Assault | 288.4 | 18.68 | 321 | 295 | 1.74 | 0.35 | 308.0 | 1.05 |
| Kidnapping | 3.8 | 2.04 | 2 | 4 | -0.88 | 0.10 | 3.0 | -0.39 |
| Burglary | 208.0 | 43.71 | 186 | 120 | -0.50 | -2.01 | 153.0 | -1.26 |
| Purse-Snatching | 0.2 | 0.40 | 1 | 1 | 2.00 | 2.00 | 1.0 | 2.00 |
| Shoplifting | 196.0 | 37.99 | 207 | 158 | 0.29 | -1.00 | 182.5 | -0.36 |
| Theft from Building | 119.4 | 17.26 | 96 | 152 | -1.36 | 1.89 | 124.0 | 0.27 |
| Theft from Machine | 0.8 | 1.17 | 2 | 1 | 1.03 | 0.17 | 1.5 | 0.60 |
| Theft from Persons | 2.2 | 1.94 | 8 | 9 | 2.99 | 3.51 | 8.5 | 3.25 |
| Theft from Vehicle | 162.6 | 67.77 | 134 | 155 | -0.42 | -0.11 | 144.5 | -0.27 |
| Theft of MV Parts | 46.8 | 9.37 | 52 | 31 | 0.56 | -1.69 | 41.5 | -0.57 |
| Other Theft | 551.2 | 112.02 | 555 | 241 | 0.03 | -2.77 | 398.0 | -1.37 |
| Auto Theft | 62.0 | 8.99 | 44 | 20 | -2.00 | -4.67 | 32.0 | -3.34 |
| Arson | 4.4 | 2.06 | 3 | 3 | -0.68 | -0.68 | 3.0 | -0.68 |
| Bad Checks | 12.4 | 3.44 | 9 | 5 | -0.99 | -2.15 | 7.0 | -1.57 |

| Offense | 2010–2015 Average. | Standard Deviation | 2016 | 2017 | 2016 Z-Score | 2017 Z-Score | Post Avg. | Avg. Z-Score |
|-----------------------|-----------------------|-----------------------|-------------|-------------|-----------------|-----------------|---------------|-----------------|
| Credit Card Fraud | 32.4 | 4.67 | 55 | 30 | 4.84 | -0.51 | 42.5 | 2.16 |
| Employee Theft | 8.4 | 1.36 | 10 | 12 | 1.18 | 2.65 | 11.0 | 1.92 |
| Forgery | 38.8 | 6.24 | 39 | 24 | 0.03 | -2.37 | 31.5 | -1.17 |
| Fraud/Con Games | 63.4 | 4.08 | 79 | 74 | 3.82 | 2.60 | 76.5 | 3.21 |
| Identity Theft | 39.4 | 13.60 | 72 | 73 | 2.40 | 2.47 | 72.5 | 2.43 |
| Stolen Property | 22.2 | 7.93 | 30 | 33 | 0.98 | 1.36 | 31.5 | 1.17 |
| Vandalism | 299.6 | 35.45 | 241 | 184 | -1.65 | -3.26 | 212.5 | -2.46 |
| Drugs | 98.4 | 17.00 | 103 | 71 | 0.27 | -1.61 | 87.0 | -0.67 |
| Drunk Driving | 111.2 | 16.29 | 98 | 93 | -0.81 | -1.12 | 95.5 | -0.96 |
| Disorderly | 207.4 | 30.43 | 182 | 136 | -0.83 | -2.35 | 159.0 | -1.59 |
| Drunkenness | 0.4 | 0.49 | 0 | 28 | -0.82 | 56.34 | 14.0 | 27.76 |
| Family Offenses | 386.2 | 38.39 | 474 | 479 | 2.29 | 2.42 | 476.5 | 2.35 |
| Liquor Laws | 43.6 | 9.91 | 34 | 20 | -0.97 | -2.38 | 27.0 | -1.67 |
| Pornography | 5.6 | 3.72 | 9 | 7 | 0.91 | 0.38 | 8.0 | 0.65 |
| Prostitution | 0.4 | 0.49 | 1 | 1 | 1.22 | 1.22 | 1.0 | 1.22 |
| Threats | 111.6 | 26.62 | 89 | 91 | -0.85 | -0.77 | 90.0 | -0.81 |
| Trespassing | 29.0 | 4.10 | 37 | 28 | 1.95 | -0.24 | 32.5 | 0.85 |
| Weapons | 29.6 | 6.47 | 24 | 26 | -0.87 | -0.56 | 25.0 | -0.71 |
| Violent Total | 436.0 | 31.98 | 439 | 413 | 0.09 | -0.72 | 426.0 | -0.31 |
| Property Total | 1870.2 | 138.69 | 1823 | 1326 | -0.34 | -3.92 | 1574.5 | -2.13 |
| Total Crimes | 3329.6 | 126.17 | 3313 | 2719 | -0.13 | -4.84 | 3016.0 | -2.49 |
| Alarm | 1525.8 | 121.45 | 1400 | 1420 | -1.04 | -0.87 | 1410.0 | -0.95 |
| Disabled Vehicle | 606.8 | 71.16 | 539 | 556 | -0.95 | -0.71 | 547.5 | -0.83 |
| Disorderly | 1750.4 | 192.25 | 1525 | 1523 | -1.17 | -1.18 | 1524.0 | -1.18 |
| General Service | 2323.8 | 270.57 | 1389 | 1182 | -3.45 | -4.22 | 1285.5 | -3.84 |
| Lost Property | 61.6 | 15.62 | 71 | 55 | 0.60 | -0.42 | 63.0 | 0.09 |
| Medical | 900.4 | 315.73 | 1075 | 1761 | 0.55 | 2.73 | 1418.0 | 1.64 |
| Psychological | 295.2 | 30.34 | 377 | 332 | 2.70 | 1.21 | 354.5 | 1.95 |
| Suspicious Activity | 2831.4 | 342.98 | 2484 | 2556 | -1.01 | -0.80 | 2520.0 | -0.91 |
| Traffic Collision | 1795.0 | 62.95 | 1921 | 2033 | 2.00 | 3.78 | 1977.0 | 2.89 |
| Traffic Complaint | 592.0 | 195.38 | 557 | 527 | -0.18 | -0.33 | 542.0 | -0.26 |

Summary of notable increases: Attleboro

| Incident Type | Significant in | Factors present | Likelihood of PP relationship | Notes |
|-----------------|----------------|-----------------|-------------------------------|---|
| Purse Snatching | All periods | LOG | Unlikely | Just a single incident in 2016 and 2017, up from the “average” of hardly ever reported at all. Local residents charged and none flagged as casino-related by APD. |
| Thefts from | 2017 | LOG, REL | Unlikely | A fairly large increase in 2017 after drop in |

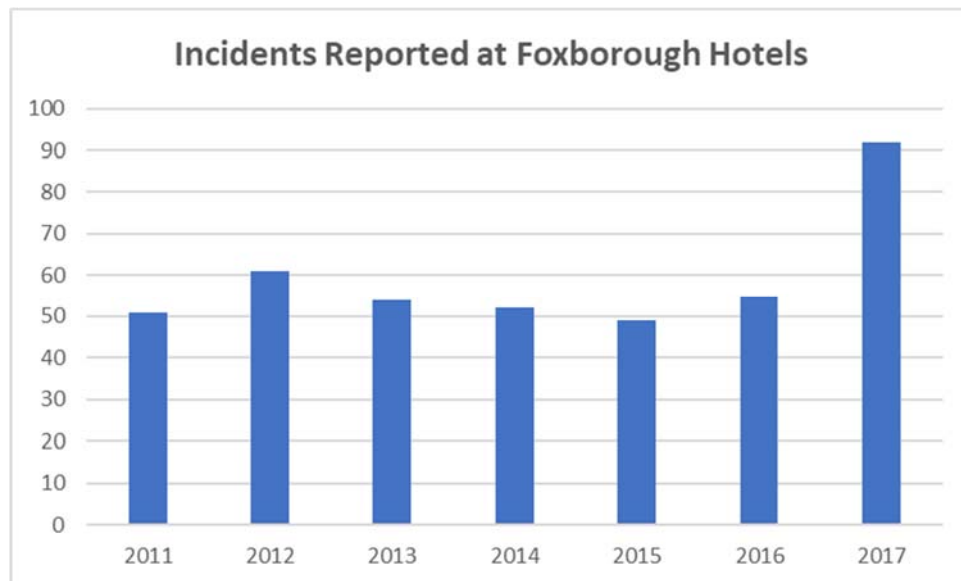
| Incident Type | Significant in | Factors present | Likelihood of PP relationship | Notes |
|----------------------------|--------------------------------|-------------------------|-------------------------------|---|
| Buildings | | | | 2016. There are a few retail hot spots, but about 50% are at residences. As the increase is accompanied by a major drop in “other theft” during the same period, improved coding of this crime type seems the logical explanation for the “increase.” |
| Thefts from Persons | All periods | LOG, REL | Unlikely | Small overall numbers in the historical average suggest that these incidents were miscoded as 23H in previous time periods and now coded correctly thanks to the agency’s new analyst. No patterns are seen among the incidents nor any explicit casino relationship. |
| Credit Card Fraud | All periods | LOG, COM, REG, REL, OTH | Likely | See the full analysis in the “trends” section for credit card fraud in the area. |
| Employee Theft | 2017 Total | LOG, REL | Unlikely | Again likely tied to improved coding, with new incidents equaled by their equivalent loss in the “other theft” category. Not replicated in other communities and no evidence among suspects that gambling is an issue. |
| Fraud/Con Games | All periods | LOG, COM, REG, REL | Uncertain | See the full analysis of fraud in the “trends” section. |
| Identity Theft | All periods | LOG, COM, REG, REL | Unlikely | See the full analysis of identity theft in the “trends” section. |
| Drunkenness | 6-month 2016 18-month total | LOG | Unlikely | Given the steepness of the increase, it would seem that Attleboro was not coding its protective custodies with the 90E IBR code until recently. Given that every “incident” results in an PC, we would expect to see a PPC relationship mentioned here if it existed. That the crime is not increasing elsewhere—in fact, it is significantly down in other towns—makes a PPC relationship very unlikely. |
| Family Offenses | All periods | REG | Uncertain | See the full analysis of “family offenses” in the “trends” section. |
| Trespassing | 2016 | | Unlikely | Brief increase for a single year shows mostly residential issues. There’s no logical tie to the casino, it did not sustain, and no other agencies reported it. |
| Medical | 2017 Total | LOG | Unlikely | More people drawn to an area could easily equate to more medical aids, but the results are inconsistent across the communities. Attleboro’s increase during this one period is heavily localized at four addresses: the police station itself and three residential addresses, none of which suggest a PPC connection. |
| Psychological | 2016 | LOG, REG | Unlikely | Detailed review of CAD notes by APD analyst |

| Incident Type | Significant in | Factors present | Likelihood of PP relationship | Notes |
|---------------------------|----------------|-----------------|-------------------------------|--|
| Calls | Total | | | showed no PPC relationship. Incidents seem concentrated at a few residences, suggesting repeat problems with individuals. Increased dropped off after first year. |
| Traffic Collisions | All periods | LOG, REG | Likely | As noted in the “trend analysis” section, an increase in traffic collisions in the area is logical given extra traffic. While Attleboro is the most remote community from the casino, it has several travel routes to and from PPC with collision hot spots. A more conclusive analysis awaits statewide collision data. |

Summary of all Foxborough activity



As the host of Gillette Stadium and numerous hotels, restaurants, and retail establishments, Foxborough had the second-highest overall crime and call-for-service totals in the area, both before and after Plainridge Park. Its existing crime is heavily influenced by its visiting population. As the closest major hotel cluster (there are 7 within the town limits, plus two in nearby Mansfield), there were concerns from the beginning that Foxborough might see an increase in activity at hotels. For a while, it looked like the predicted increase wasn't happening, but the agency saw a sudden spike in the first six months of 2017, contributing to a large increase in the year ending 30 June 2017.



The increase is almost entirely in the “All Other” crime category, which is naturally unhelpful when it comes to analysis. An analysis of the incidents related to the original call for service shows that many of them are prompted by “disturbance” calls, medical aids, and well-being checks. I am awaiting further analysis from Foxborough on the individual cases to help explain the increase.

Foxborough also contributed to regional increases in **credit card fraud** and **aggravated assault** and showed some local increases in other types of theft. It also contributed to regional increases in **lost property** and **traffic complaints**, but all of these increases have uncertain relationships to PPC, as discussed below.

It was one of the few agencies to show an aggregated decrease in violent crimes in the two years post-Plainridge Park. Unlike other communities, Foxborough saw no increase in simple assaults, and its burglary total absolutely plummeted.

Incidents reported to Foxborough 1 July–30 June

| Offense | 2010–2015 Average. | Standard Deviation | 2016 | 2017 | 2016 Z-Score | 2017 Z-Score | Post Avg. | Avg. Z-Score |
|-----------------------|-----------------------|-----------------------|------|------|-----------------|-----------------|--------------|-----------------|
| Murder | 0.0 | 0.00 | 0 | 0 | NA | NA | 0.0 | NA |
| Sexual Assault | 4.8 | 1.72 | 3 | 8 | -1.05 | 1.86 | 5.5 | 0.41 |
| Robbery | 3.2 | 3.06 | 3 | 1 | -0.07 | -0.72 | 2.0 | -0.39 |

| Offense | 2010–2015 Average. | Standard Deviation | 2016 | 2017 | 2016 Z-Score | 2017 Z-Score | Post Avg. | Avg. Z-Score |
|-----------------------|-----------------------|-----------------------|-------------|-------------|-----------------|-----------------|---------------|-----------------|
| Aggravated Assault | 31.6 | 7.55 | 32 | 53 | 0.05 | 2.83 | 42.5 | 1.44 |
| Simple Assault | 108.6 | 13.87 | 74 | 92 | -2.50 | -1.20 | 83.0 | -1.85 |
| Kidnapping | 0.4 | 0.49 | 1 | 0 | 1.22 | -0.82 | 0.5 | 0.20 |
| Burglary | 74.0 | 7.72 | 58 | 53 | -2.07 | -2.72 | 55.5 | -2.40 |
| Purse-Snatching | 0.8 | 0.98 | 0 | 0 | -0.82 | -0.82 | 0.0 | -0.82 |
| Shoplifting | 15.0 | 4.24 | 28 | 29 | 3.06 | 3.30 | 28.5 | 3.18 |
| Theft from Building | 24.8 | 5.74 | 29 | 27 | 0.73 | 0.38 | 28.0 | 0.56 |
| Theft from Machine | 0.0 | 0.00 | 0 | 0 | NA | NA | 0.0 | NA |
| Theft from Persons | 1.4 | 0.80 | 2 | 2 | 0.75 | 0.75 | 2.0 | 0.75 |
| Theft from Vehicle | 2.6 | 0.49 | 1 | 0 | -3.27 | -5.31 | 0.5 | -4.29 |
| Theft of MV Parts | 0.2 | 0.40 | 1 | 0 | 2.00 | -0.50 | 0.5 | 0.75 |
| Other Theft | 99.2 | 10.17 | 122 | 90 | 2.24 | -0.90 | 106.0 | 0.67 |
| Auto Theft | 10.2 | 3.25 | 12 | 8 | 0.55 | -0.68 | 10.0 | -0.06 |
| Arson | 0.4 | 0.49 | 1 | 0 | 1.22 | -0.82 | 0.5 | 0.20 |
| Bad Checks | 6.8 | 2.79 | 8 | 6 | 0.43 | -0.29 | 7.0 | 0.07 |
| Credit Card Fraud | 9.4 | 3.77 | 18 | 11 | 2.28 | 0.42 | 14.5 | 1.35 |
| Employee Theft | 3.0 | 1.26 | 2 | 1 | -0.79 | -1.58 | 1.5 | -1.19 |
| Forgery | 15.0 | 2.68 | 10 | 12 | -1.86 | -1.12 | 11.0 | -1.49 |
| Fraud/Con Games | 29.6 | 5.43 | 27 | 30 | -0.48 | 0.07 | 28.5 | -0.20 |
| Identity Theft | 21.2 | 20.16 | 21 | 25 | -0.01 | 0.19 | 23.0 | 0.09 |
| Stolen Property | 9.6 | 2.24 | 7 | 8 | -1.16 | -0.71 | 7.5 | -0.94 |
| Vandalism | 86.6 | 10.78 | 83 | 83 | -0.33 | -0.33 | 83.0 | -0.33 |
| Drugs | 39.8 | 8.03 | 25 | 53 | -1.84 | 1.64 | 39.0 | -0.10 |
| Drunk Driving | 63.0 | 10.43 | 64 | 56 | 0.10 | -0.67 | 60.0 | -0.29 |
| Disorderly | 115.2 | 17.21 | 137 | 102 | 1.27 | -0.77 | 119.5 | 0.25 |
| Drunkenness | 870.0 | 275.46 | 554 | 369 | -1.15 | -1.82 | 461.5 | -1.48 |
| Family Offenses | 16.8 | 6.11 | 8 | 29 | -1.44 | 2.00 | 18.5 | 0.28 |
| Liquor Laws | 115.8 | 63.35 | 37 | 24 | -1.24 | -1.45 | 30.5 | -1.35 |
| Pornography | 0.6 | 0.49 | 1 | 2 | 0.82 | 2.86 | 1.5 | 1.84 |
| Prostitution | 0.2 | 0.40 | 0 | 0 | -0.50 | -0.50 | 0.0 | -0.50 |
| Threats | 42.0 | 9.70 | 28 | 26 | -1.44 | -1.65 | 27.0 | -1.55 |
| Trespassing | 47.2 | 8.11 | 51 | 41 | 0.47 | -0.76 | 46.0 | -0.15 |
| Weapons | 5.0 | 2.76 | 2 | 3 | -1.09 | -0.73 | 2.5 | -0.91 |
| Violent Total | 148.6 | 19.02 | 113 | 154 | -1.87 | 0.28 | 133.5 | -0.79 |
| Property Total | 409.8 | 35.09 | 430 | 385 | 0.58 | -0.71 | 407.5 | -0.07 |
| Total Crimes | 1874.0 | 324.89 | 1450 | 1244 | -1.31 | -1.94 | 1347.0 | -1.62 |
| Alarm | 891.0 | 22.91 | 894 | 805 | 0.13 | -3.75 | 849.5 | -1.81 |
| Disabled Vehicle | 346.4 | 34.58 | 274 | 316 | -2.09 | -0.88 | 295.0 | -1.49 |
| Disorderly | 252.4 | 14.14 | 221 | 326 | -2.22 | 5.21 | 273.5 | 1.49 |
| General Service | 912.2 | 38.45 | 1024 | 836 | 2.91 | -1.98 | 930.0 | 0.46 |

| Offense | 2010–2015 Average. | Standard Deviation | 2016 | 2017 | 2016 Z-Score | 2017 Z-Score | Post Avg. | Avg. Z-Score |
|---------------------|-----------------------|-----------------------|------|------|-----------------|-----------------|--------------|-----------------|
| Lost Property | 40.6 | 5.92 | 51 | 156 | 1.76 | 19.50 | 103.5 | 10.63 |
| Medical | 982.6 | 293.77 | 1449 | 1319 | 1.59 | 1.15 | 1384.0 | 1.37 |
| Psychological | 29.8 | 10.50 | 18 | 13 | -1.12 | -1.60 | 15.5 | -1.36 |
| Suspicious Activity | 1392.6 | 84.26 | 1340 | 1235 | -0.62 | -1.87 | 1287.5 | -1.25 |
| Traffic Collision | 577.6 | 50.52 | 583 | 612 | 0.11 | 0.68 | 597.5 | 0.39 |
| Traffic Complaint | 109.6 | 40.38 | 173 | 227 | 1.57 | 2.91 | 200.0 | 2.24 |

Summary of notable increases: Foxborough

| Incident Type | Significant in | Factors present | Likelihood of PP relationship | Notes |
|--------------------|----------------|-----------------|-------------------------------|---|
| Aggravated Assault | 2017 | LOG, OTH | Unlikely | As with the other cities seeing increases in assaults, incidents are overwhelmingly at residences, with victim and offender factors suggesting domestic violence. Keyword search of cases fails to find any in which gambling or casinos are mentioned as an inciting factor. See trend analysis section. |
| Shoplifting | All periods | LOG, REL | Unlikely | Foxborough's shoplifting activity is heavily concentrated at the Patriot Place stores (just outside the stadium). Almost all of its increase during this period is found at "Ulta Beauty," which only opened in mid-2014, so there was no contribution to the historical baseline. |
| Theft of MV Parts | 2016 | LOG | Unlikely | A single incident in a rarely-reported category. |
| Other Theft | 2016 | LOG | Unlikely | Increase in 2016 that didn't carry to 2017, confined largely to the Patriot Place shopping center and the high school. |
| Credit Card Fraud | 2016 | LOG, REG, REL | Likely | Although it didn't sustain beyond the first six months post-PPC, the increase for that one period seems to be related to a regional trend. See the "trends" section for a full analysis. |
| Pornography | 2017 Total | | Not related | All incidents are related to the investigation and arrest of a local teen. |
| Disorderly | 2017 | LOG | Unlikely | The increase is entirely concentrated at Gillette Stadium. To postulate a PPC relationship would first have to establish that PPC influenced an increase in visitors to the stadium. |
| General Service | 2016 | LOG | Unlikely | Increase was temporary (it decreased significantly in 2017) and was mostly in an "assist citizen" category that may be self-initiated. |

| Incident Type | Significant in | Factors present | Likelihood of PP relationship | Notes |
|---------------------------|-----------------------|------------------------|--------------------------------------|--|
| Lost Property | All periods | LOG, REG | Uncertain | Foxborough spiked in this call-for-service type in 2016 and 2017, contributing to much of the increase for the area. While the call would be expected to increase with more people in the area, the increase in Foxborough is so startling that a change in dispatch policy seems the more likely explanation. Incidents are scattered all over, with no particular hot spots. |
| Traffic Complaints | 2017 Total | LOG, REG, REL | Uncertain | As with other communities in the area, this call type is hard to separate from self-directed traffic enforcement. Increase is a bit too dramatic to attribute simply to extra traffic in the general area. In Foxborough's case, most hot spots seem around the stadium and not on routes to PPC. |

Summary of all Mansfield activity



Mansfield has seen a significant reduction in property crime and total crime in the 24 months post-Plainridge Park, but it is one of the agencies to show an increase in violent crime, concentrated almost entirely in **simple assaults**. Even while enjoying property crime reductions in general, the department, like many others, is dealing with a spike in **fraud** and **identity theft**, although curiously not credit card fraud like so many neighboring communities.

The agency also joined its neighbors in seeing increases in traffic-volume-related calls for service like **suspicious activity** and **traffic complaints**. These have a less certain connection to the casino than in other communities owing to traffic patterns that don't fit casino-specific routes.

Incidents reported to Mansfield, 1 July–30 June

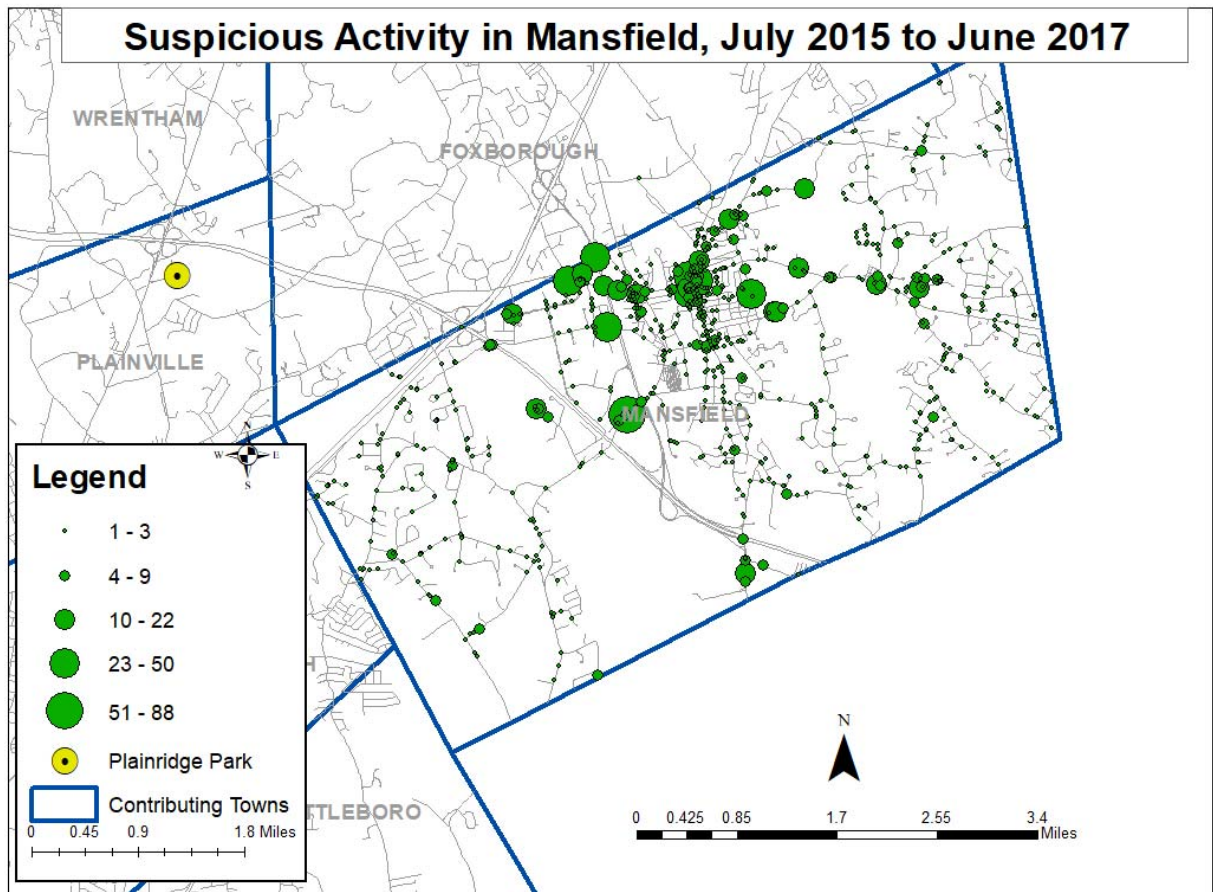
| Offense | 2010–2015 Average. | Standard Deviation | 2016 | 2017 | 2016 Z-Score | 2017 Z-Score | Post Avg. | Avg. Z-Score |
|---------------------|-----------------------|-----------------------|------|------|-----------------|-----------------|--------------|-----------------|
| Murder | 0.6 | 0.80 | 0 | 0 | -0.75 | -0.75 | 0.0 | -0.75 |
| Sexual Assault | 8.2 | 1.60 | 10 | 11 | 1.13 | 1.75 | 10.5 | 1.44 |
| Robbery | 4.4 | 2.33 | 2 | 2 | -1.03 | -1.03 | 2.0 | -1.03 |
| Aggravated Assault | 35.8 | 2.32 | 31 | 25 | -2.07 | -4.66 | 28.0 | -3.37 |
| Simple Assault | 120.2 | 9.33 | 147 | 140 | 2.87 | 2.12 | 143.5 | 2.50 |
| Kidnapping | 1.6 | 1.50 | 5 | 0 | 2.27 | -1.07 | 2.5 | 0.60 |
| Burglary | 143.4 | 53.50 | 53 | 34 | -1.69 | -2.04 | 43.5 | -1.87 |
| Purse-Snatching | 1.2 | 0.75 | 1 | 1 | -0.27 | -0.27 | 1.0 | -0.27 |
| Shoplifting | 50.0 | 8.67 | 39 | 38 | -1.27 | -1.38 | 38.5 | -1.33 |
| Theft from Building | 57.4 | 12.44 | 46 | 35 | -0.92 | -1.80 | 40.5 | -1.36 |
| Theft from Machine | 0.0 | 0.00 | 0 | 0 | NA | NA | 0.0 | NA |
| Theft from Persons | 1.8 | 0.75 | 3 | 2 | 1.60 | 0.27 | 2.5 | 0.94 |
| Theft from Vehicle | 0.6 | 0.49 | 1 | 14 | 0.82 | 27.35 | 7.5 | 14.08 |
| Theft of MV Parts | 0.4 | 0.80 | 1 | 4 | 0.75 | 4.50 | 2.5 | 2.63 |
| Other Theft | 145.0 | 22.08 | 93 | 87 | -2.35 | -2.63 | 90.0 | -2.49 |
| Auto Theft | 17.0 | 4.34 | 14 | 17 | -0.69 | 0.00 | 15.5 | -0.35 |
| Arson | 1.6 | 0.80 | 3 | 2 | 1.75 | 0.50 | 2.5 | 1.13 |
| Bad Checks | 5.8 | 2.32 | 3 | 4 | -1.21 | -0.78 | 3.5 | -0.99 |
| Credit Card Fraud | 20.8 | 5.08 | 19 | 4 | -0.35 | -3.31 | 11.5 | -1.83 |
| Employee Theft | 1.6 | 1.36 | 0 | 1 | -1.18 | -0.44 | 0.5 | -0.81 |
| Forgery | 22.8 | 5.84 | 29 | 17 | 1.06 | -0.99 | 23.0 | 0.03 |
| Fraud/Con Games | 41.4 | 1.85 | 67 | 46 | 13.80 | 2.48 | 56.5 | 8.14 |
| Identity Theft | 22.4 | 10.59 | 38 | 50 | 1.47 | 2.61 | 44.0 | 2.04 |
| Stolen Property | 17.6 | 5.95 | 16 | 6 | -0.27 | -1.95 | 11.0 | -1.11 |
| Vandalism | 115.8 | 14.44 | 83 | 84 | -2.27 | -2.20 | 83.5 | -2.24 |

| Offense | 2010–2015 Average. | Standard Deviation | 2016 | 2017 | 2016 Z-Score | 2017 Z-Score | Post Avg. | Avg. Z-Score |
|-----------------------|-----------------------|-----------------------|-------------|-------------|-----------------|-----------------|---------------|-----------------|
| Drugs | 63.2 | 12.73 | 33 | 54 | -2.37 | -0.72 | 43.5 | -1.55 |
| Drunk Driving | 51.4 | 5.89 | 54 | 48 | 0.44 | -0.58 | 51.0 | -0.07 |
| Disorderly | 78.6 | 15.46 | 80 | 78 | 0.09 | -0.04 | 79.0 | 0.03 |
| Drunkenness | 495.4 | 67.80 | 333 | 263 | -2.40 | -3.43 | 298.0 | -2.91 |
| Family Offenses | 14.4 | 4.59 | 4 | 4 | -2.27 | -2.27 | 4.0 | -2.27 |
| Liquor Laws | 253.6 | 87.70 | 69 | 30 | -2.10 | -2.55 | 49.5 | -2.33 |
| Pornography | 2.6 | 1.85 | 2 | 0 | -0.32 | -1.40 | 1.0 | -0.86 |
| Prostitution | 0.6 | 0.80 | 0 | 0 | -0.75 | -0.75 | 0.0 | -0.75 |
| Threats | 53.2 | 4.07 | 33 | 31 | -4.96 | -5.46 | 32.0 | -5.21 |
| Trespassing | 27.4 | 7.99 | 14 | 19 | -1.68 | -1.05 | 16.5 | -1.36 |
| Weapons | 7.6 | 0.80 | 6 | 4 | -2.00 | -4.50 | 5.0 | -3.25 |
| Violent Total | 170.8 | 7.30 | 195 | 178 | 3.31 | 0.99 | 186.5 | 2.15 |
| Property Total | 666.6 | 107.24 | 509 | 446 | -1.47 | -2.06 | 477.5 | -1.76 |
| Total Crimes | 1885.4 | 194.62 | 1332 | 1155 | -2.84 | -3.75 | 1243.5 | -3.30 |
| Alarm | 980.6 | 38.11 | 1006 | 983 | 0.67 | 0.06 | 994.5 | 0.36 |
| Disabled Vehicle | 392.2 | 37.81 | 325 | 409 | -1.78 | 0.44 | 367.0 | -0.67 |
| Disorderly | 466.0 | 20.50 | 500 | 420 | 1.66 | -2.24 | 460.0 | -0.29 |
| General Service | 1377.0 | 86.36 | 1145 | 1040 | -2.69 | -3.90 | 1092.5 | -3.29 |
| Lost Property | 0.0 | 0.00 | 0 | 0 | NA | NA | 0.0 | NA |
| Medical | 13.2 | 3.06 | 14 | 7 | 0.26 | -2.03 | 10.5 | -0.88 |
| Psychological | 24.0 | 8.67 | 43 | 40 | 2.19 | 1.85 | 41.5 | 2.02 |
| Suspicious Activity | 842.0 | 55.29 | 974 | 850 | 2.39 | 0.14 | 912.0 | 1.27 |
| Traffic Collision | 674.4 | 38.32 | 727 | 693 | 1.37 | 0.49 | 710.0 | 0.93 |
| Traffic Complaint | 168.4 | 26.41 | 230 | 222 | 2.33 | 2.03 | 226.0 | 2.18 |

Summary of notable increases: Mansfield

| Incident Type | Significant in | Factors present | Likelihood of PP relationship | Notes |
|----------------|----------------|-----------------|-------------------------------|--|
| Sexual Assault | 2017 | | Unlikely | Mansfield's sexual assault increased over the 18-month period was only 3 incidents, but against a highly-predictable baseline I do not collect supplemental data on sexual assault cases, so Mansfield Police will have to say if any of the incidents suggest the victim or offender was in the area for PPC reasons, but a lack of similar increases in other communities and the small numeric increase make a PPC connection unlikely. |
| Simple Assault | All Periods | LOG, REL, OTH | Uncertain | One of several agencies to report an increase; see "trends" section for more. |
| Kidnapping | 2016 | | Not related | All incident read and studied and involve domestic situations with no PPC relationship. |

| Incident Type | Significant in | Factors present | Likelihood of PP relationship | Notes |
|-----------------------------|-----------------------|------------------------|--------------------------------------|---|
| Thefts from Vehicles | 2017 Total | LOG, REL | Unlikely | Historical average is too low to be believable. Sudden increase right when the new crime analyst came aboard suggests the increase is simply an improvement in coding accuracy. No similar increases in other communities. |
| Thefts of MV Parts | 2017 Total | LOG, REL | Unlikely | See above |
| Arson | 2016 | | Unlikely | Prevalence is higher than normal, but with small overall numbers, no likely casino factors present, and crime not seen in other towns. |
| Fraud/Con Games | All Periods | LOG, COM, REG, REL | Uncertain | See analysis in “trends” section. |
| Identity Theft | 2017 Total | LOG, COM, REL, REG | Unlikely | See “trend analysis” for full information. |
| Psychological Calls | All periods | LOG | Uncertain | As with the similar increase in other communities, there is not enough data with the call for service to establish any potential casino or gambling relationship. |
| Suspicious Activity | 2016 | LOG, REG | Uncertain | One might expect an increase in this call type with more people in the area, but results have been inconsistent across the 6 agencies. Mansfield’s increase seems to be in its usual retail and entertainment hot spots, not necessarily related in a spatial manner to PPC (see figure below). Increase did not persist into 2017. |
| Traffic Complaint | All periods | LOG, REG, REL | Uncertain | There is a logical connection with increased traffic to the area and increased traffic complaints, but Mansfield is somewhat remote from Plainville traffic patterns. Overall, there is not enough data with the CAD call to ascertain the nature of the complaints. |



Summary of all North Attleborough activity



As noted in previous reports, North Attleborough began an admirable re-dedication to correct NIBRS coding starting in 2015. Unfortunately, this makes it difficult to separate true increases from those caused by the improved coding, and in particular many Group B offenses—**drunk driving, disorderly conduct, drunkenness, liquor law violations, weapon violations, and trespassing** among them—difficult to trust.

North Attleborough was part of the area-wide increase in both **simple and aggravated assault**, as well as **family offenses**, which receive more thorough analysis later in the report. It was also one of the agencies affected by an increase in **credit card fraud**, and in general there is some evidence that extra traffic in the town heading to the casino next door has (at least in part) caused an uptick in **traffic complaints** and **traffic collisions**.

Please note that, as reported in the “methodology” section, crime totals for May and June of 2017 are estimated based on calls-for-service received during those months. At report time, the agency had not finished coding its incidents for that period.

Incidents reported to North Attleborough, 1 July–30 June

| Offense | 2010–2015 Average. | Standard Deviation | 2016 | 2017 | 2016 Z-Score | 2017 Z-Score | Post Avg. | Avg. Z-Score |
|---------------------|-----------------------|-----------------------|------|------|-----------------|-----------------|--------------|-----------------|
| Murder | 0.0 | 0.00 | 0 | 0 | NA | NA | 0.0 | NA |
| Sexual Assault | 1.6 | 1.20 | 5 | 4 | 2.83 | 2.00 | 4.5 | 2.42 |
| Robbery | 2.8 | 1.33 | 2 | 3 | -0.60 | 0.15 | 2.5 | -0.23 |
| Aggravated Assault | 6.0 | 11.51 | 17 | 34 | 0.96 | 2.43 | 25.5 | 1.69 |
| Simple Assault | 61.8 | 22.87 | 101 | 108 | 1.71 | 2.02 | 104.5 | 1.87 |
| Kidnapping | 0.0 | 0.00 | 0 | 1 | NA | NA | 0.5 | NA |
| Burglary | 38.4 | 9.85 | 81 | 42 | 4.32 | 0.37 | 61.5 | 2.34 |
| Purse-Snatching | 2.2 | 1.33 | 0 | 0 | -1.66 | -1.66 | 0.0 | -1.66 |
| Shoplifting | 192.4 | 17.47 | 194 | 130 | 0.09 | -3.57 | 162.0 | -1.74 |
| Theft from Building | 5.4 | 6.15 | 2 | 1 | -0.55 | -0.72 | 1.5 | -0.63 |
| Theft from Machine | 0.2 | 0.40 | 0 | 0 | -0.50 | -0.50 | 0.0 | -0.50 |
| Theft from Persons | 0.8 | 0.75 | 0 | 0 | -1.07 | -1.07 | 0.0 | -1.07 |
| Theft from Vehicle | 94.4 | 31.73 | 60 | 45 | -1.08 | -1.56 | 52.5 | -1.32 |
| Theft of MV Parts | 3.0 | 3.29 | 6 | 0 | 0.91 | -0.91 | 3.0 | 0.00 |
| Other Theft | 109.0 | 21.51 | 141 | 108 | 1.49 | -0.05 | 124.5 | 0.72 |
| Auto Theft | 10.8 | 3.06 | 10 | 18 | -0.26 | 2.35 | 14.0 | 1.05 |
| Arson | 0.2 | 0.40 | 1 | 1 | 2.00 | 2.00 | 1.0 | 2.00 |
| Bad Checks | 4.0 | 2.53 | 8 | 0 | 1.58 | -1.58 | 4.0 | 0.00 |
| Credit Card Fraud | 25.2 | 11.58 | 42 | 39 | 1.45 | 1.19 | 40.5 | 1.32 |
| Employee Theft | 12.8 | 7.22 | 9 | 13 | -0.53 | 0.03 | 11.0 | -0.25 |
| Forgery | 6.2 | 1.94 | 9 | 4 | 1.44 | -1.13 | 6.5 | 0.15 |
| Fraud/Con Games | 0.2 | 0.40 | 10 | 14 | 24.50 | 34.50 | 12.0 | 29.50 |
| Identity Theft | 0.0 | 0.00 | 0 | 0 | NA | NA | 0.0 | NA |

| Offense | 2010–2015 Average. | Standard Deviation | 2016 | 2017 | 2016 Z-Score | 2017 Z-Score | Post Avg. | Avg. Z-Score |
|-----------------------|-----------------------|-----------------------|------------|------------|-----------------|-----------------|--------------|-----------------|
| Stolen Property | 0.2 | 0.40 | 1 | 0 | 2.00 | -0.50 | 0.5 | 0.75 |
| Vandalism | 15.2 | 14.92 | 67 | 65 | 3.47 | 3.34 | 66.0 | 3.41 |
| Drugs | 7.8 | 5.46 | 15 | 13 | 1.32 | 0.95 | 14.0 | 1.14 |
| Drunk Driving | 18.6 | 13.48 | 63 | 49 | 3.29 | 2.25 | 56.0 | 2.77 |
| Disorderly | 4.6 | 6.31 | 24 | 28 | 3.07 | 3.71 | 26.0 | 3.39 |
| Drunkenness | 6.6 | 13.20 | 53 | 40 | 3.52 | 2.53 | 46.5 | 3.02 |
| Family Offenses | 0.0 | 0.00 | 19 | 28 | NA | NA | 23.5 | NA |
| Liquor Laws | 0.6 | 0.80 | 6 | 2 | 6.75 | 1.75 | 4.0 | 4.25 |
| Pornography | 0.0 | 0.00 | 1 | 0 | NA | NA | 0.5 | NA |
| Prostitution | 0.0 | 0.00 | 0 | 0 | NA | NA | 0.0 | NA |
| Threats | 6.4 | 7.14 | 11 | 15 | 0.64 | 1.20 | 13.0 | 0.92 |
| Trespassing | 0.8 | 1.60 | 2 | 2 | 0.75 | 0.75 | 2.0 | 0.75 |
| Weapons | 0.4 | 0.80 | 2 | 3 | 2.00 | 3.25 | 2.5 | 2.63 |
| Violent Total | 72.2 | 32.08 | 125 | 150 | 1.65 | 2.42 | 137.5 | 2.04 |
| Property Total | 520.6 | 49.40 | 641 | 480 | 2.44 | -0.82 | 560.5 | 0.81 |
| Total Crimes | 638.6 | 109.50 | 962 | 810 | 2.95 | 1.57 | 886.0 | 2.26 |
| Alarm | 1241.0 | 47.47 | 1213 | 1241 | -0.59 | 0.00 | 1227.0 | -0.29 |
| Disabled Vehicle | 436.8 | 72.00 | 356 | 342 | -1.12 | -1.32 | 349.0 | -1.22 |
| Disorderly | 708.2 | 56.38 | 559 | 620 | -2.65 | -1.56 | 589.5 | -2.11 |
| General Service | 879.6 | 463.04 | 1924 | 1685 | 2.26 | 1.74 | 1804.5 | 2.00 |
| Lost Property | 61.4 | 7.53 | 52 | 64 | -1.25 | 0.35 | 58.0 | -0.45 |
| Medical | 343.6 | 35.25 | 208 | 299 | -3.85 | -1.27 | 253.5 | -2.56 |
| Psychological | 0.0 | 0.00 | 0 | 0 | NA | NA | 0.0 | NA |
| Suspicious Activity | 1091.8 | 125.57 | 1237 | 1153 | 1.16 | 0.49 | 1195.0 | 0.82 |
| Traffic Collision | 1018.0 | 48.78 | 1065 | 1132 | 0.96 | 2.34 | 1098.5 | 1.65 |
| Traffic Complaint | 477.8 | 20.13 | 572 | 429 | 4.68 | -2.42 | 500.5 | 1.13 |

Summary of notable increases: North Attleborough

| Incident Type | Significant in | Factors present | Likelihood of PP relationship | Notes |
|---------------------|----------------|--------------------|-------------------------------|--|
| Sexual Assault | All periods | | Unlikely | Disturbing increase, but incidents were all at residences and a school. No PPC relationship is apparent. |
| Aggravated Assault | 2017 Total | LOG, REL | Uncertain | See “trends” section for full analysis of assault increases |
| Simple Assault | 2017 Total | LOG, REL, REG, OTH | Uncertain | See “trends” section for full analysis of assault increases |
| Total Violent Crime | All periods | LOG, REL | Uncertain | Several types of assault increased in North Attleborough this period. See “trends” section for more. |

| Incident Type | Significant in | Factors present | Likelihood of PP relationship | Notes |
|---------------------------|----------------|--------------------|-------------------------------|---|
| Burglary | 2016 Total | LOG | Unrelated | North Attleborough was the only agency to post a burglary increase. Analysis of the reports shows two patterns responsible for the increase, both in the last half of 2015 (year ending 2016), both involving young local residents committing the crimes for heroin. They had no PPC association. |
| Auto Theft | 2017 | LOG | Unlikely | Odd increase in fall 2016 with more than half the incidents on Route 1. This was the only agency reporting such an increase in any period. Distance from PPC and local recovery patterns do not suggest PPC relationship. |
| Arson | All periods | | Not related | Single incident in each post-PPC year on top of a near-0 baseline. Both incidents resulted in charges against local residents with no PPC relationship. |
| Fraud/Con Games | All periods | LOG, COM, REL, REG | Uncertain | See full analysis in “trends” section below. |
| Stolen Property | All periods | LOG | Not Related | “Increase” to 1 in rarely-reported crime. A homeless man stole rings while working on a house and tried to sell them at a jewelry store. No indication of gambling motivation. |
| Vandalism | All periods | MAP | Unlikely | Although there are a fair number up and down Route 1, most of the increases is seen at residences in town. This crime is down in most communities and is probably better explained by better attention to coding. |
| Drunk Driving | All periods | LOG | Uncertain | Only Mansfield reported a similar increase. By NAPD’s own admission in previous periods, the increase is likely to be a result of improved coding and extra police enforcement; however, at least one drunk driver arrested admitted to drinking at Plainridge Park. This category needs to be monitored in the future and compared to statistics on drunk driving crashes. |
| Disorderly Conduct | All periods | LOG | Unlikely | The sudden spike in this crime starting in 2015 seem to be related to the agency’s improved coding. Almost all of the incidents are at residences, making a PP relationship unlikely. |
| Drunkenness | All periods | LOG | Unlikely | By the agency’s own admission, they simply were not coding this crime type before 2015. A lack of similar increases in other communities means a Plainridge Park relationship is unlikely. |

| Incident Type | Significant in | Factors present | Likelihood of PP relationship | Notes |
|------------------------------|----------------|--------------------|-------------------------------|---|
| Family Offenses | All periods | LOG, REG | Uncertain | Increased in several communities; see “trends” section. Complicated in NAPD’s case because they never used the code in prior periods, so “real” increase is unknown. |
| Liquor Laws | All periods | LOG | Not Related | “Increase” involves 9 incidents in a 24-month period for a crime that was hardly ever coded before and no one else is seeing increase. Miscellany of incident involving local youths too young to use PPC. Better coding is almost certainly at the root of this one. |
| Weapon Violations | All periods | | Not Related | Increase to 6 incidents in 24 months; crime was almost never reported before. All incidents were at residences and involved local residents. |
| Total Violent Crimes | 2017 Total | LOG, REG | Uncertain | Heavily influenced by aggravated and simple assault increases. See “Trends” section. |
| Total Property Crimes | 2016 Total | LOG | Unlikely | Increase is almost entirely in burglary and vandalism categories which have not shown a PPC relationship. |
| Total Crimes | All periods | | Uncertain | Boosted by near-universal increases, total crimes increased significantly in the town in the 24-months post-PPC, but it is impossible in some cases to untangle the <i>real</i> increases from the improved coding to which the agency admits. |
| General Service Calls | All periods | LOG | Uncertain | Increases in this call-for-service type are logical with more people in the area. But a lack of detail in the CAD records makes it impossible to tell if a visiting population coming to and from PPC is responsible for the general increase. |
| Traffic Collisions | 2017 Total | LOG, REG, REL, MAP | Likely | See “trends” section for full analysis. |
| Traffic Complaints | 2016 | LOG, REG, REL, MAP | Uncertain | As with Plainville, increase in collisions is both logical and geographically concentrated on travel routes to and from the facility. However, incidents plummeted 2017 and reversed the trend. |

Summary of all Wrentham activity



The town is the smallest and least active of the contributing communities. It did contribute to regional increases in **credit card fraud** and **traffic collisions**, both of which are analyzed later.

Wrentham also saw increases that were localized entirely at the Premium Outlets. Such crimes include **shoplifting**, **stolen property**, and the non-crimes of **traffic collisions** and **lost property**. A key question is whether, therefore, there is any evidence that traffic to Plainridge Park is increasing traffic to the Premium Outlets, or whether the shopping

center has undergone its own expansion unrelated to the casino. The answer to this question might make the difference in judgement for some of the crimes in the “uncertain” zone.

Incidents reported to Wrentham, 1 July–30 June

| Offense | 2010–2015 Average. | Standard Deviation | 2016 | 2017 | 2016 Z-Score | 2017 Z-Score | Post Avg. | Avg. Z-Score |
|---------------------|-----------------------|-----------------------|------|------|-----------------|-----------------|--------------|-----------------|
| Murder | 0.2 | 0.40 | 0 | 0 | -0.50 | -0.50 | 0.0 | -0.50 |
| Sexual Assault | 0.8 | 0.75 | 1 | 0 | 0.27 | -1.07 | 0.5 | -0.40 |
| Robbery | 0.6 | 0.80 | 1 | 1 | 0.50 | 0.50 | 1.0 | 0.50 |
| Aggravated Assault | 4.2 | 2.32 | 6 | 3 | 0.78 | -0.52 | 4.5 | 0.13 |
| Simple Assault | 7.4 | 8.26 | 15 | 17 | 0.92 | 1.16 | 16.0 | 1.04 |
| Kidnapping | 0.0 | 0.00 | 0 | 1 | NA | NA | 0.5 | NA |
| Burglary | 23.0 | 8.32 | 25 | 4 | 0.24 | -2.28 | 14.5 | -1.02 |
| Purse-Snatching | 0.0 | 0.00 | 0 | 0 | NA | NA | 0.0 | NA |
| Shoplifting | 47.0 | 25.91 | 113 | 105 | 2.55 | 2.24 | 109.0 | 2.39 |
| Theft from Building | 4.0 | 4.20 | 9 | 6 | 1.19 | 0.48 | 7.5 | 0.83 |
| Theft from Machine | 0.0 | 0.00 | 0 | 0 | NA | NA | 0.0 | NA |
| Theft from Persons | 1.8 | 1.60 | 1 | 1 | -0.50 | -0.50 | 1.0 | -0.50 |
| Theft from Vehicle | 15.0 | 15.92 | 12 | 11 | -0.19 | -0.25 | 11.5 | -0.22 |
| Theft of MV Parts | 0.6 | 0.80 | 0 | 1 | -0.75 | 0.50 | 0.5 | -0.13 |
| Other Theft | 94.2 | 33.84 | 57 | 35 | -1.10 | -1.75 | 46.0 | -1.42 |
| Auto Theft | 4.2 | 2.64 | 5 | 6 | 0.30 | 0.68 | 5.5 | 0.49 |
| Arson | 0.6 | 0.80 | 0 | 0 | -0.75 | -0.75 | 0.0 | -0.75 |
| Bad Checks | 0.0 | 0.00 | 1 | 0 | NA | NA | 0.5 | NA |
| Credit Card Fraud | 2.8 | 1.72 | 20 | 4 | 10.00 | 0.70 | 12.0 | 5.35 |
| Employee Theft | 3.0 | 2.45 | 5 | 0 | 0.82 | -1.22 | 2.5 | -0.20 |
| Forgery | 3.2 | 2.71 | 2 | 3 | -0.44 | -0.07 | 2.5 | -0.26 |
| Fraud/Con Games | 2.8 | 2.71 | 7 | 2 | 1.55 | -0.29 | 4.5 | 0.63 |
| Identity Theft | 7.0 | 7.13 | 8 | 3 | 0.14 | -0.56 | 5.5 | -0.21 |
| Stolen Property | 2.2 | 2.04 | 4 | 9 | 0.88 | 3.33 | 6.5 | 2.11 |
| Vandalism | 17.4 | 5.20 | 12 | 2 | -1.04 | -2.96 | 7.0 | -2.00 |
| Drugs | 7.2 | 0.75 | 11 | 3 | 5.08 | -5.61 | 7.0 | -0.27 |
| Drunk Driving | 7.8 | 2.71 | 5 | 5 | -1.03 | -1.03 | 5.0 | -1.03 |

| Offense | 2010–2015 Average. | Standard Deviation | 2016 | 2017 | 2016 Z-Score | 2017 Z-Score | Post Avg. | Avg. Z-Score |
|-----------------------|-----------------------|-----------------------|------------|------------|-----------------|-----------------|--------------|-----------------|
| Disorderly | 2.4 | 1.02 | 1 | 0 | -1.37 | -2.35 | 0.5 | -1.86 |
| Drunkenness | 9.8 | 1.33 | 7 | 1 | -2.11 | -6.63 | 4.0 | -4.37 |
| Family Offenses | 1.2 | 1.60 | 1 | 1 | -0.13 | -0.13 | 1.0 | -0.13 |
| Liquor Laws | 1.4 | 1.50 | 0 | 0 | -0.94 | -0.94 | 0.0 | -0.94 |
| Pornography | 0.4 | 0.49 | 0 | 0 | -0.82 | -0.82 | 0.0 | -0.82 |
| Prostitution | 0.0 | 0.00 | 2 | 0 | NA | NA | 1.0 | NA |
| Threats | 3.0 | 1.41 | 1 | 1 | -1.41 | -1.41 | 1.0 | -1.41 |
| Trespassing | 0.8 | 0.98 | 0 | 1 | -0.82 | 0.20 | 0.5 | -0.31 |
| Weapons | 0.0 | 0.00 | 0 | 1 | NA | NA | 0.5 | NA |
| Violent Total | 13.2 | 9.97 | 23 | 22 | 0.98 | 0.88 | 22.5 | 0.93 |
| Property Total | 228.8 | 46.59 | 281 | 192 | 1.12 | -0.79 | 236.5 | 0.17 |
| Total Crimes* | 276.0 | 56.26 | 332 | 227 | 1.00 | -0.87 | 279.5 | 0.06 |
| Alarm | 712.0 | 86.78 | 770 | 750 | 0.67 | 0.44 | 760.0 | 0.55 |
| Disabled Vehicle | 262.8 | 53.21 | 366 | 235 | 1.94 | -0.52 | 300.5 | 0.71 |
| Disorderly | 163.0 | 21.42 | 173 | 201 | 0.47 | 1.77 | 187.0 | 1.12 |
| General Service | 175.0 | 45.40 | 152 | 183 | -0.51 | 0.18 | 167.5 | -0.17 |
| Lost Property | 33.4 | 8.06 | 45 | 94 | 1.44 | 7.51 | 69.5 | 4.48 |
| Medical | 547.8 | 141.94 | 557 | 587 | 0.06 | 0.28 | 572.0 | 0.17 |
| Psychological | 2.6 | 1.85 | 2 | 3 | -0.32 | 0.22 | 2.5 | -0.05 |
| Suspicious Activity | 403.8 | 28.54 | 524 | 444 | 4.21 | 1.41 | 484.0 | 2.81 |
| Traffic Collision | 206.2 | 18.77 | 263 | 263 | 3.03 | 3.03 | 263.0 | 3.03 |
| Traffic Complaint | 109.8 | 14.82 | 110 | 187 | 0.01 | 5.21 | 148.5 | 2.61 |

Summary of notable increases: Wrentham

| Incident Type | Significant in | Factors present | Likelihood of PP relationship | Notes |
|-------------------|----------------|--------------------|-------------------------------|--|
| Shoplifting | All periods | LOG, COM, OTH | Unlikely | Agency is reporting large increases in shoplifting of clothing at the Premium Outlets during this period, with the majority of new offenders coming from Rhode Island. Lacking similar increases in other agencies or for other crimes, changes in store security are the most likely explanation. |
| Credit Card Fraud | All periods | LOG, REG, REL, OTH | Likely | See analysis in the “trends” section. |
| Stolen Property | 2017 Total | LOG, REL | Unlikely | All incidents are at the Premium Outlets and seem related to the shoplifting increase discussed above (as with shoplifting, most offenders are from Rhode Island). |

| Incident Type | Significant in | Factors present | Likelihood of PP relationship | Notes |
|---------------------|----------------|-----------------|-------------------------------|---|
| Drugs | 2016 | LOG | Unlikely | Spike was temporary and mostly related to motor vehicle stops of area residents. No indication that they were coming from the casino, no spatial relationship to casino, and incidents decreased significantly next year. |
| Disabled Vehicle | 2016 | LOG | Unlikely | There would be a logical relationship here with extra traffic in the area, but spatial patterns are not consistent with a PPC relationship and the increase did not continue, nor was it seen in other agencies. |
| Disorderly | 2017 | LOG | Unlikely | Increase is related to repeat calls at a handful of residential addresses, likely ongoing noise or domestic disputes. |
| Lost Property | 2017 Total | LOG, REG | Uncertain | While I rated this "likely" for Plainville, the overwhelming concentration in Wrentham is at the Premium Outlets. |
| Suspicious Activity | 2016 Total | LOG | Unlikely | Though there might be a logical relationship with extra people in the area, the increased did not sustain and not replicated in other communities. As with most Wrentham activity, concentration is at the Premium Outlets. |
| Traffic Collision | All periods | LOG, REL, REG | Likely | No reason to think that Wrentham isn't part of area trend. Washington Street went from an average of 23 collisions a year to 42 and 35 in 2016 and 2017. See full analysis at end. |
| Traffic Complaints | 2017 Total | LOG, REG | Uncertain | Tempting to chalk this up to Plainridge Park and the extra vehicles inevitably in town, much as we did for Plainville. But here the totality of the increase is at the Premium Outlets. |

Summary of 2-year z-scores for all communities

| Offense | Plainville | Attleboro | Foxborough | Mansfield | N. Attleborough | Wrentham | Total |
|---------------------|------------|-----------|------------|-----------|-----------------|----------|-------|
| Murder | NA | 0.20 | NA | -0.75 | NA | -0.50 | -0.27 |
| Sexual Assault | 0.44 | 0.52 | 0.41 | 1.44 | 2.42 | -0.40 | 1.25 |
| Robbery | -0.50 | -0.84 | -0.39 | -1.03 | -0.23 | 0.50 | -1.22 |
| Aggravated Assault | 3.61 | -1.43 | 1.44 | -3.37 | 1.69 | 0.13 | 0.14 |
| Simple Assault | 0.00 | 1.05 | -1.85 | 2.50 | 1.87 | 1.04 | 1.46 |
| Kidnapping | 4.50 | -0.39 | 0.20 | 0.60 | NA | NA | 0.90 |
| Burglary | -2.61 | -1.26 | -2.40 | -1.87 | 2.34 | -1.02 | -1.94 |
| Purse-Snatching | NA | 2.00 | -0.82 | -0.27 | -1.66 | NA | -1.48 |
| Shoplifting | 0.94 | -0.36 | 3.18 | -1.33 | -1.74 | 2.39 | 0.43 |
| Theft from Building | -0.49 | 0.27 | 0.56 | -1.36 | -0.63 | 0.83 | 0.05 |
| Theft from Machine | NA | 0.60 | NA | NA | -0.50 | NA | 0.40 |
| Theft from Persons | NA | 3.25 | 0.75 | 0.94 | -1.07 | -0.50 | 2.74 |

| Offense | Plain-ville | Attle-boro | Fox-borough | Mans-field | N. Attle-borough | Wren-tham | Total |
|-----------------------|--------------|--------------|--------------|--------------|------------------|-------------|--------------|
| Theft from Vehicle | -1.30 | -0.27 | -4.29 | 14.08 | -1.32 | -0.22 | -0.80 |
| Theft of MV Parts | -1.86 | -0.57 | 0.75 | 2.63 | 0.00 | -0.13 | -0.59 |
| Other Theft | -1.30 | -1.37 | 0.67 | -2.49 | 0.72 | -1.42 | -3.25 |
| Auto Theft | -1.50 | -3.34 | -0.06 | -0.35 | 1.05 | 0.49 | -2.84 |
| Arson | -0.50 | -0.68 | 0.20 | 1.13 | 2.00 | -0.75 | -0.17 |
| Bad Checks | -0.68 | -1.57 | 0.07 | -0.99 | 0.00 | NA | -1.20 |
| Credit Card Fraud | 3.14 | 2.16 | 1.35 | -1.83 | 1.32 | 5.35 | 2.62 |
| Employee Theft | -0.48 | 1.92 | -1.19 | -0.81 | -0.25 | -0.20 | -0.49 |
| Forgery | -0.64 | -1.17 | -1.49 | 0.03 | 0.15 | -0.26 | -1.39 |
| Fraud/Con Games | 1.58 | 3.21 | -0.20 | 8.14 | 29.50 | 0.63 | 4.72 |
| Identity Theft | 2.23 | 2.43 | 0.09 | 2.04 | NA | -0.21 | 1.22 |
| Stolen Property | 1.07 | 1.17 | -0.94 | -1.11 | 0.75 | 2.11 | 0.66 |
| Vandalism | 1.71 | -2.46 | -0.33 | -2.24 | 3.41 | -2.00 | -1.26 |
| Drugs | -0.28 | -0.67 | -0.10 | -1.55 | 1.14 | -0.27 | -1.29 |
| Drunk Driving | 0.31 | -0.96 | -0.29 | -0.07 | 2.77 | -1.03 | 0.58 |
| Disorderly | 2.41 | -1.59 | 0.25 | 0.03 | 3.39 | -1.86 | -0.61 |
| Drunkenness | -3.54 | 27.76 | -1.48 | -2.91 | 3.02 | -4.37 | -2.04 |
| Family Offenses | 3.88 | 2.35 | 0.28 | -2.27 | NA | -0.13 | 2.74 |
| Liquor Laws | -0.84 | -1.67 | -1.35 | -2.33 | 4.25 | -0.94 | -2.11 |
| Pornography | NA | 0.65 | 1.84 | -0.86 | NA | -0.82 | 0.36 |
| Prostitution | -0.50 | 1.22 | -0.50 | -0.75 | NA | NA | 0.59 |
| Threats | -0.91 | -0.81 | -1.55 | -5.21 | 0.92 | -1.41 | -1.44 |
| Trespassing | -0.58 | 0.85 | -0.15 | -1.36 | 0.75 | -0.31 | -0.63 |
| Weapons | 2.06 | -0.71 | -0.91 | -3.25 | 2.63 | NA | -0.60 |
| Violent Total | 1.25 | -0.31 | -0.79 | 2.15 | 2.21 | 0.93 | 1.58 |
| Property Total | -0.82 | -2.13 | -0.07 | -1.76 | 1.89 | 0.17 | -2.08 |
| Total Crimes* | -0.49 | -2.49 | -1.62 | -3.30 | 2.91 | 0.06 | -2.34 |
| Alarm | 0.98 | -0.95 | -1.81 | 0.36 | -0.29 | 0.55 | -0.84 |
| Disabled Vehicle | 0.39 | -0.83 | -1.49 | -0.67 | -1.22 | 0.71 | -0.94 |
| Disorderly | 0.26 | -1.18 | 1.49 | -0.29 | -2.11 | 1.12 | -1.23 |
| General Service | 1.24 | -3.84 | 0.46 | -3.29 | 2.00 | -0.17 | -0.86 |
| Lost Property | 3.13 | 0.09 | 10.63 | NA | -0.45 | 4.48 | 5.04 |
| Medical | -2.04 | 1.64 | 1.37 | -0.88 | -2.56 | 0.17 | 2.29 |
| Psychological | 1.02 | 1.95 | -1.36 | 2.02 | NA | -0.05 | 2.76 |
| Suspicious Activity | 5.65 | -0.91 | -1.25 | 1.27 | 0.82 | 2.81 | -0.03 |
| Traffic Collision | 0.74 | 2.89 | 0.39 | 0.93 | 1.65 | 3.03 | 2.15 |
| Traffic Complaint | 2.97 | -0.26 | 2.24 | 2.18 | 1.13 | 2.61 | 1.62 |

Before and after comparison of other variables

The statistics in this section help bolster our understanding of trends in the Plainville area since Plainridge Park opened. It is possible that total volume of particular crimes and calls for service didn't increase, but shifts in other variables happened beneath the surface. For those categories that did increase, analysis of these variables can help us understand and explain those increases.

Individuals arrested and charged

Whatever changes Plainridge Park has brought to the region, there has been a precipitous drop in individuals arrested, charged, and placed into protective custody during the last two years. Among the six local communities, only North Attleborough showed an increase, and it was an insignificant one. The Massachusetts State Police also showed an increase, due to the number of arrests occurring at Plainridge Park itself.

All individuals arrested, summonsed, or placed into protective custody, 1 July–30 June, years ending 2011–2017

| Agency | Pre-PPC Avg | St. Dev. | Post-PPC Avg. | Z |
|--------------------|---------------|---------------|---------------|--------------|
| Plainville | 91.8 | 19.30 | 81.0 | -0.56 |
| Attleboro | 2300.2 | 146.49 | 2090.5 | -1.43 |
| Foxborough | 1392.0 | 339.51 | 912.0 | -1.41 |
| Mansfield | 1516.2 | 138.15 | 1021.0 | -3.58 |
| North Attleborough | 319.8 | 68.68 | 356.5 | +0.53 |
| Wrentham | 97.6 | 36.69 | 69.0 | -0.78 |
| Total | 5717.6 | 386.75 | 4530.0 | -3.07 |

All individuals arrested, summonsed, or placed into protective custody by Massachusetts State Police, in the 6 communities, years ending 30 June

| Agency | 2014 | 2015 | 2016 | 2017 |
|---------------------|------------|------------|------------|------------|
| State Police | 634 | 452 | 537 | 679 |

Analysis of the specific types of crimes involved shows that 75% of the decrease among the six local communities is found within the crimes of drunkenness (most “arrests” for this crime are actually protective custodies; the individual is released upon sobriety with no criminal charges) and liquor law violations. Most of *these* decreases, in turn, are found within Foxborough and Mansfield, indicating changes in policy or practice at the venues that have historically produced most of those custodies: Gillette Stadium and the Xfinity Center.

Without the liquor crimes, the change become less dramatic in most communities, and the figures for the post-Plainridge Park years fall generally within expected levels. The major exception is Mansfield, but unfortunately most of the remaining drop is in the “all other” offense category. This is difficult to analyze further with existing data. For most agencies, the category is made up primarily of motor vehicle offenses.

**All individuals arrested or summonsed (liquor violations and protective custody removed)
years ending 2011–2017**

| Agency | Pre-PPC Avg | St. Dev. | Post-PPC Avg. | Z |
|--------------------|-------------|----------|---------------|-------|
| Plainville | 60.0 | 12.70 | 62.5 | +0.20 |
| Attleboro | 2111.6 | 170.38 | 1931.0 | -1.06 |
| Foxborough | 370.6 | 18.87 | 377.5 | +0.37 |
| Mansfield | 723.6 | 36.76 | 633.5 | -2.45 |
| North Attleborough | 294.6 | 49.13 | 258.5 | -0.73 |
| Wrentham | 69.2 | 12.70 | 63.0 | -0.37 |
| Total | 3629.6 | 101.54 | 3326.0 | -2.99 |

Between Plainville and the Gaming Enforcement Unit, Plainridge Park itself has added about 76 arrests per year to the area, making it the fourth-highest location in the six communities.

Individuals arrested or charged, by single address, year ending 30 June

| Location | Town | 2016 | 2017 |
|--------------------------------|--------------------|------|------|
| Xfinity Center | Mansfield | 396 | 347 |
| Gillette Stadium/Patriot Place | Foxborough | 206 | 124 |
| Bristol Place shopping center | Attleboro | 159 | 98 |
| Plainridge Park | Plainville | 66 | 86 |
| Mansfield Crossing | Mansfield | 54 | 54 |
| Wrentham Premium Outlets | Wrentham | 48 | 44 |
| Emerald Square | North Attleborough | 64 | 6 |
| Attleboro Police Department | Attleboro | 33 | 23 |
| Yankee Spirits | Attleboro | 27 | 16 |

Location type

Prior to the opening of Plainridge Park, one common hypothesis is that it would increase activity at the types of places that cater to visitors, such as hotels, gas stations, and convenience stores. This is not necessarily because we expected that the visiting population would be composed of criminals or uniquely problematic. It was a simple recognition that every time you increase the number of people at a location, crimes tend to increase as well.

At first glance, this seems to have happened. Convenience stores, gas stations, and hotels all saw significant increases in activity in the two years post-Plainridge Park, as did banks, specialty stores, and government buildings. (Location types with fewer than 10 incidents in both of the periods do not appear on the list.)

There are reasons to be cautious about drawing conclusions based on this data, however, since the same period also showed a significant drop in the “Other/Unknown” category. This makes it likely that many of the “increases” are simply the result of more accurate coding of this data field, with records that were before lazily coded as “other” now shifted to their proper categories.

Still, it’s worth analyzing to see if there’s anything useful in the data. Taking them one at a time, we find the following:

1. The increase at **banks** is largely related to the overall increase in fraud, credit card fraud, and identity theft in the area. The incidents are not really happening *at* banks, but “bank” is used as a default code when it’s unclear where a financial fraud occurred. See the analysis of those crimes for more information about the trends.

2. The uptick at **convenience stores** is almost entirely explained by the increase in credit card fraud in the area. (Average of 5 per year before 2016 up to 16 in 2016 and 8 in 2017.) This is consistent with my hypothesis, covered in the “trends” section, that the credit card fraud increase is largely to do with “partiers” coming to the area and bringing stolen credit cards with them.

3. The **gas station** increase is unfortunately found in the elusive “all other” category of offenses, making it difficult to analyze. It’s also confined almost entirely to Foxborough and Mansfield.

4. Foxborough and Mansfield were also the only two agencies to see the increase at **government and public buildings**, although in different years—Mansfield in 2016 and Foxborough in 2017. The increases can be further narrowed down specifically to the Mansfield Police Department and Foxborough Town Hall. Unfortunately, they’re also in the “All Other” category. Whatever is happening here, it doesn’t seem to have anything to do with Plainridge Park.

5. The dramatic **hotel** increase is all in 2017 (2016 was average) and primarily in Foxborough, which makes sense because it has the highest number of hotels. Mansfield had a small but still-significant increase. We can narrow the increase down further to only three specific properties: the Red Roof Inn in Mansfield, the Comfort Inn in Foxborough, and the Hilton Garden Inn in Foxborough at Patriot Place. That last one didn’t open until 2016, so that explains part of the increase in a way that definitely isn’t related to Plainridge Park, but its contribution (14 incidents in two years) was the least of the three.

A large number of offenses increased in small amounts at these locations—including many in that elusive “all other” category, probably signaling self-directed police activity like warrant arrests and criminal charges for motor vehicle offenses in the parking lots. Drug offenses, simple assaults, and drunkenness are among the offenses that increased in small amounts. The increase is pretty small when we break it down that far (fewer than 10 incidents in two years), but it nonetheless does seem like a real trend that could plausibly be related to extra traffic in the area going to Plainridge Park.

6. The increase at **specialty stores** is overwhelmingly in North Attleborough, with Wrentham reporting a small increase. In the latter case, it appears to be a real increase in shoplifting at the Premium Outlets, covered in Wrentham’s section above. In the case of North Attleborough, the increase is simply a shift in coding. Addresses coded as “department store” and “other” in prior years were coded under the more precise category in 2016 and 2017. The agency actually saw a net decrease in retail crimes in 2016 and 2017.

| Location Type | Pre-PPC Avg. | St. Dev. | Post-PPC Avg. | Z |
|------------------------|-----------------|----------|------------------|----------|
| Air/Bus/Train Terminal | 25.0 | 5.40 | 30 | 0.925292 |
| Bank | 60.4 | 14.36 | 104 | 3.035988 |
| Bar | 208.8 | 119.47 | 48.5 | -1.34173 |
| Church | 26.2 | 5.49 | 19 | -1.31104 |

| Location Type | Pre-PPC Avg. | St. Dev. | Post-PPC Avg. | Z |
|----------------------|--------------|----------|---------------|----------|
| Commercial Buildings | 69.0 | 20.83 | 37 | -1.53605 |
| Construction Site | 95.0 | 23.18 | 95 | 0 |
| Convenience Store | 87.6 | 7.50 | 102 | 1.920171 |
| Department Store | 559.4 | 64.38 | 498.5 | -0.94592 |
| Drug/Doctor/Hospital | 100.8 | 13.44 | 119 | 1.354443 |
| Field/Woods | 63.0 | 14.39 | 59 | -0.27789 |
| Gas Station | 99.6 | 14.18 | 121 | 1.509289 |
| Government/Public | 133.6 | 18.29 | 162.5 | 1.579825 |
| Grocery | 89.6 | 18.71 | 99 | 0.502279 |
| Hotel | 132.4 | 9.83 | 176 | 4.435147 |
| Liquor Store | 40.6 | 6.31 | 48.5 | 1.251605 |
| Office | 119.2 | 13.35 | 108 | -0.8391 |
| Other/Unknown | 1957.0 | 224.61 | 1353.5 | -2.68684 |
| Park | 9.6 | 14.35 | 30 | 1.421888 |
| Parking Lot/Garage | 573.0 | 202.39 | 290 | -1.39831 |
| Residence | 2969.0 | 193.96 | 3034 | 0.335126 |
| Restaurant | 189.8 | 15.07 | 171 | -1.24791 |
| School | 152.6 | 28.33 | 100.5 | -1.83898 |
| Shopping Mall | 28.0 | 55.50 | 42.5 | 0.261255 |
| Specialty Store | 180.4 | 32.65 | 324.5 | 4.413026 |
| Street | 1071.6 | 150.06 | 919.5 | -1.01359 |

Offender and victim travel distances

Analysis of travel distances (for known victims and offenders) helps us determine if there are significant shifts in the populations of victims and offenders for various crimes regardless of whether the total volumes changed. Distances are measured in direct lines (unfortunately, I did not have the resources to measure likely driving distance) from the actual crime locations to the center points of the victims' and offenders' towns of residence. (Only crimes with at least 30 known victims and offenders in both pre- and post-PPC periods are included.) Within the 6 Plainridge Park communities, the maximum distance is about 15 miles. Thus, median travel distances of less than 15 miles indicate that the majority of victims and offenders live among the six communities. The higher the median travel distance, the more victims and offenders the crime is pulling from outside the area communities.

Certain crimes show logical results. Since "family offenses" generally occur at the victim's home, the median travel distance is extremely small for the crime. Assaults, which tend to be domestic and located within residences, are similarly small. Crimes like liquor law violations and drunkenness, overwhelmingly committed by outside visitors to facilities like Gillette Stadium and the Xfinity Center, both have long travel distances.

Median distance traveled (in miles) for victims and offenders, per crime type ("NA" indicates the crime primarily involves commercial victims or always occurs at the victim's home, thus making travel distances meaningless)

| Offense | Victims | | | Offenders | | |
|--------------------|------------|-----------|----------|------------|-----------|----------|
| | Before PPC | After PPC | Variance | Before PPC | After PPC | Variance |
| Robbery | 2.44 | 2.78 | 14% | 4.07 | 3.74 | -8% |
| Aggravated Assault | 2.28 | 2.13 | -7% | 2.34 | 2.58 | 11% |
| Simple Assault | 2.08 | 2.24 | 8% | 2.29 | 2.38 | 4% |

| Offense | Victims | | | Offenders | | |
|---------------------|------------|-----------|----------|------------|-----------|----------|
| | Before PPC | After PPC | Variance | Before PPC | After PPC | Variance |
| Burglary | NA | NA | NA | 3.92 | 3.19 | -19% |
| Auto Theft | 2.91 | 3.69 | 27% | 4.63 | 6.26 | 35% |
| Purse-Snatching | 5.67 | 4.11 | -27% | 6.57 | 6.66 | 1% |
| Theft from Building | 1.52 | 1.85 | 21% | 3.93 | 4.86 | 24% |
| Theft from Persons | 3.68 | 5.25 | 43% | 3.07 | 2.75 | -10% |
| Theft from Vehicle | 2.65 | 2.54 | -4% | 4.16 | 4.60 | 10% |
| Theft of MV Parts | 3.24 | 3.59 | 11% | 4.07 | 5.34 | 31% |
| Shoplifting | NA | NA | NA | 5.23 | 6.71 | 28% |
| Employee Theft | NA | NA | NA | 5.36 | 7.40 | 38% |
| Other Theft | 2.01 | 2.34 | 16% | 3.98 | 4.27 | 7% |
| Bad Checks | NA | NA | NA | 5.41 | 5.40 | 0% |
| Credit Card Fraud | NA | NA | NA | 4.62 | 9.65 | 109% |
| Forgery | NA | NA | NA | 7.41 | 10.27 | 39% |
| Fraud | 1.75 | 2.38 | 36% | 8.46 | 11.82 | 40% |
| Identity Theft | 1.88 | 1.83 | -2% | 11.53 | 14.39 | 25% |
| Stolen Property | 3.32 | 5.09 | 53% | 4.16 | 7.25 | 74% |
| Vandalism | 2.00 | 1.95 | -2% | 2.68 | 3.36 | 25% |
| Trespassing | 3.03 | 3.35 | 10% | 12.17 | 6.51 | -47% |
| Drugs | NA | NA | NA | 4.82 | 5.80 | 20% |
| Drunk Driving | NA | NA | NA | 4.07 | 4.41 | 8% |
| Drunkenness | NA | NA | NA | 28.48 | 23.09 | -19% |
| Disorderly | NA | NA | NA | 5.33 | 5.14 | -4% |
| Threats | 1.54 | 1.99 | 29% | 2.86 | 3.07 | 7% |
| Liquor Laws | NA | NA | NA | 20.91 | 8.90 | -57% |
| Family Offenses | 1.37 | 1.56 | 14% | 3.25 | 4.69 | 45% |
| Weapons | 2.09 | 2.67 | 28% | 1.98 | 2.09 | 5% |

The data shows that in the Plainville area, the overwhelming number of victims and offenders in both periods are from within the local area. This would be fairly common among any group of agencies. But increase in certain categories, particularly in offender travel distances among the fraud categories, suggest shifting patterns that may have Plainridge Park as a cause. These crimes are discussed in more detail in the “trends” section.

Comparison of Plainville area changes with control areas

Comparing an area to its own history can yield valuable results, but the results become even more valuable in comparison to what is happening in similar areas around the state. If a crime type increases in the Plainville area following the introduction of Plainridge Park, a causal relationship with the casino becomes less likely if the same crime is increasing everywhere but more likely if the same crime is holding steady or decreasing elsewhere.

To answer this question, I must use a slightly different dataset than the ones used in the previous section, in which we extracted data directly from the records management systems of the Plainville-area communities. For this part of the study, I used crime data submitted to the Massachusetts Incident-Based Reporting (IBR) system.

The advantages to this type of analysis that by comparing the “study” communities to other communities, we can better measure the impact of a new variable like Plainridge Park. This type of study, using control areas, is generally required by serious quantitative researchers to reach a conclusion. Among other things, the before-and-after analysis in the preceding sections assumes that if Plainridge Park impacted the surrounding communities, that impact would be reflected in *increases* in crime. In fact, if crime was already decreasing in those communities for other reasons, the impact of the casino might be seen in *lesser decreases* rather than increases, something that a comparative analysis should be able to tell us.

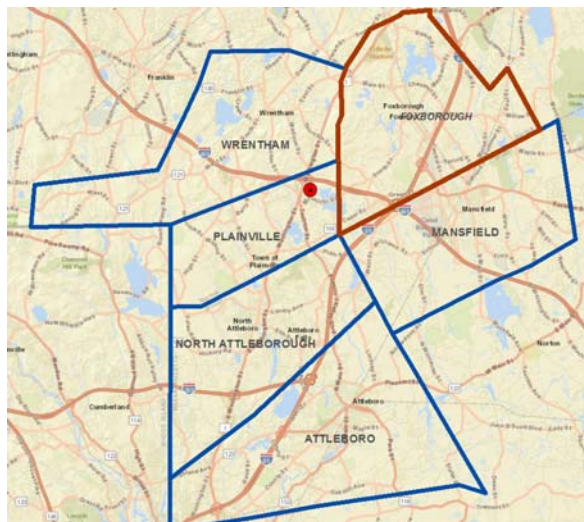
This data has some regrettable limitations. Due to delays in reporting from both the Plainville-area and comparison-area communities, this analysis **covers only the 18-month period between 1 July 2015 and 31 December 2016**. 2017 data will not be available until mid-way through 2018. The second limitation is that only crime, not other calls for service, are reported to the state IBR program. Third, because we received the data in summary form (totals only), we cannot specifically exclude incidents at Plainridge Park itself, nor can we perform more detailed analysis of the data beyond crime category and time period.

Finally, the figures for the “study” area do not include Foxborough, as the agency has not reported annual figures to the state Crime Reporting Unit for several years.

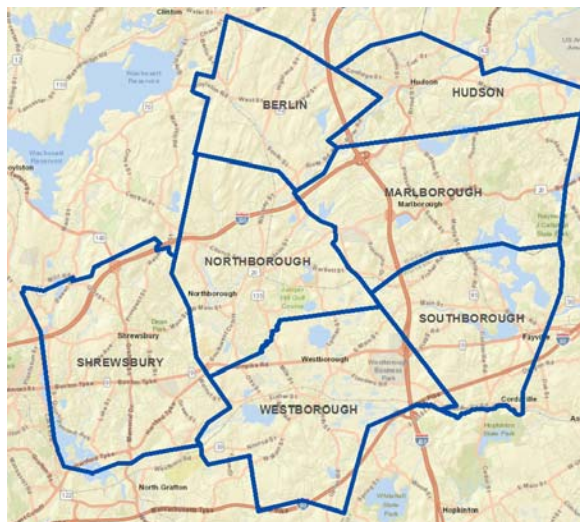
To conduct this analysis, I first identified three comparison areas of roughly similar population, square mileage, and crime total. I looked for areas near highways with strong retail corridors to best match the geographic, traffic, and economic profile of the Plainville-area communities. The table below identifies the three comparison areas and shows their comparative statistics.

| Area | Communities | Population (2010) | Square Miles | 2014 IBR Total |
|---------------------|--|-------------------|--------------|----------------|
| Study | Plainville, Attleboro, Foxborough, Mansfield, North Attleborough, Wrentham | 131,401 | 122.9 | 3,924 |
| Comparison 1 | Berlin, Hudson, Marlborough, Northborough, Shrewsbury, Southborough, Westborough | 139,230 | 124.9 | 3,519 |
| Comparison 2 | Canton, Dedham, Norwood, Randolph, Westwood | 121,622 | 62.4 | 3,953 |
| Comparison 3 | Bedford, Concord, Lexington, Lincoln, Waltham, Weston | 140,638 | 102.2 | 2,910 |

I also compare the study area to the totality of Massachusetts agencies reporting to the IBR program (though excluding those that did not reported consistently for this period). This list includes 303 city and town police departments and 16 college, university, and institutional police departments but excludes Boston, the State Police, and 47 other communities (almost all very small) that do not report to the IBR standard or do not have their own police agencies.



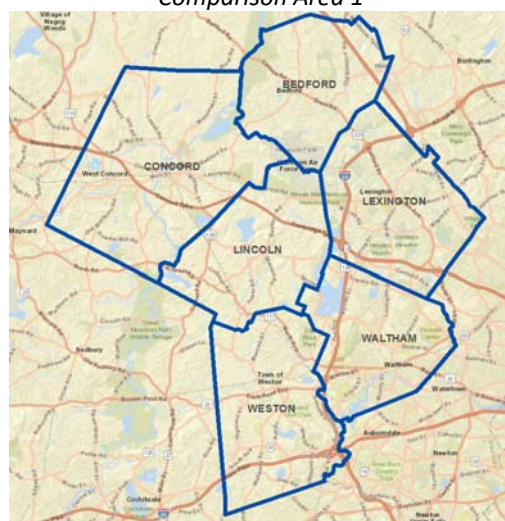
Study Area



Comparison Area 1



Comparison Area 2



Comparison Area 3

The table below compares the percentage changes observed in these various groups of communities in the second half of 2015 (July–December) when compared to an average of the same time period over the five previous years.

Changes in crime in study areas and comparison areas, July 2015–December 2016 vs. average of previous 5 years

| Measure | Study Area | Comparison 1 | Comparison 2 | Comparison 3 | All Comparisons | Rest of Massachusetts |
|---------------------------|------------|--------------|--------------|--------------|-----------------|-----------------------|
| Murder | -100% | -100% | +150% | -55% | 0% | -17% |
| Sexual assault | +1% | -32% | +17% | +7% | -5% | -2% |
| Robbery | -20% | -17% | -21% | -51% | -30% | -17% |
| Kidnapping | +22% | +25% | -73% | -81% | -53% | -10% |
| Aggravated Assault | -8% | +1% | +2% | -12% | -3% | 0% |

| Measure | Study Area | Comparison 1 | Comparison 2 | Comparison 3 | All Comparisons | Rest of Massachusetts |
|------------------------|------------|--------------|--------------|--------------|-----------------|-----------------------|
| Simple assault | +18% | -15% | +1% | -19% | -11% | -7% |
| Arson | -9% | -55% | +14% | -23% | -17% | -24% |
| Burglary | -28% | -31% | -37% | -35% | -34% | -33% |
| Auto Theft | -26% | -13% | +6% | -22% | -6% | -7% |
| Purse snatching | -58% | -26% | -50% | -100% | -44% | -21% |
| Shoplifting | +9% | -26% | +22% | -17% | +1% | 0% |
| Theft from a building | -3% | +55% | -19% | -23% | +3% | -17% |
| Theft from a person | +25% | +35% | +28% | -18% | +4% | -8% |
| Theft from a vehicle | -21% | -11% | -19% | -24% | -18% | -24% |
| Theft of vehicle parts | -10% | -39% | -20% | -34% | -23% | -11% |
| Other theft | -22% | -26% | -10% | -22% | -20% | -19% |
| Employee theft | -8% | +70% | +11% | -60% | +17% | -11% |
| Vandalism | -13% | -4% | -30% | -36% | -24% | -18% |
| Counterfeiting/Forgery | +4% | -19% | +7% | +31% | +4% | -11% |
| Credit card fraud | +51% | +41% | -16% | +2% | +2% | +10% |
| Fraud/con games | +22% | +6% | +35% | +34% | +25% | +7% |
| Identity theft | +79% | +73% | +74% | +113% | +79% | +18% |
| Threats | -12% | -35% | -18% | -14% | -26% | -13% |
| Drug Offenses | -5% | -30% | -23% | -19% | -24% | -9% |

The results suggest first that the Plainville area's decrease in many property crimes is indicative of a regional trend. The decreases we've seen in burglary, robbery, and different types of theft mirror those in comparison areas and in the state as a whole.

Significant variances between the Plainville area and the comparison communities are seen in the crimes of **kidnapping, credit card fraud, simple assault, thefts from persons, and drug offenses**. A few notes:

- The kidnapping increase in the area, as previously addressed, is related to the domestic violence increase in the area. The increase involves small numbers and only in 2016 (from an average of 6 to a 2016 total of 12). Each incident was fully reviewed and there was no PPC or gambling connection among the victims or offenders.
- The evidence from this analysis bolsters the finding that the credit card fraud increase is "likely" related to the casino; see the "trends" section for a full analysis.
- The simple assault variance is also related to the increase in domestic violence in the area; see the "trends" section for a full analysis.
- The increase in thefts from person and the "decreased decrease" in drug offenses (it went down in the Plainville area but not as much as in comparison communities) is due to activity at Plainridge Park itself. Thefts of TITO tickets and personal property are generally reported under the former category, and several drug arrests have been made in the casino parking lot. See the "incidents at Plainridge Park" section for more details.

Finally, this analysis shows that some of the major increases seen in the Plainville area—including identity theft and fraud—are also consistent with statewide increases in the same crimes, lessening the likelihood of a Plainridge Park relationship to those crimes.

State Police statistics

The Massachusetts State Police cover the highways, state roads, and state property throughout Massachusetts, including the Plainville area. As such, they often respond to crimes and calls for service that are not recorded in the databases of the local communities. Analyzing state police data is thus important in determining whether overall social harms increased in the Plainville area following the introduction of the casino.

Unfortunately, the State Police also have the most troublesome dataset of the agencies, lacking enough historical data to establish a valid baseline average, and showing several inconsistencies in coding.

As with Plainville, the numbers below exclude activity at 301 Washington Street (Plainridge Park) specifically, as they are covered in an earlier section. The purpose of this analysis is to help determine if activity has increase in areas *around* Plainridge Park.

Crimes, July–June reported to the MSP in Plainville, Attleboro, Foxborough, Mansfield, North Attleborough, and Wrentham, 1 July–30 June

| Crime Type | 2014 | 2015 | 2016 | 2017 |
|------------------------------------|------------|------------|------------|------------|
| Aggravated assault | 2 | 1 | 4 | 2 |
| Simple assault | 13 | 7 | 11 | 7 |
| Threats | 3 | 2 | 0 | 1 |
| Burglary | 1 | 0 | 0 | 0 |
| Theft from a building | 0 | 1 | 0 | 0 |
| Other theft | 5 | 0 | 6 | 4 |
| Auto theft | 1 | 0 | 0 | 0 |
| Credit card fraud | 0 | 0 | 2 | 0 |
| Counterfeiting/Forgery | 1 | 1 | 4 | 1 |
| Stolen property | 2 | 2 | 4 | 0 |
| Vandalism | 4 | 2 | 3 | 3 |
| Drug offenses | 23 | 28 | 14 | 14 |
| Drunk driving | 29 | 43 | 31 | 37 |
| Disorderly conduct | 13 | 12 | 10 | 11 |
| Drunkenness | 52 | 32 | 34 | 31 |
| Liquor laws | 19 | 19 | 8 | 10 |
| Trespassing | 3 | 1 | 2 | 2 |
| Weapon offenses | 1 | 1 | 2 | 4 |
| All other offenses (incl. vehicle) | 219 | 157 | 192 | 213 |
| Total | 391 | 309 | 327 | 340 |

With only two years of past data and two years of post data, there is no good way to establish statistical significance, but a simple scan of the numbers suggests that, in the highways and state properties surrounding Plainridge Park, it has been business as usual for the state police. No figure is notably higher post-casino than pre-casino.

Non-crime incidents, July–June MSP in Plainville, Attleboro, Foxborough, Mansfield, North Attleborough, and Wrentham, 1 July–30 June

| Crime Type | 2014 | 2015 | 2016 | 2017 |
|--|------|------|------|------|
| Abandoned vehicle | 10 | 6 | 4 | 12 |
| Administrative | 14 | 6 | 6 | 8 |
| Alarm | 1 | 3 | 4 | 2 |
| Animal complaint | 55 | 39 | 46 | 42 |
| Assist other agency | 144 | 101 | 127 | 113 |
| Building check | 104 | 411 | 994 | 1016 |
| Crime enforcement | 156 | 188 | 281 | 322 |
| Death investigation | 43 | 45 | 57 | 70 |
| Disabled vehicle | 1176 | 1102 | 922 | 1030 |
| Disorderly | 75 | 46 | 73 | 63 |
| Domestic dispute | 15 | 11 | 6 | 4 |
| Field Interview | 11 | 1 | 1 | 14 |
| Fire | 104 | 78 | 73 | 123 |
| General service | 39 | 23 | 19 | 24 |
| Investigation | 100 | 68 | 82 | 74 |
| Lost property | 9 | 2 | 2 | 3 |
| Medical | 66 | 59 | 71 | 91 |
| Missing person | 5 | 4 | 8 | 9 |
| Prisoner transport | 33 | 36 | 82 | 76 |
| Recovered stolen vehicle | 8 | 6 | 8 | 4 |
| Road conditions | 283 | 226 | 220 | 236 |
| Suspicious activity | 63 | 39 | 47 | 26 |
| Traffic complaint | 222 | 158 | 137 | 175 |
| Traffic enforcement | 60 | 31 | 20 | 153 |
| Vehicle stop | 564 | 431 | 449 | 639 |
| Warrant service | 9 | 7 | 7 | 5 |
| Well-being check | 4 | 6 | 13 | 6 |
| All other | 110 | 67 | 89 | 99 |
| Total calls for service ¹² | 3598 | 3282 | 3952 | 4534 |
| Total reactive calls for service ¹³ | 2589 | 2146 | 2119 | 2308 |

State Police calls for service data shows decreases in most *reactive* calls for service (those prompted by citizen complaints or events on the highways) but significant increases in several *proactive* calls for service. In particular, the State Police seem to have stepped up their proactive checks of buildings and rest areas (or, at least, the recording of those activities) during the post-casino period, as well as proactive traffic enforcement and crime enforcement.

Call types that we would have expected to increase due to increased traffic—traffic complaints, and disabled vehicles, suspicious activity—were all on par with previous years, suggesting that the area highways absorbed the new traffic to Plainridge Park without much problem. Even traffic collisions, which had showed a slight increase

¹² Total calls for service includes some activities previously covered in the “crimes” section and thus is higher than the sum of the selected call-for-service categories listed here.

¹³ This total makes up the call types that are almost all citizen-generated, excluding traffic enforcement, crime enforcement, building checks, investigations, and vehicle stops.

after the first six months (July–December 2015) turned around in the first half of 2016 and ended the year on par with the previous two. 2017 was also consistent with the past average.

Traffic collisions reported to the MSP, July-June, by Town

| Town | 2014 | 2015 | 2016 | 2017 |
|--------------------|-------------|-------------|-------------|-------------|
| Plainville | 51 | 59 | 44 | 44 |
| Attleboro | 246 | 241 | 254 | 304 |
| Foxborough | 26 | 320 | 289 | 331 |
| Mansfield | 215 | 201 | 190 | 170 |
| North Attleborough | 130 | 154 | 134 | 191 |
| Wrentham | 111 | 117 | 111 | 112 |
| Total | 1014 | 1092 | 1022 | 1152 |

Collision figures show the State Police mostly adhering to historical averages until the spring of 2017, which put March–June totals well above average.

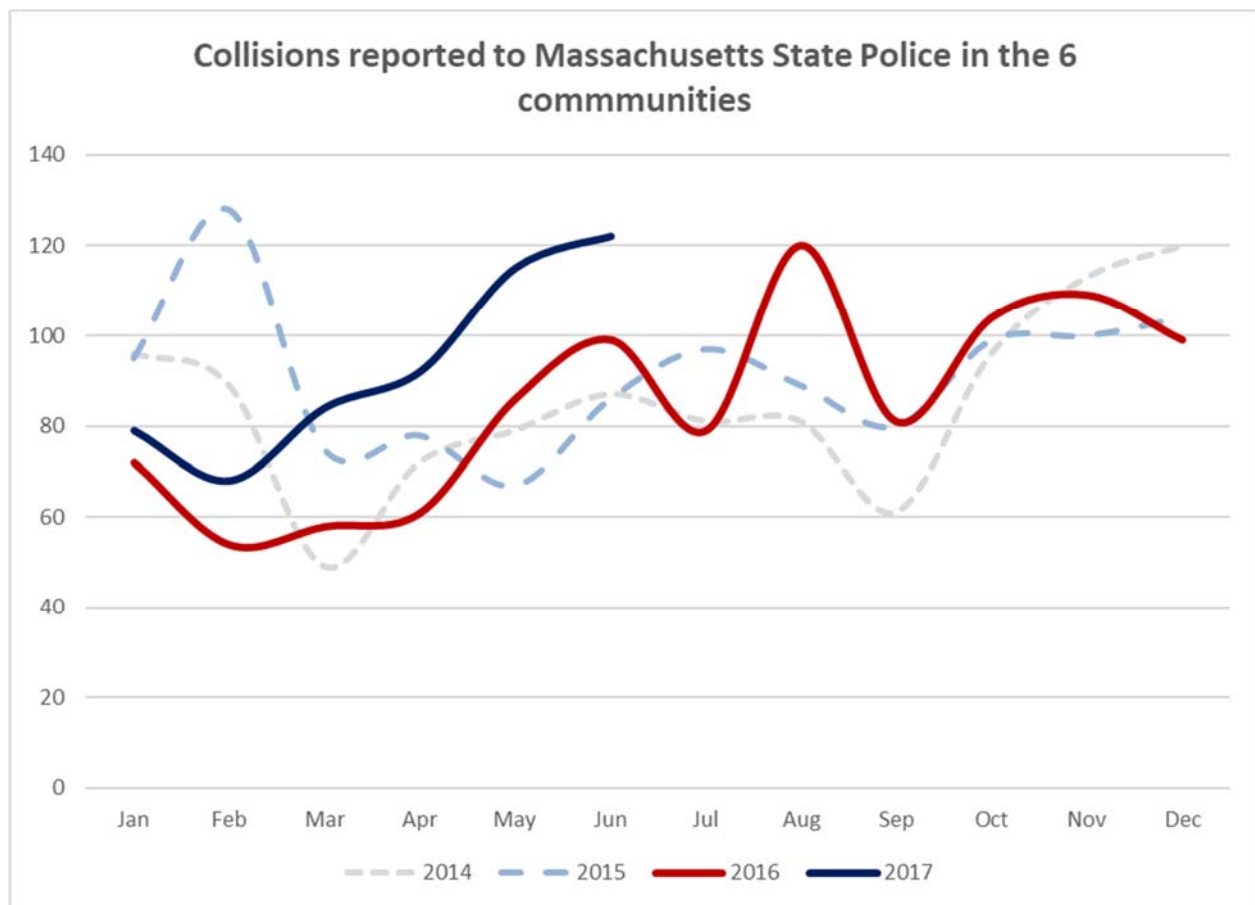


Figure 6: Collision data shows an increase in collisions on state roads in the area in 2017.

In the 6-month evaluation released in the spring of 2016, it seemed that traffic collisions were increasing slightly in the region—the line above for 2015 shows slightly above-average activity in June, July, and September, following the opening of Plainridge Park. But any increases were balance by far lower-than-normal totals in the first four

months of 2016, likely owing to far better weather than the previous years. Our conclusion at this point is that if Plainridge Park is causing any variances in traffic collisions, owing to greater traffic on state highways coming to the casino, the effect is extremely subtle and easily overwhelmed by other factors.

A full crash analysis must await the availability of a complete dataset for both state and local roads in 2018.

Detailed analysis of significant trends

Simple assault, aggravated assault, and family offenses

The Plainville area is in the grip of a domestic violence increase, manifested in both simple and aggravated assaults and the “family offenses” category, which usually involves child neglect or the violation of a restraining order. Plainville, Foxborough, and North Attleborough showed an increase in aggravated assault during the period (attacks with either a dangerous weapon or serious injury), and Mansfield and North Attleborough showed large increases in simple assault (an attack with no weapon and no serious injury). Family offenses were up in Plainville and Attleboro. The comparative analysis section shows no comparable increase in assaults in comparison communities or in the state at large.

Several variables point to this increase being related to domestic violence. First, most of the increase is occurring in residences, which does not inevitably connote family violence but usually does. Second, a look at the victim and offender ages and sexes suggests that the primary increase is within adult males abusing adult females—likely intimate partners or spouses. The reverse has also increased significantly, as have adult males abusing teenaged males and females (likely their own children).

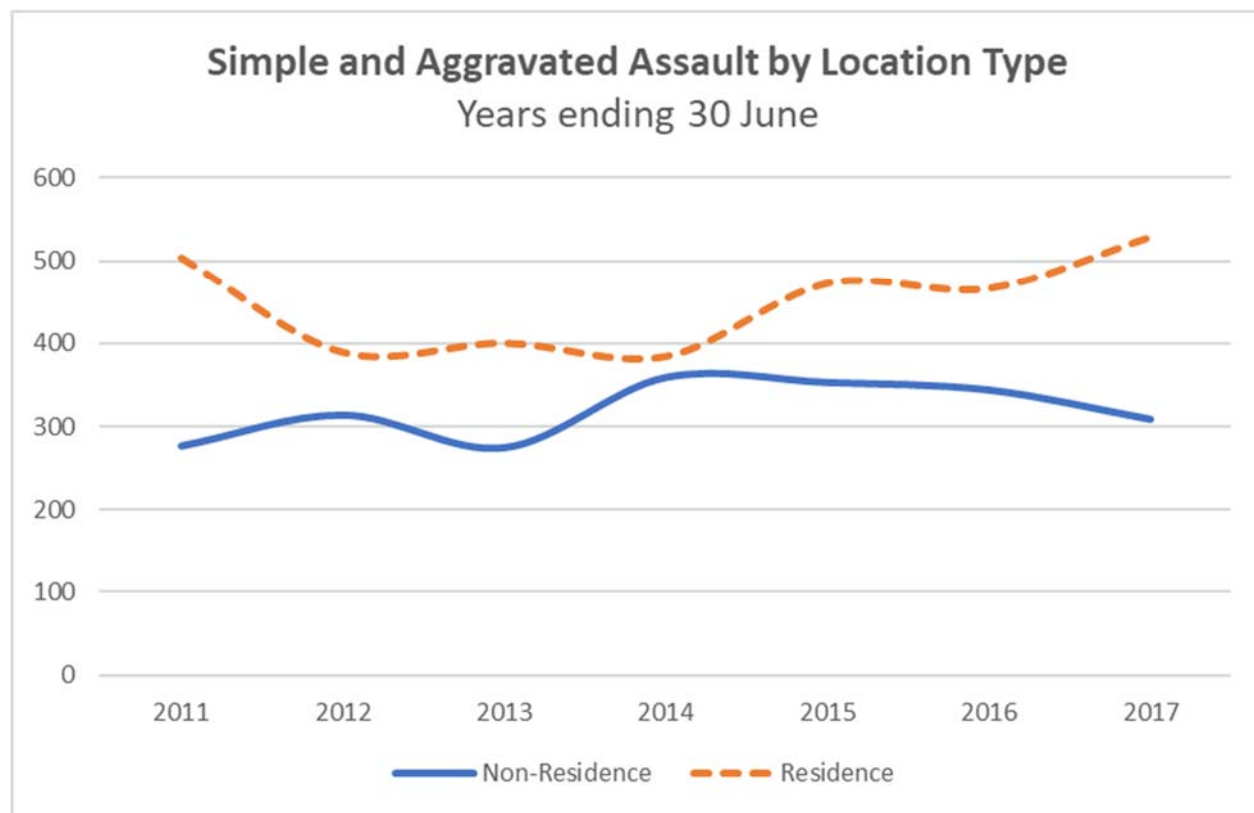


Figure 7: Increases in assaults are primarily concentrated at residences, suggesting domestic violence.

Finally, a review of a sample of 100 assault cases in Plainville and Foxborough shows that domestic assaults once accounted for between 35% and 40% of the assault total but have accounted for between 44 and 49% of the assault total in the last two years.

The increase, however, does not seem to have much to do with Plainridge Park. The trend began in the year before the casino opened. Studies do show a relationship between gambling and domestic violence. In particular, problem gambling is identified as a risk factor for increased domestic violence in several studies¹⁴. However, it is unclear from these studies whether we should expect to see such a large increase among an entire population so immediately adjacent to the casino. Moreover, if gambling were a contributor to these incidents, we would expect to see it mentioned in at least some of the reports, but the words “casino,” “gambling,” or “Plainridge” did not appear in any of the sample reports I reviewed. I conducted keyword searches of the entire databases in Plainville, Attleboro, and North Attleborough and found only one record of a “family offense” in Attleboro that even mentioned gambling or the casino, and even it only had a tangential relationship to the incident (the offender was located there after a local domestic assault). I am not discounting the possibility that gambling could have a subtle influence that does not necessarily manifest as the proximate cause of the immediate domestic violence incident, but if there were a gambling influence, I find it suspicious that no victim or offender statement references it at all.

Simple and aggravated assault in 6 communities by offender and victim demographics

| Age/Sex victim/offender type | Pre-PPC Annual Average | Post-PPC Annual Average | Change |
|------------------------------|---------------------------|----------------------------|--------|
| Adult male v. adult male | 298.6 | 270.0 | - 28.6 |
| Adult male v. adult female | 294.2 | 377.5 | +83.3 |
| Adult female v. adult male | 119.2 | 155.0 | + 35.8 |
| Teen male v. adult male | 91.4 | 101.0 | + 9.6 |
| Adult female v. adult female | 56.2 | 86.0 | + 29.8 |
| Teen male v. adult female | 54.4 | 72.5 | + 18.1 |
| Teen male v. teen male | 50.4 | 62.0 | + 11.6 |
| Adult male v. teen female | 48.0 | 64.0 | +16.0 |
| Teen male v. teen female | 43.0 | 42.5 | - 0.5 |
| Adult male v. teen male | 38.6 | 76.0 | + 37.4 |

Increases have been somewhat inconsistent, with some agencies reporting decreases in one year and increases the next, or increases in one type of assault but decreases in the other. A third year will help determine if this is truly a “trend.” Beyond that, a more extensive study would need to use self-report data or cross-reference domestic violence offenders with problem gamblers to look for correlations that an analysis of crime reports might miss.

The area chiefs and crime analysts have offered several hypotheses for the increase, including frustration and tension over the economy and a greater willingness to report. These are equally difficult hypotheses to test. For now, the best we can say is that there is no *direct* evidence to tie the domestic assault increase in the Plainville area to Plainridge Park, gambling in general, or indeed any specific cause.

Credit card fraud

I have reported extensively on credit card fraud in the previous two reports. Almost immediately after the casino opened, we saw increases in the crime from all agencies except Mansfield. They were particularly high in Plainville and Wrentham. Overall, the region saw 70 more incidents of this crime in the 18-months following the opening of Plainridge Park than the average of the previous 5 years.

¹⁴ See, for instance, the meta-analysis of 14 studies by Dowling, N. et. al. (2016). Problem gambling and intimate partner violence: A systematic review and meta-analysis. *Trauma, Violence, & Abuse* 17(1), 43–61. The study found “consistent evidence that there is a significant relationship between problem gambling and being a victim of [intimate partner violence],” and “even more consistent evidence that there is a significant relationship between problem gambling and perpetration of IPV.”

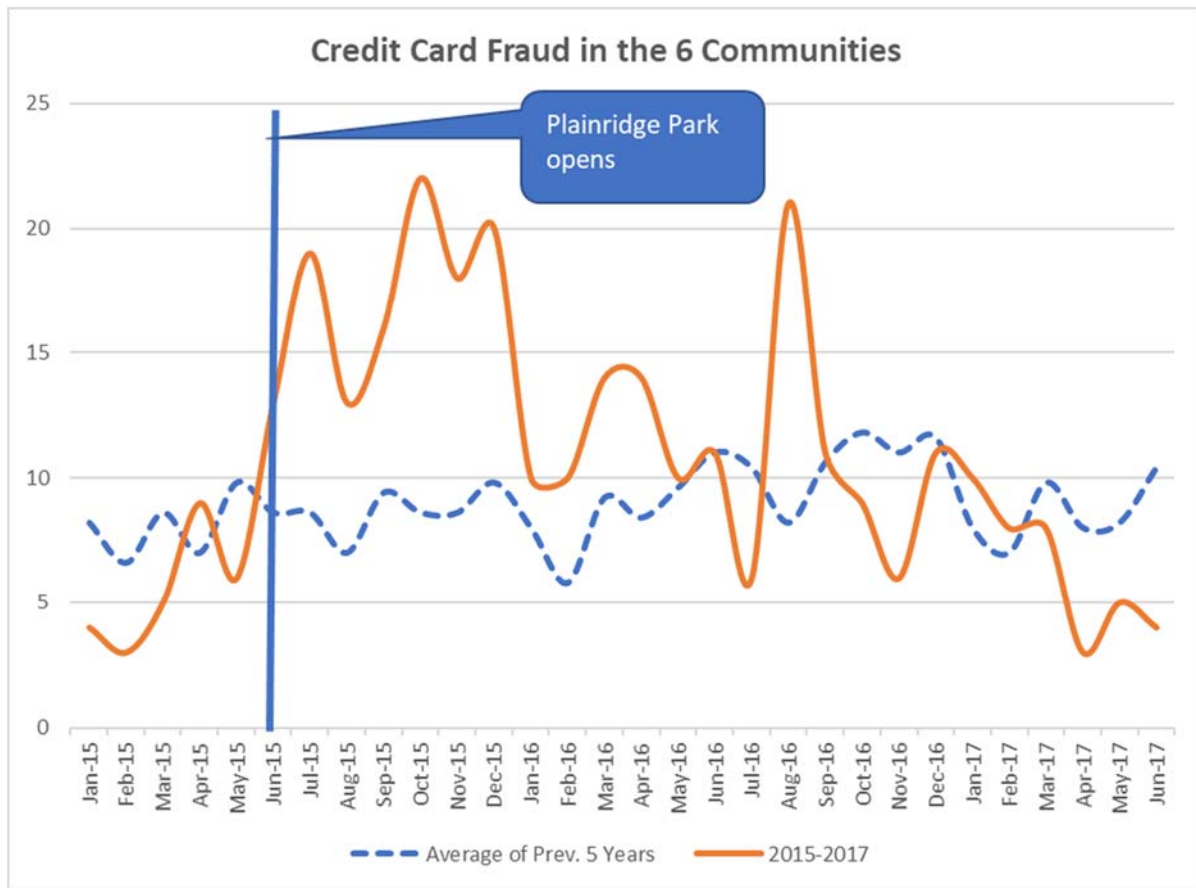


Figure 8: Credit card fraud increased during the first year after PPC opened but decreased the second year.

The evidence was circumstantial but compelling. The increase was almost immediate after the opening of Plainridge Park and sustained for the first 13 months. None of the comparison communities nor the state as a whole was reporting such a dramatic increase. Distance analysis shows more offenders coming from outside the Plainville region.

Further analysis led to a hypothesis. Most of the increase could be explained through the local purchase of food, liquor, and cigarettes, types of property consistent with a general increase seen in crimes at gas stations and convenience stores (see the analysis of location types above). The hypothesis was thus that a number of people were coming from out of town to visit Plainridge Park, bringing stolen credit cards with them, and using those cards to purchase vacation staples while saving their cash for the casino.

We lacked and still lack a “smoking gun”—a specific statement from offenders caught using stolen credit cards that they are in the area to visit Plainridge Park. On the other hand, the apprehension rate for such offenders is low. Only a small percentage of these offenders would have been interviewed by a police officer or detective, and it is not common practice among the area agencies to ask all arrested offenders whether they are in the area to gamble. The lack of this final link was thus troubling but not wholly unexpected.

Despite my confidence in the overall hypothesis, the trend disappeared in the year ending 30 June 2017, making it largely a first-year phenomenon. This doesn’t mean that the trend didn’t exist, but it happened to coincide with improved security measures on credit cards, and it’s possible that local merchants took extra steps to verify credit card purchases after getting swindled a few times. We will continue to monitor and report on this category in future reports.

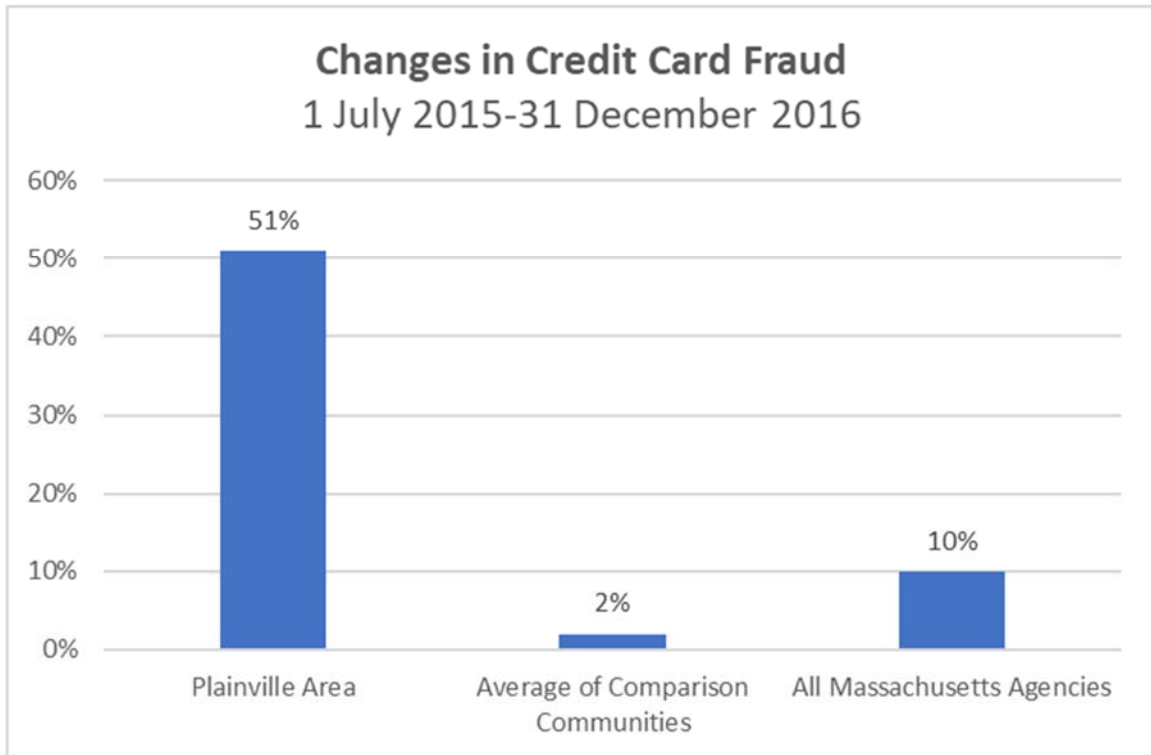


Figure 9: Credit card fraud has increased more in the Plainville area than in comparison areas.

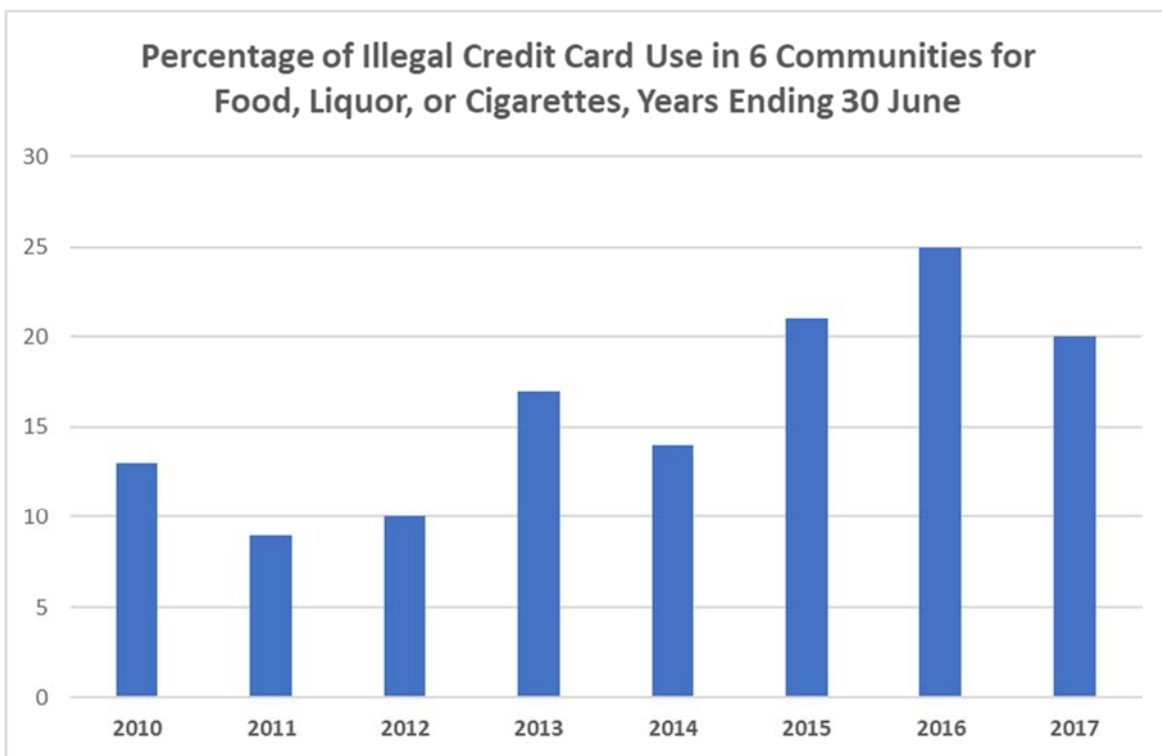


Figure 10: Most of the new fraud is going to purchase consumable goods.

Fraud/con games

All agencies except Foxborough reported increases in this category, significantly in Attleboro, Mansfield, and North Attleborough—although in the case of the latter agency, the increase is confused by improved coding (the department almost never used this crime code before 2015).

The category encompasses a variety of con games and swindles, often committed electronically. A review of the narratives from the participating agencies reveals several patterns and trends:

- There is a clear trend of telephone scams at work in these communities, accounting for just over 30% of reported incidents. These cases involve offenders calling victims (often elderly) and impersonating distressed family members, IRS agents, credit bureau employees, or other officials. Through guile and trickery, they get the victim to turn over credit card or bank account information and subsequently use it to drain accounts, often out of the country. Such scams have been happening for years, and even if the offenders in such incidents were motivated by gambling, we would not expect the victims to be geographically clustered near the casino.
- Another complex trend was identified involving the use of online services like MoneyGram for purchases. The ruses might involve a “seller” who simply takes the victim’s money, or a “buyer” who over-pays for something the victim is selling and asks the victim to send back the remainder, only to discover later that the original payment was fraudulent. Again, this is a national trend that would not show a geographic cluster *near* the casino even if motivated by gambling.
- In about 20% of cases, the agencies mis-used the “fraud” category and should have coded the incidents as employee theft, regular theft, of possession of a fake ID.
- For the first 18 months post-casino, the crime was increasing in comparison communities at roughly the same rate that it increased in the Plainville area.
- No incident narrative, which includes interviews with offenders and victims, mentioned Plainridge Park, gambling, or casinos as a motive or in any way involved in the incidents.

Thus, my conclusion is that the increase in fraud in several of the reporting agencies is a combination of improved coding, *over-coding*, and a couple of legitimate patterns that nonetheless seem non-casino related and reflect larger regional trends. Nonetheless, the increased statistics alone are a cause for concern and I have rated the increase as “uncertain” in terms of a relationship to Plainridge Park.

Identity theft

During the 24 months post-Plainridge Park, identity theft increased significantly in Plainville, Attleboro, and Mansfield and slightly in Foxborough.

Identify theft per year in the 6 communities, years ending 30 June

| Agency | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|--------------|-----------|-----------|-----------|-----------|------------|------------|------------|
| Attleboro | 21 | 30 | 45 | 40 | 61 | 72 | 73 |
| Foxborough | 11 | 7 | 10 | 17 | 61 | 21 | 25 |
| Mansfield | 12 | 26 | 20 | 13 | 41 | 38 | 50 |
| Plainville | 4 | 0 | 0 | 3 | 5 | 8 | 6 |
| Wrentham | 1 | 0 | 4 | 11 | 19 | 8 | 3 |
| TOTAL | 49 | 63 | 79 | 84 | 187 | 147 | 157 |

Among law enforcement professionals, identity theft is regarded as one of the fastest-growing crimes in America. (Rarely a month goes by without a news story about a massive theft of personal identifying information from a private company.) The category includes a variety of situations in which an offender uses another person's identification or identity to apply for online credit, open bank accounts, obtain utility or phone services, obtain medical care, purchase or rent a vehicle, rent an apartment, enter age-restricted facilities, apply for jobs, purchase tobacco or alcohol, and otherwise engage financial responsibilities with no danger to the offender. (It should not include simple use of a credit card, which is categorized as "credit card fraud," nor use of a *fake* identification that does not have an original owner.) Victims of identity theft often do not realize they are victims until they start receiving collection notice and legal actions—or in extreme cases get arrested for warrants in their name. They often spend months or years trying to untangle illegitimate use of their identities from credit reports and criminal histories.

Although the incidents increased significantly in the Plainville area following Plainridge Park, there is no hypothesis by which a casino relationship makes sense. Identity theft is a time-consuming crime that does not result in an immediate payoff. Even if more offenders were motivated to commit it for gambling reasons, it would not make sense for the crime to be localized near the casino itself. A review of a sample of identity theft cases shows no casino or gambling relationship (when the offender is known); it also shows that while many of the *victims* are from the local area, the incidents themselves have often occurred online or at unknown locations.

Moreover, the statistics above show that the crime had been increasing in the area for years leading up to the casino's opening, peaking in the year *before* Plainridge Park. Statistics in the comparison section show that it has increased in the comparison communities at similar rates as in the Plainville area. The totality of factors suggests little evidence for a Plainridge Park relationship, and I have thus rated it "unlikely."

Traffic collisions

An increase in traffic collisions is perhaps the most expected outcome of a facility like Plainridge Park, drawing thousands more vehicles per week to the region. While not every agency had a significant increase, the call for service type did increase at least slightly in each of the 6 agencies during the 18 months after the opening of the casino—significantly in Attleboro, North Attleboro, and Wrentham.

However, an analysis of the data suggests that the situation is more complicated than it first appears. First, traffic collisions were already high in the area when Plainridge Park opened. Since then, most monthly totals have been higher than the norm, but not strikingly so. Moreover, the increase in collisions seems confined to the working day (roughly 08:00–19:00), with a particular spike from 16:00–19:00, but not all hours that Plainridge Park is operational. It is possible that the increase is not caused by the extra traffic *per se* but the extra traffic in the early evening merging with existing commuter traffic to create more congestion-based collisions along heavily-trafficked routes.

While we see a geographic increase immediately adjacent to the casino, on Route 1, it is somewhat mild. Route 1 in North Attleboro has some mild and moderate increases, but the most-increased spots surround retail areas in Attleboro and not on a clear path to Plainridge Park.

I note here that the police chiefs participating in discussions of a draft of this report question these conclusions. They offered an alternate hypothesis that collisions are increasing in the area as part of a general increase in traffic, perhaps caused by economic recovery and overall population growth.

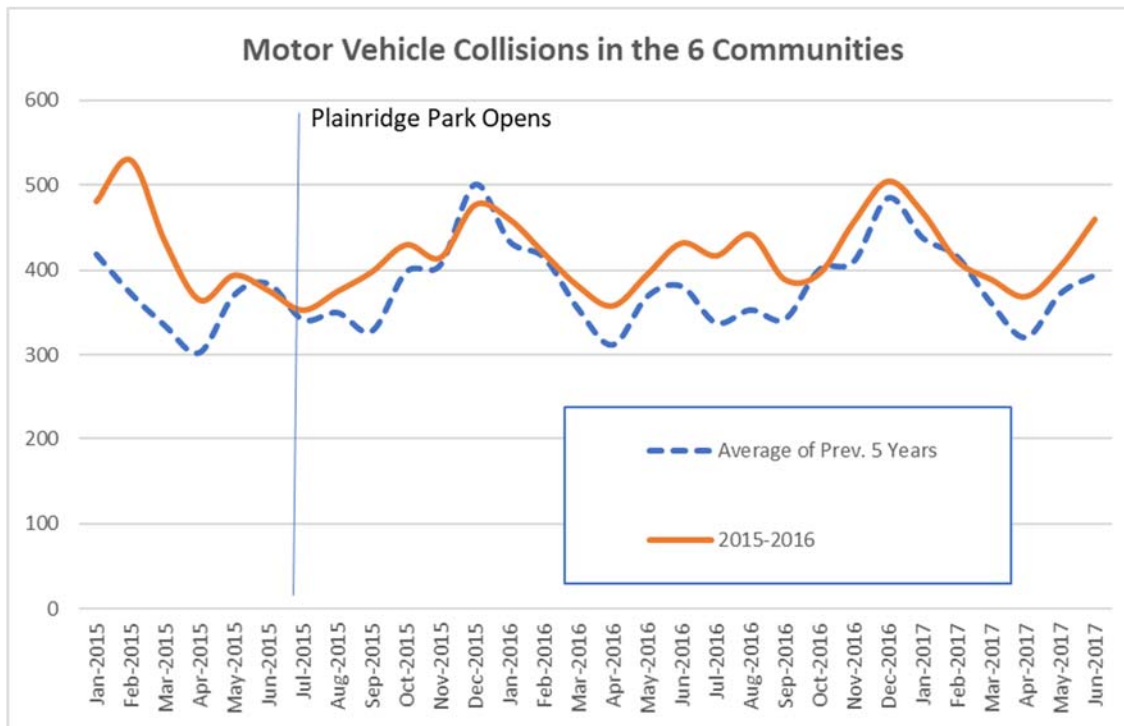


Figure 11: An increase in traffic collisions has been steady during this period, with few individual peaks.

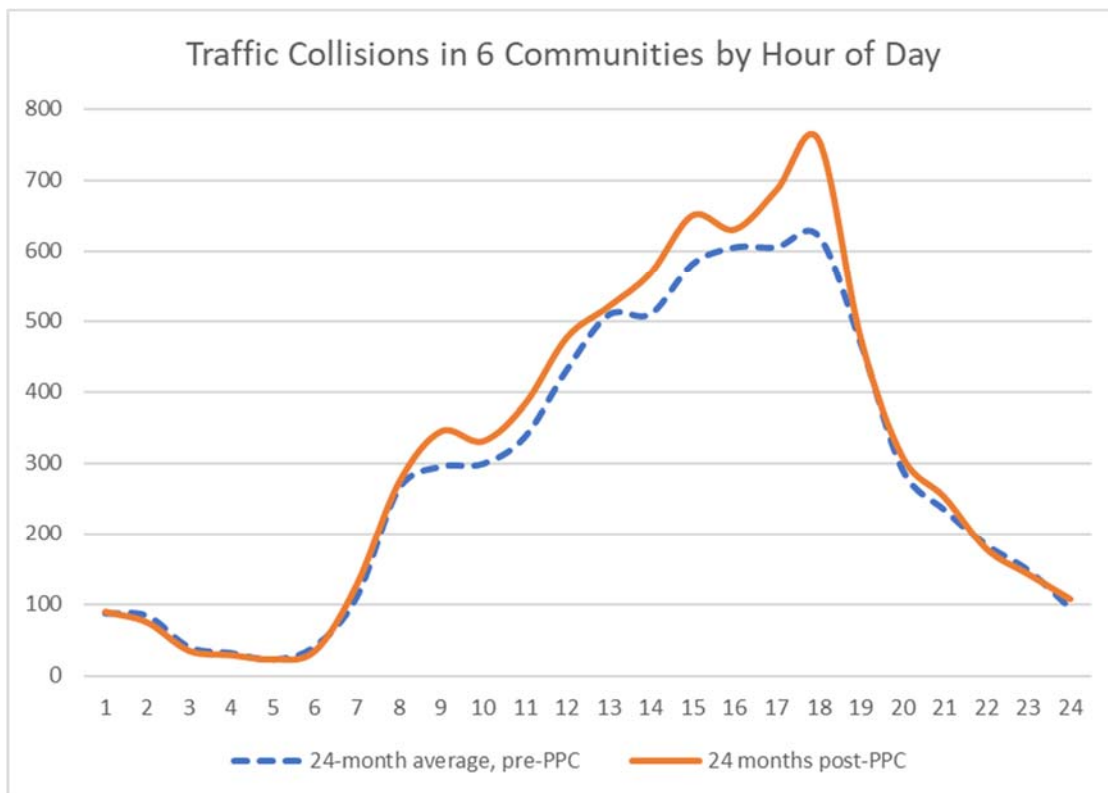


Figure 12: Most of the increase is in the afternoon hours, suggesting added congestion to commuting traffic.

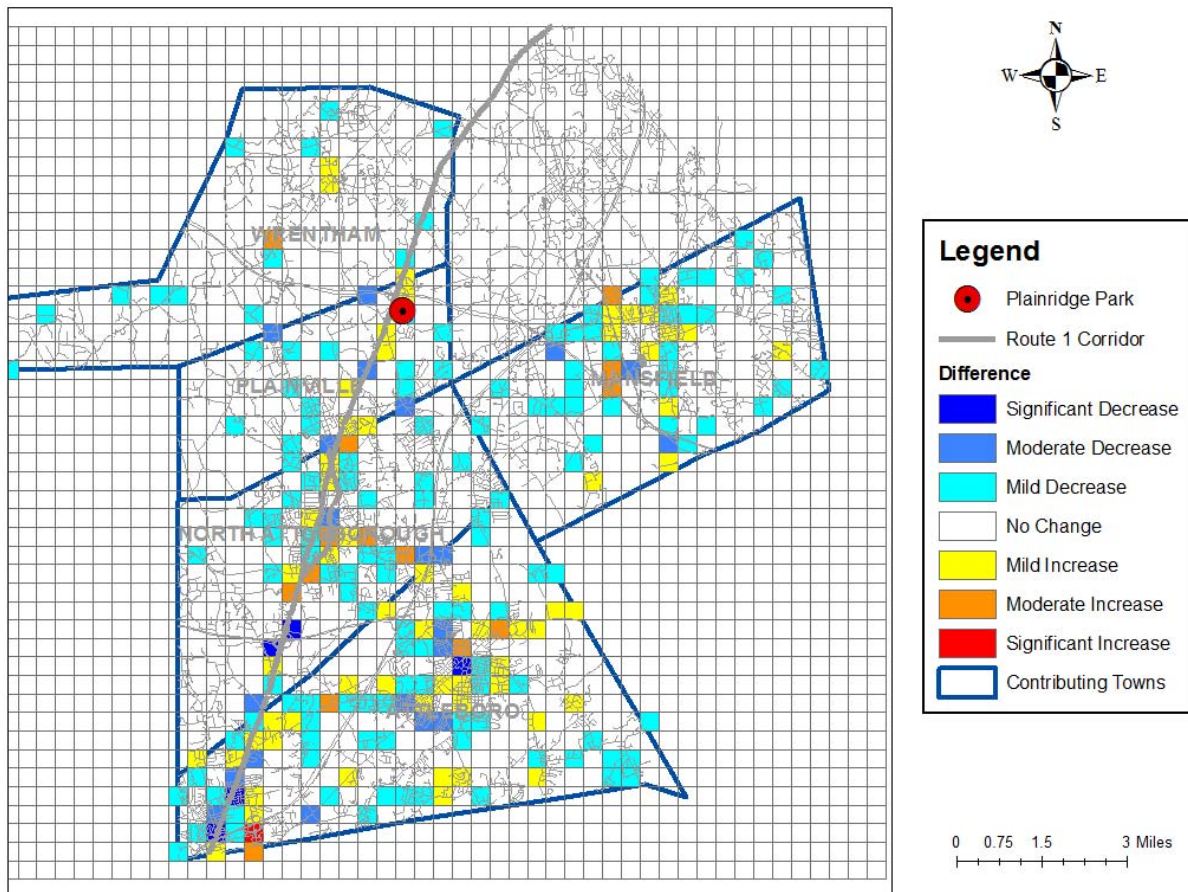


Figure 13: Geographic patterns show some increase along Route 1 but not consistently.

Until statewide traffic collision data is available for control areas in 2018, it is difficult to assess how much of the increase seen post-Plainridge Park is related to the extra traffic drawn by the casino and how much is related to other economic factors that influence driving. For now, it seems likely that Plainridge Park is responsible for at least *part* of the increase in some communities, but further analysis with comparison data is necessary to untangle what is happening in the Plainville area from general Massachusetts trends.

Appendix A: Abbreviations and definitions

Acronyms and abbreviations

| | | |
|--------|--|---|
| CAD | Computer-aided Dispatch (system) | A police database that holds information about police dispatches to calls for service, including incidents discovered by police officers. Some but not all of the incidents reported in CAD are crimes and have longer records in the RMS. |
| IBR | Incident-based reporting | See NIBRS. |
| MGC | Massachusetts Gaming Commission | The commonwealth agency charged with overseeing and regulating gaming in Massachusetts |
| FBI | Federal Bureau of Investigation | National investigative agency, part of the U.S. Department of Justice, in charge of collecting national crime statistics. |
| IACA | International Association of Crime Analysts | A global nonprofit professional association that provides training, literature, and networking to individuals who analyze crime data. |
| NIBRS | National Incident-based Reporting System | FBI program for data collection that supersedes UCR. Collects more specific data about a wider variety of crimes. With only a few exceptions, all Massachusetts agencies report to NIBRS and all Massachusetts RMS vendors have implemented NIBRS coding standards. |
| ODBC | Open Database Connectivity | A technology developed by Microsoft that allows any application that uses a database to connect to any database source. The primary mechanism by which we can extract data from police CAD and RMS databases. |
| RMS | Records Management System | A police data system that stores information about crimes and offenders. See also CAD. |
| SEIGMA | Social and Economic Impacts of Gaming in Massachusetts | A multi-year research project hosted by the University of Massachusetts Amherst School of Public and Health Sciences. The SEIGMA project has a much broader mandate for its study than just crime. |
| TITO | Ticket in, ticket out | A system for managing and collecting gaming funds. Instead of receiving cash for winnings, patrons receive a bar-coded ticket that can be exchanged for cash or inserted into other machines for further play. |
| UCR | Uniform Crime Reporting (program) | National program for the reporting of crime statistics to the FBI. Captures only summary data about a limited number of crime types. Contrast with NIBRS. |

Crime definitions

The following are definitions of the crime categories used in this report. These are mostly drawn without modification from the FBI's definitions for NIBRS crime categories. In almost all cases, *attempts* to commit these crimes are counted equally with completed offenses. These crimes must, of course, be reported to the police to be included in this report.

Aggravated Assault: An attack by one person upon another for the purpose of inflicting severe bodily injury. Aggravated assault is either accompanied by the use of a deadly weapon (e.g., gun, knife, club) or some mechanism that would result in serious harm (e.g., pushing someone down a staircase), or by serious injury even with a weapon that isn't normally "deadly" (e.g., punching someone and breaking his jaw). If the incident involved neither a deadly weapon nor serious injury, it's coded as a simple assault instead.

Arson: Intentional burning of a structure, vehicle, or personal property.

Auto theft: Thefts of vehicles capable of operating under their own power, including automobiles, trucks, buses, motorcycles, and snowmobiles.

Bad checks: The issuance of checks on accounts with insufficient funds. This type of crime is typically only reported by police when an arrest is made or an individual is charged.

Burglary: Unlawful entry of a structure, including residences, commercial buildings, and government buildings. The entry does not have to occur by force (e.g., a "break-in"). The usual motive for burglary is to steal something inside, but this isn't a necessary part of the definition.

Counterfeiting/forgery: Use or possession of an altered, copied, or imitated negotiable or non-negotiable instrument, including U.S. currency, checks, and money orders.

Credit card fraud: Use of a stolen credit card or credit card data to obtain goods or services.

Disorderly: Disorderly conduct that rises to the level of a criminal charge.

Drug offenses: Manufacturing, sale, trafficking, transporting, or possession of controlled substances. Typically, "incidents" of such crime are arrests, as the only way such incidents are reported is when they are discovered by the police.

Drunk driving: Operation of a motor vehicle while intoxicated; usually while above a state-designated legal blood alcohol level. As with many of the drug and alcohol categories, such incidents are only reported when discovered by the police, usually resulting in an arrest.

Drunkenness: Naturally, not all incidents of intoxication are a police matter. Police incidents that fall into this category are usually incidents of either public intoxication or individuals so dangerously intoxicated that they are placed into protective custody until sober.

Employee theft: Also, "embezzlement." Theft of an employer's property by an employee.

Family offenses: Unlawful, nonviolent acts by a family member that threaten the physical, mental, or economic well-being of another family member and are not classified under any other category. This category is only reported when someone is charged, and it almost always involves violations of restraining orders.

Forgery: Forgery of personal checks, business checks, U.S. currency, or similar negotiable and nonnegotiable documents.

Fraud. Theft of property by lying in such a way that convinces a victim to surrender money or goods. It is theft through some kind of scheme, “con game,” or ruse.

Identity theft: Representation of oneself as another (actual) person, or use of another person’s identifying information to obtain goods or services, housing, medical care, or status.

Kidnapping: The abduction of one person by another, whether through force or guile. Most incidents coded as such as “custodial” kidnappings involving a parent taking a child in violation of a custodial agreement.

Liquor law violations: Illegal manufacturing, sale, possession, or consumption of intoxicating drinks, often because the offender is below the legal age.

Murder: the killing of one person by another, including non-negligent homicides.

Other thefts: A general category that includes thefts of services (e.g., gas drive-offs), thefts from persons (e.g., pocket-picking), thefts from outdoor public areas. Essentially, any non-burglary, non-robbery theft that is not covered in one of the “theft” or “shoplifting” categories (below) is categorized here.

Pornography: Possession, sale, or manufacturing of illegal pornography. Since pornography is legal in Massachusetts, such incidents generally involve minors, either as the subjects or recipients of the pornography.

Prostitution: Promotion or participation of sexual activities for profit. As with drug offenses, most “incidents” of prostitution are arrests, as the crime is rarely reported except when discovered by the police.

Purse snatching: A theft in which an offender grabs a purse off the arm of the victim. If any significant force, violence, or threats are employed, this crime becomes a robbery.

Robbery: Taking or attempting to take anything of value from another person by force or violence or threat of force or violence. “Muggings” and “hold-ups” are examples of robberies. A robbery requires a direct confrontation between the offender and victim; houses and buildings cannot be “robbed.”

Sexual assault: Any sexual act directed against another person (of either sex), either by force or otherwise against the person’s will, or non-forcibly but when the victim is incapable of giving consent because of temporary or permanent mental or physical incapacity. This category combines rapes, indecent assaults, molestation, and sexual penetration with an object.

Shoplifting: Thefts of items offered for sale at retail establishments.

Simple assault: An assault that does not involve a dangerous weapon and does not result in significant injury.

Stolen property offenses: Possession or sale of property previously stolen including motor vehicles and personal property. Often, the person possessing the property is the one who stole it in the first place, but this category is used when the actual thief cannot be determined.

Thefts from buildings: Thefts of items from commercial or government buildings open to the public, where such entry does not constitute burglary. This often takes the form of thefts of employees’ property at businesses open to the public.

Thefts from machines: Thefts from coin-operated machines, either for the coins or for the products inside.

Thefts from persons: Thefts of personal property from the direct control of the owner. These often take the form of pocket-pickings or thefts of or from diners' purses at restaurants. If any force, violence, or threats are employed, this crime becomes a robbery.

Thefts from vehicles: Thefts of items from motor vehicles. The category includes breaking into vehicles (e.g., smashing a window), unlocked entry, and thefts of items from a vehicle's exterior, such as pickup truck beds. Note that thefts of vehicle parts are in a separate category.

Thefts of vehicle parts: Theft of parts or accessories from motor vehicles, including wheels, license plates, and engine parts.

Threats: Threats to commit physical violence by one person against another. If any weapon is actually displayed or employed, or if an assault is actually attempted, the crime is categorized as a simple or aggravated assault instead.

Trespassing: Illegal entry to a non-public part of a residence or business. Such entry is rarely to the *interior* of the property, or it would be coded as burglary instead. Most reportable incidents of trespassing are either after notice (e.g., a repeat shoplifter who is ordered not to return to a store) or at posted locations (e.g., construction sites, abandoned buildings).

Vandalism: Destruction or defacement of public property, buildings, vehicles, or personal property.

Weapon offenses: Possession, sale, or manufacturing of illegal weapons. This is often an additional offense discovered by police during arrests for other crimes.

Offense types by associated crime category

| Offense | Category |
|------------------------|--------------------|
| Aggravated Assault | Violent Crime |
| All Other | Other Crime |
| Arson | Property Crime |
| Auto Theft | Property Crime |
| Bad Checks | Property Crime |
| Burglary | Property Crime |
| Credit Card Fraud | Property Crime |
| Disorderly | Societal Crime |
| Drug Equipment Offense | Drug/Alcohol Crime |
| Drug Offense | Drug/Alcohol Crime |
| Drunk Driving | Drug/Alcohol Crime |
| Drunkenness | Drug/Alcohol Crime |
| Employee Theft | Property Crime |
| Extortion | Property Crime |
| Family Offenses | Other Crime |
| Forgery | Property Crime |
| Fraud/Con Games | Property Crime |
| Gambling | Societal Crime |
| Identity Theft | Property Crime |
| Kidnapping | Violent Crime |

| Offense | Category |
|-------------------------|--------------------|
| Liquor Law Violations | Drug/Alcohol Crime |
| Murder | Violent Crime |
| Other Thefts | Property Crime |
| Peeping Tom | Other Crime |
| Pornography | Societal Crime |
| Prostitution | Societal Crime |
| Robbery | Violent Crime |
| Runaway | Other Crime |
| Sexual Assault | Violent Crime |
| Shoplifting | Property Crime |
| Simple Assault | Violent Crime |
| Statutory Rape | Other Crime |
| Stolen Property Offense | Property Crime |
| Thefts from Buildings | Property Crime |
| Thefts from Vehicles | Property Crime |
| Thefts of Vehicle Parts | Property Crime |
| Threats | Other Crime |
| Trespassing | Other Crime |
| Vandalism | Property Crime |
| Weapon Offenses | Societal Crime |

Call for service definitions

Calls for service include both criminal and noncriminal police incidents and activities. In the case of criminal activities, such incidents receive a longer, more detailed report in the police records management system, and it so it makes more sense to analyze them using the crime categories above than in their original call-for-service form. Thus, the only incident types we have selected for analysis in this report are noncriminal. Definitions of those types appear below. Because the police officer does not usually write a full report for calls for service, the dataset available for analysis is more limited.

Administrative: A wide variety of call types that have to do with the administration of a police department, such as delivery of documents to businesses or other government facilities, attendance at meetings, vehicle maintenance, or even meal breaks. Agencies use their call-for-service systems to document such activities so that, later, they can determine what a particular officer or unit was doing at a particular time, although the incidents are not truly “calls for service.” Practices differ significantly between police agencies as to what is reported under this category, and it is generally not useful for analysis.

Alarm: A burglar, panic, or medical alarm that required a response but (probably) turned out to be false or would have a different final code.

Animal complaint: Calls involving sick, dangerous, or wild animals, animals in danger (e.g., left in a hot or cold car), or loose or noisy pets.

Assist other agency: A call type that involves rendering aid to a neighboring police or other government agency for any number of purposes, including serious crimes, fire and medical issues, and traffic issues.

Crime enforcement: Any number of pro-active police activities meant to deter crime, generally taking the form of a “directed patrol” to a particular location during a peak time for criminal activity (based either on citizen complaints or internal analysis). Though not a technical “call for service,” such incidents are recorded in the CAD database to document the officer’s activity.

Disabled vehicle: A call for service for a vehicle suffering physical or mechanical trouble, usually broken down in an active roadway.

Disorderly conduct: Any of a variety of types of disorderly conduct and excessive noise.

Domestic dispute: A dispute between family members, spouses, or intimate partners that has not risen to the level of physical violence.

General service: Minor calls for service that involve rendering aid to residents and visitors for a variety of issues such as giving directions, installing car seats, dealing with lockouts, and providing physical aid.

Lost property: Calls for service involving lost personal property such as wallets and mobile phones. If there is any indication of theft, these incidents are typically reported under the appropriate crime category.

Medical aid: All calls for medical aids except unattended deaths and overdoses. Police responses only are included in the figures in this report.

Missing person: a runaway or other missing person.

Prisoner transport: documentation of a police agency transporting an arrested person from one facility to another.

Psychological issue: Calls for service involving individuals with mental health issues.

Suspicious activity: Any suspicious person, vehicle, or other activity, whether identified by an officer or citizen.

Traffic collision: A collision involving at least one motor vehicle.

Traffic complaint: Complaint about reckless driving, illegal or unsafe parking, or other traffic issues.

Trespassing: Trespassing on private or public property.

Vehicle stop: An officer pulls over a vehicle for a moving or equipment violation.

Warrant service: a call type that documents the service, or attempted service, of an arrest warrant or search warrant. The category is entirely police-directed.

Youth disorder: Disorderly incidents involving youths congregating, skateboarding, making noise, and so forth.



TO: Chairman Crosby, Commissioners Cameron, Macdonald, Stebbins, and Zuniga

FROM: Teresa Fiore, Research and Responsible Gaming Program Manager

CC: Mark Vander Linden, Director of Research and Responsible Gaming
Marlene Warner, Executive Director of the Massachusetts Council on Compulsive Gambling

DATE: March 1, 2018

RE: Problem Gambling Awareness Month 2018

Background

Problem Gambling Awareness Month (PGAM) is a national public awareness campaign established to bring awareness to issues associated with problem gambling and to highlight the resources available to individuals and families who may be affected. Over the past several years, the Massachusetts Gaming Commission, in close partnership with the Massachusetts Council on Compulsive Gambling, has recognized this important initiative by supporting the outreach performed by the GameSense team at Plainridge Park Casino. This year, GameSense has chosen to concentrate their efforts in furthering PGAM objectives by focusing outreach on Plainridge Park Casino staff. The purpose of this approach is two-fold. The first is to empower casino staff with knowledge of gambling problems, which will reduce stigma and allow them to appropriately respond to patrons who may be struggling with a gambling problem. The second is to increase awareness of treatment resources as casino employees are at heightened risk of developing a gambling problem.



Staff Activities

All Plainridge Park Casino staff members are invited to visit the PGAM table which will be setup in the Back of House during the month of March, where they can participate in activities, games and presentations. These in-person activities and messages will change on a weekly basis in order to focus on a specific theme meant to expand knowledge, increase awareness, and maintain interest. Just a few of the activities include:

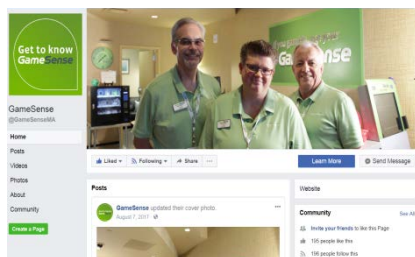
- *Problem Gambling Quiz.* This quiz will be used to assess staff understanding of symptoms and signs of problem gambling. GameSense Advisors are able to quickly review completed quizzes and will review any incorrect answers with staff. Like all other activities offered throughout the



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month, this is a stress-free way to educate staff and create an opportunity to discuss specific questions which staff may have with a knowledgeable GameSense Advisor.

- *Nominate a Colleague Submission.* The objective of this activity is to allow PPC staff to acknowledge their colleagues who have successfully incorporated responsible gambling into their daily roles. Three winners will be chosen and given a gift card as well as a thank you note from the Massachusetts Gaming Commission. To further express appreciation, the nominators themselves will receive gift cards as well.



In addition to aforementioned in-person activities, GameSense will be launching an interactive campaign on their Facebook (<https://www.facebook.com/GameSenseMA/>) meant to further engage staff. Activities range from trivia questions to a photo caption contest. Our hope is that staff engagement with the GameSense facebook extends beyond PGAM and remains a useful educational resource. While a complete social media toolkit was released by the group responsible for the creation of PGAM

(National Council on Problem Gambling) including daily post ideas and hashtags, it was only partially incorporated into our plan. This was done strategically in order to adjust the tone and incorporate Massachusetts-specific research findings.

Finally, a meeting is planned later in the month with Plainridge Park Casino senior staff to discuss the ways in which responsible gaming and the GameSense program in particular can be further integrated into daily casino operations.

Engagement

In order to measure involvement and create benchmarks for future years, engagement in various activities will be monitored. Careful planning was incorporated into the various activities to ensure that there is an accurate measure of participation. While there are no specific metrics as of the writing of this memo, we are hopeful that all of the hard work which members of the Massachusetts Council on Compulsive Gambling, Massachusetts Gaming Commission and Plainridge Park Casino have put into planning PGAM will yield successful participation.



Massachusetts Gaming Commission

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