NOTICE OF MEETING AND AGENDA

Pursuant to the Massachusetts Open Meeting Law (G.L. c. 30A, §§ 18-25), St. 2022, c. 107, and St. 2023, c. 2, notice is hereby given of a public meeting of the **Massachusetts Gaming Commission**. The meeting will take place:

Thursday | January 18, 2024 | 10:00 a.m.
VIA REMOTE ACCESS: 1-646-741-5292
MEETING ID/ PARTICIPANT CODE: 112 213 7535
All meetings are streamed live at www.massgaming.com.

Please note that the Commission will conduct this public meeting remotely utilizing collaboration technology. Use of this technology is intended to ensure an adequate, alternative means of public access to the Commission's deliberations for any interested member of the public. If there is any technical problem with the Commission's remote connection, an alternative conference line will be noticed immediately on www.massgaming.com.

All documents and presentations related to this agenda will be available for your review on the morning of the meeting date by visiting our website and clicking on the News header, under the Meeting Archives drop-down.

PUBLIC MEETING - #495

1. Call to Order – Cathy Judd-Stein, Chair

2. Meeting Minutes – Commissioner Jordan Maynard, Judith Young, Associate General Counsel
    a. March 23, 2023 **VOTE**
    b. April 13, 2023 **VOTE**

3. Administrative Update – Todd Grossman, Interim Executive Director & General Counsel
    a. Regulatory Development Update on Cashless Wagering for Casinos – Carrie Torrisi, Deputy General Counsel

4. Legislative Update – Chair Cathy Judd-Stein, Commissioner Brad Hill, Todd Grossman, Interim Executive Director & General Counsel, Thomas Mills, Communications Division Chief
    a. Discussion and Possible Adoption: Draft Letter to the Legislature Proposing Amendments to Gaming, Sports Wagering, and Horse Racing Laws for the Commissioners' Consideration – Commissioner Brad Hill, Todd Grossman, Interim Executive Director & General Counsel **VOTE**

5. Legal – Todd Grossman, Interim Executive Director & General Counsel, Carrie Torrisi, Deputy General Counsel, Justin Stempeck, Deputy General Counsel, Ying Wang, Associate General Counsel
    a. 205 CMR 152: Individuals Excluded from Gaming and Sports Wagering – review of regulation and Amended Small Business Impact Statement to finalize the promulgation process **VOTE**

b. 205 CMR 16: Procedures for the Approval of a Simulcast-Only Facility – review of regulation and Small Business Impact Statement to begin the promulgation process **VOTE**
c. 205 CMR 221: Sports Wagering License Fees – review of regulation and Small Business Impact Statement to begin the promulgation process **VOTE**

6. Sports Wagering Division – Bruce Band, Director of Sports Wagering
    a. 90 Day Audit Report – Katrina Jagroop-Gomes, Chief Information Officer, Cristian Taveras, Gaming Technical Compliance Manager, Justin Stempeck, Deputy General Counsel **VOTE**
        i. Executive Session
        The Commission anticipates that it will meet in executive session in accordance with G.L. c. 30A, § 21(a)(7) and G. L. c. 4, § 7(26)(n) to review certain materials in connection with the sports wagering operators' 90-day technical security control audits conducted by a qualified independent technical expert as it relates to cyber security in the Commonwealth, and the public disclosure of which is likely to jeopardize public safety or cyber security. The public session of the Commission meeting will reconvene at the conclusion of the executive session. **VOTE**

7. IEB – Caitlin Monahan, Interim IEB Director
    a. Presentation of IEB Sports Wagering Noncompliance Incident Review Report related to Category 3 Sports Wagering Licensee Fanatics and discussion regarding next steps. Alleged noncompliance incident relates to wagers allowed on an unauthorized event in violation of G.L. c. 23N, section 3 and 205 CMR 247.01(2)(a)(2) – Zachary Mercer, Enforcement Counsel **VOTE**
    b. Overview of durable suitability investigation process, including estimated timeline for transmission to Commission – Kathleen Kramer, Interim Chief Enforcement Counsel/Ass't Dir., Monica Chang, Financial Investigations Division Chief, Karalyn O'Brien, Licensing Division Chief, Sgt. David Collett, GEU
        i. Executive Session:
        The Commission is anticipated to meet in executive session in accordance with G.L. c.30A, §21(a)(7) and G.L. c. 4, §7(26)(f) to discuss investigatory materials related to the durable suitability investigation process for sports wagering licenses, including estimated timelines for said investigations, necessarily compiled out of the public view by the IEB the disclosure of which materials would probably so prejudice the possibility of effective law enforcement that such disclosure would not be in the public interest. The public session of the Commission meeting will reconvene at the conclusion of the executive session. **VOTE**

8. Legal and IEB – Todd Grossman, Interim Executive Director & General Counsel, Caitlin Monahan, Interim IEB Director, Bruce Band, Director of Sports Wagering

a. Discussion and Possible Adoption of Policy and Procedures for Administration of Certain Non-Compliance Matters Arising Under G.L. c.23N and 205 CMR 232 **VOTE**

9. Research and Responsible Gaming – Mark Vander Linden, Director of Research and Responsible Gaming, Dr. Bonnie Andrews, Research Manager
    a. Assessing the Influence of Gambling on Public Safety in Massachusetts Cities and Towns: Crime Comparison Analysis of Changes in the MGM Springfield Region, 2013-2022 – Dr. Noah Fritz, Justice Research Associates

10. Interim Executive Director's Proposal for Authority Regarding Certain Personnel Matters, including, e.g., Compensation, Promotions, Reclassifications, and Creation of New Positions – Todd Grossman, Interim Executive Director & General Counsel, David Muldrew, Chief People & Diversity Officer, Derek Lennon, Chief Financial and Accounting Officer **VOTE**

11. MGC Office Lease Update – Todd Grossman, Interim Executive Director & General Counsel, Derek Lennon, Chief Financial & Accounting Officer, Maryann Dooley, Executive Assistant to the Executive Director & Office Operations Manager **VOTE**
    a. Executive Session
    The Commission anticipates that it will meet in executive session in accordance with G.L. c.30A, §21(a)(6) to consider the lease of real property, specifically the Commission's office space at 101 Federal Street in Boston, and associated considerations, as discussion at an open meeting may have a detrimental effect on the negotiating position of the Commission. The public session of the Commission meeting will not reconvene at the conclusion of the executive session. **VOTE**

12. Commissioners Update

13. Other Business - Reserved for matters the Chair did not reasonably anticipate at the time of posting.

I certify that this Notice was posted as "Massachusetts Gaming Commission Meeting" at www.massgaming.com and emailed to regs@sec.state.ma.us. Posted to Website: January 16, 2024 | 10:00 a.m. EST. |

January 16, 2024

Cathy Judd-Stein

Cathy Judd-Stein, Chair

If there are any questions pertaining to accessibility and/or further assistance is needed, please email Gertrude.Lartey@massgaming.gov.

DATE

The Honorable Karen E. Spilka
President of the Senate
(VIA EMAIL: Karen.Spilka@masenate.gov)

The Honorable Ronald Mariano
Speaker of the House
(VIA EMAIL: Ronald.Mariano@mahouse.gov)

The Honorable Michael J. Rodrigues
Chair, Joint Committee on Ways and Means
(VIA EMAIL: Michael.Rodrigues@masenate.gov)

The Honorable Aaron Michlewitz
Chair, Joint Committee on Ways and Means
(VIA EMAIL: Aaron.M.Michlewitz@mahouse.gov)

The Honorable John J. Cronin
Chair, Joint Committee on Consumer Protection and Professional Licensure
(VIA EMAIL: John.Cronin@masenate.gov)

The Honorable Tackey Chan
Chair, Joint Committee on Consumer Protection and Professional Licensure
(VIA EMAIL: Tackey.Chan@mahouse.gov)

RE: Amendments to Gaming, Sports Wagering, and Horse Racing laws

Dear Senate President Spilka, Speaker Mariano, Chair Rodrigues, Chair Michlewitz, Chair Cronin, and Chair Chan:

The Massachusetts Gaming Commission ("Commission") is grateful for the Legislature's continuous support and its efforts to ensure that the Commission is well-positioned to carry out its mission effectively. To that end, the Commission has performed a comprehensive review of existing statutes within its purview (G.L. c. 23K, G.L. c. 23N, G.L. c. 128A, and G.L. c. 128C), and proposes the statutory amendments that follow. These proposals are collectively intended to help ensure that the Commission is able to efficiently, fairly, and transparently execute its mandate while at the same time ensuring that it has a clear, modern, and flexible statutory base from which to regulate. The following proposals are intended to serve those ends:

Align Sports Wagering Oversight with Gaming Oversight

- Amend G.L. c. 23K, 23N, and 128A to create a statutory exemption under the Massachusetts Public Records Law for records received by the Commission from its licensees that, in its discretion, are determined to contain trade secrets, competitively-sensitive or other proprietary information, the public disclosure of which would place the subject licensee at a competitive disadvantage (Rationale- It is difficult for the Commission to engage in robust oversight of the regulated entities in the sports wagering or racing space without being able to access certain sensitive information [e.g.- unaudited financial reports] that are otherwise not subject to an exemption to the public records law. While there is some ability to protect certain information from public disclosure on the casino gaming side, language more clearly outlining that authority would be beneficial.);

- Amend G.L. c. 23K, § 21(a)(7) to clarify the authority of the Commission to enter into nondisclosure agreements with gaming licensees and the types of materials that may be covered by such agreements (Rationale- Similar to the previous point, it is imperative that the Commission be afforded the ability to receive sensitive information from its licensees in order to ensure robust regulatory oversight. While there is some ability to do so at present, a clearer outline of such authority would be beneficial.);

- Amend G.L. c. 23N to allow the Commission and the Investigations and Enforcement Bureau ("IEB") to obtain or provide pertinent information regarding applicants or licensees from or to law enforcement entities or sports wagering regulatory authorities and other domestic, federal or foreign jurisdictions, including the Federal Bureau of Investigation, and to transmit such information to each other electronically. See G.L. c. 23K, § 6(e) (Rationale- While this authority exists on the casino gaming side and is a beneficial tool allowing a cooperative and efficient approach across regulatory jurisdictions, no such authority exists in the context of sports wagering and may hinder the Commission's ability to secure information relative to its licensed entities or applicants.);

- Add language to G.L. c. 23N affording the Commission the ability to direct sports wagering licensees to provide to the Commission customer tracking data collected or generated by loyalty programs, player tracking software, player card systems, or online transactions similar to that required of gaming establishments under Section 97 of Chapter 194 of the Acts of 2011 (Rationale- The inclusion of this requirement in the casino gaming law was an important step towards understanding gambling habits and related issues. Similar authority to require such information should be afforded to the Commission in the sports wagering space.);

Enhanced Operational Flexibility

- Amend G.L. c. 23K, § 61(b) to afford the Commission greater discretion to distribute funds in the Community Mitigation Funds for the overall enhancement of host, surrounding, and nearby communities to a gaming establishment (Rationale- At present, the Commission may only distribute monies from the Fund for the narrow purpose of assisting the host community and surrounding communities in offsetting costs related to the construction and operation of a gaming establishment. By broadening the scope for which funds may be distributed, greater benefit may be achieved in the communities in some way affected by the operation of a casino.);

Racing Modifications

- Add language to G.L. c. 23K, § 60 authorizing the Commission to allocate a limited percentage of funds annually from the Race Horse Development Fund for the administration of the Commission's Racing Division (Rationale- The funding sources for the operation of the Commission's Division of Racing are generally insufficient to support the sort of robust regulatory oversight expected of the Commission. Broadening the allowable use of monies from the Fund will benefit the entire industry.);

- Amend G.L. c. 23K, § 60 to afford the Commission greater discretion to distribute funds in the Race Horse Development Fund as may be deemed necessary to enhance the interests of the racing industry and its participants (Rationale- At present, monies from the Fund may only be distributed for three specific purposes: purses, breeding, and health and welfare benefits. By affording the Commission greater discretion, funds may be awarded for other beneficial uses including the development of a new race track.);

- Amend G.L. 128A, § 2 to afford the Commission the ability to set a deadline for the filing of an application for a horse racing license for the following calendar year in lieu of the existing October 1 date. Similarly, remove the November 15 deadline by which a decision to grant or dismiss the application must be made by the Commission (Rationale- By prescribing artificials dates in the statute, the Commission is forced to adjust its review to these artificial dates instead of setting out a reasonable time period by which to effectively review a particular application. Affording the Commission discretion to set the dates would be a benefit to all involved parties.);

- Amend G.L. c. 128A, § 5(h) to modernize the purposes and order of priority the distribution of pari-mutuel taxes and other revenues collected by the Commission relative to horse

racing are expended. Similarly, amend G.L. c. 128A § 5B in conjunction with section 5(h) to ensure a cohesive method of funding the Commission is established (Rationale- Given the changes in the racing industry over the past decade, many of the expenditures identified in the statute are outdated. Further, the Commission should be afforded discretion to expend the subject funds in the best interests of the racing industry including for purposes of ensuring rigorous regulatory oversight.);

Responsible Gaming Considerations

- Amend G.L. c. 23K, § 29 to reflect the use of modern technology and responsible gaming principles relevant to providing patrons of a gaming establishment monthly access to their total bets, win, and loss figures (Rationale- The statute does not address the use of modern technology, like e-mail, and does not contemplate responsible gaming related consequences of mailing a notice to a person's home. While the principles underlying this section of the statute are sound, the particulars should be modernized to ensure the intended outcome.)

We appreciate your consideration of these important matters. The Commissioners and team are available to discuss these proposals at your convenience.

Respectfully submitted,

MASSACHUSETTS GAMING COMMISSION

By:

_____
Cathy Judd-Stein, Chair

_____
Nakisha L. Skinner, Commissioner

_____
Eileen M. O'Brien, Commissioner

_____
Jordan Maynard, Commissioner

_____
Bradford R. Hill, Commissioner

December 29, 2023

The Honorable Karen E. Spilka
President of the Senate
(VIA EMAIL: Karen.Spilka@masenate.gov)

The Honorable Ronald Mariano
Speaker of the House
(VIA EMAIL: Ronald.Mariano@mahouse.gov)

The Honorable Michael J. Rodrigues
Chair, Joint Committee on Ways and Means
(VIA EMAIL: Michael.Rodrigues@masenate.gov)

The Honorable Aaron Michlewitz
Chair, Joint Committee on Ways and Means
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The Honorable John J. Cronin
Chair, Joint Committee on Consumer Protection and Professional Licensure **(VIA EMAIL: John.Cronin@masenate.gov)**

The Honorable Tackey Chan
Chair, Joint Committee on Consumer Protection and Professional Licensure **(VIA EMAIL: Tackey.Chan@mahouse.gov)**

RE: Amendments to Gaming, Sports Wagering, and Horse Racing laws

Dear Senate President Spilka, Speaker Mariano, Chair Rodrigues, Chair Michlewitz, Chair Cronin, and Chair Chan:

The Lower Mystic Transportation Management Association (TMA) is writing to you in support of the Massachusetts Gaming Commission's request to:

> "Amend G.L. c. 23K, § 61(b) to afford the Commission greater discretion to distribute funds in the Community Mitigation Funds for the overall enhancement of host, surrounding, and nearby communities to a gaming establishment (Rationale- At present,

the Commission may only distribute monies from the Fund for the narrow purpose of assisting the host community and surrounding communities in offsetting costs related to the construction and operation of a gaming establishment. By broadening the scope for which funds may be distributed, greater benefit may be achieved in the communities in some way affected by the operation of a casino.)"

The development of the Encore Casino has been the catalyst for large scale re-development of multiple neighborhoods within the Lower Mystic region, most notably Everett and Charlestown. In Everett, over 4,000 new residential units are either permitted or under construction. In terms of commercial development, the Wynn Company is planning a new entertainment complex including two hotels The Davis Companies is planning a new mixed-use neighborhood with over one million SF of new development including housing, technology and light industrial spaces, along with a network of corresponding sidewalks and roadways on the current Exxon mobile tank site, and the Kraft organization is hoping to build a professional soccer stadium on a 43-acre site in Everett. In Charlestown, the City of Boston's newly adopted development plan includes 18 million square feet and up to 8,000 new residential units much of it in the industrial areas surrounding Sullivan Square. While these developments are welcomed by their respective communities, their needs and impacts on the regional transportation system are significant and require a comprehensive strategy to ensure that regional mobility services and infrastructure are adequate to serve not only the new development, but also the existing neighborhoods.

Founded in 2022, The Lower Mystic Transportation Management Association (TMA) is a public/private partnership that brings together municipalities, businesses, developers, and institutions to reduce congestion, enhance access, and support economic development through the implementation of carefully considered strategies tailored to the existing resources and opportunities within its service area to reduce barriers to shared and/or non-motorized transportation. The organization serves the Lower Mystic Communities of Charlestown, Chelsea, Everett, Malden, and Medford. In a recently concluded study conducted by the TMA of current and future development in Charlestown and Everett that analyzed access to transit for the purposes of employment, shopping/entertainment, and healthcare, notable gaps in transit as well as barriers to transit access such as limited sidewalk and biking infrastructure were identified.

In the rapidly expanding, already dense Lower Mystic area, we do not have the capacity to expand our roadway network to support the pace of development. In order to maintain a quality of life for residents, employees, and for citizens of surrounding and regional communities traveling to and through the area, it is critically important that we maximize the efficiency and connectivity provided by our current transportation infrastructure. Amending G.L. c. 23K § 61(b) to enhance the scope of projects for which the Gaming Commission can distribute funds will support the opportunity for the host community and surrounding communities in the Lower Mystic region to:

- Maintain and modernize a connected network of transit, roadways, sidewalk, and biking infrastructure in a state of good repair;

- Fill the gaps in the current transit network by allowing a network of connected travel options – transit, biking, walking, and public/private shuttle services linking housing, jobs, healthcare, and entertainment activities;
- Upgrade travel infrastructure with real time transportation monitoring systems that prioritize bus and publicly accessible shuttle services to provide a faster, more predictable public transit option;
- The development of a network of regional shuttles that are open to the public connecting to Lower Mystic area commercial and residential developments to major transit hubs; and
- Allow for investments in bus/shuttle amenities including shelters real-time transit information (e-ink signs) at shelters and within employments centers, and housing developments.

We thank you for the opportunity to provide this letter of support for the Gaming Commission's request to amend G.L. c. 23K § 61(b). Please feel free to reach out to us if we can provide any additional information related to our support for this amendment.

Regards,

Andrea Leary, co-Director
Lower Mystic TMA

Allison Simmons, co-Director
Lower Mystic TMA

Cc: Massachusetts Gaming Commission
Jonathan Block, Block Properties
Robert Burns, Nightshift Brewing
James Fitzgerald, City of Boston – Boston Planning & Development Authority
Matthew Grogan, Encore Boston Harbor
Daniel Lee, Quarterra
Christopher Legocki, Greystar
Jay Monty, City of Everett – Transportation Department
John Tocco, V10 Development

TO: Chair Cathy Judd-Stein
Commissioner Eileen O'Brien
Commissioner Brad Hill
Commissioner Nakisha Skinner
Commissioner Jordan Maynard

FROM: Ying Wang, Associate General Counsel

CC: Mark Vander Linden, Director of Research and Responsible Gaming
Caitlin Monahan, Interim Director of the IEB

DATE: January 18, 2024

RE: 205 CMR 152.00: Individuals Excluded from Gaming and Sports Wagering

January 18, 2024, Update:

205 CMR 152.00 was approved to move through the regular promulgation process on November 16, 2023. The Commission has not received any comments on the regulation. We do not recommend any revisions to the regulation, beyond its initial proposed amendments, and are asking for a final vote on the regulation at the January 18, 2024, meeting.

Below please find the original memo regarding 205 CMR 152.00 for your reference.

Enclosed for the Commission's review are proposed amendments to 205 CMR 152.00, which have been amended to include reference to court ordered exclusion from gaming establishments. This regulation is being proposed for promulgation in the normal course.

M.G.L. c. 23K, §45(i) instructs the Commission to place a person's name on the list of excluded persons if the district court orders a person be prohibited from gaming in gaming establishments. The statute provides in pertinent part:[1]

> An immediate family member or guardian may petition, in writing, a district court for an order of exclusion from gaming establishments applicable to a person whom the petitioner has reason to believe is a problem gambler. Upon receipt of a petition for an

[1] The statute also included definitions for "immediate family member" and "problem gambler."

> order of exclusion of a person and any sworn statements the court may request from the petitioner, the court shall immediately schedule a hearing on the petition and shall cause a summons and a copy of the petition to be served upon the person as provided in section 25 of chapter 276. The person may be represented by legal counsel and may present independent expert or other testimony. The court shall order examination by a qualified psychologist. If after a hearing the court based upon competent testimony finds that the person is a problem gambler and there is a likelihood of serious harm as a result of the person's gambling, the court may order that such person be prohibited from gaming in gaming establishments. **The court shall communicate this order to the commission, which shall place the person's name on the list of excluded persons.**

The amended regulation expands upon court ordered exclusion pursuant to M.G.L. c. 23K, §45(i). It establishes that the Commission will place the name of an individual on the exclusion list, that the list shall be maintained by the Commission, and that the Commission shall not remove the name of an individual from the list until ordered to do so by a court of competent jurisdiction.

Lastly, the amendment to 205 CMR 152.00 clarifies that the "list of excluded persons" as defined in M.G.L. c. 23K, §2 includes those who have been ordered excluded by the court. However, the name and year of birth of persons ordered excluded by the court will not be posted on the Commission's website.

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

205 CMR 152.00: INDIVIDUALS EXCLUDED FROM GAMING AND SPORTS WAGERING

Section

152.01: Scope and Authority

152.01 : Scope and Authority

The provisions of 205 CMR 152.00 shall provide for the establishment and maintenance of a list, and associated protocols and procedures, for exclusion of individuals from gaming in accordance with M.G.L. c. 23K, §§ 45(a) through (e) and 45(j), and sports wagering in accordance with M.G.L. c. 23N, § 13(e)(1), as well as M.G.L. c. 23K, § 45(i). Such list shall be maintained separately from those established and maintained in accordance with M.G.L. c. 23K, § 45(f) through (h) and M.G.L. c. 23N, § 13(e)(2).

152.02 : Maintenance and Distribution of Exclusion List

(1) The commission shall maintain the list of persons to be excluded from gaming and sports wagering as set forth in 205 CMR 152.00. The name and year of birth of each person on the exclusion list shall be posted on the commission's website (http://massgaming.com/), except for the individuals on the court ordered exclusion list pursuant to M.G.L. c. 23K, § 45(i).

(2) The Bureau shall promptly notify each gaming licensee, and Sports Wagering Operator of the placement of an individual on the exclusion list. The notifications shall include:

(a) The individual's full name and all aliases the individual is believed to have used;

(b) A description of the individual's physical appearance, including height, weight, type of build, color of hair and eyes, and any other physical characteristics which may assist in the identification of the individual;

(c) The individual's date of birth;

(d) The effective date of the order mandating the exclusion of the individual;

(e) A photograph, if obtainable, and the date thereof; and

(f) Such other information deemed necessary by the commission for the enforcement of 205 CMR 152.00.

152.03 : Commission Criteria for Exclusion

(1) In the commission's discretion, an individual may be placed on the exclusion list if the commission determines that the individual meets one or more of the following criteria:

(a) the individual has been convicted of a criminal offense under the laws of any state, tribe, or the United States that is punishable by more than six months in a state prison, a house of correction or any comparable incarceration, a crime of moral turpitude or a violation of the gaming or other wagering laws of any state, tribe, or the United States;

(b) the individual has violated or conspired to violate M.G.L. c. 23K or c. 23N; or violated

152.03 : continued

or conspired to violate any other law, if the violation or conspiracy is in connection with gaming or sports wagering;

(c) the individual has a notorious or unsavory reputation which would adversely affect public confidence and trust that the gaming or sports wagering industries are free from criminal or corruptive elements;

(d) the individual is an associate of an individual who falls into a category identified in 205 CMR 152.03(1)(a) through (c);

(e) the individual's presence in a gaming establishment, sports wagering area, sports wagering facility, or maintenance of a sports wagering account, presents the potential of injurious threat to the interests of the Commonwealth in a gaming establishment, sports wagering area, sports wagering facility, or sports wagering platform, or sports wagering.

(2) In determining whether there exists the potential of injurious threat to the interests of the Commonwealth in accordance with 205 CMR 152.03(1)(e), the commission may consider, without limitation, the following:

(a) Whether the individual is a known cheat;

(b) Whether the individual has had a license or registration issued in accordance with 205 CMR 134.00: *Licensing and Registration of Employees, Vendors, Junket Enterprises and Representatives, and Labor Organizations*, 234.00: *Sports Wagering Vendors*, 235.00: *Sports Wagering Occupational Licenses*, or a qualification determination made in accordance with 205 CMR 115.00: *Phase 1 and New Qualifier Suitability Determination, Standards, and Procedures*, 116.00: *Persons Required to Be Licensed or Qualified*, or 215.00: *Applicant and Qualifier Suitability Determination, Standards, and Procedures*, or a like license or registration issued by another jurisdiction, suspended or revoked or has been otherwise subjected to adverse action;

(c) Whether the individual's egregious or repeated conduct poses a clear threat to the safety of the patrons, employees or others on or near the premises of a gaming establishment, sports wagering area, or sports wagering facility; or the individual's egregious or repeated conduct relating to sports wagering poses a clear threat to the safety of others;

(d) Whether the individual has a documented history of conduct involving the undue disruption of gaming or sports wagering operations in any jurisdiction including, without implied limitation, attempting to corrupt or corrupting a betting outcome of a sporting event;

(e) Whether the individual is subject to a no trespass order at any casino or gaming establishment, sports wagering area, or sports wagering facility in any jurisdiction; and

(f) Whether, in connection with sports wagering, the individual has either:

1. willfully and maliciously engaged in a knowing pattern of conduct or series of acts over a period of time directed at a specific person, which seriously alarms that person and would cause a reasonable person to suffer substantial emotional distress; or

2. expressed an intent to injure the person or property of another, now or in the future; intended that the threat be conveyed to a particular person; the injury threatened, if carried out, would constitute a crime; and the threat was made under circumstances which could reasonably have caused the person to whom it was conveyed to fear that the individual had both the intention and ability to carry it out.

(3) The commission shall not base a finding to place an individual on the exclusion list on an individual's race, color, religion, religious creed, national origin, ancestry, sexual orientation, gender identity or expression, age (other than minimum age requirements), marital status, veteran status, genetic information, disability or sex.

152.04 : Investigation and Initial Placement of Names on the Exclusion List

(1) The Bureau shall investigate any individual who may meet one or more criterion for inclusion on the list in accordance with 205 CMR 152.03 upon referral by the commission, the Gaming Enforcement Division of the Office of the Attorney General, a gaming licensee, a sports wagering operator, a sports governing body, or a players association. The Bureau may investigate any individual on its own initiative.

(2) If, upon completion of an investigation, the Bureau determines to place an individual on the exclusion list, the Bureau shall prepare an order that identifies the individual and sets forth a factual basis as to why the individual meets one or more criterion for inclusion on the list in accordance with 205 CMR 152.03.

(a) The Bureau shall serve the order prepared in accordance with 205 CMR 152.04(2) upon the named individual advising them that it intends to place the individual's name on the exclusion list. The order shall also notify the individual that placement of their name on the exclusion list will result in their prohibition from being present in a gaming establishment, sports wagering area, or sports wagering facility, and from maintaining a sports wagering account; and

(b) offer them an opportunity to request a hearing before a hearing officer to review the Bureau's order. The order shall be sent by registered or certified mail return receipt requested or by publication in a daily newspaper of general circulation for one week. The individual shall have 30 days from the date of the service of the order to request a hearing, except for notice provided by publication in a newspaper in which case the individual shall have 60 days from the last publication. Alternatively, the Bureau may provide an individual with in hand service of order in which case the individual shall have ten days from the date of service to request a hearing.

(3) If a request for a hearing is received from the individual, a hearing shall be scheduled before a hearing officer in accordance with 205 CMR 101.00: *M.G.L. C. 23K Adjudicatory Proceedings* and notice of such, including the date, time, and issue to be presented, shall be sent to the individual. The hearing shall be conducted in accordance with 205 CMR *101.02: Review of Orders or Civil Administrative Penalties/Forfeitures Issued by the Bureau, Commission Staff, or the Racing Division*.

(4) If no request for a hearing is received within the applicable timeline provided in 205 CMR 152.04(3), the individual's name shall be placed on the exclusion list.

(5) In accordance with 205 CMR 101.00: *M.G.L. C. 23K Adjudicatory Proceedings*, a decision of the hearing officer may be appealed to the commission. A request for appeal to the commission shall not operate as a stay of the decision of the hearing officer.

152.05 : ~~Placement on the~~ Court Ordered Exclusion ~~List~~ Pursuant to M.G.L. c. 23K, § 45(i)

(1) Upon receipt of notice from a district court that an individual has been prohibited from gaming in gaming establishments in accordance with M.G.L. c. 23K, § 45(i) and 205 CMR 152.05, the ~~commission~~ Bureau shall place the name of an individual on the exclusion list.

(2) The list of court ordered exclusions shall be maintained by the Bureau and shared with the gaming licensees.

(3) Pursuant to 205 CMR 152.07(5), the Bureau shall not remove the name of an individual from the court ordered exclusion list until ordered to do so by the district court.

152.06 : Duty of Gaming or Sports Wagering Licensee

(1) Each gaming or sports wagering licensee shall ensure that it accesses and reviews the exclusion list on a regular basis and that the exclusion list is made available to employees of the gaming or sports wagering licensee in a manner designed to assist them in identifying and inhibiting excluded individuals from entering the gaming establishment, sports wagering area, or sports wagering facility, or maintaining a sports wagering account.

152.06: continued

(2) Upon identifying any individual who has been placed on the exclusion list present in a gaming establishment, sports wagering area, or sports wagering facility, the gaming or sports wagering licensee shall immediately notify the Massachusetts State Police Gaming Enforcement Unit, the Surveillance Department, and the Security Department. The Surveillance Department shall track the individual who has been placed on the list while that individual is present in the gaming establishment, sports wagering area, or sports wagering facility and the Security Department shall coordinate with the Massachusetts State Police Gaming Enforcement Unit regarding removing the individual from the gaming establishment, sports wagering area, or sports wagering establishment.

(3) Upon determining that an individual who has been placed on the exclusion list maintains a sports wagering account or has engaged in prohibited sports wagering, a sports wagering licensee shall:

(a) Cancel any sports wagers placed by the individual and confiscate any resulting funds in accordance with 205 CMR 238.33(3);

(b) Suspend the sports wagering account used to engage in prohibited sports wagering in accordance with 205 CMR 248.17: *Account Suspension and Restoration*; and

(c) Notify the Director of Sports Wagering and the Bureau.

(4) It shall be the continuing duty of a gaming or sports wagering licensee to refer to the Bureau, in writing, individuals whom it wishes to be placed on the exclusion list and to promptly notify the Bureau in writing of no trespass orders which it issues.

(5) A gaming or sports wagering licensee shall submit a written policy for compliance with the exclusion list program for approval by the executive director. The executive director shall review the plan for compliance with 205 CMR 152.00. If approved, notice shall be provided to the commission and the plan shall be implemented and followed by the gaming or sports wagering licensee. The plan for compliance with the exclusion list program shall include, at a minimum, procedures to:

(a) Prevent an individual on the exclusion list from entering the gaming establishment, sports wagering area, or sports wagering facility, maintaining a sports wagering account; or engaging in prohibited sports wagering;

(b) Identify and coordinate with the Massachusetts State Police Gaming Enforcement Unit to eject individuals on the list from the gaming establishment, sports wagering area, or sports wagering facility if they are able to enter;

(c) Remove individuals on the exclusion list from marketing lists, and refrain from sending or transmitting to them any advertisement, promotion, or other direct marketing mailing pertaining to gaming or sports wagering more than 30 days after receiving notice from commission that the individual has been placed on the exclusion list;

(d) Prevent an individual on the exclusion list from having access to credit, cashless wagering program access, or from receiving complimentary services, check-cashing services, junket participation and other benefits from the gaming establishment, sports wagering area, or sports wagering facility, or benefits from a sports wagering account; and

(e) Train employees relative to the exclusion list and the license's program.

(6) The commission may revoke, limit, condition, suspend or fine a gaming or sports wagering licensee if it knowingly or recklessly fails to exclude, or identify, or coordinate with the Massachusetts State Police Gaming Enforcement Unit to eject from its gaming establishment or sports wagering facility, any individual placed by the commission on the exclusion list; or

152.06 : continued

prevent an individual on the exclusion list from maintaining a sports wagering account or engaging in prohibited sports wagering.

152.07 : Petition to Remove Name from Exclusion List

(1) An individual who has been placed on the list in accordance with 205 CMR 152.0~~0~~3 may petition the Bureau in writing to request that their name be removed from the list. Except in extraordinary circumstances, such a petition may not be filed sooner than five years from the date an individual's name is initially placed on the list.

(2) The individual shall state with particularity in the petition, the reason why the individual believes they no longer satisfy one or more criterion for inclusion on the list in accordance with 205 CMR 152.03. Following an investigation, the Bureau shall prepare a written determination whether to remove the individual from the list and setting forth a factual basis as to why the individual does or does not continue to satisfy one or more of the criterion for inclusion on the list.

(3) The individual shall have 30 days from the date of service of the Bureau's determination to request a hearing before the hearing officer in accordance with 205 CMR 101.00: *M.G.L. C. 23K Adjudicatory Proceedings*. The commission shall schedule a hearing on any properly filed petitions and provide written notice to the petitioner identifying the time and place of the hearing. Such a hearing shall be conducted in accordance with 205 CMR 101.00.

(4) In accordance with 205 CMR 101.00: *M.G.L. C. 23K Adjudicatory Proceedings*, a decision of a hearing officer may be appealed to the commission. Removal of an individual's name from the list shall not occur until all agency appeals have been exhausted or the time for such appeals has run.

(5) An individual who was placed on the exclusion list by virtue of an order of the district court, in accordance with M.G.L. c. 23K, § 45(i), may not petition for removal in accordance with 205 CMR 152.07.

(6) The Bureau shall promptly notify each gaming licensee and Sports Wagering Operator of the removal of an individual from the exclusion list.

152.08 : Forfeiture of Winnings

(1) An individual who is on the exclusion list shall not collect any winnings or recover losses arising as a result of prohibited gaming or sports wagering, and such winnings shall be forfeited to the commission. To the extent that the winnings arise from gaming or a source which cannot be determined, they shall be deposited into the Gaming Revenue Fund pursuant to M.G.L. c. 23K, §§ 45(j) and 59. To the extent that the winnings arise from prohibited sports wagering, they shall be deposited into the Sports Wagering Fund established by M.G.L. c. 23N, § 17.

(2) Upon verification that an individual:

(a) who is present in its gaming establishment, sports wagering area, or sports wagering facility is on the exclusion list, a gaming or sports wagering licensee shall take steps to:

1. In accordance with 205 CMR 152.06(2) and 205 CMR 152.06(3), coordinate with the Massachusetts State Police Gaming Enforcement Unit to remove the individual from the gaming establishment, sports wagering area, or sports wagering facility; and

2. Notify the Bureau who shall lawfully confiscate, or cause to be refused to pay any winnings or things of value obtained from engaging in a gaming or prohibited sports wagering transaction including:

a. gaming chips, gaming plaques, slot machine tokens and vouchers, gaming vouchers, and sports wagering vouchers;

152.08: continued

b. any electronic gaming device or slot machine jackpot won by the individual; and

c. any cashable credits remaining on an electronic gaming device or slot machine credit meter played by the individual.

3. Deliver any winnings or things of value obtained from the individual to the cashier's cage, and transmit the cash value to the commission for deposit in the Gaming Revenue Fund or Sports Wagering Fund in accordance with 205 CMR 152.08(1).

(b) maintains a sports wagering account or has engaged in prohibited sports wagering, a sports wagering licensee shall take steps to:

1. Cancel any wagers and confiscate resulting funds in accordance with 205 CMR 238.33(1) and (3);

2. Suspend the sports wagering account used to engage in prohibited sports wagering in accordance with 205 CMR 248.17: *Account Suspension and Restoration*; and

3. Notify the Director of Sports Wagering and the Bureau.

(3) If an individual wishes to contest the forfeiture of winnings or things of value, the individual may request a hearing in writing with the commission within 15 days of the date of the forfeiture. The request shall identify the reason why the winnings or things of value should not be forfeited. A hearing shall be conducted in accordance with 205 CMR 101.00: *M.G.L. C. 23K Adjudicatory Proceedings* to determine whether the subject funds were properly forfeited in accordance with 205 CMR 152.08.

152.09: Sanctions against a Gaming or Sports Wagering Licensee

(1) Grounds for Action. A gaming or sports wagering license may be conditioned, suspended, or revoked, and/or the gaming or sports wagering licensee assessed a civil administrative penalty based on a finding that a licensee has:

(a) knowingly or recklessly:

1. failed to exclude or eject from its premises any individual placed on the list of excluded persons; or

2. permitted an individual placed on the list of excluded persons to maintain an account on a sports wagering platform or engage in prohibited sports wagering. Provided, it shall not be deemed a knowing or reckless failure if an individual on the exclusion list shielded their identity or otherwise attempted to avoid identification while present at a gaming establishment, sports wagering area, or sports wagering facility, or evaded the commercially reasonable standards for sports wagering identity verification required by205 CMR 248.04(4).

(b) failed to abide by any provision of 205 CMR 152.00, M.G.L. c. 23K, § 45, M.G.L. c. 23N, § 11(e)(1), the gaming or sports wagering licensee's approved written policy for compliance with the exclusion list program pursuant to 205 CMR 152.06(5), or any law related to the exclusion of patrons in a gaming establishment or from sports wagering.

(2) Finding and Decision. If the Bureau finds that a gaming licensee has violated a provision of 205 CMR 152.09(1), it may issue a written notice of decision recommending that the commission suspend, revoke, and or condition said gaming licensee. Either in conjunction with or in lieu of such a recommendation, the Bureau may issue a written notice assessing a civil administrative penalty upon said licensee. Such notices shall be provided in writing and contain a factual basis and the reasoning in support the decision including citation to the applicable statute(s) or regulation(s) that supports the decision.

(3) Civil Administrative Penalties. The Bureau may assess a civil administrative penalty on a gaming licensee in accordance with M.G.L. c. 23K, § 36 for a violation of 205 CMR

152.09: continued

152.09(1).

(4) Review of Decision. A recommendation made by the Bureau to the commission that a gaming license be conditioned, suspended or revoked shall proceed directly to the commission for review in accordance with 205 CMR 101.01: *M.G.L. C. 23K Adjudicatory Proceedings*. If the gaming licensee is aggrieved by a decision made by the Bureau to assess a civil administrative penalty in accordance with 205 CMR 152.09(2) and (3), it may request review of said decision in accordance with 205 CMR 101.00.

(5) Sports Wagering Operators. Discipline of a sports wagering operator for a violation of 205 CMR 152.09(1) shall follow the process set out in 205 CMR 232.00.

REGULATORY AUTHORITY

205 CMR 152.00: M.G.L. c. 23K, § 4; M.G.L. c. 23N, §§ 4 and 13(e)(1).

Legal Division

AMENDED SMALL BUSINESS IMPACT STATEMENT

The Massachusetts Gaming Commission ("Commission") hereby files this amended Small Business Impact Statement in accordance with G.L. c. 30A, §5 relative to the proposed adoption of **205 CMR 152: Individuals Excluded From a Gaming Establishment**, for which a public hearing was held on January 9, 2024.

This regulation is being promulgated as part of the process of promulgating regulations governing gaming in the Commonwealth, and is primarily governed by G.L. c. 23K, §§ 4(28), 4(37), and 45. It provides for the establishment and maintenance of a list, and associated protocols and procedures, for exclusion of individuals from gaming, including court-ordered exclusion of individuals.

The proposed amendments to 205 CMR 152 apply to gaming licensees, district courts, and individuals involved. None of these entities or individuals are small businesses. Accordingly, this regulation is unlikely to have an impact on small businesses. Under G.L. c.30A, §5, the Commission offers the following responses on whether any of the following methods of reducing the impact of the proposed regulation on small businesses would hinder achievement of the purpose of the proposed regulation:

1. **Establishing less stringent compliance or reporting requirements for small businesses:**

   As a general matter, the Commission does not anticipate that small businesses will be negatively impacted by this regulation. As a result, less stringent compliance or reporting requirements for small businesses have not been established.

2. **Establishing less stringent schedules or deadlines for compliance or reporting requirements for small businesses:**

   There are no schedules or deadlines for compliance or reporting requirements within this regulation that would be pertain to small businesses.

3. **Consolidating or simplifying compliance or reporting requirements for small businesses:**

   There are no compliance or reporting requirements for small businesses imposed by this regulation.

4. **Establishing performance standards for small businesses to replace design or operational standards required in the proposed regulation:**

These amendments do not implicate a design or operational standard for small businesses.

5. **An analysis of whether the proposed regulation is not likely to deter nor encourage the formation of new businesses in the Commonwealth:**

   As these amendments are directed at licensees and individuals, it is unlikely that they will deter or encourage the formation of new businesses in the Commonwealth.

6. **Minimizing adverse impact on small businesses by using alternative regulatory methods:**

   These amendments are not likely to create any adverse impact on small businesses.

Massachusetts Gaming Commission
By:

Ying Wang

Ying Wang, Associate General Counsel

Dated: January 18, 2024

TO: Chair Cathy Judd-Stein
Commissioner Brad Hill
Commissioner Jordan Maynard
Commissioner Eileen O'Brien
Commissioner Nakisha Skinner

FROM: Justin Stempeck, Deputy General Counsel
Judi Young, Associate General Counsel
Mina Makarious, Esq., Anderson & Kreiger
Paul Kominers, Esq., Anderson & Kreiger

CC: Todd Grossman, Interim Executive Director and General Counsel

DATE: January 18, 2024

RE: 205 CMR 16.00

In Acts 2023, c. 26, §§ 3-6, the Legislature amended G.L. c. 128C, § 2 so that each existing entity authorized to simulcast (Suffolk Downs, Raynham Park, Wonderland Greyhound Track, and Plainridge Park Casino; collectively, "licensed simulcasters") may simulcast "at any location in [its] county approved by the commission." Previously, each licensed simulcaster was bound to the location where it was previously authorized to hold races (with the unusual exception of Wonderland, following disciplinary action).

The proposed 205 CMR 16.00 would govern the process by which the Commission receives, reviews, and determines requests for approval to simulcast at a new location. The regulation borrows many structural and process elements from the sports wagering licensing regulations, and substantive elements from the racing meeting license application, 205 CMR 15.00, but adapts them for this distinct context: licensed simulcasters seeking authorization to operate at a new location. The regulation is particularly concerned with input from the community or communities where the proposed facility will be located.

A brief outline of key elements of the proposed regulation follows.

Section 16.02: Application Requirements

Section 16.02(2) sets out the materials that each applicant must submit. These are drawn heavily from the portion of a racing meeting license application relating to a physical facility. As before, this list should be largely familiar to the Commission from extensive discussions of the new-track application form.

Sections 16.03-10 Processing, Evaluation, Determination, and Award of Application

These sections are modeled after 205 CMR 218, the primary sports wagering licensing regulation. The Commission must hold at least one public meeting in each host community, and at least one other public meeting to receive public feedback. 205 CMR 16.05(1). The Commission also must forward the application to municipal leadership in each host community prior to the public meeting.

The list of factors for the Commission's review in deciding on the application is drawn mainly from G.L. c. 128A, § 3(i), and supplemented with other relevant factors.

Standard license conditions are laid out at 205 CMR 16.09. Of note is 205 CMR 16.09(1)(e), which requires the operator to obtain an operation certificate before operating. That certificate requires the licensed simulcaster to meet conditions similar to those laid out in 205 CMR 251.01(3), from the sports wagering operation certificate regulation.

An application fee is provided for in 205 CMR 16.10. This subsection is adapted from 205 CMR 214, and similarly provides for applicants to defray any costs of processing and reviewing the application that exceed the initial application fee.

205 CMR 16: PROCEDURES FOR THE APPROVAL OF A SIMULCAST-ONLY FACILITY

16.01 Authority and Definitions

(1) Authority. 205 CMR 16.00 is issued pursuant to M.G.L. c. 128C, §§ 2, 8.

(2) Definitions. As used in 205 CMR 16.00, the following words and phrases shall have the following meanings, unless the context clearly requires otherwise. Words and phrases not defined below shall have the meaning given them in M.G.L. c. 128A and M.G.L. c. 128C, unless the context clearly requires otherwise. Words and phrases not defined below or in M.G.L. c. 128A or M.G.L. c. 128C shall have the meaning given to them in 205 CMR 102.00 or 205 CMR 202.00, unless the context clearly requires otherwise.

Applicant means a racing meeting licensee who applies for site approval in accordance with this 205 CMR 16.00.

Host community means a municipality in which a simulcasting facility is located or in which an applicant has proposed locating a new simulcasting facility.

Simulcasting Facility means a facility operated by a racing meeting licensee and approved by the Commission for simulcast wagering.

Site approval application shall mean a racing meeting licensee's application for site approval.

Site approval shall mean authorization in accordance with M.G.L. c. 128C, § 2 to conduct simulcast wagering at a particular location.

Surrounding community means a municipality abutting a host community.

16.02 Application Requirements

(1) A site approval application shall be submitted using the appropriate application form or forms issued by the Commission, and in accordance with the instructions included in the application form.

(2) The site approval application form shall require the following:

(a) The location of the proposed simulcasting facility;

(b) A detailed description of the proposed simulcasting facility;

(c) An explanation of the ownership of the real property on which the proposed simulcasting facility is proposed to be constructed or operated, and the applicant's rights to construct or operate the simulcasting facility on said real property;

(d) Information relative to any proposed responsible gaming initiatives to be offered on the premises;

(e) A schedule of any other state, municipal, or Federal environmental, land use, hospitality-related, or other permits, licenses, or approvals required for the development and operation of the proposed simulcasting facility;

(f) Any agreements, written or otherwise, that the applicant has made or executed with racing governing bodies, the municipality where the applicant proposes to hold racing meetings, other municipalities, or any other entities;

(g) A project schedule, including a date for the proposed simulcasting facility to become open for wagering, and a date for each proposed amenity or attraction to become available to the public;

(h) The projected costs of developing the facility;

(i) A traffic study performed for the proposed simulcasting facility;

(j) An attestation signed and sworn to that the applicant will comply, should site approval be granted, with all applicable laws and with all applicable rules and regulations prescribed by the Commission, and that the applicant shall have an affirmative obligation to abide by every statement made in the application to the Commission should it be awarded a license;

(k) An attestation signed and sworn to that the applicant will comply, should site approval be granted, with all affirmative representations, promises or inducements made to government officials of the host or and surrounding communities or local organizations and any mitigation agreements, formal or informal; and

(l) Any other information required by the Commission.

(3) The site approval application form issued by the Commission may include information regarding how certain materials submitted in the course of the application may be withheld from public disclosure pursuant to M.G.L. c. 66, § 10.

(4) Pre-Application Consultation. The Commission or its designees may conduct one or more consultation meetings or information sessions with an applicant or prospective applicant to provide guidance on application procedures, including the requirements of G.L. c. 128A or 128C, or 205 CMR 16.00. In addition, the Commission may use other methods to respond to inquiries regarding the application process, such as publishing responses to questions submitted by any applicant.

16.03 Administrative Sufficiency Review

(1) The Division of Licensing will review each site approval application for administrative sufficiency.

(2) If a site approval application is determined to be insufficient:

(a) The Division shall notify the applicant by email. The notification shall specifically identify the deficiencies.

(b) The applicant shall have the right to submit supplemental or corrected information to cure the deficiencies within sixty days.

(c) Failure to cure the deficiencies may result in the administrative closure of the site approval application.

(d) In the event that a site approval application is administratively closed under 205 CMR 16.03(2), the Division of Licensing or the Bureau will notify the applicant of the determination in writing.

(3) A positive determination of administrative sufficiency shall not constitute a finding with respect to the accuracy of the information submitted, and shall not bar a request for further information by the Commission, the Bureau or their agents and employees with respect to the application.

16.04 Review Procedures

(1) In reviewing the merits of the site approval application, the Commission may, at such times and in such order as the Commission deems appropriate, take some or all of the following actions:

(a) Refer the application, or any parts thereof, for advice and recommendations, to any or all of the following:

(i) The Executive Director;

(ii) The Bureau;

(iii) Any office, agency, board, council, commission, authority, department, instrumentality or division of the commonwealth;

(iv) Commission staff; and

(v) Any consultant retained by the Commission to aid in the review of the application;

(b) Retain, or authorize the Executive Director or the Executive Director's designee to retain, using the application fee and investigation reimbursements described in 205 CMR 16.10, such professional consultants (including without limitation financial and accounting experts, legal experts, racing experts, contractor investigators, and other qualified professionals) as the Commission in its discretion deems necessary and appropriate to review the request and make recommendations; and

(c) Require or permit, in the Commission's discretion, the applicant to provide additional information and documents.

16.05 Public Meetings Regarding the Site Approval Application

(1) The Commission shall conduct the following public meetings:

(a) one meeting in each host community to receive public feedback from members of the host community or communities; and

(b) at least one other meeting to receive public feedback.

(2) The Commission may conduct one or more additional meetings to:

(a) receive additional public feedback on the site approval application;

(b) allow the applicant to make a presentation; or

(c) allow the applicant approval to respond to questions or public comments.

(3) At least two weeks prior to any meeting held in accordance with 205 CMR 16.05(1)(a), the Commission shall provide a copy of the site approval application to the host community's mayor and city council, town council, or select board. The site approval application may be redacted consistent with the Massachusetts Public Records Law, G.L. c. 66, and other sources of law.

(4) Prior to any meeting held in accordance with this 205 CMR 16.05, the Commission will prescribe the manner in which it will receive comments from members of the public.

16.06 Evaluation of the Site Approval Application by the Commission

(1) Once a submitted site approval application is deemed administratively complete, the Commission shall commence a substantive evaluation of its contents. The Commission may utilize any technical assistance it deems necessary to aid in its review.

(2) The Commission shall deliberate on site approval applications in an adjudicatory proceeding pursuant to 205 CMR 101.01.

(3) The Commission shall analyze the factors and considerations set out in 205 CMR 16.05(5) in no particular order, and giving any particular weights, or no weight, to any factor. Those factors include but are not limited to:

(a) The financial ability of the applicant to develop and operate the proposed simulcasting facility;

(b) The maximization of state revenues;

(c) The circumstance that simulcast wagering patrons require safe and convenient facilities;

(d) The interest of members of the public in simulcast wagering honestly managed and of good quality;

(e) The necessity of according fair treatment to the economic interest and investments of those who in good faith have provided and maintained simulcasting facilities;

(f) The applicant's business practices and business ability to establish and maintain a successful simulcasting facility;

(g) Any support or opposition voiced by the municipal government or residents of the host community or communities;

(h) Any projected benefits to, or impacts on, the host community or communities, and surrounding communities; and

(i) Any other appropriate and pertinent factors.

16.07 Site Approval Determinations

(1) After evaluating the site approval application in accordance with 205 CMR 16.06, the Commission may:

(a) Approve the application;

(b) Deny the application; or

(c) Postpone decision pending further analysis or the provision of additional information by the applicant, Commission staff, consultants to the Commission, or any other person.

16.08 Provisions Applicable to All Site Approval Determinations

(1) Upon granting an application, the Commission shall prepare and file its decision, and shall issue a statement of the reasons for the approval, including specific findings of fact, and noting any conditions of approval imposed under 205 CMR 16.09.

(2) Upon denial of an application, the Commission shall prepare and file its decision and, if requested by the applicant, shall further prepare and file a statement of the reasons for the denial, including specific findings of fact.

(3) Site approval shall be deemed to have occurred immediately upon a majority vote by the Commission to approve the site, unless otherwise determined by the Commission.

16.09 Conditions

(1) All site approvals shall be issued subject to the following conditions:

(a) That the licensee comply with all terms and conditions of the site approval;

(b) That the licensee comply with M.G.L. c. 128A, c. 128C, and all rules and regulations of the Commission;

(c) That the licensee consents to the Commission or its representative physically inspecting the progress of construction or development, subject to reasonable construction site safety rules, to determine the licensee's compliance with the terms and conditions of the site approval, M.G.L. c. 128A, M.G.L. c. 128C, or 205 CMR;

(d) That the licensee shall grant access to, at any time, plans, specifications, submittals, contracts, financing documents or other records concerning the construction of the project or related infrastructure. The licensee shall provide the requested materials to the Commission or its representative within ten days of the Commission's request for such documents;

(e) That the licensee shall not conduct simulcast wagering at the proposed simulcasting facility without an operation certificate, which shall not issue until the licensee has demonstrated to the Commission that it has complied with all requirements of M.G.L. c. 128A, M.G.L. c. 128C, 205 CMR, and all applicable laws. Such compliance includes, but is not limited to:

(i) The simulcasting facility has been built and is of a superior quality and complies with any applicable conditions of site approval;

(ii) A copy of an emergency response plan that includes, but is not limited to, the elements listed in 205 CMR 151.01(3)(g) and which is filed with the Commission and with fire department and police department of the Host Community; or an update to such plan already filed pursuant to 205 CMR 151.01 or 205 CMR 251.01(3)(d);

(iii) A copy of the certificate of occupancy issued by a building commissioner or inspector of buildings of the host community in accordance with 780 CMR 111.00: Certificate of Occupancy that

includes an approval under 521 CMR: Architectural Access Board, indicating the necessary use and occupancy to operate the simulcasting facility; as well as copies of any other permits required to be issued by the host community prior to the opening of a like facility;

(iv) Compliance with any other condition imposed by the Commission to secure the objectives of M.G.L. c. 23N and 205 CMR.

(2) The Commission may impose any other conditions on particular site approvals that it determines are appropriate to secure the objectives of M.G.L. c. 128A, M.G.L. c. 128C, and 205 CMR.

16.10 Application fee

(1) General provisions

(a) An applicant shall pay the Commission a nonrefundable application fee of $25,000 to defray the costs associated with the processing and review of the site approval application; provided, however, that if the costs of processing and review exceed the initial application fee, the applicant shall pay the additional amount to the Commission within 30 days after notification of insufficient fees or the site approval application shall be rejected.

(b) The applicant shall pay the non-refundable application fee of $25,000 by certified check or secure electronic funds transfer made payable to the "Massachusetts Gaming Commission." The applicant shall submit this non-refundable application fee with or before its site approval application.

(c) All required application fees shall be non-refundable, due and payable notwithstanding the withdrawal or abandonment of any site approval application.

(d) All fees in this section 205 CMR 16.10 shall be deposited into the Racing Development and Oversight Trust Fund.

(2) Additional processing fees

(a) Pursuant to 205 CMR 16.10(1), the applicant shall be responsible for paying to the Commission all costs incurred by the Commission, directly or indirectly, for processing and reviewing the site approval application. As required by the procedure established pursuant to 205 CMR 114.04(5), the applicant shall pay to or reimburse the Commission for all such review costs that exceed the initial application fee.

(b) For purposes of 205 CMR 16.10, the costs for processing and review shall include, without limitation:

(i) All fees for services, disbursements, out of pocket costs, allocated overhead, processing charges, administrative expenses, professional fees, and

(ii) other costs directly or indirectly incurred by the Commission, including without limitation all such amounts incurred by the Commission to and through the Bureau, the Division, the Gaming Enforcement Unit, the Gaming Liquor Enforcement Unit, and any contract investigator.

(c) The Commission in its discretion shall establish, and, post on its website, a schedule of hourly fees, wages, applicable fringe benefits, payroll taxes, overhead rates and other charges to be assessed by the Commission to applicants for in-house personnel, services and work of the Commission, the Bureau, the Division, the Gaming Enforcement Unit, and the Gaming Liquor Enforcement Unit.

(d) The Commission shall assess to the applicant all other costs paid by or for the Commission, directly or indirectly, to any other person for conducting an investigation into an applicant, plus an appropriate percent for overhead, processing and administrative expenses.

16.11 Interaction with Other Provisions of 205 CMR

(1) The Commission shall not unreasonably withhold approval of elements of the licensee's proposed simulcasting facility that are consistent with information disclosed to and approved by the Commission in accordance with 205 CMR 222, 238, or any other statute, regulation, license condition, or comparable source of authority administered by the Commission.

Legal Division

SMALL BUSINESS IMPACT STATEMENT

The Massachusetts Gaming Commission ("Commission") hereby files this Small Business Impact Statement in accordance with G.L. c. 30A, §2, relative to the proposed adoption of **205 CMR 16.00, RACING MEETING LICENSING.**

This regulation is being promulgated as part of the process of updating regulations governing live racing in the Commonwealth. It sets forth the application and suitability review process for racing meeting licenses.

The proposed 205 CMR 2 applies to prospective and current race track operators and the Commission. Accordingly, this regulation is unlikely to have an impact on small businesses. Under G.L. c.30A, §2, the Commission offers the following responses to the statutory questions:

1. Estimate of the number of small businesses subject to the proposed regulation:

   Small business are unlikely to be subject to this regulation.

2. State the projected reporting, recordkeeping, and other administrative costs required for compliance with the proposed regulation:

   There are no projected reporting, recordkeeping, or other administrative costs required for small businesses to comply with this regulation. This regulation governs prospective and current race track operators, none of which will be or are small businesses.

3. State the appropriateness of performance standards versus design standards:

   The standards set forth are compliance requirements, akin to performance standards.

4. Identify regulations of the promulgating agency, or of another agency or department of the Commonwealth, which may duplicate or conflict with the proposed regulation:

   There are no conflicting regulations in 205 CMR, and the Commission is unaware of any conflicting or duplicating regulations of any other agency or department of the Commonwealth.

5. State whether the proposed regulation is likely to deter or encourage the formation of new businesses in the Commonwealth:

This regulation, which clarifies the Commission's application review process for the relocation of simulcasting facilities, will support the formation of small businesses supporting race track operations in the Commonwealth.

Massachusetts Gaming Commission
By:

___/s/ Justin Stempeck _____
Justin Stempeck, General Counsel

Dated: January __, 2024

Legal Division

To: Chair Cathy Judd-Stein
Commissioner Brad Hill
Commissioner Jordan Maynard
Commissioner Eileen O'Brien
Commissioner Nakisha Skinner

From: Carrie Torrisi, Deputy General Counsel
Mina Makarious, Anderson & Kreiger
Paul Kominers, Anderson & Kreiger

Re: 205 CMR 221 Amendment

Date: January 11, 2024

Enclosed for the Commission's review is a proposed amended 205 CMR 221. This is a minor edit to fix an apparent conflict between 205 CMR 221.01(1) and (2) that would require operators requesting a renewed temporary license to pay $1,000,000 upon requesting the renewed license, and another $1,000,000 within 30 days after receiving it. This revision clarifies that the operator needs to pay only one $1,000,000 fee.

205 CMR 221: SPORTS WAGERING LICENSE FEES

221.01 Licensing and Assessment Fees

(1) Upon submission of a request for a Temporary License pursuant to 205 CMR 219.00, the requestor shall pay an initial non-refundable license fee of $1,000,000 to the Commission.

~~(2) Within 30 days after the renewal of Temporary License pursuant to 205 CMR 219.04(4), the licensee shall pay a non-refundable renewal license fee of $1,000,000 to the Commission.~~

~~(3)~~(2) Within 30 days after the award of a Sports Wagering Operator License by the Commission, the Operator shall pay a license fee of $5,000,000 to the Commission; provided, however, that any $1,000,000 fee or fees paid to the Commission because the Operator previously received or renewed a Temporary License shall be credited against that $5,000,000. As a pre-condition of any award, the Commission may provide that such license fees be paid on an installment basis before the award is made and the license issued.

~~(4)~~(3) The following additional fees are due and payable to the Commission for each Sports Wagering Operator:

(a) An Annual Assessment as provided by M.G.L. c. 23N, § 15(c), to be determined by the Commission and calculated in accordance with M.G.L. c. 23N, § 15(c) to cover costs of the Commission necessary to maintain control over Sports Wagering, in proportion to each licensees' actual or projected Adjusted Gross Sports Wagering receipts; provided, however, that such assessment may be adjusted by the Commission at any time after payment is made where required to reflect the actual Adjusted Gross Sports Wagering Receipts, and accordingly, the payment of additional funds may be required or a credit may be issued towards the payment due the following year;

(b) An annual fee, as provided by M.G.L. c. 23N, § 15(e) reflecting each Operator that is not a Category 1 Sports Wagering Licensee's share of $1,000,000 to be deposited into the Public Health Trust Fund; provided, however, that the Commission shall determine each Operator's share as their proportional share of anticipated or actual Adjusted Gross Sports Wagering Receipts; provided further, however, that such assessment may be adjusted by the Commission at any time after payment is made where required to reflect the actual adjusted gross sports wagering revenue; and

(c) any other such license fees required under M.G.L. c. 23N and required to be assessed by the Commission.

221.02 Payment of Fees

(1) Except in the case of an assessment for fiscal years 2023 and 2024 the Annual Assessment due under 205 CMR 221.01(2~~3~~)(a) shall be assessed on or about 30 days prior to the start of the Commission fiscal year. The Annual Assessment for each Operator shall be the difference between the Commission's projected costs to regulate Sports Wagering minus any other revenues anticipated to be received by the Commission related to Sports Wagering and assessed as provided in 205 CMR 221.01(~~3~~2)(b). The Commission may assess the Annual Assessment on a *pro rata* basis commencing in fiscal year 2023 and will make such assessment each fiscal year thereafter. The Commission, in its sole discretion, may allow the Annual Assessment to be paid in one or more installments during the fiscal year.

(2) All license fees and assessments due to the Commission shall be due and payable within 30 days of receipt of an invoice from the Commission.

(3) All license fees and assessments shall be submitted in the form of a certified check or secure electronic funds transfer payable to the "Massachusetts Gaming Commission."

(4) In the event that a licensee fails to pay any fees or assessments as provided in 205 CMR 221.01, the Commission may take any remedial action it deems necessary up to and including revocation of the Sports Wagering Operator License.

221.03 Commission Budget and Reconciliation

(1) The Commission shall establish a budget for Sports Wagering in the course of establishing its overall budget pursuant to 205 CMR 121.03 and 121.04.

(2) If at any time during the fiscal year the Commission determines that actual costs associated with Sports Wagering will exceed the projected costs and projected revenue associated with Sports Wagering in the budget the Commission will revise the Annual Assessment assessed to Operator and invoice each Operator for its proportional share of such costs.

(3) Within 90 days of the close of each fiscal year the Commission will reconcile its actual costs to actual revenues. In no case will the Commission end a fiscal year on a negative basis. No commitment or expense shall cause the Sports Wagering Control Fund to end the fiscal year with a negative cash balance.

(4) In the event that actual revenues exceed actual costs for a given fiscal year, the Commission in its sole discretion shall credit such Excess Assessment to the Annual Assessment due for the next fiscal year.

(5) In the event that actual revenues associated with Sports Wagering are less than actual costs associated with Sports Wagering for a given fiscal year, the Commission will assess each Operator for its share of the excess costs (Excess Cost Assessment) in the same manner in which the Commission assessed the Annual Assessment. Such Excess Cost Assessment shall be due and payable as part of the Annual Assessment due for the next fiscal year.

Legal Division

SMALL BUSINESS IMPACT STATEMENT

The Massachusetts Gaming Commission ("Commission") hereby files this Small Business Impact Statement in accordance with G.L. c. 30A, §2 relative to proposed amendments to **205 CMR 221 SPORTS WAGERING LICENSE FEES.**

This regulation was developed as part of the process of promulgating regulations governing sports wagering in the Commonwealth, and is primarily governed by G.L. c. 23N, §4.

The adoption of 205 CMR 221 applies to sports wagering operators and the Commission. Accordingly, this regulation is unlikely to have an impact on small businesses. Under G.L. c.30A, §2, the Commission offers the following responses to the statutory questions:

1. Estimate of the number of small businesses subject to the proposed regulation:

   This regulation is unlikely to have an impact on small businesses.

2. State the projected reporting, recordkeeping, and other administrative costs required for compliance with the proposed regulation:

   There are no projected reporting, recordkeeping, or other administrative costs required for small businesses to comply with this regulation.

3. State the appropriateness of performance standards versus design standards:

   No standards are set forth in this regulation.

4. Identify regulations of the promulgating agency, or of another agency or department of the Commonwealth, which may duplicate or conflict with the proposed regulation:

   There are no conflicting regulations in 205 CMR, and the Commission is unaware of any conflicting or duplicating regulations of any other agency or department of the Commonwealth.

5. State whether the proposed regulation is likely to deter or encourage the formation of new businesses in the Commonwealth:

Sports wagering is a new industry in the Commonwealth and these regulations are intended to encourage it, not deter it.

Massachusetts Gaming Commission
By:

___/s/ Carrie Torrisi_____
Carrie Torrisi, Deputy General Counsel

Dated: January 11, 2024

TO: Cathy Judd-Stein, Chair
Nakisha Skinner, Commissioner
Eileen O'Brien, Commissioner
Bradford Hill, Commissioner
Jordan Maynard, Commissioner

FROM: Katrina Jagroop-Gomes, Chief Information Officer
Kevin Gauvreau, Information and Network Security Manager
Cristian Taveras, Gaming Technical Compliance Manager
Nathan Saylor, Gaming Systems Analyst

CC: Todd Grossman, Interim Executive Director, and General Counsel
Bruce Band, Sports Wagering Division Director

DATE: January 9, 2024

RE: Independent Technical Security Control Audit

Pursuant to 205 CMR 243.01(1)(x), sports wagering operators are required to conduct a technical security control audit by an approved independent technical expert. The scope of the audit includes the following:

a. *A vulnerability assessment of all digital platforms, mobile applications, internal, external, and wireless networks with the intent of identifying vulnerabilities of all devices, the servers, and applications transferring, storing, and/or processing personally identifiable information and/or other sensitive information connected to or present on the networks.*
b. *A penetration test of all digital platforms, mobile applications, internal, external, and wireless networks to confirm if identified vulnerabilities of all devices, the servers, and applications are susceptible to compromise.*
c. *A review of the firewall rules to verify the operating condition of the firewall and the effectiveness of its security configuration and rule sets performed on all the perimeter firewalls and the internal firewalls;*
d. *An information security assessment against the provisions adopted in M.G.L. c. 23N, 205 CMR, this appendix with generally accepted professional standards, and as approved by the Commission;*
e. *If a cloud service provider is in use, an assessment performed on the access controls, account management, logging, and monitoring, and over security configurations of their cloud tenant;*
f. *An evaluation of information security services, payment services (financial institutions, payment processors, etc.), location services, and any other wagering services which may be offered directly by the Operator or involve the use of third parties against the provisions adopted in these rules; and*
g. *Any other specific criteria or standards for the technical security control audit as prescribed by the Commission or its designee.*

The MGC's ITS Gaming Technical Compliance and Information Security teams reviewed the independent technical experts' security audit reports and remediation plans if provided for the following operators:

- Category 1
  - Plainville Gaming and Redevelopment, LLC d/b/a Plainridge Park Casino
  - Blue Tarp reDevelopment, LLC d/b/a MGM Springfield
  - Wynn MA, LLC d/b/a Encore Boston Harbor
- Category 3
  - Penn Sports Interactive, LLC
  - BetMGM, LLC d/b/a BetMGM
  - WSI US, LLC d/b/a WynnBet
  - Crown MA Gaming, LLC d/b/a DraftKings
  - American Wagering, LLC d/b/a Caesars Sportsbook
  - Betfair Interactive US, LLC d/b/a FanDuel
  - Betr Holdings, Inc. d/b/a Betr
  - FBG Enterprises Opco, LLC d/b/a Fanatics Betting and Gaming

The regulation governing the review is 205 CMR 243.01(1)(x)(5):

> *If the independent technical expert's report recommends corrective action regarding an item identified as High, or, with respect to any other corrective action, if the Commission so directs the Sports Wagering Operator, the Sports Wagering Operator must provide the Commission with a remediation plan and any risk mitigation plans which detail the Operator's actions and schedule to implement the corrective action. Once the corrective action has been taken, the Sports Wagering Operator shall provide the Commission with documentation evidencing completion.*

In accordance with this regulation, the team conducted a review of the submitted security audit reports. Critical and high-severity findings were communicated to the operators for immediate mitigation, which were addressed in their initial and follow-up mitigation plans as required by 205 CMR 243.01(1)(x)(3)(f) & (g). All other severity findings must be addressed or resolved by their next scheduled annual audits, either April 30, 2024, or June 10, 2024. All operators have been cooperative and responsive to addressing any communicated issues. The findings are sensitive in nature, and we will be prepared to review them in the Executive Session at the upcoming public meeting scheduled for January 18, 2024.

GROUP 1 SPORTS WAGERING COMPLIANCE

MATTER REVIEW PROTOCOL

Scope

This protocol applies to all alleged Group 1 sports wagering noncompliance matters of which the Massachusetts Gaming Commission ("Commission") may become aware. Group 1 matters, which are further described below, may include alleged noncompliance by a Sports Wagering Operator ("Operator"); Qualifier; Occupational Licensee; Sports Wagering Vendor ("Vendor"); or Sports Wagering Registrant ("Registrant") (together, "Licensee(s)") with respect to any statutory or regulatory requirement. All such matters, however identified (by Commission staff, self-reported by a Licensee, via a member of the public, etc.), and regardless of to whom they are initially reported, shall be promptly referred to the Sports Wagering Division ("SWD").

Initial SWD Determination

Upon notification of an alleged noncompliance incident, the SWD shall enter the matter into the incident tracker database and review the information presented to determine the appropriate next steps.

The purpose of the initial review performed by the SWD is to determine whether the matter in question is a Group 1 matter. In making its determination, the SWD should proceed with the assumption that all allegations or facts presented are true for the purposes of the initial review. There is necessarily discretion that must be exercised by the SWD in making these determinations. Accordingly, the SWD may consult with other members of staff, including, but not limited to, counsel and the IEB, in reaching a decision. Group 1 incidents are categorized as follows:

Group 1: These matters involve *relatively low-level* incidents which may be handled directly by the SWD, with reporting to the Commission, as described below. In determining whether a matter is *relatively low-level*, the SWD shall consider, without limitation, the following:

- Whether the issue was relatively promptly detected and addressed by the Licensee;
- Whether the matter was self-reported by the Licensee;
- Whether the Licensee has a previous history of violations;
- Whether future occurrences of the issue can be avoided by instituting clear remedial measures;
- The total financial impact of the issue; and/or
- Any other consideration that the SWD finds relevant in evaluating the matter.
- Examples of hypothetical Group 1 incidents could include an advertising violation where required language is missing from one advertisement; failure to submit information required by the internal controls in a timely fashion; patron complaints regarding

compliance with responsible gaming-related regulations; patron complaints regarding promotions offered in Massachusetts; or patron complaints regarding technology used in sports wagering applications.

The Commission may determine that certain categories of alleged noncompliance event are not to be categorized as Group 1 matters.

The SWD and IEB will meet regularly to discuss alleged noncompliance incidents.

Group 1 Procedure

If the SWD determines that a matter involves a Group 1 incident, it may resolve the issue in accordance with the following procedure:

- The matter shall be entered into the Incident Tracker Database ("Database");
- In completing the Database entry, the SWD may inquire of any individuals (including the Licensee) with knowledge of the circumstances to gain an understanding as to what occurred; whether there was a violation of any statute, regulation, condition, and/or order; and (where possible) the cause of the incident;
- Upon completion of the preceding step, the SWD shall make a determination as to whether the issue is likely a one-time occurrence based on a unique set of circumstances or is likely to reoccur with the same Licensee;
- If the matter is likely to reoccur, the SWD shall determine whether adequate measures are in place to prevent such reoccurrence[1]; and
- Once the facts of the matter are determined to the satisfaction of the SWD, the matter may be resolved by issuance of a sports wagering notice of noncompliance form (SW NCF) describing the issue and violation(s); warning or reprimanding the Licensee; directing any necessary remedial measures; and setting a deadline for compliance. The SWD may communicate with the Licensee in reaching a resolution. The SWD may also determine that no violation has occurred.
- After further fact-finding, the SWD may determine that the event is not a Group 1 matter.
- The SWD will provide reports to the Commission on a monthly basis, or more frequently if requested, regarding the status of Group 1 matters.

[1] The SWD may also proactively reach out to other Licensees to ensure that adequate measures are in place to prevent similar noncompliance events.

Sports Wagering Incident Tracker Database

The Sports Wagering Incident Tracker Database shall be updated by SWD personnel to include all potential noncompliance matters brought to its attention. The database shall be made available to the Commissioners and Executive Director to ensure awareness of current matters being addressed. Any Commissioner may request that the Commission meet to determine whether a particular matter should be reviewed by the Commission. However, care must be taken to ensure that the Commission does not deliberate over any pending matter that may ultimately be brought before it at an adjudicatory proceeding.

TO: Chair Judd-Stein, Commissioners O'Brien, Hill, Skinner, and Maynard

FROM: Mark Vander Linden, Director of Research and Responsible Gaming; Bonnie Andrews, Research Manager

CC: Todd Grossman, Interim Executive Director

DATE: January 18, 2024

RE: Public Safety Research Report--Assessing the Influence of Gambling on Public Safety in Massachusetts Cities and Towns: Crime Comparison Analysis of Changes in the MGM Springfield Region 2013-2022

Massachusetts General Laws Chapter 23K Section 71 directs the Gaming Commission to develop an annual research agenda in order to understand the social and economic impacts of expanded gaming in the Commonwealth. Included in this section is a requirement to assess the relationship between crime and the expansion of gaming in the Commonwealth.

As part of the FY23 research agenda, the Commission funded Justice Research Associates (JRA) and their principal researcher, Dr. Noah J. Fritz, to continue the examination between casinos and the public safety effects related to their operations. Christopher Bruce, who previously studied crime, calls for service, and collisions in casino host and surrounding communities at regular intervals following casino openings, has continued to provide technical assistance with data collection and analysis.

This report is an analysis of changes in activity in the communities surrounding MGM Springfield during the past decade and after the opening of the casino. The primary purpose of this report was to conduct an analysis of the crime distribution throughout the region surrounding MGM Springfield since the casino opened, to identify which changes in activity might be attributable to the casino, and to triage trends for more detailed analysis and response among the participating agencies.

Attached are the final report, the research snapshot, and the presentation.

MGC Research Snapshot

Assessing the Influence of Gambling on Public Safety in Massachusetts Cities and Towns: Crime Comparison Analysis of Changes in the MGM Springfield Region 2013-2022

January 2024

What you need to know

This report is an analysis of changes in activity in the communities surrounding MGM Springfield during the past decade and after the opening of the casino. Findings include that overall, crime in the region continued to drop for the entire decade with a slight uptick in 2022. Distinct summer-time seasonality occurred each year with the exception of a lag that occurred during the COVID-19 summer closure.

What is this research about?

MGM Springfield opened on 24 August 2018 in the midst of a dense, urban area with a historically higher-than-average, but decreasing, crime rate. This report covers changes in crime statistics for the surrounding cities and towns during the past decade and after the opening of the casino, with a particular focus on 2022.

The primary purpose of this report was to conduct an analysis of the crime distribution throughout the region surrounding MGM Springfield since the casino opened, to identify which changes in activity might be attributable to the casino, and to triage trends for more detailed analysis and response among the participating agencies.

What did the researchers do?

Data was collected from eight (Springfield, Agawam, Chicopee, East Longmeadow, Holyoke, Longmeadow, Northampton, and West Springfield) of the eleven agencies within the region and the Massachusetts State Police. Crimes, calls for service, and collisions during the period of the last decade (2013-2022) were utilized. The report also contains information about impaired driving as a follow-up to a previous report on this topic. 33 FBI crime offenses were grouped into six categories and tracked for patterns over the study period.

The analysis focused on the larger pattern of crime in the past decade and the seasonal patterns that it represents. Researchers also examined hotspots to determine the geo-spatial patterns of crime distribution. Ten distinct hotspots in the region were identified and compared to the area around MGM.

Tableau visualization software was utilized to discern the six study periods (Pre-Open (2/3/17-8/23/18) / Open (8/24/18-3/14/20) /Closed (3/15/20-7/11/20)/ Restricted (7/12/20-5/29/21) / Reopen (5/30/21-12/21/22)/ Full Decade) for which these activities occurred. Weekly averages were calculated and graphed to illustrate the fluctuation of activity over the entire period and within each study period. Any significant increases were analyzed in more detail with available quantitative data. An on-site assessment was conducted to view the area and police personnel were contracted to gain insights into the contributing factors for hotspots.

This report does not generally attempt to answer broad questions about whether MGM "caused" crime increases or its closure caused decreases in the area. It simply identifies the trends across focused periods of pre-opening, open, closed, restricted and reopened cycles and looks for contributing factors and geographic explanations for high and low activity throughout the decade.

What did the researchers find?

An important finding is that there was a significant increase in crime before MGM Springfield reopened after the mandated COVID-19 closure. This chronological ordering suggests that the casino is not a primary cause of crime, but that other social, economic, or psychological factors have played a role in changes in crime patterns.

Major findings:

- The City of Springfield has aggressively engaged in an urban redevelopment plan in refurbishing Union Station, beautified parks and outdoor space enticing public use, and has invested in police technology and a real time crime center that proactively addressed crime problems and prolific offenders.
- Crime in the MGM-Springfield area consistently followed a summer seasonal pattern of increase during warmer weeks. This pattern could guide proactive strategies in the summertime to address this regular increase in crime.
- Crime clearly reduced in frequency when establishments in the region were closed due to COVID-19 but started to climb before the casino reopened. Once the casino did reopen, the crime levels did not return to levels before COVID-19 occurred. The fall in crime during the closure was less because of MGM's closure and more because of general societal changes during the period. In future analyses, it will become very difficult to untangle any MGM-specific influence from the changes brought by COVID-19 and other societal factors.
- Overall crime in the region steadily declined over the past 10 years, with a slight uptick in 2022.
- The City of Springfield was impacted the most by crime in the region, ranging between 33% and 62% of specific crime categories in the area. Overall, Springfield accounted for 62% of the crime in the region.
- MGM Springfield research findings aligned with social disorganization theory and concentric zones, that is, crime is more prevalent in the core center areas and diminished as it got further away from Central City. This pattern most likely has a spurious or intermittent relationship with the casino, more likely dictated by socioeconomic conditions. Several other crime hotspots exist with as much crime as found in the Central City-Springfield area, and thus, illustrates that other criminogenic factors are at play other than a casino.
- Fraud—specifically the fraud code that includes "swindles" and "con games"—was the only crime in the immediate MGM area to show both an unexpectedly high value and a value out of alignment with what the rest of the state experienced during the same period.
- While drunk driving arrests were down 8% in the MGM Springfield Region, the area did report a 10% increase in traffic collisions that resulted in a drunk driving charge. "Last Drink" reports attributed to MGM Springfield had a slight increase from the historical average of 5.8 per year to 7 in 2022.
- The surrounding communities saw some increases and decreases but very few consistent trends to which MGM Springfield serves as a clear source. There were
- several common trends among the agencies for which no direct MGM nexus could be identified, but which had a logical connection, a spatial connection, or both.

About the researchers

This report was prepared by Justice Research Associates, LLC, crime analysis consultant to the Massachusetts Gaming Commission. For more information about this report, please contact Noah Fritz at njfritz@gmail.com.

Conclusions and Recommendations:
Overall, crime around the MGM Springfield Casino continued to drop for the entire decade with a slight uptick in 2022. Developing mitigation strategies and collaborative initiatives appears to be feasible, given the shared similarities in crime types and temporal patterns.

Future research goals include:

- An expansive analysis of trends by working with the agencies to look at the full reports, including narratives.
- An analysis of changes in the MGM Springfield area compared to control areas and the rest of the state.
- A comparative analysis of traffic collisions in the Springfield area versus control areas whenever a public statewide crash dataset is available.
- A comparison of MGM Springfield with other casinos, normalized by the number of annual visitors by facility.

Citation

Justice Research Associates (2023). Assessing the Influence of Gambling on Public Safety in Massachusetts Cities and Towns: Crime Comparison Analysis of Changes in the MGM Springfield Region 2013-2022.

https://massgaming.com/about/research-agenda-search/?cat=public-safety

Key Words

Public Safety; Springfield

Acknowledgements

Financial support for this study comes from the Massachusetts Gaming Commission through the Public Health Trust Fund.

About this Snapshot

MGC Snapshots are intended to translate lengthy and sometimes technical reports into an easily understandable overview of the research. The findings and recommendations in the Snapshot are those of the researchers and do not necessarily reflect the position of the MGC.

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

Crime Comparison Analysis of Changes in the MGM Springfield Region

2013-2022

Justice Research Associates, LLC
Crime Analysis Consultant to the Massachusetts Gaming Commission
December 2023
Vol. 2023.2

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Executive Summary

Context and Purpose

MGM Springfield opened on 24 August 2018 in the midst of a dense, urban area with a historically higher-than-average, but decreasing, crime rate. This report covers changes in crime statistics for the surrounding cities and towns during the past decade and after the opening of the casino, with a particular focus on 2022. The report shows that only a few crimes increased in surrounding agencies during this period and the decade long trend of crime reduction continues on the same trajectory. While some of these increases have possible links to MGM, there is no general consistency across the surrounding agencies and limited evidence of a casino connection to specific offenders. What we do provide is a set of focus areas and patterns that local agencies can decide to focus on in terms of hotspots and seasonality.

The primary purpose of this report is to conduct an analysis of the crime distribution throughout the region surrounding MGM Springfield since the casino opened, to identify which changes in activity might be attributable to the casino, and to triage trends for more detailed analysis and response among the participating agencies.

Acronyms and abbreviations are provided in Appendix A.

Condensed Methodology

Data was collected from eight of the eleven agencies within the region. Three communities on the eastern fringe of Springfield were unable at this time to provide updated records at the time of this report. Crime continues to drop along the predicted trend lines in the majority of the region (see Figures 3 & 4 on pages 36 & 37). It should be noted that the Springfield MGM Casino is located in the heart of Central City or the central business district (CBD). Placing the casino within the CBD was intentional for economic development reasons and offered increased activity, surveillance, and social organization to an area already prone to high crime rates.

Data was collected from the records management systems (RMS) of the Springfield, Agawam, Chicopee, East Longmeadow, Holyoke, Longmeadow, Northampton, West Springfield, and the Massachusetts State Police. Hampden, Ludlow, and Wilbraham Police Departments who all share an RMS were unable to provide timely data for this analysis. Crimes, calls for service, and collisions during the period of the last decade (2013-2022) were utilized. The quality of the data was deemed accurate and represents the integrity of official crime and operational statistics of the participating agencies.

- The analysis focused on the larger pattern of crime in the past decade and the seasonal patterns that it represents. Like the previous report, researchers looked at hexagon hotspots to determine the geo-spatial patterns of crime distribution and used robust

graduated symbol maps to evaluate the distinct pattern of concentric zones and distance decay from the casino location and central city - Springfield[1].

- This research conducted a spatial analysis of crime counts across the study area using hexagon polygons[2] of equal size – approximately one-quarter-mile square areas. It used these sectors to compare high crime areas and describe the scope and nature of crime in them as compared to the hexagon encompassing the casino and those hexagons immediately contiguous to it. It compared several crime hotspots identified in the region. They will be used as benchmarks for future analysis. This report provides a report on drunk driving as reported by the Massachusetts State Police as a follow-up report to previous research done on impaired driving.
- Ten distinct hotspots in the region were identified and compared to the MGM hexagon, see pages 48-60 for a detailed discussion.
- Any significant increases were analyzed in more detail with available quantitative data.
- A statistical review of the expected downward trend was conducted to determine if specific crime categories were impacted beyond their expected trajectory.
- Additional micro-analysis was performed to fully ascertain crime and place. Pages 61-73 go into great detail of the micro analysis of crime in the Region.
- An on-site assessment was conducted to view the area and police personnel were contracted to gain insights into the contributing factors of these hotspots.

Major findings

- An important finding is that there was a significant increase in crime before the MGM Springfield Casino reopened after the mandated COVID-19 closure. Figure 7 (p.42) shows this chronological ordering, which suggests that the casino is not a primary cause of crime, but that other social, economic, or psychological factors have played a role in changes in crime patterns. For example, it is possible the strain of COVID-19 created an environment where motivated offenders sought relief from stress and/or economic hardship that led them to criminality, but a closed casino cannot be a factor.
- The City of Springfield has aggressively engaged in an urban redevelopment plan in refurbishing Union Station, beautified parks and outdoor space enticing public use, and has invested in police technology and a real time crime center that proactively addressed crime problems and prolific offenders.
- Crime in the MGM-Springfield area consistently followed a summer seasonal pattern of increase during warmer weeks. This is most likely not a surprise to police departments in the region but should serve as a reoccurring pattern that could guide proactive strategies in the summertime to address this regular increase in crime.
- Overall crime in the region steadily declined over the past 10 years with a slight uptick in 2022. Figure 6 (p.41) shows a leveling off in crime along the expected downward trend.

[1] Concentric zones and distance decay are discussed further down in this report, page 18 and 21, respectively.
[2] Documentation for why hexagons are considered best practice in spatial analysis can be found here: https://pro.arcgis.com/en/pro-app/latest/tool-reference/spatial-statistics/h-whyhexagons.htm

- The City of Springfield was impacted the most by crime in the region, ranging between 33% and 62% of specific crime categories in the area. Overall, Springfield accounted for 62% the crime in the region.
- Overall violent, property, and total crime followed a consistent pattern; albeit behaved, or should we say criminals behaved in routine and demonstratable patterns. Crime ebbed and flowed over time but stayed within a range that must be managed. This report should better help us understand this temporal pattern.
- The surrounding communities saw some increases and decreases but very few consistent trends to which MGM Springfield serves as a clear source. Issues most likely influenced by the casino include:
    - A clear summer seasonality spike in crime occurred in each year of this decade.
    - The COVID-19 pattern during pre-open, open, closure, and reopening followed the same pattern found in the Encore Boston Harbor research and we would refer you to this report for an in-depth discussion of the crime patterns before, during and after COVID-19. Most notably is that crime increased before the COVID closure ends, suggesting that something other than the casino or other venues (i.e., restaurants, bars, sporting events, schools, etc.) drove criminal activity. We hypothesize that motivated offenders look for opportunities under all circumstances, and economic circumstances and addictions drove their behavior regardless of the casino or restaurants/ bars being open.
    - Crime clearly reduced in frequency when establishments in the Region were closed due to COVID-19 but started to climb before the casino reopened. Once the casino did reopen, the crime levels did not return to levels before COVID-19 occurred.
    - MGM Springfield casino followed the classic conception of social disorganization theory and concentric zones, that is, crime is more prevalent in the core center areas and diminished as it got further away from Central City. Each crime type was evaluated and demonstrated the same or similar results, suggesting a structural aspect to crime and communities within the Springfield area.
    - This evidence suggests a strong correlation to the casino location, geographically. Correlation does not prove causation and most likely has a spurious or intermittent relationship with the casino, more likely dictated by socio-economic conditions.
    - Several other crime hotspots exist with as much crime as found in the Central City-Springfield area, and thus, illustrates that other criminogenic factors are at play other than a casino.
    - Fraud—specifically the fraud code that includes "swindles" and "con games"—was the only crime in the immediate MGM area to show both an unexpectedly high value and a value out of alignment with what the rest of the state experienced during the same period.
    - The crime of burglary showed a dramatic decrease in both Springfield and Massachusetts at large over the last decade.

    - While drunk driving arrests were down 8% in the MGM Springfield Region, the area did report a 10% increase in traffic collisions that resulted in a drunk driving charge. "Last Drink" reports attributed to MGM Springfield had a slight increase from the historical average of 5.8 per year to 7 in 2022.
    - Robbery was below its projected total in every community except Longmeadow (which only had 3). Both violent crime and vehicle crime remained normal in the area despite an uptick in the rest of the state.
- There were several common trends among the agencies for which no direct MGM nexus could be identified (e.g., an arrested offender known to visit the establishment) but which had a logical connection, a spatial connection, or both:
    - Shoplifting in East Longmeadow hit its highest total in a decade, a sudden reversal of a trend that had produced the decade's lowest total (29) in 2021. The increase was localized almost entirely at the Stop & Shop on North Main Street.
    - Continued patterns of purse snatching, this time in Springfield. Purse Snatching in Springfield hit a record high in 2022, rising to 59. The previous year was also high at 38; the decade average before that was only 13.
    - Vandalism in West Springfield was higher in 2022 than any year in the previous decade, and nearly 100 incidents higher than the 232 reported in 2021.
- Crime fell during the COVID closure—less because of MGM's closure specifically and more because of general societal changes during the period. In future analyses, it will become very difficult to untangle any MGM-specific influence from the changes brought by COVID-19 and other societal factors.

This COVID-19 pre-during-post period analysis provided us with a temporal and spatial view and perspective of crime in and around the MGM Springfield Casino. While the casino closure would normally provide an opportunity to conduct a pre-post closure assessment using time series analysis, so many other factors come into play during this chaotic period in America. Key factors included the fact that all restaurants, bars, entertainment venues, and schools were closed; and restrictions on health care facilities and hospitals reduced the number of social interactions in our communities, including the possibility for criminal interactions and traffic volume. The social stress of COVID-19, political protests because of George Floyd, and political unrest surrounding the 2020 election all contribute to varying levels of crime. Any study looking at crime and disorder is simply challenged by the reality that these events collectively affected our lives. It is virtually impossible to control for these contributing factors; and as such, this report offers benchmarks for future research and a starting point for understanding the scope and nature of crime in the region. Patterns of crime in the State, the region and within comparable hotspots will allow us to monitor crime going forward.

Conclusion

Overall crime around the MGM Springfield Casino continued to drop along the consistent trend line for the entire decade. Distinct summer-time seasonality occurred each year with the exception of a lag that occurred during the COVID-19 summer closure.

Developing mitigation strategies and collaborative initiatives appears to be feasible, given the shared similarities in crime types and temporal patterns. It makes sense to collaborate and focus on specific crimes since evidence-based policing tells us the same prolific offenders tend to be responsible for the majority of crime and that crime clusters in distinct areas. Sharing timely intelligence and responding with effective and unified solutions represents a sound practice for the future. Putting officers in the right place at the right time is feasible when utilizing sound crime analysis.

Future research calls for critical thinking about certain crimes that are associated with casinos. Certainly as patrons visit the casino, cash related crimes like street jump robbery and theft from autos are more likely. Identity theft from thieves stealing documents from parked cars in structures and street parking have clear correlates. Large venues like sporting events and conference championships draw wealthy clientele, and with-it certain types of crime and scams. Prostitution and human trafficking, as difficult as they are to discern and investigate, remain high priorities. Drunk driving merits ongoing attention given the strong relationship between adult entertainment and alcohol consumption. But as the data suggested, all the jurisdictions within the region, share common crime and disorder problems, and a collaborative and problem-solving approach merits strong consideration. It is very likely that each city is dealing with a similar pattern of a small number of prolific offenders, and hotspots with common contributing attributes.

Introduction

In a review of the effects of casinos on crime in host communities, Sutton (2003) summaries the research[3] of Stint et al (2003) and concluded that:

> "…no definitive statement can be made about the effect casinos have on crime and that there are likely to be some contextual factors operating in some communities, that allow for casinos to positively affect crime under certain as yet unknown circumstances. At the same time, there is also no way of knowing whether the apparent casino effect, when present, is a direct one. When a casino opens in a community, it often changes the nature of the community in a multitude of ways, both positive (stimulating the economy and adding employment and entertainment) and negative (adding traffic congestion and introducing large numbers of non-residents). The authors found it is the interplay of these and other factors, such as location, size, number of casinos, state gambling regulations and law enforcement policies, that may determine the effect of the casino on crime in the community. If crime has increased, is it due to casino-related factors or increased tourism (which has been linked to increases in crime in other studies)?"

Our assessment of MGM Springfield could not agree more at this point in time. Others point to the paucity of available research over the past 30 years that simply do not offer robust methodologies or the quality of data to definitively proclaim that casinos cause crime. The Massachusetts Gaming Commission and its research agenda provides us with the opportunity to study crime and place within a geo-historical context. This report will not come close to answering this important research question but does continue to lay the groundwork for better understanding the geo-spatial relationship of crime in and around casinos and provide insights and best practice for responding to crime and disorder. The authors of this report want to thank MGC for providing the opportunity to be part of this endeavor and to contribute to this body of literature. These series of studies lay the groundwork for improving research methods and applied criminological perspectives on crime in vulnerable locations. We remain completely neutral on the research question at hand and hope to play a role in building our knowledge.

PURPOSE OF THIS REPORT

The intention of these analyses is to demonstrate, comprehensively, whether changes in crime, disorder, and other public safety harms can be attributed directly or indirectly to the introduction and operation of a casino and what strategies local communities need to implement to mitigate any such harm. Justice Research Associates collaborate with the Commission and select law enforcement agencies in casino host and surrounding communities to examine changes in crime patterns, calls for service[4], and motor vehicle collisions following the opening of the casinos in

[3] Sutton (2003) Journal Article Review of "Does the Presence of Casinos Increase Crime? An Examination of Casino and Control Communities," by B. Grant Stitt, Mark Nichols, and David Giacopassi, 2003. *Crime & Delinquency*. Vol. 49 (2): 253.

[4] Calls for service definitions are provided in Appendix B.

their respective regions. Data and reports generated from this work will support key aspects of the Gaming Research Agenda outlined in G.L. c. 23K, Section 71.

It is our understanding that this body of research is meant to inform public safety agencies in Massachusetts about the relationships between crime and casinos and provide area commanders with thought provoking strategies and problem-solving ideas that they may elect to deploy.

The primary purpose of this report is three-fold.

- Number 1 - Conduct an analysis of the increases and decreases in activity in the communities surrounding MGM Springfield casino over six distinct timeframes:
    - prior to the casino opening (Pre-Open),
    - while it was open pre-covid (Open),
    - during the covid closure (Closed),
    - during restricted operations,
    - time since returning to full operations (Reopen) on May 30 '22, and
    - over the entire decade data is available - 2013 to 2022.

The goal here is to establish whether MGM Springfield demonstrated a different temporal pattern of crime compared to Encore. This report, like previous ones, alert participating agencies to trends (whether or not "caused" by MGM) and identify patterns for future detailed analysis in later reports. Comparisons were made to ascertain the degree to which casino operations and general COVID-19 closures impacted crime and call levels.

The period covered by this report compares 7-day cycles for the 81 weeks before MGM opened (as a pre-opening baseline) to the 81 weeks the casino was open from August 24, 2018 until it closed on March 14, 2020 due to COVID-19. It will then compare weekly averages for crime counts using these same cycles for the 17-week period the casino was closed from March 15, 2020 until July 11, 2020 when it reopened with capacity and distancing restrictions. Finally, this report will compare these rates of activity since fully reopening on May 30, 2021 until December 31, 2022 (83 weeks) and compare it to crime rates across these periods. This report provides a time series analysis of these different periods standardized by 7-days. We elected not to do a crime specific breakdown because the same COVID-19 pattern was established. Researchers turned our focus on crime specific hotspots and the clear pattern of crime diminishing the further locations got away from Central City and the casino.

	Pre-Open	Open	Closed.	Restricted.	Reopen
Time Frame	2/03/17	8/24/18	3/15/20	7/12/20	5/30/21
	8/23/18	3/14/20	7/11/20	5/29/21	12/21/22
	81 Weeks	81 Weeks	17 Weeks	46 Weeks	83 Weeks

- Number 2 - Provide insight into the temporal and spatial patterns of crime in jurisdictions surrounding MGM. It begins with a broad macro analysis, followed by a drill down into the data at a local level and compares across them. It is a process of deductive reasoning, if you will, that allowed us to compare MGM Springfield to the overall changes and to each of the surrounding jurisdictions. The spatial micro-analysis used hexagons to drill down further into quarter-mile sections throughout the region.
- Number 3 - Use Environmental Systems Research Institute's (ESRI) ArcGIS Pro to produce dynamic graduated symbol maps for each crime category and evaluate the spatial patterns of distribution. This approach provided the researchers the opportunity to explore a range of methods, software and other tools that have been developed to analyze large volumes of crime and establish optimal methodology for future analyses. This approach helped identify hotspots within hotspots.

This report does not generally attempt to answer broad questions about whether MGM "caused" increases, or its closure caused decreases in the area. It simply identifies the trends across our focused periods of pre-opening, open, closed, restricted and reopened cycles and looks for contributing factors and geographic explanations for high and low activity throughout the decade for which we have data. It does provide evidence of support for Shaw and McKay's social disorganization theory that crime decreases from the Central City and diminishes the further it gets away from its nucleus. Future analysis will attempt to ascertain the causal factors and correlates related to crime in proximity to the casino and in relationship to other contributing factors found during our onsite visit.

The following key concepts lay the foundation for our approach.

Crime Triangle

Like the elements of a fire (i.e., oxygen, fuel, and a spark), all three of these crime factors (Victim, Offender, and the lack of a capable guardian at the same time and place) need to be present for a crime to occur (Cohen and Felson. 1979; Clarke and Eck, 2016). Sherman et al. (1989) is one of the first to apply Routine Activity Theory to hotspots, consistently showing how crime congregates in succinct places.

Best practice, according to the Problem Oriented Policing DOJ funded initiative, calls for solutions that are focused on distinct areas or hotspots and that are multifaceted in nature, which prove to be more successful. Future analysis will attempt to offer a more robust understanding of the scope and nature of crime in these hotspots so that local agencies can leverage their resources towards micro-solutions that can be measured and replicated (Scott & Kirby, 2012).

Research Methods

The research methods used during this analysis included Geographic Information Systems (GIS) software called ArcGIS Pro, a spatial analysis tool for understanding crime and place, particularly crime hotspots and micro-level analysis. A technique we call Detailed Hexagon Clustering was used to identify and drill down on crime within these hotspots to better understand the scope and nature of crime within these areas. Another relatively new ArcGIS tool called *Aggregate Clustering* was utilized to dynamically visualize hotspots. Graduated point symbols were used to aggregate and disaggregate the data dynamically as you zoom in and out. You can easily create and evaluate hotspots within hotspots and pinpoint the source of the issue. Researchers used *Clustering* and Google maps to find underlying businesses or features that might be contributing factors within the targeted area. Several hotspots were compared to the MGM hotspot and illustrated that crime volumes at or around the casino area also have high frequency of specific crimes, thus showing various contributing factors.

A technique called Risk Terrain Modeling (RTM) and Environmental Systems Research Institute (ESRI) Business Analyst tool were used to develop Profiles for each hexagon hotspot to assess the demographic makeup of the area. This allowed the researchers to compare the MGM hotspot to other crime hotspots and assess their similarities and differences in socio-economic terms. Future analysis will attempt to assess the risk and protective factors within communities as they relate to crime prevention and mitigation. A brief discussion of RTM can be found at the end of this report.

Tableau data visualization software was utilized to evaluate the time series analysis over six distinct periods: (1) Pre-casino opening, (2) Open, (3) Closed due to COVID-19, (4) Restricted Reopening, (5) Reopen; and the entire decade annually. This report focused on the nature of crime and space, using these techniques to investigate various crime categories in the entire region, within each jurisdiction and, finally, at the micro-level of several hexagon hotspots. This deductive approach and its findings provided a step-by-step drill down into the data to look for trends and patterns in an historical, temporal, and spatial context. The major findings of this effort can be found on pages 36-84.

Researchers also conducted an on-site qualitative assessment and observed first-hand and took photos of crime hotspot locations to get a better appreciation for the spatial and social dimensions of crime and place in Springfield and surrounding communities. The insights were quite informative. Photos are offered in the Results section to enhance the analysis.

Project Overview

Background

In 2014, the Massachusetts Gaming Commission, 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, the MGC contracted with researchers with direct experience analyzing the crime, call-for-service, and collision records collected daily by Commonwealth police agencies.

While many studies had attempted to study the effects of gambling on overall rates for serious crimes, aggregated annually, very few 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 help the police anticipate and respond to emerging problems.

In 2014, the MGC contracted with a career crime analyst, the author of several previous reports, to extract data from the agencies likely to be affected by the opening of Massachusetts's new casinos, and to design a process for assessing changes in those agencies' activity on a periodic basis. Work began in 2015 with baseline and first-quarter analyses of the Plainville area, where Plainridge Park opened in June. A new phase began in 2018, when MGM Springfield opened in August, and a third in 2019, when Encore Boston Harbor opened its doors to the public. This effort produced four (4) reports on MGM prior to this report.

In 2022, MGC contracted with Justice Research Associates (JRA) to continue this line of inquiry. JRA is a research consulting firm that specializes in applied research focusing on spatial and temporal analysis of crime and calls-for-service. Constructive feedback and questions can be directed to Dr. Noah Fritz by sending an email to njfritz@gmail.com. Previous reports are available online at massgaming.com.

Table 1 below lists all previous reports assessing changes in crime and police activity related to the three Massachusetts casinos, with this November 2023 report listed last.

Table 1: Publicly issued and planned reports on changes in crime and police activity

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 Casino	Few changes discernible in the immediate 3 months.
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 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."
December 2017	Analysis of changes in police data after the first 2 years of operation at Plainridge Park Casino	Most comprehensive report so far. Included comparative analysis of control areas.
June 2018	Report on baseline activity in Springfield-area agencies	First report in preparation for MGM casino.
December 2018	Three-year analysis of Plainridge Park area.	Includes comprehensive traffic study
September 2019	Eight-month analysis of MGM Springfield	Showed increases in traffic collisions and complaints but few crimes increase.
September 2019	Baseline analysis of Encore Boston Harbor area	First report on this casino
October 2019	Four-year analysis of Plainridge Park	Final Plainridge Park reports shows few public safety issues attributable to the casino.
February 2020	One-year analysis of MGM Springfield	MGM is shown to be potentially related to some traffic issues and small patterns in specific communities.
March 2020	Six-month analysis of Encore Boston Harbor	Like MGM, Encore itself is busy, but has few detectable influences on surrounding area.
February 2021	18-month analysis of MGM Springfield	First report to cover COVID-era closings.
March 2021	1-year analysis of Encore Boston Harbor	Second report to cover COVID-era closings.
April–June 2021	Special reports on drunk driving, casino-based crime, and the MGM 2-year report	Special Report on MGM
January 2023	Assessing the Influence of Gambling on Public Safety in Massachusetts Cities and Towns During the COVID-19 Pandemic	Third report to cover COVID-era closings and the weekly time series analysis of pre-to-post Covid periods.
November 2023	*Crime Comparison Analysis of Changes in the MGM Springfield Region* – 2023	Third report to cover MGM looking specifically at crime hotspots and COVID-19 closure effects

Literature Review

A small body of literature exists for criminological studies of gambling and crime. There has been no research to our knowledge up to the time of this publication that has studied crime around casinos during COVID-19[5]. The previous methodology for inquiry ranges from entire cities being compared to control areas (Stitt et al., 2003; Barthe & Stitt, 2009; Ochrym. 1990).

The relationship between casinos and crime is a complex and debated topic. While some studies suggest a correlation between the presence of casinos and an increase in certain types of crime, it is important to consider several factors and nuances.

Proponents of the idea that casinos cause crime argue that the gambling industry can attract criminal elements, such as money launderers, loan sharks, and organized crime syndicates. Additionally, they argue that the influx of cash and the high-stakes environment can lead to increased levels of theft, fraud, and other criminal activities. There have been cases where criminal activity has been associated with casinos, such as money laundering schemes or illegal gambling operations.

On the other hand, opponents argue that well-regulated and properly managed casinos can mitigate the risks of criminal activity. They point out that legalized gambling establishments are subject to strict regulations, surveillance, and security measures, which can deter potential criminals. Furthermore, they argue that casinos can have a positive impact on local economies by generating jobs, tax revenue, and tourism.

It's worth noting that the research on this topic has produced mixed results, and there isn't a consensus among experts. Some studies have found a positive association between casinos and crime rates, while others have found no significant correlation. The impact of casinos on crime can also vary depending on the specific location, the regulatory framework, and the social and economic context.

In summary, while there are arguments suggesting that casinos may contribute to certain types of crime, the relationship is complex and context dependent. The presence of casinos alone cannot be solely blamed for an increase in crime, as multiple factors influence crime rates in any given area.

Understanding the relationship between crime and place has become a critical function of modern police work. Hotspot policing and proactive responses to crime problems are a relatively contemporary endeavor. Problem oriented policing (Goldstein, 1990) offers a systematic scientific approach to reducing crime and disorder.

[5] COVID-19 refers to the specific time frame for the first verified case of COVID-19 and throughout the period Massachusetts lifted COVID-19 restrictions. To our knowledge, we have found no specific research that studied crime around casinos as a result of COVID and simply acknowledge that more research is needed.

Our analysis draws on ecological social theory and environmental criminology to better understand the context of crime and place. Social disorganization theory, concentric zones, and the concept of central city helps us understand crime in a more structural way, while environmental criminology concepts like Routine Activity, Crime Patterns, distance decay and activity space provide a social context for visualizing why crime occurs when and where it does. We offer these important concepts in more detail as we assess crime hotspots and temporal patterns within the region.

To be clear, social disorganization theory provides a theoretical construct that is grounded in criminological theory. It suggests that there is something structural about the way communities are socially constructed that creates an environment where crime concentrates in the central city and diminishes as one gets further away from it. From a crime prevention and strategic enforcement standpoint, recognizing the consistency of this phenomenon lends strength to deployment and policy decisions. While many police departments intuitively recognize these criminogenic factors, social disorganization theory provides an evidence-based foundation for addressing crime in a proactive way.

Key Concepts

Social disorganization theory (SDT) (Shaw and McKay, 1942) is a criminological perspective that seeks to explain the occurrence of crime and deviance within certain communities or neighborhoods. The theory suggests that crime rates are influenced by the social and structural characteristics of a community rather than individual-level factors.

Social disorganization theory was developed by sociologists at the University of Chicago in the early 20th century, notably Robert E. Park, Ernest Burgess, and Clifford Shaw. It emerged as a response to the observation that certain neighborhoods had persistently high crime rates despite changes in the composition of the population. The theory suggests that it is the social and structural conditions of the community that contribute to crime, rather than the individual characteristics of its residents.

According to social disorganization theory, when a community experiences a breakdown in social control mechanisms and faces various social problems, it becomes "disorganized." These social problems can include poverty, residential mobility, ethnic heterogeneity, family disruption, and a lack of cohesive community organizations. The disorganization of a community can lead to weakened social bonds, a decline in informal social control, and a higher likelihood of criminal behavior.

The theory posits that in disorganized communities, individuals may be less likely to form strong social ties, trust their neighbors, or participate in community activities. As a result, informal mechanisms of social control, such as shared values, social norms, and collective supervision, are weakened. The absence of these social controls increases the chances of criminal behavior as individuals are less likely to be deterred from committing crimes or to receive social support that discourages such behavior.

It's important to note that social disorganization theory is just one among several theories that seek to explain the causes of crime and deviance. While it highlights the impact of community factors, other theories focus on individual traits, social learning, strain, or rational choice, among other factors. Criminologists often explore a combination of these theories to gain a more comprehensive understanding of crime and its underlying causes. Social disorganization theory helps us explain why crime perpetuates in some neighborhoods and not in other locations. Springfield has a long history of neighborhoods that are prone to these social attributes and reflect the very essence of the central city perspective (discussed later).

Social Disorganization Theory provides the structural explanation for the spatial distribution of crime; and provides us with causal factors for areas of high crime. We use these causal factors to compare various crime hotspots and distance decay within MGM region. Casino related crime, the primary focus of this research effort, has previously fallen into two potential explanations: (1) casino patrons and their property are targets of crime as opportunities present themselves and (2) chronic gamblers turn to crime to offset their losses or feed their addiction. Criminological explanations (theory) of crime are grounded in psychological (micro) theories or socio-political (macro) theories. Most micro explanations do not serve the police in developing operational or crime prevention strategies to address or respond to it.

Identifying crime hotspots (areas with high levels of crime) that do not have casinos within them or near them must have other contributing factors. We use these concepts to compare across various hotspots in the region. Several Problem Oriented Policing (POP) Guides[6] walk crime analysts and police area commanders through a systematic process for fighting crime-specific issues. Ratcliffe (2019) offers several distinct models and useful systematic strategies to reduce crime.

Social Disorganization Theory has been used to inform crime prevention strategies by identifying areas with high levels of social disorganization and implementing measures to strengthen social institutions and promote community involvement in crime prevention. For example, community policing programs may be implemented to increase police presence and build relationships between police and residents, or community development programs may be implemented to address underlying social and economic factors that contribute to crime.

Studies[7] have been conducted to evaluate the relationship between crime and casinos. While some studies have suggested a positive relationship between the two, others have found no significant correlation. One explanation for the positive relationship is that casinos attract both visiting and resident criminals. However, other studies[8] have argued that the relationship between casinos and crime is not causal, but rather a reflection of the increased police

[6] https://popcenter.asu.edu/pop-guides
[7] https://walkerd.people.cofc.edu/pubs/JGBE_GM.pdf
[8] https://www.casino.org/blog/why-is-gambling-associated-with-crime/

presence and reporting of crime in areas with casinos. More research is needed to fully understand the relationship between crime and casinos.

Overall, Social Disorganization Theory provides a useful framework for understanding the relationship between crime and the social and economic conditions of a particular neighborhood or community and can help inform crime prevention strategies by targeting resources to areas with high levels of social disorganization.

Concentric zones, in the context of criminology, refer to the spatial patterns and organization of a city or urban area. This concept is closely associated with the ecological theory of crime developed by sociologists at the University of Chicago, particularly Ernest Burgess (1925). Concentric zones, as a social construct, will be used to assess distance decay (discussed below) and is presented here to help explain the concentration of crime in Central City and its diminishing distribution as it moves outward through these different zones. This ecological theory is presented to explain how and why crime clusters closer to Central City and diminishes the further away one gets from it. In regard to the MGM Casino, it resides by design and as part of urban renewal within the central business district, not as a contributing factor necessarily to crime production.

According to the concentric zone theory, cities can be divided into distinct concentric rings or zones, each characterized by different social and economic characteristics. The theory proposes five concentric zones:

1. Central Business District (CBD): The innermost zone, which includes the downtown area and serves as the economic and commercial hub of the city. This zone is typically characterized by high population density during the day due to the presence of businesses, offices, and retail establishments. However, residential population tends to be low in this zone. Some casino researchers refer to this zone as Central City.
2. Transition Zone: Located just outside the CBD, the transition zone is marked by a mix of residential, commercial, and industrial land uses. This zone often experiences social and economic instability, including high levels of poverty, crime, and residential mobility. It is where older, deteriorating housing may be found and where newly arrived immigrants or marginalized populations tend to settle.
3. Working-Class Zone: Beyond the transition zone, the working-class zone consists of neighborhoods with modest, single-family homes occupied by blue-collar workers. This zone is often characterized by a stable but economically struggling population, with relatively lower crime rates compared to the transition zone.
4. Residential Zone: This zone comprises middle-class residential neighborhoods. It typically consists of more spacious homes, better infrastructure, and a higher quality of life. The residents in this zone tend to have higher incomes and experience lower crime rates compared to the previous zones.
5. Commuter Zone: The outermost zone, primarily composed of suburban areas, where individuals commute to work in the city but reside outside of it. This zone typically

exhibits low population density and is characterized by a mix of residential, commercial, and recreational land uses.

The concentric zone theory suggests that crime rates and social problems are highest in the innermost zones, such as the transition zone, due to the socio-economic challenges and disorganization associated with these areas. As one moves outward into the more residential and affluent zones, crime rates tend to decrease. Others have coined this inner region as Central City and used it to look at casinos (Buck, A.J., et al, 1991).

It's important to note that while the concentric zone theory provides a framework for understanding the spatial distribution of crime, it is not without criticism. Critics argue that the theory oversimplifies the complexity of urban areas and may not fully account for other factors influencing crime, such as individual characteristics and social processes. Nonetheless, the concept of concentric zones has been influential in shaping our understanding of the relationship between urban environments and crime patterns.

Environmental criminology[9] is a branch of criminology that focuses on the relationship between crime and the environment. It examines how various environmental factors, such as the design of physical spaces, social and economic conditions, and cultural norms can contribute to the occurrence of crime.

One of the key principles of environmental criminology is the idea that crime is not solely the result of individual choices or actions but is also influenced by the environment in which it occurs. For example, research[10] has shown that certain types of physical environments, such as poorly lit areas or areas with high levels of foot traffic, can increase the risk of crime. Additionally, environmental criminology recognizes the importance of social factors, such as poverty and inequality, in shaping patterns of crime and victimization.

Environmental criminology[11] has been used to inform crime prevention strategies, such as the design of buildings and public spaces to reduce opportunities for crime, and the implementation of community development programs to address underlying social and economic factors that contribute to crime.

Routine Activity Theory[12] is a criminological theory that explains the occurrence of crime based on the convergence of three elements: motivated offenders, suitable targets, and the absence of capable guardians. The theory suggests that crime is more likely to occur when these three elements are present in the same place and at the same time.

According to the theory, motivated offenders are individuals who have the desire and ability to commit crime, suitable targets are objects or people that are attractive to offenders, and

[9] Brantingham and Brantingham, (1990)
[10] https://www.tandfonline.com/doi/abs/10.1080/19434472.2017.1365901
[11] https://www.sciencedirect.com/science/article/pii/S0749379711002941
[12] Eck and Clark (2003) and Felson, Marcus (2002)

capable guardians are individuals or systems that can prevent crime from occurring. For example, a house left unoccupied for an extended period of time may be a suitable target for burglary, especially if the house is located in an area with low levels of police presence or neighborhood watch programs.

Routine Activity Theory suggests that changes in any of these three elements can affect the likelihood of crime. For example, increasing the number of capable guardians in a particular area may reduce the likelihood of crime, while decreasing the number of suitable targets may also reduce crime. This theory has been used to inform crime prevention strategies by identifying areas with high levels of crime and implementing measures to increase the presence of capable guardians, reduce the attractiveness of potential targets, and deter motivated offenders from committing crimes in those areas.

Overall, Routine Activity Theory provides a useful framework for understanding the relationship between crime and the environment in which it occurs.

Crime Pattern Theory[13] is a criminological theory that explains the occurrence of crime based on the spatial and temporal patterns of criminal activity. The theory suggests that crime is not randomly distributed, but rather occurs in predictable patterns based on factors such as the location of potential targets, the presence of capable guardians, and the routine activities of potential offenders (obviously linked to Environmental Criminology and Routine Activity).

According to Crime Pattern Theory, crime is more likely to occur in areas where potential targets are concentrated and where there is a lack of capable guardians to prevent crime. Additionally, the theory suggests that crime is more likely to occur during periods of time when potential offenders have the opportunity and motivation to commit crimes, such as when they are not occupied with other activities or during seasons when people are active (summer).

Crime Pattern Theory has been used to inform crime prevention strategies by identifying areas where crime is likely to occur and implementing measures to increase the presence of capable guardians, reduce the attractiveness of potential targets, and deter potential offenders from committing crimes in those areas. For example, police may increase patrols in areas with high levels of criminal activity or implement lighting and surveillance measures to increase the perception of risk for potential offenders.

Overall, Crime Pattern Theory provides a useful framework for understanding the spatial and temporal patterns of crime and can help inform crime prevention strategies by identifying areas where crime is likely to occur and targeting resources to those areas.

Distance Decay Theory[14] is a geographic theory that explains how the frequency and intensity of interactions between two places decreases as the distance between them increases. The theory suggests that the likelihood of interaction between two places decreases as the

[13] Brantingham and Brantingham (1990, 1993). Buck, et al., (1991).
[14] Cantor, David (2002)

distance between them increases, due to factors such as transportation costs, time, and effort required to travel between the two places.

In criminology, Distance Decay Theory has been used to explain the relationship between crime and distance from the offender's home or base of operation. The theory suggests that offenders are more likely to commit crimes closer to their home or base of operation, due to factors such as familiarity with the area, ease of access, and reduced transportation costs.

This theory has been used to inform crime prevention strategies by identifying areas where offenders are likely to operate and implementing measures to increase police presence and surveillance in those areas. For example, police may increase patrols in areas near known offender residences or known areas of criminal activity. Overall, Distance Decay Theory provides a useful framework for understanding the spatial patterns of crime and can help inform crime prevention strategies by identifying areas where crime is likely to occur and targeting resources to those areas.

Crime and Activity Space[15] is a criminological theory that explains how an individual's routine activities and spatial patterns can influence their risk of victimization and involvement in criminal activity. The theory suggests that an individual's activity space, which includes the places they regularly visit and the routes they take to get there, can create opportunities for criminal activity and increase their risk of victimization.

According to Crime and Activity Space theory, an individual's activity space can be divided into three components: nodes, paths, and edges. Nodes are places where an individual spends a significant amount of time, such as their home or workplace. Most people spend most of their time where they work, play or live and along routes between them. Paths are the routes an individual takes to travel between nodes, such as their daily commute. Edges are the boundaries between different activity spaces, such as the border between two neighborhoods.

Crime and Activity Space theory has been used to inform crime prevention strategies by identifying areas where individuals are most likely to be victimized or involved in criminal activity. For example, police may increase patrols in areas where there are high levels of pedestrian traffic or implement lighting & surveillance measures along popular walking routes.

Overall, Crime and Activity Space theory provides a useful framework for understanding how an individual's routine activities and spatial patterns can influence their risk of victimization and involvement in criminal activity and can help inform crime prevention strategies by targeting resources to areas and situations where individuals are most vulnerable.

[15] Brantingham and Brantingham, (1993); Felson (2002 and Wiles (2000)

Hotspot policing[16] is a strategy used by law enforcement to target high-crime areas or "hotspots" with increased police presence and resources. The goal of hotspot policing is to prevent crime by deterring potential offenders and increasing the likelihood of apprehension for those who do commit crimes in the targeted areas.

Research[17] has shown that hotspot policing can be an effective strategy for reducing crime in targeted areas, particularly when combined with other crime prevention strategies such as community policing and problem-oriented policing. However, some critics have raised concerns about the potential for hotspot policing to lead to over-policing and discriminatory practices, particularly in communities of color.

Overall, while hotspot policing can be an effective tool for reducing crime, it is important for law enforcement agencies to use it in a responsible and equitable manner.

Journey to Crime[18] is a criminological theory that explains how an offender's and a victim's. movements and activities leading up to the commission of a crime can influence the likelihood and nature of the crime. The theory suggests that the participant's journey to commit a crime involves a series of decisions and actions that can be influenced by factors such as the personal characteristics, the availability of suitable targets, and the presence of capable guardians.

According to Journey to Crime theory, the offender's journey to the crime scene can be divided into four stages: pre-crime, commission, aftermath, and escape. During the pre-crime stage, the offender makes decisions about whether to commit a crime and selects a suitable target. During the commission stage, the offender carries out the crime. During the aftermath stage, the offender may attempt to conceal evidence or flee the scene. During the escape stage, the offender attempts to leave the area without being detected by law enforcement or other capable guardians.

Journey to Crime theory has been used to inform crime prevention strategies by identifying areas where offenders are likely to travel and implementing measures to increase the presence of capable guardians and reduce the attractiveness of potential targets. It is most useful to determine the time and manner in which the victim's journey overlaps with the offender's journey to crime, which provides useful leads to who the perpetrator might be.

Overall, Journey to Crime theory provides a useful framework for understanding the decision-making process that leads to the commission of a crime and can help inform crime prevention strategies by targeting resources to areas and situations where offenders are most likely to make the decision to commit a crime.

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[16] Sherman (1989 and 1995) and Lum (2008)

[17] https://www.ncjrs.gov/pdffiles1/nij/grants/209731.pdf

[18] Cantor, David (2004) and Wiles (2000).

Methodology

Data Collection

Data was collected from the records management systems (RMS) of the Springfield, Agawam, Chicopee, East Longmeadow, Holyoke, Longmeadow, Northampton, West Springfield, and the Massachusetts State Police. The three communities on the eastern fringe of Springfield were unable to provide timely data because permission was not forthcoming because changes were being made to their CAD and records management system infrastructure. Previous years' data suggested that these agencies only account for a small percentage of crime in the region and, as such, do not impact the results of this analysis. Crimes, calls for service, and collisions during the period of the last decade (2013-2022) were utilized. The quality of the data was deemed accurate and represents the integrity of official crime and operational statistics of the participating agencies. Ongoing efforts to reach out to these other agencies to help paint a more robust picture of crime and calls-for-service (CFS) in the region will occur for subsequent reports. The effects on the overall report are minimal since these three agencies have the lowest crime rates in the 12-agency region, and previous reports had shown few trends in crimes or other public safety issues that could be attributed to MGM Springfield.

An Open Database Connectivity (ODBC) connection to each of these agencies' records management and computer-aided dispatch databases was established, connected to the databases via Microsoft Access, and using a series of "make table" queries the data were copied into Access data tables. Records were copied to an Access database, password-protected in the process, but the originals were left on the agencies' networks so they could be updated by designated agency members when necessary. No personal identifying information (PII) was collected about any person (offender or victim), and all requests to comply with various agency requests to exclude particular data elements of concern were honored. These requests did not affect the integrity and completeness of the overall dataset.

After extracting the data from each individual system, each table was combined into a series of "master" tables. This required translating each dataset into a common set of codes. The uniformity imposed by the National Incident-Based Reporting System (NIBRS), and the fact that all the agencies use the same records management and computer-aided dispatch systems, made the translation fairly easy for crime tables; it was a bit more difficult for computer-aided dispatch (CAD) tables, which have no uniform coding even among agencies using the same system. These master tables formed the data pool for most of the statistics in this report, except where indicated.

Thirty-three FBI crime offenses (Table 2) were included in this analysis based on Group A-Incident Based Reporting definitions. They were used because they represent person and property crimes commonly experienced by victims and consistently captured by the Federal Bureau of Investigations for their annual Crime in the United States Report since 1922. The offenses incorporated into this study and placed into six (6) distinct categories are listed below. These offenses were aggregated and tracked for patterns over the study period.

Table 2: FBI Group A Incident Based Crime Reporting Categories

VIOLENCE	VICE	FRAUD	VEHICLE CRIME	BURGLARY	LARCENY THEFT
Aggravated Assault	Drug Equipment	Credit Card Fraud	Theft from Vehicle	Burglary	Theft from Building
Kidnapping	Drugs	Forgery	Theft of MV Parts		Extortion
Murder	Drunk Driving	Fraud	Auto Theft		Purse-Snatching
Robbery	Drunkenness	Identity Theft			Shoplifting
Sexual Assault	Gambling	Bad Checks			Theft from Machine
Simple Assault	Liquor Laws				Theft from Persons
Threats	Pornography				Other Theft
	Prostitution				Employee Theft
	Weapons				

Disorder offenses and 'All Other' offenses were excluded from this analysis given variances in reporting across agencies and time periods. Different reporting standards and various classification across agencies simply do not lend themselves to construct validity of these crime categories. The classifications of crime in Table 2 have a long history with FBI standards and newly defined crime categories standardized in federal IBR reporting and lend themselves to comparative analysis.

Crime and Calls For Service records were collected, and dates of reported activity noted. Tableau visualization software was utilized to discern the six study periods (Pre-Open / Open / Closed / Restricted / Reopen / full decade) for which these activities occurred. Weekly averages were calculated and graphed to illustrate the fluctuation of activity over the entire period and within each study period. The findings from this effort are reported in the pages that follow.

- For each agency and the region, historical averages and spatial and temporal patterns for key crime categories were established. They will be used as benchmarks for future analysis.
- Any significant increases were analyzed in more detail with available quantitative data.

Analytical Techniques - Identification of Hexagon Hotspots

Crime incidents for the entire decade from 2013 to 2022 were used for this analysis, with particular attention given to the most recent year, 2022. Crime data was geo-referenced to specific addresses throughout the region and a process called geocoding was used to place them on a map using a geographic information system (i.e., ESRI's ArcGIS Pro). Figure 1 - Agencies participating in the study area displays the entire MGM Springfield Casino Region. This technique uses hexagons[19] of the same size to normalize and compare across spatial distributions and respective hotspots.

Previous established methods using cells or density maps limit their comparative validity. Hexagons more closely resemble circles (with equal distance from a center point) and

[19] https://pro.arcgis.com/en/pro-app/latest/tool-reference/spatial-statistics/h-whyhexagons.htm

provide full coverage of the area under investigation. Hexagons offer the best coverage for hotspot analysis to date, recognized by geo-spatial professional and crime analysts.

The initial study area was limited to those agencies that signed a "surrounding community" agreement with the Massachusetts Gaming Commission: Springfield, Agawam, Chicopee, East Longmeadow, Holyoke, Longmeadow, Northampton, West Springfield, and the Massachusetts State Police as well as Hampden, Ludlow, and Wilbraham Police Departments who did not provide data for this report. Together, these cities represent a Metropolitan Statistical Area (MSA) consisting of three counties in Western Massachusetts. As of April 1, 2020, the metropolitan area's population was estimated at 699,162, making it the 84th largest metropolitan area in the United States. Nine agencies agreed to submit data for analysis for this report, Springfield, Agawam, Chicopee, East Longmeadow, Holyoke, Longmeadow, Northampton, West Springfield, and the Massachusetts State Police. The remaining agencies in the region will continue to be contacted to add their data and include their jurisdictions in future reports.

- The analysis focused on the larger pattern of crime in the past decade and the seasonal patterns that it represents. Like the previous report, researchers looked at hexagon hotspots to determine the geo-spatial patterns of crime distribution and used robust graduated symbol maps to evaluate the distinct pattern of concentric zones and distance decay from the casino location and central city - Springfield[20].
- This research conducted a spatial analysis of crime counts across the study area using hexagon polygons[21] of equal size – approximately one-quarter-mile square areas. It will use these sectors to compare high crime areas and describe the scope and nature of crime in them as compared to the hexagon encompassing the casino and those hexagons immediately contiguous to it. It will compare several crime hotspots identified in the region. They will be used as benchmarks for future analysis.
- Ten distinct hotspots in the region were identified and compared to the MGM hexagon, see page 43-60 for a detailed discussion.
- Any significant increases were analyzed in more detail with available quantitative data.
- A statistical review of the expected downward trend was conducted to determine if specific crime categories were impacted beyond their expected trajectory.
- Additional micro-analysis was performed to fully ascertain crime and place. Pages 61-80 goes into great details of the micro analysis of crime in the Region.
- This report also provides a report on drunk driving as reported by the Massachusetts State Police as a follow-up report to previous research done on impaired driving.
- An on-site assessment was conducted to view the area and police personnel were contracted to gain insights into the contributing factors of these hotspots.

[20] Concentric zones and distance decay are discussed further down in this report, page 18 and 21, respectively.
[21] Documentation for why hexagons are considered best practice in spatial analysis can be found here: https://pro.arcgis.com/en/pro-app/latest/tool-reference/spatial-statistics/h-whyhexagons.htm

Involved Agencies

Figure 1: Agencies participating in the study area

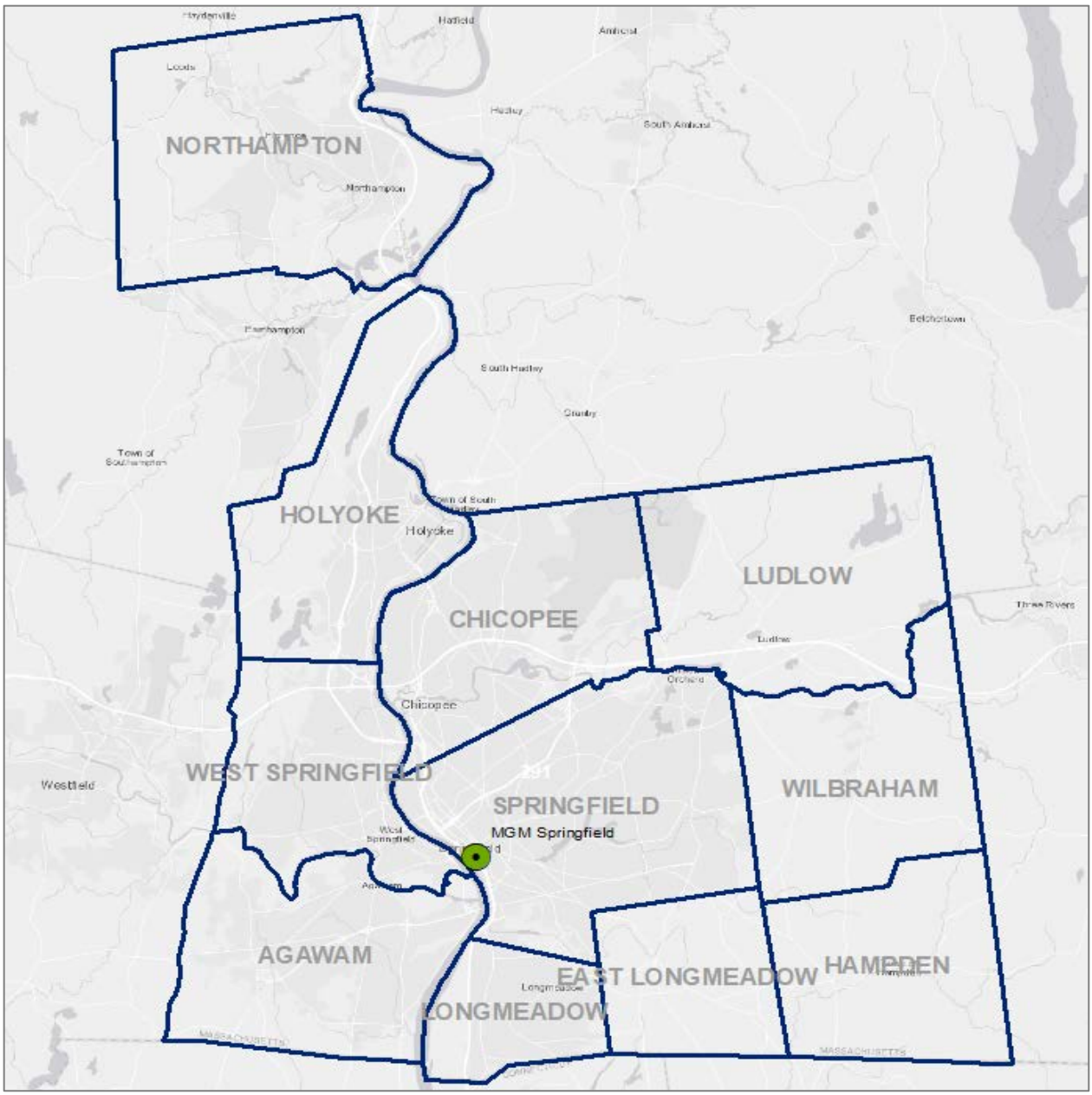
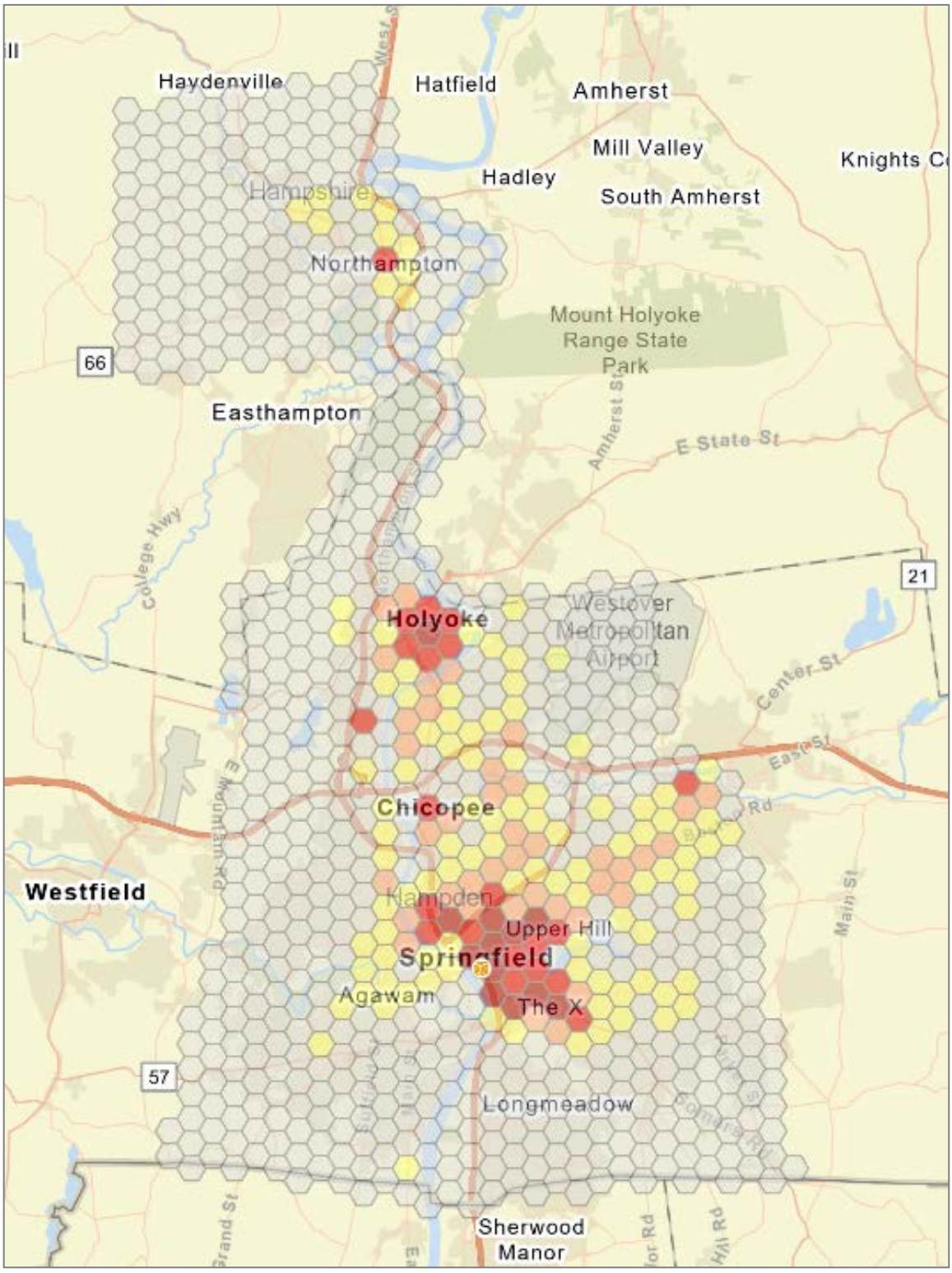


Figure 2 - The communities contributing to this analysis shows the area used for this report's analysis and the hexagons that represent the areas on which we aggregated the data.

Figure 2: The communities contributing to this analysis.



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 (National Incident Based Reporting System) 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. Offense types by associated crime category can be found in Appendix C.

Some crime types are grouped together based on common behaviors or themes. The FBI uses group categories for **Violent or Persons Crime** to include Murder, Rape, Robbery, and Aggravated Assault; and for **Property Crime** to include Burglary, Larceny and Motor Vehicle Theft (also called Stolen Vehicles). Others have combined crime groups to include **Vehicle Crimes** to include Motor Vehicle Theft, Larceny From Vehicles and Larceny of Auto Parts, Criminal Damage to Vehicles, and Tampering. **Vice Crimes** are grouped by specific crimes related to drugs, alcohol, gambling, pornography, and prostitution. These groupings will be utilized as part of this analysis and as categories throughout the report when appropriate.

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.

Extortion: Theft or attempted theft of money, goods, or services through non-violent coercion.

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 or child neglect.

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.

Gambling offenses: Crimes related to illegal gambling, promoting gambling, operating gambling machines, bookmaking, and sports tampering.

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 are "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.

Property crime: An aggregate category that sums the totals of arson, burglary, thefts from persons, purse snatching, shoplifting, thefts from buildings, thefts from machines, thefts from vehicles, thefts of vehicle parts, other theft, auto theft, forgery, fraud, credit card fraud, identity theft, employee theft, extortion, stolen property, and vandalism.

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.

Statutory rape: Nonforcible sexual activity with an individual who is unable to give legal consent because of age.

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 displayed or employed, or if an assault is 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.

Violent crime: An aggregate category that sums totals for murder, sexual assault, kidnapping, robbery, aggravated assault, simple assault, and threats.

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

Micro-analysis using Hexagons – Hotspot Analysis of Crime

The map shown on Figure 2 (above) illustrates the hotspots for all selected crime and depicts significant amount of crime in twelve (12) distinct hexagons. These patterns of hexagons did not lend themselves to a clustering of hexagons used during the Encore Boston Harbor study. They do naturally cluster along transportation roadways. The Holyoke hexagons mirror the clustering seen in the Encore area but since the MGM region does not lend itself to this approach, the researchers compared hexagon by hexagon and looked to distance decay and social disorganization theory to explain the spatial pattern seen in the MGM area. At this stage of analysis, counts per polygon were used to provide areas that had significantly higher crime counts than its neighboring areas, and were chosen using a common-sense approach. The top ten hexagons in the Springfield CBD were compared to the hexagon hotspot in Holyoke and one in Northampton.

Threats to validity

All the agencies in the MGM Springfield region code crimes, according to the NIBRS standard, but can still create slight variances in their approaches and can make interpreting the data inconsistent between agencies at times. It is beneficial to data integrity that all eight agencies use the same records management vendor. Springfield PD is in the process of selecting a new RMS vendor and the researchers will have to adjust to incorporate their data in the future.

The primary threat to the validity of the statistics in this report is the data structure of the IMC records management system, which makes it difficult to calculate precise crime statistics. All the participating agencies use this system[22].

Almost every other commercial records management system on the market stores crime incidents and their associated offenses in a master table. All crimes, whether they result in an arrest, go into the same table. If an arrest accompanies the incident, immediately or sometime after, additional data elements specific to the arrest are entered in supplemental arrest tables that link to the master tables. Crime statistics are calculated from the master tables. The IMC system, in contrast, stores criminal incidents in two separate tables: arrests and non-arrests. (There is technically a third table, storing warrants, but agencies that use this table seem to duplicate those crimes in the incidents table.) Some incidents appear in only one table; an arrest made at the time that an incident is reported, for instance, goes in the arrest table.

This immediately creates a problem when multiple individuals are arrested for the same incident. Two offenders arrested for a single robbery "incident" should count as a single robbery, but there is no unique index that ties two arrest records to the same crime. We must rely on the arresting officer filling in a related case number field that does not always get filled in.

[22] The original system was from a locally owned company called IMC. This company was bought by Zuercher Technologies, which was bought by TriTech Software Systems, which merged with several other companies to form CentralSquare Technologies. The current name of the RMS seems to be "Records Pro," but locally it is still universally known as "IMC."

Accurate statistics cannot be calculated by simply adding the two tables, as it is possible for a single incident to appear in *both* tables. For instance, an incident may be reported on Monday. Lacking any evidence to make an arrest or issue a warrant, the reporting officer enters data into the incident table. On Tuesday, evidence points to a particular offender, he is arrested, and the officer enters the data into the arrest table.

To account for such situations, the records system contains a field in the arrest table for the original incident number. Both the arrest and incident tables also contain the original call number, which should help deconflict duplications. However, in practice, few agencies use these fields with any fidelity. Moreover, different crime types can appear associated with the same incident in each of the two tables.

Finally, the TriTech/IMC system does not appear to enforce National Incident-Based Reporting System (NIBRS) standards when it comes to the recording of secondary offenses. NIBRS recognizes "lesser included offenses." For instance, it is assumed that every robbery is accompanied by an assault and a theft, and that almost every burglary is accompanied by a theft and a vandalism. Thus, no single crime should report both a burglary and a theft nor a robbery and an assault. Such extraneous offenses co-exist frequently in the IMC system. Indeed, by failing to distinguish between *arrest charges* and *incident offense codes*, the system creates a situation in which multiple extraneous charges often accompany an arrest.

To account for these problems, the statistics in this report adopt the following conventions:

1. Arrests and non-arrests are combined into a single record when the proper cross-indexing values were entered by the reporting officer in the system.
2. Even in absence of the index value entries, arrests and non-arrests are assumed to be part of the same incident if the reporting date/time and address are the same.
3. Multiple arrests are combined into the same "incident" if they happened at the same location and time.

The IMC system also makes a mistake—although this one is replicated among many RMS vendors—of trying to resolve Massachusetts General Law codes directly to NIBRS incident type codes. This allows officers to enter the statute violated by the offender (a code list with which they are familiar because of training and practice) and have the system itself convert it to the appropriate NIBRS code. Although this seems a valuable shortcut, in truth there is a poor relation between statutes and NIBRS codes, and such a system ensures that many crime types—principally in the theft and fraud categories—will be under-reported and a few crime types will be consistently over-reported.

Finally, there are a number of issues with agency coding practice that affect the validity of the baseline statistics and the consistency of data going forward. Common issues include:

- Overreliance on the "All Other" (90Z) IBR code instead of a more specific crime code that applies to the circumstance.
- Overuse of the "Other Theft" (23H) IBR code instead of a more specific theft type—for instance, shoplifting (23C), theft from a vehicle (23F), or theft from a building (23D).
- Rare use of the "Alcohol Involved" flag in the crash reporting module, making the data field essentially useless.
- Overuse of the "Other/Unknown" location type and property type categories.
- Under-use of the "Family Offenses" (90F) code to record restraining order violations and child neglect cases.
- Rampant confusion among the codes for fraud (26A), credit card fraud (26B), impersonation (26C), identity fraud (26G), forgery and counterfeiting (250), and bad checks (90A).

Due to the researchers' concerns regarding these inconsistencies, this analysis did not attempt to use these crime categories or coded variables. JRA is confident of the other crime classifications due to the history and longevity of their use for FBI reporting and federal oversight and quality control.

Discussions with agency representatives - Agency Collaboration

Throughout the life of this series of reports, the Massachusetts Gaming Commission has regularly convened meetings with the police executives in the state to review the results of these analyses and receive their comments and feedback, prior to publication of the reports. Their feedback is incorporated into each report. General agreement with these findings has been widespread, and where there has been disagreement an alternative perspective has been provided, and it has been noted in this report.

Key Limitations[23]

First, our focus was on overall crime trends and as such did not examine other factors that could be influencing crime throughout the region. Second, our study period includes the time of George Floyd's death (May 25, 2020) and the subsequent racial and social justice protests that occurred throughout the United States. Although some reports indicated some instances of looting and aggravated assaults, our data do not permit us to consider this further. Finally, while we think that examining policy changes is important, the short period between the key-dates in this study necessitated a short-term evaluation approach of the effect of COVID-19 related regulations.

Future research should continue to monitor the re-opening over a longer period of time and consider historical crime patterns to better understand the effect of COVID-19 regulations on crime and continue to monitor such trends as well as crimes that are ancillary to COVID-19

[23] These limitations are attributed to Riddell et al. (2022), and fully embraced as relevant for our ongoing research as well.

related to masking even amid no apparent restrictions. It is possible that officials were unprepared for the toll such shelter in place orders would take or that would-be offenders saw new or different opportunities to commit crime. It was anticipated that re-opening efforts, especially from a routine activity perspective, would lead to increases in the number of people leaving their homes and entering public spaces, creating potential opportunities for increases in crime. However, it may be the case that people remained somewhat sheltered because schools remained closed, businesses continued to encourage work from home policies, and people were still afraid of contracting the virus. Therefore, simply re-opening places did not mean that people would resume their pre-pandemic routines.

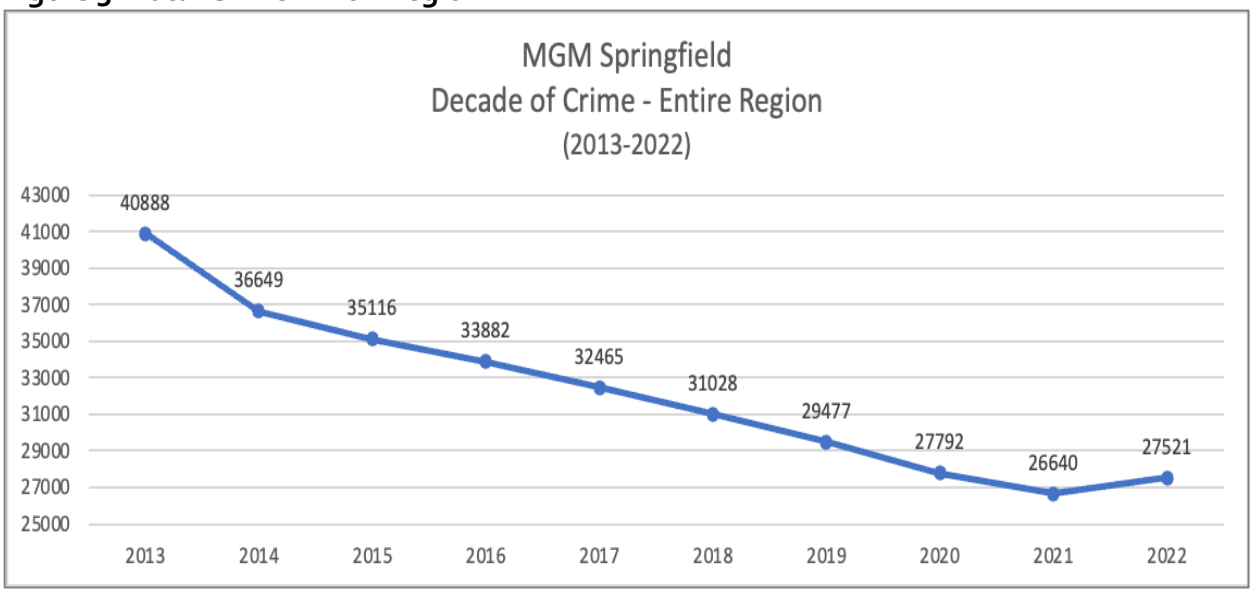
Once again, we want to emphasize that the Springfield MGM Casino is located in the heart of Central City or the central business district (CBD). Placing the casino within the CBD was intentional for economic development reasons and offered increased activity, surveillance, and social organization to an area already prone to high crime rates and this intentional design appears to have positively impacted crime (i.e., reduced it) in the area surrounding the casino. The subsequent analysis and findings speak directly to crime in the region and the effects of crime as one goes farther from the CBD - a key element of social disorganization theory.

It is important to keep in mind that data collected only include crimes reported to the Springfield Police Department, which generally do not include incidents inside the casino. These are reported to the Massachusetts State Police Gaming Enforcement Unit and are not part of our data collection. These figures thus represent the surrounding streets, businesses, and local community. Ongoing efforts to get the crime and calls for service data that occurs on the MGM property are underway and the Massachusetts Gaming Commission supports JRA's efforts to do so.

Findings

Crime continued to drop along the predicted trend lines in the majority of the region. The line graph[24] below (Figure 3) shows that overall crime in the region has declined year over year for a decade but had a slight upturn in 2022. Overall, 40,000 general crimes occurred in 2013 and the number has steadily dropped to below 27,000 incidents from 2013 until 2021. This represents an average 5% decrease in crime each year over the past decade. While the number of crimes reached its lowest mark in 2021 with 26,640 crimes in the region, a slight increase did occur in 2022 at 27,521 incidents - still the second lowest number in the past ten years. There were on average between 1,100 to 1,800 fewer crimes each year during this timeframe. Crime dropped by 1,500 crimes the year after the casino opened. While COVID-19 may have contributed to this decline in 2020 and 2021, the number of crimes in the region rebounded 1,100 incidents in 2021. If the casino caused crime to increase since it opened in 2018 other socio-economic factors must have offset the consistent drop in the crime rate.

Figure 3: Total Crime in Full Region

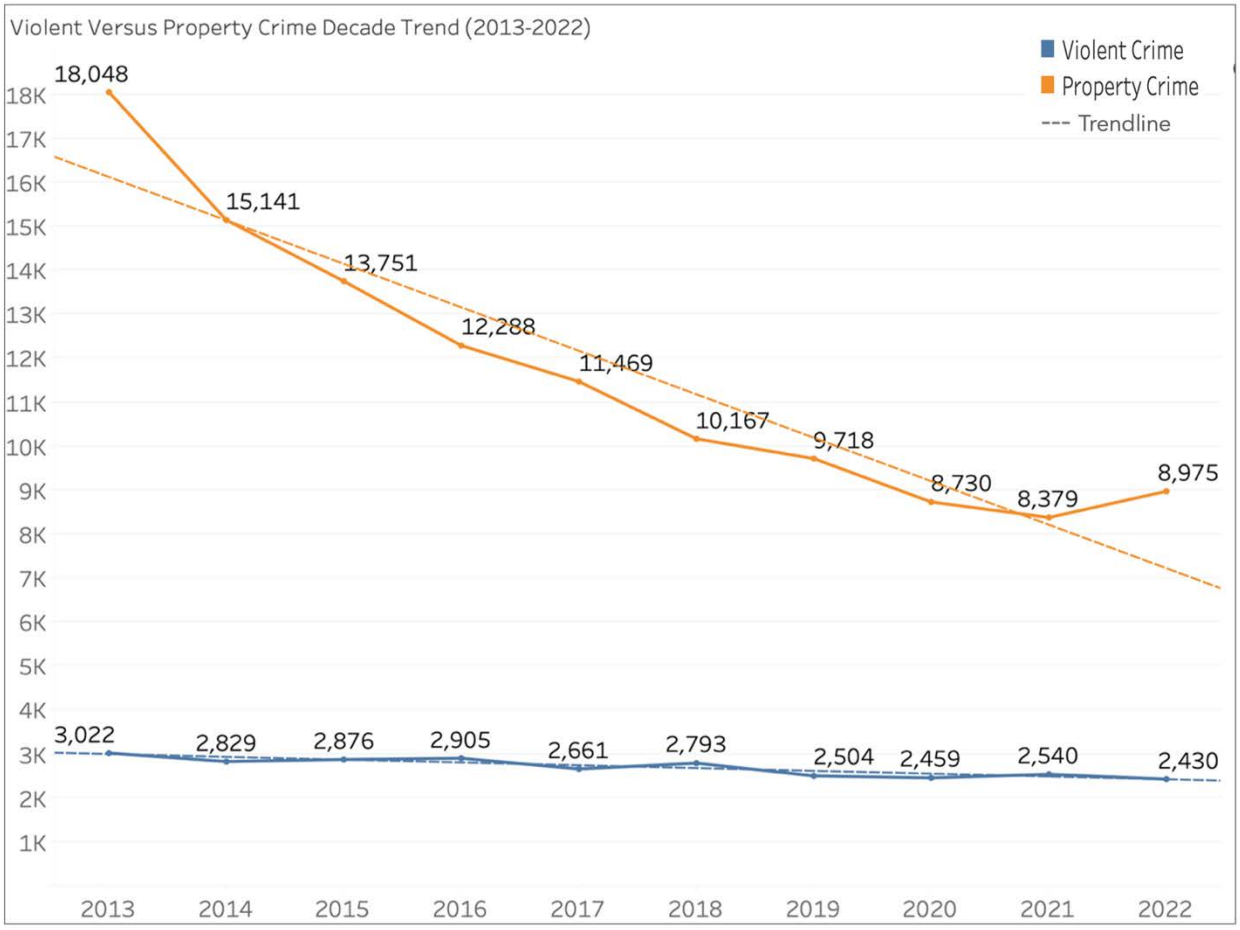


Violent crime and property crime counts (See Figure 4) followed a similar downward trend over the years in the region. Property crime has continued to fall consistently by between 1,000 and 1,500 incidents each year until COVID-19. In 2021, property crime fell to its lowest number at 8,379, only to turn upward by a small margin to pre-COVID numbers (8,975 in 2022) still the low watermark outside the pandemic in the past decade. In 2022, property crime rose by over 600 incidents. Violent crime appears to have stabilized between 2,400 and 2,500 offenses in the past four years, reaching a ten-year low of 2,430 in 2022. While violent crime remains flat since the MGM Casino opened in 2018, the introduction of gambling does not appear to have caused an increase in violence with the exception of a slight increase in 2018, the year the casino

[24] This annual data is calculated on a calendar year basis now that the MGM has been open for several years, and we have a good history of reporting. MGM reports will continue to use calendar timelines for comparison purposes.

opened in late August, only to be followed by a downward trend the following three years. Violent crime remained steady over the past decade only dropping around 600 incidents from the high watermark in 2013 (N=3,022) to just above 2,400 in 2022 (N=2,430) for the entire Region. Springfield experienced the lion's share of the crime in the Region, as will be discussed in the City-by-City section.

Figure 4: Violent and Property Crime in Full Region



The remainder of this report will review crime at the regional level, provide a City-by-City breakdown and comparison, and conclude with a micro-analysis.

City by City Crime Trends

Figure 5, on the next page, shows the consistent downward trend in all but two of the cities in the Region (i.e., Springfield and Agawam). Springfield had a reduction of over 8,000 crimes per year since the beginning of the decade (from 22,368 in 2013 to 14,199 in 2022). Springfield did not experience a significant drop in crime during COVID-19, but rather followed the expected trend line the decade pattern clearly represents. Springfield saw a slight uptick in 2022 for all crime but still nearly 800 crimes lower than 2019 the year before the pandemic.

Holyoke, Chicopee, West Springfield, Northampton, and East Longmeadow followed the same pattern over the past ten years with a slight increase in crime in 2022 (with the exception being Holyoke having back-to-back slight increases in 2021 and 2022) preceded by being the only city with a sizable decrease in crime during COVID-19. Longmeadow has generally remained flat and steady at just under 400 crimes each year since 2013 with an abnormal spike in 2020 with over 500 crimes in this single year. Agawam was the only city in the region to experience an upward trend over the past decade, ranging from 765 incidents in 2013 and with over 1,300 crimes 7 of the past 8 years, peaked at 1,389 in 2017 and totaling 1,275 in 2022. Most of the cities in the MGM Region are relatively small in size with the exception of Springfield and enjoyed lower crime rates that reflect small towns in the United States in general.

Figure 5: Crime Trend Across all Cities in the Region

Distinct Seasonal Rhythmic Pattern

Figure 6 on the following page represents the starkest seasonal pattern the researchers have seen. The rhythmic summer seasonality pattern depicted here consistently shows crime rising in the late spring and summer months (9 of 10 months outside of the COVID-19 summer - which created a lag in the seasonal trend).

Crime spikes in the MGM Region occurred five times in July, twice in May and once in June and August to round out the pattern. The average number of crimes at the peak of each year was 1,293. In contrast, the winter seasonality pattern shows nine out of ten low watermarks in December, January, and February, where the region experienced on average 840 crime each week in the winter months. These spikes and low points represented a swing of over 450 crimes from one season to the other. During COVID-19 this seasonal pattern peaked at only 1,181 during the week of October 18, 2020 and bottomed out twice at 741 during the week of April 12, 2020 and again during the week of December 20, 2020. These statistics clearly demonstrated that crime went down during COVID-19 and reflected the lower social interactions between people during closures and restricted openings.

At the start of the decade (2013) the high watermark was 1,422 the week of July 14, 2013 and has dropped significantly to a 2020 high watermark of 1,157 - the lowest summer peak on record in the past ten years. The lowest watermark experienced in 2013 resulted in 939 incidents the week of February 17, 2013 and now in 2022 dropped to 792 the week of December 11, 2022 - the second lowest mark with the exception of 773 in the winter of 2017 during the Week of December 24, 2017 (with the exclusion of the COVID -19 period). Figure 6 provides clear evidence that the MGM Springfield Region is getting safer over time.

In a closer look of the pre-, during-, and post-COVID-19 periods similarly presented in the Encore Boston Harbor Report, Figure 7 clearly shows the same overall crime pattern. Crime occurrences significantly dropped during the initial COVID-19 Closure from March 15, 2020 until July 12, 2010; but the number of crimes climbed above the expected average while the casino and other establishments were closed for business and continued to climb in the first half of the restricted re-opening only to dip to its lowest weekly numbers in December of 2020 (N=741). Of course this pattern followed the winter seasonality the region had experienced for the decade. What is more interesting is that since the full reopening after COVID-19, crime did not rise to previous levels and, in fact, remained below COVID-19 high watermarks (both summers peaking at around 1,160). Perhaps this is a post-COVID-19 effect and it will take longer for social life to get back to "normal" or expose the new normal, only time will tell.

Figure 6: Region Crime Compared over the Entire Timeframe (2013-2022)

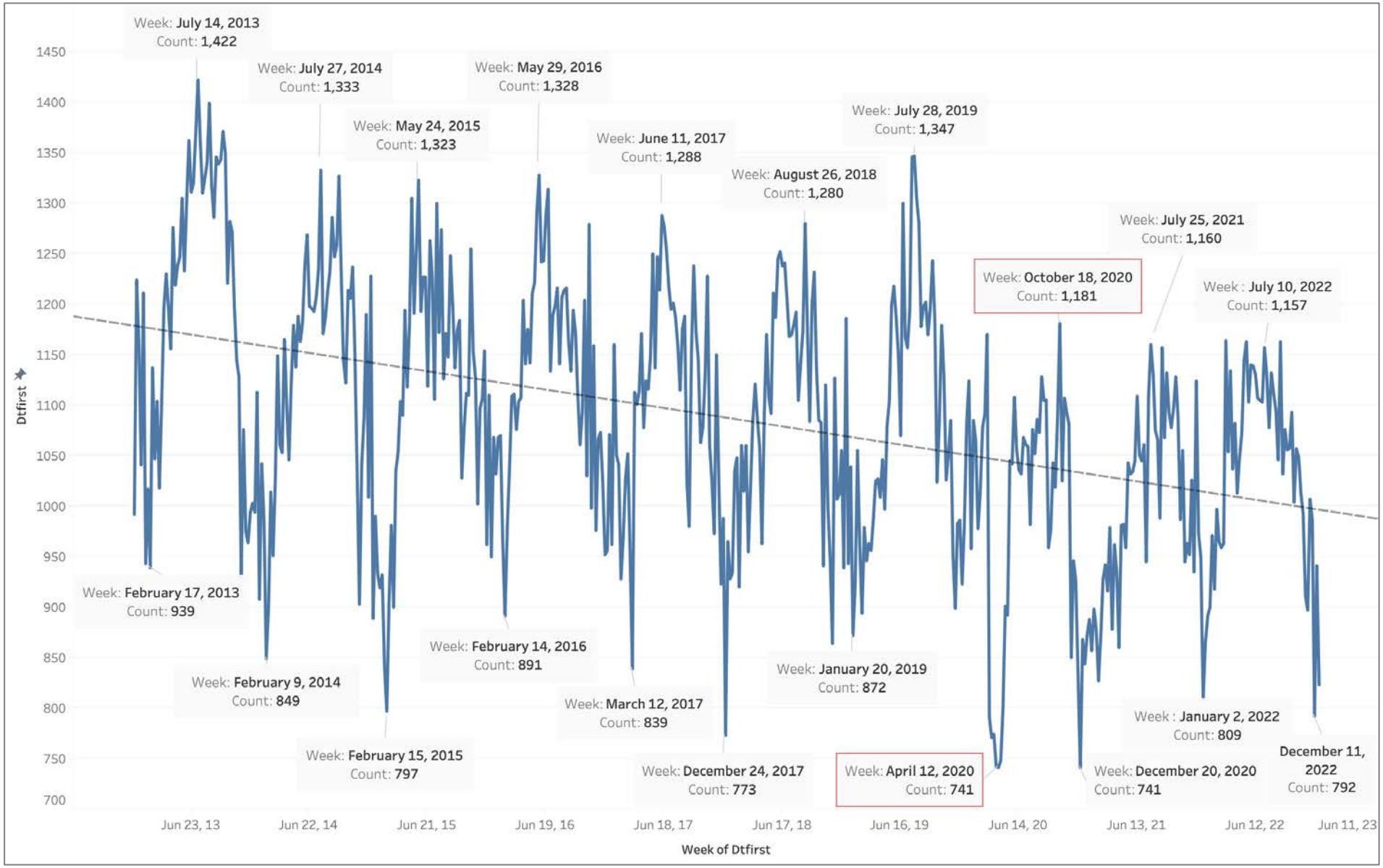
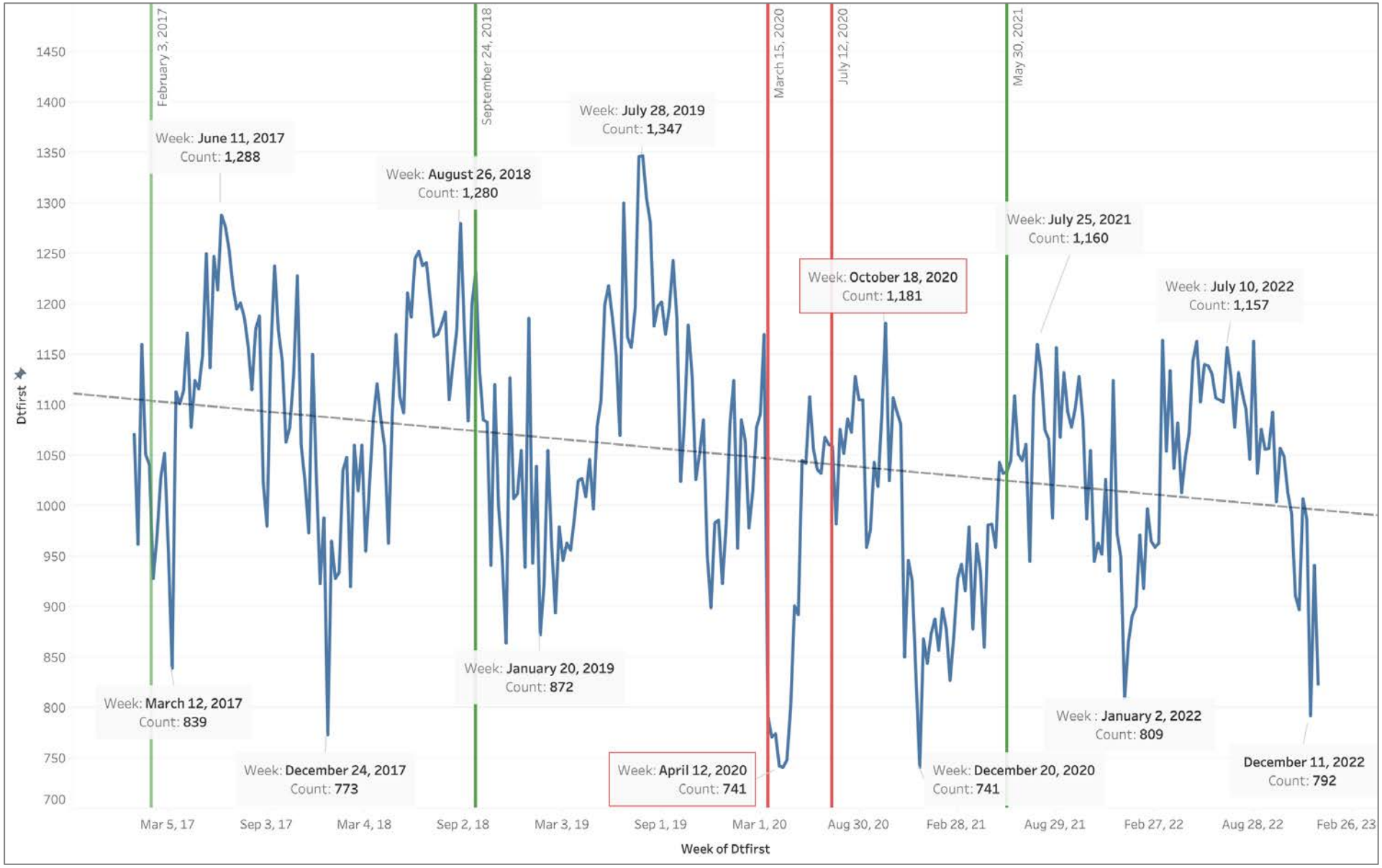


Figure 7 clearly demonstrates the seasonality of crime, most likely a statewide phenomenon, but critical information none the less. Police should anticipate this ebb and flow as they plan strategies to fight crime in summer months and focus on key hotspots for crimes of interest.

Figure 7: Region Crime Compared over the COVID-19 Timeframe (2013-2022)

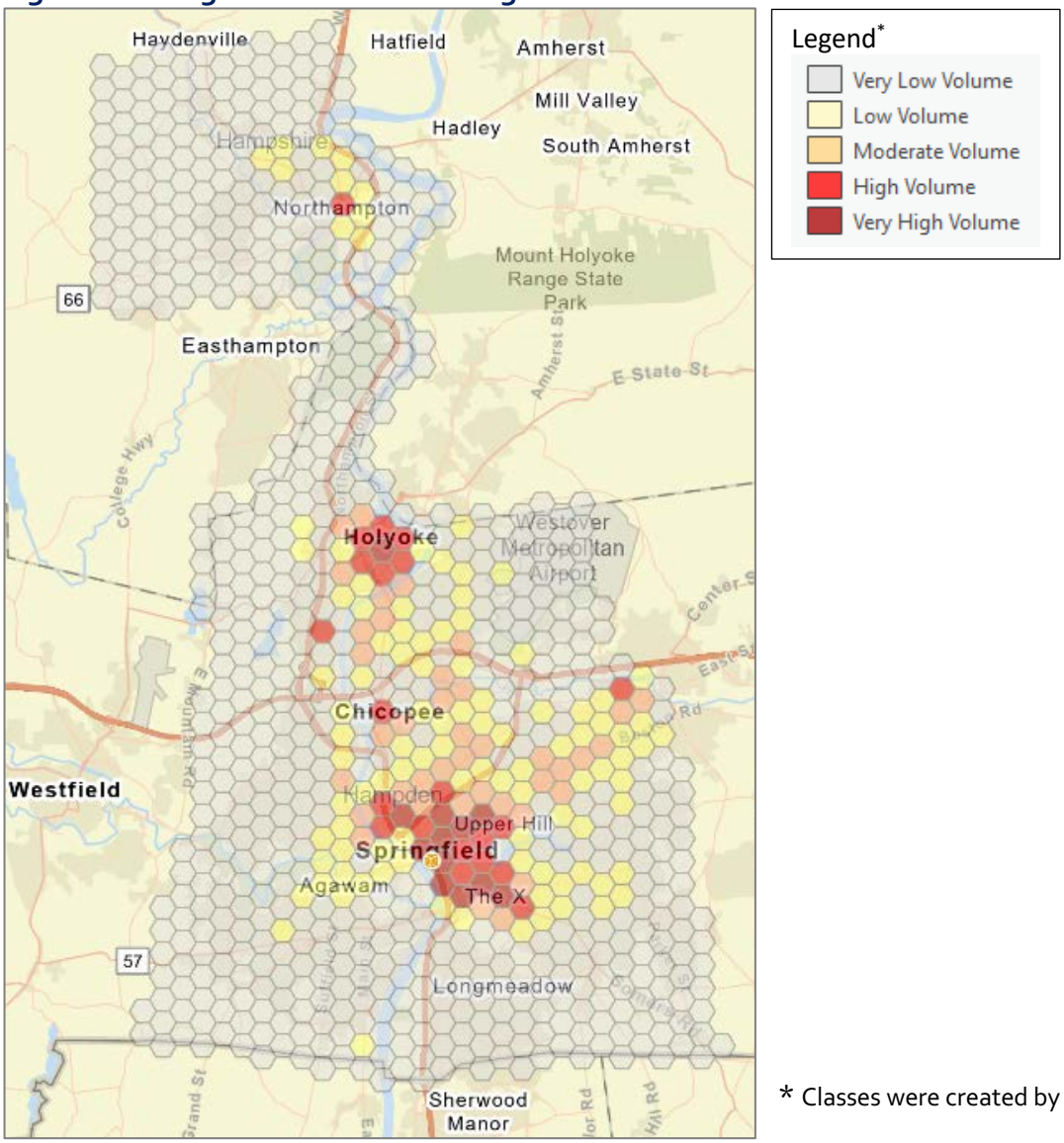


COVID-19 closures created a significant drop in crime between April 12 and October 18, 2022 only to rise during the restricted reopening initially. Significant drops in crime followed the subsequent winter and rise again once the restrictions were lifted. Crime returned to the seasonal pattern after the reopening of establishments but did not return to the same levels of crime during pre-COVID cycles.

Hexagon Hotspot Analysis

Figure 8 shows a clear distribution of crime that supports and illustrates the Social Disorganization Theory premise that crime is prevalent in the Central Business District zone or Central City and diminishes as it gets further from it. This crime distribution held true for Springfield, Holyoke and to lesser degree in Northampton. It also provided evidence for distance decay theory that the further one gets from the source, homebase or the anchor, the less likely crime will occur. Our microanalysis takes a closer look at two other Springfield hotspots and three other Central City locations within the region to get at the factors that may have contributed to the higher frequency of crime within these hexagons. Crime became nearly non-existent when we move further away and into the residential zone. Crime in the MGM Springfield Region clearly depicts this social structure explanation and can be used to develop effective patrols and crime prevention strategies.

Figure 8: Hexagon Distribution of Region



* Classes were created by Natural Breaks

The two figures (Figure 9 and 10) on the following pages showing hexagonal crime distribution and hexagonal crime counts are discussed below.

Figure 9 (page 47) illustrates that the City of Springfield is the primary source of crime in the Region and shows that crime diminishes as you get farther away from Central City. This analysis supports the central premise that the MGM Springfield Casino sits in the middle or at the point of a clear crime pattern - apparently in the shape of the letter C. MGM is at the apex of the C-shaped crime pattern that, from a crime pattern theory perspective, follows the nodes and the pathways socially constructed. The greatest amount of crime occurred on the transportation roadways following State Street to the north and east; and followed Main Street which turns into Belmont to the east. This hexagon hotspot pattern continued for four consecutive hexagons in both directions or approximately one mile from the two Central City hexagons that encompass the immediate MGM area.

The Connecticut River serves as a natural fortress for crime to the west of MGM and crime occurrences are extremely limited as a result of this environmental barrier - acting almost like a moat. The crime pattern follows the river and the main transportation thoroughfares creating a distinct correlation to primary roadways and inversely uses the river as a natural buffer.

Figure 10 (page 48) shows the hexagon counts starting with the MGM hexagon (R-37) - totaling 4,549, and 5,350 (Q-36) and 4,836 (R-36) offenses for the decade, in subsequent clockwise order from the casino. These three hexagons are the top three crime volume hotspots[25] in the entire region, respectively. They clearly represent the apex of crime distribution and the core of Central City Springfield. Hexagons along State Street produced crime counts of 3,709 (S-35) and 3,822 (T-35) respectively. The hexagons along Main Street and Belmont Street heading away from the MGM, resulted in crime counts of 3,158 (R-38), 3,457 (S-38), 4,193 (T-38) and 3,483 (U-38), in geographic order.

There is only one other hexagon (P-35) to the northwest that had more than 3,000 crimes registered in its boundary.

This approximate two square miles (or 8 quarter mile-sections) accounted for over 36,500 victims of crime in the past decade in Springfield alone. This evidence clearly shows a high spatial correlation to the MGM casino. However, it is crucial to emphasize that correlation alone does not establish causation. Therefore, it is imperative to determine whether the observed relationship is indeed attributed to the casino or if it may be a spurious correlation influenced by the casino's location. This distinction is of utmost importance for the Massachusetts Gaming Commission (MGC).

It is important to underscore that crime was present in the area prior to the opening of the casino. This represents substantial evidence and suggests that crime levels in the vicinity are not solely influenced by the casino but may have preexisting causes. It is noteworthy that high

[25] Hotspots are labeled in Figure 10 as a LETTER-NUMBER, (e.g. R-37) for identification purposes only.

crime rates in the central business district (CBD) of Holyoke (discussed later), where there is no casino, support the notion that alternative explanations need to be considered, and the presence of a gaming venue may not be the primary factor.

This relationship could be spurious or intervening and since the casino is located in the center of an historical crime hotspot, it continues to be of concern for public safety in the area. Crime in the central business district has historically been high, albeit trending down over the past decade, and the opening of the casino did not cause an increase in crime in Central City. Other hotpot comparisons provide additional insights into the factors that contributed to crime generation, discussed further down in the report.

The other cluster of hexagons in the Holyoke Central City area experienced 4,728 offenses at its core and is surrounded by hexagons ranging from almost 2,600 to just above 1,600 criminal incidents. On a smaller scale, the Central City explanation of crime holds true for Holyoke as well. A micro-analysis of some of these specific hotspots are provided as part of the researchers' qualitative on-site assessment. Of course, Holyoke's crime hotspot cannot be explained by having a casino in the center of it, something else is at play; it most likely represents a Central Business District zone. This will be discussed in a later section of the report.

Figure 9: Springfield C-shaped and Holyoke Central City crime distribution and natural river boundary.

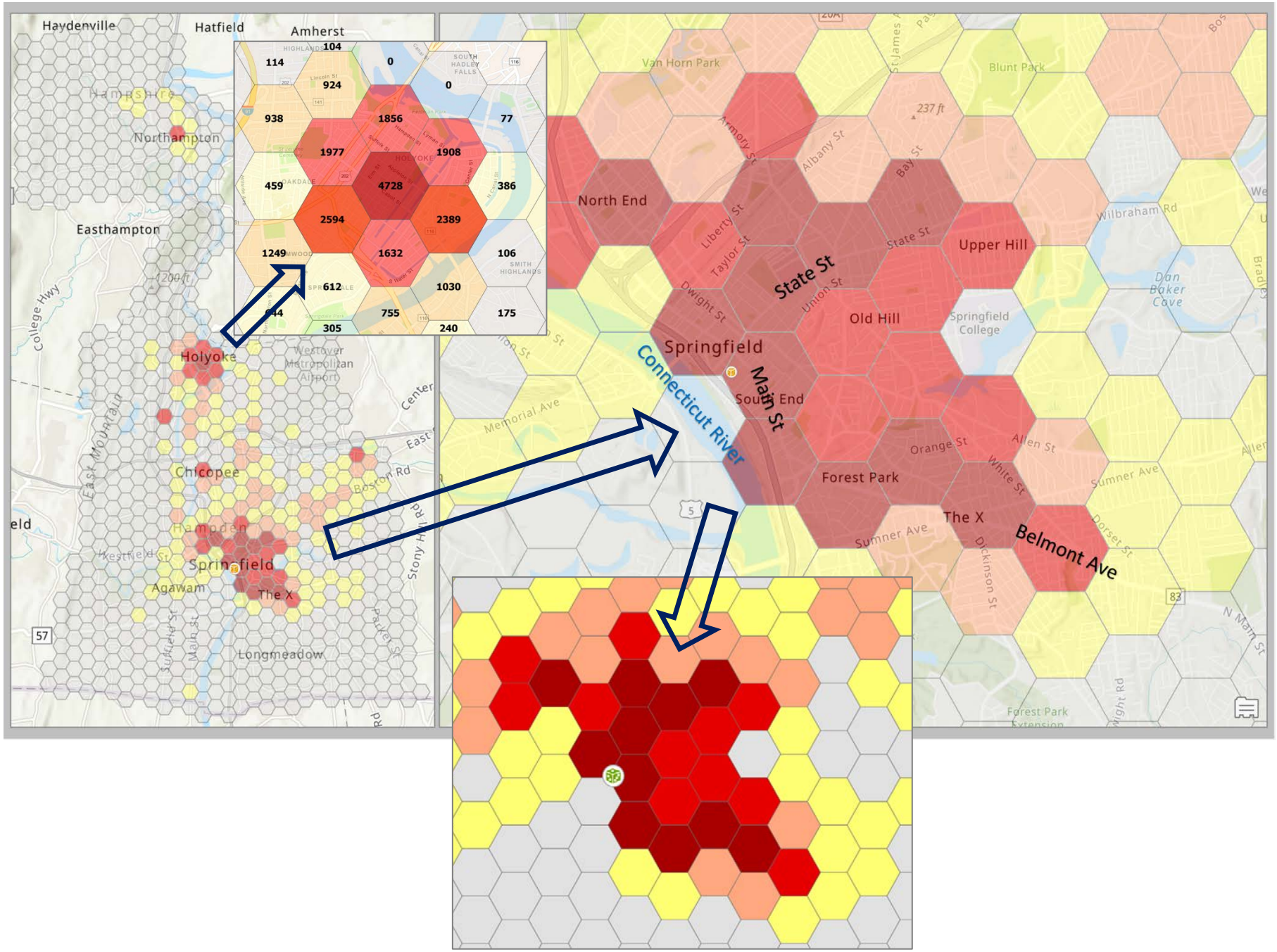


Figure 10: Hexagon Label and Crime Counts in the Central City Area

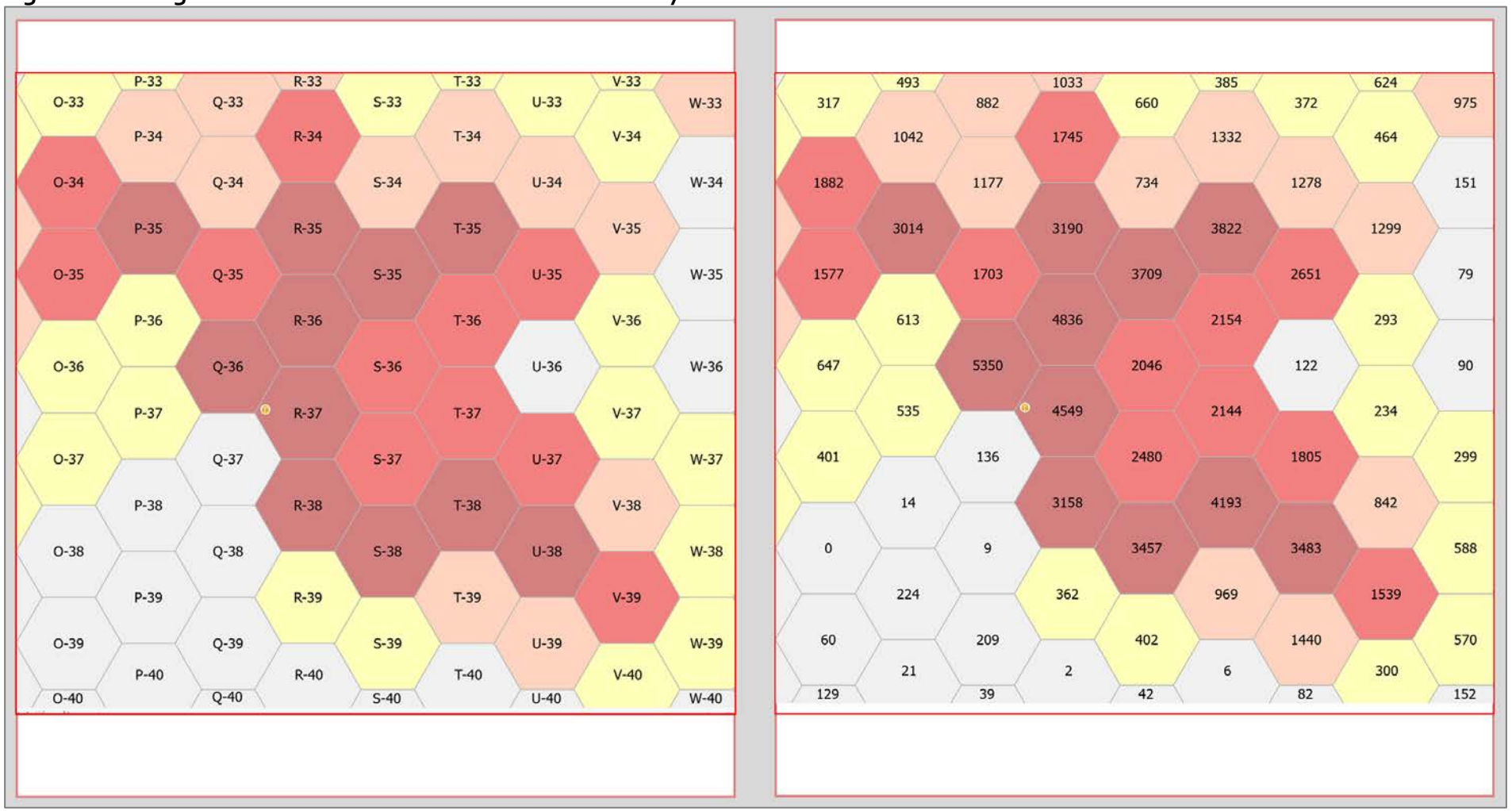


Figure 10 illustrates the hexagon layout and the total number of crimes for the entire decade in each polygon. The distribution portrays a C shape that follows the transportation grid, which demonstrates that some aspects of crime and place is a social construct, and clearly shows the casino at the apex but not necessarily the sole underlying factor in crime creation. The researcher's onsite qualitative assessment attempts to provide additional contributing factors that may be the source of a given hotspot.

Table 3: ACS Population Census Summary Profile[26] - U.S. Census Bureau Data Source

Rank	Hex-Num	Venues	Crime Rate per 1,000	# of Crimes	Popul	House Holds	% English Only	% <19	% >65	% Medicaid	% Below Poverty	% SNAP	% Disability
1	R-38**	Main & Locust South CBD	4821.4	3158	655	291	22%	29%	8%	78%	55%	60%	37%
2	Q-36***	MassMutual/Jazz-Blues	3254.3	5350	1644	1157	42%	12%	15%	36%	49%	63%	42%
3	S-35	State & St. James-Stebbins	1695.9	3709	2187	730	56%	35%	10%	65%	36%	52%	44%
4	R-36	High & School St	1622.8	4836	2980	1456	41%	24%	8%	56%	44%	66%	43%
5	R-37*	Casino - Hotel	1440.5	4549	3158	1392	30%	26%	12%	55%	39%	57%	44%
6	R-35	Federal & Worthington	1428.6	3190	2233	635	38%	44%	7%	72%	41%	53%	37%
7	T-35	State & Sherman-Andrews	1113.3	3822	3433	1252	54%	27%	11%	53%	49%	56%	49%
8	T-38	Belmont & Dickenson	1060.7	4193	3953	1401	41%	29%	5%	56%	37%	42%	39%
9	S-38	Belmont & Ft. Pleasant	1042.8	3457	3315	1413	52%	27%	15%	41%	38%	40%	36%
10	U-38	The X	845.0	3483	4122	1367	50%	27%	7%	60%	42%	39%	33%
5 -> 9	R-37*	Casino - Hotel	405.3	4549	11224	With Casino patron and worker population factored in to the population							
1 -> 10	R-38**	Main & Locust South CBD	368.8	3158	8564	5 Hotels, 17+ Restaurants & several Bars/Taverns							
	*Hexagon where the Casino resides (15,000 daily patrons and 409 employees on any one shift)												
	**Hexagon makes up Main St South CBD of Casino (Some of the patrons and employees will frequent this area as well)												
	***Hexagon where MassMutual Center & popular jazz and blues venues and cuisine is located (Analysis did not extrapolate this population upward due to casino effect)												

Table 3 compares the ten hexagons depicted in the C-shape pattern. The data presented in this table originates from the U.S. Census Bureau and is made available through ArcGIS Pro - Business Analyst tool. Hexagon R-37 contains the MGM Casino and represents the third highest volume of crime (4,536) within its boundary. Hexagon Q-36 had the greatest number of crimes in the decade at 5,350 and is home of the Mass Mutual Entertainment and Convention Center (operated by MGM Springfield). It also houses several restaurants and two popular music venues (a jazz and a blues club) on Worthington Street. R-38 represents the other central business district area and was victim to 3,158 crimes from 2013 to 2022. A Google Maps search resulted in identifying at least five hotels, 17 restaurants and ten bars-taverns in Springfield Central City area (represented by these three hexagons, respectively).

[26] Appendix D provides an example of the ACS Summary data made available from ESRI used in this table.

Hexagon R-36 produced 4,836 crimes within its boundary, representing the 2nd highest hotspot within Springfield. It is home to Springfield High School of Commerce, Baystate Health and several apartment complexes and social service agencies. The remaining hexagon hotspots consistently extend away from the CBD along State Street and Main Street turning to Belmont Street to the south.

Table 3 offers some causal factors that are explained by Social Disorganization Theory, namely measures of poverty, heterogeneity, and single-parent heads of household (also known as latch-key kids). While this study is not a full examination of social disorganization, these statistics do lend themselves to plausible explanations for why crime occurred in these neighborhoods at higher rates than in other parts of Springfield. With about one-third of residents to about half of them living below poverty levels within each of these hexagons, income appears to be a contributing factor. With four to six out of ten residents on SNAP (public assistance) and over one-third experiencing some form disability, these neighborhoods represent the most vulnerable and at-risk population in the region. These residents are prone to higher rates of victimization than those in other neighborhoods.

While the percentage of kids under the age of 19 represent the crime prone years, these hotspot hexagons represent higher percentages of kids in the crime prone years (30% on average among them) than the national percentage of 23%, except for hexagon Q-36. Likewise, looking at the elderly population who may be more vulnerable, these areas represent a smaller percentage (9.8%) than the national percentage of residents over 65 (17.3%). While this data does not present definitive proof of why these neighborhoods are prone to crime, they do offer points of concern and discussion points for viable programs.

Finally, in regard to Table 3, the researchers of this study calculated the crime rate per population as a point of comparison. Using the U.S. Census residential population initially, the data shows that the MGM Casino hexagon ranks fifth in crime rate per capita at 1,441 crimes per 1,000 persons residing in the area - technically in the middle of the top ten hotspots. R-38 hexagon, the CBD most likely utilized by patrons of the casino for dining and other entertainment, is ranked number one with a crime rate of 4,821 per 1,000 persons. It should be noted that this crime rate is extrapolated upward due to the small number of residents who live in the hexagon (N=655) given its CBD status. The area with the music venues and the convention-event center ranks second with a crime rate of 3,254 incidents per 1,000 people.

If you were to take into account the daytime or casino population[27], estimated by the number of daily casino visitors or patrons and the number of employees who work there throughout the day, a conservative estimate would increase the potential population by 7,500 (estimated patrons) and 409 (potential employees per shift). By recalculating the crime rates for the two

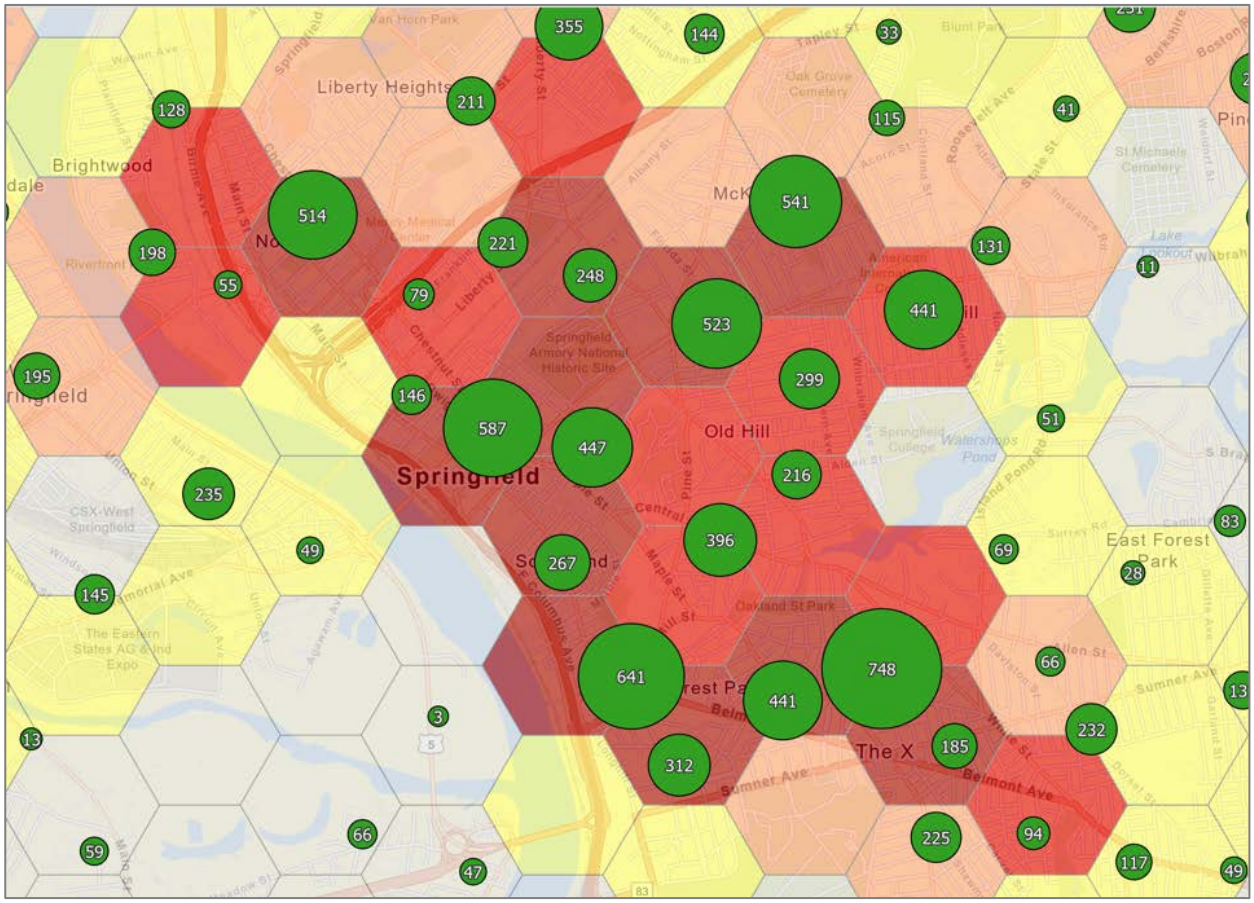
[27] This practice of using daytime population is a common practice among jurisdictions that host universities, large manufacturing facilities and other popular attractions like major league baseball, football or basketball venues that significantly increase the number patrons in the vicinity and the overall population during peak times. For communities that experience these daily fluctuations, residential population does not reflect a standard rate solely relying on US Census residents. This is an accepted practice to take this into account.

casino hexagon hotspots based on this adjusted population, their crime rates decrease to 405 and 369 per 1,000 persons, respectively. Consequently, these two hexagon hotspots move to the 9th and 10th positions among the top ten areas with the highest crime rates.

This significant finding suggests that when accounting for the presence of the casino and the population it attracts, the crime rates in the vicinity are not as pronounced as in eight other hotspots found in Springfield. This provides evidence that the casino may not be the primary or sole contributing factor to the observed crime rates. This critical finding sheds light on the limited impact of the casino on crime rates and emphasizes the potential role of increased activity, surveillance, and social organization in the vicinity of the casino in driving down crime.

The remainder of this section will explore specific crime types using ArcGIS Pro *Aggregate Clustering* tool to dynamically visualize hotspots. This function allows researchers to zoom in and zoom out to dynamically visualize hotspots within hotspots and to determine the precise locations that make up a hexagon hotspot.

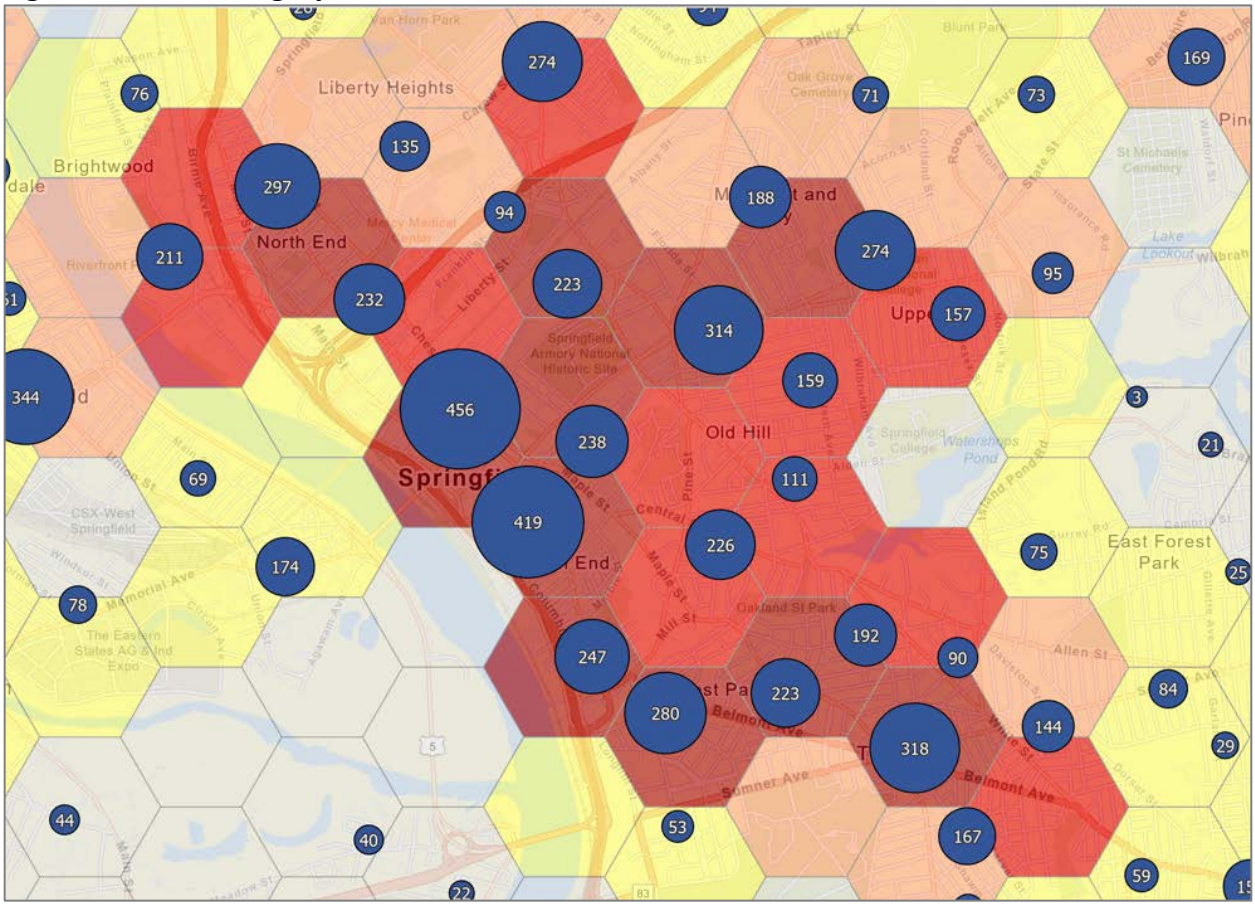
Figure 11: Burglary Distribution over Area



At the extended view of the C-shaped pattern discussed earlier, the graduated symbols for the different crime types illustrate the distance decay effect and where, within each hexagon, each crime type is prolific. Figure 11, displaying burglaries, shows that the highest occurrences of break-ins happened in southern and southeastern region of Springfield at the border of

hexagons U-38 & T-38 (748) and the border of hexagons S-38 & R-38 (641). Apart from the 587 burglaries (some of which could be commercial burglary) at the border of hexagons Q-36 & R-36; most burglaries occurred further away from the casino in the second SDT zone called the working-class zone. Once we get beyond the Central City and the working-class zone, burglary counts diminish substantially. Clearly, as burglary mirrors the C-shaped pattern we recognized, crime followed the transportation network as well.

Figure 12: Fraud-Forgery Distribution over Area



Fraud-Forgery patterns appear to be more concentrated in the CBD and in and around the casino. Figure 12 displays that most frauds-forgeries occurred at the apex of the casino, and this phenomenon needs further analysis for which the limited timeframe was not able to accommodate. Once again, fraud-forgery followed the C-pattern and overlays with State, Main and Belmont streets. There appears to be a pocket for fraudulent activity in West Springfield that the local authorities should explore. This does not imply that the casino is the primary source of fraud, only that the data demonstrated spatial correlation.

Figure 13: Vehicle Crime Distribution over Area

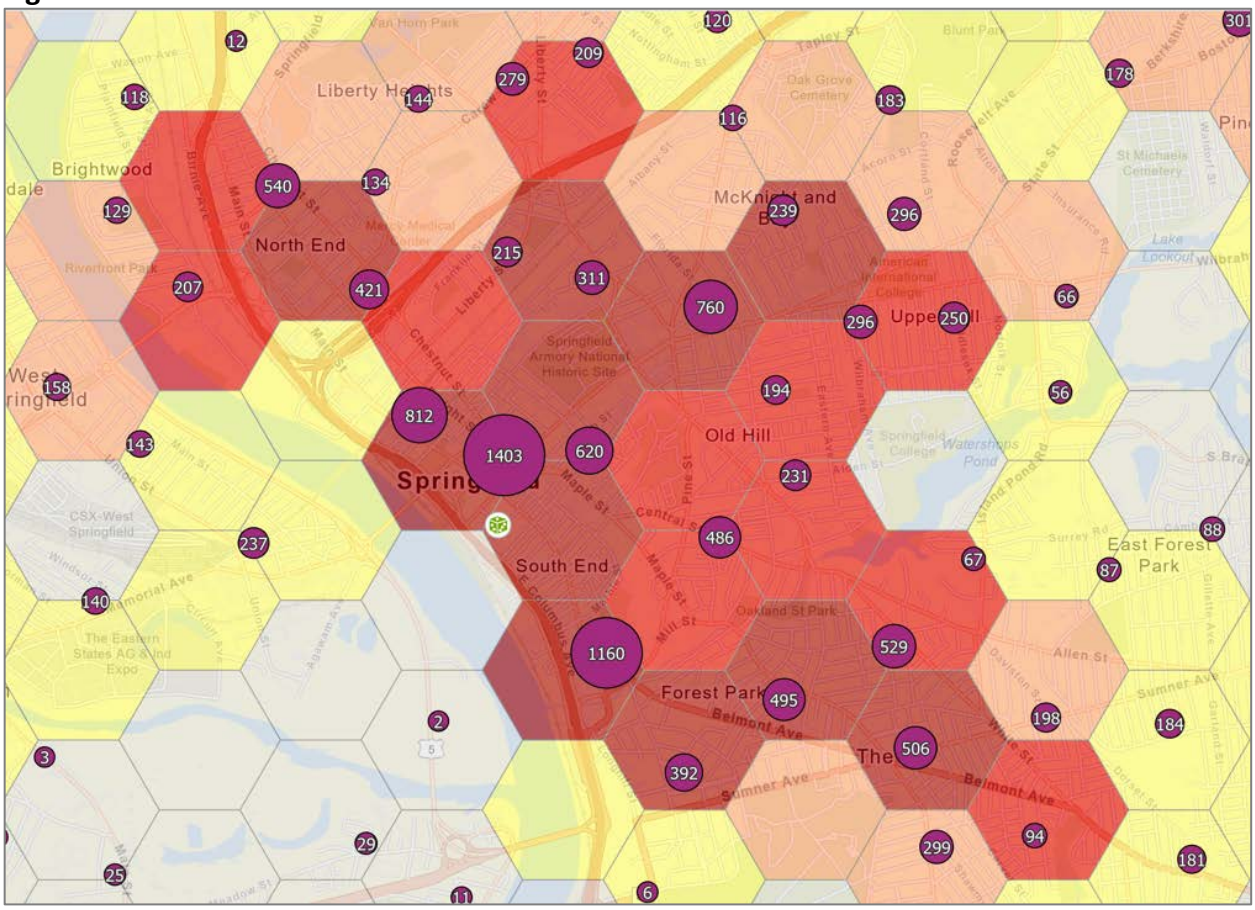


Figure 13 shows that vehicle crime is clearly concentrated in the CBD along State & Chestnut streets and most likely reflects the volume of street parking and surface parking lots near the casino and hotels in the area. Vehicle crime includes Stolen Autos, Theft From Vehicles, and Theft of Auto Part that regularly proliferate at hotels, on streets and in surface parking lots. Once again, vehicle crime illustrates social disorganization theory and significantly diminished as one gets farther way from CBD and the working-class zone. Another micro hotspot is near the Hampton Inn on Columbus and where Main converges with Locust.

Figure 14: Vice Crime Distribution over Area

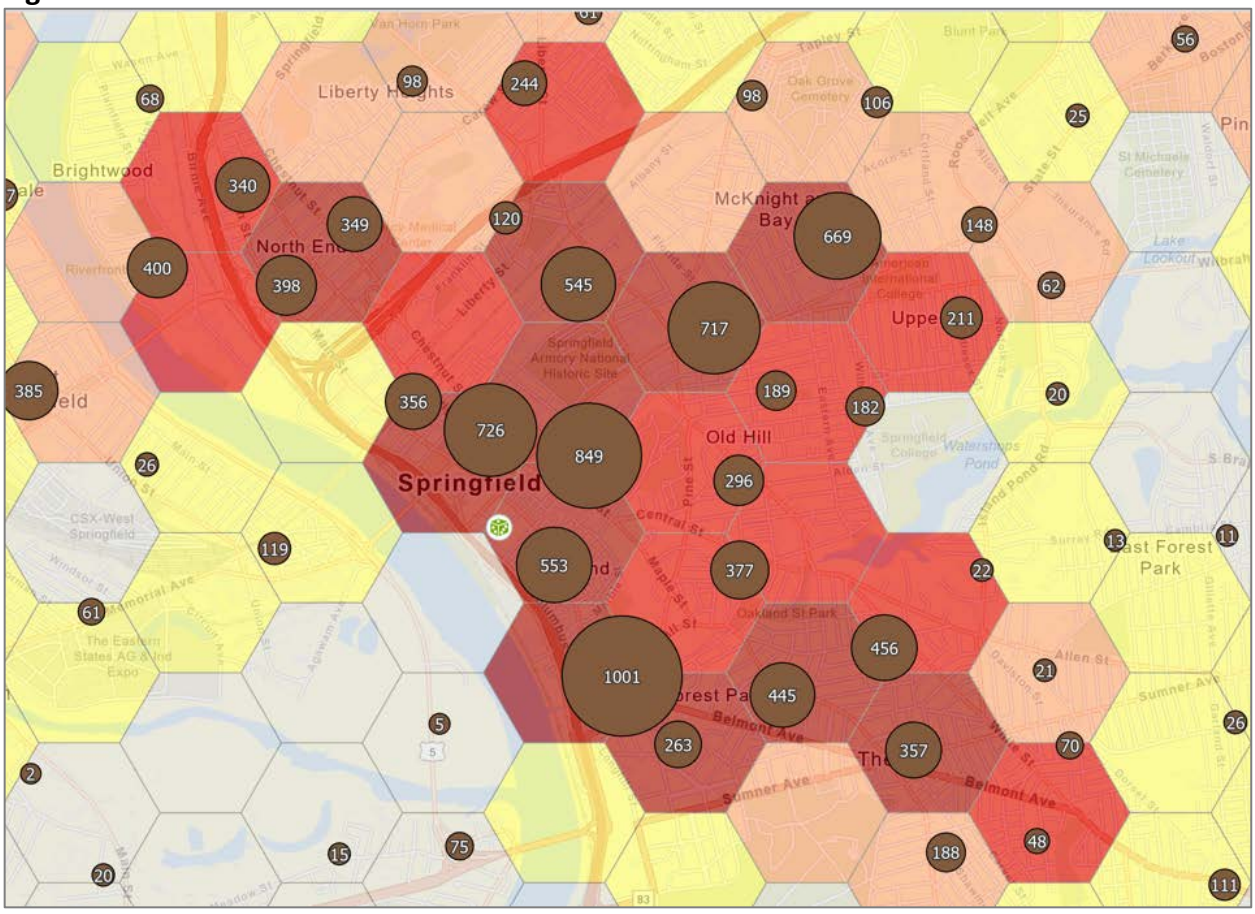


Figure 14 - Vice crime, which includes offenses like drugs, alcohol, drunkenness, drunk driving and prostitution - pornography, follows the general pattern within the CBD and along the major streets. It appears to be most prevalent south of downtown where Main Street converges into Locust, and in Central City near High St and School St and in the Chestnut and Pearl vicinity. Vice continued along State Street as it traveled away from the river or CBD. It is clear that Vice concentrated along the C-pattern and experienced distance decay from the casino. These spatial depictions of crime continued to illustrate that there is a great deal of correlation with proximity to the casino that diminishes as you get farther from the CBD. This does not determine causation and can be explained by contributing factors related to social disorganization theory.

Figure 15: Violent Crime Distribution over Area

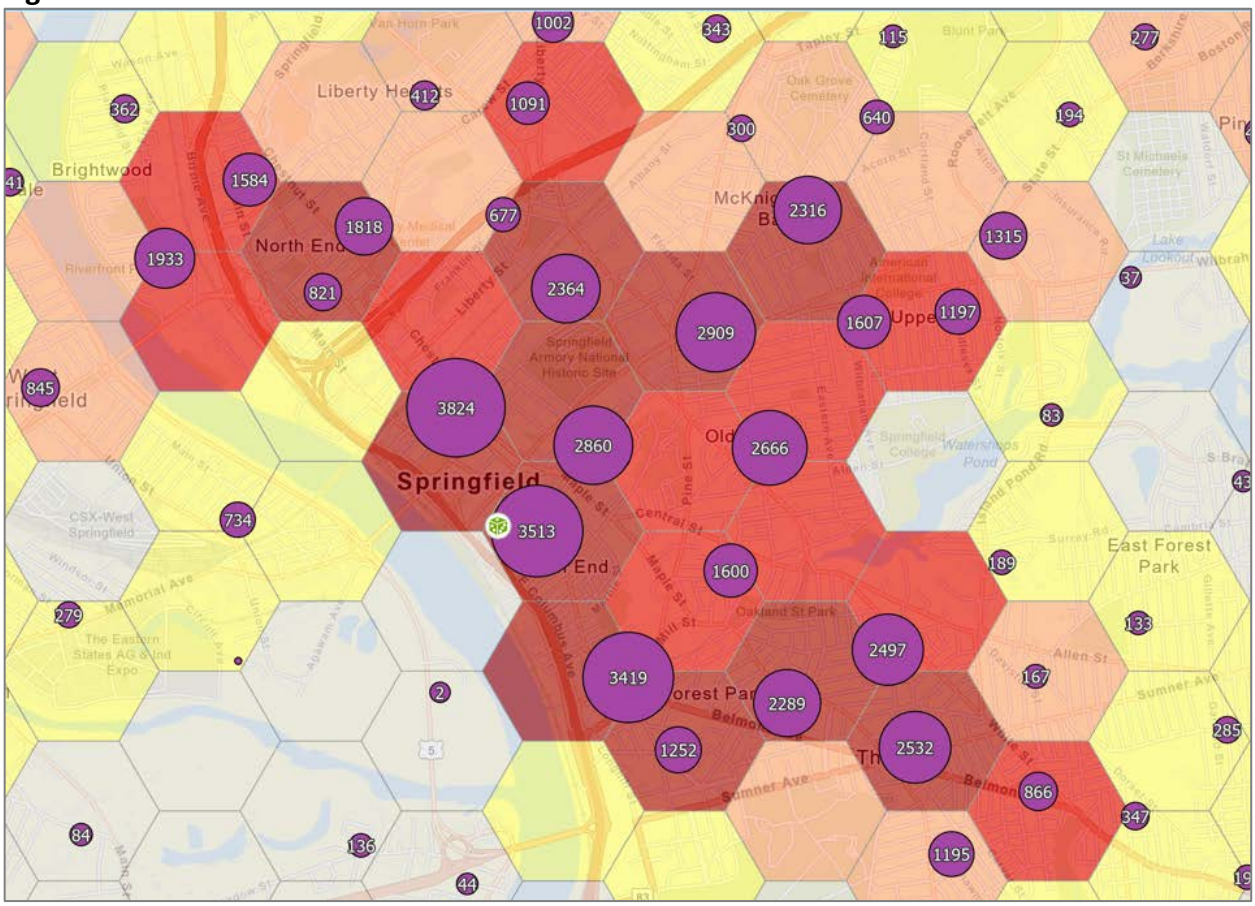
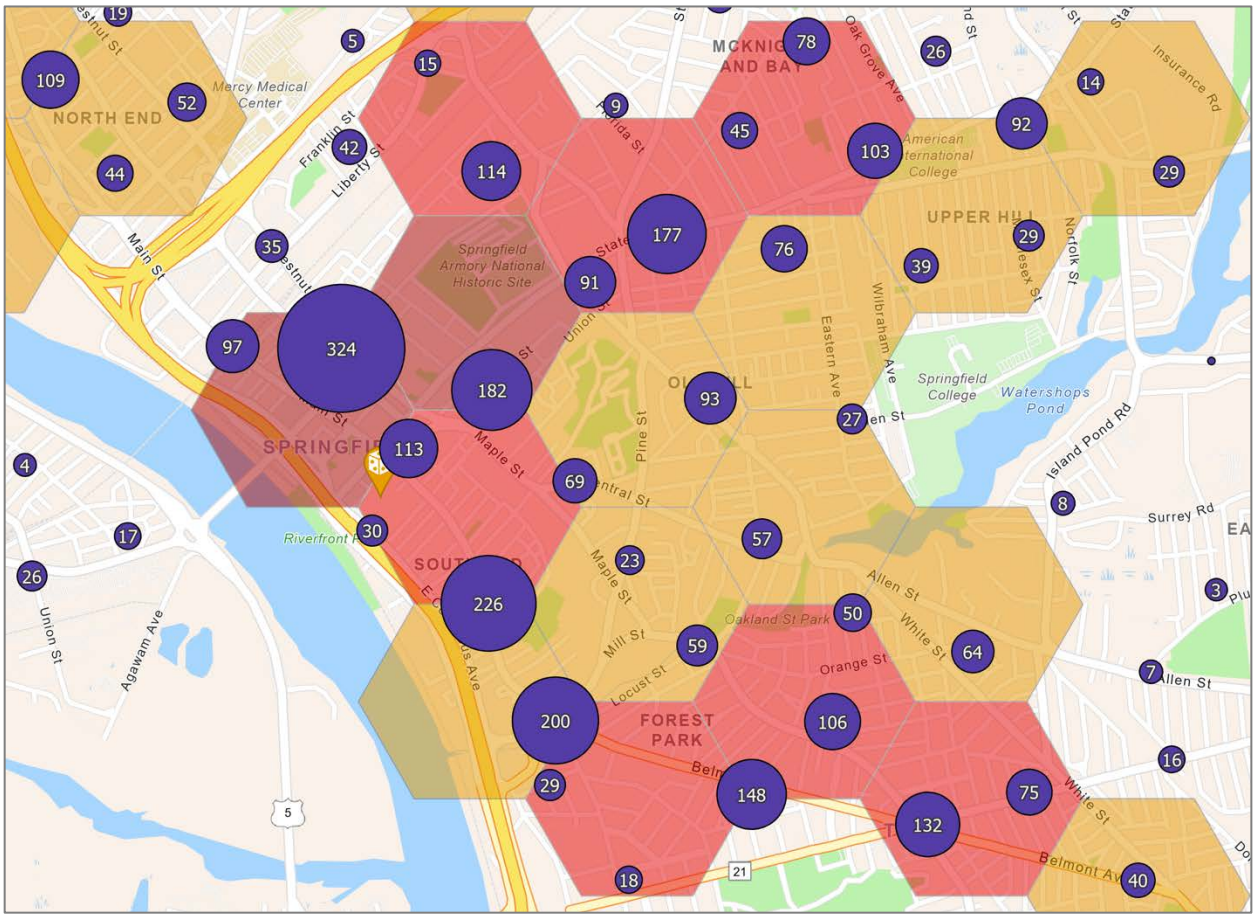


Figure 15 shows that violent crime is more evenly distributed across Springfield and mirrors the consistent pattern of crime along the primary streets. It also behaves in a similar manner as other crime consistent with SDT. Once you get outside the Central Business District violent crime dropped off dramatically. It is profound that each of these crime categories adhered to the same spatial pattern generally speaking. While there are unique hotspots across the crime categories, they continue to maintain support for the social disorganization theory, higher in poverty-stricken areas, along major transportation routes, and demonstrate distance decay from Central City.

The research now turns to a more detailed look at robbery, a crime most people are concerned about, especially patrons who might be visiting a casino community. Again, we see a similar geo-spatial pattern of crime with robbery. Robbery appears to be prevalent in the Sterns Square Park area and less so in and around the MGM Casino.

Robbery over the past decade shown in Figure 16 occurred on busy thoroughfares along State Street, south Main Street and along Belmont to the east.

Figure 16: Robbery Distribution over Area (2013-2022)

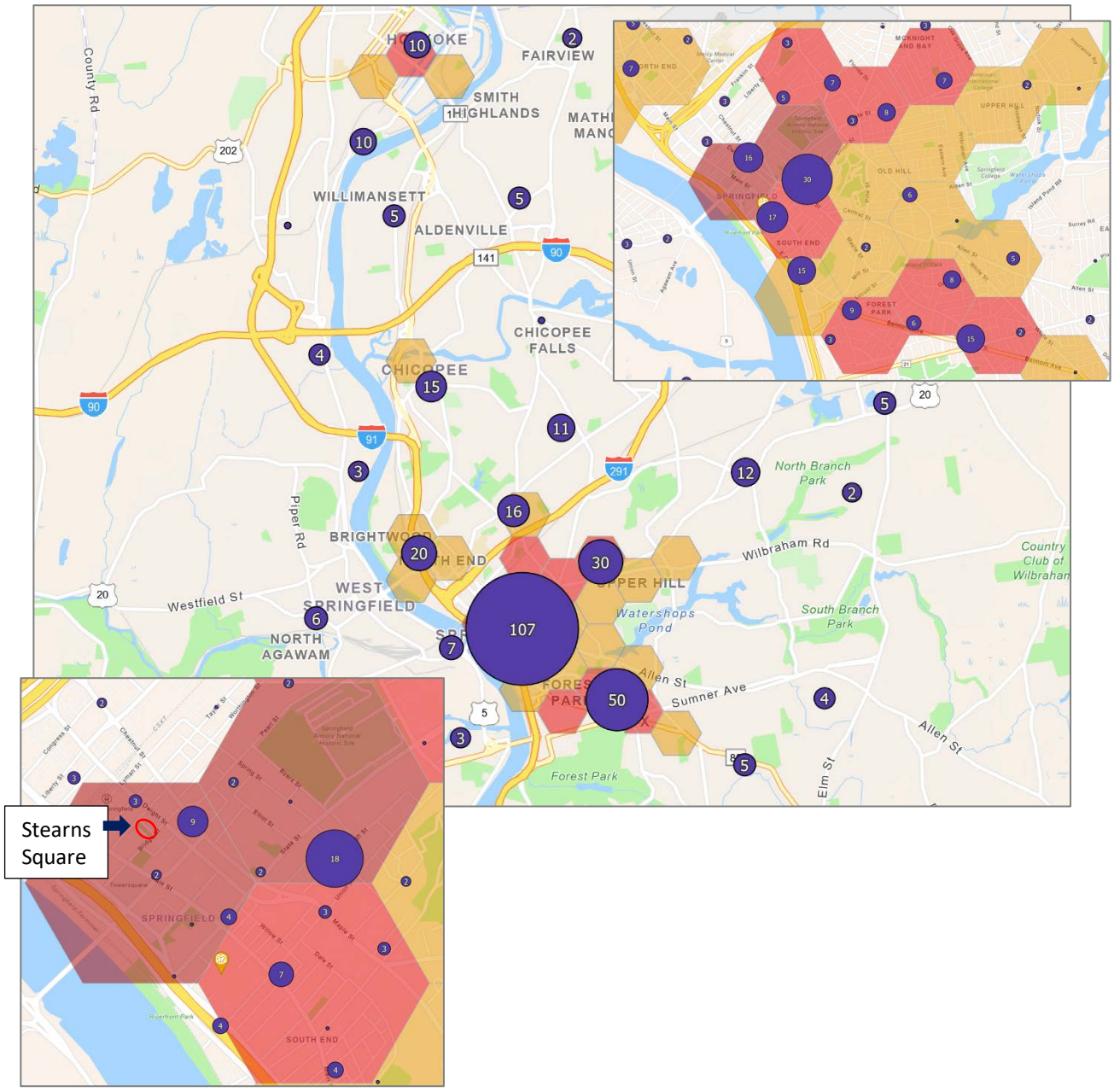


If we focus on 2022, it appears that police efforts[28] in the Stearns Square area near Union Station have paid off with fewer robberies having occurred as illustrated in Figure 17. The one distinct smaller hotspot remained in the High and School Street area with 18 robberies in 2022. Figure 17 shows that 107 robberies occurred in the CBD but on a much smaller scale. Thirty robberies occurred at the end of C-pattern along State Street and 50 persons experienced robbery in "The X" community[29] towards the end of the C-shape on Belmont Avenue.

[28] Springfield police staff offered this explanation when we met with them during our qualitative review and on-site assessment.

[29] The X community is a local designation for this neighborhood.

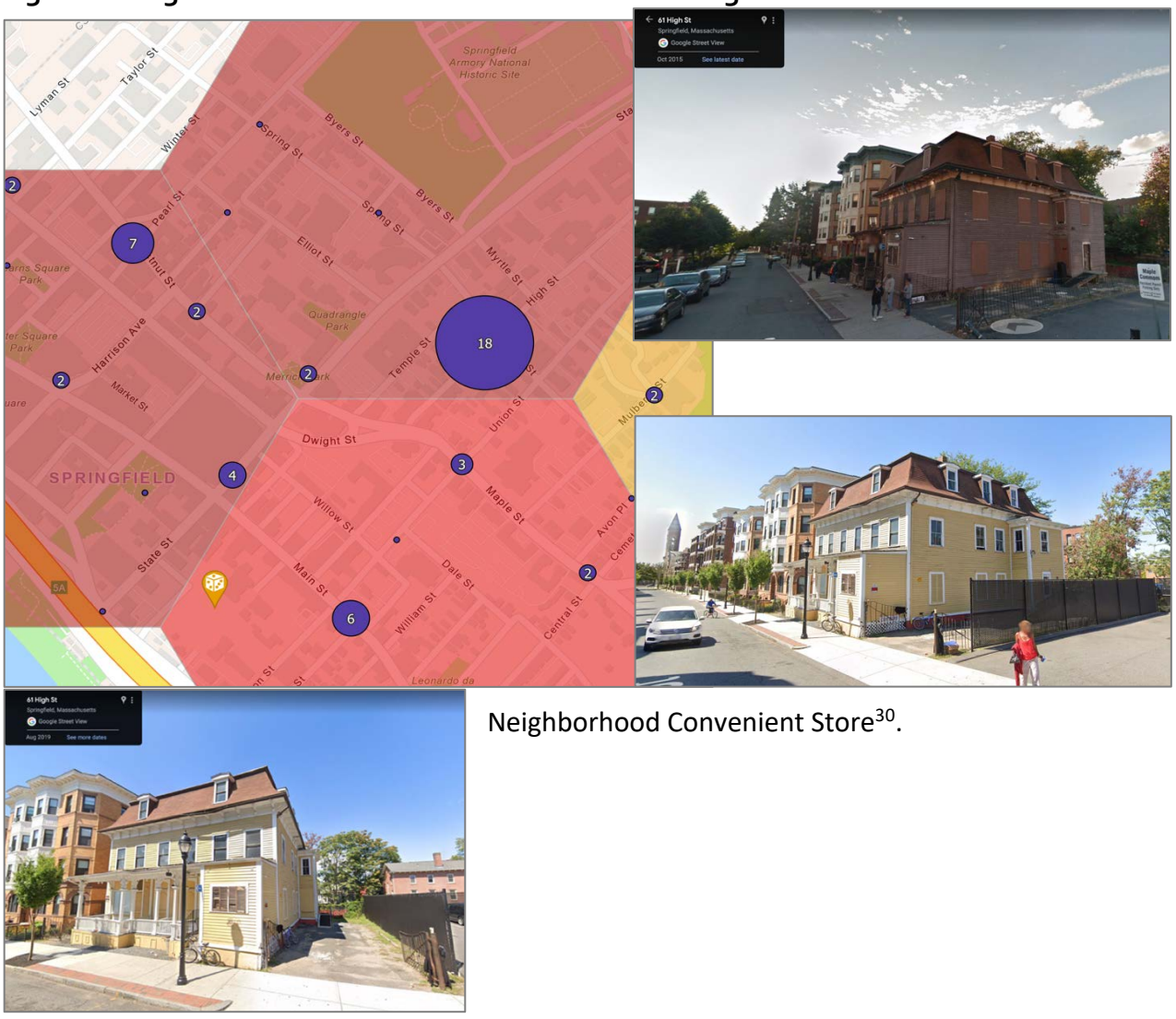
Figure 17: Robbery Distribution over Region and within Central City (2022)



The hotspot at High Street and School Street is made up of apartment complexes and one unique landmark appears to be at the center of this neighborhood and acted as a magnet for activity. The City of Springfield has invested urban development funds into this area as the pictures below display, but the presence of a convenient store draws enough patrons which provided opportunities for robbery apparently. The store is open from 9am to 9pm presently and several environmental design changes have been made that further hardened this target.

Figure 18 shows 18 robberies at this specific location in 2022. The embedded pictures illustrate the commitment to crime prevention and public safety that is needed to reduce crime. Closed circuit TV or the Ring Doorbell may provide additional surveillance to deter future crime.

Figure 18: High Street Convenience Store - School and High Street area.

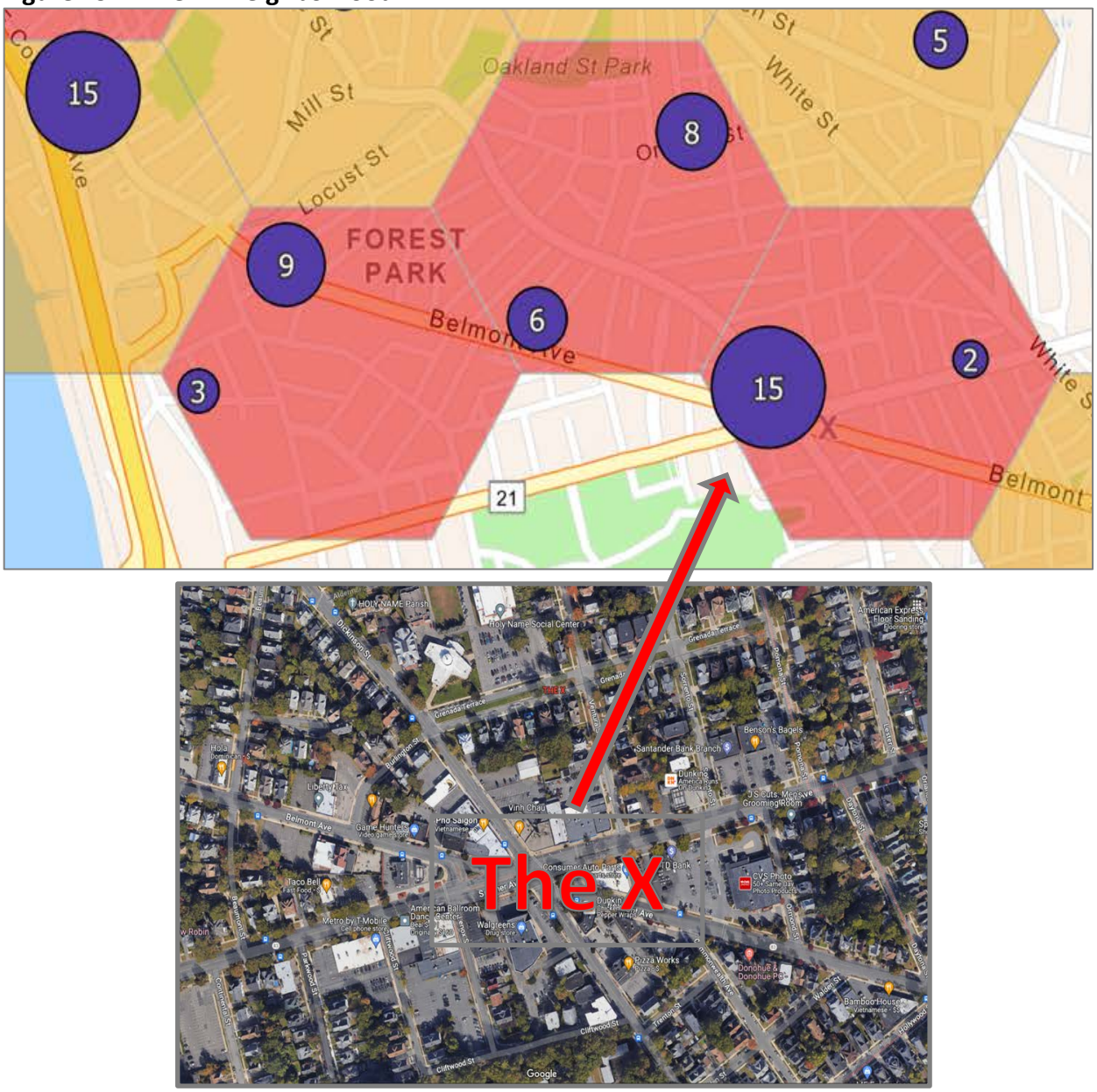


Neighborhood Convenient Store[30].

[30] In many neighborhoods across the country, local markets serve as food services for under-privileged populations and become a corner hangout, but this social phenomenon also attracts vice and disorder at times. This location in Springfield has the characteristics of a street corner culture. This location had as many robberies in 2022 as the area immediately around the casino.

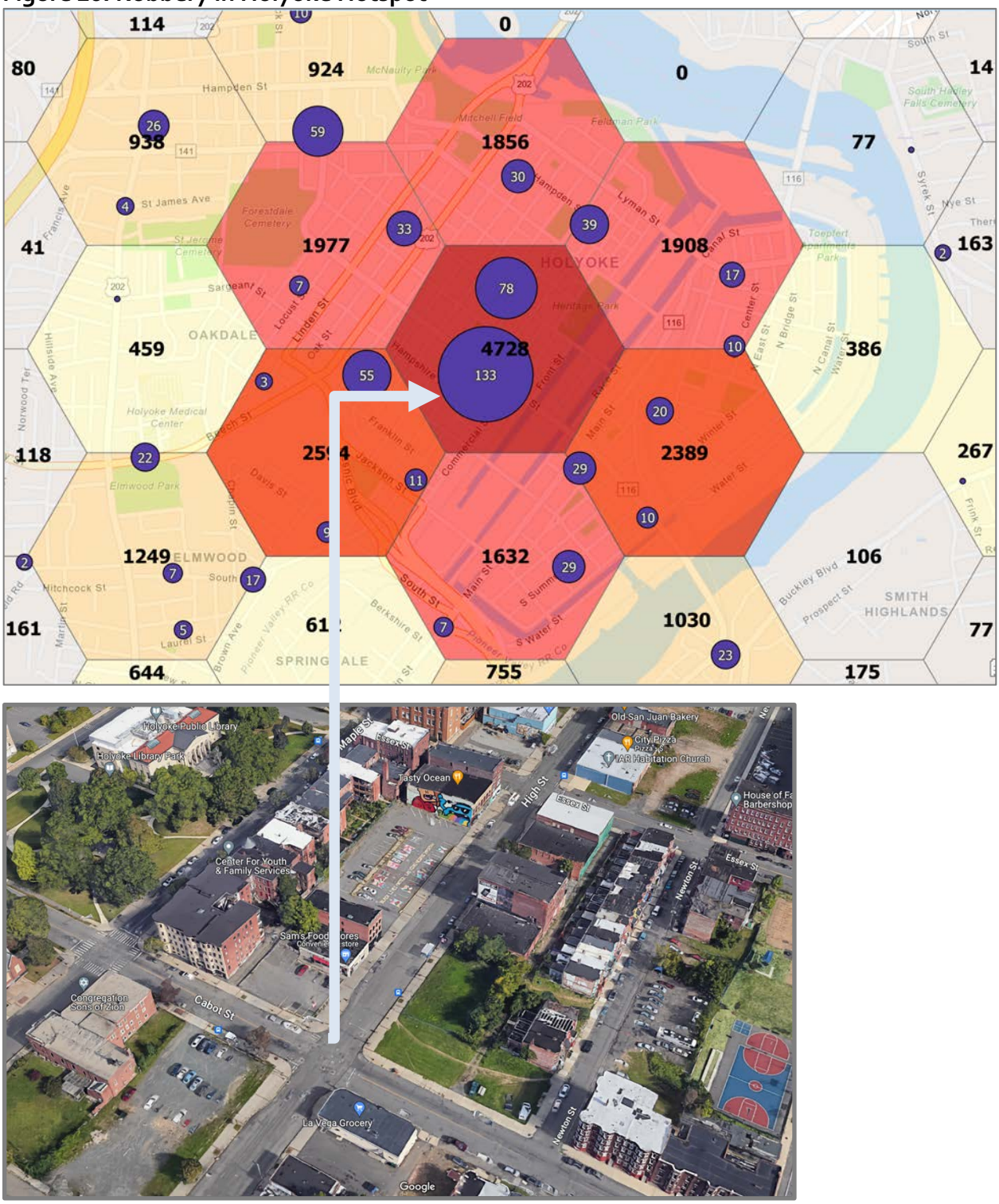
Springfield has made investments into infrastructure with streetlights and the planting of trees. It remains a robbery hotspot, illustrating the difficulty that exists in changing neighborhood culture. Another hotspot location for Robbery in Springfield includes the crossroads called "The X" where 15 robberies occurred in 2022 (see Figure 19).

Figure 19 - "The X" Neighborhood



<u>The X (the local designation for this area)</u> - at the intersection of Belmont and Sumner hosts three coffee shops, two drug stores, 8 fast food establishments and a social center. As a business apex it attracts large number of patrons who appear to be prey as vulnerable victims. This is another illustration of how crime hotspots develop and perpetuate. Motivated offenders target these nodes and rationally leverage the easy targets, most likely the factor behind it being a hotspot.

Figure 20: Robbery in Holyoke Hotspot

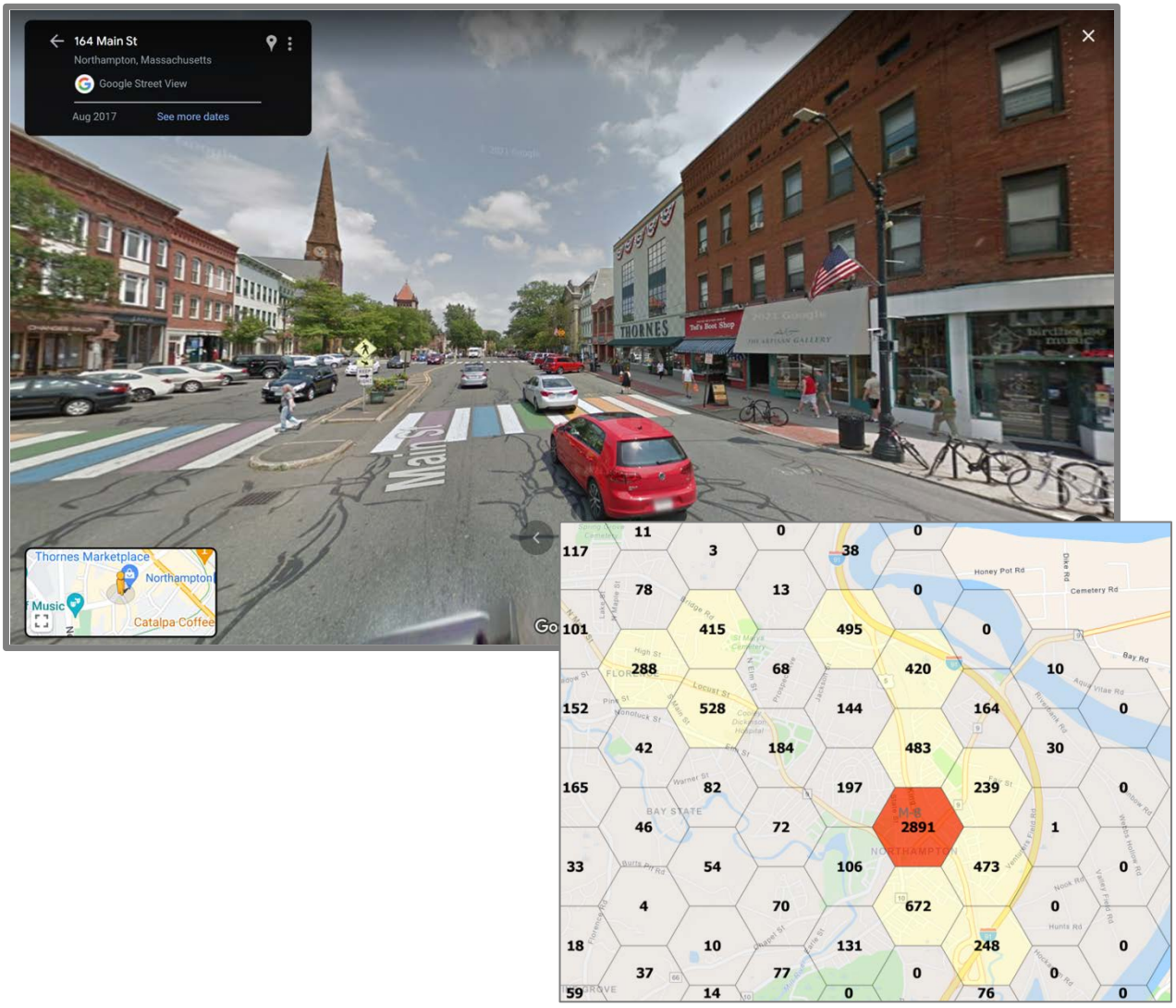


Cabot & High Street (O-23) - Figure 20 illustrates a location with a Juvenile Center, an outdoor basketball court, two neighborhood grocery stores and surface parking - and a social center. Holyoke only had 10 robberies in 2022 at this location, which represented a reduction of 3 on average from the 14 it experienced over the past decade. This hotspot hexagon (O-23) ranked third in crime counts (N=4,728) within the Region and as such deserves public safety attention.

The final hotspot of our onsite assessment was at Thornes Market Place in Northampton (Figure 21). While it was the least active hotspot for crime amongst the others in the Region, it falls into the 13th spot for top locations with 2,891 crimes over the past decade. In the final analysis, this community and the CBD within Northampton looks typical of downtown USA with nice shops and restaurants, and a few bars.

It simply attracts patrons and shoppers who are vulnerable targets for motivated offenders. Once again, we see a Central Business District that had high correlation to crime counts, as would be expected. Public safety continues to look for and find ways to prevent crime, apprehend offenders, and safeguard visitors eager to shop here and entertain themselves. It looks extremely safe.

Figure 21: CBD in Northampton Hotspot (M-8) - N=2,891



The common theme that this drilldown analysis shows is that there is a common theme for robbery, it occurs in highly dense areas with high activity related to bars, restaurants, convenience stores and apartment complexes. This common spatial reality in a Central Business District appears to be more a contributing factor than the presence or absence of a casino.

Micro-analysis of Changes in Crime Statistics

Since the Massachusetts Gaming Commission began evaluating the impacts of the casinos on public safety issues, a key goal has been to identify specific trends in crimes, calls for service, and traffic collisions that might be attributed to the casinos. These trends may include both increases and decreases. Table 4 below summarizes some of the reasons that public safety issues might increase or decrease because of a facility *like* MGM Springfield.

Table 4: Reasons For Increase or Decreases in Certain Issues

Reasons for potential increases	Reasons for potential decreases
Millions of extra people in the area during the year creates many new opportunities for victimization, particularly during extended nighttime hours. Other businesses taking advantage of these extra visitors may offer new opportunities for victimization. Risk-motivated individuals[31] in particular may serve as desirable population of victims for fraudsters. The cash-heavy nature of casinos creates more opportunities for cash-related crimes. "Hedonistic mindset" of some casino visitors ties gambling experiences to drinking, drug use, prostitution. Alcohol service at casino creates intoxicated patrons. Intoxicated people are at higher risk of both offending and victimization. Individuals seeking money for gambling may turn to crime as a source of funds, or those who spend their money gambling may turn to crime as a source of replacement funds. Addicted gamblers may suffer financial and psychological strain that manifests in violence and other crimes. The specific nature of casino operations offers unique opportunities for crimes not present at other locations, including TITO thefts and money laundering.	Millions of extra people in the area during the year creates extra mutual guardianship and reduces victim isolation, particularly in nighttime hours. Other businesses taking advantage of these visitors increase legitimate activity in the area, again particularly at nighttime, thus providing extra lighting, security, and mutual guardianship. Extra law enforcement presence in the casino area, and in the area in general. Physical improvements to the area help negate "broken windows"[32] effects and otherwise may make the area less attractive to potential offenders. Extra monitoring and access control in casino area may increase perception of risk for offenders. Economic benefits offered by casino may reduce general economic strain in the area, thus reducing several manifestations of crime. This includes the direct hiring of 1,500 plus employees at the casino. Other service industry jobs are created in food and entertainment services as Springfield becomes a tourist destination. Extra social services funded by casino proceeds or otherwise prioritized for the area because of the casino may alleviate a number of economic, social, and psychological crime causes.

[31] Someone who is willing to gamble might be willing to take similar risks on financial deals that turn out to be con games or swindles and this serves as a potential risk.

[32] *Broken windows* is a criminological concept that suggests an area becomes prone to crime as visual signs of deterioration sends signals that no one cares or has any capable guardians monitoring it.

To assess whether the Springfield area experienced any of these causes and effects, we compare post-casino activity in the surrounding area with an expected number of crimes, calls for service, and collisions if the casino had not been built. Notable changes from this expected value do not prove a casino-related cause, but they do provide suggestions for further investigation.

To strengthen conclusions about changes unique to the MGM Springfield area, we compare changes in Springfield to those throughout the rest of Massachusetts during the same period. Changes in activity in the MGM area are not likely to have a casino correlation if they simply mirror changes seen in the rest of the state.

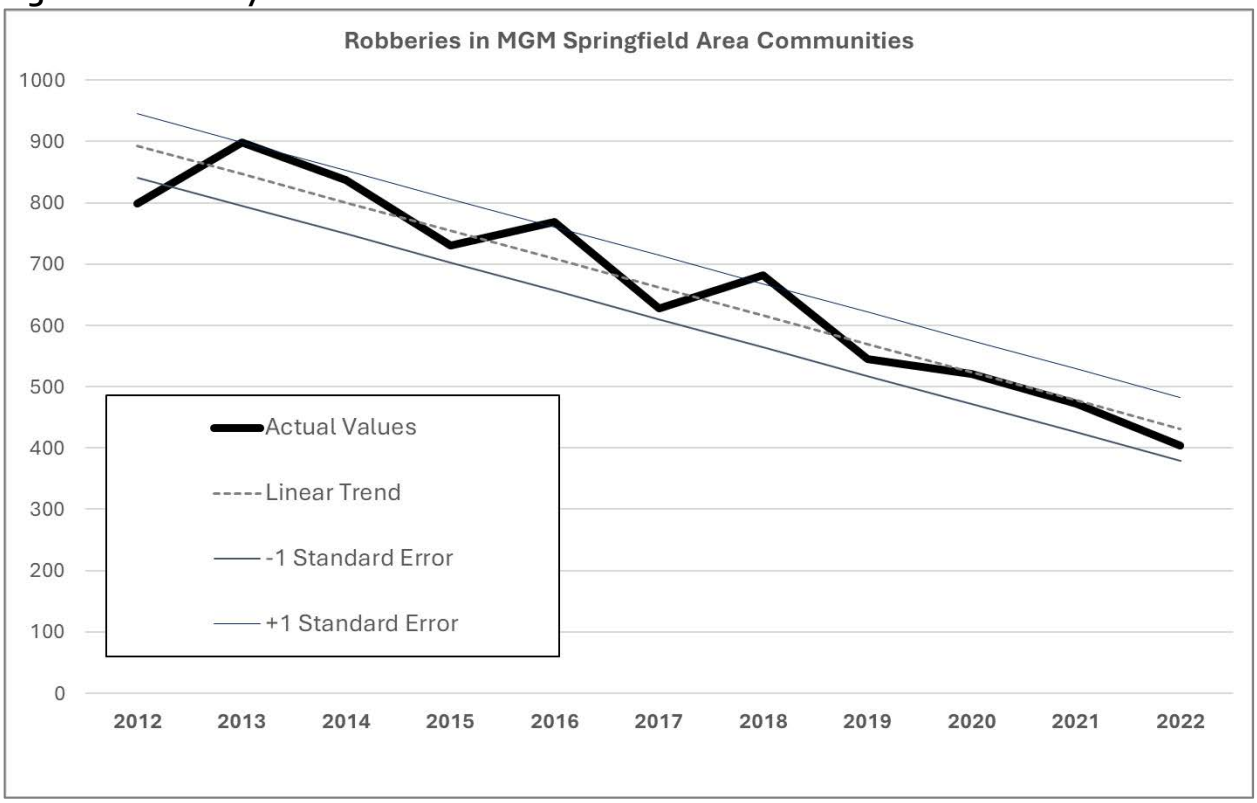
To analyze "statewide" statistics, we obtained data from the Massachusetts Executive Office of Public Safety and Security (EOPSS) as reported under the National Incident-Based Reporting System (NIBRS) program, which standardizes the collection of crime data across the United States. Not every Massachusetts agency reported data to NIBRS during the study period, so our analysis only uses, as comparisons, agencies that consistently reported NIBRS data between 2010 and 2022. Comparative analysis does not include any of the agencies in designated casino areas, including MGM Springfield, Encore Boston Harbor, and Plainridge Park. The comparative dataset is still quite large, representing 268 Massachusetts agencies with a combined population of about five million.

COVID is, of course, a complicating factor in this analysis. For nearly two years, it significantly changed how people interact. For a three-month period between May 2020 and July 2020, businesses at which people could gather and interact—including schools, restaurants, bars, and casinos—were completely closed. For almost a year after that, many facilities remained closed, while others (including the casino) operated under capacity restrictions. These changes in societal patterns resulted in many changes in crime patterns.

Analyzing Changes in Crime in the MGM Area

The basis of our conclusions begins with simple linear trend analysis. For instance, Figure 22 below shows robberies in the MGM Springfield area between 2012 and 2022.

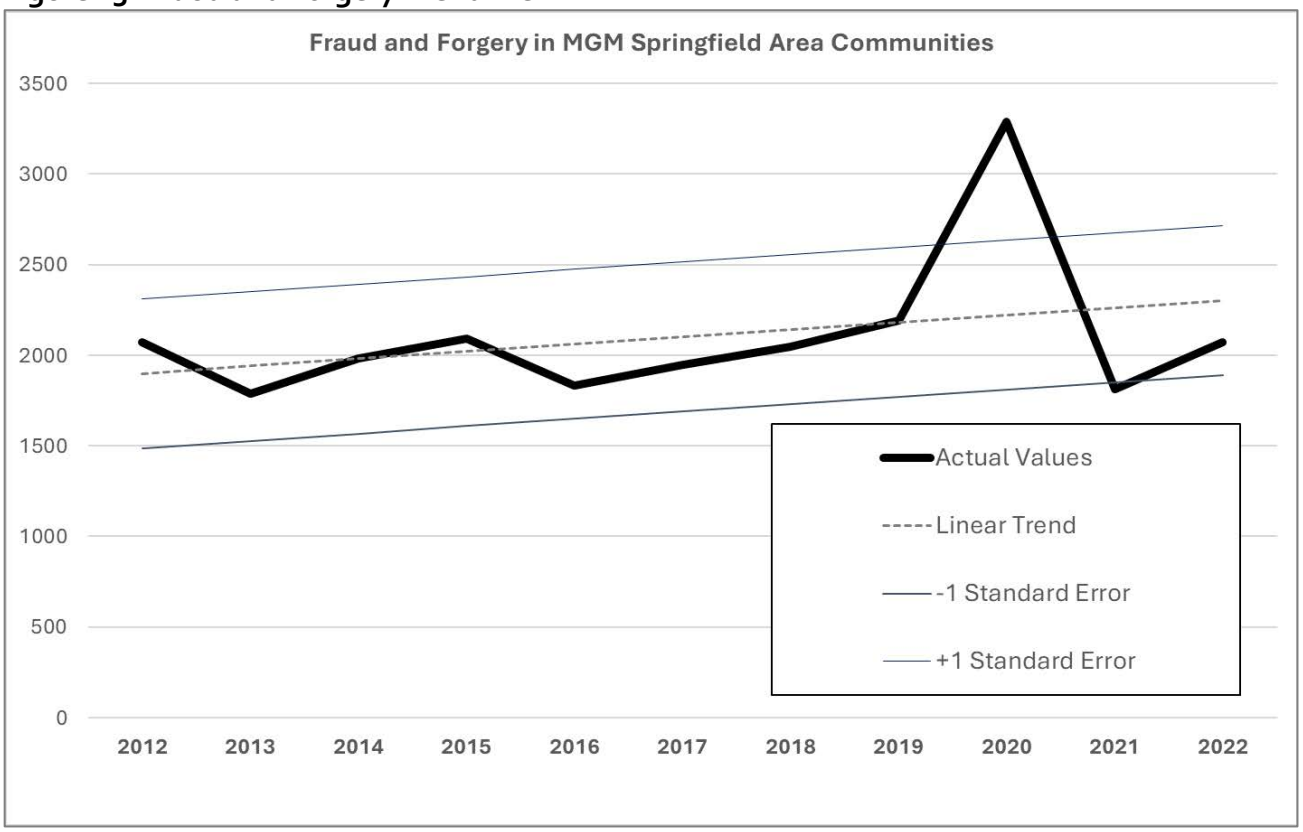
Figure 22: Robbery Trendline



The overall trend in the area has been a downward one, with the average change per year at -40 robberies. The overall decrease between 2012 and 2022 (the extreme ends of the timeline) is -49%. The decrease between 2013 and 2022 (the highest and lowest years) is -55%. Neither the opening of MGM in 2018 or COVID in 2020 and 2021 had much effect on the overall trend; it kept going down. In only a few years did the crime show values outside a window of one standard error, and in those cases, the actual value was barely outside the window.

As a comparison, we look at fraud and forgery (including confidence games, impersonation, identity theft, credit card fraud, and counterfeiting) during the same period in Figure 23:

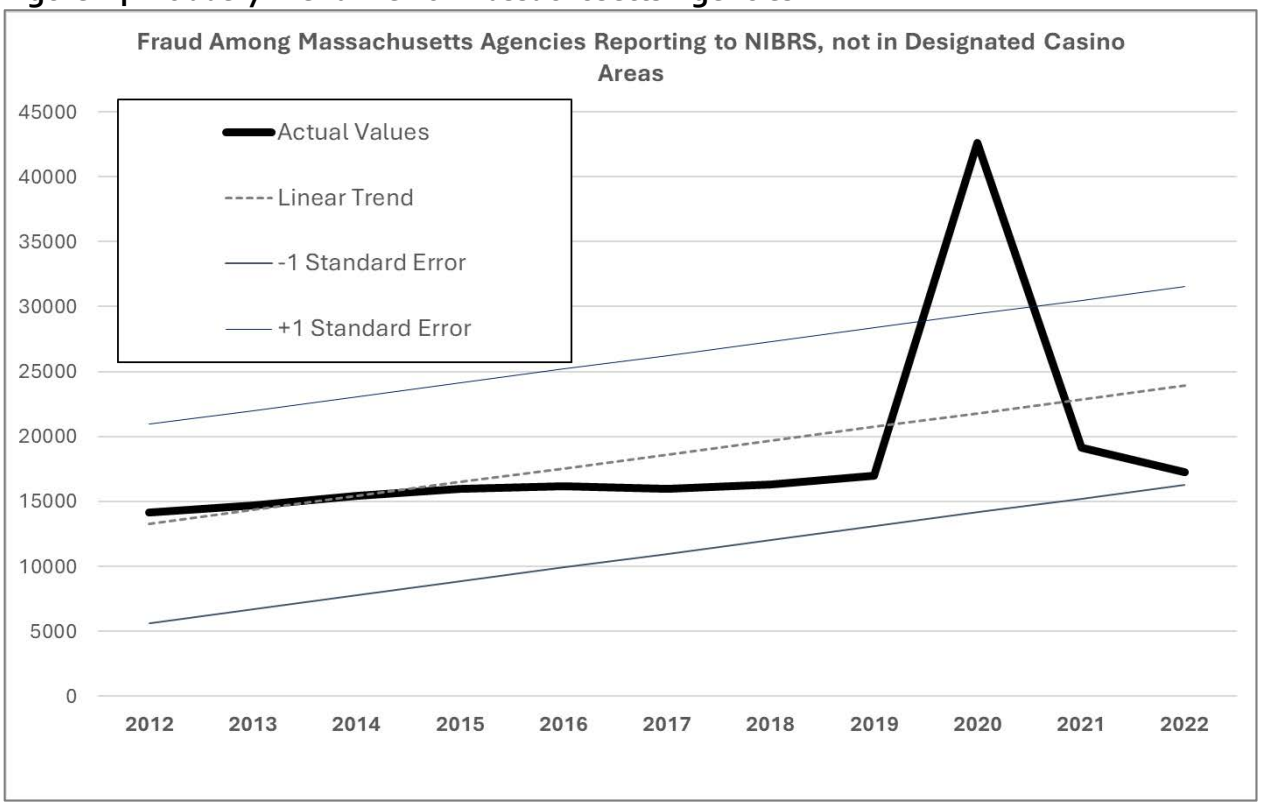
Figure 23: Fraud and Forgery Trendline



Here we see an increasing trend over the period, but the increase was accelerated by an unprecedented spike in 2020, followed by an equally surprising drop in 2021. Far from being within one standard error of the trendline, the 2020 value of 3,287 incidents is 2.58 standard errors away. The number of standard errors from the trendline is the first basis we use to determine whether a crime is unusually high or unusually low in a particular period. This figure is called the **standardized residual** (abbreviated **SR**).

What was the statewide pattern? Figure 24 illustrates the same pattern from all the state agencies reporting to NIBRS during the same period:

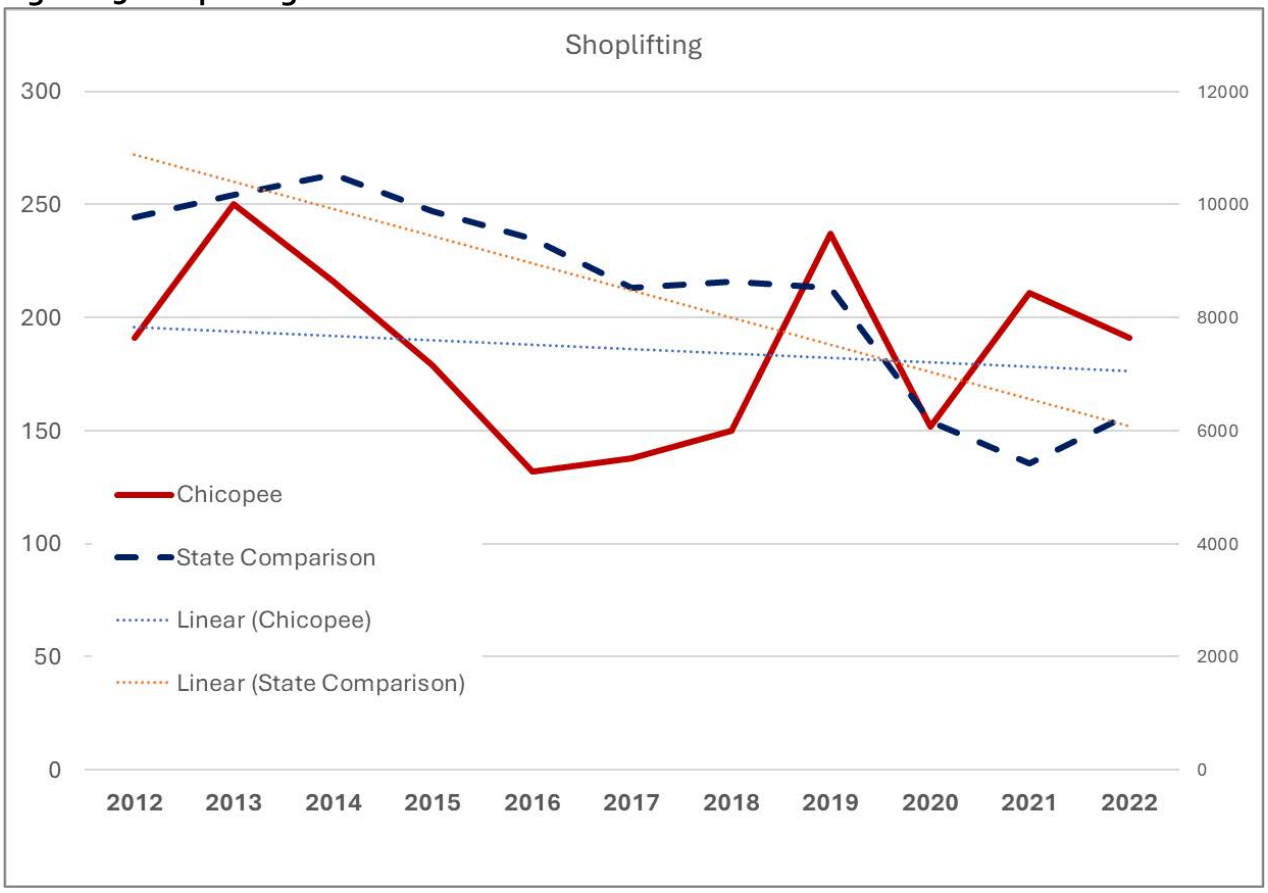
Figure 24: Robbery Trendline For Massachusetts Agencies



The 2020 spike in the case of the rest of Massachusetts is 2.72 standard errors from the trendline (i.e., a standardized residual of 2.72). Thus, while the MGM-area increase in fraud and forgery is concerning, it mostly mirrors the same increase across Massachusetts and is thus unlikely to be related to the casino specifically.

There are times, however, in which the overall change in the MGM Springfield area diverged from state trends. Here, for instance, we see reports of shoplifting in the MGM Springfield area in relationship to the comparison agencies across the rest of the state in Figure 25. Shoplifting across the state is a good example of how a given crime might fluctuate. In contrast to other crimes, shoplifting in Chicopee was historically much lower the expected state trend and vacillated up in 2019, dropped during COVID-19 only to rise relatively high compared to state projections. Chicopee PD could take a closer look at shoplifting as a primary offense and develop enforcement efforts and crime prevention strategies as a result of these findings.

Figure 25: Shoplifting Trendline



The overall trend is a decrease in both cases, but in the year 2021, comparison had a score of -1.45. In other words, the comparison agencies had far fewer shopliftings than the trendline would have anticipated. Chicopee, on the other hand, had an SR of 0.79. In raw terms, that isn't very much—it's within what we would call a "normal window" for that crime. But in comparison to other Massachusetts agencies, it is relatively high.

Next we turn our attention to a comparison of expected values given the downward trend and use an index we define as the **comparative change index (CCI)**[33] as the absolute difference between the standardized residuals (SRs) for the MGM area and the SRs in the comparison area—in the case of shoplifting in 2021, the CCI is +2.23 (0.79 – 1.45) for Chicopee, indicating a trend worthy of further analysis.

The CCI measures not just how much the category changed from the past but how much it changed from the past *in comparison to the rest of the state*. A CCI of 0 indicates that the MGM area and the state are in perfect alignment, whether up or down. A CCI of greater than 0

[33] The CCI cut points were selected by the researchers because we have found no other methods for measuring differences between expected trend values and actual values to exist. In an attempt to measure whether a given value of crime counts fluctuates from the expected trend line, the CCI offers a metric for this assessment. If other researchers are interested in replicating this technique or formula, please do not hesitate to contact the authors.

indicates that MGM had more crime than expected based on state trends; a CCI of less than 0 indicates that MGM had less crime than expected based on state trends. A decrease could still produce a positive CCI, if the MGM area only decreased a small amount while the rest of the state decreased a lot. Similarly, an increase could produce a negative CCI, if the rest of the state increased a lot but the MGM area only increased a little.

We have calculated SRs and CCIs for every combination of offense, offense category, and geographic area within the MGM region. Geographic areas include both entire jurisdictions (e.g., the city of Springfield) and individual quarter-mile hexes. Given that previous reports have already analyzed notable deviance from expected values in 2019, and given that COVID caused crime trends in 2020 and 2021 that overwhelmed other societal factors , we have focused the bulk of our analysis on 2022.

Overall trends

Table 5 below can be interpreted as follows:

- **Yearly average** is the annual mean between 2012 and 2022.
- **Slope** is the average yearly change on a linear trendline.
- **2020 and 2021** are the annual figures for those years, offered simply for comparative purposes.
- **Expected 2022** is where the predicted 2022 figure is calculated and where it would fall on the linear trendline based on 2012 through 2021 data. 2020 and 2021 were aberrant years, and we considered excluding them from the trendline calculations. However, when we analyzed statewide data, we found that including those years better predicted crime in non-casino areas in 2022 (average SR of 1.57) than basing the trendline solely on 2012 through 2019 (average SR of 2.13).
- **Actual 2022** is the figure reported in that calendar year.
- **2022 SR** is the standardized residual for 2022—the difference between the actual figure and the expected figure as represented by the number of standard errors from the trendline.
- **2022 CCI** is the difference between the SR for the MGM area and the SR for the rest of the state.

The 2022 SR tells us how unusually high or low the crime was in 2022 compared to the past trendline. The 2022 CCI tells us how unusual the SR is compared to the rest of the state.

2022 was a volatile year, both statewide and in the MGM area. Many crimes that had been trending resolutely in a particular direction reversed that direction in 2022, for better and for worse. In a typical linear regression model, around 70% of the values should have an SR of between -1 and 1, and 95% should have an SR of between -2 and 2. In 2022, in contrast, only 37% of crimes in the state comparison dataset had an SR between -1 and 1, and only 71% were between -2 and 2. There were a lot of extreme values, mostly high, including miscellaneous larceny (+6.99), weapon law violations (+4.86), thefts of vehicle parts and

Table 5: 2022 offenses, actual to expected values, all MGM-area communities

Offense	Yearly Avg.	Slope	2020	2021	Expected 2022	Actual 2022	2022 SR	2022 CCI
Murder	23.9	1	29	24	28	27	-0.16	-0.41
Kidnapping	95.4	0	80	100	95	92	-0.22	-0.10
Sexual Assault	370.5	-8	297	315	325	382	1.60	1.48
Robbery	662.1	-44	521	472	444	404	-0.74	-2.53
Aggravated Assault	1688.3	-4	1638	1752	1667	1681	0.22	-3.06
Simple Assault	5094.8	-164	4230	4341	4254	4470	0.80	-1.05
Threats	2701.7	-99	2210	2395	2194	2336	1.20	-1.85
Arson	66.5	-5	64	47	38	63	1.83	0.40
Extortion	24.5	3	36	33	43	32	-1.01	-4.22
Burglary	2428.4	-348	1343	1183	638	1189	2.76	-0.31
Theft from Persons	59.3	-2	49	22	50	32	-0.91	-1.87
Purse-Snatching	44.3	1	43	62	47	81	2.37	1.34
Shoplifting	1488.1	-20	1294	1318	1376	1522	1.24	0.85
Theft from Building	1224.2	-116	735	757	616	902	1.35	-1.72
Theft from Machine	5.3	0	2	0	8	0	-1.03	-1.81
Theft from Vehicle	1358.1	-85	1182	875	915	1093	1.18	-0.59
Theft of MV Parts	413.2	38	500	651	605	567	-0.36	-4.83
Other Theft	4182.9	-576	2635	2534	1164	2670	2.23	-4.76
Auto Theft	998.4	-40	891	939	782	945	2.24	1.10
Forgery	299.2	-13	192	215	229	272	0.91	-3.27
Fraud	628.5	-6	610	501	596	634	0.59	3.15
Credit Card Fraud	304.9	25	450	319	435	380	-1.00	-0.49
Impersonation	719.3	27	1796	510	882	567	-0.78	0.40
Welfare Fraud	7.3	3	24	46	26	7	-1.59	-0.34
Wire Fraud	36.9	11	76	83	88	109	1.50	1.87
Identity Theft	120.3	-26	123	115	83	76	-0.48	0.78
Hacking	5.0	-1	6	4	4	5	0.82	2.57
Employee Theft	48.8	-4	17	20	28	31	0.16	-2.26
Stolen Property	273.7	-10	232	218	221	222	0.03	-3.10
Vandalism	4090.5	-201	3500	3497	3031	3637	2.98	0.59
Drugs	1400.0	-85	881	1057	990	847	-1.04	0.30
Drug Equipment	2.7	0	2	2	1	6	2.12	0.37
Incest	7.5	1	7	12	10	13	1.64	0.31
Statutory Rape	57.2	4	65	70	77	69	-0.87	-1.27
Pornography	62.4	7	71	94	101	80	-2.62	-2.87
Gambling	7.0	2	11	20	14	23	1.56	1.99
Prostitution	42.1	-8	2	23	1	10	0.54	-0.39
Bribery	2.0	0	2	2	2	9	8.93	8.27
Weapons	647.5	49	864	892	889	944	0.95	-3.91
Animal Cruelty	18.5	4	14	21	23	25	0.58	3.33

accessories (+4.48), counterfeiting and forgery (+4.18), and aggravated assault (+3.28). All these crimes had been trending down rapidly between 2012 and 2021 and reversed direction in 2022, some of them showing the highest totals in the 10-year dataset.

The MGM area showed similar instability in 2022, though it was slightly more stable than the rest of the state: 46% of crime categories had an SR of between -1 and 1, and 79% were between -2 and 2. In Table 5, we can see some crimes, like vandalism, occurred at a higher-than-expected rate than elsewhere in the state, resulting in a somewhat modest CCI. We see other crimes, like aggravated assaults, which seemed almost perfectly in line with the historic trend (SR = 0.22) but were quite low in the MGM area compared to the increase experienced by the rest of the state (CCI = -3.06).

Based on this analysis, the crimes that showed the most unexpectedly high values in the MGM area were bribery, vandalism, burglary, purse snatching, auto theft, miscellaneous theft, drug equipment violations, and arson. All had SRs of greater than 1.75, a value that serves as a good demarcation for "statistical significance." But all of them except bribery were also high statewide, resulting in low CCIs.

The crimes that increased the most in comparison to the rest of the state were bribery, animal cruelty, fraud (specifically, the "con game" style of fraud), hacking, gambling offenses, and wire fraud. All have a CCI greater than 1.5, which serves as a good demarcation of statistical significance for that metric.

Only one crime—pornography—showed a significant decrease in raw terms. Several crimes had notably low CCIs, including theft of vehicle parts, miscellaneous theft, extortion and blackmail, weapon violations, counterfeiting and forgery, stolen property offenses, aggravated assault, pornography, robbery, thefts from persons, threats, and thefts from coin-operated machines.

Overall, there were an equal number of positive and negative CCIs; the average for all crime categories was -0.26.

"Most Changed" Crimes in the MGM Area in 2022

We repeated the analysis above for 9,580 combinations of crimes (including both broad categories and individual offenses) and geographic areas (including entire towns and small hexes). Rather than present all of these statistics here, which would take more than 200 pages, we have instead chosen to highlight values with a CCI greater than +/- 1.5 and an SR greater than +/- 1.75 in Table 6 and 7; in other words, crimes that are notably off their trendline *and* in a way that defies the rest of the state.

These cutoff points were chosen because they represent the most extreme outliers in the dataset. By the nature of its calculation, SRs of greater than 1.75 or less than -1.75 will only appear randomly about 8% of the time in a given dataset; 92% of the time, the value will *not* be random, but a sign of some new factor influencing that particular outlier.

The CCI helps determine whether the influencing factor is unique to the MGM area or whether it has also been experienced by the rest of the state. An MGM-region SR of 1.75 is notable by itself, but not very notable against a state SR of 1.5 (CCR of 0.25). To our knowledge, the CCI cannot be standardized to a specific level of statistical significance. However, a SR of +/- 1.75 accompanied by a CCI of +/- 1.5 occurs in only 1% of the combinations in the dataset (94 out or 9,580), thus representing the most extreme outliers. The goal in this analysis is not to prove to a particular level of significance that the casino caused an increase or decrease in a particular crime but rather to select for further analysis a manageable list of those crimes *most likely* to have been influenced by the casino.

Table 6: "Most increased" offenses in MGM area, by agency, standardized residual and CCI

Offense	Agency	Yearly Avg.	Slope	Expected 2022	Actual 2022	2022 SR	2022 CCI
Bribery	Chicopee	1.0	0	1	9	23.50	22.84
Extortion	Northampton	0.6	0	1	4	7.33	4.12
Vandalism	West Springfield	293.5	-17	196	331	5.92	3.53
Drug Offenses	Longmeadow	6.6	-1	3	9	3.05	4.39
Shoplifting	East Longmeadow	53.3	-2	37	78	3.61	3.22
Purse Snatching	Springfield	19.3	1	19	59	3.65	2.63
Kidnapping	Holyoke	7.8	0	5	15	2.76	2.88
Sexual Assault	Northampton	36.5	-1	29	46	2.84	2.72
Drug Offenses	East Longmeadow	27.3	-6	0	12	1.85	3.19
Drug Offenses	Northampton	81.4	-12	18	42	1.84	3.18
Vice Offenses	Chicopee	341.5	7	372	436	1.90	2.86
Vice Offenses	East Longmeadow	72.5	-11	14	34	1.88	2.84
Credit Card Fraud	Chicopee	16.7	-3	1	10	1.98	2.49

Notes on these increases:

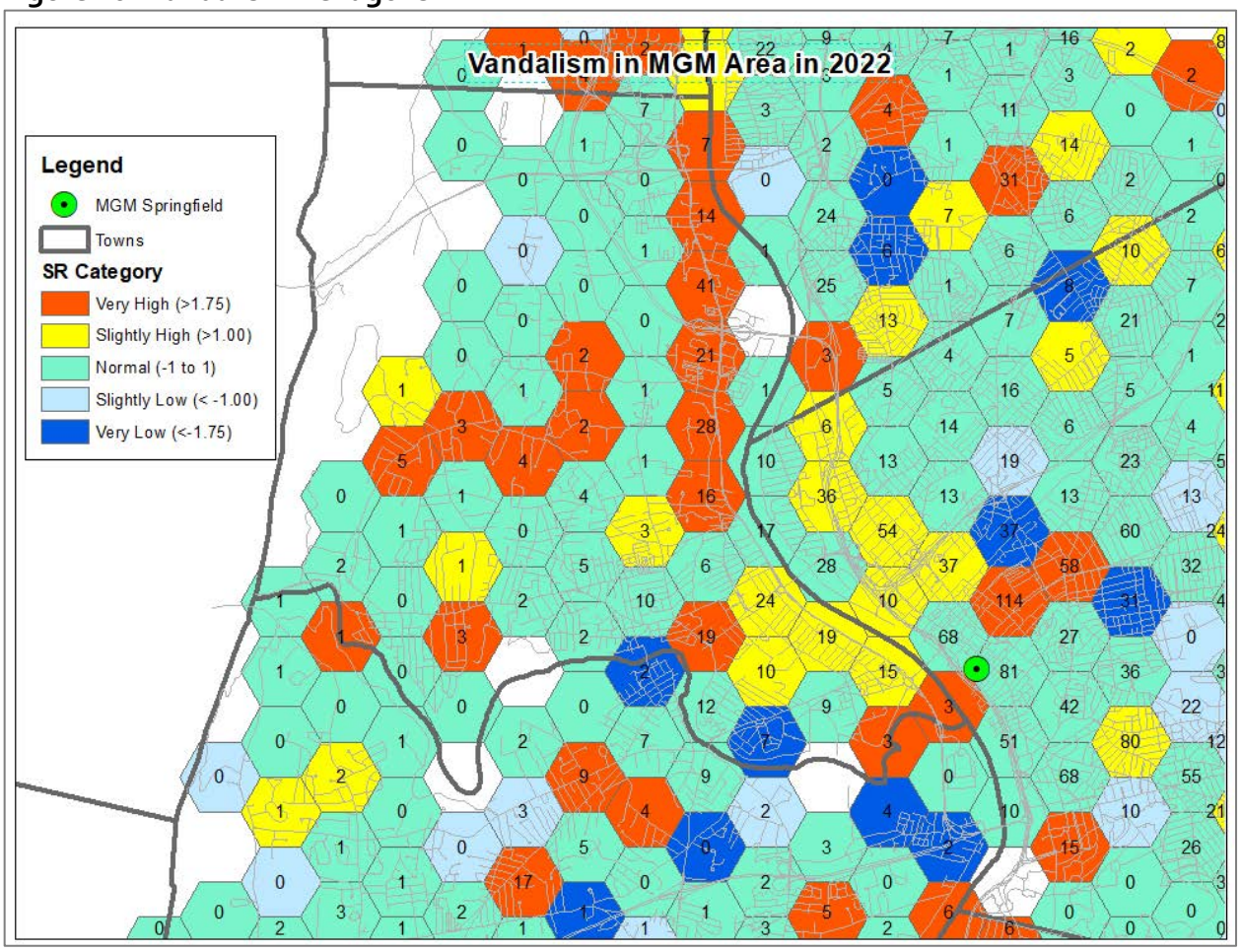
Bribery is rarely recorded by any municipal agency, so for one to have 9 incidents in a year is almost unprecedented. A review of the incidents in Chicopee shows that this NIBRS code is attached to incidents throughout the year in which the textual offenses is "POLICE OFFICER – MISLEADING A." As that offense text does not describe anything that sounds like bribery, our suspicion is that the agency's records system is translating that offense to the wrong NIBRS code, and that these are not bribery incidents at all. Chicopee Police should verify these reports to be certain. In any event, among the incidents, there is no consistency in time, date, location, or participants. The city suffered a couple of municipal scandals in 2022, but we are not aware that any of them relate to bribery.

Extortion is another somewhat rare crime, making Northampton's four incidents unusual despite the low volume. The four incidents show no consistency in terms of dates, locations, and participants, and three of the four have the offense text as "EXTORTION BY THREAT OF INJURY," which frankly sounds more like a robbery than an extortion. This again may be an RMS translation issue.

Vandalism in West Springfield, in contrast to the two issues above, cannot be explained as an error of coding. The agency's 2022 total was higher than any year in the previous decade, and nearly 100 incidents higher than the 232 it reported in 2021. The increase does not seem to be the product of a single massive spree as often happens with this category. An analysis of location types and offense codes suggests that much of the increase is made up of damage to vehicles.

A geographic analysis shows that Riverdale Street (State Route 5) accounts for about half of the incidents. The map in Figure 26 shows a long cluster of increased hexes running down Riverdale Street from the Holyoke border to Elm Street. There is no street parking on this busy route; the incidents are occurring in business parking lots. There is no particular temporal pattern to speak of.

Figure 26: Vandalism Hexagons



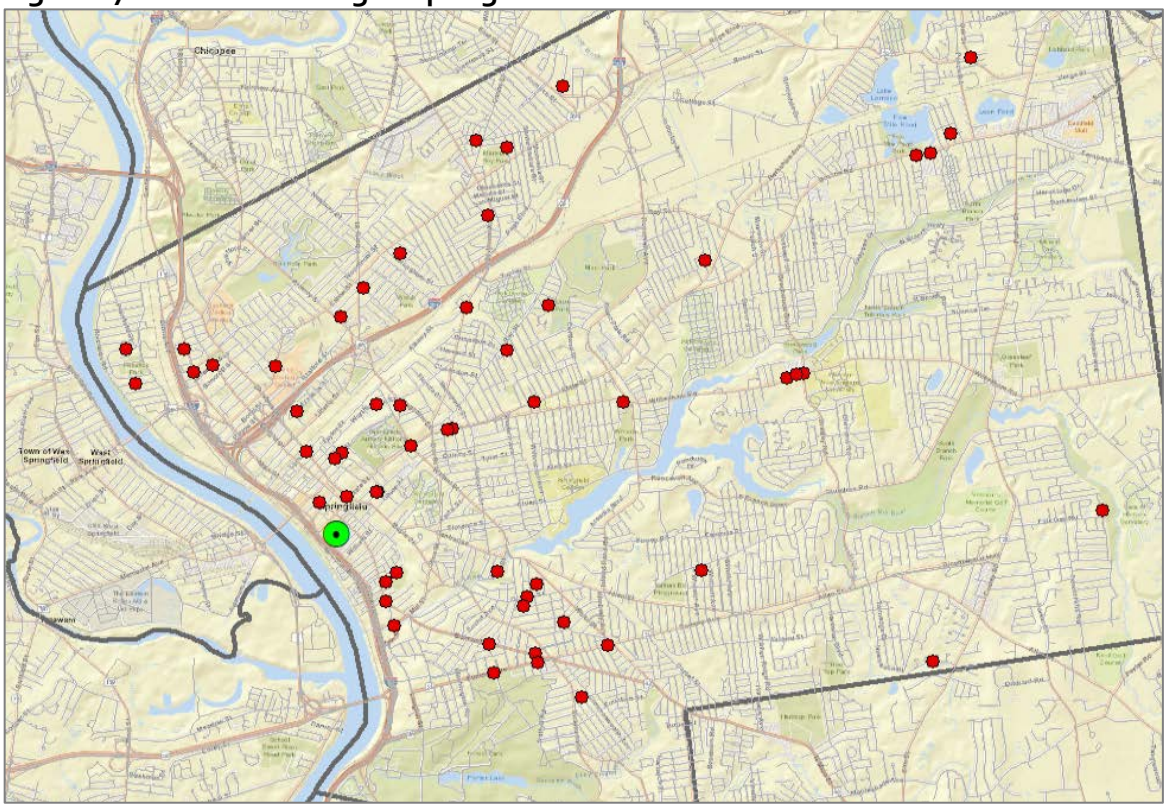
There are other hexes with increased SRs in the city, but most have very low values (3 incidents or less). We would note that a couple of hexes near MGM in Springfield, centered on State Street, also showed notable increases. The crime type isn't one that has a logical connection to a casino, however, and we cannot make a direct or indirect argument that ties the increases to MGM.

Drug Offenses increased in Longmeadow, East Longmeadow, Northampton, and Chicopee (reflected in the city's high "vice" total). The raw numbers are somewhat low for the first two agencies, and in all three cases, the 2022 totals are slight increases after a decade's worth of decreases. In this case, we believe the predictive model to be unrealistic. The decreasing trend was a result of the legalization of marijuana in 2017 and could not realistically have been expected to continue.

Shoplifting in East Longmeadow hit its highest total in a decade, a sharp and sudden reversal of a trend that had produced the decade's lowest total (29) in 2021. The increase is localized almost entirely at the Stop & Shop on North Main Street. A lack of corroborative increases at other stores in East Longmeadow and elsewhere suggests to us that the effectiveness of store security or a change in store reporting policy is at work.

Purse Snatching in Springfield hit a record high in 2022, rising to 59. The previous year was also high at 38; the decade average before that was only 13. This is the type of crime that could increase with a facility like a casino. Figure 27 (below) illustrates a slight spatial relationship, with about half the incidents occurring within a half mile of the casino, particularly in the 16:00-20:00 time block. The puzzling thing, though, is that half of the incidents, accounting for nearly all of the increase, have a location type of "residence," which is unusual if not impossible for this crime. We would suggest that the Springfield Police verify the accuracy of this code before basing any conclusions on these figures.

Figure 27: Purse Snatching in Springfield



The increases in **kidnapping** in Holyoke and **sexual assault** in Northampton are difficult to analyze given the limited data we were able to collect on domestic crimes and sexual assaults. Northampton did attach multiple reports to a physical therapist accused of abusing patients for at least 10 years, partly explaining the higher total. Chicopee showed a high **credit card fraud** total, but the data suggests these are almost all online purchases using credit cards of Chicopee residents, not incidents happening specifically in Chicopee.

Table 7 shows some notable decreases in the region. While these are the ones selected by our statistical model, there were a lot of lesser decreases. In particular, **robbery** was below its projected total in every community except Longmeadow (which only had 3). Both **violent crime** and **vehicle crime** remained normal in the area despite an uptick in the rest of the state.

Table 7: "Most decreased" offenses in MGM area, by agency, standardized residual and CCI

Offense	Agency	Yearly Avg.	Slope	Expected 2022	Actual 2022	2022 SR	2022 CCI
Shoplifting	Northampton	134.1	-6	117	96	-2.22	-2.60
Robbery	Agawam	8.0	1	12	5	-1.82	-3.61
Pornography	Holyoke	5.3	1	10	3	-2.88	-3.14
Simple Assault	Chicopee	658.0	-13	608	429	-2.54	-4.40
Extortion	Springfield	15.8	3	31	15	-1.87	-5.08
Violent Crime	Chicopee	1274.3	-8	1256	1036	-1.88	-5.80
Weapon Offenses	Agawam	9.5	1	17	9	-2.99	-7.85

Changes in the Immediate MGM Area

We applied the calculations above to the downtown metro area (see Figure 28) immediately surrounding MGM. It is important to keep in mind that these figures only include crimes reported to the Springfield Police Department, which generally do not include incidents inside the casino. These are reported to the Massachusetts State Police Gaming Enforcement Unit and are not part of our data collection. These figures thus represent the surrounding streets, businesses, and local community.

Figure 28: Springfield Hexagon IDs

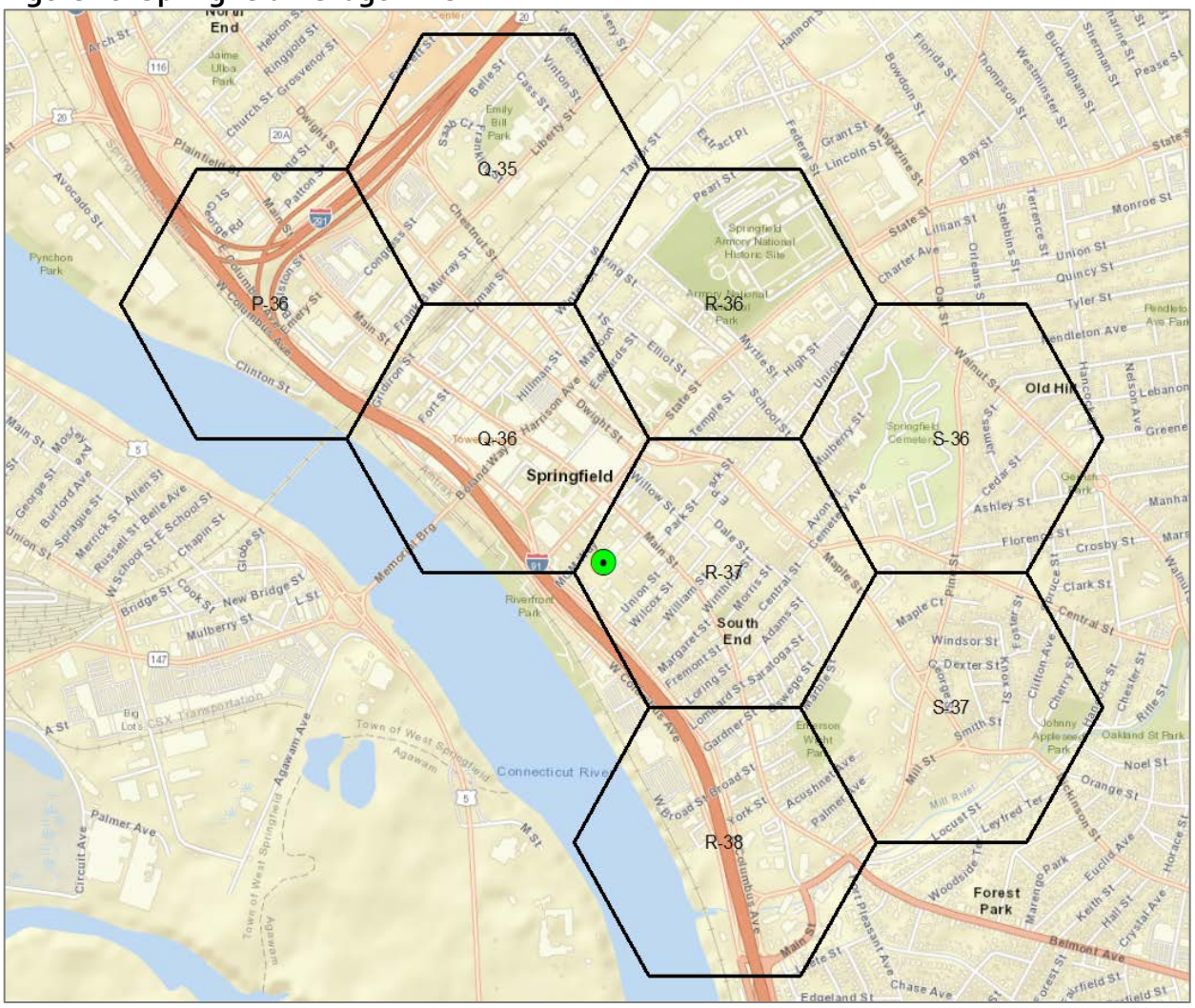


Table 8: 2022 offenses, actual to expected values, area adjacent to MGM Springfield

Offense	Yearly Avg.	Slope	2020	2021	Expected 2022	Actual 2022	2022 SR	2022 CCI
Murder	3.5	0	6	3	4	6	0.96	0.71
Kidnapping	10.8	0	6	15	12	11	-0.31	-0.19
Sexual Assault	31.7	-2	21	15	24	9	-1.83	-1.94
Robbery	126.4	-7	821	01	93	91	-0.12	-1.91
Aggravated Assault	229.9	-1	242	251	225	213	-0.72	-3.99
Simple Assault	650.3	-11	587	600	596	589	-0.19	-2.05
Threats	337.1	-8	293	340	298	281	-0.67	-3.72
Arson	6.5	0	5	8	5	6	0.40	-1.03
Extortion	1.9	0	4	3	5	1	-2.38	-5.60
Burglary	215.7	-28	125	115	67	141	2.54	-0.54
Theft from Persons	11.2	0	12	3	10	3	-1.04	-2.00
Purse-Snatching	5.8	1	6	18	9	12	0.68	-0.34
Shoplifting	37.5	5	58	48	66	46	-2.15	-2.53
Theft from Building	141.7	-4	113	113	117	154	0.91	-2.15
Theft from Machine	3.3	0	0	0	5	0	-0.88	-1.66
Theft from Vehicle	219.0	-9	218	173	168	235	1.88	0.11
Theft of MV Parts	58.5	13	77	152	124	106	-0.71	-5.19
Auto Theft	121.6	-3	108	133	105	109	0.21	-0.94
Forgery	27.7	-1	16	20	21	20	-0.14	-4.32
Fraud	46.5	0	43	43	47	67	3.14	5.70
Credit Card Fraud	27.6	5	50	32	52	35	-1.87	-1.36
Impersonation	49.4	-6	26	27	19	29	1.01	2.20
Identity Theft	3.9	1	7	7	11	6	-1.25	0.01
Employee Theft	5.6	0	3	3	5	4	-0.34	2.76
Stolen Property	33.1	1	40	34	40	39	-0.16	-3.29
Vandalism	419.3	-10	354	426	365	430	1.90	-0.49
Drugs	178.6	-5	138	105	162	92	-1.55	-0.22
Statutory Rape	1.9	0	3	0	1	2	0.77	0.37
Pornography	2.9	0	2	5	5	1	-2.00	-2.25
Gambling Offenses	2.9	1	3	10	8	9	0.43	0.86
Prostitution	27.5	-5	0	10	1	6	0.37	-0.56
Weapon Offenses	107.5	9	153	138	147	192	3.00	-1.86
All Violent Crime	**1389.7**	**-28**	**1237**	**1325**	**1253**	**1200**	**-0.87**	**-4.79**
All Vehicle Crime	**399.1**	**1**	**403**	**458**	**397**	**450**	**1.06**	**-1.27**
All Vice	**346.8**	**-1**	**316**	**289**	**342**	**330**	**-0.30**	**0.66**

Table 8 shows the calculated values for the areas adjacent to the casino. The majority of crime values are below expected values, suggesting that crime in the CBD is generally trending in the right direction - that is, decreasing. The only crimes in the area significantly higher than their expected values were burglary, thefts from vehicles, fraud, and weapons offenses, and of

these, only fraud remained high compared to what was happening in the rest of the state. We would note that violent crime, including robbery, has continued its downward trend in the area despite the theoretically increased chance of victimization provided by large influx of visitors. We analyze a few of the more notable increases below.

Fraud

Fraud—specifically the fraud code that includes "swindles" and "con games"—was the only crime in the immediate MGM area to show both an unexpectedly high value and a value out of alignment with what the rest of the state experienced during the same period. Unfortunately, it is a complex crime, often exhibiting labyrinthine plots, and thus difficult to analyze with the limited data that we collected. What we can tell from this data is that:

- Most of the increase is in hexagons R-36, R-37, and R-38. The hex containing MGM (R-37) had 27% of the incidents.
- Residences accounted for 30% of the incidents in 2022. A number of types of fraud can occur at residences, including utility imposter scams and door-to-door sales scams, but in our experience, when an incident of fraud is coded as happening at a residence, it is usually an online fraud for which that resident was a victim.
- There were 7 incidents reported at an auto rental service on East Columbus Avenue (Grid R-38). This business opened in 2018, possibly in anticipation of the extra visitors occasioned by MGM. The nature of these fraud incidents is unknown, but listed suspects are all area residents.
- Seven incidents in 2022 were reported at MGM itself. Unfortunately, the data cannot provide the nature of the offenses nor why they were reported to the Springfield Police and not the GEU. There were 14 frauds reported to Springfield Police at the casino in 2019. Other years have shown between 2 and 3.

Further information about this trend will have to come from the Springfield PD.

Burglary

The crime of burglary has shown dramatic decreases in both Springfield and Massachusetts at large over the last decade (Figure 29). The Massachusetts State Crime Reporting Unit shows that this crime fell an astonishing 68% in the state between 2012 (29,627) and 2021 (9,610). Last year was the first to reverse this trend, with a slight increase of 5% between 2021 and 2022 (10,110). These figures mirror our statewide comparison dataset, which shows a 71% drop between 2012 and 2021 and 5% increase between 2021 and 2022.

Springfield as a whole benefited from this state trend. From 2012 (2,497) through 2022 (575), the city has shown a decrease in the crime every single year. Citizens in 2022 had 77% fewer burglaries than a decade prior.

Figure 29: Burglary in Springfield

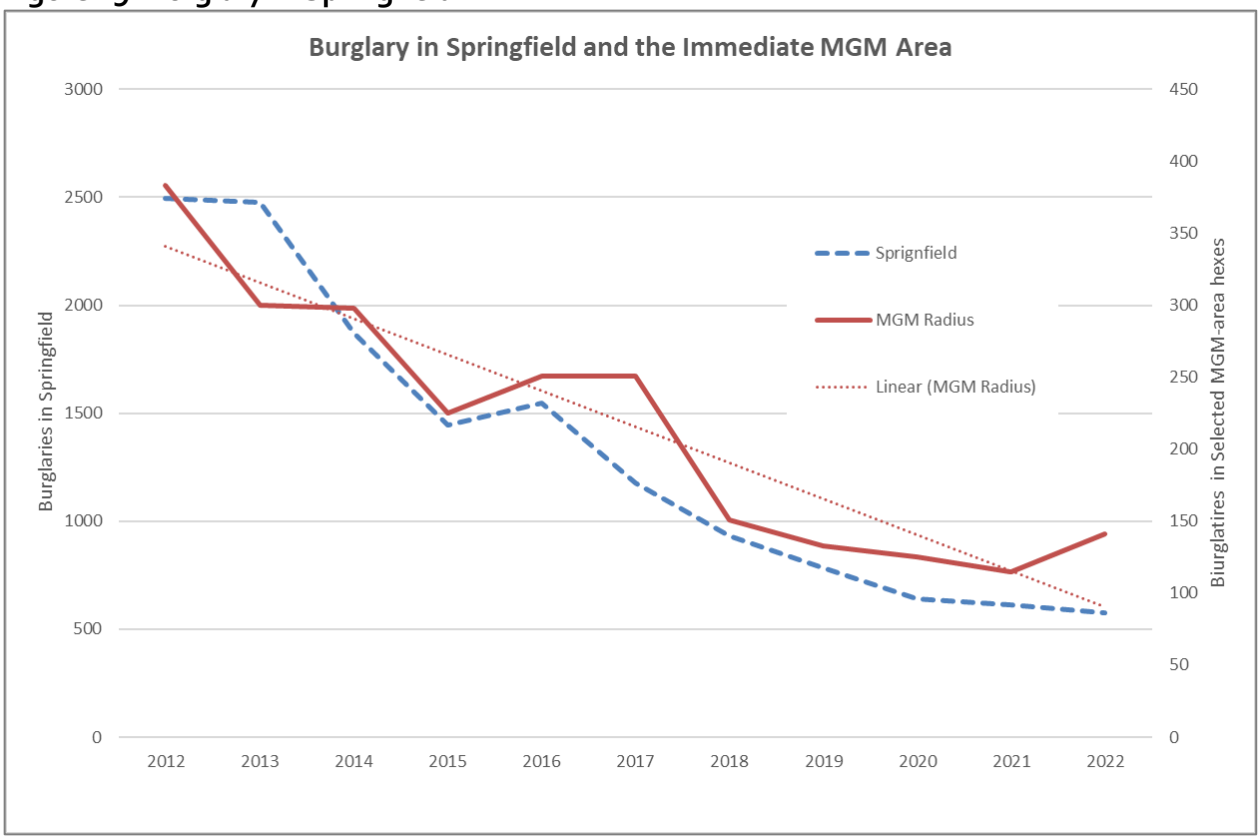
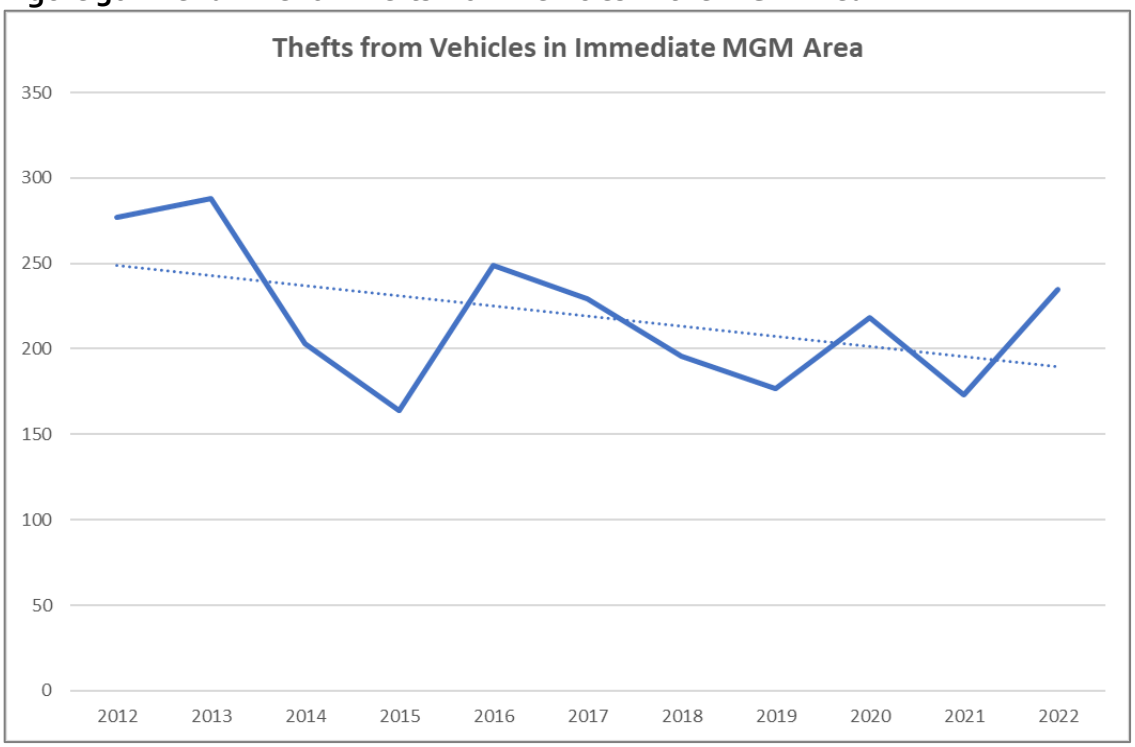


Figure 29 shows why the SR value is high for burglary in the immediate MGM area: the region had been showing a dramatic yearly decrease that predicted a very low 2022 value. Instead, the crime reversed direction slightly and ended with a value that was still low compared to historical averages. While this increase was not consistent with what happened in the city as a whole during the same year, it was consistent with what happened in the rest of Massachusetts (as reflected in the CCI). That the crime continued its decreasing trend in 2018, 2019, 2020, and 2021 suggests that the casino is not a contributing factor.

Thefts from Vehicles

Thefts from vehicles, sometimes called "auto burglaries," have also been trending down in the MGM area for the past decade, though not as sharply or consistently as burglaries. Figure 30 illustrates this downward trend.

Figure 30: Trend Line for Thefts from Vehicles in the MGM Area



The increase in 2022 was well above the expected value, even accounting for the typical fluctuations this crime category experiences, but that increase was blunted by the fact that Massachusetts as a whole experienced a similar reversal of this trend. Nonetheless, it is worth analyzing and keeping an eye on this particular crime. It is the very sort of crime that most models predict would increase after the opening of a casino, if only because of extra vehicular traffic in the area.

Our analysis shows:

- Incidents occurring on the street (as opposed to parking lots or garages) account for 65% of the 2022 total (excluding "unknown" values) and most of the 2022 increase.
- The crime is heaviest on main commercial streets in the area, though (unexpectedly) not as much on Main Street. Top streets are Chestnut, Byers, State, Elliot, and Mulberry.
- The top single location, with 7 incidents in 2022, is the Hampton Inn at 851 East Columbus Avenue. This location has been open since 2014 but has likely seen an increase in activity since the opening of MGM.
- Most of the incidents in this area occurred during overnight hours.

Figure 31: Graduated Symbols for Thefts from Vehicle in MGM Area

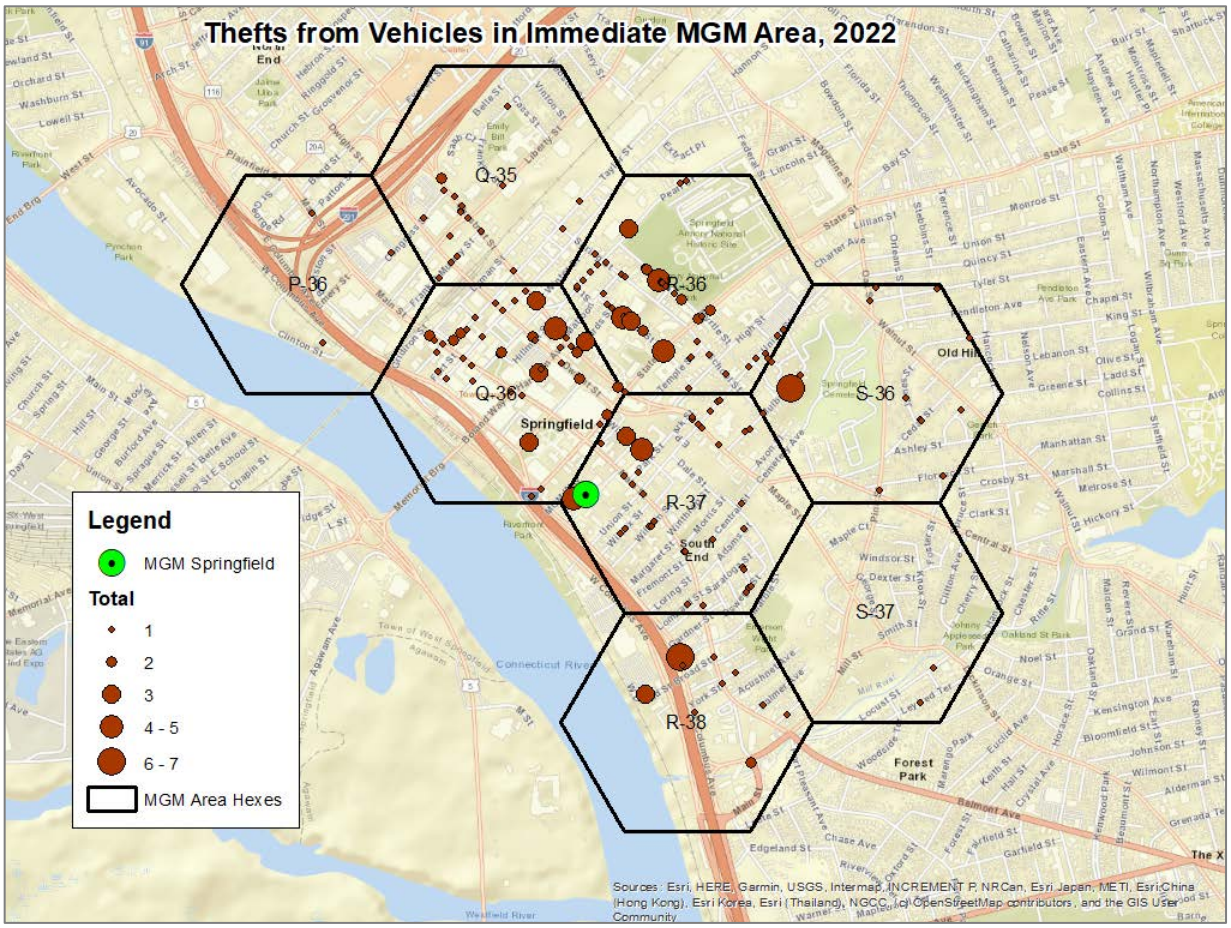


Figure 31 shows the specific locations where Thefts from Vehicle are predominant in relationship to the MGM casino. There are a number of individual addresses in the MGM radius that saw large increases in crime after MGM opened, in some cases because they did not exist before MGM.

Table 9: Total crime counts at specific businesses in MGM radius

Location	2012-2018 Avg.	2019-2022 Avg.	2022
MGM Springfield, 1 MGM Way[34]	17	137	148
Union Station, 55 Frank B. Murray St	16	71	55
CVS, 991 Main St	0	33	52
Convenience Plus, 67 Locust St	5	24	28
Pride Station, 1211 East Columbus Ave	10	26	32
Hampton Inn, 851 East Columbus Ave	5	17	19
Holiday Inn Express, 145 State St	1	13	10
Hilton Garden Inn, 765 East Columbus Ave	3	14	12

[34] Springfield Police Department reports only

These locations appear to be impacted by the increase of MGM visitors to the area. Although we cannot tie specific crimes at these locations to known MGM visitors, it is logical that the extra traffic brought by MGM is directly linked to increases in the crimes at these locations.

Drunk driving analysis

MGM Springfield has several policies and practices in place to prevent patrons from becoming intoxicated and particularly from driving away while intoxicated. However, the size of the facility, the number of entrances and exits, and the difficulty in fully monitoring any individual's drinking activity is not "foolproof" and individuals inevitably leave the casino intoxicated. This section of the report analyzes drunk driving data to ascertain the impact of alcohol consumed at the casino.

There are several available indicators that we can study to determine whether MGM has led to an increase in drunk driving in the region, some better than others. Each available dataset is reviewed below.

Drunk driving arrests by jurisdiction

Drunk driving has decreased in the region since the year after the casino opened. Although the cumulative number of drunk driving arrests increased in the year immediately following MGM's opening (2019), the figure fell to below the pre-MGM average in 2020 and continued to fall in 2021 and 2022. Only Chicopee has sustained a post-MGM annual total consistently higher than the pre-MGM annual total, more than doubling its enforcement in the 00:00–04:00 time block.

Table 10: Arrests and summonses for drunk driving

Agency	2012–2018 Avg	2019	2020	2021	2022	2019–2022 Avg	Change
Springfield	57.0	54	49	48	66	54.3	-6%
Agawam	34.0	53	25	24	29	32.8	+5%
Chicopee	50.3	75	71	79	92	79.3	+70%
East Longmeadow	26.1	16	4	11	5	9.0	-67%
Holyoke	42.3	57	32	23	12	31	-23%
Longmeadow	20.1	12	16	16	18	15..5	-27%
Northampton	117.4	51	63	63	82	64.8	-49%
West Springfield	26.5	41	27	23	20	27.8	+14%
State Police*	313.1	406	356	268	207	309.3	+3%
Total	**686.9**	**765**	**643**	**555**	**531**	**623.5**	**-8%**

***MGM Springfield-area roadways only

Crashes that involve an arrest or summons for drunk driving

A better set of statistics involves merging the original call-for-service with the offense dataset to find offenses of drunk driving that originated as calls-for-service for traffic collisions. This should capture most of the relevant incidents, missing only cases where the determination of drunk driving happened well after the original call, or when the original call for some reason

was not coded as a collision. Table 11 shows the breakdown of calls for each of the jurisdictions.

Table 11: Calls for service for traffic collisions with a later offense for drunk driving

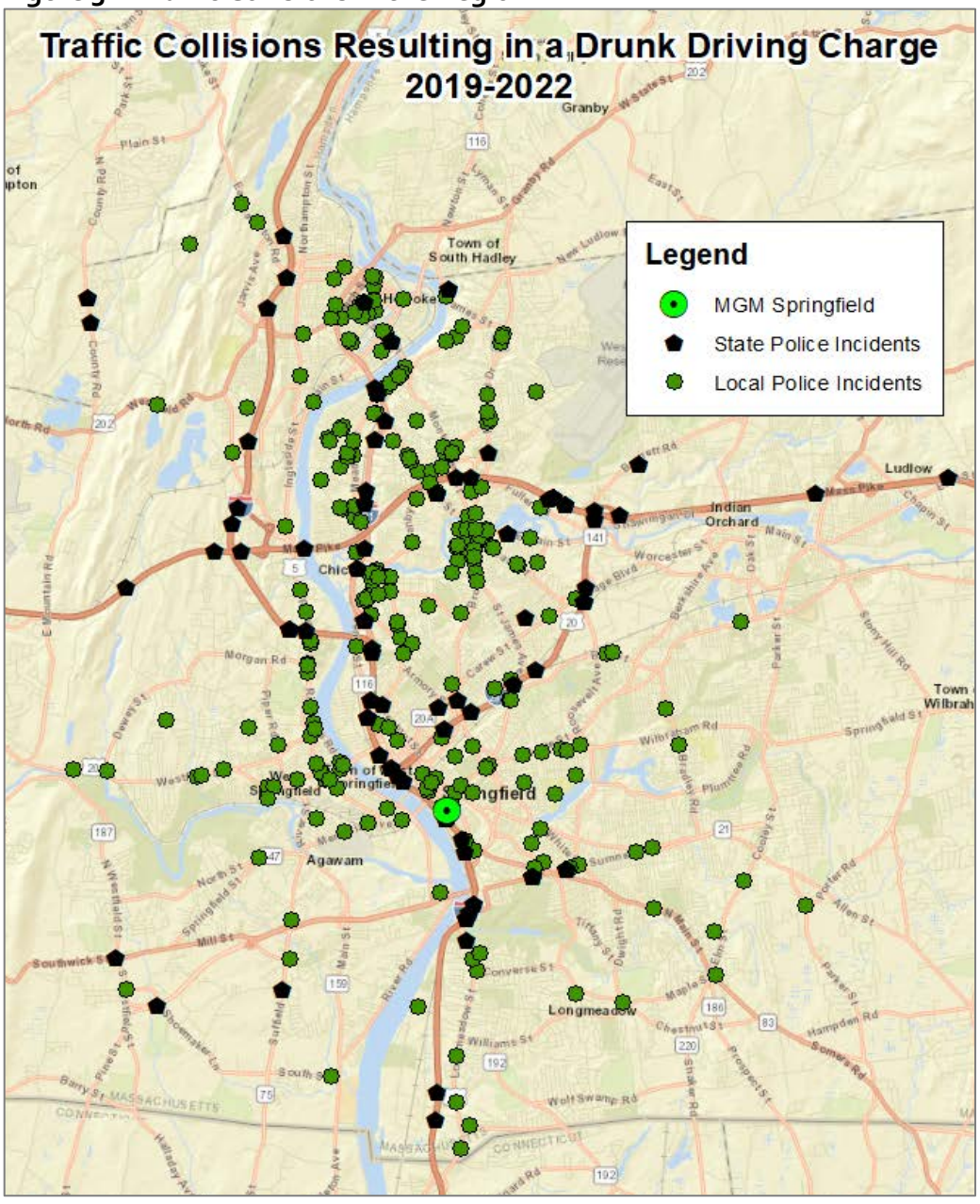
Agency	2012–2018 Avg	2019	2020	2021	2022	2019–2022 Avg	Change
Springfield	19.1	32	28	29	48	34.3	+79%
Agawam	2.1	1	1	0	0	0.5	-77%
Chicopee	27.6	35	32	41	41	37.3	+35%
East Longmeadow	9.0	5	0	5	2	3.0	-67%
Holyoke	22.3	28	11	9	7	1.38	-38%
Longmeadow	6.0	2	5	6	6	4.8	-21%
Northampton	22.0	9	15	18	20	15.5	-30%
West Springfield	13.3	19	14	13	11	14.25	+7%
State Police*	49.0	59	80	71	44	63.5	+30%
Total	**170.4**	**190**	**186**	**192**	**179**	**186.8**	**+10%**

***MGM Springfield-area roadways only

Traffic Collisions Resulting in a Drunk Driving Charge

Figure 32 on the next page shows traffic collisions in the region between 2019-2022. The results are inconsistent among agencies. Most still show a decrease in activity between the two periods, but the agencies with the highest volume of alcohol-involved crashes—Springfield, Chicopee, and the State Police—all showed large increases. The region as a whole increased by 10%, or about 17 drunk driving crashes per year. A map of such incidents shows a concentration on major travel routes to and from MGM, suggesting a potential casino influence, but these routes are admittedly indistinguishable from predominant travel patterns in the area irrespective of the casino.

Figure 32: Traffic Collisions in the Region



"Last Drink" Locations from adjudication

Massachusetts General Law Chapter 90, Section 24J requires courts to collect from individuals adjudicated guilty (whether by trial or plea) of OUI, "whether he was served alcohol prior to his violation of said section at an establishment licensed to serve alcohol on the premises and the name and location of said establishment." Court clerks send such "last drink" reports to the Alcohol Beverage Control Commission (ABCC). These reports have long been used to

prioritize certain bars for additional training and enforcement. They provide direct evidence of at least some influence of certain facilities on drunk driving.

Upon request, the ABCC provided spreadsheets for "last drink" adjudications from January 2016 to December 2022. The data includes 10,456 adjudication records, but only about 9,297 offer an identifiable location, and of those, 992 list private residences, leaving around 8,305 identifiable licensed locations.

As last drink data is collected only from those who plead guilty or are found guilty at trial, the records represent only about 17% of the roughly 50,000 people charged with OUI in Massachusetts during the coverage period. These, in turn, represent only a small percentage of the actual number of impaired drivers on the road during this period. Table 12 shows all three Massachusetts casinos appear within the "Last Drink" data.

Table 12: "Last Drink" reports from each casino by year of adjudication

Casino	2016	2017	2018	2019	2020	2021	2022
Plainridge Park	3	8	3	4	1	2	7
MGM Springfield			4	8	6	2	7
Encore Boston Harbor				1	7	8	10

Overall, MGM was reported as the place of last drink for 27 drunk drivers since its opening in 2018. The full year after opening (2019) is so far the highest, but it is nearly equaled by 2022.

Data from the Massachusetts Executive Office of Public Safety and Security indicates that 28,201 people were charged with drunk driving (OUI) between 2019 and 2022. There are 4,330 "last drink" adjudication records during this period, representing 15.35% of this total. If we assume that the number of adjudication records identifying MGM as the place of last drink is identical in proportion to the rest of the dataset, that suggests that about 150 drunk drivers were arrested between 2019 and 2022 after leaving MGM Springfield.

There is no easy way to translate this arrest data into an estimate for the number of drunk driving trips from the casino. The risk of arrest for drunk driving has not been studied in any published research for the last 10 years or in any Massachusetts-specific research during any time period that we can find. A 2011 study in New York state estimated the number of arrests per incident of drunk driving was 1 in 482 (0.21%).[35] If this estimate holds true in Massachusetts a decade later, it suggests around 72,300 drunk driving trips from MGM over the four-year period, but more specific Massachusetts research is needed to refine this estimate.

[35] Dowling, A., MacDonald, R., & Carpenter, K. H. (2011). Frequency of alcohol-impaired driving in New York State. *Traffic Injury Prevention*, 12(2), 120–127.

Conclusions and Future Direction

The aim of this report was multifaceted. It provides researchers an opportunity to become familiar with the data and the geography. It provides a drill down on crime around MGM Springfield beginning with an analysis of the entire region that included eight (8) jurisdictions surrounding the City of Springfield. The analysis examined crime over five distinct periods: (1) pre casino opening, (2) initial casino opening, (3) during covid full closure, (4) during restrictive reopening post closure, and (5) fully reopening the casino. Because the findings during the COVID-19 closures were the same or similar to Encore, this research effort moved past COVID concerns and focused on crime within hotspots in the MGM area. The analysis drilled down into various areas, (1) region, (2) city-by-city and (3) looked at ten distinct hotspots within the Springfield downtown area; and compared it to two other distinct hexagons outside of Springfield. It also conducted a micro-analysis of specific crime trends for several crime types and offered insights into the data and those findings. The onsite assessment provided qualitative observations that shed light on environmental conditions that lead to crime.

- An important finding is that there was a significant increase in crime before the MGM Springfield Casino reopened after the mandated COVID-19 closure. Figure 7 (p.42) shows this chronological ordering, which suggests that the casino is not a primary cause of crime, but that other social, economic, or psychological factors are likely playing a role in changes in crime patterns. For example, it is possible the strain of COVID-19 created an environment where motivated offenders sought relief from stress and/or economic hardship that led them to criminality, but a closed casino cannot be a factor.
- Crime in the MGM-Springfield area consistently follows a summer seasonal pattern of increase in warmer months. This is most likely not a surprise to police departments in the region but should serve as a reoccurring pattern that could guide proactive strategies in the summertime to address this regular increase in crime.
- Overall crime in the region has been steadily declining over the past 10 years with a slight uptick in 2022. Figure 6 (p.41) shows a leveling off in crime along the expected downward trend.
- The region is impacted most by crime in the City of Springfield, ranging between 33% and 62% of specific crime categories in the area. Overall, Springfield accounts for 62% the crime in the region.
- Researchers conducted an onsite qualitative assessment of the hotspots which presented several explanations for why crime perpetuates within these respective areas.
- Social Disorganization Theory suggests that poverty, heterogeneity, and youthful offenders drive most crime in urban areas and proliferates in concentric zones. Springfield Central City and the Central Business District appear to adhere to this conceptualization, and when different crime types were investigated, these findings remained consistent.

- Certainly crime series manifest themselves over time and police departments should regularly monitor temporal and spatial patterns as they evolve. The micro-analysis illustrated how distinct crimes occur and illustrates how robust crime evolves in an area.

The research team accomplished the objectives of this study and is now in a better position to study crime in and around the casino and can use different spatial and temporal techniques to study crime and disorder in the future. While this research found that crime has categorically gone down overall, pockets of crime still occur and consistent hotspots present themselves. It does suggest to us that motivated offenders will find other means and targets when strain or opportunities present themselves. More research is needed that focuses on offending, victimology, and hotspots.

Benchmarks have been established for which to compare crime in the future using new and innovative research methods to study crime. They include learning and applying Poisson regression, Seasonal-Trend decomposition procedure based on Loess (STL), spatial point pattern test (SPPT), and other time series and trend analysis techniques in the future. Risk Terrain Modeling appears to be a promising technique to conduct micro-analysis of hexagon hotspots towards identifying crime drivers or contributors that will help agencies better understand risk and protective factors found within their communities. The new Environmental Systems Research Institute (ESRI) technique called *Aggregate Clustering* provided a useful robust tool to monitor and pinpoint hotspots within hotspots. Future research goals remain the same:

- An expansive analysis of trends by working with the agencies to look at the full reports, including narratives.
- An analysis of changes in the MGM Springfield area compared to control areas and the rest of the state. This approach was utilized in the report for the first time.
- A comparative analysis of traffic collisions in the Springfield area versus control areas. This probably will not be possible until a public statewide crash dataset is available.
- A comparison of MGM Springfield with other casinos, normalized by the number of annual visitors each facility receives. We remain committed to identifying casinos who will share their data so we can compare them on a national basis.

The Massachusetts Gaming Commission has received several questions from partners and stakeholders concerning the possible growth of human trafficking, particularly sex trafficking in the area. Police statistics are a poor measure of "hidden" crimes like human trafficking, and thus we must look to more creative ways to blend information and intelligence from a variety of sources. To this end, the MGC will be commissioning a meeting of experts to discuss the issue, and to hopefully create an analytical process that will allow us to report better on this potential phenomenon in future reports. One recommendation to agencies in the casino regions is to have officers begin asking victims of crime if they were visiting the casino during the timeframe of the event. Linking victims of crime who have a connection to the casino would enhance the nexus between crime and the casino, regardless if the victims are the result of human trafficking or other connections, such as patrons or employees.

This research report lends itself to critically thinking about crime in its temporal and spatial context, which in turn provides actionable intelligence for agencies interested in developing robust solutions to their crime problems. Crime Prevention By Environmental Design (CPTED), Opportunity Theory and Focused Deterrence are just a few examples of best practice coming out of the contemporary police literature and from police organizations like the Police Foundation and the International Association of Chiefs of Police. The International Association of Crime Analysts is dedicated to improving crime analysis techniques and best practice.

As offenders continue to look for opportunities whenever and wherever they can, know that motivated offenders are resourceful offenders, they study victims and targets, and possess ingenuity, no different than other entrepreneurs. Police officers act as guardians to prevent and mitigate crime in our communities. The Massachusetts Gaming Commission, by funding reports like this one and the applied research it offers, equips them with the information they need to do so.

The spatial analysis of crime in the MGM Springfield region appears to be best explained by Social Disorganization Theory, concentric zones, and distance decay. The crime patterns evaluated in the report demonstrated again and again that crime in this region diminishes outward from Central City (Springfield) and diminishes the further one gets from downtown.

Social disorganization, or the breakdown of social institutions and community cohesion, is central to SDT. Specifically, according to SDT, this breakdown manifests as a weakening of the traditional social bonds that connect individuals and families to key institutions within a neighborhood, such as schools, churches, and local government. As these social bonds deteriorate, the community's capacity to address common issues, including crime and delinquency, weakens as well. This weakening of "collective efficacy" means that residents have a reduced ability to enforce shared norms and values, as well as to exercise informal social control. Consequently, within socially disorganized areas, crime is more likely to thrive due to the absence of collective efforts to prevent and address it. Social Disorganization Theory thus emphasizes the role of community structure and the breakdown of social institutions in shaping crime patterns.

Improved economic conditions, employment opportunities that reduce poverty and unemployment in a region, can improve collective efficacy, and, as a result, lower crime. The City of Springfield has begun to implement an urban development plan that includes the casino in Central City, and crime has continued to decline over the past decade. The tax revenue has enabled Springfield to bolster police services (i.e., formal social control), and bring several community events and concerts into the central business district, strengthening social bonds and expanding other employment opportunities. By addressing poverty, strengthening social bonds, and improving collective efficacy, it appears that Social Disorganization Theory is positively on display in Springfield, at least as it pertains to crime rates.

Today we have a little better understanding about how crime behaves; in fact, how criminals behave and how, leaning on existing theories of crime, micro and macro in nature, crime can be predicted and public safety organization can develop enforcement and crime prevention strategies to address it. We have laid the groundwork for better understanding the third

element of the crime triangle, time/place, as we create a knowledge base around crime and place—casinos more specifically. Understanding crime in relationship to population density, poverty, and the risks that urban living presents is our future goal.

Final Observations

Our analysis is that the MGM region as a whole, the city of Springfield, and the area immediately around the casino have not witnessed any large-scale, sustained increases in reported crime that can be traced to the casino itself. Most crimes in the area were already on a downward trend when MGM opened, and they continued that downward trend through 2022. Exceptions to this statement in 2022 mostly reflect increases in crime that were happening elsewhere in Massachusetts during the same period. To the extent that any of the variables that we would expect to cause more crime are present, they seem to be balanced by those factors that lead to fewer crimes.

Our conclusion should not be read to mean that the casino has caused *no* crime in the area, just that its influences seem to be bounded by location, situation, and time frame. These "microtrends" may include increases in crime at specific businesses, brief patterns, and gambling-motivated offenders whose crimes are not voluminous enough to affect overall area trends.

Below is a brief discussion of the role of daytime and event population, as well as a promising new approach to better understand crime within its geographic context. Risk Terrain Modeling offers the police and researchers, alike, a mechanism to put crime under the social microscope.

Daytime population – Special Events Attendance

We also want to look at better methods of normalizing the data. Crime rates historically use residential population or census data, but urban areas and locations that have special events or larger employers (referred to as daytime population and special event populations) might be more robust or at least offer other proxies for understating crime and place. Other venues like bars, taverns, dance clubs, colleges, transportation hubs or subway or light rail stops, malls and shopping centers to name a few – draw people who are, and their cars that are, potential targets. Social disorganization theory suggests that underground economies for stolen goods, drugs, and prostitution proliferate in neighborhoods of poverty for economic reasons. Events like an NBA playoff or a Superbowl game draws larger crowds, many of them big spenders and gamblers, and it has been reported that these venues attract prostitution and human trafficking, all things that we should be on the lookout as we go forward. Future research will employ a relatively new research model called Risk Terrain Modeling (RTM). The authors and designers of RTM have been contacted to discuss a plan for using RTM to study crime and place in the future, particularly the threats and risks at and around casinos. If you are interested in learning more about this technique, see the articles or book listed below. Risk Terrain Modeling offers a robust method to compare and contrast crime hotspots in the future.

Risk Terrain Modeling

Kennedy, L. W., Caplan, J. M., Piza, E. L. & Buccine Schraeder, H. (2016). Vulnerability and Exposure to Crime: Applying Risk Terrain Modeling to the Study of Assault in Chicago. Applied Spatial Analysis and Policy. 9(4), 529-54.

Kennedy, L. W., Caplan, J. M. (2019). OPERATION SAFE SURROUNDINGS (OPSS): THE EVIDENCE-BASED VIOLENCE PREVENTION STRATEGY. *Issues in Spatial Analysis Series*, Vol. 2 Edited by J. M. Caplan, and L. W. Kennedy.

Kennedy, L. W., Caplan, J. M. (2016). Risk Terrain Modeling: Crime Prediction and Risk Reduction. United States: University of California Press.

> Risk Terrain Modeling is an approach to risk assessment in which separate map layers representing the influence and intensity of a crime risk factor at every place throughout a geography is created in a GIS. Then all map layers are combined to produce a composite "risk terrain" map with values that account for all risk factors at every place throughout the geography. RTM builds upon principles of hotspot mapping, environmental criminology, and problem-

> oriented policing to produce maps that show where conditions are ideal or conducive for crimes to occur in the future given existing environmental contexts. It offers a new and statistically valid way to articulate and communicate crime-prone areas at the micro level according to the special influence of criminogenic features.

By comparing both the frequency of crime and calls-for-service within high volume areas to crime contributors or contributing factors, what RTM refers to as risk and protective factors, social and geographic elements can be investigated to measure the risk of crime and demonstrate viable correlations between the types of establishment or venues within high crime areas. RTM can be used to assess high and low hexagon clusters to determine what correlates are found for higher risk as well as protective elements. By using RTM, insights can be offered to local law enforcement agencies and communities when considering crime reduction strategies. In this way, a broader understanding of crime and place may offer a more robust picture. To date, no research or theory has attempted this approach to study casinos.

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Appendix

Appendix A - 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 the incidents reported in CAD are crimes and have longer records in the RMS.
CFS	Calls for Service	Typically, 911 calls for help and other non-emergency calls to the police for assistance.
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.
MACA	Massachusetts Association of Crime Analysts	A nonprofit professional association that provides training, literature, and networking to individuals who analyze crime data in New England.
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 broader mandate for its study than just crime.
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.

Appendix B - 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 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.

Disturbance: Any of a variety of types of disorderly conduct, disputes, fights, 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.

Gunshots: Reports of gunshots fired, whether phoned in by a resident or received from automatic detection services.

Hunting: Reports of hunters hunting off-season, in protected areas, with illegal gear, or in an unsafe manner.

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.

Appendix C - Offense types by associated crime category

Offense	Category	Offense	Category
Aggravated Assault	Violent Crime	Liquor Law Violations	Drug/Alcohol Crime
All Other	Other Crime	Murder	Violent Crime
Arson	Property Crime	Other Thefts	Property Crime
Auto Theft	Property Crime	Peeping Tom	Other Crime
Bad Checks	Property Crime	Pornography	Societal Crime
Burglary	Property Crime	Prostitution	Societal Crime
Credit Card Fraud	Property Crime	Robbery	Violent Crime
Disorderly	Societal Crime	Runaway	Other Crime
Drug Equipment Offense	Drug/Alcohol Crime	Sexual Assault	Violent Crime
Drug Offense	Drug/Alcohol Crime	Shoplifting	Property Crime
Drunk Driving	Drug/Alcohol Crime	Simple Assault	Violent Crime
Drunkenness	Drug/Alcohol Crime	Statutory Rape	Other Crime
Employee Theft	Property Crime	Stolen Property Offense	Property Crime
Extortion	Property Crime	Thefts from Buildings	Property Crime
Family Offenses	Other Crime	Thefts from Vehicles	Property Crime
Forgery	Property Crime	Thefts of Vehicle Parts	Property Crime
Fraud/Con Games	Property Crime	Threats	Violent Crime
Gambling	Societal Crime	Trespassing	Other Crime
Identity Theft	Property Crime	Vandalism	Property Crime
Kidnapping	Violent Crime	Weapon Offenses	Societal Crime

Appendix D - Example of ACS Population Summary for Hexagons

ACS Population Summary

R-37
Area: 0.25 square miles

Prepared by Esri

	2017-2021 ACS Estimate	Percent	MOE(±)	Reliability
TOTALS				
Total Population	3,158		561	
Total Households	1,392		181	
Total Housing Units	1,521		189	
POPULATION AGE 3+ YEARS BY SCHOOL ENROLLMENT				
Total	3,061	100.0%	548	
Enrolled in school	787	25.7%	213	
Enrolled in nursery school, preschool	96	3.1%	147	
Public school	96	3.1%	147	
Private school	0	0.0%	0	
Enrolled in kindergarten	55	1.8%	49	
Public school	55	1.8%	49	
Private school	0	0.0%	0	
Enrolled in grade 1 to grade 4	261	8.5%	118	
Public school	260	8.5%	118	
Private school	1	0.0%	7	
Enrolled in grade 5 to grade 8	140	4.6%	72	
Public school	139	4.5%	72	
Private school	0	0.0%	2	
Enrolled in grade 9 to grade 12	80	2.6%	54	
Public school	80	2.6%	54	
Private school	1	0.0%	3	
Enrolled in college undergraduate years	91	3.0%	61	
Public school	64	2.1%	81	
Private school	27	0.9%	32	
Enrolled in graduate or professional school	65	2.1%	40	
Public school	0	0.0%	0	
Private school	65	2.1%	40	
Not enrolled in school	2,274	74.3%	280	
POPULATION AGE 65+ BY RELATIONSHIP AND HOUSEHOLD TYPE				
Total	394	100.0%	130	
Living in Households	391	99.2%	130	
Living in Family Households	218	55.3%	118	
Householder	95	24.1%	55	
Spouse	112	28.4%	77	
Parent	11	2.8%	18	
Parent-in-law	0	0.0%	0	
Other Relative	1	0.3%	6	
Nonrelative	0	0.0%	0	
Living in Nonfamily Households	173	43.9%	59	
Householder	173	43.9%	59	
Nonrelative	0	0.0%	0	
Living in Group Quarters	3	0.8%	41	

Source: U.S. Census Bureau, 2017-2021 American Community Survey

Reliability: high medium low

May 31, 2023

ACS Population Summary

R-37
Area: 0.25 square miles

Prepared by Esri

	2017-2021 ACS Estimate	Percent	MOE(±)	Reliability
HOUSEHOLDS BY TYPE AND SIZE				
Family Households	754	54.2%	163	
2-Person	308	22.1%	106	
3-Person	166	11.9%	71	
4-Person	225	16.2%	136	
5-Person	36	2.6%	62	
6-Person	0	0.0%	0	
7+ Person	19	1.4%	41	
Nonfamily Households	637	45.8%	120	
1-Person	546	39.2%	115	
2-Person	67	4.8%	39	
3-Person	15	1.1%	23	
4-Person	0	0.0%	0	
5-Person	0	0.0%	0	
6-Person	0	0.0%	0	
7+ Person	9	0.6%	61	
HOUSEHOLDS BY PRESENCE OF PEOPLE UNDER 18 YEARS BY HOUSEHOLD TYPE				
Households with one or more people under 18 years	468	33.6%	155	
Family households	459	33.0%	154	
Married-couple family	172	12.4%	135	
Male householder, no wife present	33	2.4%	82	
Female householder, no husband present	253	18.2%	86	
Nonfamily households	9	0.6%	61	
Households with no people under 18 years	924	66.4%	143	
Married-couple family	160	11.5%	71	
Other family	136	9.8%	68	
Nonfamily households	628	45.1%	120	
HOUSEHOLDS BY PRESENCE OF PEOPLE 65 YEARS AND OVER, HOUSEHOLD SIZE AND HOUSEHOLD TYPE				
Households with Pop 65+	323	23.2%	88	
1-Person	175	12.6%	59	
2+ Person Family	147	10.6%	70	
2+ Person Nonfamily	0	0.0%	0	
Households with No Pop 65+	1,069	76.8%	175	
1-Person	371	26.7%	107	
2+ Person Family	607	43.6%	161	
2+ Person Nonfamily	91	6.5%	49	
HOUSEHOLD TYPE BY RELATIVES AND NONRELATIVES FOR POPULATION IN HOUSEHOLDS				
Total	3,111	100.0%	560	
In Family Households	2,339	75.2%	565	
In Married-Couple Family	993	31.9%	529	
Relatives	976	31.4%	529	
Nonrelatives	16	0.5%	134	
In Male Householder-No Spouse Present-Family	239	7.7%	241	
Relatives	206	6.6%	150	
Nonrelatives	33	1.1%	208	
In Female Householder-No Spouse Present-Family	1,108	35.6%	314	
Relatives	1,057	34.0%	298	
Nonrelatives	51	1.6%	43	
In Nonfamily Households	771	24.8%	169	

Source: U.S. Census Bureau, 2017-2021 American Community Survey

Reliability: high medium low

May 31, 2023

ACS Population Summary

R-37
Area: 0.25 square miles

Prepared by Esri

	2017-2021 ACS Estimate	Percent	MOE(±)	Reliability
POPULATION AGE 5+ YEARS BY LANGUAGE SPOKEN AT HOME AND ABILITY TO SPEAK ENGLISH				
Total	2,870	100.0%	424	
5 to 17 years				
Speak only English	258	9.0%	108	
Speak Spanish	230	8.0%	121	
Speak English "very well" or "well"	216	7.5%	116	
Speak English "not well"	14	0.5%	125	
Speak English "not at all"	0	0.0%	0	
Speak other Indo-European languages	0	0.0%	0	
Speak English "very well" or "well"	0	0.0%	0	
Speak English "not well"	0	0.0%	0	
Speak English "not at all"	0	0.0%	0	
Speak Asian and Pacific Island languages	0	0.0%	0	
Speak English "very well" or "well"	0	0.0%	0	
Speak English "not well"	0	0.0%	0	
Speak English "not at all"	0	0.0%	0	
Speak other languages	0	0.0%	0	
Speak English "very well" or "well"	0	0.0%	0	
Speak English "not well"	0	0.0%	0	
Speak English "not at all"	0	0.0%	0	
18 to 64 years				
Speak only English	557	19.4%	147	
Speak Spanish	1,272	44.3%	306	
Speak English "very well" or "well"	724	25.2%	168	
Speak English "not well"	333	11.6%	133	
Speak English "not at all"	215	7.5%	131	
Speak other Indo-European languages	62	2.2%	43	
Speak English "very well" or "well"	62	2.2%	46	
Speak English "not well"	0	0.0%	0	
Speak English "not at all"	0	0.0%	0	
Speak Asian and Pacific Island languages	11	0.4%	16	
Speak English "very well" or "well"	11	0.4%	16	
Speak English "not well"	0	0.0%	0	
Speak English "not at all"	0	0.0%	0	
Speak other languages	86	3.0%	98	
Speak English "very well" or "well"	86	3.0%	98	
Speak English "not well"	0	0.0%	0	
Speak English "not at all"	0	0.0%	0	
65 years and over				
Speak only English	117	4.1%	54	
Speak Spanish	275	9.6%	115	
Speak English "very well" or "well"	81	2.8%	72	
Speak English "not well"	87	3.0%	54	
Speak English "not at all"	107	3.7%	69	
Speak other Indo-European languages	2	0.1%	6	
Speak English "very well" or "well"	0	0.0%	5	
Speak English "not well"	1	0.0%	6	
Speak English "not at all"	0	0.0%	0	
Speak Asian and Pacific Island languages	0	0.0%	0	
Speak English "very well" or "well"	0	0.0%	0	
Speak English "not well"	0	0.0%	0	
Speak English "not at all"	0	0.0%	0	
Speak other languages	0	0.0%	0	
Speak English "very well" or "well"	0	0.0%	0	
Speak English "not well"	0	0.0%	0	
Speak English "not at all"	0	0.0%	0	

Source: U.S. Census Bureau, 2017-2021 American Community Survey

Reliability: high medium low

May 31, 2023

ACS Population Summary

R-37
Area: 0.25 square miles

Prepared by Esri

	2017-2021 ACS Estimate	Percent	MOE(±)	Reliability
WORKERS AGE 16+ YEARS BY PLACE OF WORK				
Total	924	100.0%	203	
Worked in state and in county of residence	755	81.7%	187	
Worked in state and outside county of residence	81	8.8%	53	
Worked outside state of residence	87	9.4%	62	
SEX BY CLASS OF WORKER FOR THE CIVILIAN EMPLOYED POPULATION 16 YEARS AND OVER				
Total:	924	100.0%	203	
Male:	500	54.1%	155	
Employee of private company	416	45.0%	150	
Self-employed in own incorporated business	1	0.1%	22	
Private not-for-profit wage and salary workers	47	5.1%	28	
Local government workers	26	2.8%	28	
State government workers	5	0.5%	9	
Federal government workers	3	0.3%	26	
Self-employed in own not incorporated business workers	1	0.1%	7	
Unpaid family workers	0	0.0%	0	
Female:	424	45.9%	117	
Employee of private company	266	28.8%	72	
Self-employed in own incorporated business	0	0.0%	0	
Private not-for-profit wage and salary workers	77	8.3%	44	
Local government workers	20	2.2%	21	
State government workers	59	6.4%	62	
Federal government workers	0	0.0%	0	
Self-employed in own not incorporated business workers	2	0.2%	4	
Unpaid family workers	0	0.0%	0	
POPULATION IN HOUSEHOLDS AND PRESENCE OF A COMPUTER				
Total	3,111	100.0%	560	
Population <18 in Households	775	24.9%	292	
Have a Computer	766	24.6%	293	
Have NO Computer	9	0.3%	14	
Population 18-64 in Households	1,945	62.5%	310	
Have a Computer	1,833	58.9%	306	
Have NO Computer	112	3.6%	67	
Population 65+ in Households	391	12.6%	130	
Have a Computer	241	7.7%	105	
Have NO Computer	150	4.8%	84	
HOUSEHOLDS AND INTERNET SUBSCRIPTIONS				
Total	1,392	100.0%	181	
With an Internet Subscription	957	68.8%	168	
Dial-Up Alone	0	0.0%	0	
Broadband	595	42.7%	102	
Satellite Service	38	2.7%	39	
Other Service	28	2.0%	56	
Internet Access with no Subscription	206	14.8%	78	
With No Internet Access	229	16.5%	77	

Source: U.S. Census Bureau, 2017-2021 American Community Survey

Reliability: high medium low

May 31, 2023

ACS Population Summary

R-37
Area: 0.25 square miles

Prepared by Esri

	2017-2021 ACS Estimate	Percent	MOE(±)	Reliability
WORKERS AGE 16+ YEARS BY MEANS OF TRANSPORTATION TO WORK				
Total	924	100.0%	203	
Drove alone	557	60.3%	155	
Carpooled	72	7.8%	49	
Public transportation (excluding taxicab)	98	10.6%	74	
Bus or trolley bus	98	10.6%	74	
Light rail, streetcar or trolley	0	0.0%	0	
Subway or elevated	0	0.0%	0	
Long-distance/Commuter Train	0	0.0%	0	
Ferryboat	0	0.0%	0	
Taxicab	0	0.0%	0	
Motorcycle	0	0.0%	0	
Bicycle	0	0.0%	0	
Walked	113	12.2%	102	
Other means	32	3.5%	20	
Worked at home	52	5.6%	59	
WORKERS AGE 16+ YEARS (WHO DID NOT WORK FROM HOME) BY TRAVEL TIME TO WORK				
Total	872	100.0%	185	
Less than 5 minutes	22	2.5%	26	
5 to 9 minutes	175	20.1%	126	
10 to 14 minutes	140	16.1%	58	
15 to 19 minutes	180	20.6%	105	
20 to 24 minutes	78	8.9%	30	
25 to 29 minutes	51	5.8%	30	
30 to 34 minutes	109	12.5%	70	
35 to 39 minutes	15	1.7%	25	
40 to 44 minutes	23	2.6%	39	
45 to 59 minutes	24	2.8%	25	
60 to 89 minutes	29	3.3%	87	
90 or more minutes	26	3.0%	24	
Average Travel Time to Work (in minutes)	N/A		N/A	
FEMALES AGE 20-64 YEARS BY AGE OF OWN CHILDREN AND EMPLOYMENT STATUS				
Total	898	100.0%	182	
Own children under 6 years only	73	8.1%	53	
In labor force	53	5.9%	50	
Not in labor force	20	2.2%	17	
Own children under 6 years and 6 to 17 years	109	12.1%	110	
In labor force	16	1.8%	23	
Not in labor force	93	10.4%	107	
Own children 6 to 17 years only	106	11.8%	49	
In labor force	52	5.8%	31	
Not in labor force	53	5.9%	42	
No own children under 18 years	610	67.9%	147	
In labor force	325	36.2%	119	
Not in labor force	285	31.7%	96	

Source: U.S. Census Bureau, 2017-2021 American Community Survey

Reliability: high medium low

May 31, 2023

ACS Population Summary

R-37
Area: 0.25 square miles

Prepared by Esri

	2017-2021 ACS Estimate	Percent	MOE(±)	Reliability
CIVILIAN NONINSTITUTIONALIZED POPULATION BY AGE & TYPES OF HEALTH INSURANCE COVERAGE				
Total	3,145	100.0%	561	
Under 19 years:	816	25.9%	294	
One Type of Health Insurance:	760	24.2%	295	
Employer-Based Health Ins Only	5	0.2%	6	
Direct-Purchase Health Ins Only	8	0.3%	60	
Medicare Coverage Only	0	0.0%	0	
Medicaid Coverage Only	747	23.8%	295	
TRICARE/Military Hlth Cov Only	0	0.0%	0	
VA Health Care Only	0	0.0%	0	
2+ Types of Health Insurance	56	1.8%	53	
No Health Insurance Coverage	0	0.0%	0	
19 to 34 years:	1,096	34.8%	287	
One Type of Health Insurance:	811	25.8%	185	
Employer-Based Health Ins Only	263	8.4%	114	
Direct-Purchase Health Ins Only	25	0.8%	23	
Medicare Coverage Only	0	0.0%	0	
Medicaid Coverage Only	523	16.6%	161	
TRICARE/Military Hlth Cov Only	0	0.0%	0	
VA Health Care Only	0	0.0%	0	
2+ Types of Health Insurance	111	3.5%	53	
No Health Insurance Coverage	174	5.5%	208	
35 to 64 years:	842	26.8%	142	
One Type of Health Insurance:	709	22.5%	120	
Employer-Based Health Ins Only	208	6.6%	86	
Direct-Purchase Health Ins Only	37	1.2%	32	
Medicare Coverage Only	2	0.1%	14	
Medicaid Coverage Only	461	14.7%	93	
TRICARE/Military Hlth Cov Only	0	0.0%	0	
VA Health Care Only	0	0.0%	0	
2+ Types of Health Insurance	101	3.2%	68	
No Health Insurance Coverage	31	1.0%	36	
65+ years:	391	12.4%	130	
One Type of Health Insurance:	46	1.5%	39	
Employer-Based Health Ins Only	0	0.0%	0	
Direct-Purchase Health Ins Only	0	0.0%	0	
Medicare Coverage Only	46	1.5%	39	
TRICARE/Military Hlth Cov Only	0	0.0%	0	
VA Health Care Only	0	0.0%	0	
2+ Types of Health Insurance:	345	11.0%	117	
Employer-Based & Direct-Purchase Health Insurance	0	0.0%	0	
Employer-Based Health & Medicare Insurance	30	1.0%	27	
Direct-Purchase Health & Medicare Insurance	21	0.7%	17	
Medicare & Medicaid Coverage	228	7.2%	93	
Other Private Health Insurance Combos	0	0.0%	0	
Other Public Health Insurance Combos	21	0.7%	31	
Other Health Insurance Combinations	46	1.5%	34	
No Health Insurance Coverage	0	0.0%	0	

Source: U.S. Census Bureau, 2017-2021 American Community Survey

Reliability: high medium low

May 31, 2023

ACS Population Summary

R-37
Area: 0.25 square miles

Prepared by Esri

	2017-2021 ACS Estimate	Percent	MOE(±)	Reliability
POPULATION BY RATIO OF INCOME TO POVERTY LEVEL				
Total	3,146	100.0%	561	
Under .50	371	11.8%	182	
.50 to .99	836	26.6%	241	
1.00 to 1.24	270	8.6%	192	
1.25 to 1.49	131	4.2%	109	
1.50 to 1.84	210	6.7%	106	
1.85 to 1.99	65	2.1%	77	
2.00 and over	1,262	40.1%	526	
CIVILIAN POPULATION AGE 18 OR OLDER BY VETERAN STATUS				
Total	2,374	100.0%	316	
Veteran	70	2.9%	49	
Nonveteran	2,304	97.1%	317	
Male	1,262	53.2%	198	
Veteran	48	2.0%	42	
Nonveteran	1,214	51.1%	196	
Female	1,112	46.8%	183	
Veteran	22	0.9%	25	
Nonveteran	1,090	45.9%	183	
CIVILIAN VETERANS AGE 18 OR OLDER BY PERIOD OF MILITARY SERVICE				
Total	70	100.0%	49	
Gulf War (9/01 or later), no Gulf War (8/90 to 8/01), no Vietnam Era	22	31.4%	25	
Gulf War (9/01 or later) and Gulf War (8/90 to 8/01), no Vietnam Era	0	0.0%	0	
Gulf War (9/01 or later), and Gulf War (8/90 to 8/01), and Vietnam Era	0	0.0%	0	
Gulf War (8/90 to 8/01), no Vietnam Era	1	1.4%	12	
Gulf War (8/90 to 8/01) and Vietnam Era	2	2.9%	16	
Vietnam Era, no Korean War, no World War II	38	54.3%	41	
Vietnam Era and Korean War, no World War II	0	0.0%	0	
Vietnam Era and Korean War and World War II	0	0.0%	0	
Korean War, no Vietnam Era, no World War II	0	0.0%	0	
Korean War and World War II, no Vietnam Era	0	0.0%	0	
World War II, no Korean War, no Vietnam Era	0	0.0%	0	
Between Gulf War and Vietnam Era only	0	0.0%	0	
Between Vietnam Era and Korean War only	6	8.6%	9	
Between Korean War and World War II only	0	0.0%	0	
Pre-World War II only	0	0.0%	0	
HOUSEHOLDS BY POVERTY STATUS				
Total	1,392	100.0%	181	
Income in the past 12 months below poverty level	544	39.1%	111	
Married-couple family	26	1.9%	41	
Other family - male householder (no wife present)	8	0.6%	52	
Other family - female householder (no husband present)	207	14.9%	79	
Nonfamily household - male householder	160	11.5%	91	
Nonfamily household - female householder	143	10.3%	54	
Income in the past 12 months at or above poverty level	848	60.9%	172	
Married-couple family	306	22.0%	151	
Other family - male householder (no wife present)	60	4.3%	61	
Other family - female householder (no husband present)	148	10.6%	61	
Nonfamily household - male householder	191	13.7%	60	
Nonfamily household - female householder	143	10.3%	46	

Source: U.S. Census Bureau, 2017-2021 American Community Survey

Reliability: high medium low

May 31, 2023

ACS Population Summary

R-37
Area: 0.25 square miles

Prepared by Esri

	2017-2021 ACS Estimate	Percent	MOE(±)	Reliability
HOUSEHOLDS BY OTHER INCOME				
Social Security Income	449	32.3%	97	
No Social Security Income	943	67.7%	179	
Retirement Income	120	8.6%	65	
No Retirement Income	1,271	91.3%	181	
GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME IN THE PAST 12 MONTHS				
<10% of Income	26	1.9%	65	
10-14.9% of Income	164	12.2%	117	
15-19.9% of Income	157	11.7%	70	
20-24.9% of Income	87	6.5%	54	
25-29.9% of Income	155	11.5%	67	
30-34.9% of Income	120	8.9%	49	
35-39.9% of Income	101	7.5%	49	
40-49.9% of Income	140	10.4%	58	
50+% of Income	348	25.9%	110	
Gross Rent % Inc Not Computed	44	3.3%	62	
HOUSEHOLDS BY PUBLIC ASSISTANCE INCOME IN THE PAST 12 MONTHS				
Total	1,392	100.0%	181	
With public assistance income	174	12.5%	82	
No public assistance income	1,217	87.5%	174	
HOUSEHOLDS BY FOOD STAMPS/SNAP STATUS				
Total	1,392	100.0%	181	
With Food Stamps/SNAP	797	57.3%	165	
With No Food Stamps/SNAP	594	42.7%	109	
HOUSEHOLDS BY DISABILITY STATUS				
Total	1,392	100.0%	181	
With 1+ Persons w/Disability	608	43.7%	108	
With No Person w/Disability	783	56.2%	176	

Data Note: N/A means not available. Population by Ratio of Income to Poverty Level represents persons for whom poverty status is determined. Household income represents income in 2021, adjusted for inflation.

2017-2021 ACS Estimate: The American Community Survey (ACS) replaces census sample data. Esri is releasing the 2017-2021 ACS estimates, five-year period data collected monthly from January 1, 2017 through December 31, 2021. Although the ACS includes many of the subjects previously covered by the decennial census sample, there are significant differences between the two surveys including fundamental differences in survey design and residency rules.

Margin of error (MOE): The MOE is a measure of the variability of the estimate due to sampling error. MOEs enable the data user to measure the range of uncertainty for each estimate with 90 percent confidence. The range of uncertainty is called the confidence interval, and it is calculated by taking the estimate +/- the MOE. For example, if the ACS reports an estimate of 100 with an MOE of +/- 20, then you can be 90 percent certain the value for the whole population falls between 80 and 120.

Reliability: These symbols represent threshold values that Esri has established from the Coefficients of Variation (CV) to designate the usability of the estimates. The CV measures the amount of sampling error relative to the size of the estimate, expressed as a percentage.

- High Reliability: Small CVs (less than or equal to 12 percent) are flagged green to indicate that the sampling error is small relative to the estimate and the estimate is reasonably reliable.
- Medium Reliability: Estimates with CVs between 12 and 40 are flagged yellow-use with caution.
- Low Reliability: Large CVs (over 40 percent) are flagged red to indicate that the sampling error is large relative to the estimate. The estimate is considered very unreliable.

Source: U.S. Census Bureau, 2017-2021 American Community Survey

Reliability: high medium low

May 31, 2023

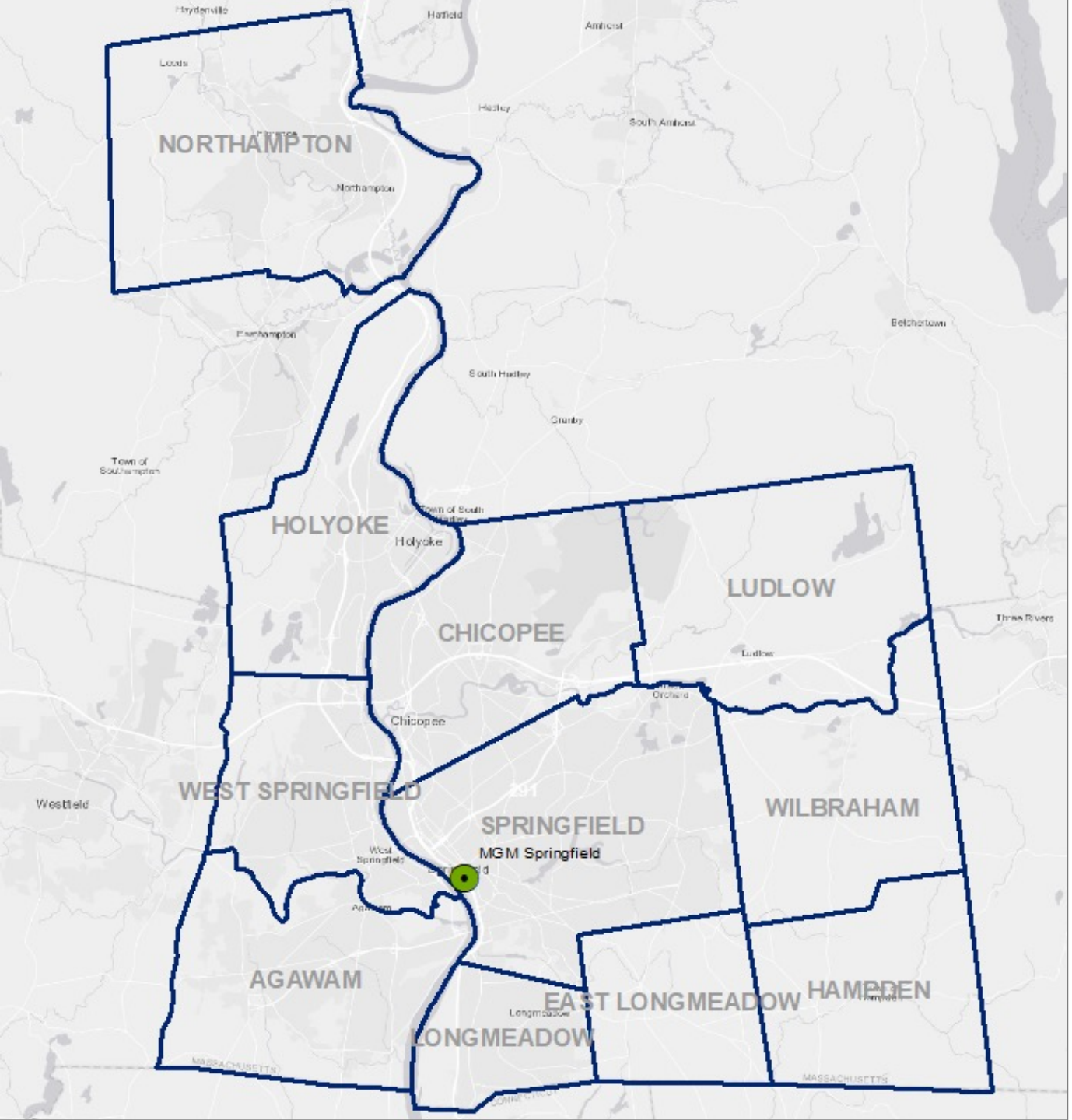
Assessing the Influence of Gambling on Public Safety in Massachusetts Cities and Towns

Analysis of the influence of Encore MGM Springfield Casino on its surrounding community

Crime Comparison Analysis of Changes in the MGM Springfield Region
2013-2022

Research Funded by the Massachusetts Gaming Commission

The views presented here today are those of the authors of this report alone,
and do not represent the official point of view of Massachusetts Gaming Commission



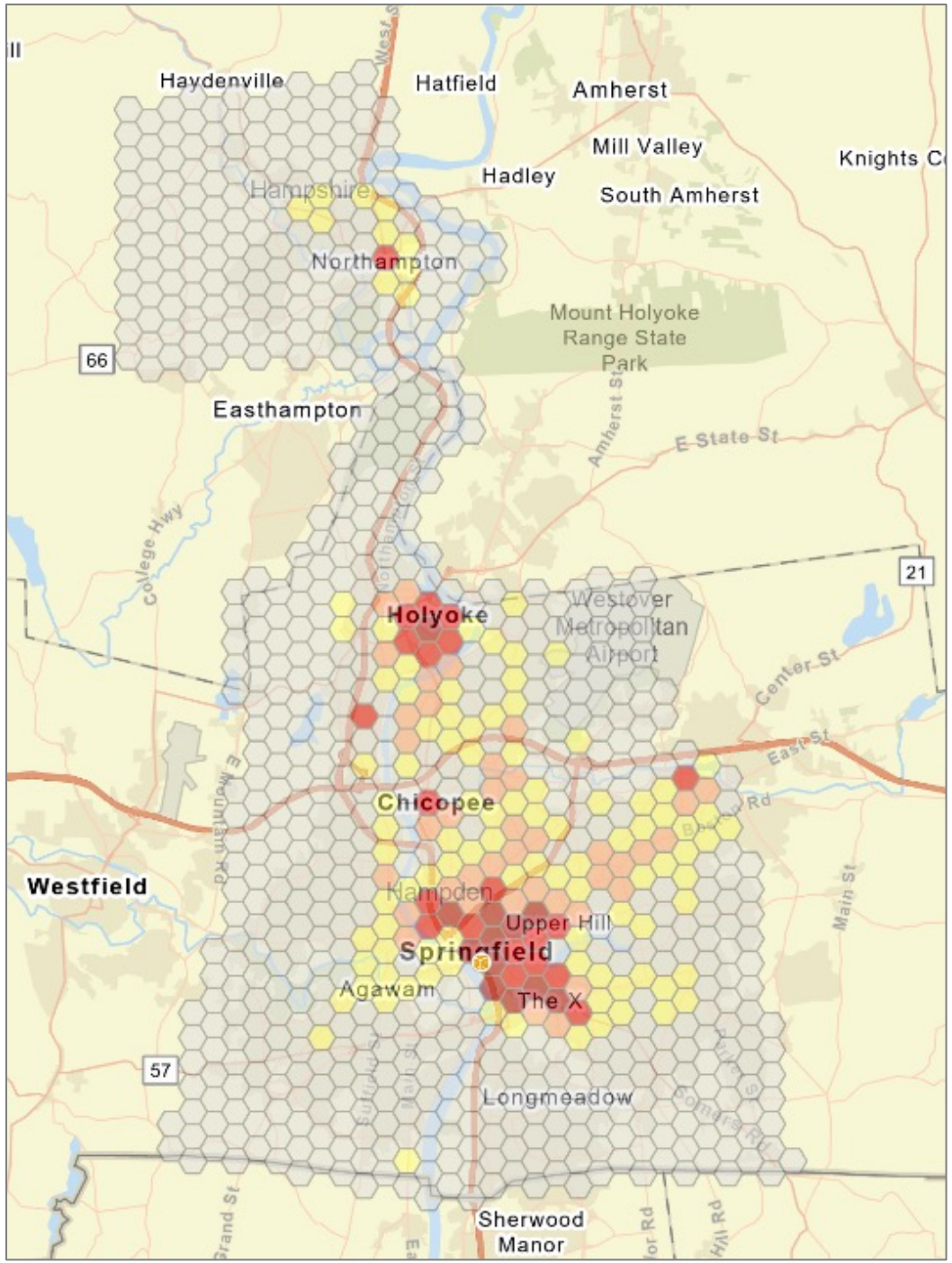
Welcome

- *Justice Research Associates*
  - Dr. Noah Fritz
  - Steven Hick
  - Christopher Bruce – Partnership
- CMAP – U.S. DOJ TA Program
- IACA & MACA
- Arizona State University, University of Denver, & George Mason University

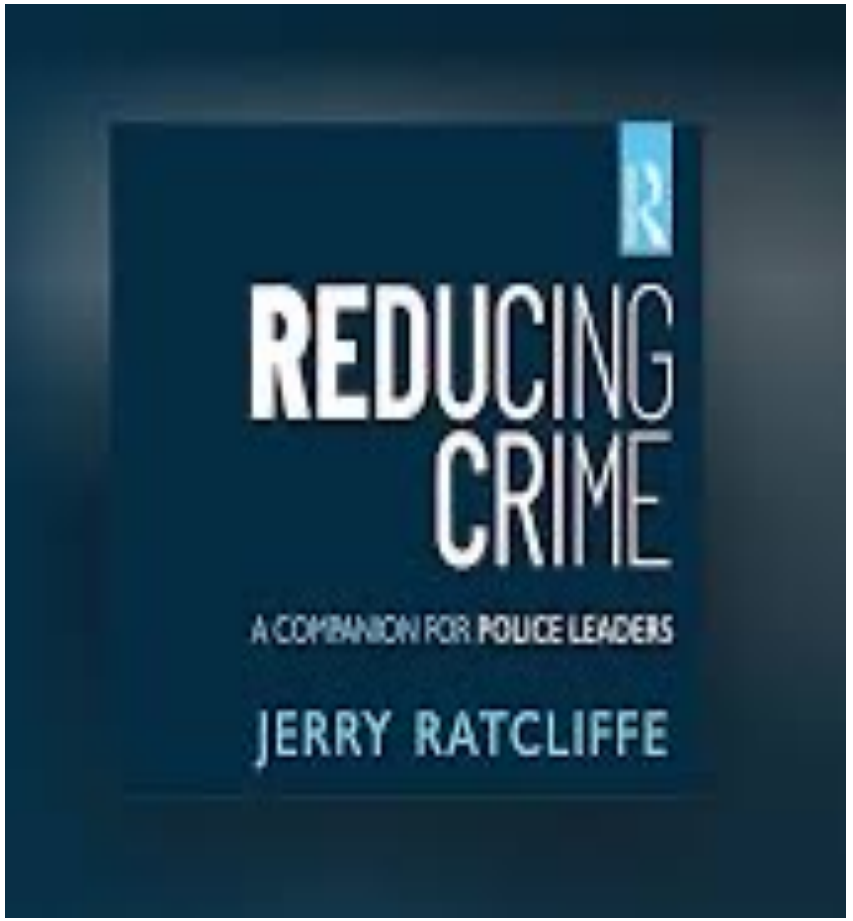
- Feedback today?

MGC Reports

- Purpose – eye to future
  - Conduct an analysis of the increases and decreases in criminal activity
  - Provide insights into the temporal and spatial patterns during COVID-19
    - Benchmarks
  - Provides the researchers the opportunity to explore methods
- Build a partnership with each of you and the agencies in the region
  - Provide technical assistance and collaborate on crime analysis
  - Past Reports online – www.massgaming.com
  - Build Knowledgebase



Our First Report:
A Benchmark for the Future



- Historical context
- Temporal context
- Spatial context

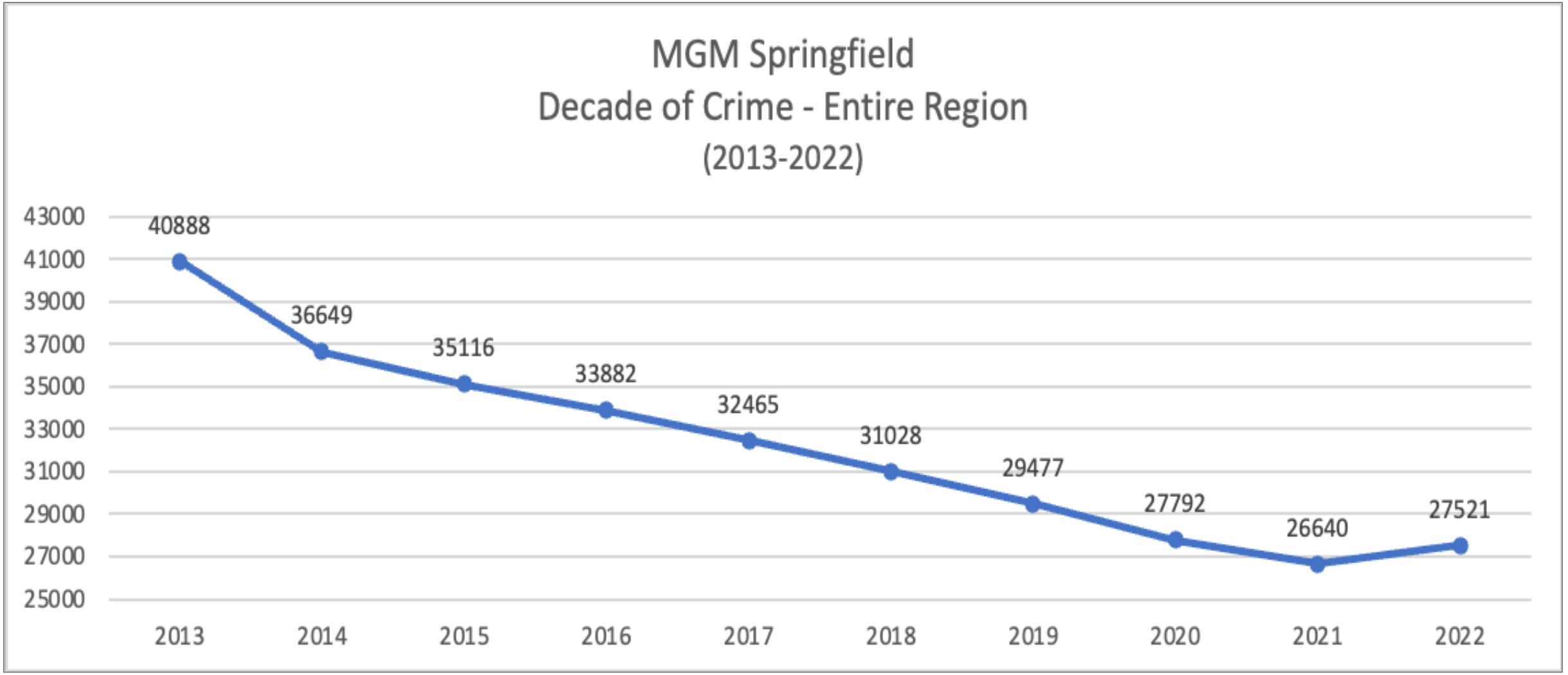
- Risk Terrain Model
- Crime Pattern Theory & Intelligence Led Policing
  - Reducing Crime – Area Commanders & Crime Analysis

Jerry Ratcliffe

- Prolific Offenders
- Hotspots

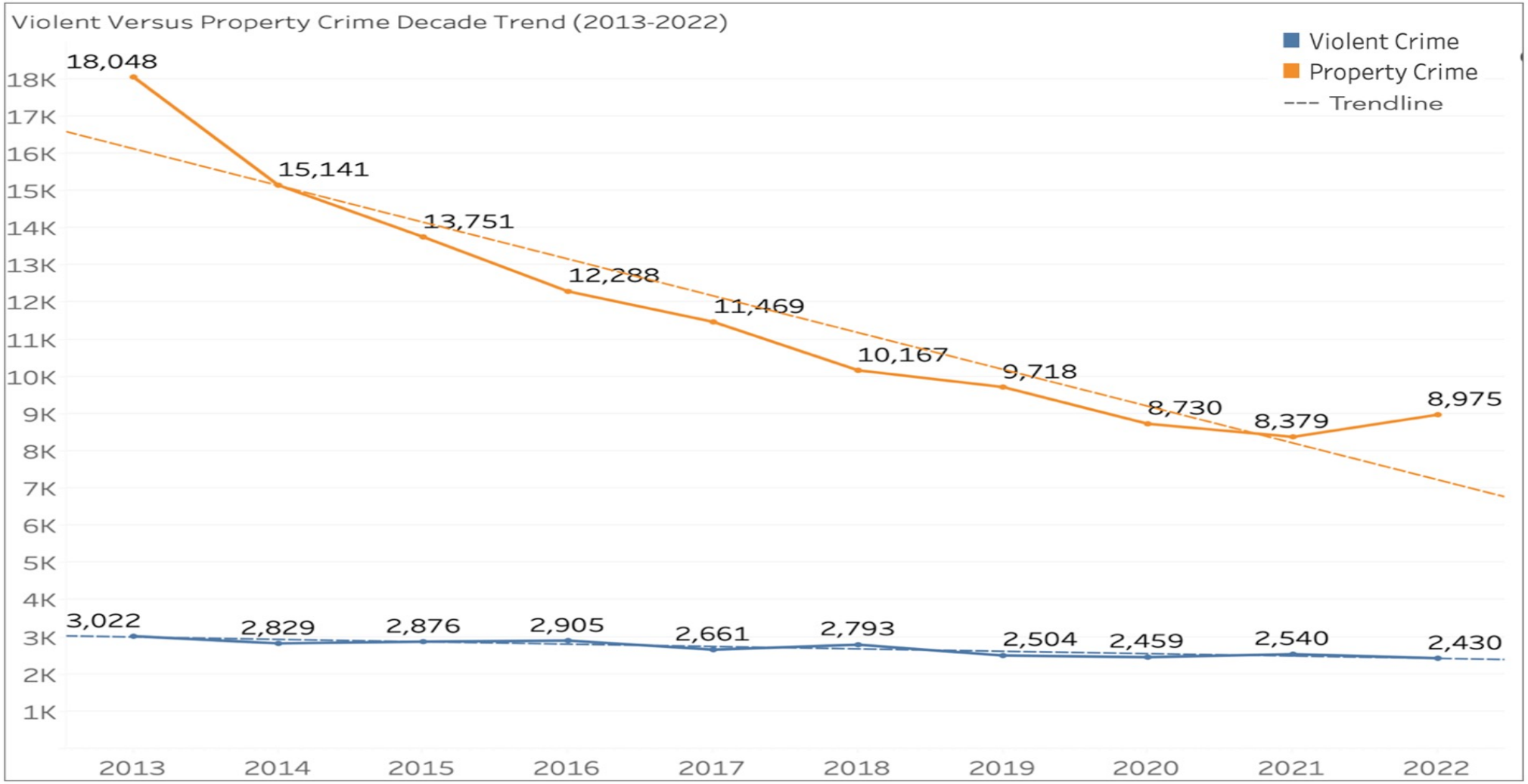
Good News

- Crime in the Springfield Region has gone down consistently over the past decade, with 2023 turning upward but still the 2nd best year.

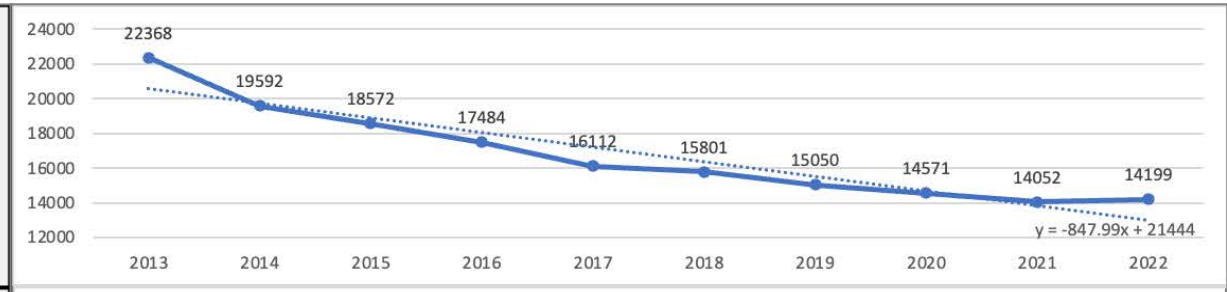


Bad News

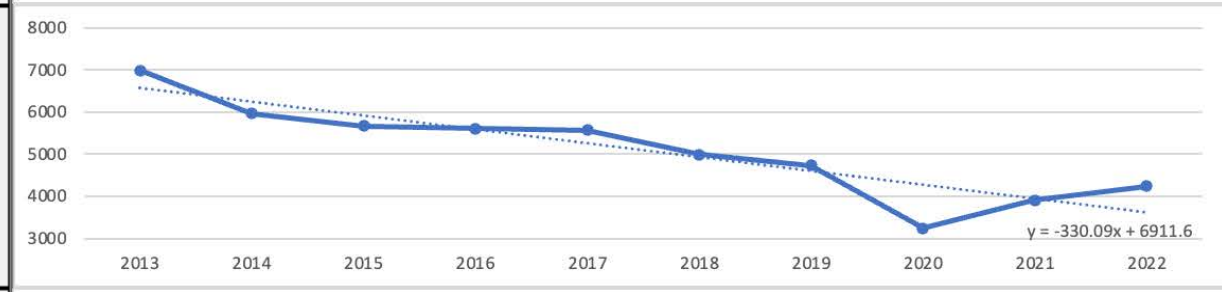
- Violent Crime has remained relatively flat over the past 10 years, still almost a 500-crime reduction since 2013.
- Property crime has carried the load for the decade long decline.



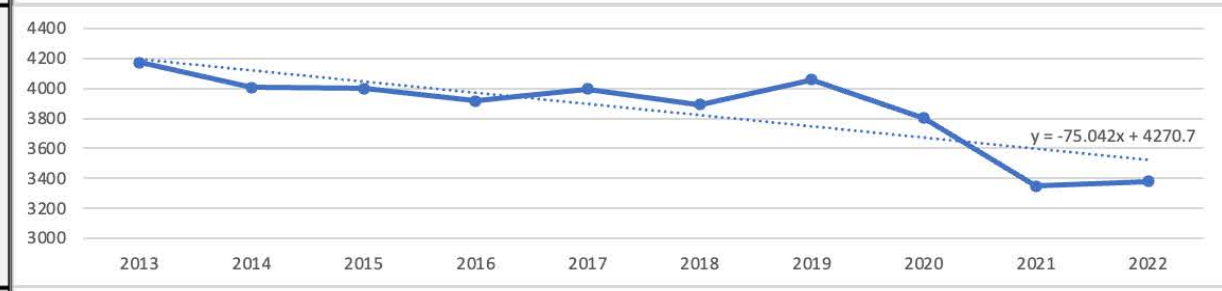
Springfield



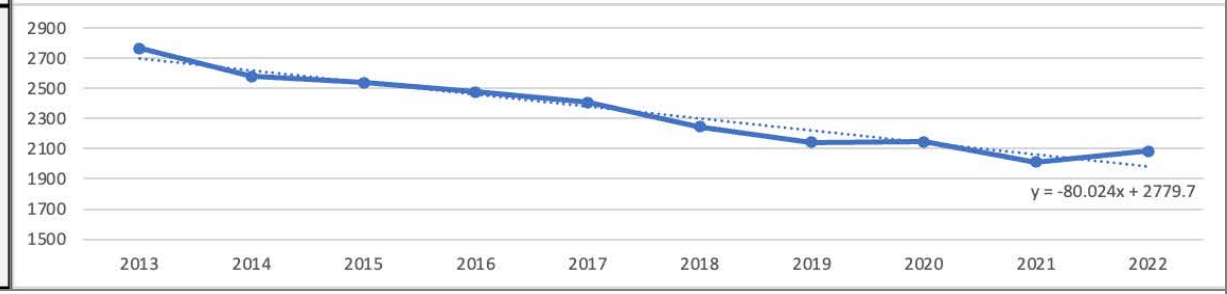
Holyoke



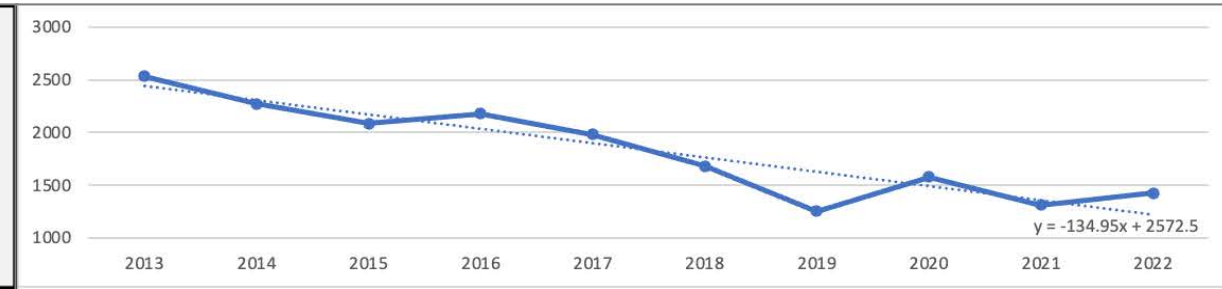
Chicopee



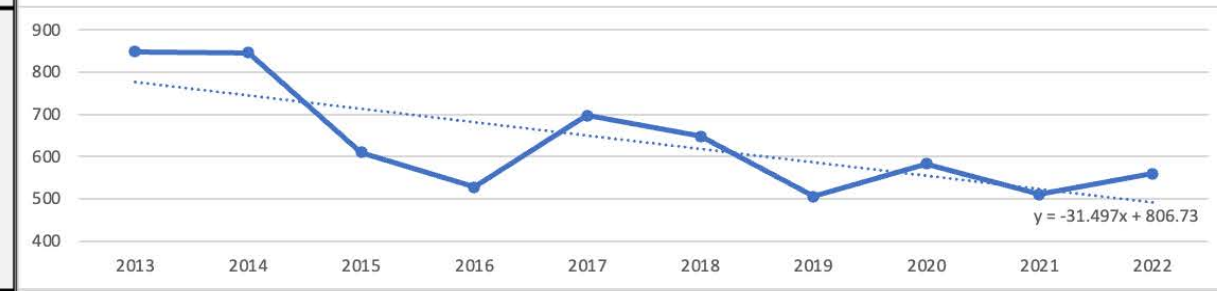
West Springfield



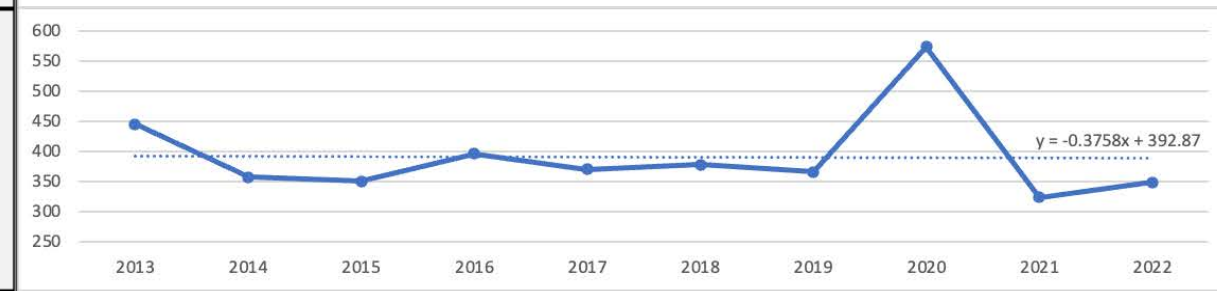
Northampton



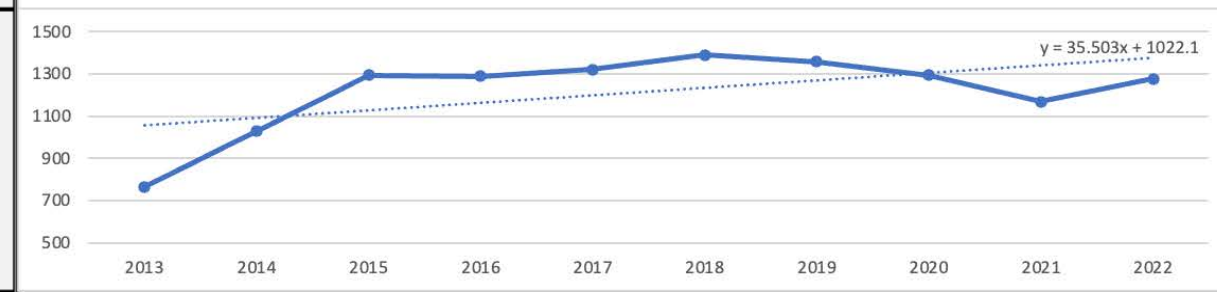
East Longmeadow



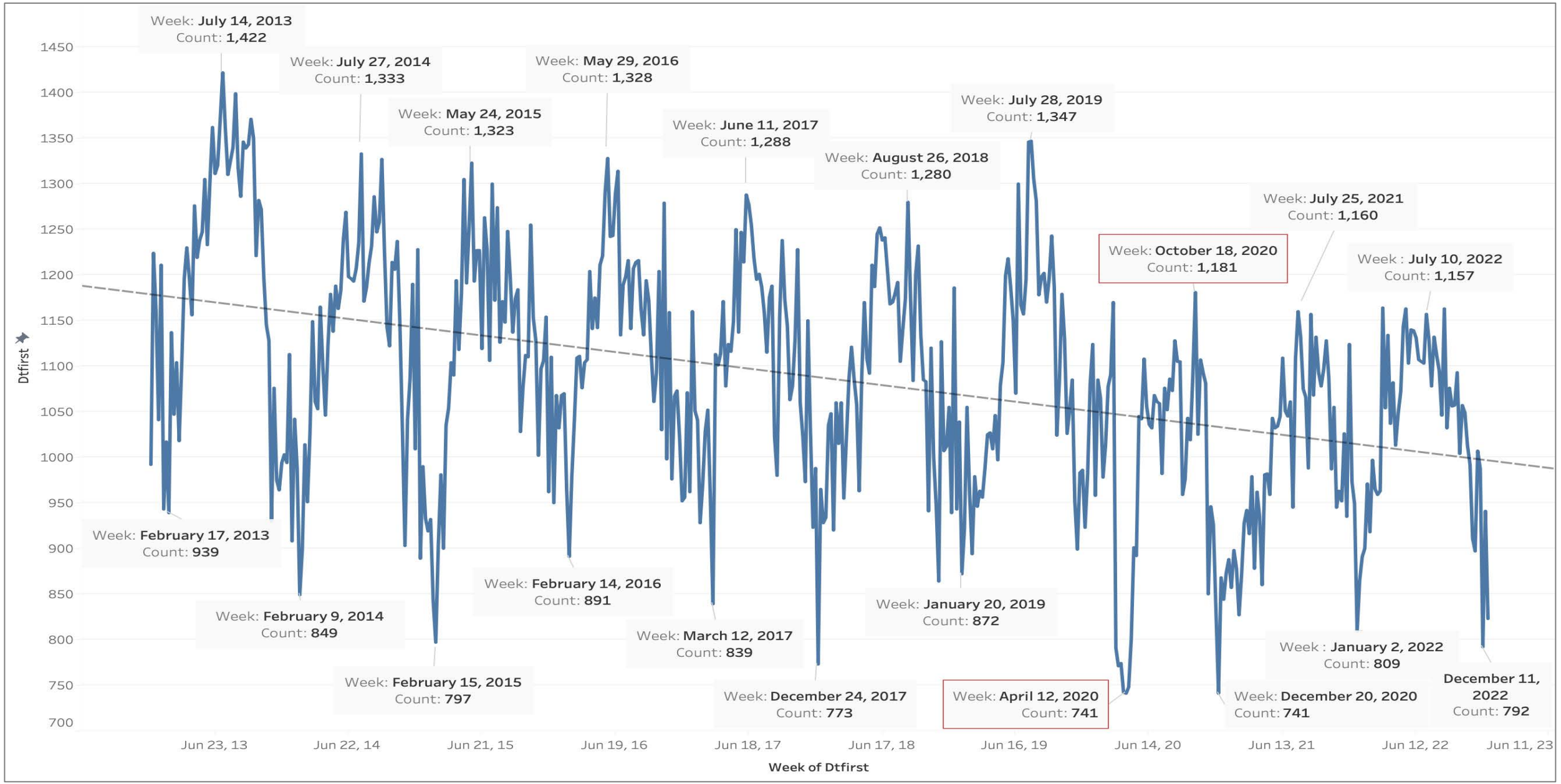
Longmeadow



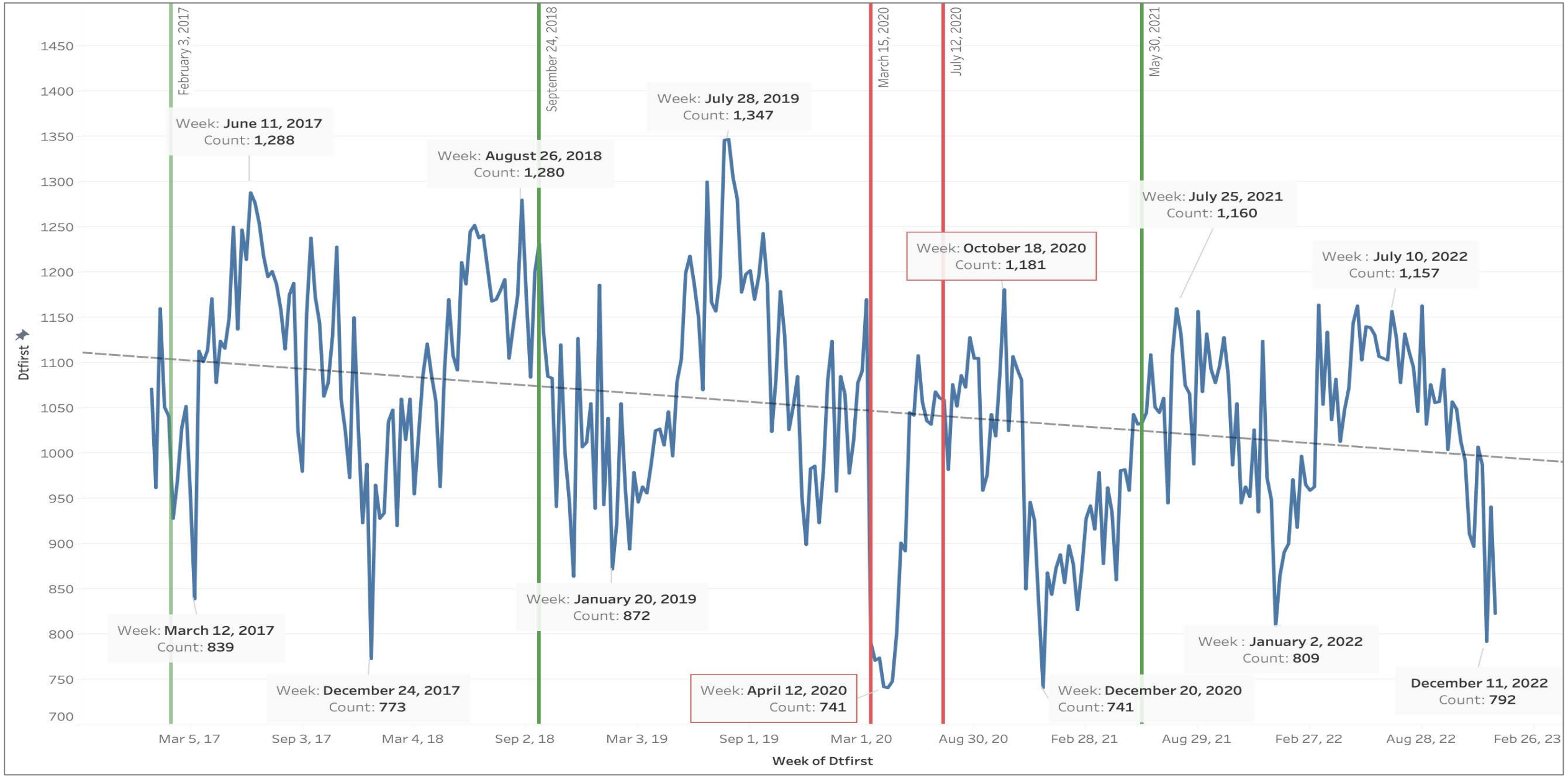
Agawam



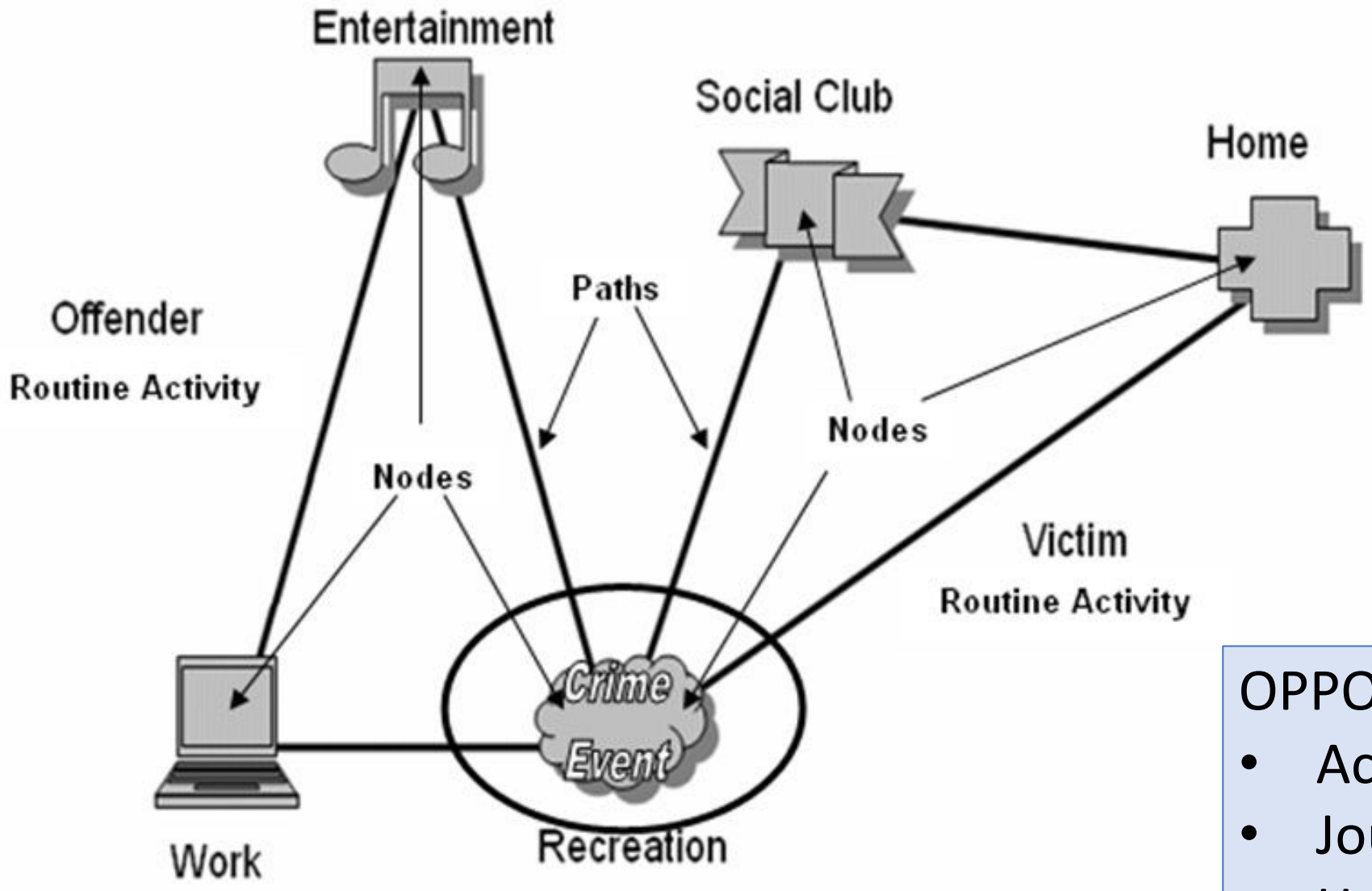
Distinct Seasonal Rhythmic Pattern – no surprise



COVID-19 Pattern Reflects the same as Encore



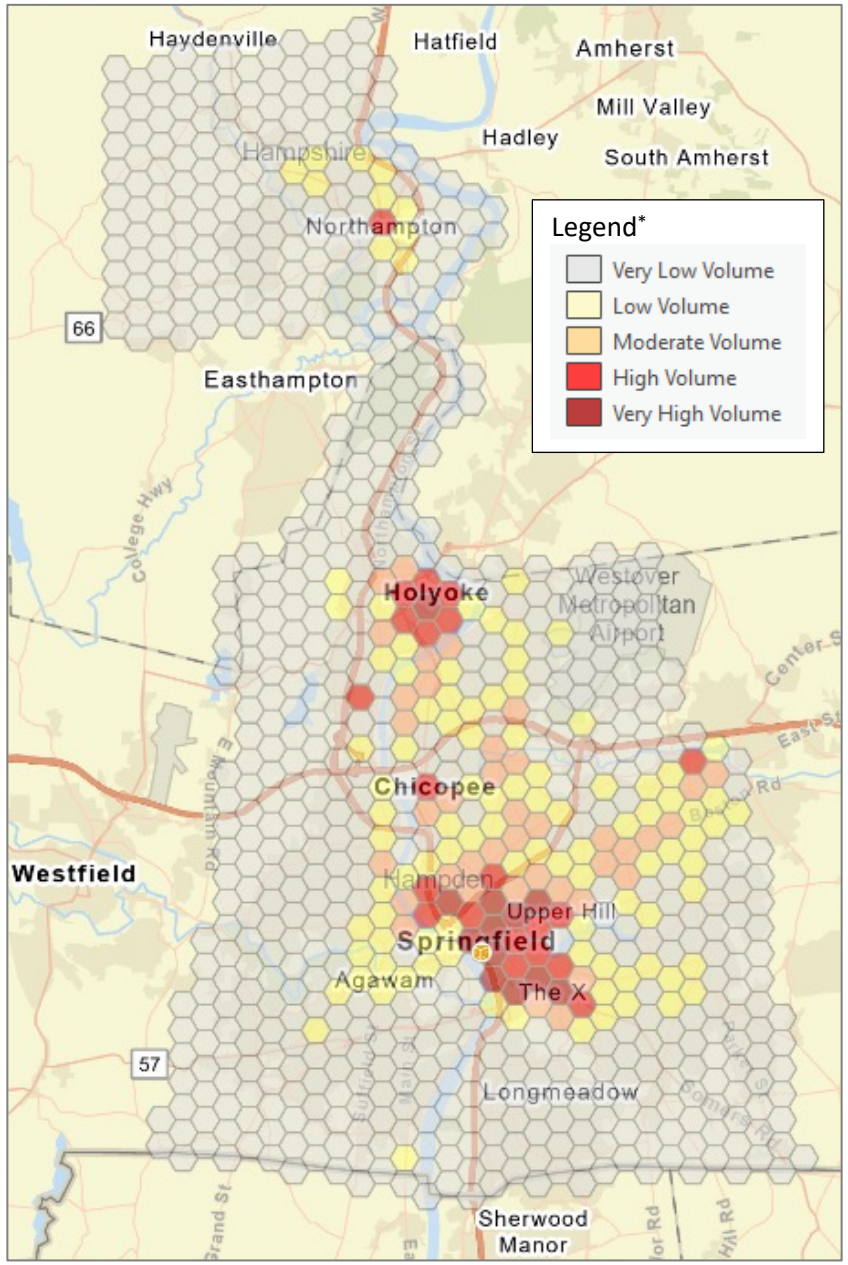
Crime Pattern Theory

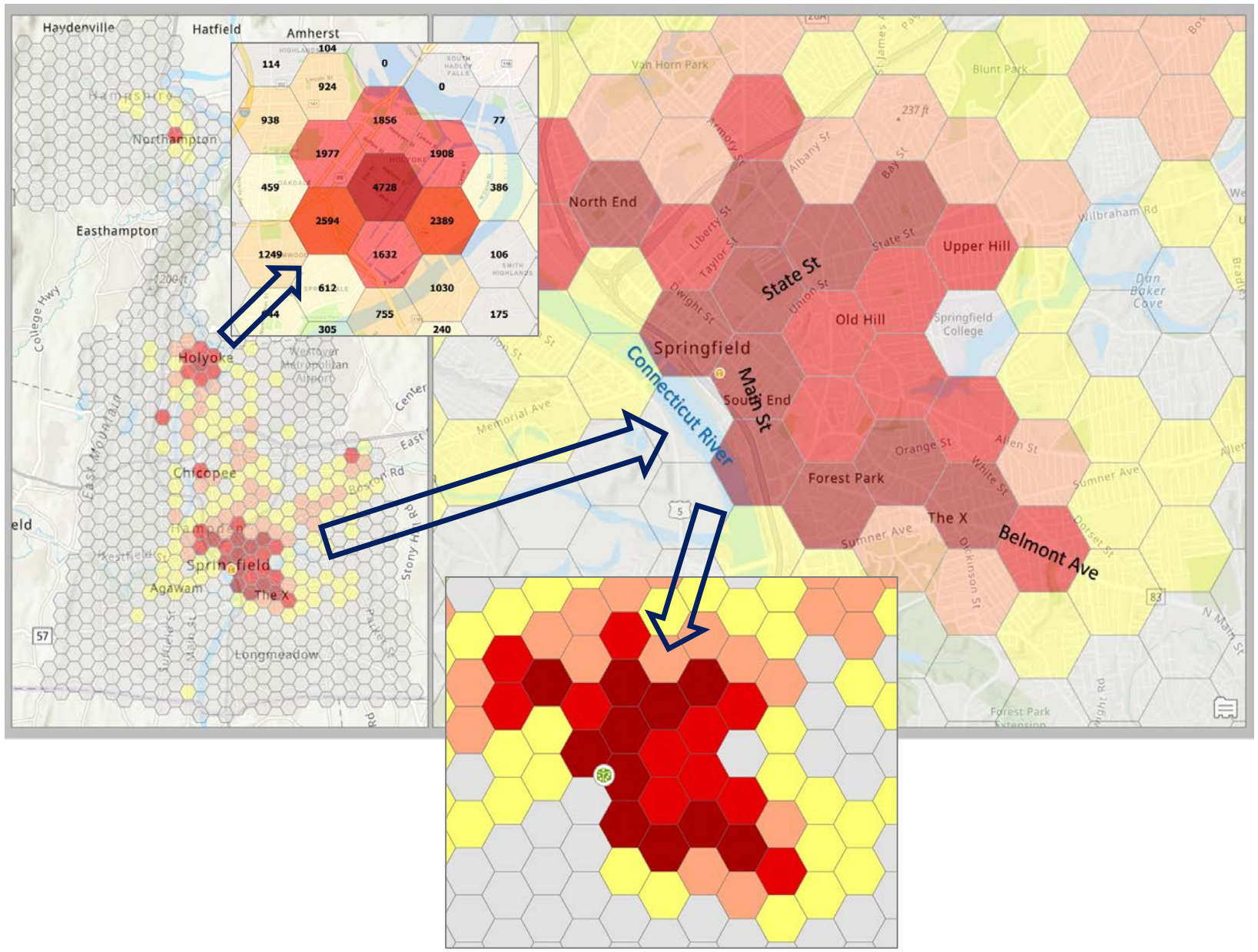


OPPORTUNITY FOR CRIME

- Activity Space
- Journey to Crime
- Hunting Grounds

Hexagon Distribution of Crime in the Region





Social Disorganization Theory of Crime

Shaw and McKay introduce SDT in 1942 as a criminological perspective that seeks to explain the occurrence of crime and deviance within certain communities or neighborhoods. The theory suggests that crime rates are influenced by the social and structural characteristics of a community rather than individual-level factors, primarily studying crime patterns in Chicago.

Concentric Zones and Central City

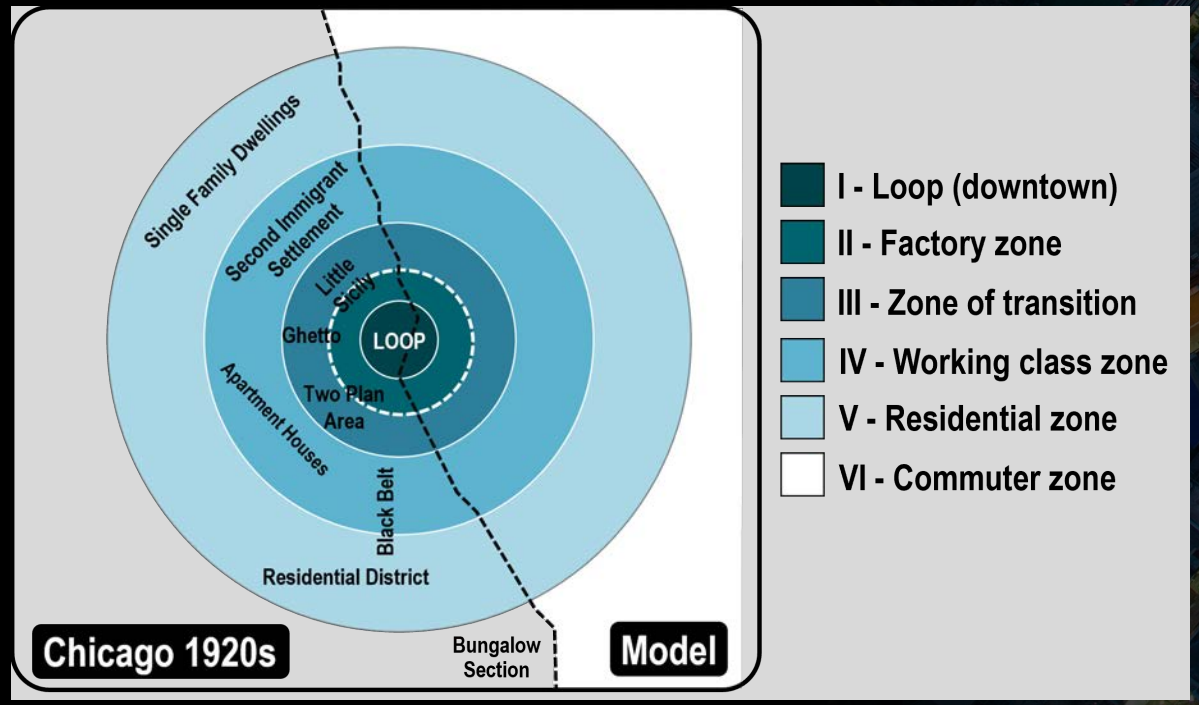


Figure 10: Hexagon Label and Crime Counts in the Central City Area

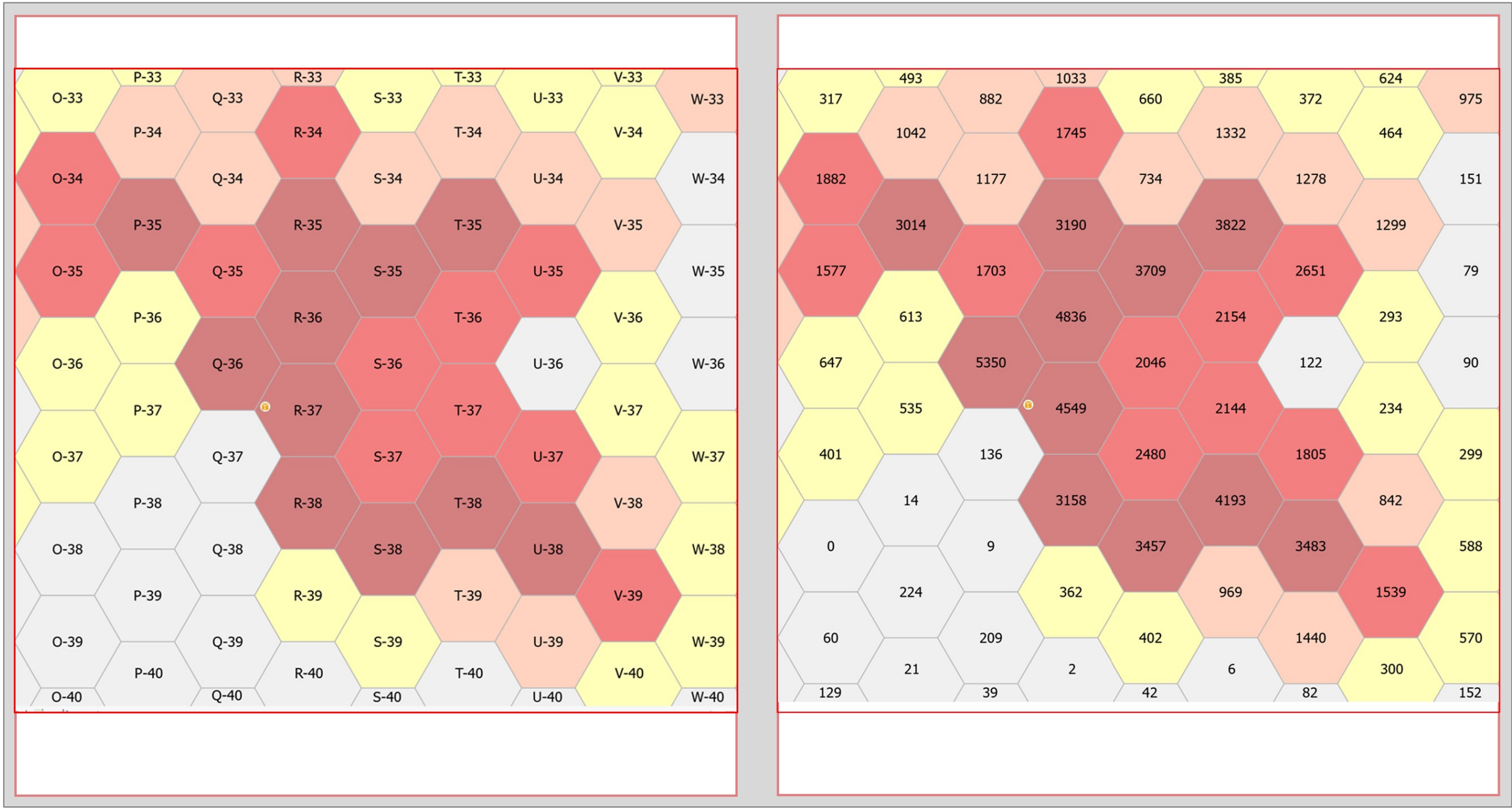


Table 3: ACS Population Census Summary Profile - U.S. Census Bureau Data Source

Rank	Hex-Num	Venues	Crime Rate per 1,000	# of Crimes	Popul	House Holds	% English Only	% <19	% >65	% Medicaid	% Below Poverty	% SNAP	% Disability
1	R-38**	Main & Locust South CBD	4821.4	3158	655	291	22%	29%	8%	78%	55%	60%	37%
2	Q-36***	MassMutual/Jazz-Blues	3254.3	5350	1644	1157	42%	12%	15%	36%	49%	63%	42%
3	S-35	State & St. James-Stebbins	1695.9	3709	2187	730	56%	35%	10%	65%	36%	52%	44%
4	R-36	High & School St	1622.8	4836	2980	1456	41%	24%	8%	56%	44%	66%	43%
5	R-37*	Casino - Hotel	1440.5	4549	3158	1392	30%	26%	12%	55%	39%	57%	44%
6	R-35	Federal & Worthington	1428.6	3190	2233	635	38%	44%	7%	72%	41%	53%	37%
7	T-35	State & Sherman-Andrews	1113.3	3822	3433	1252	54%	27%	11%	53%	49%	56%	49%
8	T-38	Belmont & Dickenson	1060.7	4193	3953	1401	41%	29%	5%	56%	37%	42%	39%
9	S-38	Belmont & Ft. Pleasant	1042.8	3457	3315	1413	52%	27%	15%	41%	38%	40%	36%
10	U-38	The X	845.0	3483	4122	1367	50%	27%	7%	60%	42%	39%	33%
5 -> 9	R-37*	Casino - Hotel	405.3	4549	11224	With Casino patron and worker population factored in to the population							
1 -> 10	R-38**	Main & Locust South CBD	368.8	3158	8564	5 Hotels, 17+ Restaurants & several Bars/Taverns							

*Hexagon where the Casino resides (15,000 daily patrons and 409 employees on any one shift)

**Hexagon makes up Main St South CBD of Casino (Some of the patrons and employees will frequent this area as well)

***Hexagon where MassMutual Center & popular jazz and blues venues and cuisine is located (Analysis did not extrapolate this population upward due to casino effect)

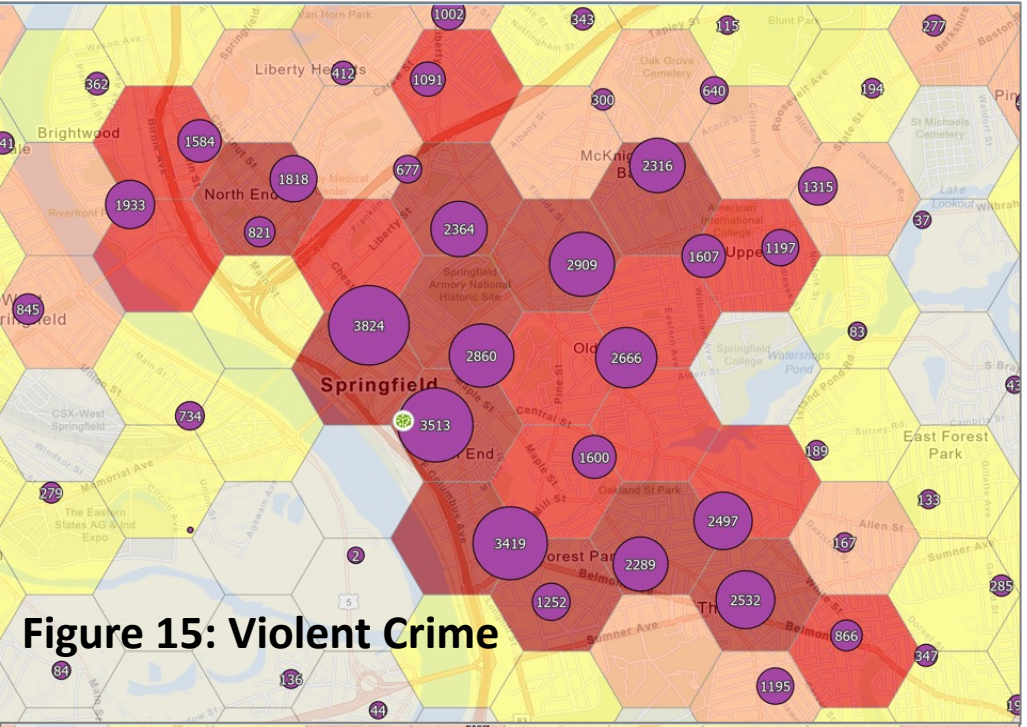


Figure 15: Violent Crime

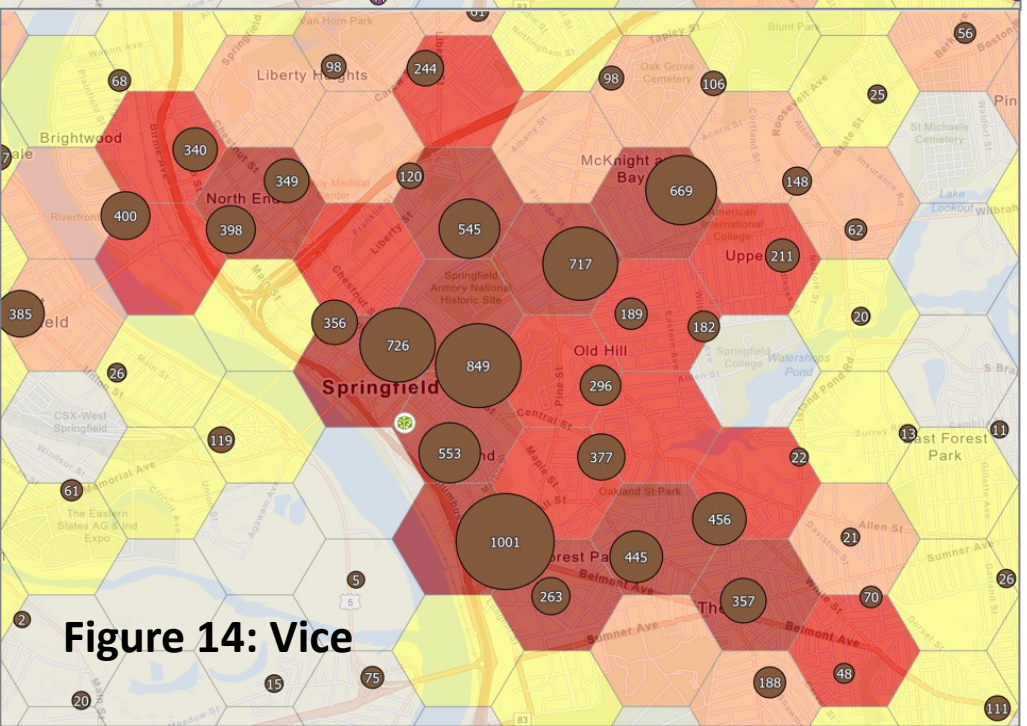


Figure 14: Vice

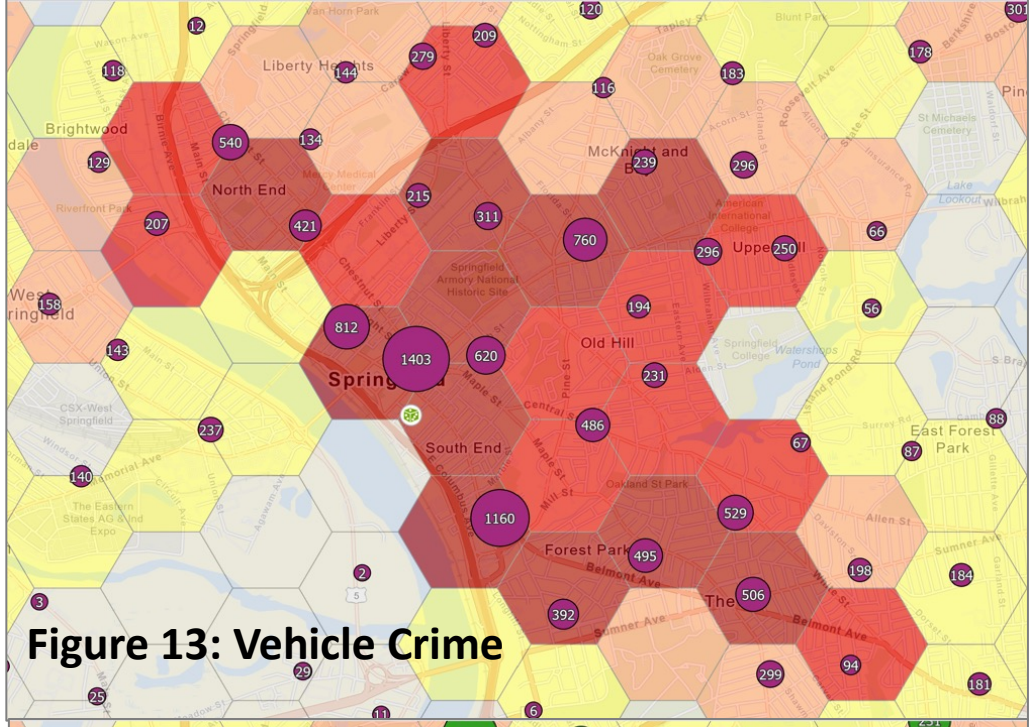


Figure 13: Vehicle Crime

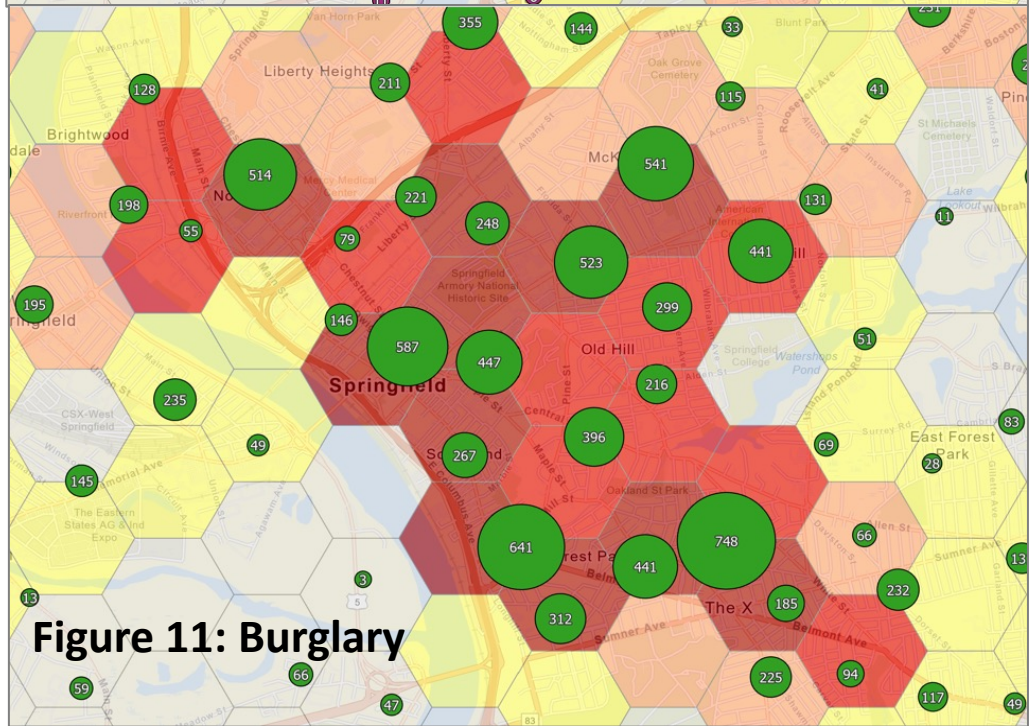


Figure 11: Burglary

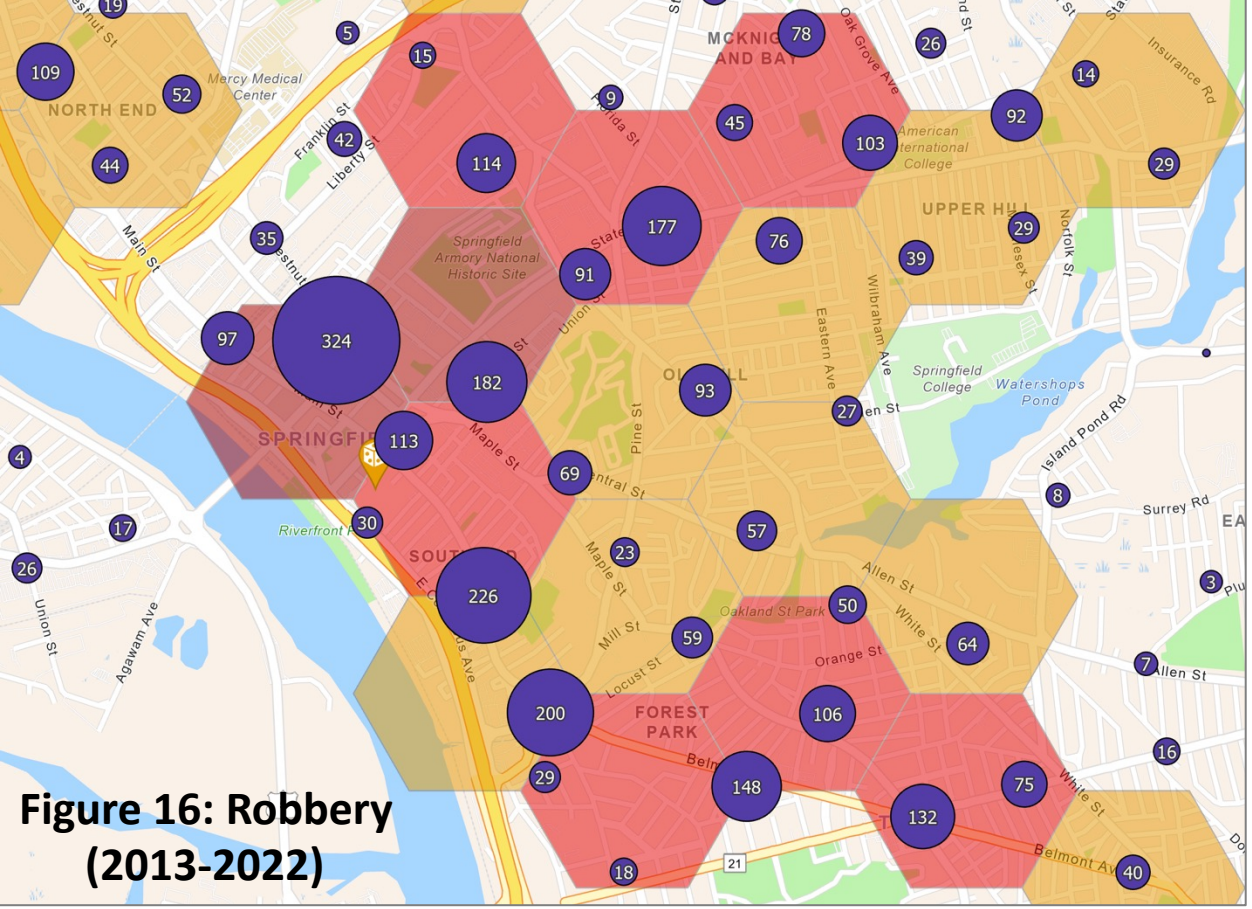
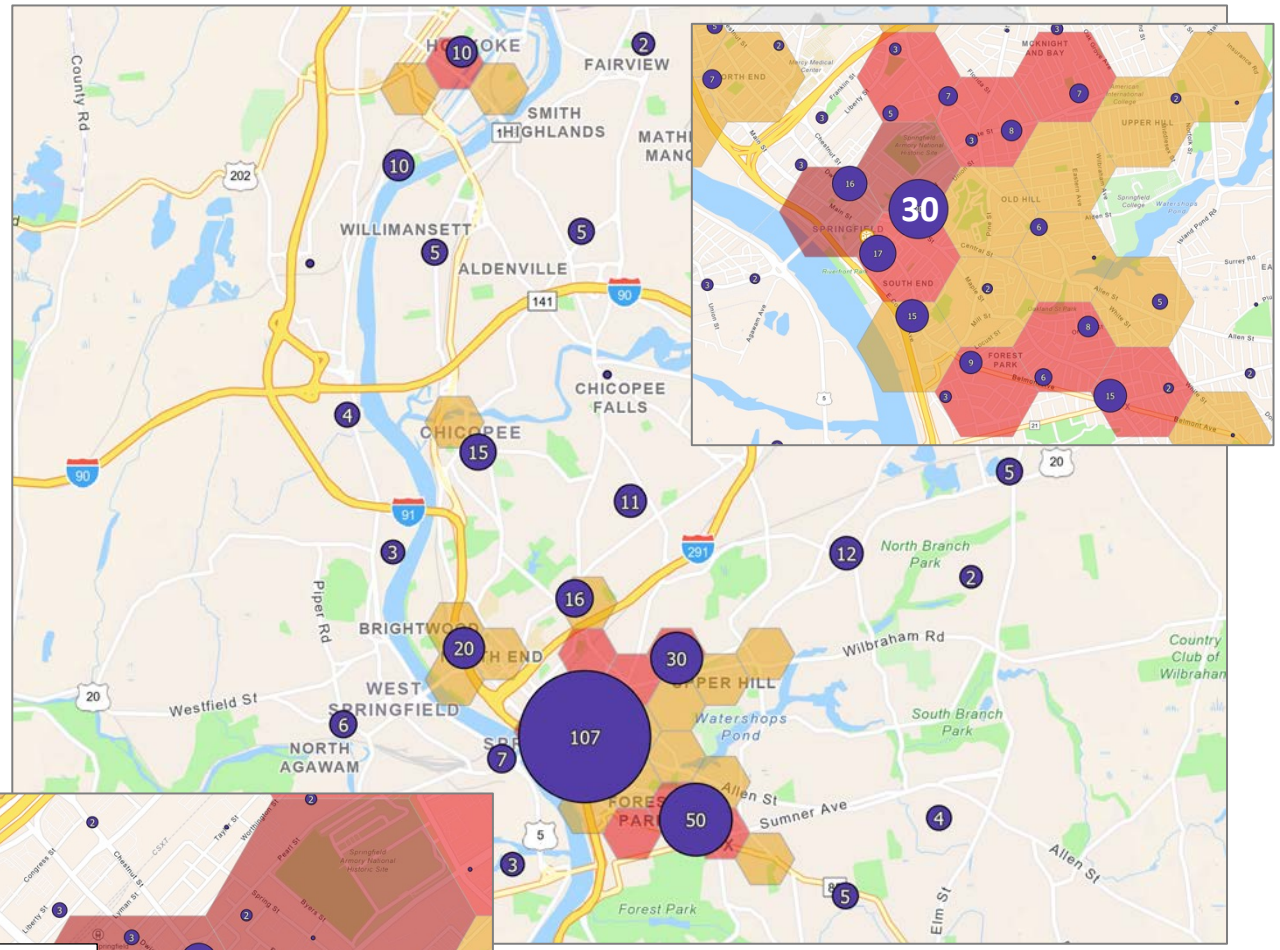


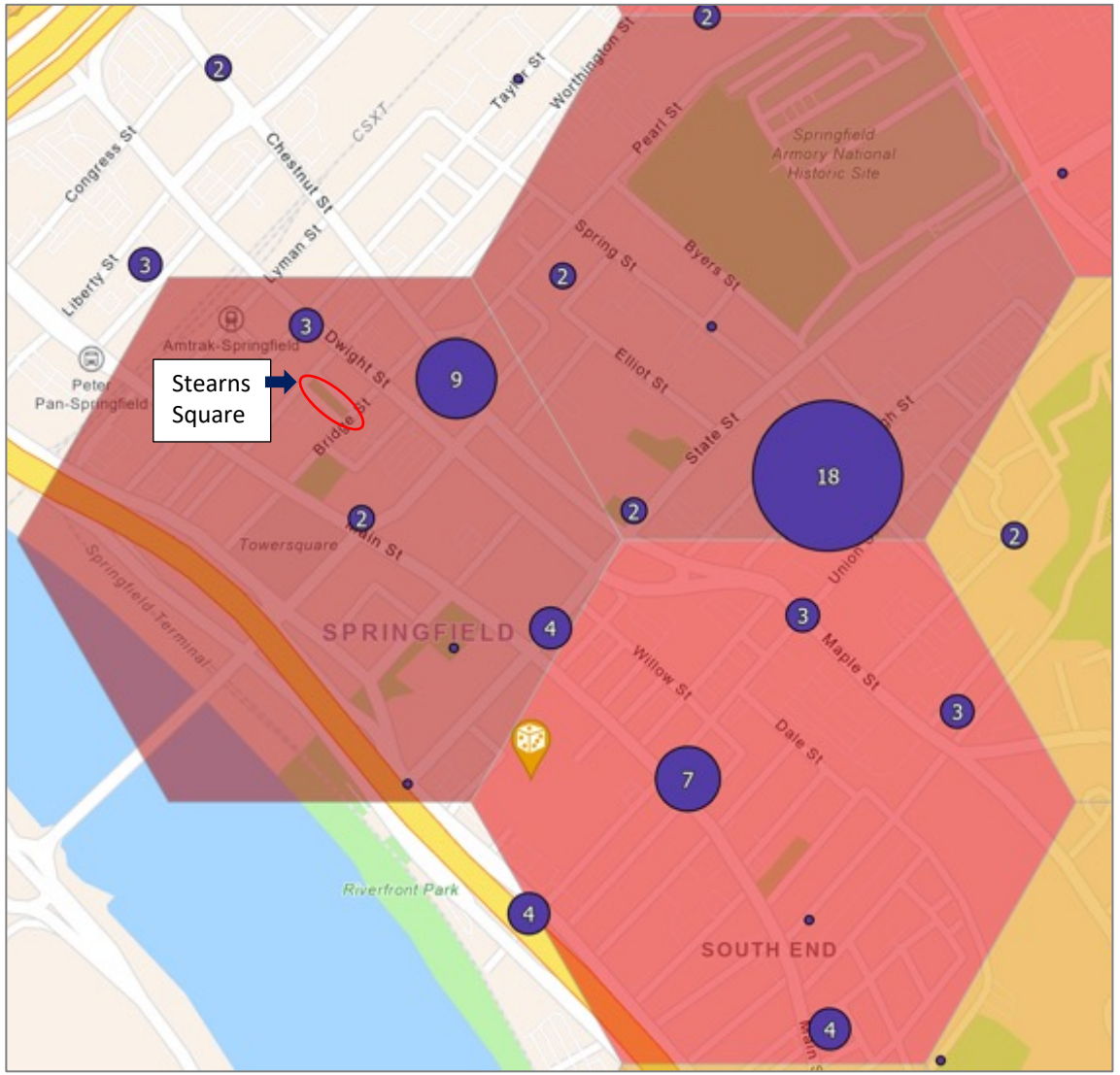
Figure 16: Robbery (2013-2022)

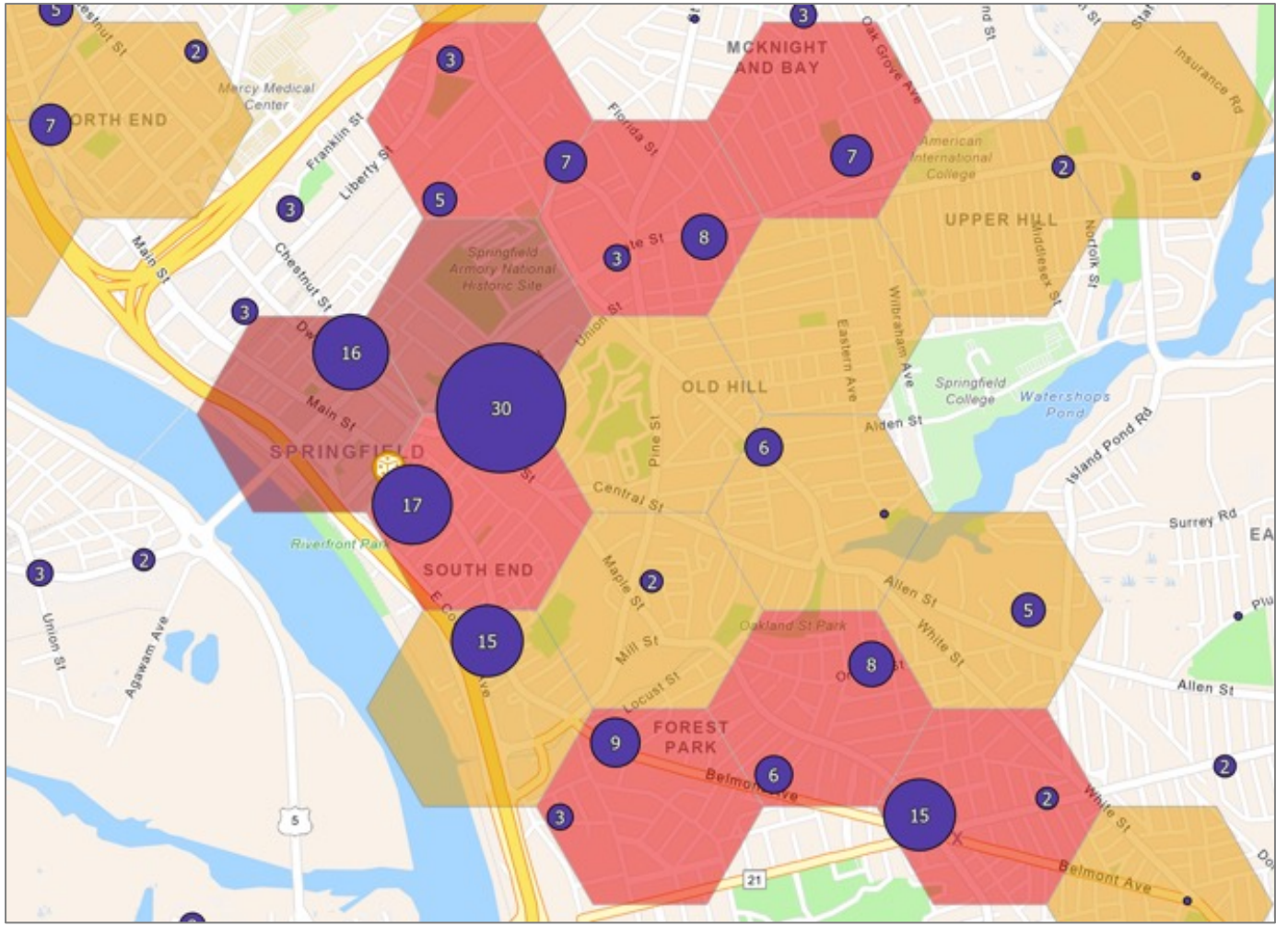
Figure 17: Robbery Distribution over Region and within Central City (2022)



Dynamic Clustering

324 Robberies in the Stearn Square Area over the decade – 33 per year. In 2022, that number significantly dropped to under 10 in the vicinity - near Union Station

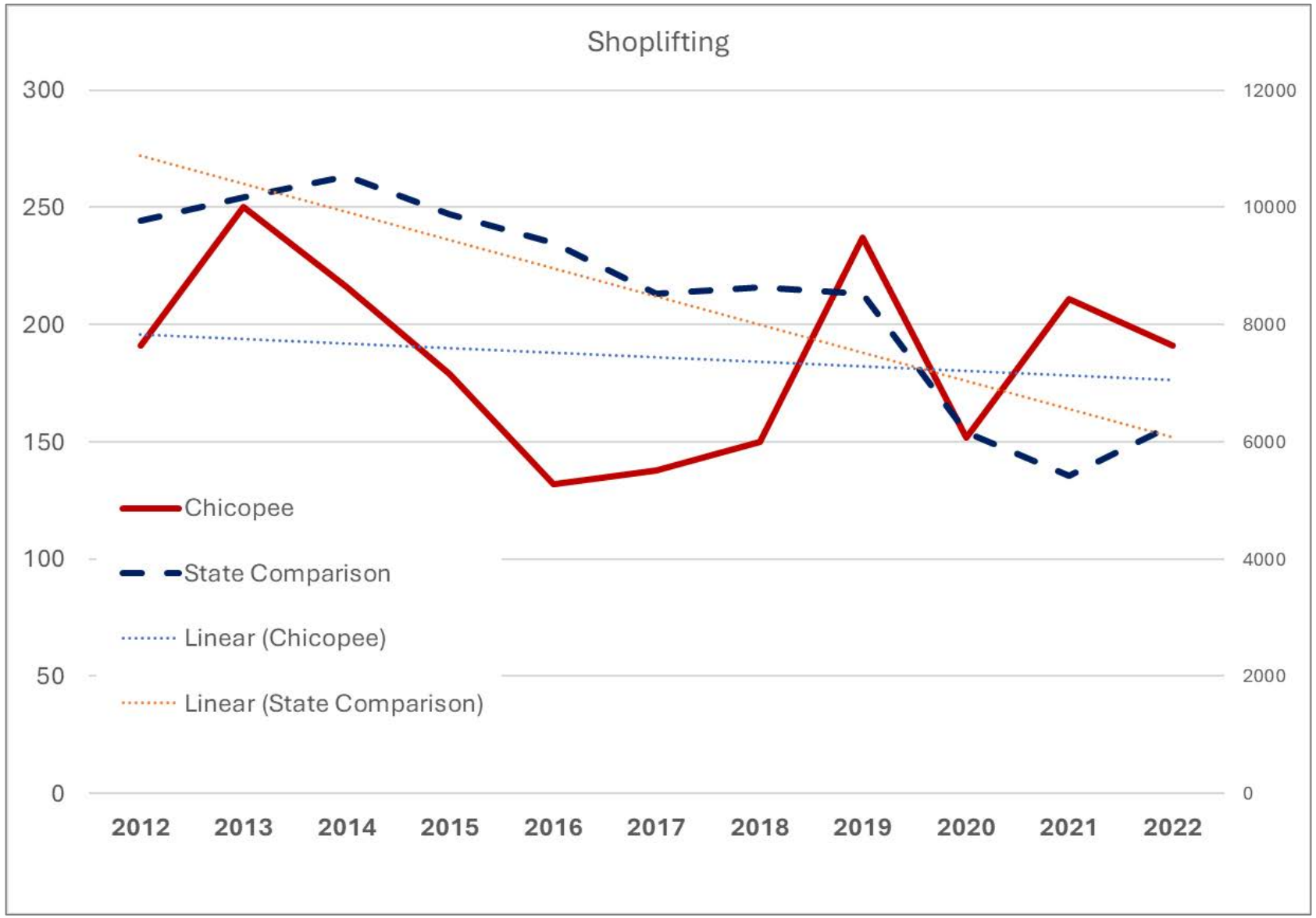




The 2023 Report talks about other hotspot hexagons that had more robberies than around the casino: High Street Convenience Store, The X, and even in the Holyoke downtown area. One area in Northampton downtown as well.

Microanalysis

Pages 61-80 of the 2023 Report goes into a microanalysis of change – won't delve into today, but you can look that data over for a comparison of expected increases and decreases in the region. It represents a new methodology for predicting expected values and assessing outliers.



Drunk Driving Analysis rounds out the Report

Drunk driving arrests by jurisdiction

While drunk driving arrests were down 8% in the MGM Springfield Region, the area did report a 10% increase in traffic collisions that resulted in a drunk driving charge. "Last Drink" reports attributed to MGM Springfield had a slight increase from the historical average of 5.8 per year to 7 in 2022.

Table 10: Arrests and summonses for drunk driving

Agency	2012–2018 Avg	2019	2020	2021	2022	2019–2022 Avg	Change
Springfield	57.0	54	49	48	66	54.3	-6%
Agawam	34.0	53	25	24	29	32.8	+5%
Chicopee	50.3	75	71	79	92	79.3	+70%
East Longmeadow	26.1	16	4	11	5	9.0	-67%
Holyoke	42.3	57	32	23	12	31	-23%
Longmeadow	20.1	12	16	16	18	15..5	-27%
Northampton	117.4	51	63	63	82	64.8	-49%
West Springfield	26.5	41	27	23	20	27.8	+14%
State Police*	313.1	406	356	268	207	309.3	+3%
Total	**686.9**	**765**	**643**	**555**	**531**	**623.5**	**-8%**

*MGM Springfield-area roadways only

Opportunity & Targets of Crime

- Auto Theft
- Theft From Auto
- Robbery
- Assaults – DV?
- Door Pushers?
- Tub Stealers?

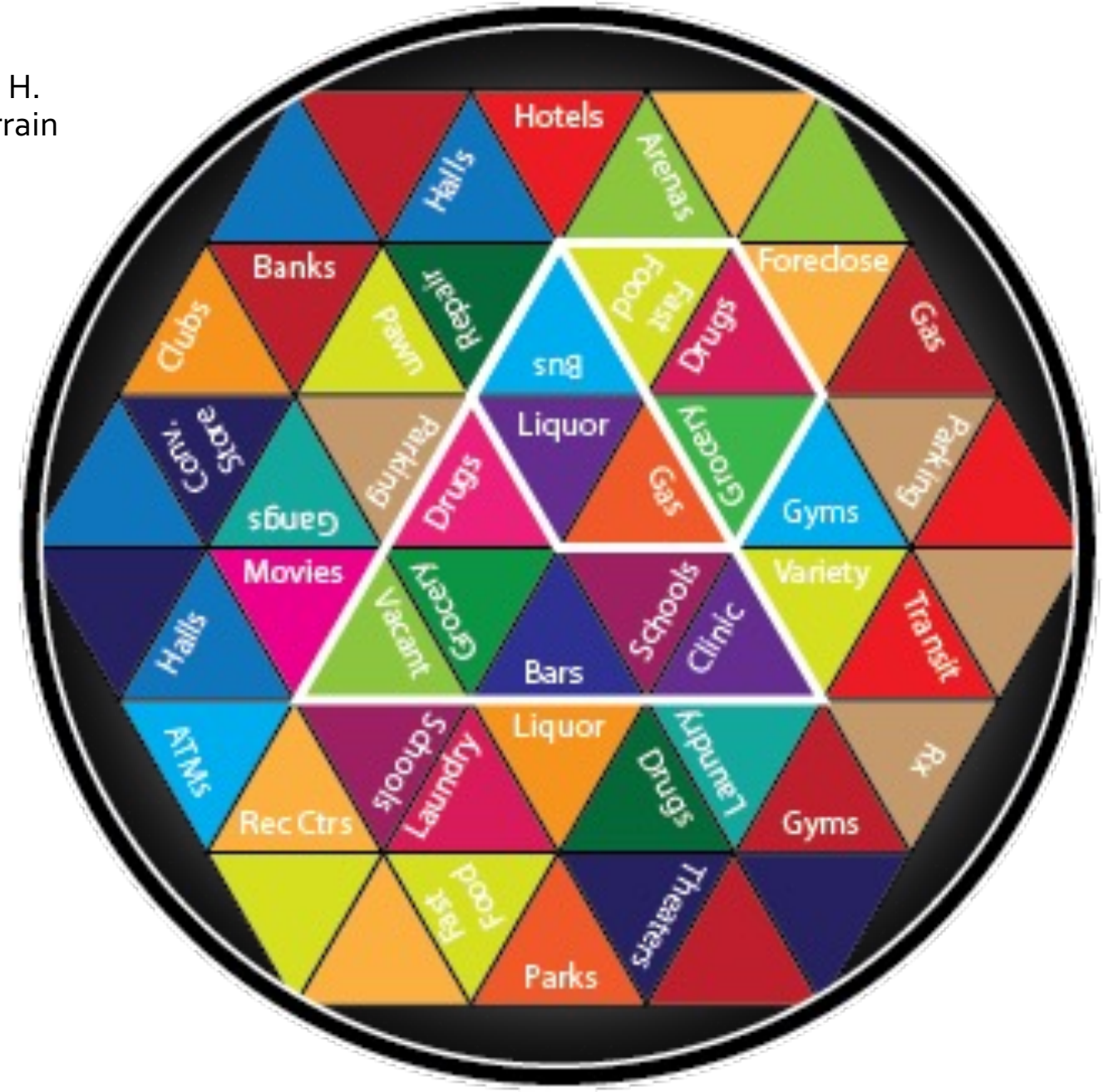
- Journey to Crime (Routes)
- Hotspots
  - Shuttles
  - Parking Structures

- Opportunities to target?
  - Human Trafficking?
  - Vehicle Crime

Risk Terrain Modeling

Kennedy, L. W., Caplan, J. M., Piza, E. L. & Buccine Schraeder, H. (2016). Vulnerability and Exposure to Crime: Applying Risk Terrain Modeling to the Study of Assault in Chicago. Applied Spatial Analysis and Policy. 9(4), 529-54.

Follow your Lead



ANY QUESTIONS

Thank you

MEMORANDUM

TO: Massachusetts Gaming Commission
FROM: Todd M. Grossman, Interim Executive Director & General Counsel
David Muldrew, Chief People and Diversity Officer
Derek Lennon, Chief Financial and Accounting Officer
RE: Interim ED Compensation and Classification Working Group
DATE: January 18, 2024

In order to ensure the continued efficient and effective handling of personnel-related matters, we are proposing that a *Compensation and Classification Working Group* be created by the Interim Executive Director. When Todd Grossman was appointed as Interim Executive Director in July 2023, there were certain provisos put in place relative to his authority over certain personnel matters. With the benefit of experience, it is our belief that it would be of benefit to the agency that the Interim Executive Director be afforded limited authority over certain personnel matters during this interim period, upon the advice and counsel of the *Group*, as described below.

By way of background, at its October 21, 2021, public meeting, the Commission reviewed G.L. c. 23K and the relationship between the Executive Director and the Commission as it pertains to hiring authority. Specifically, the Commission reviewed sections 3(i-k) and 4(1-2). The applicable provisions are as follows:

- "The commission shall appoint an executive director. The executive director shall serve at the pleasure of the commission … ." G.L. c. 23K, § 3(i).
- "The executive director shall appoint and employ a chief financial and accounting officer and may, subject to the approval of the commission, employ other employees, consultants, agents and advisors, including legal counsel, … ." G.L. c. 23K, § 3(i)
- "The executive director may, from time to time and subject to the approval of the commission, establish within the commission such administrative units as may be necessary for the efficient and economical administration of the commission and, when necessary for such purpose, may abolish any such administrative unit or may merge any 2 or more units." G.L. c. 23K, § 3(j)
- "The executive director may appoint such persons as the executive director shall consider necessary to perform the functions of the commission; … ." G.L. c. 23K, § 3(k)

- "The commission shall have all powers necessary or convenient to carry out and effectuate its purposes including, but not limited to, the power to: …
  appoint officers and hire employees; [G.L. c. 23K, § 4(1)]
  establish, and from time to time amend, a plan of organization that it considers expedient [G.L. c. 23K, § 4(2)] . . . ."

In this meeting it was noted that the annual budget process has historically been the manner in which the staff has complied with these sections of the statute, specifically making sure that no FTEs were added that had not been subject to the Commission's approval via this budgeting process. After broad discussion, the Commission agreed by consensus that the Executive Director could move forward with hiring and personnel decisions with the exception of positions classified as major policymaking positions under G.L. c.268B. In the case of those positions, the Commission could consider its involvement on a case-by-case basis.

This practice has resulted in an efficient, effective, and straightforward process for the Human Resources Division and Executive Director to follow when dealing with things like job postings, new hires, internal promotions, job reclassifications, and retention efforts. In the absence of a permanent Executive Director the Commission has limited the authority of the Interim Executive Director to make certain personnel decisions relative to things like promotions, reclassifications, salary adjustments, and the creation of new positions. As such, issues related to any of these types of matters would have to be brought before the Commission itself to be addressed or put off until the permanent Executive Director position is resolved.

In an effort to optimize the handling of these types of matters, we are proposing that a *Compensation and Classification Working Group* be established by the Interim Executive Director. When issues involving promotions, reclassifications, salary adjustments, and the creation of new positions arise, the Interim Executive Director would convene the *Group*. If consensus is achieved, the Interim Executive Director would be authorized to implement the decision. Such decisions would only be permitted in the case of relatively low impact matters that require prompt attention but that would not have a material impact on the existing organization chart or salary bands.

The Group would be comprised of the Interim Executive Director and General Counsel, the Chief People and Diversity Officer, the Chief Financial and Accounting Officer, the (Interim) Director of the Investigations and Enforcement Bureau, and one Commissioner. This group would evaluate the matters before it to ensure that any changes to pay, structure, or position descriptions would not have unintended consequences that could have a detrimental impact on the agency. Any matters regarding a Major Policymaking Position would still need to come before the entire Commission to determine its involvement on a case-by-case basis.