

Joint meeting of the Subcommittee on Community Mitigation and LCMAC Region A and Region B Meeting

PLEASE NOTE: Given the unprecedented circumstances resulting from the global Coronavirus pandemic, Governor Charles Baker issued an order to provide limited relief from certain provisions of the Open Meeting Law to protect the health and safety of individuals interested in attending public meetings. In keeping with the guidance provided, the Commission will conduct a public meeting utilizing remote collaboration technology. If there is any technical problem with our remote connection, an alternative conference line will be noticed immediately on our website: MassGaming.com.

Pursuant to the Massachusetts Open Meeting Law, G.L. c. 30A, §§ 18-25, notice is hereby given of a meeting of the Local Community Mitigation Advisory Committees and the Subcommittee on Community Mitigation. The meeting will take place:

> May 11, 2021 @ 10:30 a.m. - 12:30 p.m. Via Conference Call Number: 1 646 741 5293 **Participant Code: 112 144 0757**

- 1. Welcome/Opening Comments Joe Delaney, Chief, Community Affairs
- 2. Presentation by Derek Lennon, MGC CFO on payments from the Community Mitigation Fund for administrative costs (205 CMR 153.00)
- 3. Presentations by Christopher Bruce, Consultant in Crime Analysis and Data-Driven Policing.
 - a. "Assessing the Influence of Gambling on Public Safety in Massachusetts Cities and Towns", Analysis of the influence of Encore Boston Harbor on its surrounding community Encore **Boston Harbor**
 - b. "Assessing the Influence of Gambling on Public Safety in Massachusetts Cities and Towns", Analysis of changes in police data following 18 months of activity at MGM Springfield plus 3 months of COVID-related closures MGM Springfield
- 4. Discussion of Community Mitigation Fund 2021 Applications
- 5. Next Steps

I certify that on this date, this Notice was posted as "Joint meeting of the Subcommittee on Community Mitigation and LCMAC Region A and Region B Meeting" at www.massgaming.com and emailed to: regs@sec.state.ma.us and melissa.andrade@state.ma.us.

May 5, 2021	Janes C. Serry
Date:	By: Joseph E. Delaney, Chief, Community Affairs
Date Posted to Website: May 5, 2021	

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REGULATION

Regulation 205 CMR 153.00: Community mitigation fund

DATE:	01/08/2021
ORGANIZATION:	Massachusetts Gaming Commission
REGULATORY AUTHORITY:	M.G.L. c. 23K, § 61
OFFICIAL VERSION:	Purchase the official version

205 CMR 153.00 shall govern the manner in which the Commission exercises its authority established pursuant to M.G.L. 23K, § 61 to administer the Community Mitigation Fund and expend funds to assist the host and surrounding communities, or any other communities or entities identified in M.G.L. 23K, § 61, in offsetting costs related to the construction and operation of the gaming establishments.

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

Analysis of the influence of Encore Boston Harbor on its surrounding community

Covering the first eight months of operations, three months of closure for COVID-19, and three months of restricted reopening, July 2019–October 2020

Christopher W. Bruce

Crime Analysis Consultant to the Massachusetts Gaming Commission 15 March 2021

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Executive summary

Summary

Encore Boston Harbor opened on 23 June 2019, drawing more than 3.5 million visitors during the first eight months. As such, the facility reported various crimes, disorder, and arrests commensurate with a facility of that size hosting that many visitors. In the surrounding areas, various crimes increased and decreased. Few patterns and trends so far have shown any direct casino ties, but this report flagged a handful for future monitoring. COVID closures caused crime and crashes to plummet, and future analyses of the casino's impact will be difficult given how much COVID has influenced society and economics.

About this report

- The primary purpose of this report is to conduct an analysis of the increases and decreases in activity in the communities surrounding Encore Boston Harbor since the casino opened, to alert participating agencies to increasing trends (whether or not "caused" by Encore), and to triage patterns and trends for more detailed analysis in later reports.
- The period covered by this report runs from July 2019 to December 2020. During these 18 months, Encore Boston Harbor enjoyed 8 months of normal operation, was closed for over 4 months because of the onset of COVID, and opened for a little over 5 months with restricted operating parameters. This report analyzes all three time periods but for reasons given later focuses primarily on the first 8 months.
- Data was collected from the records management systems of the Everett, Boston, Chelsea, Lynn, Melrose, Revere, Saugus, and Somerville Police Departments and the Massachusetts State Police. Malden is participating in this analysis series but could not provide data for this report (they did previously participate in a 6-month analysis). Cambridge and Medford were invited to participate but declined.
- For each agency and the region as a whole, historical averages and predictive windows were established for each crime.
- Any significant increases were analyzed in more detail with available quantitative data.

This report does not generally attempt to answer broad questions about whether Encore "caused" increases in the area. It simply identifies those increases and looks for any initial signs of an Encore connection.

Major findings

- Overall violent, property, and total crime were within expected ranges for the region and most cities individually.
- The region experienced higher-than-average totals for thefts from vehicles, statutory rape, prostitution, and liquor law violations, but none of these could be traced in any firm way to Encore. Most of the increases occurred primarily in single cities, showing no consistency throughout the region.
- Everett implemented a system to track incidents with a known Encore connection (primarily that either the victim or the offender was in the area to use the casino) but identified only a small number of incidents that did not occur at the casino itself. Everett saw higher-than expected totals for murder, sexual assault, aggravated assault, thefts from buildings, thefts from vehicles, fraud, bad checks, disorderly conduct, and drunk driving. Some of these may have a circumstantial relationship to Encore.
- A full analysis of drunk driving evidence suggests that Encore may be responsible for a small number of drunk drivers on the roads.

- There is no evidence of an Encore-related increase in crashes on local roads.
- During the COVID closures, crime and crashes plummeted in all area communities.
- During the re-opening period, some crimes rebounded but most remained low.
- The immediate areas around the casino showed few increases in crime or calls for service. The major
 exception is an increase in traffic complaints in neighborhoods to the north and east of Encore, perhaps
 reflecting patrons parking on local streets when the garage is full. Travel routes to and from the facility
 showed only minimal increases.
- Melrose-Wakefield Hospital in Melrose has seen increases in crimes, but so far there is no definitive evidence of an Encore connection.

Background and methodology

Background

In 2014, the Massachusetts Gaming Commission, in an effort to better assess the impacts of new gaming facilities across the state, commissioned a series of efforts to study, assess, and prepare for the social and economic impacts of gambling. Primary work in this area is being done by the Social and Economic Impacts of Gambling in Massachusetts (SEIGMA) study at the University of Massachusetts Amherst School of Public Health & Health Sciences, drawing upon research and experiences in many other states. For public safety issues specifically, however, the MGC felt it best to contract with someone with direct experience analyzing the crime, call-for-service, and collision records collected daily by Commonwealth police agencies.

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

In 2014, the MGC contracted with a career crime analyst, the author of this report, 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 still a third in 2019, in anticipation of the opening of Encore Boston Harbor. This is the third report on Encore.

Publicly-issued and planned reports on changes in crime and police activity from this project

rubility-issued and planned reports on changes in crime and police activity from this project						
Issued	Report	Notes				
August 2015	Report on baseline activity at Plainville area	Established statistical measures for post-casino				
August 2015	agencies	comparison				
November 2015	Evaluation of change in police data after	Few changes discernible in immediate 3				
November 2015	the first three months of Plainridge Park	months.				
	Analysis of changes in police data after the	Identified traffic-related calls for service as				
April 2016	first six months of operation at Plainridge	likely related to PPC. Noted increases in fraud-				
	Park Casino	related crimes.				
	Analysis of changes in police data after the	Continued to note increases in traffic-related				
December 2016	first year of operation at Plainridge Park	calls; established credit card fraud increases as				
	Casino	"likely related."				
	Analysis of changes in police data after the	Most comprehensive report so for Included				
December 2017	first 2 years of operation at Plainridge Park	Most comprehensive report so far. Included comparative analysis of control areas.				
	Casino					
June 2018	Report on baseline activity in Springfield-	First report in proparation for MGM sasing				
Julie 2018	area agencies	First report in preparation for MGM casino.				
December 2018	Three-year analysis of Plainridge Park area.	Includes comprehensive traffic study				
March 2010	Four month analysis of NACM Springfield	Found mostly traffic changes, some property				
March 2019	Four-month analysis of MGM Springfield	crime patterns				
September	Fight month analysis of MCM Springfield	Showed increases in traffic collisions and				
2019	Eight-month analysis of MGM Springfield	complaints but few crime increases.				
September	Baseline analysis of Encore Boston Harbor	First report on this sessing				
2019	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.
February 2021	1-year analysis of Encore Boston Harbor	This report.
April–June	Special reports on drunk driving, casino-	
2021	based crime, and the MGM 2-year report	

Methodology

The data used in this report was collected from the contributing agencies. For Chelsea, Lynn, Malden, Melrose, Revere, Saugus, and Somerville, I established an Open Database Connectivity (ODBC) connection to each of these agencies' records management (RMS) and computer-aided dispatch (CAD) databases, connected to the databases via Microsoft Access, and used a series of "make table" queries to copy the data into Access data tables. I then copied the Access databases to my own computer, password-protecting them in the process, but leaving the originals on the agencies' networks so they could be updated by designated agency members when necessary. No information specific enough to identify any person (offender or victim) was collected, and I complied with various agency requests to exclude particular data elements of concern to them. These requests did not affect the integrity and completeness of the overall dataset.

Everett uses a records management system that is incompatible with ODBC. We had to get the support of the records management vendor to perform regular extracts from the system, but otherwise they were able to supply a full dataset. The Boston Police also did their own extraction, but unfortunately were unable to supply all the requested data tables.

After receiving the data from each individual system, I combined each table 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) made the translation fairly easy for crime tables; it was a bit more difficult for CAD tables, which have no uniform coding even among agencies using the same system. Boston is the only agency that does not currently report to the NIBRS standard, but they had comparable data elements that required only a brief translation (and they moved to a NIBRS-compatible records system late in 2019).

These master tables formed the data pool for most of the statistics in this report, except where indicated.

incn -	Agency -	IBR →	Offense ▼	dtreported -	street -	LocType -	Weapon +
190929	LY	290	DESTRUCTION/VANDALISM PROPERTY	12/31/2019 23:55:56	ARLINGTON ST	RESIDENCE/HOME	
19REV-	RE	99	LICENSE SUSPENDED, OP MV WITH	12/31/2019 23:48:10	STATE RD	Street	Other/Unknown
786407	EV	999	POLICE-GENERAL REQ F	12/31/2019 23:48:00	BROADWAY ST		
190929	LY	13B	SIMPLE ASSAULT	12/31/2019 23:41:22	S COMMON ST	RESIDENCE/HOME	NONE
190929	LY	13C	INTIMIDATION	12/31/2019 23:41:22	S COMMON ST	RESIDENCE/HOME	NONE
19-361	CH	220	B&E BUILDING NIGHTTIME FOR FELONY	12/31/2019 23:23:10	CONGRESS AVE	Residence	Other/Unknown
190929	LY	35A	DRUG/NARCOTIC VIOLATIONS	12/31/2019 22:43:50	CHESTNUT ST	HIGHWAY/ROAD/ALLEY	
190929	LY	90Z	LOCAL TRAFFIC OFFENSE	12/31/2019 22:43:50	CHESTNUT ST		
19REV-	RE		VERBAL ARGUEMENT	12/31/2019 22:22:10	BRADSTREET AVE	Residence	Other/Unknown
190929	LY	90Z	LOCAL OFFENSE	12/31/2019 21:28:38	HAMPDEN PL		
19-361	CH	99	LEAVE SCENE OF PROPERTY DAMAGE	12/31/2019 21:25:10	WOODLAWN AVE	Street	Other/Unknown
786399	EV	999	MEDICAL-OVERDOSE	12/31/2019 21:08:21	WOLCOTT ST		
190929	LY	90Z	ALL OTHER OFFENSES	12/31/2019 20:43:56	NORCROSS TER		KNIFE/CUTTING INSTRUMENT
190929	LY	13A	AGGRAVATED ASSAULT	12/31/2019 20:43:56	NORCROSS TER	RESIDENCE/HOME	KNIFE/CUTTING INSTRUMENT
19REV-	RE	120	HOME INVASION	12/31/2019 20:40:10	NORTH SHORE RD	Residence	Handgun
19REV-	RE	13A	A&B WITH DANGEROUS WEAPON, CHILD UNDER 14	12/31/2019 20:40:10	NORTH SHORE RD	Residence	Handgun
19005€	MA	250	COUNTERFEITING/FORGERY	12/31/2019 20:05:31	EASTERN AV	DRUG STORE/HOSPITAL/DR OFF	

Figure 1: The result of a query using the combined dataset.

Threats to validity

There are four different records management vendors represented among the eight contributing communities. Although three of the four code crimes according to the NIBRS standard, slight variances in their approaches make some of the data inconsistent between agencies. Some of the agencies switched records systems during the 8-year period represented by these statistics, and in each case, some immediate changes can be seen in crimes and calls for service, suggesting those changes have more to do with record-keeping than actual prevalence of social harms.

One records system, used by three of the contributing agencies, is notorious among local analysts for a data structure that makes it difficult to weed out duplications. The system also does not apply NIBRs standards correctly on the concept of "lesser included offenses," meaning that the agencies that use this system tend to over-report their crime totals.

The Boston Police Department uses a system that does not comply with NIBRS rules. In particular, it uses the "hierarchy rule," which counts only the most serious offense committed in each incident. Since all other agencies count multiple offenses per incident, statistics for Boston are artificially low but internally consistent.

Particular threats caused by COVID-related restrictions and shutdowns are covered in that section.

Interpreting the statistics in this report

This report compares 8 months of activity post-Encore to the statistics *expected* for the same period had Encore not opened. All statistics, except where noted, are for the period of 1 July to 29 February in their respective years.

Throughout these reports, my goal has been to present the data using the simplest statistics possible, ensuring a reader without statistical education can still interpret the results. Understanding the statistics in this report requires first understanding two simple ways of predicting future volumes of crime, calls for service, and collisions. Consider one agency, where crime has remained static over a long period:

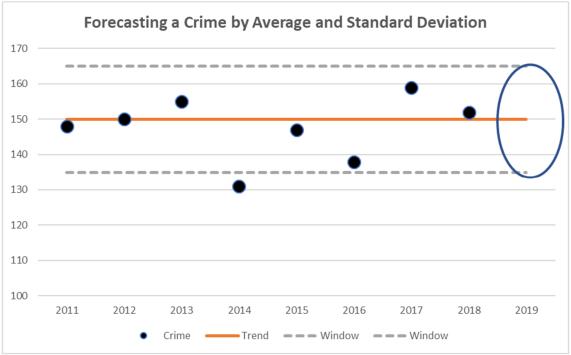


Figure 2: If a crime shows no trend over time, expected values are predicted using its average and standard deviation from the average.

In such cases, crime may vary considerably from year to year around its average, but not in a way that indicates a clear direction over the years. In such cases, we can "forecast" future activity by calculating the average (mean) of the datapoints and then using a number of standard deviations (how much the data typically varies from the average in a given year) to create upper and lower boundaries in which we would expect the data to fall a given percentage of the time. If the data for the following year falls outside this boundary, it's a good sign that something is affecting that category other than just the normal ebb and flow of yearly crime statistics.

This particular method for creating a "prediction window" doesn't work well when the data exhibits a clear trend over the time period in question. Consider the example in Figure 3.

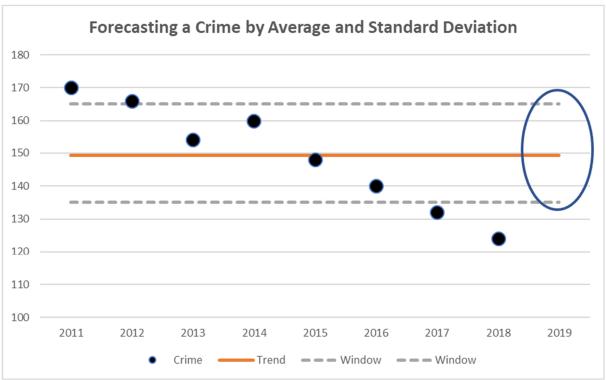


Figure 3: This method works poorly when the crime shows an increasing or decreasing trend over the period.

Here, forecasting based on the crime's average and standard deviation results in a poor prediction because average and standard deviation tell us only where the crime has been, whereas in this case, the crime is clearly going somewhere. Hence, we need different math to forecast future activity when there's a clear trend.

To create prediction windows when a past trend is evident (either up or down), I used basic linear regression analysis. Although this method also works for static crimes, it tends to create prediction windows too large to be useful when the number of crimes is poorly correlated to the progression of years.

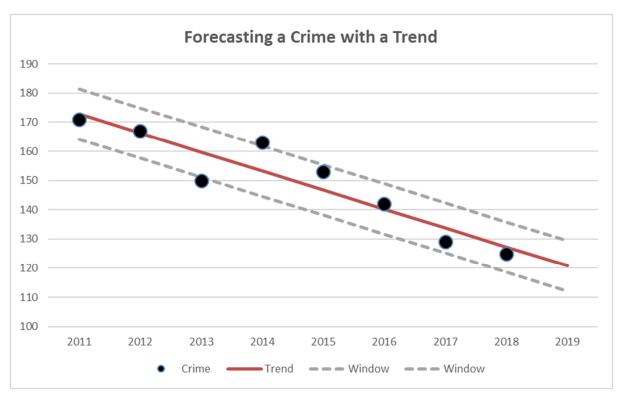


Figure 4: Trends require an alternate method of prediction that take into consideration the trendline and the normal variance around the trendline.

Thus, although most statistics offered in this report contain a "window" of predicted activity for the July–December time period, the method used to create that window varies depending on whether the category exhibited a previous trend. In both cases, the confidence window is set to 85%, meaning that barring any significant external influence, the 2020 figure had an 85% probability of falling within that window. If it does not fall within that window, it could be just a statistical fluke, but it could also be evidence of some new factor influencing the category, of which Encore is one possibility. Further analysis helps determine how likely it is that Encore is the cause, but given that the bulk of this report covers only an eight-month period, I was less interested in blaming or exonerating Encore than simply identifying the trend.

The following is a typical table in this report:

Crimes reported to Gotham, 1 July-29 February

innes reported to dotham, 1 Jory – 29 rebroary									
Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	2020	Result			
Murder	5	0	C	3-7	5	Expected			
Sexual Assault	65	-7	Т	18–67	77	High			
Kidnapping	18	0	C	16-20	23	High			
Robbery	201	-21	Т	75-215	163	Expected			
Aggravated Assault	317	-15	Т	205-334	331	Expected			
Simple Assault	1065	-27	Т	884–1093	1042	Expected			
Threats	606	-8	C	569–643	536	Low			
Arson	13	-2	C	2-24	5	Expected			
Burglary	551	-112	T	161–367	310	Expected			

The columns can be interpreted as follows:

- Pre-Enc Avg: The mean of the prior to Encore, for years beginning 1 July and ending 29 February.
- **Slope**: Over the same range of years, the amount by which the crime has increased or decreased each year on the crime's trendline. For instance, robbery had an average of 201, but that was roughly the midpoint in a trendline that shows a steady decline (averaging -21 incidents per year) over the period.
- Window Type: Designates the method used for the predictive window. If the crime shows little or no trend (i.e., a small slope compared to the mean), I used the central tendency/standard deviation method designated by a "C." If it showed a strong trend, I used the regression method designated by a "T."
- **Predictive Window:** The window in which we would have expected the 2020 figure to fall, with roughly 85% confidence. The more erratic and unpredictable the past data, the wider this window will be.
- 2020. The actual number of that crime observed between 1 July 2019 and 29 February 2020.
- Result: "High" if the crime is outside its predictive window on the high end; "Low" if it's outside on the low end; "Expected" if it's within the window. Please note that even "High" and "Low" crimes are not proof of a casino influence; other factors could be at work in these communities, or 2020 could be that rare 15% of the time where natural fluctuations cause the crime to fall outside its normal bounds. When the crime is "High," I have done my best to analyze it later in the section.

Discussions with agency representatives

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

About the author

Christopher W. Bruce is a professor of criminal justice at Husson University in Bangor, Maine. He is also a career crime analyst with previous service at the Cambridge Police Department (1994–2001) and the Danvers Police Department (2001–2010). He was president of the Massachusetts Association of Crime Analysts from 2000 to 2004 and president of the International Association of Crime Analysts from 2007 to 2012; he currently serves as vice president of membership for the IACA. He has served as an instructor in criminal justice and crime analysis topics at Suffolk University (2001–2010), Westfield State University (2009–2010), the University of Massachusetts Lowell (2009–2010), Middlesex Community College (2007–2011), Western Oregon University (2012-2016), and Tiffin University (2006–2018).

Professor Bruce is an internationally-recognized expert in police data systems and police data analysis. He has trained, consulted, and provided technical assistance for various programs of the U.S. Department of Justice, Bureau of Justice Assistance; the U.S. Department of Transportation, National Highway Traffic Safety Administration; the Texas Department of Transportation; the U.S. Department of Justice, International Criminal Investigative Training Assistance Program; and the International Association of Directors of Law Enforcement Standards and Training. He lives in Maine.

8-Month Comparison: All Agencies

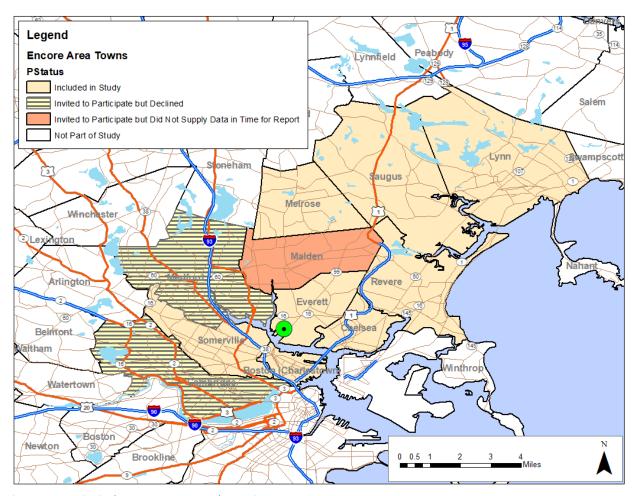


Figure 5: Agencies in the Encore Boston Harbor region.

The initial study area was limited to those agencies that signed a "surrounding community" agreement with the Massachusetts Gaming Commission: Boston, Cambridge, Lynn, Malden, Medford, Melrose, and Somerville. Together, these cities represent a population of nearly 1.3 million, although limiting the analysis of Boston to Charlestown effectively reduces that number to just over 600,000.

Of the invited communities, Cambridge declined to participate in the project. Medford expressed an initial willingness to participate but never supplied any data. Malden participated in the first analyses (published in March 2020) but COVID-related personnel restrictions made it impossible for the agency to provide an updated dataset for this report. In the meantime, the Saugus Police Department joined the group despite being left out of the initial two reports.

Although the Massachusetts State Police did contribute data for this report, its format makes it inconsistent with the local agency submissions and is thus analyzed in a later section of this report rather than in the totals offered below.

Crime in this region has been on a downward decline for more than a decade—a decrease that continued despite Encore, with all three summary crime categories reaching historic lows in 2020. However, a look at specific

categories shows several that ended the year higher than what the trend would have suggested. We take a detailed look at each of those categories below.

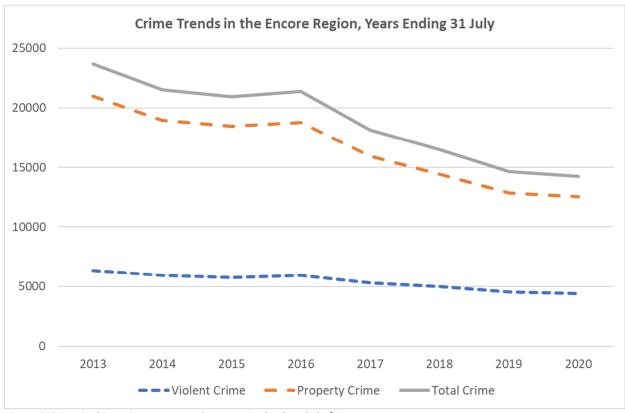


Figure 6: Crime in this region saw steep decreases in the decade before Encore.

Incidents reported to region, 1 July-29 February

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Murder	8	0	C	4-12	12	Expected
Sexual Assault	181	0	C	153–209	158	Expected
Kidnapping	29	-1	C	21–37	27	Expected
Robbery	354	-35	Т	181–251	204	Expected
Aggravated Assault	798	-26	Т	606–779	687	Expected
Simple Assault	1704	-74	Т	1172–1648	1483	Expected
Threats	590	-37	Т	382–566	501	Expected
Arson	17	-3	Т	4-20	6	Expected
Burglary	868	-124	T	419-551	452	Expected
Theft from Persons	59	-2	Т	38–64	50	Expected
Purse-Snatching	21	-2	C	10-32	15	Expected
Shoplifting	523	-15	С	412–634	366	Low
Theft from Building	359	-18	Т	242-354	309	Expected
Theft from Machine	1	0	C	0-2	0	Expected
Theft from Vehicle	848	-104	Т	442-554	674	High

Category	Pre-Enc	Slope	Window	Pred. Window	Jul 2019-	Result
	Avg		Type		Feb 2020	
Theft of MV Parts	62	-1	С	45 - 79	23	Low
Other Theft	1769	-158	Т	935–1527	1276	Expected
Auto Theft	549	-38	Т	353-536	359	Expected
Forgery	125	-10	Т	95–130	122	Expected
Fraud	400	-10	C	342–458	443	Expected
Credit Card Fraud	184	5	C	145-223	169	Expected
Identity Theft	225	3	C	174–276	174	Expected
Employee Theft	13	-2	Т	6–13	6	Expected
Stolen Property	69	-7	Т	32–67	58	Expected
Vandalism	1894	-170	Т	1038–1476	1222	Expected
Drugs	448	-33	Т	252-440	356	Expected
Drug Equipment	15	1	С	10-20	20	Expected
Statutory Rape	20	1	С	14–26	50	High
Gambling	3	0	С	o–6	6	Expected
Pornography	16	2	C	8-24	22	Expected
Prostitution	41	-12	Т	9–10	14	High
Weapons	176	-1	C	150-202	160	Expected
Bad Checks	38	-2	С	21–55	24	Expected
Disorderly	319	-27	Т	175–271	254	Expected
Drunk Driving	216	8	С	179-253	248	Expected
Drunkenness	230	-18	Т	126–212	154	Expected
Family Offenses	245	4	С	208–282	240	Expected
Liquor Laws	88	2	Т	86–104	106	High
Runaway	7	-1	С	2-12	0	Low
Trespassing	187	-3	С	148–226	132	Low
Violent Total	3664	-174	Т	2519–3502	3073	Expected
Property Total	7985	-656	Т	4560–6411	5724	Expected
Total	13696	-910	Т	8405–11708	10583	Expected

The region saw expected volumes of overall crime totals, but some individual categories of property crime were unexpectedly high. Most of these can be traced to a single city, however, leaving few corroborative increases across multiple agencies.

Thefts from vehicles

Boston and Everett both reported higher-than-expected theft-from-vehicle totals, but in neither case does the spatial pattern suggest an Encore connection. Also, both cities continued to experience high totals during the period that the casino closed.

Statutory rape

Chelsea accounted for almost all of the increase; see the Chelsea section for further detail.

Prostitution

Although high for the region, this increase comes entirely from Lynn and is discussed in that city's analysis.

Liquor laws

This one is also influenced heavily by Lynn and is discussed in that agency's analysis.

Selected calls for service reported to region, 1 July-29 February¹

Category	Pre-Enc	Slope	Window	Pred.	Jul 2019-	Result
	Avg		Type	Window	Feb 2020	
Abandoned Vehicle	461	-14	С	387-535	401	Expected
Disabled Vehicle	1368	-4	С	1097–1639	1166	Expected
Domestic Dispute	1768	-52	Т	1377–1739	1631	Expected
Drugs	422	-13	С	304-540	324	Expected
General Service	4442	-98	Т	3352-4744	3762	Expected
Gunshots	212	19	Т	238–323	296	Expected
Liquor	677	-62	T	356–498	513	High
Lost Property	688	13	С	627–749	622	Low
Medical	15039	-797	Т	9223–16912	12363	Expected
Overdose	421	87	Т	511–803	444	Low
Psychological	842	59	Т	973–1183	885	Low
Recovered Vehicle	271	-33	Т	144-221	166	Expected
Suspicious Activity	4564	-110	T	3549–4696	3660	Expected
Traffic Collision	7637	114	С	7072–8202	7662	Expected
Traffic Complaint	5709	438	Т	5879–8670	6743	Expected
Vagrancy	190	8	С	129–251	168	Expected

Liquor related calls for service were the only aggregate category to outperform the expected window for the region. Everett was the only individual agency to cross the threshold, however, and its liquor-related calls are analyzed in its section. Like the burglary statistic for the region, the predicted window is influenced heavily by a decreasing historic trend; the 2020 total was actually the second-lowest in the eight-year period for the region.

Collisions reported to region, 1 July—29 February²

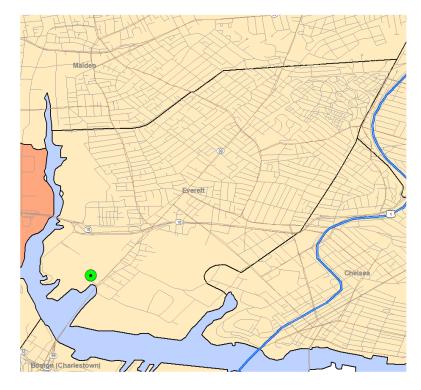
Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Vehicle in Traffic	2980	37	С	2651–3309	2869	Expected
Parked Vehicle	349	-8	С	308–390	344	Expected
Pedestrian	230	8	С	190–270	245	Expected
Bicyclist	28	-1	С	19-37	23	Expected
Animal	4	0	С	1-7	2	Expected
Fixed Object	135	4	С	106–164	150	Expected
Curb/Barrier/Embankment	61	4	T	63–92	39	Low
Rollover/Jackknife	7	0	С	3-11	5	Expected
Other/Unknown	198	-13	Т	123–190	132	Expected
Total	4363	25	C	3962-4764	4158	Expected

Any extra vehicle traffic in the area is not reflected (so far) in collision totals. All categories are within an expected range or lower.

¹ This table includes Everett, Chelsea, Somerville, Revere, Saugus, Melrose, and Lynn, but not Malden or Boston.

² Individual categories do not include Somerville, but the total does. Boston and Malden are not included in this table.

8-Month analysis: Everett





Population (est. 2018): 47,195

Area: 3.7 square miles

Police officers: 123

City center distance to Encore:

0.93 miles

Encore Boston Harbor was built on the south border of a densely-populated suburban community. The site is a formerly unsightly industrial area on the Mystic River. The revitalization occasioned by the casino has transformed and is likely to continue transforming the waterfront on both sides of the river, both creating opportunities for crime and providing natural guardians against it.

In the first eight months of Encore's operation, Everett has seen some increases in crimes and calls for service that have a logical connection to a casino; that is, you would expect the crimes to increase with extra people in a community, or they would earn gambling-motivated offenders quick cash. However, few of them have any clear *spatial* connection, and statistics later in this report show that the immediate Encore area had only a few minor changes

Nor has the Everett Police Department collected much *direct* evidence of a casino influence; for instance, an arrested offender who was in town to use the casino. Shortly before Encore opened, Everett implemented a coding system to flag incidents that had a known relationship with Encore, either because the victim or offender was in the area to use the casino. (Note, however, that for most crimes, the offender is unknown, so the coding system will not capture all possible Encore-related incidents.) In the eight months post-Encore, the only incidents that the agency recorded not at the casino itself were two simple assaults, a stolen cell phone, a vandalism, a disturbance, a traffic violation, and a warrant arrest. Both of the assaults involved male patrons who had recently left the casino before getting into fights with other men. Assaults did not increase in general for the city in the post-Encore period.

The Everett Police Department's two crime analysts are vital partners in this project. The senior analyst has worked for the agency for more than 10 years. We will rely on her judgment to analyze many of the increases and determine the probability of a casino relationship.

Crimes in Everett

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Murder	1	0	С	1-2	3	High
Sexual Assault	16	0	С	13–19	23	High
Kidnapping	3	0	С	1–5	2	Expected
Robbery	30	-3	Т	15–36	14	Low
Aggravated Assault	61	3	Т	56–91	82	Expected
Simple Assault	84	-16	Т	37-93	87	Expected
Threats	60	-3	С	44–76	63	Expected
Arson	1	0	С	0-2	2	Expected
Burglary	101	-8	С	64–138	67	Expected
Theft from Persons	2	0	С	0-3	3	Expected
Purse-Snatching	3	0	С	2-4	3	Expected
Shoplifting	72	0	С	53-91	70	Expected
Theft from Building	21	-2	Т	13-24	31	High
Theft from Machine	0	0	Т	0-3	0	Expected
Theft from Vehicle	113	-17	Т	47–86	87	High
Theft of MV Parts	6	-1	Т	2-5	4	Expected
Other Theft	165	-2	C	149–181	140	Low
Auto Theft	60	-6	Т	38-53	48	Expected
Forgery	10	-2	Т	5-14	6	Expected
Fraud	18	1	C	9-27	32	High
Credit Card Fraud	42	4	C	20–67	48	Expected
Identity Theft	17	-7	Т	2–18	0	Low
Employee Theft	1	0	С	0-2	0	Expected
Stolen Property	9	-1	Т	5-9	7	Expected
Vandalism	196	-10	Т	131–181	140	Expected
Drugs	34	0	C	26–42	36	Expected
Drug Equipment	14	1	C	8–20	16	Expected
Statutory Rape	1	0	C	0-2	0	Expected
Gambling	0	0	C	0-1	0	Expected
Pornography	1	0	C	0-3	2	Expected
Prostitution	1	0	C	0-3	0	Expected
Weapons	16	4	Т	16–38	13	Low
Bad Checks	12	0	C	6–18	19	High
Disorderly	12	2	С	3–22	27	High
Drunk Driving	18	1	C	11–25	43	High
Drunkenness	0	0	C	0-0	0	Expected
Family Offenses	86	15	T	80–146	109	Expected
Liquor Laws	1	0	С	0-3	1	Expected
Runaway	4	0	С	o–8	0	Expected
Trespassing	8	0	С	4-12	11	Expected

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Violent Total	255	-18	T	167–322	274	Expected
Property Total	835	-50	Т	550-728	688	Expected
Total	1300	-46	Т	1001–1231	1239	High

Murder

Everett's three murders during this period were a 42-year-old man shot outside a hookah bar in September, a 26-year-old man shot on the street in October, and the hit-and-run death of a 59-year-old resident in October. None had any casino relationship nor could have plausibly been influenced by the casino's presence.

Sexual Assault

We will need assistance from the Everett Police to analyze the sexual assault increase. Most of the incidents seem to be at residences involving victims and offenders from Everett or the immediate local area.

Thefts from Buildings

Most of the increase is at residences, and one particular cluster in the northeast section of town, in December, may be related in a pattern.

Thefts from Vehicles

The "increase" in 2020 is actually the second-lowest total in 10 years, but it is still higher than the downward trend since 2013 suggested that it would be. Most of the increase is spatially unrelated to Encore, spread throughout the northern residential areas of the city. Also evidence against an Encore relationship: the trend continued during the COVID closures in the spring.

Fraud

Everett saw a near record-high number of "con game"-style frauds in the last half of 2019, most at residences (which often suggests online fraud). When suspects are known, they seem to be from the Chelsea/Everett/Revere area.

Bad Checks

This is definitely one to watch for a casino relationship. Half of the incidents have come from area banks.

Disorderly Conduct

A modest increase in disorderly conduct arrests is scattered across the northern part of town and does not seem geographically associated with the casino.

Drunk Driving

Unlike disorderly conduct, the increase in drunk driving arrests does seem to be spatially associated with Encore. Fifteen of the arrests alone happened on Broadway, most between 22:00 and 03:00. However, a review of individual cases shows that the drunk drivers were coming from other locations, mostly in Boston, and just happened to be driving on Broadway near Encore when stopped (extra law enforcement presence in the area may be related). However, see the drunk driving section later in this report for more evidence of a potential increase in Everett.

Selected calls for service in Everett

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Abandoned Vehicle	37	1	C	25-49	34	Expected
Disabled Vehicle	12	0	C	8–16	11	Expected
Domestic Dispute	4	0	С	2–6	0	Low

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Drugs	6	0	C	3-9	6	Expected
General Service	87	-1	C	66–108	82	Expected
Gunshots	3	0	C	1-7	1	Expected
Liquor	2	0	C	0-4	0	Expected
Lost Property	11	-1	Т	10–18	8	Low
Medical	182	-1	С	171–193	176	Expected
Overdose	9	0	C	5-13	10	Expected
Psychological	4	0	С	3-5	6	High
Recovered Vehicle	1	0	С	0-3	1	Expected
Suspicious Activity	67	-1	С	46–88	58	Expected
Traffic Collision	107	2	Τ	73–116	80	Expected
Traffic Complaint	124	-2	С	99–149	120	Expected

Everett's increase during this period was only in the "psychological" category and only by one.

Collisions in Everett

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Vehicle in Traffic	122	7	Т	110–188	179	Expected
Parked Vehicle	44	3	Т	43–66	63	Expected
Pedestrian	15	-1	C	9–21	18	Expected
Bicyclist	5	0	C	3-7	7	Expected
Animal	0	0	C	0-0	0	Expected
Fixed Object	19	1	C	14-24	19	Expected
Curb/Barrier/Embankment	3	0	Т	3–6	7	High
Rollover/Jackknife	1	0	C	0-2	0	Expected
Other/Unknown	9	0	Т	5–10	10	Expected
Total	218	10	Т	201–313	303	Expected

Everett's collision total was a bit higher than average, but within the expected range given the upward trend that the city has seen in collisions this decade.

8-month analysis: Boston/Charlestown





Population (est. 2016): 17,201

Area: 24.2 square miles

Police officers: 2,143 (city wide)

City center distance to Encore:

1.87 square miles

As the capital and the largest city in the Commonwealth, Boston gives its name to the casino and supplies much of its traffic, both residents and visitors, arriving via Logan Airport shuttles, the MBTA, vehicles, or ferries from Long Wharf and the World Trade Center.

Because any casino influence on the totality of the city would likely be undetectable amidst the normal volume of crimes and calls for service that this city generates, analysis of changes is largely confined to Charlestown, Boston Police District A-15, Boston's oldest neighborhood. This detached area is north of the Charles River, west of the main channel of Boston Harbor, south of the Mystic River, and east of Route 93. It contains Bunker Hill, the U.S.S. Constitution, several waterfront parks, two colleges, and about 17,000 of the city's 700,000 residents.

In the eight months post-Encore, crime totals were normal in the neighborhood, but certain property crimes showed increases. These are discussed below. Because of a change to a new records management system, we do not currently have accurate call-for-service or collision data for Boston.

The Mystic River serves as a practical barrier to activity spilling into the neighborhood from Encore except in a few geographically-concentrated ways. Changes in Charlestown may be reflected in extra traffic along Rutherford Avenue and Alford Street, as well as increased usage of tourist destinations within the area and facilities near Exit 28 off I-93. The neighborhood's few hotels might see extra occupancy.

Crimes in Boston/Charlestown³

Category	Pre-Enc Avg	Slope	Window Type		Jul 2019- Feb 2020	Result
Murder	0	0	C	0-1	0	Expected

³ Prior to 2019, Boston's records management system did not follow NIBRS standards and only recorded the most serious offense code with each incident rather than each separate offense. Hence, while the statistics here are internally consistent, they are not directly comparable with other agencies, with the disparity getting more significant the further one goes down the list of crimes.

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Sexual Assault		1	С	1-9	1	Expected
Kidnapping	<u>5</u> o	0	C	0-1	1	Expected
Robbery	16	-1	<u>C</u>	7-20	2	Low
Aggravated Assault	32	0	C	22-42	41	Expected
Simple Assault	<u>32</u> 84	-1	C	68–100	97	Expected
Threats	39	-5	<u>C</u>	18–41	97 41	Expected
Arson		<u> </u>	C	0-0	0	Expected
Burglary	28	-3	C	10–46	15	Expected
Theft from Persons	1	<u> </u>	C	0-2	0	Expected
Purse-Snatching	1	0	C	0-2	0	Expected
Shoplifting	14	1	C	5-24	7	Expected
Theft from Building	40	0	C	31-49	33	Expected
Theft from Machine	0	0	<u>C</u> 	3± 49 0–0		Expected
Theft from Vehicle	50		 T	20–58	72	High
Theft of MV Parts	14	-2	<u>·</u> T	3–16	12	Expected
Other Theft	48	-1	 C	39 ⁻ 57	53	Expected
Auto Theft	20	-2	T	9-20	22	High
Forgery	3	0	<u>·</u> T	2-8	2	Expected
Fraud	23	-3	T .	11-25	35	High
Credit Card Fraud	<u>-3</u>	2	T	3–19	8	Expected
Identity Theft	4	2	 T	6–18	2	Low
Employee Theft	1	0	C	0-3	3	Expected
Stolen Property	3	0	T	0-4	3	Expected
Vandalism	83	-5	Т	43-81	<u>5</u> 72	Expected
Drugs	<u> </u>	3	С	27–65	33	Expected
Drug Equipment	0	0	C	0-0	0	Expected
Statutory Rape	0	0	C	0-0	0	Expected
Gambling	0	0	С	0-0	0	Expected
Pornography	2	0	C	0-4	1	Expected
Prostitution	0	0	С	0-0	0	Expected
Weapons	6	0	С	1-11	2	Expected
Bad Checks	0	0	С	0-0	0	Expected
Disorderly	6	-1	T	2-7	4	Expected
Drunk Driving	3	0	С	1-5	4	Expected
Drunkenness	0	0	T	0-1	0	Expected
Family Offenses	17	1	T	13-29	20	Expected
Liquor Laws	1	0	С	0-2	0	Expected
Runaway	0	0	С	0-1	0	Expected
Trespassing	8	-1	T	3-11	7	Expected
Violent Total	176	-7	С	116–213	183	Expected
Property Total	338	-17	T	182–359	339	Expected
Total	603	-24	Т	397–618	593	Expected

Thefts from Vehicles

November and December brought a pattern of thefts from cars to the residential streets in the neighborhood, with report times suggesting largely daytime occurrences, particularly on Fridays.



Figure 7: A November-December pattern of thefts from cars affected Charlestown's residential neighborhoods.

Auto theft

Auto theft increased in September and October, mostly on weekdays during the day, mostly around Monument Square.

Fraud

The increase in fraud starts in September, shortly after the agency switched to a new records system. Concurrent decreases during the period in credit card fraud and identity theft suggest that the new system may simply have improved (or just changed) reporting categories for certain crimes.

8-month analysis: Chelsea





Population (est. 2019): 40,496

Area: 2.5 square miles

Police officers: 107

City center distance to Encore:

1.83 miles

Chelsea is a diverse working-class community. The smallest city in the Commonwealth, and the second densely-populated, Chelsea is one of only three Massachusetts cities with a Hispanic-majority population. It has bounded back from crippling crime rates and near-bankruptcy in the 1990s and has enjoyed significant economic growth and gentrification in the past 15 years. The city's UCR Part 1 violent crime rate fell 59% between 2008 and 2018.

The city is physically close to Encore, and visitors coming from eastern Massachusetts or even Logan Airport might pass through the city's boundaries. Extra tourist traffic to Encore might bring extra visitors to its hotel and restaurant cluster off Everett Avenue. There have been no signs of any casino-related increases in the first eight months, however.

Chelsea has a full-time crime analyst who is able to assist with the analysis of new patterns and trends in the city.

Crimes in Chelsea

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Murder	2	0	C	0-4	0	Expected
Sexual Assault	38	1	C	28–48	32	Expected
Kidnapping	9	0	C	5-13	10	Expected
Robbery	103	-17	Т	34–56	49	Expected
Aggravated Assault	161	-18	Т	92–136	156	High
Simple Assault	452	-20	Т	333-410	364	Expected
Threats	210	-17	T	134–194	154	Expected
Arson	2	0	Т	0-3	0	Expected

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Burglary	109	-21	T	43-59	58	Expected
Theft from Persons	15	-3	T	3-13	5	Expected
Purse-Snatching	7	-1	С	1–16	7	Expected
Shoplifting	93	-5	С	67–119	35	Low
Theft from Building	105	-6	С	72–138	62	Low
Theft from Machine	0	0	С	0-0	0	Expected
Theft from Vehicle	119	-16	Т	58–116	89	Expected
Theft of MV Parts	27	2	С	7-47	1	Low
Other Theft	100	-37	T	37-93	92	Expected
Auto Theft	83	-12	T	34-77	48	Expected
Forgery	19	-2	T	6–19	18	Expected
Fraud	62	-2	С	41-83	39	Low
Credit Card Fraud	20	0	С	15-25	2	Low
Identity Theft	38	-3	T	22–38	28	Expected
Employee Theft	3	0	С	2-4	0	Low
Stolen Property	23	-2	С	20–26	19	Low
Vandalism	365	-45	T	193–225	215	Expected
Drugs	61	-8	Т	24-54	41	Expected
Drug Equipment	1	0	С	0-2	1	Expected
Statutory Rape	4	2	T	3–16	25	High
Gambling	1	0	T	0-5	3	Expected
Pornography	3	1	С	0-7	4	Expected
Prostitution	9	-1	С	3-15	0	Low
Weapons	47	-5	T	20-47	30	Expected
Bad Checks	7	0	С	3-11	0	Low
Disorderly	61	-10	Т	26–45	34	Expected
Drunk Driving	31	0	С	17-45	31	Expected
Drunkenness	165	-9	Ţ	110–174	126	Expected
Family Offenses	1	0	Ţ	0-5	0	Expected
Liquor Laws	33	1	С	24-42	39	Expected
Runaway	1	0	С	0–3	0	Expected
Trespassing	45	-2	С	33-57	29	Low
Violent Total	975	-72	Т	626–861	765	Expected
Property Total	1190	-165	Т	571–663	718	High
Total	2635	-269	Т	1470–1705	1846	High

Chelsea's crime total has dropped so much in the past 8 years that the 2020 figures for property crime and total crime register as "high" even though they're the second-lowest in at least 10 years (2019 was slightly lower). The totals simply didn't drop as much as the trendline predicted. This is an oddity with this agency, but we can largely ignore the totals and focus on the individual crime categories.

Aggravated Assault

Aggravated assaults in 2019 were lower than average but above what the decreasing trend predicted. The bulk of the reversal seems to be at residences (as opposed to street violence), suggesting an increase in domestic-related

crimes, although we did not see a comparable increase in domestic disputes and domestic simple assaults. "Personal" weapons (hands and feet) and blunt objects dominate the increase in terms of weapon type.

Statutory Rape

This category showed a massive increase in the second half of 2019, but it's impossible to know what's happening without access to the full reports. Almost all of the incidents are at residences, with a few duplicate addresses. Suspects are mostly locals from Chelsea.

Selected calls for service in Chelsea

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Abandoned Vehicle	41	0	C	27-55	17	Low
Disabled Vehicle	135	0	C	98–172	100	Expected
Domestic Dispute	437	-35	Т	259-340	354	High
Drugs	165	-16	С	82-248	111	Expected
General Service	583	-37	C	364–802	542	Expected
Gunshots	31	8	Т	27–68	77	High
Liquor	58	6	Т	73-93	41	Low
Lost Property	21	3	Т	30-34	25	Low
Medical	705	-8	C	504–906	469	Low
Psychological	212	10	Т	197–304	247	Expected
Recovered Vehicle	60	-11	Т	23-49	29	Expected
Suspicious Activity	927	-72	Т	455-884	464	Expected
Traffic Collision	981	30	T	1001–1200	1102	Expected
Traffic Complaint	765	104	Т	814–1545	959	Expected

Domestic disputes

A high February 2020 pushed this incident type above its expected window. There are a handful of incidents at the Marriott Residence Inn, and between 5 and 7 each at a selection of apartment complexes.

Gunshots

Gunshot reports for the last half of 2019 were nearly double the city's average, but the increase came entirely from automatic notices from the city's ShotSpotter gunshot detection service, which suggests an expansion of that service rather than an increase in the number of actual gunshots fired. If those are removed from consideration, the city had only 9 reports of gunshots from an average of 14.

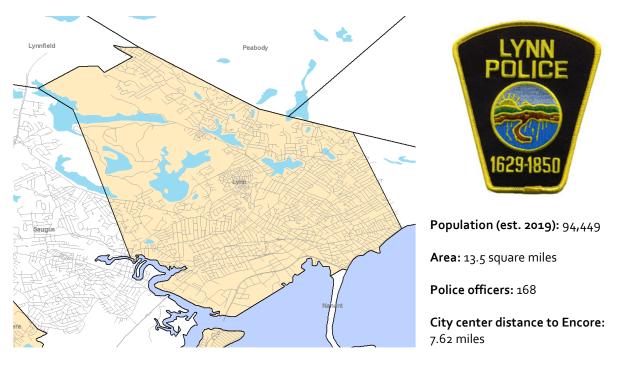
Collisions in Chelsea

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Vehicle in Traffic	297	7	C	247-347	342	Expected
Parked Vehicle	152	-16	Т	77–126	103	Expected
Pedestrian	33	-2	С	24-42	36	Expected
Bicyclist	6	0	С	3-9	3	Expected
Animal	0	0	С	0-1	0	Expected
Fixed Object	29	1	С	18–40	24	Expected
Curb/Barrier/Embankment	9	1	С	5-13	2	Low
Rollover/Jackknife	1	0	C	0-2	0	Expected

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Other/Unknown	10	-1	C	3-17	5	Expected
Total	537	-11	T	428–558	515	Expected

Total collision reports in Chelsea were the lowest in the past decade. Any extra traffic going through the city to Encore is not being reflected in reportable crashes.

8-month analysis: Lynn



Lynn is the city farthest removed from Encore Boston Harbor. Although its storied past as the "city of sin" has been tempered by crime decreases over the past two decades, its large population generates enough activity that any changes brought by Encore Boston Harbor will be difficult to detect.

Lynn has no travel routes to Encore excepting those that its own residents will use. A couple of bed-and-breakfasts make up its only lodging. It may see an increase in visitation from a small percentage of Encore visitors interested in the city's growing arts culture. So far, however, most activity has been low, and no changes are attributable to Encore.

Crimes in Lynn

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Murder	3	0	C	1–5	6	High
Sexual Assault	57	-1	C	45–69	42	Low
Kidnapping	8	0	C	4-12	6	Expected
Robbery	117	-5	Т	69–124	77	Expected
Aggravated Assault	290	-12	Т	187–296	202	Expected
Simple Assault	549	-25	T	358-576	507	Expected
Threats	63	-1	C	53-73	67	Expected
Arson	5	-1	С	2-8	2	Expected
Burglary	280	-42	Т	104–159	152	Expected
Theft from Persons	30	0	С	22–38	33	Expected
Purse-Snatching	0	0	С	0-0	0	Expected
Shoplifting	103	-8	Т	48–126	81	Expected
Theft from Building	38	-3	T	19-47	57	High

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Theft from Machine	0	0	С	0-0	0	Expected
Theft from Vehicle	227	-22	T	126–197	167	Expected
Theft of MV Parts	9	-2	T	2-9	3	Expected
Other Theft	564	-49	Ţ	302–496	410	Expected
Auto Theft	174	-6	С	121–227	105	Low
Forgery	36	-6	Т	14-23	29	High
Fraud	96	-7	Т	60–91	84	Expected
Credit Card Fraud	40	1	С	28–52	58	High
Identity Theft	24	1	T	23-35	29	Expected
Employee Theft	1	0	С	0-1	0	Expected
Stolen Property	0	0	T	0-2	2	Expected
Vandalism	572	-46	T	315-545	360	Expected
Drugs	169	-15	Т	78–173	134	Expected
Drug Equipment	0	0	С	0-0	0	Expected
Statutory Rape	5	0	С	2-8	11	High
Gambling	1	0	C	0-2	0	Expected
Pornography	4	1	Т	1–13	4	Expected
Prostitution	26	-10	T	2-11	12	High
Weapons	56	0	C	42-70	63	Expected
Bad Checks	0	0	C	0-0	0	Expected
Disorderly	113	-8	Т	54–125	100	Expected
Drunk Driving	73	1	C	57-89	89	Expected
Drunkenness	0	0	C	0-0	0	Expected
Family Offenses	109	-8	T	72–118	88	Expected
Liquor Laws	22	0	С	16–28	39	High
Runaway	0	0	С	0-0	0	Expected
Trespassing	77	-1	С	50–104	58	Expected
Violent Total	1087	-45	T	717–1155	907	Expected
Property Total	2200	-192	T	1191–1844	1572	Expected
Total Crimes	3942	-276	Т	2247–3568	3077	Expected

Overall crime was well within expected ranges for Lynn, generally continuing the trend of decreasing crime. A few exceptions are analyzed below.

Murder

Lynn unfortunately saw an increase in deadly violence during this period. To wit:

- 19 August 2019: Two homeless people, a 34-year-old woman and a 36-year-old man, got into a fight. The woman ended up stabbing the man and was later arrested.
- **24 August 2019:** Two Lynn men fired recklessly into a playground on Warren Street, hitting four people and killing one. They were later arrested.
- **11 October 2019:** A 63-year-old woman was stabbed to death in her home on West Neptune Street. Lynn Police have said publicly only that the crime is not random.

- 8 November 2019: One homeless man beat another to death on Liberty Street.
- 4 January 2020: A 25-year-old man from Worcester was shot at an apartment party. Lynn Police got a warrant for a 34-year-old Lynn man; he was later arrested in Maine.
- **24 February 2020**: A 34-year-old Lynn man was shot and killed and another man injured. The circumstances are unknown.

Overall, the Lynn murders during this period seem to involve local residents with local problems.

Thefts from buildings

There are two potential patterns at work in this increase: thefts from residences in East Lynn and thefts from restaurants in September and October.

Forgery

There was a big increase in this crime during the first two months of 2020, unfortunately spread out at a variety of locations. The few incidents with identified suspects have them all local (from Lynn or Revere). Given the lack of corroborative increases in other communities, I will regard it as a local pattern, unrelated to Encore, unless I receive further information from the Lynn Police.

Credit card fraud

Credit card fraud increased about 40% from average during this period, but I can't find any patterns within the data. Incidents are scattered across town, throughout the eight month period, at a variety of location types. A good portion are at residences, suggesting online fraud.

Statutory rape

A disturbing increase, but all of the incidents occurred at local residences or schools and almost all of the suspects are from Lynn, suggesting no connecting to Encore.

Prostitution

All but one of the incidents have occurred on streets, indicating streetwalking rather than motel- or house-based prostitution. All incidents have been on Green or Union Streets. Listed suspects are all female, and all from Lynn. My reading of the data is that the Lynn Police have been more aggressive about enforcing streetwalking, and the increase is thus related to police proactivity rather than an actual increase in prostitution.

Liquor laws

A fairly heavy increase in liquor law violations involve incidents scattered all over town, at all times of day, all days of the week, and no location types listed. I cannot find a logical tie to Encore, particularly this far distant from the casino, but I'm otherwise not sure what to make of the trend.

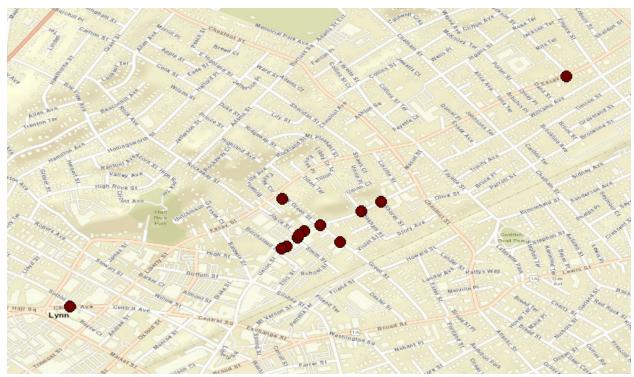


Figure 8: Lynn arrests for prostitution this period were focused heavily on the intersection of Union and Green Streets.

Selected calls for service in Lynn

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Disabled Vehicle	608	-27	С	433-783	407	Low
Domestic Dispute	517	-45	T	263–449	379	Expected
Drugs	169	7	С	120–218	126	Expected
General Service	533	-1	С	488–578	506	Expected
Gunshots	107	0	С	94–120	99	Expected
Liquor	329	-36	Т	146–265	211	Expected
Lost Property	270	-1	С	237-303	240	Expected
Medical	5951	138	Т	6138–6871	6169	Expected
Overdose	185	40	Т	279-379	254	Low
Psychological	255	15	T	286–344	189	Low
Recovered Vehicle	71	-7	Т	29–86	32	Expected
Suspicious Activity	1042	-30	С	886–1198	880	Low
Traffic Collision	2226	43	Т	2112–2687	2109	Low
Traffic Complaint	2148	37	С	1674–2622	1823	Expected
Vagrancy	113	2	С	96–130	132	High

Lynn's only call-for-service increase during this period was for **vagrancy**. Reports of panhandling increased in particular on Boston Street and State Street.

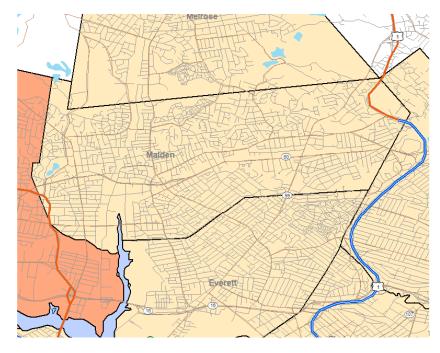
Collisions in Lynn

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Vehicle in Traffic	1527	-24	C	1254–1800	1115	Low
Parked Vehicle	7	0	С	3-11	3	Expected
Pedestrian	101	8	Т	86–178	104	Expected
Bicyclist	4	-1	С	1-7	4	Expected
Animal	2	0	С	1-3	1	Expected
Fixed Object	0	0	С	0-0	0	Expected
Curb/Barrier/Embankment	0	0	С	0-0	0	Expected
Rollover/Jackknife	0	0	С	0-0	0	Expected
Other/Unknown	96	-13	Т	39–81	36	Low
Total	1737	-29	С	1430-2044	1263	Low

Lynn's crash totals during this eight-month period were the lowest in at least a decade, certainly showing no evidence of being affected by extra traffic to and from Encore. This makes sense, as the only travel routes that go through the city would have to originate within the city.

6-month analysis: Malden

Malden was unable to participate in this report. To show some of the trends the city was experiencing as of the end of the first six months of Encore operations (July-December 2019), I have left those statistics intact. The statistics below were not included in the overall totals for the participating area.





Population (est. 2019): 60,746

Area: 5.1 square miles

Police officers: 100

City center distance to Encore:

2.28 miles

Bordering Everett to the north, Malden has one of the lower crime rates (for both violent crime and property crime) among the jurisdictions in this study. With the exception of a small part of U.S. Route 1 (a stretch mostly clear of businesses except a single liquor store), the city does not have many significant auto travel routes leading to Encore. However, the casino does operate a free shuttle out of Malden Center, which may increase foot and vehicle traffic to the businesses in the region. So far, most categories analyzed below show normal or decreased activity.

Crimes in Malden

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Dec 2019	Result
Murder	0	0	C	0-1	0	Expected
Sexual Assault	11	1	С	3–19	12	Expected
Kidnapping	2	1	Т	2-8	7	Expected
Robbery	29	-3	Т	16–27	13	Low
Aggravated Assault	69	-1	C	51–87	54	Expected
Simple Assault	176	-9	Т	111–190	144	Expected
Threats	43	-14	Т	12-33	19	Expected
Arson	1	-1	Т	0-2	0	Expected
Burglary	80	-17	Т	22-41	48	High
Theft from Persons	8	0	C	5–11	6	Expected
Purse-Snatching	0	0	Т	0-0	0	Expected
Shoplifting	51	-3	C	31–71	42	Expected

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Dec 2019	Result
Theft from Building	12	1	С	6–18	17	Expected
Theft from Machine	0	0	С	0-0	0	Expected
Theft from Vehicle	89	-8	С	43-135	104	Expected
Theft of MV Parts	2	0	С	0-4	0	Expected
Other Theft	186	-13	Т	104-210	162	Expected
Auto Theft	49	-4	Т	26–50	56	High
Forgery	15	-3	Т	7-14	9	Expected
Fraud	31	1	С	25-37	28	Expected
Credit Card Fraud	9	2	Т	10-21	4	Low
Identity Theft	0	0	С	0-1	0	Expected
Employee Theft	0	0	С	0-1	0	Expected
Stolen Property	0	0	С	0-0	0	Expected
Vandalism	152	-9	T	97-147	134	Expected
Drugs	25	-3	Т	12-24	9	Low
Drug Equipment	0	0	С	0-0	0	Expected
Statutory Rape	1	0	С	0-2	0	Expected
Gambling	0	0	С	0-0	0	Expected
Pornography	1	0	С	0-2	2	Expected
Prostitution	2	0	С	0–6	5	Expected
Weapons	10	0	С	6–14	6	Expected
Bad Checks	0	0	T	0-1	0	Expected
Disorderly	28	-1	С	15–41	15	Expected
Drunk Driving	9	-2	T	3-7	3	Expected
Drunkenness	0	0	С	0-0	0	Expected
Family Offenses	33	-3	Т	13–38	32	Expected
Liquor Laws	2	0	С	o–6	0	Expected
Runaway	0	0	С	0-0	0	Expected
Trespassing	24	3	Т	18–41	25	Expected
Violent Total	330	-25	T	195–365	249	Expected
Property Total	686	-54	Т	398–615	610	Expected
Total Crimes	1150	-86	T	638–1310	956	Expected

Malden was the only city to show an increase in a couple classic categories of property crime.

Burglary

Malden's burglary "High" is a result of the same mathematics as previously reported for the entire region. We will watch for a reversal of the previous downward trend, but for now it is important to note that the crime is well below average for the city.

Auto theft

There was a group of three at the Hertz franchise on a single day in October, but most of the increase is at residential driveways overnight. There was a particular concentration in July and August.

Selected calls for service in Malden

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Dec 2019	Result
Disabled Vehicle	81	-1	C	65–97	70	Expected
Domestic Dispute	62	1	С	44–80	69	Expected
General Service	410	45	Τ	469–696	385	Low
Gunshots	9	-1	С	4–16	7	Expected
Liquor	170	-31	Τ	49–106	26	Low
Lost Property	9	0	С	4-14	5	Expected
Medical	4284	564	Τ	4265–6614	5510	Expected
Psychological	62	0	С	46–78	58	Expected
Suspicious Activity	324	-5	C	261–387	253	Low
Traffic Collision	1009	50	T	1044–1377	1169	Expected
Traffic Complaint	266	10	C	167–365	224	Expected
Vagrancy	6	-1	C	1–12	9	Expected

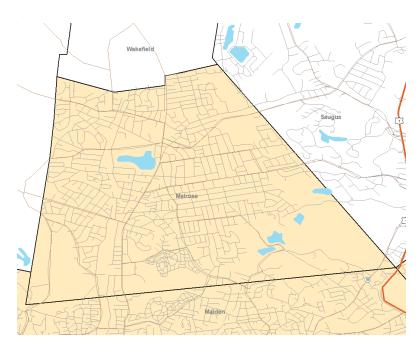
All selected call-for-service categories were within expected ranges in the latter half of 2019.

Collisions in Malden

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Dec 2019	Result
Vehicle in Traffic	329	16	Т	343-445	388	Expected
Parked Vehicle	2	0	С	0-4	2	Expected
Pedestrian	28	2	T	26–48	30	Expected
Bicyclist	3	0	С	1–5	0	Low
Animal	0	0	0	0-0	0	Expected
Fixed Object	0	0	С	0-0	0	Expected
Curb/Barrier/Embankment	0	0	С	0-0	0	Expected
Rollover/Jackknife	0	0	С	0-0	0	Expected
Other/Unknown	38	2	С	22-54	57	High
Total	400	20	T	406-555	477	Expected

Like most of the communities, Malden showed no significant increase in traffic collisions in the second half of 2019.

8-month analysis: Melrose





Population (est. 2019): 28,120

Area: 4.8 square miles

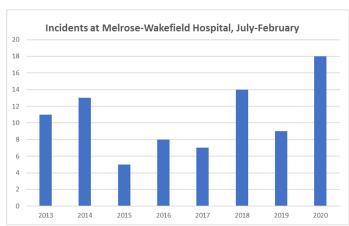
Police officers: 48

City center distance to Encore:

4.16 miles

On the outskirts of our study, Melrose is smaller and more suburban than most of the other communities analyzed here. It lacks highways and other major travel routes to Encore; it has no hotels; and it lacks most of the other attractions and amenities that a visitor to the area would seek out. Hence, it is unlikely to experience much impact from Encore unless this region experiences the type of wide-ranging crime patterns that have been rare in the other casino communities.

One potential exception is in activity at Melrose-Wakefield Hospital, a possible destination for medical emergencies at Encore Boston Harbor. This facility did see an increase in crimes during this period, from an average of 10 to a 2020 total of 18. It's not a lot of cases, but it still may be indicative of an Encore-related increase. The 2020 figures included five simple assaults, two auto thefts, three incidents of fraud, and two drug incidents. Melrose will have to report on the possibility of any casino relationship among the responsible parties.



Crimes in Melrose

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019– Feb 2020	Result
Murder	0	0	C	0-0	0	Expected
Sexual Assault	2	0	С	1-3	0	Low
Kidnapping	1	0	С	0-1	1	Expected

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019– Feb 2020	Result
Robbery	4	-1	Т	1-4	5	High
Aggravated Assault	12	1	C	7-17	16	Expected
Simple Assault	43	-3	Т	23-47	47	Expected
Threats	20	-3	Т	9–13	11	Expected
Arson	1	0	C	0-3	0	Expected
Burglary	27	-7	Т	8–19	23	High
Theft from Persons	0	0	C	0-1	1	Expected
Purse-Snatching	1	0	Т	0-3	0	Expected
Shoplifting	6	-1	Т	2-8	0	Low
Theft from Building	25	-4	Т	7-23	11	Expected
Theft from Machine	0	0	С	0-0	0	Expected
Theft from Vehicle	37	-4	С	10–66	32	Expected
Theft of MV Parts	1	0	С	0-2	0	Expected
Other Theft	62	-2	С	49-75	55	Expected
Auto Theft	14	0	С	7-23	10	Expected
Forgery	3	-1	С	1–6	3	Expected
Fraud	16	0	С	10-22	18	Expected
Credit Card Fraud	2	0	С	0-4	3	Expected
Identity Theft	4	0	С	3-5	5	Expected
Employee Theft	1	-1	Т	0-2	0	Expected
Stolen Property	3	0	С	0-7	2	Expected
Vandalism	75	-4	Т	50–76	54	Expected
Drugs	6	-1	Т	2–9	10	High
Drug Equipment	0	0	C	0-0	2	High
Statutory Rape	1	0	С	0-2	1	Expected
Gambling	0	0	С	0-0	0	Expected
Pornography	0	0	С	0-1	0	Expected
Prostitution	0	0	С	0-0	0	Expected
Weapons	1	0	С	0-3	3	Expected
Bad Checks	2	0	C	0-4	2	Expected
Disorderly	6	-1	T	2–9	8	Expected
Drunk Driving	5	-1	С	2–8	4	Expected
Drunkenness	7	-1	С	3–11	6	Expected
Family Offenses	0	0	С	0-0	0	Expected
Liquor Laws	2	0	С	o–6	1	Expected
Runaway	0	0	С	0-0	0	Expected
Trespassing	4	-1	T	0-5	2	Expected
Violent Total	82	-6	Т	41–85	80	Expected
Property Total	278	-22	Т	155–299	217	Expected
Total Crimes	394	-33	Т	211–396	336	Expected

Robbery

Melrose was one of several Middlesex County agencies to see a series of armed robberies in the fall of 2019 committed by Ramfis Casado, 34, of Lynn, known as the "Red-Handed Bandit." He is responsible for two convenience store robberies on West Wyoming Avenue on 23 November 2019 and 5 December 2019, plus other robberies in Everett, Malden, Waltham, and Woburn. To our knowledge, Casado had no casino or gambling-based motivations. A third convenience store robbery in February 2020 resulted in the arrests of two men from Cambridge.

Burglary

The city had an unusually high number of burglaries during this period, at least in comparison to its past trend. Most are at residences, scattered about town, with no commonalities that I can see. There is one potential pattern among them: two incidents at gas stations, about a mile apart, in January and February 2020. They were both on Monday nights, reported on Tuesday morning. Neither resulted in in arrest. In one incident, the burglar went for a safe.

Drugs and Drug Equipment

Melrose had slightly-higher-than-expected figures for both crimes during this period, with multiple arrests involving individuals from all over Massachusetts, including 5 arrests for possession of heroin. Of particular interest are two incidents at Melrose Wakefield Hospital involving offenders from Peabody and Rockland. As the hospital is one possible destination facility from Encore, we await Melrose's report on whether any of the offenders had an Encore connection.

Selected calls for service in Melrose

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Abandoned Vehicle	4	0	C	1–7	1	Expected
Disabled Vehicle	35	2	C	25-45	38	Expected
Domestic Dispute	55	-5	T	27–56	34	Expected
General Service	704	20	Т	664–906	743	Expected
Gunshots	1	0	C	0-2	0	Expected
Liquor	0	0	C	0-1	0	Expected
Lost Property	59	9	Т	61–109	93	Expected
Medical	1001	43	Т	1041–1303	1237	Expected
Overdose	13	0	C	7–19	11	Expected
Recovered Vehicle	2	0	C	1-3	0	Low
Suspicious Activity	330	8	C	271–389	388	Expected
Traffic Collision	400	-7	C	357-443	371	Expected
Traffic Complaint	461	95	Т	599–1048	828	Expected

Melrose's calls for service were also normal-to-low for the period. An increase in "suspicious activity" calls in November 2019 did not persist into the new year, and the category remained just within its expected range for the eight-month period as a whole.

Collisions in Melrose

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Vehicle in Traffic	125	3	T	123–151	120	Low
Parked Vehicle	53	-2	С	42–64	57	Expected
Pedestrian	7	0	С	4-10	3	Low

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Bicyclist	2	0	C	0-4	1	Expected
Animal	0	0	C	0-0	0	Expected
Fixed Object	15	1	C	7-23	24	High
Curb/Barrier/Embankment	6	0	C	3-9	2	Low
Rollover/Jackknife	1	0	C	0-2	0	Expected
Other/Unknown	8	0	C	5–11	4	Low
Total	218	2	C	192–244	211	Expected

Total crashes were exactly average in Melrose. Some of the categories had lower-than-predicted figures, made up slightly by an increase in "fixed object" crashes. Other than three of these crashes in the 300-block of Main Street in December, there are no commonalities among them.

8-month analysis: Revere





Population (est. 2019): 53,654

Area: 10.0 square miles

Police officers: 106

City center distance to Encore:

3.52 miles

A reasonably busy north shore community, Revere shares a small part of its western border with Everett. It is far enough from Encore not to be in the facility's immediate area of influence, and so far I don't see any changes attributable to Encore. We will continue to monitor travel routes, hotels, restaurants, and shopping centers. The agency employs a full-time crime analyst, which always makes this process easier.

Crimes in Revere

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Murder	1	0	C	0-2	2	Expected
Sexual Assault	27	0	C	21–33	12	Low
Kidnapping	4	-1	Т	1–5	2	Expected
Robbery	40	-4	Т	20-35	29	Expected
Aggravated Assault	129	-1	C	116–142	76	Low
Simple Assault	279	-8	C	239-319	171	Low
Threats	149	-7	Т	94–169	115	Expected
Arson	2	-1	Т	0-3	0	Expected
Burglary	109	-14	Т	50-95	45	Low
Theft from Persons	9	0	C	5-13	8	Expected
Purse-Snatching	8	-1	T	4-9	4	Expected
Shoplifting	137	10	T	109-243	106	Low
Theft from Building	68	-5	Т	34-81	53	Expected
Theft from Machine	0	0	C	0-0	0	Expected
Theft from Vehicle	52	3	C	30-74	65	Expected

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Theft of MV Parts	4	1	С	o–8	2	Expected
Other Theft	270	-21	Т	136–280	119	Low
Auto Theft	93	-11	Т	49-75	41	Low
Forgery	18	-1	C	7-29	23	Expected
Fraud	65	-1	C	50–80	87	High
Credit Card Fraud	21	-4	Т	2-21	8	Expected
Identity Theft	31	-1	Т	22-33	20	Low
Employee Theft	4	-1	Т	2-4	2	Expected
Stolen Property	22	0	C	13-31	14	Expected
Vandalism	266	-23	Т	138–241	155	Expected
Drugs	60	-7	Т	27–54	44	Expected
Drug Equipment	0	0	Т	0-1	1	Expected
Statutory Rape	5	0	C	1–9	7	Expected
Gambling	1	0	C	0-2	2	Expected
Pornography	2	0	С	0-4	4	Expected
Prostitution	3	0	C	1–5	2	Expected
Weapons	17	-1	С	11–23	13	Expected
Bad Checks	11	-1	C	4–18	3	Low
Disorderly	58	-2	C	42-74	42	Expected
Drunk Driving	43	4	С	23–63	36	Expected
Drunkenness	46	-7	Т	8–51	18	Expected
Family Offenses	1	0	C	0-3	2	Expected
Liquor Laws	11	2	Т	10-21	19	Expected
Runaway	0	0	С	0-0	0	Expected
Trespassing	24	0	С	13-35	11	Low
Violent Total	629	-21	T	491–705	408	Low
Property Total	1179	-69	Т	727–1134	752	Expected
Total Crimes	2090	-103	Т	1291–2064	1364	Expected

Revere did very well during this period, ending the eight months with violent crime very low, and property crime at the lower end of the expected range. The only crime to see a significant increase was **fraud**. Target reported numerous incidents of price tampering and various con games were reported at area residences, suggesting telephone or online fraud.

Selected calls for service in Revere

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Abandoned Vehicle	92	8	Т	88–158	58	Low
Disabled Vehicle	240	12	C	162–318	263	Expected
Domestic Dispute	402	49	T	467–725	547	Expected
General Service	840	14	C	671–1009	650	Low
Gunshots	21	7	T	21–69	49	Expected
Liquor	10	-1	C	0-22	1	Expected

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Lost Property	77	8	Т	87–123	99	Expected
Medical	403	143	Т	618–1173	789	Expected
Overdose	77	19	Т	68–168	3	Low
Psychological	6	0	С	3-9	1	Low
Recovered Vehicle	50	-11	Т	20–32	40	High
Suspicious Activity	823	56	Т	829–1263	775	Low
Traffic Collision	1159	94	Т	1401–1671	1393	Low
Traffic Complaint	717	95	Т	931–1259	883	Low

Revere showed some extremely low call-for-service categories during this period. The major exception was in the category of recovered stolen vehicles, which had been trending downward, hitting an all-time low of 26 in 2019. This is the kind of incident that we specifically wanted to watch for, as any large facility can cause visitors to bring stolen cars to the area and drop them off. However, we see no corroborative increases in this category from other communities, and geographically the recoveries don't make much sense if the drivers were going to hop a bus or train to Encore (see map). An analysis from the Revere Police as to the origins of these cars would be interesting.

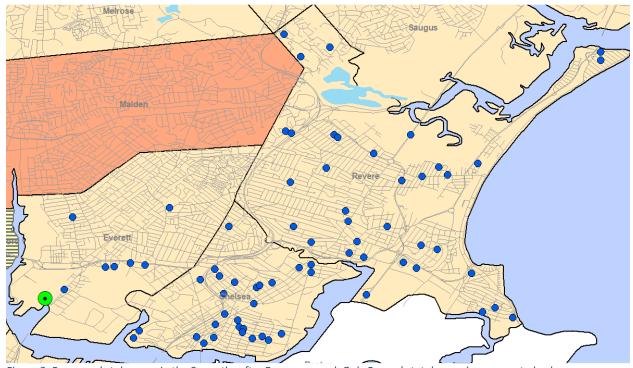


Figure 9: Recovered stolen cars in the 8 months after Encore opened. Only Revere's totals are above expected volume.

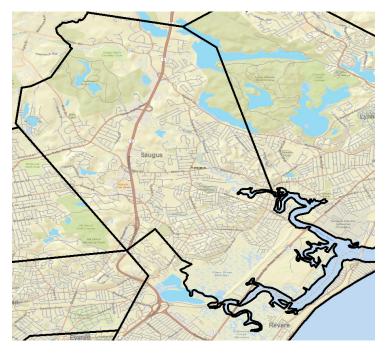
Collisions in Revere

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Vehicle in Traffic	269	11	C	217–321	227	Expected
Parked Vehicle	56	4	Т	59–88	74	Expected
Pedestrian	25	-1	C	19–31	22	Expected
Bicyclist	6	0	C	3-9	3	Expected

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Animal	0	0	С	0-1	0	Expected
Fixed Object	34	1	С	24-44	43	Expected
Curb/Barrier/Embankment	25	3	T	26–45	13	Low
Rollover/Jackknife	2	0	С	0-5	4	Expected
Other/Unknown	13	-1	С	9-17	9	Expected
Total	430	18	T	403–581	395	Low

Collisions in Revere had increased steadily since 2015 but they reversed course in 2019–2020, ending not only below the trendline for the period but also below the 8-month average. If Encore Boston Harbor occasioned an increase in traffic in the region, it is not being reflected in collisions on Revere roads.

8-month analysis: Saugus





Population (est. 2019): 28,378

Area: 11.8 square miles

Police officers: 59

City center distance to Encore:

5.72 miles

Saugus is a small residential city bisected by a massive commercial corridor. It is only shortly before its borders that Interestate 95 travelers headed to Boston (including Encore) exit the highway onto Route 1. The route this traffic takes through Saugus is some of the mostly densely-packed commercial territory in the state, including a major shopping mall (Square One), a major shopping center, and dozens of department stores, restaurants, gas stations, and other retail and service outlets. These establishments do not continue much beyond the city's southern border; in Malden, Route 1 becomes a controlled-access freeway. Thus, Saugus is poised to see an increase in activity from travelers to and from Encore from northern points.

Crimes in Saugus

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Murder	0	0	C	0-0	1	High
Sexual Assault	6	-1	C	3-9	13	High
Kidnapping	1	0	C	0-2	0	Expected
Robbery	10	0	C	5–16	6	Expected
Aggravated Assault	31	2	Т	29-47	26	Low
Simple Assault	66	-1	C	55 - 77	55	Expected
Threats	23	1	C	17–29	31	High
Arson	1	0	Т	0-1	1	Expected
Burglary	41	-5	Т	18-24	16	Low
Theft from Persons	2	0	C	0-4	0	Expected
Purse-Snatching	2	0	C	1–3	1	Expected
Shoplifting	98	-12	Т	38–108	67	Expected
Theft from Building	18	-2	Т	10–19	13	Expected
Theft from Vehicle	57	-7	Т	26–45	37	Expected

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Theft of MV Parts	1	0	Т	1-4	1	Expected
Other Theft	191	-22	Т	58–182	78	Expected
Auto Theft	27	-1	C	21–33	23	Expected
Forgery	15	-1	C	6–24	15	Expected
Fraud	38	-2	C	28–48	56	High
Credit Card Fraud	25	-2	Т	14-22	5	Low
Identity Theft	29	1	C	20–38	26	Expected
Employee Theft	3	0	Т	1-3	0	Low
Stolen Property	10	-2	C	7-13	11	Expeced
Vandalism	140	-11	Т	82–122	82	Expectedd
Drugs	24	-3	Т	11–26	22	Expected
Drug Equipment	0	0	C	0-0	0	Expected
Statutory Rape	2	0	C	0-4	1	Expected
Gambling	0	0	Т	0-1	0	Expected
Pornography	1	0	Т	0-2	0	Expected
Prostitution	1	0	C	0-2	0	Expected
Weapons	8	0	C	4-12	6	Expected
Bad Checks	6	-2	Т	0-3	0	Expected
Disorderly	8	-2	Т	1–9	8	Expected
Drunk Driving	18	2	Т	15-37	23	Expected
Drunkenness	12	-1	C	6–18	4	Low
Family Offenses	0	0	Т	0-0	0	Expected
Liquor Laws	5	0	C	2-8	1	Low
Runaway	1	0	С	0-4	0	Expected
Trespassing	7	-1	C	4-10	2	Low
Violent Total	137	1	С	109–180	132	Expected
Property Total	699	-67	Т	344-541	432	Expected
Total Crimes	928	-72	T	523-756	631	Expected

Murder

Saugus had a single homicide during this period, unusual for the agency, but it involved two brothers-in-law with a long history of feuds. One shot the other while he was working at a gas station and then shot himself in his car. There is no Encore relationship.

Sexual Assault

An unusually high number, but mostly at local residences and schools, which would suggest a non-Encore cause. Saugus Police may want to check iif their records management system is properly coding some charges, as based on the charges, some of the incidents may be indecent exposure instead of sexual assault.

Threats

Saugus is the only agency to see an increase in this category. The increase was mostly at residences involving local victims and suspects.

Fraud

The increase includes a mix of confidence scams and miscoded credit card fraud at a variety of businesses, particularly on Route 1. Most of the suspects have been from Saugus itself, but a narrative review of the incidents along Broadway (Route 1), particularly at gas stations, is warranted to look for any potential connection.

Selected calls for service in Saugus

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Abandoned Vehicle	1	0	С	0-1	0	Expected
Disabled Vehicle	17	0	С	7–27	18	Expected
Drugs	0	0	С	0-1	0	Expected
General Service	14	0	С	10–18	10	Expected
Gunshots	1	0	С	0-3	3	Expected
Liquor	3	0	С	1–5	1	Expected
Lost Property	2	0	С	1-3	2	Expected
Medical	23	0	С	19–27	19	Expected
Overdose	7	0	С	3–11	9	Expected
Psychological	14	0	С	9–19	17	Expected
Recovered Vehicle	2	0	С	0-4	1	Expected
Suspicious Activity	57	0	С	42-72	57	Expected
Traffic Collision	83	2	Т	53-91	84	Expected
Traffic Complaint	17	0	С	11-23	4	Low

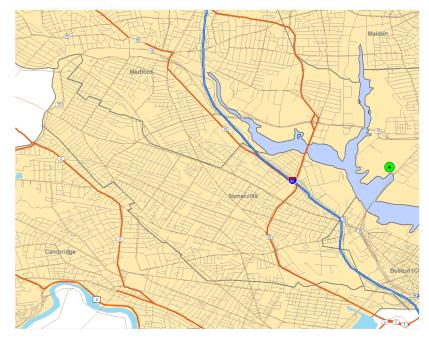
All call categories in Saugus were low or expected for this period.

Collisions in Saugus

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Vehicle in Traffic	191	12	T	204–270	238	Expected
Parked Vehicle	35	2	T	33-48	41	Expected
Pedestrian	7	-1	С	4-10	18	High
Bicyclist	2	0	С	1-3	4	High
Animal	1	0	C	0-2	1	Expected
Fixed Object	37	0	С	27-47	40	Expected
Curb/Barrier/Embankment	17	1	C	11–23	15	Expected
Rollover/Jackknife	2	0	C	1-3	1	Expected
Other/Unknown	13	0	C	5–21	4	Low
Total	305	13	T	301–414	362	Expected

Saugus showed increases in the only two collision categories that we wouldn't expect to be related to Encore-pedestrian and bicyclist. Although a small number are in Route 1 parking lots, most are in the residential area of east Saugus, centered on Central Street.

8-month analysis: Somerville





Population (est. 2019): 81,668

Area: 4.2 square miles

Police officers: 127

City center distance to Encore:

1.45 miles

The most densely populated city in New England, Somerville sits across the Mystic River from Everett. Once known as Cambridge's working-class sibling, Somerville has experienced significant growth and revitalization in the 21st century, greatly reducing its historic crime rate. A full-time crime analyst is contributing her expertise to this project.

Assembly Square has not yet been connected to Encore by a footbridge, so we saw no related increase in that area. The rest of the city had some categorical changes, but none in a way clearly linked to Encore.

Crimes in Somerville

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Murder	0	0	С	0-1	0	Expected
Sexual Assault	30	0	С	23-37	35	Expected
Kidnapping	4	-1	С	1–7	5	Expected
Robbery	34	-3	T	16–39	22	Expected
Aggravated Assault	82	0	С	65–99	88	Expected
Simple Assault	146	1	С	120–172	155	Expected
Threats	26	-2	С	10-45	19	Expected
Arson	5	-1	С	1–13	1	Expected
Burglary	173	-24	T	94–148	76	Low
Theft from Persons	0	0	С	0-0	0	Expected
Purse-Snatching	0	0	С	0-0	0	Expected
Shoplifting	0	0	С	0-0	0	Expected
Theft from Building	44	3	С	28–60	49	Expected
Theft from Machine	0	0	С	0-0	0	Expected
Theft from Vehicle	192	-33	T	95–169	125	Expected

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Theft of MV Parts	1	0	С	0-1	0	Expected
Other Theft	367	-25	Т	213-410	329	Expected
Auto Theft	77	0	С	68–86	62	Low
Forgery	21	2	С	12-30	26	Expected
Fraud	82	4	С	60–104	92	Expected
Credit Card Fraud	28	5	T	21–54	37	Expected
Identity Theft	77	10	С	27–127	64	Expected
Employee Theft	0	0	С	0-1	1	Expected
Stolen Property	0	0	С	0-0	0	Expected
Vandalism	196	-15	T	115–184	144	Expected
Drugs	48	0	С	38–58	36	Low
Drug Equipment	0	0	С	0-0	0	Expected
Statutory Rape	2	-1	Т	0-3	5	High
Gambling	0	0	С	0-0	0	Expected
Pornography	2	0	С	0-4	7	High
Prostitution	3	0	С	1–5	0	Low
Weapons	25	1	С	19–31	30	Expected
Bad Checks	0	0	C	0-0	0	Expected
Disorderly	54	-5	Т	33-41	31	Low
Drunk Driving	24	1	С	17-31	18	Expected
Drunkenness	0	0	С	0-0	0	Expected
Family Offenses	31	-4	Т	18–25	21	Expected
Liquor Laws	12	-1	С	7–17	6	Low
Runaway	0	0	С	0-0	0	Expected
Trespassing	15	2	Т	15–28	12	Low
Violent Total	322	-5	С	235–400	324	Expected
Property Total	1266	-75	T	834–1240	1006	Expected
Total Crimes	1803	-87	Т	1234–1792	1496	Expected

Somerville's overall crime totals were within predicted ranges. Its property and total crime figures continued the expected downward trend. Only a couple of crimes were above normal.

Statutory Rape

Somerville took a high number of these reports in September and October of 2019. They did not occur in location types (like hotels) that would appeal to out-of-town visitors, and all suspects listed are local except one. Because we collect limited data on sexual offenses, Somerville Police will have to report if any of the suspects has a casino connection.

Pornography

Half a dozen incidents of "obscene material" were recorded at residences in Somerville in the latter half of 2019, but none of the suspects are listed as coming from Somerville. As with other sexual offenses, the data collected does not provide enough to determine the cause of the trend without police input. {SPD: 20000879, 19065010, 19059325, 19059196, 19056934, 19043371, 19042051.]

Selected calls for service in Somerville

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Abandoned Vehicle	16	-1	C	9-23	18	Expected
Disabled Vehicle	137	9	Т	150–194	163	Expected
Domestic Dispute	391	-22	T	249–367	322	Expected
Drugs	27	-3	Т	12-34	32	Expected
General Service	1342	4	С	1141–1543	1224	Expected
Gunshots	28	1	С	18-38	35	Expected
Liquor	255	-31	Т	105–236	220	Expected
Lost Property	218	-12	Т	118–238	159	Expected
Medical Aid	3384	-70	Т	2915-3572	3268	Expected
Overdose	71	-6	С	48–94	53	Expected
Psychological	230	23	Т	275-370	301	Expected
Recovered Vehicle	70	-4	Т	44-72	43	Low
Suspicious Activity	632	-16	С	501-763	548	Expected
Traffic Collision	1766	-69	С	1413-2119	1526	Expected
Traffic Complaint	1477	-19	С	1002–1952	1965	High

Somerville's call-for-service types almost all fell within expected ranges during the latter half of 2019, with one exception. The wide range in the **traffic complaint** category is due to significantly increased usage of the "TRESPTOW" code starting in 2016. If that code is removed, complaints fall within the normal range.

Collisions in Somerville

Category	Pre-Enc Avg		Window Type		Jul 2019- Feb 2020	Result
Total	379	-2	C	324-434	349	Expected

Somerville did not implement electronic crash reporting using the agency's records management system until 2018. Data provided for the period prior to 2018 lacks the "category" field. Total collisions, however, were average to low for the city in the six months post-Encore.

State police data

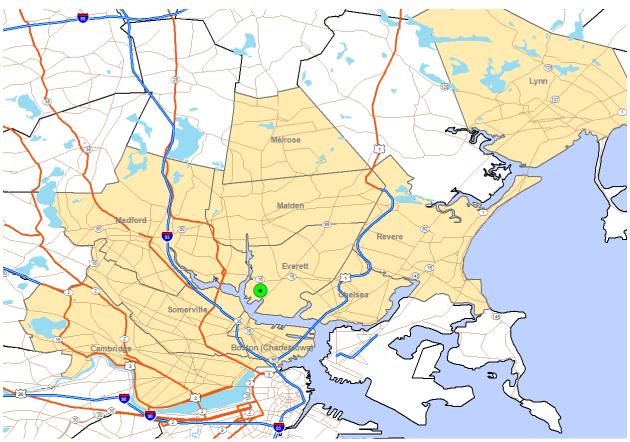


Figure 10: A network of State Police-patrolled highways and routes feeds the Encore Boston Harbor area.

State Police patrol state highways (principally I-90, I-93, and U.S. Route 1) in the Boston area, plus state properties and parks. They assist local police in response to some crime issues, and the State Police Gaming Enforcement Unit has taken over primary enforcement responsibilities at Encore Boston Harbor.

The Massachusetts State Police operate a records system with different conventions and reporting rules than the local agencies, so the categories and totals are not directly compatible. In some cases, where both agencies responded to an incident, the two systems may duplicate each other.

Naturally, the State Police are poised to see an increase in traffic on state roads that feed Encore Boston Harbor as well as at the casino itself. This will primarily be reflected in traffic-related calls for service and crimes, including collisions, drug possession, and drunk driving. The statistics below show several increases in crashes and other activity, although six months is too soon to reach any significant conclusions.

The data below comes from a combination of multiple State Police stations, including A-5 (Revere), A-4 (Medford), H-5 (Brighton), H-4 (downtown Boston), A-6 (Danvers), a section of Troop E eliminated and re-allocated in 2018, and various mobile statewide units such as headquarters units, canine units, and investigators.

Selected activity

Activity	Pre-Enc	Slope	Window	Pred.	Jul 2019-	Result
	Avg		Type	Window	Feb 2020	
911 Hangup or Error	2	0	С	0-4	18	High
Abandoned Vehicle	10	0	С	7-13	24	High
Abduction	1	0	С	0–3	0	Expected
Administrative	2016	729	Т	1971–6624	5242	Expected
Alarm	11	0	С	5-17	13	Expected
All Other	284	13	С	161–407	209	Expected
Animal Complaint	39	3	С	22–56	67	High
Arson	2	0	C	0-4	0	Expected
Assault	34	0	C	27–41	43	High
Assist Other Agency	284	18	Т	279–436	333	Expected
Bomb Threat	3	-1	Т	0-2	2	Expected
Building Check	4106	-152	C	2926–5286	2757	Low
Burglary	11	-2	Т	4-10	9	Expected
Crime Enforcement	28	8	Т	20–97	10	Low
Death	178	-1	С	151–205	201	Expected
Disabled Vehicle	1109	-40	С	898–1320	1162	Expected
Disorderly	153	-3	С	138–168	159	Expected
Domestic Dispute	11	0	С	6–16	14	Expected
Drugs	21	1	С	13–29	19	Expected
Field Interview	17	2	Т	19–32	38	High
Fire	74	-3	Т	41-83	53	Expected
Found Property	2	0	С	0-5	4	Expected
General Service	128	26	Т	122-315	234	Expected
Gunshots	12	1	С	5–19	2	Low
Investigation	138	-5	С	111–165	213	High
Liquor	11	0	С	6–16	6	Expected
Lost Property	24	2	С	15-33	35	High
Medical	203	1	С	176–230	206	Expected
Missing Person	26	1	С	13-39	32	Expected
Municipal or Utility	111	-9	С	61–159	127	Expected
Other Theft	16	-4	Т	3-13	12	Expected
Prisoner Transport	168	38	Т	161–468	374	Expected
Psychological	10	0	С	3-17	14	Expected
Recovered Vehicle	37	-5	Т	20-39	26	Expected
R.O. Violation	2	0	С	0-4	1	Expected
Road Conditions	233	2	С	179–287	296	High
Robbery	10	0	С	6–14	8	Expected
Suspicious Activity	72	1	С	57 ⁻⁸ 7	104	High
Threats/Harassment	8	1	T	7-13	12	Expected
Traffic Collision	2517	72	T	2681–2927	2699	Expected
Traffic Complaint	479	14	С	335–623	631	High

Activity	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Traffic Enforcement	175	2	C	108–242	194	Expected
Traffic Offenses	39	-2	Т	23-41	39	Expected
Trespassing	29	6	T	28–69	35	Expected
Vandalism	17	-2	Т	9–18	15	Expected
Vehicle Stop	1929	-300	T	938–1189	1496	High
Warrant Service	51	-5	Т	24–58	63	High
Weapons	3	-1	С	0-7	2	Expected
Well-Being Check	36	4	T	28–72	79	High
Youth Disorder	1	0	С	0-2	2	Expected

The State Police had more increases in activity in the area than any local agency. Some brief notes:

- Of the **911** hangups, more than half were in Cambridge, primarily involving Memorial Drive businesses.
- Medford dominated the increase in **abandoned vehicles**, particularly on Route 93.
- The **lost property** complaints are almost all at State Police facilities in Medford and Revere.
- The **animal complaint** increase mostly involved "animal in road" in Revere and Medford.
- Assaults were particularly high in July 2019, but with no commonalities by location or time.
- Most of the reports of **lost property** came from Medford.
- The increase in **suspicious activity** calls came mostly from the Revere Beach area.

Crashes on state roadways

Road	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Route 16	514	19	Т	51	419	Expected
I-93	254	6	С	220–288	250	Expected
Route 28	254	0	С	233-275	212	Low
Route 1	237	8	Т	215-324	248	Expected
Memorial Drive	142	-4	Т	101–152	156	High
Route 1A	68	1	С	59-77	92	High
Lynnway	52	8	Т	63–89	63	Expected
Mystic Avenue	66	5	Т	63–103	81	Expected
Route 38	39	3	Т	36–66	48	Expected
Alewife Brook Pkwy	88	0	С	71–105	63	Low
Revere Beach Blvd	35	1	Т	34-47	45	Expected
McGrath Hwy	32	1	С	21-43	63	High
Route 145	29	3	Т	28–51	41	Expected
Fresh Pond Pkwy	69	-2	С	58–80	50	Low
Msgr. O'Brien Hwy	44	0	С	36–52	42	Expected
Fellsway	111	7	Т	114–165	158	Expected
Ocean Avenue	27	2	С	17-37	32	Expected
Route 2	45	-4	Т	19–58	32	Expected
Lynn Fells Pkwy	27	3	Т	22–49	29	Expected
Roosevelt Circle	60	0	С	45-75	86	High
All Others	322	15	Т	339-422	389	Expected
Total	2517	72	T	2681–2928	2709	Expected

Unlike the local communities, State Police saw several increases in collisions along patrolled roadways, although not with any particular consistency in terms of proximity to the casino. Overall totals were well within the expected range.

Spatial analysis

In interests of space, the statistics below do not include categories with fewer than 5 crimes on average unless the category was notably high in the associated region in the period ending February 2020.

Everett

The areas immediately adjacent to Encore Boston Harbor include:

1. To the **west**, the Gateway Center Shopping Plaza. This is the closest set of retail stores and non-casino restaurants. Although it is immediately adjacent to Encore, there is no "official" way to walk from one to the other. People are crafty, however, and even if they don't find a way to walk, it is only a short drive back up to 16.

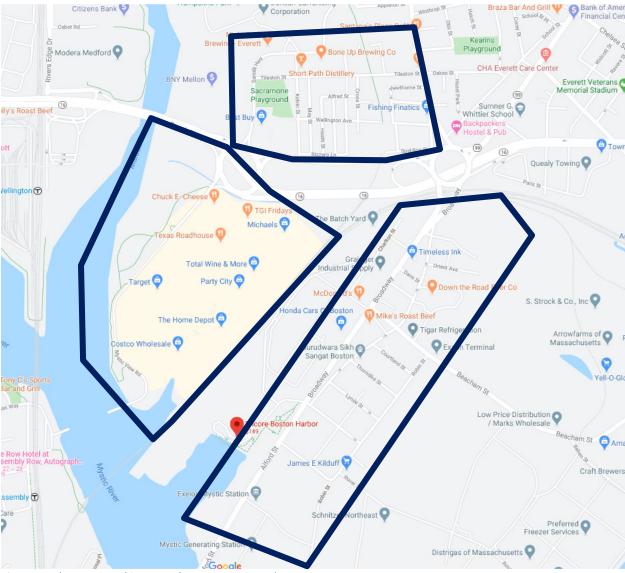


Figure 11: Three geographies around Encore Boston Harbor.

- 2. To the **east**, Broadway and a small mixed residential/commercial area extending one block to the east. There's a Dunkin' Donuts, a Mike's Roast Beef, a McDonald's, and some vehicle-related service businesses in the area. People driving to the casino pass through this area, and it certainly must have seen more traffic over the last six months.
- 3. To the **north**, a residential neighborhood extending from Route 16 with a couple of schools, a charge, a playground, and some local businesses. There's a Best Buy in the southwest corner of the area.

Activity in the west polygon (Gateway Shopping Plaza)

Road	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Thefts from Vehicles	2	0	C	0-4	2	Expected
Shoplifting	34	0	С	22-46	34	Expected
Vandalism	2	0	С	0-5	3	Expected
Drug/Liquor Crimes	1	0	С	0-2	0	Expected
Violent Crime	3	0	С	1–5	4	Expected
Property Crime	52	1	С	38–66	51	Expected
Total Crime	57	2	С	43-71	59	Expected
Suspicious Activity	13	-1	Т	5–16	10	Expected
Traffic Complaints	2	0	C	0-4	4	Expected
Total Calls for Service	383	-24	Т	230-404	354	Expected
Traffic Collisions	4	0	C	1–7	4	Expected

Literally nothing has changed for the Gateway Plaza area. If any of Encore's customers have made their way over to the shopping center, it isn't being reflected in the statistics for crime and calls for service.

Activity in the east polygon (Broadway)

Road	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Sexual Assault	1	0	С	0-1	2	High
Aggravated Assault	1	0	С	0-2	4	High
Simple Assault	3	0	С	o–6	3	Expected
Burglary	5	-1	Т	0-5	0	Expected
Thefts from Vehicles	3	0	С	1-5	3	Expected
Other Theft	9	1	С	4-14	4	Expected
Auto Theft	4	0	С	3-5	2	Low
Vandalism	8	-1	Т	2-10	4	Expected
Drug/Liquor Crimes	10	1	С	5–16	17	High
Violent Crime	8	0	С	5–11	11	Expected
Property Crime	34	-2	С	20–48	18	Low
Total Crime	52	-1	С	37-67	40	Expected
Suspicious Activity	24	-2	Т	14-24	27	High
Traffic Complaints	31	3	Т	22-53	39	Expected
Total Calls for Service	690	0	C	602–778	985	High
Traffic Collisions	21	0	С	12-30	16	Expected

The neighborhood across the street from the casino shows some effects from the extra people in the area. The sexual assaults were both at residences and involved offenders from Everett, so those are unlikely to be related. But the four aggravated assaults occurred on the streets around the casino. While none of them were initially flagged by the Everett Police as casino-related, we await some more information from the reports. In the latter half of 2019, Everett Police made a high number of arrests for drunk driving on Broadway, although the casino did not come up

in the offenders' accounts of where they had their last drinks. Residents reported more suspicious persons hanging around the neighborhood.

Total calls for service are high in the area, but these reflect police activity more than actual calls from the residents. Everett has allocated more directed patrols and traffic enforcement in the region than any year in its history, obviously doing their best to keep residents feeling safe amidst the new traffic.

Activity in the north polygon (neighborhood)

Road	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Thefts from Vehicles	4	0	С	1-7	2	Expected
Other Thefts	7	0	С	5-9	10	High
Shoplifting	6	0	С	1–12	10	Expected
Auto Theft	2	0	С	1-3	5	High
Vandalism	8	-1	С	3-13	6	Expected
Drug/Liquor Crimes	3	1	Т	4–6	1	Low
Violent Crime	7	-1	С	4-10	7	Expected
Property Crime	36	-3	Т	17-39	47	High
Total Crime	50	-3	T	31–50	56	High
Suspicious Activity	24	0	С	16–32	20	Expected
Traffic Complaints	22	-1	C	9–36	39	High
Total Calls for Service	514	-15	C	440–588	583	Expected
Traffic Collisions	7	0	C	4-10	12	High

The neighborhood north of the casino also saw some increases. A pattern of miscellaneous thefts is partly responsible for the general increase in property crime and total crime, but there were also five auto thefts towards the end of 2019, and most other crimes were at the high end of their usual range.

The northern neighborhood also saw slightly high values in traffic complaints (almost all parking-related), perhaps reflecting limited space at the casino garage. (The eastern neighborhood had high values for this during the first six months but dropped in the final two.) Finally, it beat its usual collision total by several incidents, a complete mix of causes, types, times, days, and streets.

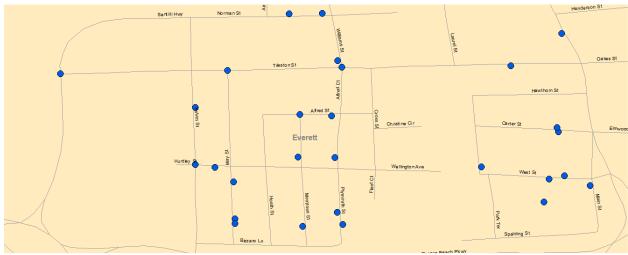


Figure 12: Parking complaints in the neighborhood north of Encore, July 2019-February 2020.

Multi-agency

Three other areas are worthy of attention for this report, all involving local and regional travel routes to Encore Boston Harbor or otherwise likely to be influenced by the facility:

- 1. **The Route 16 Corridor** between Route 93 and Route 1. Because we did not gain Medford's cooperation for this report, our analysis must be confined to Chelsea and Everett.
- 2. **The Route 1 Corridor** running from the northern border of Saugus through Malden and Revere before reaching Route 16 (Revere Beach Parkway). Saugus in particular has numerous businesses along this stretch of road, including the Square One Mall. Almost all traffic from Maine and coastal New Hampshire would pass through this area on the way to Encore.
- 3. **The Main Street Corridor** running from Melrose to Everett passing through Malden. Unfortunately, we did not have Malden's data for this report and had to confine the analysis to Melrose and Everett statistics.
- 4. **Assembly Square** in Somerville. The footbridge that was supposed to connect this "smart growth" area to Encore has not yet materialized, and its future is up in the air, but Assembly Square still has the densest concentration of shopping, restaurants, and hotels in the immediate area.

Incidents in the short distance of surface road between Route 93 and the Everett border in Charlestown are analyzed under that city's section.

Route 16 Corridor

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Sexual Assault	4	0	C	2-7	4	Expected
Robbery	10	-2	Т	0-14	6	Expected
Aggravated Assault	15	0	C	11–19	19	Expected
Simple Assault	52	-1	C	43–61	50	Expected
Threats	29	-3	Т	10-35	27	Expected
Burglary	20	-2	Т	6–26	18	Expected
Shoplifting	32	-1	С	17-47	7	Low
Theft from Building	25	-5	Т	8–22	7	Low
Theft from Vehicle	29	-5	Т	8–30	12	Expected
Theft of MV Parts	3	0	С	2-4	2	Expected
Other Theft	34	-3	Т	18–28	27	Expected
Auto Theft	17	-2	T	10-17	21	High
Forgery	5	-1	С	2-8	4	Expected
Fraud	11	0	C	6–16	10	Expected
Credit Card Fraud	9	0	C	7–11	5	Low
Identity Theft	8	-3	Т	2–13	4	Expected
Stolen Property	5	-1	Т	2-6	2	Expected
Vandalism	58	-5	Т	30-46	45	Expected
Drugs	12	-1	Т	7–14	6	Low
Weapons	5	1	Т	4-9	4	Expected
Bad Checks	5	0	С	2-8	4	Expected

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Disorderly	7	-1	Т	1–8	3	Expected
Drunk Driving	4	-1	T	1-5	6	High
Drunkenness	9	-1	T	3–10	11	High
Family Offenses	8	2	T	7–16	14	Expected
Trespassing	5	0	С	2-8	5	Expected
Violent Total	110	-6	T	66–138	107	Expected
Property Total	259	-31	T	126–186	164	Expected
Total Crimes	428	-39	T	224–362	329	Expected
Abandoned Vehicle	42	1	С	26–58	32	Expected
Disabled Vehicle	43	2	С	31–55	45	Expected
General Service	127	-9	T	70–130	94	Expected
Medical	179	-4	С	153-205	175	Expected
Overdose	9	1	T	10–17	9	Low
Psychological	23	1	С	16–30	28	Expected
Recovered Vehicle	7	-1	T	2-8	6	Expected
Suspicious Activity	113	-1	С	97–129	79	Low
Traffic Complaints	102	7	С	69–135	138	High
Total Calls	3527	67	С	3138–3916	3596	Expected
Total Collisions	80	-1	С	74–86	70	Low

There are some items of note here, including higher-than-expected totals in **auto theft, drunk driving, drunkenness, and traffic complaints**. Such increases were not generally seen in the overall statistics for the host agencies, or from other geographic areas analyzed. Some notes:

- Four of the auto thefts occurred at Pep Boys over a three month period between November 2019 and February 2020. None are explicitly listed by the EPD as Encore-related.
- The increase in drunkenness incidents involves protective custodies in Chelsea, most on streets adjacent to Route 16. The individuals involved have all been middle-aged men from Chelsea (one from Revere), making an Encore connection unlikely.
- The drunk driving increase is analyzed in a later section.
- The increase in traffic complains is largely in Everett and almost all related to parking. They span all times of day and days of the week. Unlike reports coming from the immediate area of the casino, the distances involved here would be prohibitive to foot traffic to the casino. The cause of the increase is thus uncertain.

Route 1 Corridor

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Robbery	6	0	С	2-11	5	Expected
Aggravated Assault	11	0	С	6–17	14	Expected
Simple Assault	25	0	С	20–30	22	Expected
Threats	9	0	С	2–16	14	Expected
Burglary	12	-2	Т	5-10	5	Expected

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Shoplifting	95	-12	Т	33–106	65	Expected
Theft from Building	11	-2	Т	3-14	2	Low
Theft from Vehicle	23	-5	Т	10-13	8	Low
Other Theft	111	-13	Т	31–111	47	Expected
Auto Theft	12	-2	Т	4–12	6	Expected
Forgery	10	0	С	3-17	12	Expected
Fraud	20	-1	Т	11-22	20	Expected
Credit Card Fraud	11	0	С	6–16	1	Low
Identity Theft	6	0	С	5-7	10	High
Vandalism	45	-5	Т	24-37	28	Expected
Drugs	11	-1	С	6–16	9	Expected
Disorderly	5	-1	Т	2-3	3	Expected
Drunk Driving	5	1	Τ	4-10	10	Expected
Drunkenness	5	0	С	1–9	2	Expected
Trespassing	4	0	С	2–6	1	Low
Violent Total	52	-1	С	30–78	59	Expected
Property Total	366	-42	T	149–281	213	Expected
Total Crimes	458	-45	T	207–372	300	Expected
Abandoned Vehicle	5	0	С	3-7	3	Expected
Disabled Vehicle	51	2	С	37–65	47	Expected
General Service	58	0	С	51–65	37	Low
Medical	61	6	Т	73–96	73	Expected
Overdose	14	2	Т	9-31	21	Expected
Psychological	23	1	С	15–31	19	Expected
Recovered Vehicle	7	0	С	3-11	8	Expected
Suspicious Activity	189	-3	С	171–207	146	Low
Traffic Complaints	34	1	С	26–42	22	Low
Total Calls	2275	9	С	2124–2426	2047	Low
Total Collisions	106	8	T	115–158	141	Expected

Saugus reported a lot of identity fraud at Route 1 businesses. Given the lack of similar reports in other areas, I would regard these as non-casino related unless more information is forthcoming. Nothing else increased in the area, and in fact total calls for service were low for the period.

Main Street Corridor

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Robbery	5	0	C	3-7	3	Expected
Aggravated Assault	7	0	С	2-12	9	Expected
Simple Assault	17	-2	T	9–18	20	High
Threats	9	-1	Т	2-12	3	Expected
Burglary	11	-1	С	2-20	4	Expected
Shoplifting	4	0	С	1–7	1	Expected

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Theft from Building	10	-1	С	5-17	3	Low
Theft from Vehicle	12	-1	С	6–18	7	Expected
Other Theft	28	1	С	18–38	24	Expected
Auto Theft	6	0	С	3-9	6	Expected
Fraud	6	0	С	4-8	13	High
Credit Card Fraud	2	0	С	0-4	7	High
Vandalism	25	0	С	21–29	19	Low
Drugs	4	0	С	2–6	6	Expected
Disorderly	5	0	С	3-7	7	Expected
Violent Total	38	-3	Т	16–51	35	Expected
Property Total	112	-4	С	90–134	90	Expected
Total Crimes	172	-7	С	135–209	158	Expected
Abandoned Vehicle	15	-1	С	8–22	11	Expected
Disabled Vehicle	3	0	С	2-4	3	Expected
General Service	42	-2	T	23-45	28	Expected
Medical	75	-2	С	63–87	59	Low
Overdose	3	1	С	2–6	5	Expected
Recovered Vehicle	0	0	С	0-1	1	Expected
Suspicious Activity	26	1	С	16–36	20	Expected
Traffic Complaints	70	2	С	40-100	76	Expected
Total Calls	835	8	С	693-977	822	Expected
Total Collisions	90	3	С	74–106	93	Expected

Five of the simple assault incidents, enough to account for all the increase, occurred at Melrose Wakefield Hospital. They seem to be a combination of domestic assaults and assaults on staff, and they could be Encore-related if it can be shown that hospital traffic increased because of the casino. Surprisingly, three of the fraud and credit card fraud incidents are also located at the medical facility; others occurred up and down Main Street in both Everett and Melrose.

Assembly Square⁴

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Sexual Assault	1	0	T	1-3	1	Expected
Kidnapping	0	0	Ţ	0-1	1	Expected
Robbery	1	1	T	2-5	1	Low
Aggravated Assault	2	1	С	0–6	4	Expected
Simple Assault	6	1	T	5–14	9	Expected
Threats	1	0	T	1-4	2	Expected
Arson	0	0	C	0-0	0	Expected
Burglary	3	0	С	1–6	4	Expected

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⁴ Since the new Assembly Square did not open until 2014, pre-Encore average, slope, and trend are based on data from 2015–2019 rather than 2013–2019. Somerville was not able to provide location-specific collision data for past years, so collisions are based on calls for service rather than collision reports.

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	Jul 2019- Feb 2020	Result
Theft from Building	6	2	T	4-21	7	Expected
Theft from Vehicle	7	1	С	2-13	4	Expected
Other Theft	58	6	С	13–108	48	Expected
Auto Theft	4	1	С	1–8	6	Expected
Forgery	3	1	С	0-7	7	Expected
Fraud	8	2	T	6–19	16	Expected
Credit Card Fraud	1	0	С	0–3	7	High
Identity Theft	42	7	T	21–103	23	Expected
Employee Theft	0	0	С	0-0	0	Expected
Vandalism	9	2	T	8–26	10	Expected
Drugs	6	1	С	3-9	7	Expected
Pornography	0	0	С	0-0	0	Expected
Prostitution	1	0	С	0-2	0	Expected
Weapons	3	1	С	0-5	5	Expected
Disorderly	3	1	T	2-8	4	Expected
Drunk Driving	1	0	T	0–3	0	Expected
Family Offenses	1	0	С	0-2	0	Expected
Liquor Laws	0	0	С	0-1	1	Expected
Trespassing	1	0	С	0-2	0	Expected
Violent Total	11	3	T	9-33	18	Expected
Property Total	142	23	T	80–331	132	Expected
Total Crimes	169	28	T	122-371	167	Expected
Disabled Vehicle	9	1	С	4-15	9	Expected
General Service	73	4	T	68–111	62	Low
Medical	242	-23	С	110-374	172	Expected
Overdose	4	0	С	2-7	3	Expected
Psychological	6	1	С	2-10	16	High
Recovered Vehicle	2	0	С	1-4	1	Expected
Suspicious Activity	64	3	С	42–86	80	Expected
Traffic Complaints	115	10	Т	96–154	149	Expected
Total Calls	3906	166	T	3837-5304	3651	Low
Total Collisions	106	-2	С	85–127	119	Expected

Assembly Square has not yet shown many signs of increased activity, which makes sense given limited access from Encore. Four of the increased credit card fraud incidents occurred at Kay Jewelers between September and January, and a couple involved out-of-state defendants. There was also an increase in calls for service coded "PSYCH EMERGENCY" scattered throughout the area with no particular commonalities.

Overall, the evidence suggests that Encore has shown no or minimal effect on crimes and calls for service in areas near and on the way to and from the casino, the exceptions being the miscellany of potentially-related items in the eastern and northern neighborhoods.

Analysis of COVID-related closing and reopening

The data for this report was mostly collected in January 2021. The report had been intended to cover through July 2020—a one-year period after Encore opened in 2019. However, a number of landmark things occurred towards the end of this analysis period and immediately afterwards.

- 31 December 2019: The World Health Organization confirms a mysterious outbreak of a pneumonia-like disease in Wuhan, China.
- 11 January 2020: China reports the first death from the new coronavirus.
- 22 January 2020: The first COVID-19 case in the United States is confirmed by the Centers for Disease Control and prevention.
- 30 January 2020: The World Health Organization declares a global health emergency.
- **1 February 2020:** The first Massachusetts COVID case is confirmed.
- **11 February 2020:** The new virus is given the designation COVID-19 by the WHO.
- 26 February 2020: The first case of local transmission is confirmed in the United States.
- 29 February 2020: The first confirmed U.S. death from COVID-19, a man in Washington State.
- 10 March 2020: Massachusetts Governor Charlie Baker declares a state of emergency.
- 12 March 2020: A man who visited Encore Boston Harbor on 5 March is diagnosed with COVID-19.
- **13 March 2020:** President Trump declares a national emergency.
- **14 March 2020:** The Massachusetts Gaming Commission votes unanimously to suspend operation at all three casinos.
- **15 March 2020:** The CDC warns against large gatherings of people. Governor Charlie Baker issues an order prohibiting gatherings of more than 25 people and closes K–12 schools. Amendments would keep schools closed for the rest of the season.
- 17 March 2020: With West Virginia's first COVID-19 case, the virus is present in all 50 states.
- **18 March 2020:** Governor Baker orders the closure of non-emergency childcare.
- 23 March 2020: Governor Baker's 15 March order is amended to prohibit gatherings of more than 10 people.
- 1 May 2020: Governor Baker issues an order requiring face coverings in public places.
- 8-12 July 2020: Massachusetts casinos re-open with restrictions on occupancy and types of activities.

Ultimately, Massachusetts casinos were completely closed from the period of 14 March to 8 July 2020 and have been operating at 25% capacity since re-opening, naturally eliminating or vastly mitigating their effects on the surrounding communities. But these closures occurred during a period in which many bars, restaurants, schools, and other facilities were closed, too, or operated under severe restrictions. Countless workers began working remotely, and many residents changed their attitudes about the desirability of certain activities, even if they were technically legal.

The impact on crime and public safety was immediate and detectable. The tables below show significant decreases in most crimes. Media reports during this period have correctly identified decreases in crimes like robbery, burglary, thefts from persons, and thefts from vehicles. (The Encore region bucked this latter trend, showing an increase in thefts from vehicles. Charleston bore the brunt of this increase, doubling its usual total.) The media has also widely

suggested that domestic violence increased during this period—a result of too many family members on top of each other for too long—but if that's the case elsewhere, it isn't reflected in the first three months of Encore-area data.



Figure 13: Thefts from vehicles reported in Charlestown during the COVID shutdown, March-June 2020. The neighborhood had twice its normal total.

The reason for such heavy decreases in most crimes was worked out in the 1970s by criminologists Marcus Felson and Larry Cohen. They argued that crime is largely a byproduct of the routine activities of society. In their daily lives, people going about their business unwittingly create opportunities for crimes to occur. They leave their houses unoccupied during large potions of the day. They leave their cars unattended for hours in large parking lots. They get tipsy in bars and casinos and then go walking through dark alleys. Criminals simply find the right target in the right time and place. A pandemic suppresses such activities. People stay at home, where they and their family members are able to guard their houses, cars, and persons. Criminal stay at home, too. Most daily interactions that would give rise to crime are vastly diminished.

Incidents reported to region, 1 March to 30 June

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	2020	Result
Murder	3	0	C	1–6	2	Expected
Sexual Assault	94	-1	C	78–110	64	Low
Kidnapping	15	0	C	10-20	3	Low
Robbery	154	-17	Т	74-134	65	Low
Aggravated Assault	399	-26	Т	260–361	309	Expected
Simple Assault	861	-45	Т	568–790	586	Expected
Threats	318	-15	T	214–309	190	Low
Arson	8	-1	Т	3-9	3	Expected
Burglary	371	-61	Т	190–283	196	Expected
Theft from Persons	26	-3	Т	11–29	12	Expected
Purse-Snatching	10	-2	T	2–8	3	Expected

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	2020	Result
Shoplifting	264	-16	T	160–292	86	Low
Theft from Building	162	-11	Τ	100-140	108	Expected
Theft from Vehicle	346	-52	Τ	149–227	301	High
Theft of MV Parts	37	-3	С	15–60	12	Low
Other Theft	820	-81	T	473-644	558	Expected
Auto Theft	232	-16	Т	140-226	170	Expected
Forgery	68	-2	С	51–85	31	Low
Fraud	196	-2	С	175–217	168	Low
Credit Card Fraud	115	4	С	78–152	100	Expected
Identity Theft	123	-1	С	82–164	105	Expected
Employee Theft	6	-1	C	2-10	2	Expected
Stolen Property	33	-4	Т	18–28	28	Expected
Vandalism	908	-100	Τ	462–671	581	Expected
Drugs	253	-27	Т	132–177	81	Low
Drug Equipment	8	-1	C	4-12	7	Expected
Statutory Rape	13	2	Т	14-27	13	Low
Gambling	1	0	C	0-2	1	Expected
Pornography	8	0	C	4-12	15	High
Prostitution	36	-11	Т	7–16	0	Low
Weapons	87	-4	C	64–110	73	Expected
Bad Checks	19	-3	Т	7–16	7	Expected
Disorderly	166	-14	Т	98–159	86	Low
Drunk Driving	113	8	Т	116–172	73	Low
Drunkenness	112	-12	Т	47–96	30	Low
Family Offenses	124	5	Т	109–181	102	Low
Liquor Laws	45	-1	C	37-53	22	Low
Runaway	4	-1	C	0–9	0	Expected
Trespassing	101	-4	Т	61–110	49	Low
Violent Total	1844	-104	Т	1205–1730	1219	Expected
Property Total	3725	-351	Т	2130–2782	2464	Expected
Total	6659	-516	Т	3991–5365	4242	Expected

The effect of the closures on collision reports is also quite significant. People do not crash when they aren't driving.

Collisions reported to the region, 1 March to 30 June⁵

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result
Vehicle in traffic	1219	-6	С	1048–1390	647	Low
Parked vehicle	172	-4	С	150–194	145	Low
Pedestrian	83	-3	С	65–101	56	Low
Bicyclist	13	-1	Т	5-15	6	Expected

⁵ Does not include Malden or Boston. Somerville is included in the total but not the individual categories.

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result
Animal	2	0	С	0-4	1	Expected
Fixed object	67	3	С	51-83	55	Expected
Curb/barrier	28	-1	С	20–36	22	Expected
Rollover/Jackknife	4	1	С	1-8	3	Expected
Other/Unknown	65	-7	Т	34–61	23	Low
Total	1837	-24	C	1617–2057	1045	Low

Re-opening

Encore Boston Harbor was allowed to re-open on 12 July 2020 after implementing a number of safety measures, including social distancing, face masks, temperature screenings, and a maximum capacity of 25%. Other businesses followed suit, but large events remained forbidden throughout the Commonwealth, and others operated with the same capacity restrictions as the casino. Schools and state offices remained closed for the rest of the year, and many private industry workers continued to work from home.

Incidents reported to region, July-December

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	2020	Result
Murder	6	0	С	2-10	6	Expected
Sexual Assault	140	-1	С	120–160	116	Low
Kidnapping	20	-1	С	14–26	12	Low
Robbery	250	-28	Т	135–160	115	Low
Aggravated Assault	605	-15	Т	493–598	528	Expected
Simple Assault	1278	-55	Т	873–1262	992	Expected
Threats	437	-20	T	290–467	308	Expected
Arson	12	-3	Т	2-14	3	Expected
Burglary	580	-80	Т	290–372	327	Expected
Theft from Persons	45	-2	Т	30-48	28	Low
Purse-Snatching	16	-2	Т	8–18	8	Expected
Shoplifting	379	-24	Т	214-434	195	Low
Theft from Building	276	-15	T	193–269	184	Low
Theft from Machine	0	0	C	0-1	0	Expected
Theft from Vehicle	623	-63	Т	345-494	509	High
Theft of MV Parts	42	-3	С	18–66	24	Expected
Other Theft	1302	-122	Т	760–1093	1139	High
Auto Theft	406	-31	Т	231–397	353	Expected
Forgery	87	-6	Т	53-94	47	Low
Fraud	304	1	С	260–348	447	High
Credit Card Fraud	135	-3	C	105–165	323	High
Identity Theft	151	2	С	118–184	531	High
Employee Theft	9	-1	Т	5-9	1	Low
Stolen Property	50	-4	Т	26–59	49	Expected
Vandalism	1385	-137	T	793–1049	1067	High
Drugs	333	-24	Т	209–300	162	Low

Category	Pre-Enc Avg	Slope	Window Type	Pred. Window	2020	Result
Drug Equipment	11	0	C	8-14	2	Low
Statutory Rape	18	3	Т	12–51	20	Expected
Gambling	2	0	C	0-5	2	Expected
Pornography	12	2	Т	8–23	23	Expected
Prostitution	24	-8	Т	4–8	1	Low
Weapons	137	-1	C	118–156	101	Low
Bad Checks	29	-4	C	12–46	5	Low
Disorderly	240	-18	Т	136–233	123	Low
Drunk Driving	171	7	Т	156–240	137	Low
Drunkenness	162	-13	Т	97–141	42	Low
Family Offenses	186	3	C	152-220	189	Expected
Liquor Laws	76	2	С	67–85	60	Low
Runaway	4	-1	Т	o–6	0	Expected
Trespassing	144	-9	Т	87–160	99	Expected
Violent Total	2736	-118	T	1927–2683	2077	Expected
Property Total	5803	-494	T	3565–4651	5235	High
Total	10089	-672	T	6488–8733	8278	Expected

Some interesting patterns have emerged during this period:

- Boston's **thefts from vehicles** dropped off, replaced by new highs in Everett and Revere. These thefts are not related spatially to the casino; they're mostly clustered in the two cities' downtown areas. In fact, the crimes seem to be conspicuously avoiding the area of the casino.
- Lynn skyrocketed in **miscellaneous thefts**, mostly at residences during the day. These may be package thefts.
- Fraud (confidence games) reached record highs in Everett, Boston, and Lynn.
- Somerville suddenly reported **240 credit card frauds**, most committed in "Cyberspace." The agency had never taken more than 27 during the same 6-month period in previous years. This almost certainly signals a shift in reporting practices. Credit card fraud was also high in Lynn, though not nearly as dramatic.
- Lynn did something similar with **identity theft and impersonation**, suddenly reporting 237 incidents during a period in which they had never reported more than 22 before. These two crimes together drove up total property crime for the region.
- **Vandalism** was high in Chelsea and Everett, but with no patterns. There's a smattering on Broadway near the casino, but most of them are concentrated in parts of the cities away from Encore.
- Everett reported only one incident that was casino-related and did not happen at the casino: a drug offense in a parking lot at Mystic and Bow Streets in September 2020 that resulted in the arrest of a 33-year-old man from Whitman.
- Any crime that involves large numbers of people or personal interactions remained very low, including almost all crimes related to disorder, drugs, and liquor.
- There was still no sign of a domestic violence increase as reported by media outlets elsewhere.

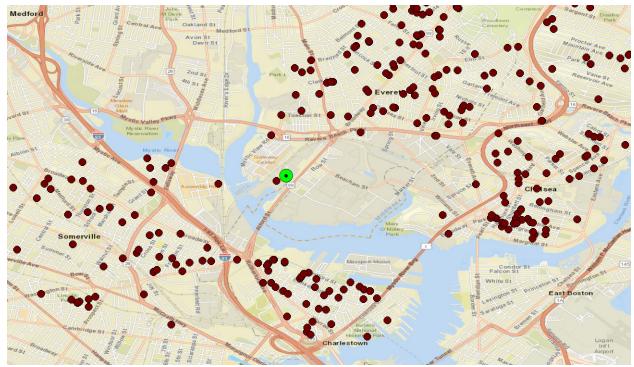
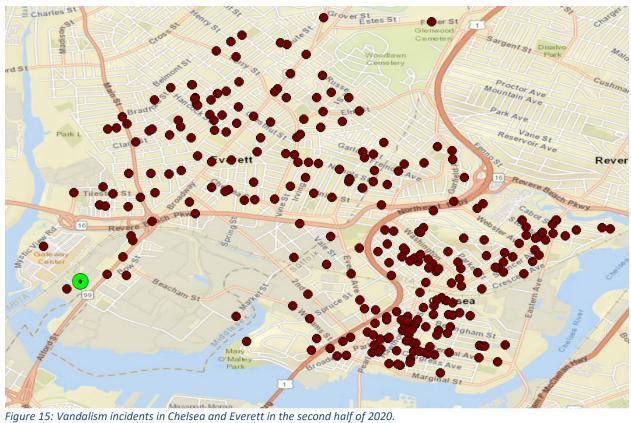


Figure 14: Thefts from vehicles increased in the last 6 months of 2020, but not at all in the immediate radius of Encore Boston Harbor.



Collisions, meanwhile, recovered slightly but were still well below their normal total for the region:

Collisions reported to the region, July to December⁶

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result
Vehicle in traffic	1919	-20	С	1674–2164	1318	Low
Parked vehicle	255	-6	Т	211–253	237	Expected
Pedestrian	147	1	С	132–162	118	Low
Bicyclist	22	-2	Т	11-22	17	Expected
Animal	3	0	С	1–5	6	High
Fixed object	106	3	С	87–125	103	Expected
Curb/barrier	46	1	С	34-58	43	Expected
Rollover/Jackknife	5	0	С	2–8	8	Expected
Other/Unknown	99	-12	Т	38–89	57	Expected
Total	2892	-33	С	2594-3190	2121	Low

The implications of these figures are stark. First, even during a period of limited reopening, any trends influenced by Encore are likely to be undetectable amidst the more significant changes caused by societal reaction to COVID unless I adopt new methods of detection. Second, 2020 (and probably 2021) will be useless as baseline years in any future analysis of crime statistics.

 $^{\rm 6}$ Does not include Malden or Boston. Somerville is included in the total but not the individual categories.

Preliminary drunk driving analysis

Like any responsible facility that serves alcohol, Encore has a number of 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 makes it inevitable that some intoxicated patrons—and thus intoxicated drivers—will slip through the cracks. This report makes no attempt to render judgement on what number is reasonable; it only attempts to collect the available evidence. This preliminary analysis is offered in anticipation of a longer report later this year that will cover all three casinos.

There are several available indicators that we can study to determine whether Encore has led to an increase in drunk driving in the region, some better than others. Each available dataset is reviewed below. For simplicity's sake, I have looked at full calendar years for the statistics below.

Drunk driving arrests by jurisdiction

The statistics below showed that only Everett significantly rose above its pre-Encore average in drunk driving arrests, although the total for the region was at the upper end of its predicted boundary. These figures suggest that Everett is investing more police resources in drunk driving enforcement, but not necessarily that drunk driving itself is increasing.

Arrests and summonses for drunk driving, July-February

City/Town	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result
Everett	18	1	С	11–25	50	High
Boston/Charlestown	3	0	С	1–5	4	Expected
Chelsea	31	0	C	17-45	31	Expected
Lynn	73	1	С	57-89	89	Expected
Malden ⁷	9	-2	Т	3-7	3	Expected
Melrose	5	-1	C	2-8	4	Expected
Revere	43	4	C	23–63	36	Expected
Saugus	18	2	Т	15-37	23	Expected
Somerville	24	1	C	17–31	18	Expected
Total	226	5	С	194–258	258	Expected

Note that the numbers plummet during the period of closures for COVID:

Arrests and summonses for drunk driving, March-June

City/Town	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result
Everett	12	1	C	7–17	6	Low
Boston/Charlestown	1	0	С	0-2	0	Expected
Chelsea	18	1	C	11–25	20	Expected
Lynn	34	1	C	25-43	24	Low
Melrose	4	0	C	1-7	0	Low

⁷ Malden figures are only through December.

City/Town	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result
Revere	20	3	Т	21–35	12	Low
Saugus	13	2	Т	14-25	7	Low
Somerville	10	0	С	6–14	4	Low
Total	113	8	Т	116–172	73	Low

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. Since we do not have call-for-service data for Boston, we cannot include the city in the analysis.

Calls for service for traffic collisions with a later offense for drunk driving, July-February

City/Town	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result
Everett	3	0	С	1–5	17	High
Chelsea	17	0	С	11-23	16	Expected
Lynn	39	2	C	26–52	40	Expected
Malden ⁸	5	-1	Т	1–8	3	Expected
Melrose	3	0	C	1–5	2	Expected
Revere	19	1	C	11–27	18	Expected
Saugus	7	1	C	3–11	8	Expected
Somerville	13	-1	C	9-17	12	Expected
Total	106	2	C	92–120	116	Expected

The results mirror the drunk driving arrest statistics above. Even when we consider only drunk driving arrests that occurred *after crashes*, thus eliminating the bias of extra police enforcement, we still find Everett significantly above its normal volume while the other communities are all within expected range.

As with total arrests, the numbers take a dive during the four months that Encore was closed for business, but then again so was almost every bar and restaurant in the area.

Calls for service for traffic collisions with a later offense for drunk driving, March-June

City/Town	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result
Everett	4	0	С	2–6	1	Low
Chelsea	9	1	С	5-13	8	Expected
Lynn	19	1	С	14-24	13	Low
Melrose	2	0	С	0-4	0	Expected
Revere	10	1	Т	8–18	0	Low
Saugus	5	0	С	2-8	0	Low
Somerville	5	0	С	2-9	2	Expected

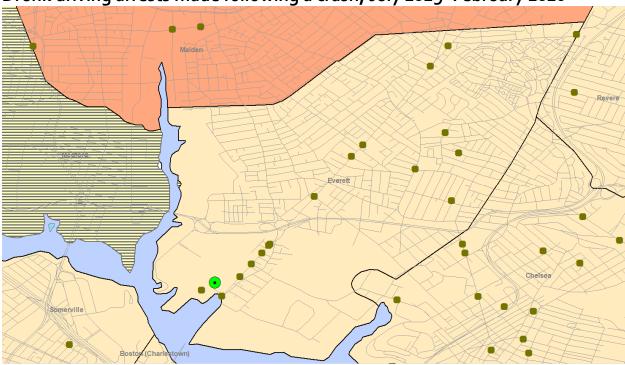
⁸ Malden figures are only through December.

-

City/Town	Pre-MGM Avg	Slope Window Type		Pred. Window	2020	Result
Total	53	3	Т	54-78	24	Low

During the period that drunk driving arrests caused by crashes were high in Everett, 11 of the 17 incidents occurred on Broadway, 6 of them in the block of Encore Boston Harbor. However, the Everett Police marked none of these as "casino-related" and indicated in discussions that the "last drink" locations reported by the drivers had occurred elsewhere.

Drunk driving arrests made following a crash, July 2019—February 2020



"Last Drink" Locations from adjudication

According to data received from the Massachusetts Alcoholic Beverages Control Commission, Encore Boston Harbor was named as the location of the "last drink" for 7 drunk drivers whose cases were adjudicated in 2019 and 2020, a number that will likely rise as more cases that resulted in arrest during this period wrap up in court. MGM Springfield was named in 18 adjudications during the same period, and Plainridge Park in 5.

"Last Drink" locations as reported to police

This dataset is currently undergoing collection within all three casino areas, and it will be released in a special report later this year. However, a preliminary report fro the Everett Police says that although arrests and collisions increased on Broadway, the "last drink" statements of those arrested have indicated that they're coming from somewhere other than Encore.

Conclusion

There's a lot of "smoke" (circumstantial evidence) suggesting at least a mild increase in drunk driving caused by the casino, but so far not much of a "fire" (direct evidence). Expanded data collection for the special report should help us make a final determination.

Conclusions and future analytical plans

The increases in crimes and the existence of patterns that can be tied specifically or even circumstantially to Encore Boston Harbor are small and rare. The casino has reported a certain amount of crime within its own walls, creating new challenges for the responding law enforcement agencies, but except for a few phenomena discussed within this report, the influence of Encore does seem to be contained within those walls.

This report mostly covers a period that ended before society was completely overturned by the COVID-19 pandemic. During the following near-year, Encore was occasionally closed and occasionally open, but never operating at full capacity, and never again with a populace as interested in traveling and intermingling with others. This situation has also affected bars, restaurants, hotels, stores, schools, and entertainment venues.

Most crime is a consequence of the routine activities of everyday life—moments of opportunity seized by offenders when they encounter suitable targets at the right place and time. COVID-19 has brough essentially unmeasurable changes to these routine activities. As a crime analyst, I have seen nothing like it except in occasional cases of natural disasters.

As if COVID-19 was not enough, 31 May 2020 marked the beginning of another major social movement, when George Floyd was tragically killed by the Minneapolis Police. This act sparked a wave of mass protests that included the Boston region The effects of these protests and their larger movement on police practice will somehow have to be assessed in the middle of an already-unsettled time.

Until life returns to normal, and perhaps not even for a while after that, the continuing effects of Encore on public safety issues in the surrounding communities will be very difficult to untangle from changes wrought by the general COVID upheaval. That does not mean they will be impossible to discern, but the task may require significantly different and innovative analytical methods, and I am not prepared at this time to say exactly what those will be.

While I work with other researchers and analysts to generate ideas for continuing analysis, there are several reports waiting to be written based largely on pre-COVID data. These include:

- An analysis of changes in the Encore area compared to control areas and the rest of the state. Statewide data for 2019 and 2020 will be available soon.
- A comparative analysis of traffic collisions in the Encore area versus control areas. This probably will not be possible until a public statewide crash dataset is available, likely in 2021.
- Comparison of Encore Boston Harbor with other casinos, normalized by the number of annual visitors each facility receives. We are currently the process of collecting data from comparison casinos nationwide.
- A more thorough analysis of drunk driving and alcohol-related crashes, which will be released as a separate report that covers all three casinos.
- A summary report with the aggregated findings from Plainridge Park, MGM Springfield, and Encore Boston Harbor.

Watch for these additional reports in 2020 and 2021.

Appendix: Abbreviations and definitions

Acronyms and abbreviations

CAD	Computer-aided Dispatch (system)	A police database that holds information about police dispatches to calls for service, including incidents discovered by police officers. Some but not all of the incidents reported in CAD are crimes and have longer records in the RMS.
IBR	Incident-based reporting	See NIBRS.
MGC	Massachusetts Gaming Commission	The commonwealth agency charged with overseeing and regulating gaming in Massachusetts
FBI	Federal Bureau of Investigation	National investigative agency, part of the U.S. Department of Justice, in charge of collecting national crime statistics.
IACA	International Association of Crime Analysts	A global nonprofit professional association that provides training, literature, and networking to individuals who analyze crime data.
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.

Crime definitions

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

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

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

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

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

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

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

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

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

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

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

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

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

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 as "custodial" kidnappings involving a parent taking a child in violation of a custodial agreement.

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

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

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

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

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 actually displayed or employed, or if an assault is actually attempted, the crime is categorized as a simple or aggravated assault instead.

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

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

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.

Call for service definitions

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

Administrative: A wide variety of call types that have to do with the administration of a police department, such as delivery of documents to businesses or other government facilities, attendance at meetings, vehicle maintenance, or even meal breaks. Agencies use their call-for-service systems to document such activities so that, later, they can determine what a particular officer or unit was doing at a particular time, although the incidents are not truly "calls

for service." Practices differ significantly between police agencies as to what is reported under this category, and it is generally not useful for analysis.

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

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

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

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

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

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.

Offense types by associated crime category

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

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

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

Analysis of changes in police data following 18 months of activity at MGM Springfield plus 3 months of COVID-related closures

Christopher W. Bruce

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Crime Analysis Consultant to the Massachusetts Gaming Commission 24 March 2021

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Important note

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

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

Executive summary

Summary

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 18 months after the opening of the casino, with a particular focus on the six months between September 2019 and February 2020 (the first 12 months were covered in a previous report). The report shows that only a few crimes increased in surrounding agencies during this period. While some of these increases have possible links to MGM, there is no general consistency across the surrounding agencies and very little definitive proof of a casino connection among specific offenders.

The analysis period ends only two weeks before COVID-19 necessitated the closure of MGM and other Massachusetts facilities. Data was collected through 31 May 2020 for all agencies, however, giving us an opportunity to see how crime changed during the first three months of COVID closures. It dropped—a lot.

About this report

- The primary purposes of this report are to conduct an analysis of the increases and decreases in activity in
 the communities 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.
- Data was collected from the records management systems of the Springfield, Agawam, Chicopee, East Longmeadow, Hampden, Holyoke, Longmeadow, Ludlow, Northampton, West Springfield, and Wilbraham Police Departments and the Massachusetts State Police. Crimes, calls for service, and collisions during the period of September 2018–February 2020 were compared to the same months over the previous 5 to 7 years, depending on the data quality of the participating agencies.
- Any significant increases were analyzed in more detail with available quantitative data.
- To determine likelihood of a casino relation, I used a rubric of my own design that analyzes the data for several variables: logical connection to a casino, complementary increases in other communities, complementary increases in similar crimes, evidence of increased participation from individuals outside the local area, spatial proximity to the casino, comparison to control communities, and specific mention of the casino or gambling in the police reports.
- Because many of the crimes in these communities were on downward or upward trends, the report
 compares the eight post-casino months to a range of "expected" values depending on the strength of the
 past trend.

Major findings

- 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 fairly small increase in drunk driving.
 - An increase in shoplifting and other crimes at 24-hour facilities in the immediate block of the casino, including a CVS and a Pride gas station.
 - Increases in traffic-related complaints in some communities and along State Police roads.

- An increase in activity at Union Station in Springfield specifically. (The facility had been closed between 1973 and 2017, but crimes and calls increased even in comparison to the combined values at the previous train station and bus stations.)
- 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 have a logical connection, a spatial connection, or both:
 - o Increases in shoplifting among several of the communities.
 - Continued patterns of purse snatching, this time in Springfield and Holyoke (West Springfield has been affected in the past).
 - Higher-than expected residential burglary totals in the area surrounding Springfield's Metro Center.
 - o Patterns of fraud and confidence swindles, particularly in East Longmeadow and Longmeadow.
- Although previous reports identified increases in traffic collisions along routes that suggested a casino
 cause, any such increases in the fall and winter of 2019–2020 were wiped away by favorable weather
 conditions that caused crashes to plummet.
- Despite hypotheses from before the casino opened, there is so far no sign that the presence of the casino has increased crime or calls for service at hotels, restaurants, bars, and gas stations (excepting the one mentioned above), nor has it increased activity specifically within the radiuses of highway exits to and from the facility.
- Other patterns identified in previous reports did not continue into this period. These include a residential
 theft-from-vehicle pattern in Springfield, East Longmeadow, and Longmeadow; suspicious activity and
 disturbance calls near the bridges in West Springfield; and domestic violence increases in several
 communities.
- A preliminary investigation into crime during special events (such as concerts) showed no significant impact.
- Crime fell like a rock during the COVID closures—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 and other societal factors.

Background and methodology

This analysis is the latest in an effort by the Massachusetts Gaming Commission (MGC) to assess the social and economic influences of new gaming facilities across the state. 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.

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

In 2014, the MGC contracted with a career crime analyst, the author of this report, 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. As of this date, four years' worth of reports have been issued covering changes in crime and other public safety issues since Plainridge Park opened.

MGM Springfield opened in late August 2018. This is the fourth report that investigates that casino's influence on the surrounding community. The period covered by the core part of this report ends just as the general public became aware of the growing COVID-19 menace and just before MGM Springfield (along with most large-capacity facilities) was forced to shut down to help stop the spread of the virus. Data was also collected for the three months that the casino was completely closed and is offered as a supplement to this report.

Publicly-issued and planned reports on changes in crime and police activity from this project

	<u></u>				
Issued	Report	Notes			
August 2015	Report on baseline activity at Plainville	Established statistical measures for post-			
A09031 2015	area agencies	casino comparison			
November	Evaluation of change in police data after	Few changes discernible in immediate 3			
2015	the first three months of Plainridge Park	months.			
	Analysis of changes in police data after the	Identified traffic-related calls for service as			
April 2016	first six months of operation at Plainridge	likely related to PPC. Noted increases in fraud-			
	Park Casino	related crimes.			
December 2016	Analysis of changes in police data after the	Continued to note increases in traffic-related			
	first year of operation at Plainridge Park	calls; established credit card fraud increases as			
	Casino	"likely related."			
December	Analysis of changes in police data after the	Most comprehensive report so far. Included			
2017	first 2 years of operation at Plainridge Park	comparative analysis of control areas.			
June 2018	Report on baseline in Springfield area.	First report in preparation for MGM casino.			
March 2019	Three-year analysis of Plainridge Park	Found no additional major trends not present			
	area.	in two-year report			
		Showed patterns of thefts from vehicles,			
March 2019	Four-month analysis of MGM Springfield	traffic collisions in some communities, other			
		scattered patterns			
September	Eight-month analysis of MGM Springfield	Showed increases in traffic collisions and			
2019	Eight-month analysis of MGM Springheid	complaints but few crime increases.			

Issued	Report	Notes
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	This report.
February 2021	1-year analysis of Encore Boston Harbor	
April–June 2021	Special reports on drunk driving, casinobased crime, and the MGM 2-year report	

Methodology

The data used in this report were extracted from the individual records management systems of the Springfield, Agawam, Chicopee, East Longmeadow, Hampden, Holyoke, Longmeadow, Ludlow, Northampton, West Springfield, and Wilbraham Police Departments. I established an Open Database Connectivity (ODBC) connection to each of these agencies' records management and computer-aided dispatch databases, connected to the databases via Microsoft Access, and used a series of "make table" queries to copy the data into Access data tables. I then copied the Access databases to my own computer, password-protecting them in the process, but leaving the originals on the agencies' networks so they could be updated by designated agency members when necessary. No personal identifying information (PII) was collected about any person (offender or victim), and I complied with various agency requests to exclude particular data elements of concern to them. These requests did not affect the integrity and completeness of the overall dataset.

After extracting the data from each individual system, I combined each table 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 11 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.

CaseN →	ReportDT →	Agency -	IBR -	Street1 -	LocType -	Weapon 🔻
17-4793-	12/31/2017 22:37:00	SP	13A	KENSINGTON A	Residence	Knife/Cutting
17-1377-	12/31/2017 22:30:00	SP	13A	LIBERTY ST	Bar	Handgun
17-1540	12/31/2017 19:08:00	SP	13A	CHESTNUT ST	Other/Unknow	Personal
17-5419-	12/31/2017 18:42:00	SP	120	WALDEN ST	Street	Blunt Object
17-15399	12/31/2017 15:07:00	SP	13A	WEST ALVORD	Residence	Firearm
17-2072	12/31/2017 14:44:00	WS	120	ELM ST	Residence	Personal
17-5412-	12/31/2017 13:17:00	НО	13A	NEWTON ST	Residence	None
17-5411-	12/31/2017 12:59:00	НО	13A	ADAMS ST	Street	Firearm
17-20712	12/31/2017 08:52:00	WS	13A	ELM ST	Other/Unknow	Knife/Cutting
17-2071:	12/31/2017 08:32:00	WS	13A	BALDWIN ST	Other/Unknow	Personal
17-15388	12/30/2017 22:19:00	SP	120	WALNUT ST	Convenience S	Handgun
17-2067	12/30/2017 15:00:00	WS	120	FIM ST	Gas Station	Knife/Cutting

Figure 1: The result of a query using the combined dataset, provided here as an example.

Interpreting the statistics in this report

Most of the statistics in this report look at the six months between September 2019 and February 2020 (when just a year is given, it is the *ending* year for this period), comparing the actual volume of crime, traffic collisions, and other public safety issues experienced by the contributing agencies with a hypothetical "expected" volume given past trends in those agencies. The results are given alongside the same results for the one-year period between September 2018 and August 2019, as discussed in a previous report.

Throughout these reports, my goal has been to present the data using the simplest statistics possible, ensuring a reader without statistical education can still interpret the results. Understanding the statistics in this report requires first understanding two simple ways of predicting future volumes of crime, calls for service, and collisions. Consider one agency, where crime has remained static over a long period:

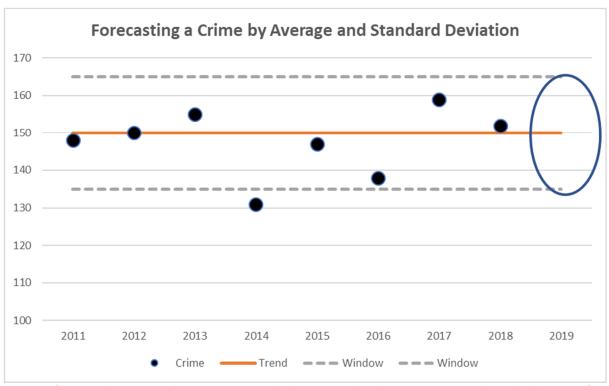


Figure 2: If a crime shows no trend over time, expected values are predicted using its average and standard deviation from the average.

In such cases, crime may vary considerably from year to year around its average, but not in a way that indicates a clear direction over the years. In such cases, we can "forecast" future activity by calculating the average (mean) of the datapoints and then using a number of standard deviations (how much the data typically varies from the average in a given year) to create upper and lower boundaries in which we would expect the data to fall a given percentage of the time. If the data for the following year falls outside this boundary, it's a good sign that something is affecting that category other than just the normal ebb and flow of yearly crime statistics.

This particular method for creating a "prediction window" doesn't work well when the data exhibits a clear trend over the time period in question. Consider the example in Figure 3. Here, forecasting based on the crime's average and standard deviation results in a poor prediction because average and standard deviation tell us only where the crime has been, whereas in this case, the crime is clearly going somewhere. Hence, we need different math to forecast future activity when there's a clear trend.

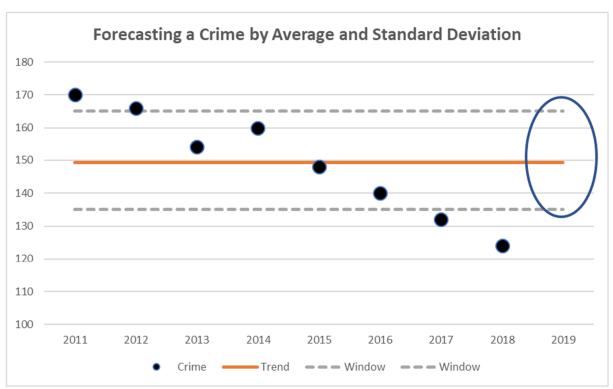


Figure 3: This method works poorly when the crime shows an increasing or decreasing trend over the period.

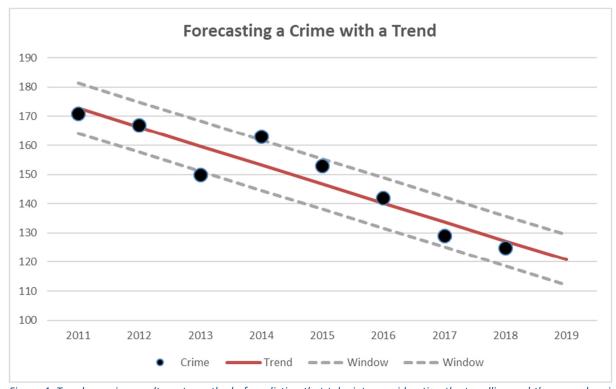


Figure 4: Trends require an alternate method of prediction that take into consideration the trendline and the normal variance around the trendline.

To create prediction windows when a past trend is evident (either up or down), I used basic linear regression analysis. Although this method also works for static crimes, it tends to create prediction windows too large to be useful when the number of crimes is poorly correlated to the progression of years.

Thus, although most statistics offered in this report contain a "window" of predicted activity for the September 2019–February 2020 time period, the method used to create that window varies depending on whether the category exhibited a previous trend. In both cases, the confidence window is set to 85%, meaning that barring any significant external influence, the 2020 figure had an 85% probability of falling within that window. If it does not fall within that window, it could be just a statistical fluke, but it could also be evidence of some new factor influencing the category, of which MGM is one possibility. Further analysis helps determine how likely it is that MGM is the cause.

The following is a typical table in this report:

Crimes reported to Gotham, 1 September-29 February

		,			,		
Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Murder	5	0	С	3-7	5	Expected	Expected
Sexual Assault	65	-7	Т	18–67	77	High	Expected
Kidnapping	18	0	С	16-20	23	High	High
Robbery	201	-21	Т	75-215	163	Expected	Expected
Aggravated Assault	317	-15	Т	205-334	331	Expected	Low
Simple Assault	1065	-27	Т	884–1093	1042	Expected	Expected
Threats	606	-8	С	569–643	536	Low	Low
Arson	13	-2	С	2-24	5	Expected	Expected
Burglary	551	-112	T	161–367	310	Expected	High

The columns can be interpreted as follows:

- **Pre-MGM Avg:** The mean of the years (2012–2018 for most agencies, 2014–2018 for Springfield and the total) prior to MGM, for years beginning 1 September and ending 29 February.
- **Slope**: Over the same range of years, the amount by which the crime has increased or decreased each year on the crime's trendline. For instance, robbery had an average of 201, but that was roughly the midpoint in a trendline that shows a steady decline (averaging -21 incidents per year) over the period.
- Window Type: Designates the method used for the predictive window. If the crime shows little or no trend (i.e., a small slope compared to the mean), I used the central tendency/standard deviation method designated by a "C." If it showed a strong trend, I used the regression method designated by a "T."
- **Predictive Window:** The window in which we would have expected the 2020 figure to fall, with roughly 85% confidence. The more erratic and unpredictable the past data, the wider this window will be.
- 2020. The actual number of that crime observed between 1 September 2019 and 29 February 2020.
- Result: "High" if the crime is outside its predictive window on the high end; "Low" if it's outside on the low end; "Expected" if it's within the window. Please note that even "High" and "Low" crimes are not proof of a casino influence; other factors could be at work in these communities, or 2020 could be that rare 15% of the time where natural fluctuations cause the crime to fall outside its normal bounds. When the crime is "High," I have done my best to analyze it later in the section.
- 1-Year Result: The result of similar calculations from the period of 1 September 2018 to 31 August 2019, as covered in the previous report on MGM Springfield. This is offered to help establish if any trend seen during the September 2019–February 2020 period is new or a continuation of an existing post-MGM trend.

Determining likelihood of a casino relation

Past studies have generally limited themselves to a purely quantitative determination of whether a casino was a contributory factor in a crime increase. This study—which blends quantitative and qualitative approaches—is not content to use statistics alone to determine the likelihood that any increase in activity was "caused" by the presence of MGM Springfield. Instead, I have created a model to better explain causality when increases are observed. The model demands a more in-depth analysis of the individual cases that make up "increased" activity during the study period, including a qualitative analysis of police narratives.

The model considers seven factors:

- 1. Whether the type of activity increasing has a logical relation to a casino. Causality is more certain when it "makes sense" that such a crime or other activity would increase in the surrounding area in a particular way. Because casinos draw a large number of people to an area, and because cash plays a large role in their operation, there are very few crimes that would not fit this definition, but it's still worth considering. An increase in theft or traffic issues has a logical connection to a facility like a casino; an increase in harassing telephone calls or animal complaints does not.
- 2. Whether more offenders and victims are from outside the local area. A 2019 SEIGMA study of MGM patrons showed that 59% are from outside Springfield and the surrounding communities. If an increase in crime or other public safety issues shows a similar increase in out-of-area participants, it provides circumstantial evidence that the "new" offenders, victims, and drivers were drawn to the area by the casino.
- 3. Whether multiple agencies are reporting an increase in the same category. If only one agency reports a major increase in a particular crime and call for service, the cause is more likely to be related to another factor specific to that jurisdiction than to MGM Springfield. Complementary increases reported by multiple agencies strengthen the likelihood of a casino relation.
- 4. Whether related offenses also report increases. Some crime and call-for-service categories are closely related to each other, so that a factor that influences one is likely to influence the others. If the casino were to cause an increase in traffic collisions, for instance, we might expect a corresponding increase in disabled vehicles, traffic complaints, and other traffic-related calls for service. An increase in a single category without increases in complementary categories is more likely to suggest a fluke specific to that category than a casino relation.
- 5. Whether the spatial distribution of offenses is related to the casino location. For certain crimes and calls for service, if the presence of the casino caused their increase, we would expect to see a spatial distribution of incidents either near the casino or on routes to and from the casino. An increase in "disorderly conduct" in a residential neighborhood 15 miles from MGM Springfield is less likely to be caused by the casino than an increase in such activity at hotels and restaurants within 1 mile of the casino.
- 6. Whether the casino is specifically mentioned by victims and offenders involved in cases. If an increase in activity is causally tied to the casino, we would expect a certain percentage of victims to say that they were in town to visit the casino, or a certain percentage of offenders (if arrested) to admit that their crimes had something to do with the casino. If we cannot find any such evidence across multiple offenses, a casino relation is less likely.
- 7. Whether comparison agencies have failed to report a similar increase. If a certain crime increased only in the MGM Springfield area and not at identified control areas in eastern Massachusetts, this provides stronger evidence of a casino relation. Unfortunately, statewide data collection lags behind our data collection for the MGM Springfield

¹ University of Massachusetts School of Public Health and Health Sciences. (2020). 2019 MGM Springfield patron survey: A look at who is visiting. Retrieved 26 December 2020 from https://www.umass.edu/seigma/sites/default/ files/FactSheet-MGMSpringfield-CasinoPatrons.pdf

area, and thus it is only possible to assess changes in control areas for 2016 and 2017. Note also that we cannot consider this factor with non-crime calls for service because there is no standardized reporting of these data on a statewide basis.

(One is tempted to add an eighth factor, available only because of the extraordinary circumstances brought on by the pandemic: whether a trend reversed itself during the period of casino closure. However, it's important to recognize that MGM was not the only facility to close during this period. Hundreds of restaurants, bars, theaters, museums, and other entertainment venues were forced to shut down or operate at limited capacity. Other places such as grocery stores saw surges of activity. Separating the effects of the casino's closure specifically amidst this unprecedented sea of changing data is a task that we're still trying to work out. This report makes no attempt at it.)

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

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

Figure 5: A rubric for determining whether an increase in a crime is likely related to the new casino.

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

Limitations and threats to validity

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 of the participating agencies use this system².

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 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.

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.

² 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."

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).

Discussions with agency representatives

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

About the author

Christopher W. Bruce is a professor of criminal justice at Husson University in Bangor, Maine. He is also a career crime analyst with previous service at the Cambridge Police Department (1994–2001) and the Danvers Police Department (2001–2010). He was president of the Massachusetts Association of Crime Analysts from 2000 to 2004 and president of the International Association of Crime Analysts from 2007 to 2012. He has served as an instructor in criminal justice and crime analysis topics at Suffolk University (2001–2010), Westfield State University (2009–2010), the University of Massachusetts Lowell (2009–2010), Middlesex Community College (2007–2011), Western Oregon University (2012-2016), and Tiffin University (2006–2018).

Professor Bruce is an internationally-recognized expert in police data systems and police data analysis. He has trained, consulted, and provided technical assistance for various programs of the U.S. Department of Justice, Bureau of Justice Assistance; the U.S. Department of Transportation, National Highway Traffic Safety Administration; the Texas Department of Transportation; the U.S. Department of Justice, International Criminal Investigative Training Assistance Program; and the International Association of Directors of Law Enforcement Standards and Training. He lives in Maine.

18-month Comparison: All agencies

This section analyzes changes in crimes and calls for service in the Springfield area after MGM was built, primarily focusing on the six-month period between 1 September 2019 and 29 February 2020, in comparison to the same period in the years prior to MGM. The outcome of each calculation (low, normal, or high) is given alongside the same result for the one-year period between 1 September 2018 and 31 August 2019 as reported in the previous report. The comparison period, establishing the "predicted" values for each community, runs from 2014–2018, as Springfield reports that it had poor data quality controls prior to 2014. For most of the individual agencies, the comparison period runs from 2012–2018. For Springfield and the region as a whole, the numbers exclude MGM Springfield specifically, as they are meant to help assess notable changes in the surrounding area.



Figure 6: The communities contributing to this analysis.

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

- 1. To determine which crimes increased *significantly enough* that some external factor—and not just random fluctuations in data—is likely to be responsible for those increases; and
- 2. To analyze those significant increases for evidence that MGM Springfield is that "external factor."
- 3. To identify trends to be investigated more thoroughly in the next report.

On advice from the Springfield Police Department regarding changes in their data quality control, this analysis uses only the years ending 2014–2019 to determine past trends and the predictive window for that agency's crime. Because Springfield's total makes up so much of the region total, the report also uses only those years to calculate the regional trend. For other agencies, the report considers the full 2012–2019 data series.

Summary of all communities' activity

The 11 contributing communities saw expected totals of overall crime, commensurate with what they would have received if MGM had never opened. The totals for the region were all lower than average, but consistent with the historical trend of decreases in these crimes.

In prior reports, we saw an increase in traffic collisions that might be attributable to extra traffic to MGM, but even that was wiped out during this reporting period by favorable weather and other factors influence driving behavior. The few increases are analyzed individually below.

Incidents reported to region, 1 September-29 February

Category	Pre-MGM	Slope	Window	Pred. Window	2020	Result	1-Year
	Avg		Type				Result
Murder	10	-1	Т	2-12	12	Expected	Expected
Sexual Assault	190	-3	C	168–212	178	Expected	Expected
Kidnapping	42	-1	C	37-47	48	High	Expected
Robbery	368	-34	Т	210-319	282	Expected	Expected
Aggravated Assault	806	-6	Т	763-814	746	Low	Expected
Simple Assault	² 557	-1	C	2454–2660	2368	Low	Expected
Threats	1359	-54	Т	1070–1326	1146	Expected	Expected
Arson	23	-2	C	13-33	20	Expected	Expected
Burglary	1266	-156	T	664–931	818	Expected	Expected
Theft from Persons	34	1	C	29-39	38	Expected	Expected
Purse-Snatching	16	4	Т	13-46	37	Expected	High
Shoplifting	780	0	C	746-814	874	High	High
Theft from Building	613	5	C	505-721	546	Expected	Expected
Theft from Machine	7	3	C	0–16	1	Expected	Expected
Theft from Vehicle	68 ₇	-12	C	643-731	511	Low	Expected
Theft of MV Parts	191	3	C	112-270	187	Expected	Expected
Other Theft	2047	-431	Т	0–1655	1413	Expected	Expected
Auto Theft	497	-33	T	265–529	468	Expected	Low
Forgery	176	-7	Т	124–183	167	Expected	Expected
Fraud	353	19	Т	377-443	419	Expected	High
Credit Card Fraud	165	19	Т	126–319	167	Expected	Low

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Identity Theft	319	-16	Т	164-378	330	Expected	Expected
Employee Theft	30	3	C	19–41	12	Low	Low
Extortion	13	6	Т	15–48	15	Expected	High
Stolen Property	137	-1	C	120–154	124	Expected	Expected
Vandalism	1993	-91	T	1377–2061	1678	Expected	Expected
Drugs	702	-39	T	354-814	568	Expected	Expected
Statutory Rape	32	-1	C	26–38	37	Expected	Expected
Pornography	36	7	T	42-74	42	Expected	High
Prostitution	19	-7	Т	0–15	10	Expected	Expected
Weapons	266	27	Т	322–369	348	Expected	Expected
Bad Checks	35	-6	T	9–28	11	Expected	Low
Disorderly	320	-1	C	279–361	287	Expected	Expected
Drunk Driving	240	-16	T	133-254	312	High	Expected
Drunkenness	113	-15	T	20–119	104	Expected	Expected
Family Offenses	141	41	T	113–416	291	Expected	Expected
Liquor Laws	85	-1	C	73-97	111	High	Expected
Trespassing	238	36	Т	284–408	378	Expected	High
Violent Total	5331	-100	T	4663-5398	4780	Expected	Expected
Property Total	9347	-686	T	6184–8391	7825	Expected	Expected
Total	16904	-760	T	13210–16041	15104	Expected	Expected

Kidnapping

The kidnapping increase is driven entirely by Springfield and is discussed among its statistics. The incidents do not seem to have anything to do with MGM.

Shoplifting

Reports of shoplifting increased in Chicopee and Holyoke. The increases are highly localized in these communities; five stores account for about 80% of it: two Family Dollars in Chicopee, Victoria's Secret at the Holyoke Mall, an Ulta Beauty in Holyoke, and a CVS in Chicopee. In discussions, local agencies report a major increase in organized retail theft at these locations, with suspects coming from out of state. They could not identify an MGM connection. Shoplifting is volatile crime, anyway, with statistics prone to wild swings based on changes in security staffing or security policies at individual stores.

Drunk driving

Enough agencies reported increases in drunk driving arrests that this crime is analyzed in a later section of the report. The conclusion is that drunk driving may have increased in the area slightly, but the bulk of the increase in drunk driving offenses can be tied to more agency enforcement.

Liquor laws

The liquor law increases in the agencies that reported it are almost all related to open containers of liquor discovered during traffic stops. Coupled with the drunk driving increase, this trend suggests extra proactive enforcement.

Selected calls for service reported to region, 1 September-29 February

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Abandoned Vehicle	313	45	T	398–584	468	Expected	Expected

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Disabled Vehicle	1418	56	T	1278–2005	1457	Expected	Expected
Disturbance	10519	210	C	9500–11538	12261	High	Expected
Domestic Dispute	5341	85	Т	5315–6047	4574	Low	Low
General Service	8624	-217	C	7291–9957	8036	Expected	Expected
Gunshots	468	-23	T	301–538	694	High	Expected
Hunting	17	1	C	12-22	20	Expected	Expected
Liquor	196	-4	C	155-237	167	Expected	Low
Lost Property	299	-2	C	258–340	272	Expected	Low
Medical	11425	644	Т	12657–15342	8924	Low	Expected
Psychological	1314	312	Т	2294–2636	2228	Low	Expected
Suspicious Activity	8378	100	С	7529-9227	8728	Expected	Expected
Traffic Collision	8619	380	Т	9356–10921	9075	Low	Expected
Traffic Complaint	2293	135	Т	2543-3121	2607	Expected	Expected
Vagrancy	181	5	C	131–231	141	Expected	Expected

The increase in **gunshot** calls is seen in both Holyoke and Springfield, although the explanations are a bit different. See the individual agency analyses for more. The **disturbance** increase mostly evaporates when we get to the individual agency level, leaving no consistent pattern across the region.

Collisions reported to region, 1 September—29 February

Category	Pre-MGM	Slope	Window	Pred.	2020	Result	1-Year
	Avg		Type	Window			Result
Vehicle in traffic	4072	188	Т	4436–5214	4296	Low	Expected
Parked vehicle	869	46	Т	955-1155	988	Expected	Expected
Pedestrian	158	-1	C	144-172	167	Expected	Expected
Bicyclist	54	0	C	45–63	61	Expected	Low
Animal	100	10	T	88–190	118	Expected	Expected
Fixed object	496	30	T	534–698	492	Low	Expected
Curb/barrier	254	8	T	255-317	223	Low	Expected
Rollover/Jackknife	23	1	C	17–29	14	Low	High
Other/Unknown	149	-7	T	96–161	139	Expected	Expected
Total	6174	275	Т	6799-7751	6498	Low	Expected

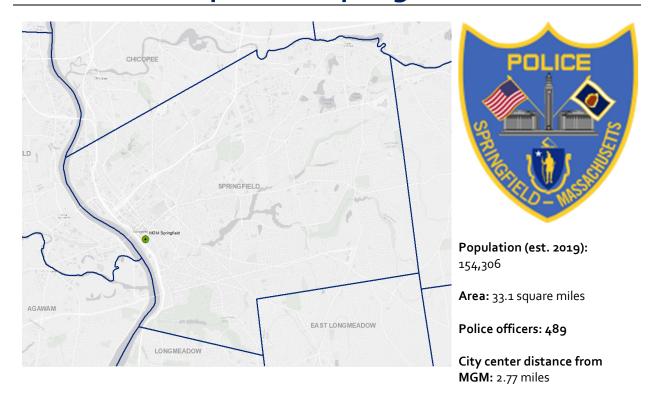
Collisions were much lower than expected during this period, reversing a historical trend of increases. The cause is likely related to far fewer "hazardous" days than in the typical winter. The *Boston Globe* called the 2019–2020 winter "a winter without a winter" because of the lack of snow and ice.

Previous reports had observed small increases in traffic collisions directly around the casino and along some West Springfield and Agawam routes to MGM. Any such continuing increases were undetectable during this period.

Summary of crimes in each community, 1 September 2019–29 February 2020 H=High E=Expected L=Low

H=High E=Exp	pected	L=Low										
Category	SP	AG	CH	EL	HA	НО	LO	LU	NH	WS	WI	ALL
Murder	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Е	Е	Е
Sexual Assault	Е	Е	L	Е	Е	Е	L	Е	Е	Е	Е	Е
Kidnapping	Н	E	Ε	Ε	E	L	E	Ε	Е	Е	Ε	Н
Robbery	Е	L	L	Е	Ε	L	Е	Е	Е	Е	Е	Е
Aggravated Assault	Ε	L	E	Ε	Е	Е	Е	Ε	L	L	E	L
Simple Assault	Е	L	E	Е	Е	L	Е	Е	Е	Е	Е	L
Threats	Ε	L	E	Ε	L	L	E	Ε	L	E	Е	Е
Arson	Е	Е	Е	Ε	Ε	Е	Е	Е	Е	Е	Е	Е
Burglary	Ε	Ε	Е	Ε	Ε	Е	Е	Ε	L	E	Ε	E
Theft from Persons	Ε	Ε	Ε	Ε	Ε	Н	E	Н	Ε	Е	Ε	Е
Purse-Snatching	Н	Е	Е	Ε	Ε	Н	Е	Ε	Н	Е	Ε	Е
Shoplifting	Ε	Е	Н	Ε	E	Н	Е	Ε	Е	Е	Ε	Н
Theft from Building	Е	L	E	Ε	Е	Н	Е	L	Е	L	Е	Е
Theft from Machine	L	Е	Е	Ε	Ε	Е	Е	Е	Е	Е	Е	Е
Theft from Vehicle	Н	E	L	Е	Е	L	E	Ε	L	E	Ε	L
Theft of MV Parts	Ε	Н	L	Ε	E	L	E	Ε	Ε	Е	Ε	Е
Other Theft	Ε	Ε	Н	Е	Е	Е	Е	Ε	Ε	Е	Н	Е
Auto Theft	Ε	Ε	Ε	Ε	Ε	Е	Ε	Ε	Ε	Ε	Ε	Е
Forgery	Н	Е	Н	Н	E	Ε	L	Ε	Ε	L	Е	Е
Fraud/Con Games	Ε	Ε	Ε	Н	E	Н	Н	Ε	Н	E	Ε	Е
Credit Card Fraud	L	Е	Е	Ε	Е	Н	Е	Ε	Ε	Е	L	Е
Identity Theft	Е	L	E	Е	Ε	Н	Е	Ε	Ε	Е	Н	Е
Employee Theft	L	Е	L	E	E	E	E	E	E	L	Е	L
Extortion	L	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е
Stolen Property	Е	Е	Е	Е	Е	L	Е	L	Е	Е	Е	Е
Vandalism	Е	Ε	L	Е	L	E	Е	Ε	Е	Е	Е	Е
Drugs	L	Е	Е	Е	Е	Е	Е	L	Е	Е	Е	Е
Statutory Rape	Ε	Е	E	Ε	Ε	Н	Н	Ε	Ε	Ε	Е	Е
Pornography	Е	L	Е	E	E	E	E	E	E	E	Н	E
Prostitution	Е	Е	E	Е	E	E	E	Е	Е	Е	E	E
Weapons	Е	Н	E	E	E	E	E	E	E	E	E	E
Bad Checks	Е	L	L	E	Е	E	E	Е	E	Н	E	E
Disorderly	Е	Е	Е	L	E	L	E	E	E	Н	E	E
Drunk Driving	Н	Н	Н	L	Е	Н	Ε	Е	Е	Н	Е	Н
Drunkenness	Н	E	E	Ε	Е	E	Н	L	Ε	Ε	E	E
Family Offenses	Е	Е	Е	Ε	Ε	Н	Н	Е	Н	Н	Е	Е
Liquor Laws	Н	Н	Е	Е	Е	Н	Е	L	Ε	Н	Е	Н
Trespassing	Е	Н	Ε	L	L	Н	Ε	Ε	Ε	Ε	Ε	Ε
Violent Total	Ε	L	Е	Ε	Ε	L	Ε	Ε	Ε	Ε	Е	Е
Property Total	Н	E	Е	E	L	Е	Н	L	E	Ε	Е	Е
Total	Ε	Ε	Е	Ε	L	Ε	Н	Ε	Ε	Ε	Ε	Ε

18-month comparison: Springfield



MGM's host agency is the third largest city in Massachusetts and the fourth-largest in New England. Dense, urban, low-income, and historically reporting a higher-than-average rate of crime and violence, Springfield is poised to see numerous changes from the MGM Springfield casino. The first of those—an additional 59 police officers—has already taken place (and is reflected in the total above).

MGM opened on 24 August 2018 and has averaged 10,000 to 15,000 visitors per day. It swiftly became Springfield's top location for crimes, calls for service, and arrests, even considering the fact that the State Police take most of the reports. But not even a facility with as much activity as MGM can make much of a dent in a city with so much else going on. The casino is ultimately responsible for around a 1% increase in Springfield's crimes, a number barely perceptible amidst the yearly fluctuation of crime in the city.

Most patterns seen during the first 12 months of operation did not continue into the next 6. However, there is some evidence of at least a minor MGM contribution to a few trends, including drunk driving arrests and perhaps purse snatchings. See below for more detail. Overall, however, the Metro Center seems to have absorbed the extra visitors without a corresponding increase in crime.

Crimes reported to Springfield, 1 September-29 February

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Murder	7	0	С	5-9	9	Expected	Expected
Sexual Assault	92	-4	С	68–116	88	Expected	Expected
Kidnapping	24	1	Т	23-33	37	High	High
Robbery	252	-26	Т	155-210	207	Expected	Expected
Aggravated Assault	429	-19	Т	305-439	388	Expected	Expected

Category	Pre-MGM	Slope	Window	Pred.	2020	Result	1-Year
	Avg		Type	Window			Result
Simple Assault	1450	-24	Т	1258–1501	1388	Expected	Expected
Threats	856	-38	Т	611–871	719	Expected	Expected
Arson	15	-3	C	3-27	8	Expected	Expected
Burglary	647	-111	Т	290–339	361	High	Expected
Theft from Persons	25	-1	С	21–29	16	Low	Expected
Purse-Snatching	4	0	С	2–6	8	High	High
Shoplifting	159	16	Т	142-273	217	Expected	Expected
Theft from Building	305	41	Т	253–606	343	Expected	Expected
Theft from Machine	7	2	С	0–16	1	Expected	Low
Theft from Vehicle	373	7	С	311-435	327	Expected	High
Theft of MV Parts	131	15	С	69–193	161	Expected	Expected
Other Theft	822	-369	Т	0–692	321	Expected	Expected
Auto Theft	298	-35	Т	107–280	264	Expected	Expected
Forgery	78	-1	С	65–91	69	Expected	High
Fraud/Con Games	127	6	С	104–150	116	Expected	High
Credit Card Fraud	92	24	Т	104-225	99	Low	Expected
Identity Theft	152	-32	Т	0-148	115	Expected	Expected
Employee Theft	14	4	Т	16-37	9	Low	Expected
Extortion	8	4	Т	12-30	10	Low	Expected
Stolen Property	50	-2	C	43 ⁻ 57	57	Expected	Expected
Vandalism	982	-34	Т	657–1102	800	Expected	Expected
Drugs	271	-8	C	211–331	202	Low	Low
Statutory Rape	7	-4	Т	0-10	6	Expected	Low
Pornography	11	2	Т	7-27	17	Expected	High
Prostitution	15	-6	Т	0–18	6	Expected	Expected
Weapons	175	14	Т	181–252	237	Expected	Expected
Bad Checks	14	-4	Т	0-14	0	Expected	Low
Disorderly	131	1	С	113–149	114	Expected	Expected
Drunk Driving	24	-3	Т	0-34	35	High	Expected
Drunkenness	2	-1	Τ	0-3	3	Expected	Expected
Family Offenses	116	60	Τ	138–454	269	Expected	Expected
Liquor Laws	23	1	С	15–31	37	High	Expected
Trespassing	160	31	Т	182-322	234	Expected	Expected
Violent Total	3110	-113	T	2591–2953	2836	Expected	Expected
Property Total	4287	-467	Т	2089–3682	3302	Expected	High
Total	8346	-497	T	6029-7681	7305	Expected	Expected

Kidnapping

Kidnapping can involve any number of scenarios in which one person abducts another or confines another. Although the category includes the rare stranger abduction, it more commonly consists of parental abductions or instances in which a domestic violence offender confines or restrains a victim. The latter scenario seems to make up the bulk of the kidnapping incidents in the last 18 months. 2018 showed a 5-year high for this offense, both before and after MGM opened. The Springfield Crime Analysis Unit has investigated each of the 2018 cases and finds no plausible link to MGM.

Burglary

Burglary has been declining rapidly throughout Massachusetts since 2015. Only one other agency participating in a casino study has reported an increase in burglaries during any study period. In Springfield's case, the "increase" is actually a 40% decrease from the pre-MGM average, but the crime had been going down so rapidly that the formula predicted an even lower figure for 2019–2020. The bulk of this failed expectation is seen in the neighborhood directly around the Metro Center, where daytime residential burglaries are higher than predicted. Most of the identified offenders are from Springfield. Without more evidence of any specific gambling motivations, and no corroborative increases from other agencies or time periods, I am reluctant to suggest even a possible link to MGM just yet.

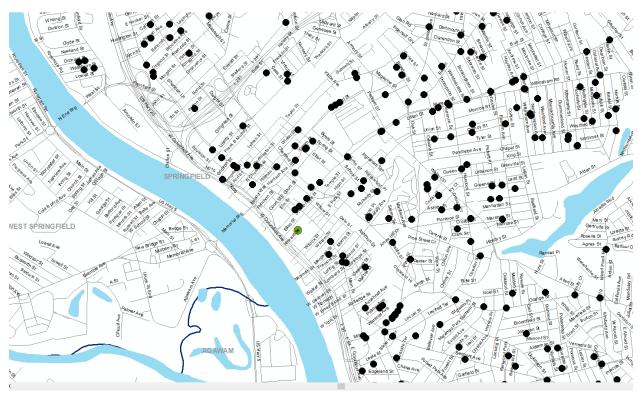


Figure 7: Burglaries in the Metro Center area, September 2019 to February 2020.

Purse snatching

Unlike Holyoke's similar increase, Springfield's show no geographic pattern, scattered all over town. One, however, is directly across the street from MGM at the CVS. This is a cash crime, with gives it a logical connection to a casino, and it has been consistently high in Springfield and Holyoke and intermittently high in West Springfield. We have no definite proof of a purse snatcher with a casino motive, but the connection makes sense logically and geographically.

Drunk driving and liquor laws

Almost all of the liquor law violations this period are related to the crime of open containers in a motor vehicle. This is not a crime that anyone calls the police about. It is the result of more traffic stops in which the police find the open containers, and thus the increase indicates more proactive enforcement on the part of the police department. Such proactive enforcement is bound to catch drunk drivers as well, and is likely to credit for most of the increase that Springfield has seen in this category. I say "most," but that does not mean "all." As the later section on drunk driving shows, there is some evidence that drunk driving (and related crashes) has increased mildly in the area, and analysis points to a likely MGM connection with at least a small number of them.

Selected calls for service reported to Springfield, 1 September-29 February

				<i>-</i>	•		
Category	Pre-MGM Avq	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Abandoned Vehicle	224	44	Т	337-454	350	Expected	Expected
Disabled Vehicle	386	21	Т	341–596	446	Expected	Expected
Disturbance	5221	331	Т	5568-7525	7242	Expected	Expected
Domestic Dispute	4576	43	С	4327-4825	3814	Low	Low
Gunshots	397	-20	Т	258–459	572	High	Expected
Medical	5148	224	Т	4963–7128	2718	Low	Expected
Psychological	1291	259	Т	1692–2226	1918	Expected	Expected
Suspicious Activity	3426	123	Т	3149–4686	3582	Expected	Expected
Traffic Collision	3357	224	T	3996–4508	3845	Low	Expected

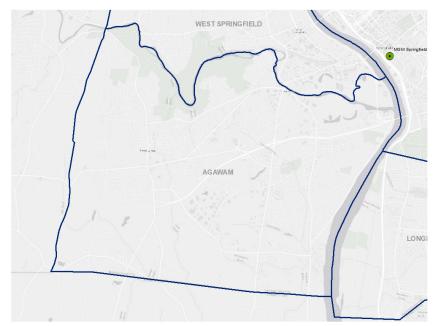
All of Springfield's call-for-service types showed normal or low volume in the year after MGM opened. Increases in disabled vehicles and medical aids during the fall of 2018 and winter of 2019 did not continue into the following year. The increase in gunshot reports has been previously tied to an expansion of the "ShotSpotter" gunshot detection technology and not to an actual increase in shots fired.

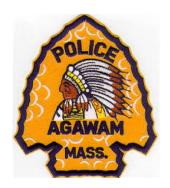
Collisions reported to Springfield, 1 September-29 February

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Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1 Year Result
Vehicle in traffic	1628	88	T	1792–2167	1782	Low	Expected
Parked vehicle	305	20	T	344-425	398	Expected	Expected
Pedestrian	87	0	C	74–100	93	Expected	Expected
Bicyclist	29	1	С	24-34	31	Expected	Expected
Animal	5	0	С	2-8	4	Expected	Expected
Fixed object	195	15	Т	209–299	164	Low	Expected
Curb/barrier	84	4	Т	74-125	96	Expected	Expected
Rollover/Jackknife	6	-1	Т	2-5	3	Expected	Low
Other/Unknown	39	-3	С	22–56	25	Expected	Low
Total	2378	124	T	2722-3024	2596	Low	Expected

All signs at this point suggest that while MGM may have brough a minor increase in traffic collisions during the first year (extra traffic inevitably means extra collisions), that effect was not large enough to survive the much stronger influence of good weather during the fall and winter of 2019–2020.

18-month comparison: Agawam





Population (est. 2019): 28,736

Area: 24.2 square miles

Police officers: 54

City center distance from

MGM: 7.97 miles

Just across the river from the new casino, Agawam's northeast corner practically touches MGM Springfield. There is some evidence that, like West Springfield, Agawam's increase in traffic collisions in 2018 can be at least partly attributed to the extra traffic brought by MGM. For crime, however, the agency had little that suggested an MGM nexus.

Crimes reported to Agawam, 1 September-29 August

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Murder	0	0	С	0-0	0	Expected	Expected
Sexual Assault	7	0	С	4–11	5	Expected	Expected
Kidnapping	0	0	C	0-1	0	Expected	Expected
Robbery	4	1	T	5-9	1	Low	Expected
Aggravated Assault	24	4	T	33-43	26	Low	Expected
Simple Assault	71	11	T	87–147	72	Low	High
Threats	23	4	Т	26–44	18	Low	Expected
Arson	0	0	С	0-1	1	Expected	Expected
Burglary	72	4	С	39-105	56	Expected	Expected
Theft from Persons	0	0	C	0-1	1	Expected	Expected
Purse-Snatching	1	0	C	0-2	1	Expected	Expected
Shoplifting	10	2	С	3–19	14	Expected	Low
Theft from Building	17	2	Т	13-31	9	Low	Low
Theft from Machine	0	0	С	0-0	0	Expected	Expected
Theft from Vehicle	3	0	С	2-4	3	Expected	Expected
Theft of MV Parts	2	0	С	0-5	6	High	Expected
Other Theft	86	7	T	87–142	108	Expected	Low
Auto Theft	14	-1	С	9–19	11	Expected	Low
Forgery	9	1	С	5-13	12	Expected	Expected

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Fraud/Con Games	22	4	T	24-44	39	Expected	Expected
Credit Card Fraud	6	0	С	2-10	3	Expected	Low
Identity Theft	17	6	T	32-43	28	Low	Low
Employee Theft	1	0	C	0-2	2	Expected	Expected
Extortion	1	0	Т	1-4	1	Expected	Expected
Stolen Property	7	1	Т	3–16	9	Expected	Low
Vandalism	55	7	Т	52–110	69	Expected	Expected
Drugs	17	-3	Т	6–20	18	Expected	Expected
Statutory Rape	4	1	С	o–8	2	Expected	Low
Pornography	2	1	Т	2-9	1	Low	Expected
Prostitution	0	0	С	0-0	0	Expected	Expected
Weapons	4	0	С	1-7	8	High	High
Bad Checks	3	1	Т	2-9	0	Low	Expected
Disorderly	14	-1	С	7-21	10	Expected	Expected
Drunk Driving	15	0	С	10-20	31	High	High
Drunkenness	3	0	С	0-7	1	Expected	Expected
Family Offenses	14	-3	С	0-50	2	Expected	Expected
Liquor Laws	5	-1	Т	2–6	13	High	Expected
Trespassing	6	0	С	4–8	12	High	Expected
Violent Total	129	21	T	155-255	122	Low	Expected
Property Total	326	35	T	352-525	373	Expected	Low
Total	543	48	T	559-834	593	Expected	Expected

Agawam saw increases in thefts of vehicle parts, weapons violations, drunk driving, liquor laws, and trespassing during this period but did sustain a troubling increase in simple assault reported in the one-year analysis.

Theft of vehicle parts

There are no commonalities among the six incidents that make up this small trend; the do not concentrate by time, date, or location. Barring more information or any corroborative increases from other areas and time periods, it is likely a temporary fluke.

Weapons

This category has been high throughout the 18-month period, with most incidents at residents. Charges show offenses related to both firearms and ammunition, including both possession and unlawful discharge. There are no corroborative increases in assault or homicide, and the agency is the only one to report such a trend.

Drunk driving and liquor law violations

Agawam was one of several agencies to report a significant increase in drunk driving arrests. Drunk driving in the region is analyzed in a later section of this report. However, a simultaneous increase in possession of open containers of alcohol (reported as liquor law violations) suggests extra police enforcement of these crimes, or of traffic violations in general.

Trespassing

The trespassing increase during this period involves several repeat locations, including Kosak Court, Griffin Place, and Maynard Street.

Selected calls for service reported to Agawam, 1 September-29 February

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Disabled Vehicle	182	21	Т	178–346	187	Expected	Expected
Disturbance	187	6	С	156–218	148	Low	Expected
Domestic Dispute	149	-1	С	112–186	136	Expected	Expected
General Service	547	62	T	616–977	722	Expected	Expected
Hunting	10	-1	С	6–14	14	Expected	Low
Lost Property	9	2	Т	6–30	22	Expected	High
Medical	851	71	T	889–1320	969	Expected	Expected
Psychological	8	1	T	7–18	1	Low	Expected
Suspicious Activity	609	28	Т	540-874	719	Expected	Expected
Traffic Collision	413	23	Т	437–569	435	Low	Expected
Traffic Complaint	176	8	Т	159-257	210	Expected	High

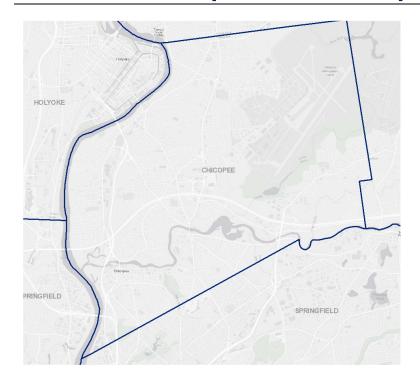
Increases seen in the first year evaporated in the next six months, leaving Agawam with normal call-for-service volumes during the analysis period.

Collisions reported to Agawam, 1 September-29 February

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1 Year Result
Vehicle in traffic	189	14	Т	200–288	220	Expected	Expected
Parked vehicle	26	5	Т	31–64	51	Expected	High
Pedestrian	5	0	С	3-7	3	Expected	Expected
Bicyclist	1	0	Т	0-2	2	Expected	Low
Animal	4	0	С	1-7	3	Expected	Expected
Fixed object	30	5	Т	31–69	44	Expected	Expected
Curb/barrier	16	2	Т	16-31	13	Low	High
Rollover/Jackknife	2	0	С	0-4	0	Expected	Expected
Other/Unknown	7	2	Τ	8-18	9	Expected	High
Total	280	28	T	314–468	345	Expected	High

Although exhibiting high figures during the first year post-MGM, Agawam's collisions dropped to expected totals during the following six months. As with the other reporting agencies, the city benefited from a mild winter with few days with harsh conditions.

18-month comparison: Chicopee





Population (est. 2018): 55,293

Area: 23.9 square miles

Police officers: 130

City center distance from MGM:

5.52 miles

In some ways a northern extension of Springfield, Chicopee has long experienced higher-than-average crimes rates, although the city saw a significant reduction in crimes in the 2000s and has maintained that reduction through the 2010s. Prior to MGM opening, we hypothesized that MGM might see increases at businesses, restaurants, and hotels on travel routes to MGM, but so far such trends have not surfaced. But we have seen increases in various types of thefts and fraud that are worth exploring.

Crimes reported to Chicopee, 1 September-29 February

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Murder	1	0	С	0-2	1	Expected	Expected
Sexual Assault	26	1	С	18-34	16	Low	Low
Kidnapping	8	0	С	3-13	4	Expected	Expected
Robbery	37	0	С	28–46	22	Low	Expected
Aggravated Assault	78	4	T	76–114	107	Expected	Expected
Simple Assault	343	7	С	274-412	314	Expected	Expected
Threats	148	7	С	109–187	172	Expected	Low
Arson	1	0	С	0-3	3	Expected	Expected
Burglary	195	-15	Т	128–214	134	Expected	Expected
Theft from Persons	3	0	С	1–5	3	Expected	Expected
Purse-Snatching	5	1	Т	3-13	5	Expected	High
Shoplifting	82	-3	С	68–96	98	High	High
Theft from Building	83	-11	Т	24-74	59	Expected	Low
Theft from Machine	0	0	С	0-0	0	Expected	Expected
Theft from Vehicle	62	3	С	28–96	22	Low	Low
Theft of MV Parts	52	-9	T	9-48	7	Low	Low

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Other Theft	159	14	T	159-274	334	High	High
Auto Theft	56	2	С	39-73	63	Expected	Low
Forgery	22	-1	T	14-25	33	High	Expected
Fraud/Con Games	76	-2	C	63–89	79	Expected	Expected
Credit Card Fraud	10	-2	T	3-12	6	Expected	Low
Identity Theft	49	7	T	61–89	89	Expected	Expected
Employee Theft	5	-1	T	2-4	1	Low	Expected
Extortion	1	0	C	0-2	2	Expected	Expected
Stolen Property	13	-1	C	9–18	17	Expected	Expected
Vandalism	215	-2	C	186–244	185	Low	Expected
Drugs	46	-2	C	31–61	55	Expected	Expected
Statutory Rape	6	1	T	4–16	10	Expected	High
Pornography	6	1	Т	2-21	10	Expected	Expected
Prostitution	1	0	C	0-3	0	Expected	Expected
Weapons	20	3	T	16-36	29	Expected	Expected
Bad Checks	6	-1	C	3-9	0	Low	Low
Disorderly	36	-1	C	27-45	33	Expected	Expected
Drunk Driving	23	2	C	14-33	49	High	High
Drunkenness	41	-4	T	13-54	42	Expected	High
Family Offenses	1	0	С	0-2	2	Expected	Low
Liquor Laws	10	3	T	8–33	17	Expected	High
Trespassing	21	0	C	11–31	26	Expected	High
Violent Total	641	21	C	508-808	636	Expected	Expected
Property Total	1088	-18	C	961–1215	1142	Expected	Expected
Total	1945	5	C	1731–2159	2051	Expected	Expected

Shoplifting

The increase during this six-month period is composed entirely of two Family Dollar locations. Identified offenders have all been from the Chicopee/Holyoke/Springfield area, minimizing a likelihood of an MGM connection. It may be that the chain simply adjusted its security practices or polices for reporting shoplifters to the police.

Other theft

Miscellaneous thefts began increasing in Chicopee starting in November 2018—about the same time that other theft categories started to decrease. The Walmart on Memorial Drive accounts for about one-third of the increase. Unfortunately, these facts suggest that the "increase" is simply greater use of the "other theft" code to record crimes that would be better recorded as shopliftings, thefts from persons, thefts from vehicles, and so forth. We would ask the agency to review its use of this code.

Forgery

This period saw a large jump in counterfeiting offenses and check forgery. There are a few repeat locations with two to four cases each, but no obvious hot spot. Restaurants seem to be popular in general. While about half the 13 identified offenders are from the local area, a fair number are from much farther away, including two from New York.

Drunk Driving

Chicopee nearly doubled its normal number of drunk driving arrests and summonses in the post-MGM 18 months. The increase was spread throughout the period, but concentrated between 21:00 and 03:00. The incidents are

scattered about the west side of town and while many of them could plausibly be on MGM routes, there is no particular concentration in that direction. See the analysis of drunk driving in a later section.

Selected calls for service reported to Chicopee, 1 September-29 February

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Abandoned Vehicle	25	4	Т	23–60	49	Expected	High
Disabled Vehicle	221	22	Т	196–420	251	Expected	Expected
Disturbance	1422	-31	С	1222–1622	1412	Expected	Low
General Service	1101	54	Т	963–1670	1231	Expected	Expected
Medical	894	116	T	1000–1596	665	Low	Expected
Overdose	48	19	T	75-134	95	Expected	Expected
Suspicious Activity	840	40	Т	763–1237	897	Expected	Expected
Traffic Collision	1193	82	Т	1207–1834	1182	Low	Expected
Traffic Complaint	946	81	T	1015–1438	1108	Expected	Low

There were no increases in any selected call-for-service type during this period.

Collisions reported to Chicopee, 1 September-29 February

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Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Vehicle in traffic	586	44	Т	545–981	646	Expected	Expected
Parked vehicle	168	12	Т	182–250	157	Low	Expected
Pedestrian	18	0	С	14-22	24	High	Expected
Bicyclist	7	0	С	4-10	7	Expected	Expected
Animal	5	2	Т	8–18	2	Low	High
Fixed object	65	5	Т	55–109	80	Expected	Expected
Curb/barrier	40	3	Т	33-67	23	Low	Expected
Rollover/Jackknife	5	1	Т	5–10	2	Low	Expected
Other/Unknown	22	0	C	15–29	18	Expected	Expected
Total	916	66	Т	893–1468	959	Expected	Expected

Chicopee had the same experience as other agencies. Favorable weather during the 2019–2020 winter kept crashes low or within normal bounds, except for pedestrian crashes, which may have increased for the same reason that others decreased.

18-month comparison: East Longmeadow





Population (est. 2019): 16,269

Area: 13.0 square miles

Police officers: 27

City center distance from MGM:

5.28 miles

As with most communities in this study, we did not see any major increases on travel routes through the town. A pattern of thefts from vehicles in residential neighborhoods seen during the first year post-MGM did not continue (at least, not at significant volume) through the fall and winter of 2019–2020. Most crimes and calls for service were at expected volumes except for fraud—a pattern the agency shares with neighboring Longmeadow.

Crimes reported to East Longmeadow, 1 September-29 February

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Murder	0	0	C	0-0	0	Expected	Expected
Sexual Assault	4	0	C	1–8	4	Expected	Expected
Kidnapping	0	0	C	0-1	1	Expected	Expected
Robbery	2	0	C	1-3	2	Expected	High
Aggravated Assault	8	-1	C	3-13	4	Expected	Expected
Simple Assault	30	-2	C	19–41	27	Expected	Expected
Threats	21	-5	T	7–20	19	Expected	Expected
Arson	0	0	T	0-1	1	Expected	Expected
Burglary	23	-3	Т	10-23	15	Expected	Low
Theft from Persons	1	0	C	0-2	1	Expected	Expected
Purse-Snatching	1	0	C	0-2	1	Expected	Expected
Shoplifting	25	-2	T	10-30	23	Expected	Expected
Theft from Building	12	-1	С	4-20	8	Expected	Low
Theft from Machine	0	0	C	0-0	0	Expected	Expected
Theft from Vehicle	18	-2	C	6–33	19	Expected	High
Theft of MV Parts	2	-1	T	0-2	0	Expected	Expected
Other Theft	49	2	С	37–61	38	Expected	Expected
Auto Theft	6	-1	С	2-10	8	Expected	Expected

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Forgery	3	0	С	1–6	6	Expected	Expected
Fraud/Con Games	16	-2	Т	5-17	19	High	Expected
Credit Card Fraud	4	0	C	2–6	2	Expected	Low
Identity Theft	6	1	C	2-11	11	Expected	Expected
Employee Theft	1	0	С	0-3	0	Expected	Expected
Extortion	0	0	T	0-1	1	Expected	Expected
Stolen Property	4	-1	C	1–9	2	Expected	Expected
Vandalism	43	-7	T	21–40	25	Expected	Expected
Drugs	14	-3	T	4–16	12	Expected	Expected
Statutory Rape	2	0	С	0-4	1	Expected	High
Pornography	2	1	T	o–6	1	Expected	High
Prostitution	0	0	C	0-0	0	Expected	Expected
Weapons	4	0	C	1–6	2	Expected	Expected
Bad Checks	2	0	С	o–6	0	Expected	Expected
Disorderly	7	-1	T	2-7	1	Low	Expected
Drunk Driving	16	0	C	12-20	6	Low	Expected
Drunkenness	3	0	C	o–6	2	Expected	Expected
Family Offenses	0	0	C	0-1	0	Expected	Expected
Liquor Laws	4	0	С	1-7	1	Expected	Low
Trespassing	6	0	С	1–11	0	Low	Low
Violent Total	65	-7	Т	31–86	57	Expected	Expected
Property Total	216	-18	T	124-232	180	Expected	Expected
Total	342	-29	Т	196–352	263	Expected	Expected

Fraud/con games

This category had been trending down in East Longmeadow until recently. In October, the police department warned residents of a scam in which a con artist posed as a deliveryman and got residents to swipe their credit cards through a card reader, ostensibly to pay a small fee. Thousands of dollars were later taken from their accounts. The agency seems to be experiencing problems with the same telephone scams reported to Longmeadow, too. So far, we haven't seen a direct MGM connection, and the crime seems to be increasing throughout the state.

Selected calls for service reported to East Longmeadow, 1 September-29 February

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Disabled Vehicle	23	-2	С	8–38	14	Expected	Low
Disturbance	13	-1	С	4-22	13	Expected	Expected
Domestic Dispute	48	16	Т	67–120	55	Low	Expected
General Service	603	5	С	482-724	771	High	Expected
Lost Property	12	-2	Т	2-11	0	Low	Low
Medical	892	44	T	980–1160	661	Low	Low
Suspicious Activity	448	-13	Т	322-471	389	Expected	Low
Traffic Collision	285	-5	С	243-327	269	Expected	Expected
Traffic Complaint	1	0	С	0-2	1	Expected	Expected
Vagrancy	2	-1	T	0-4	0	Expected	Low

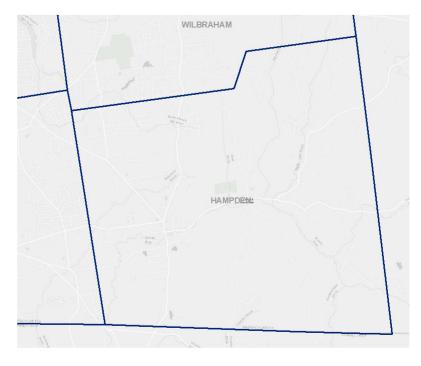
East Longmeadow's call for service types were all low or within expected volumes for the one year post-MGM, with the exception of "general service" calls. Most of this increase is made up of calls marked "Transport," which suddenly shot up in 2019 and 2020. There are few common locations and no clear explanation.

Collisions reported to East Longmeadow, 1 September-29 February

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Vehicle in traffic	173	-2	С	152–194	145	Low	Expected
Parked vehicle	36	0	С	27-45	45	Expected	Expected
Pedestrian	4	0	С	2–6	3	Expected	Expected
Bicyclist	1	0	С	0-2	1	Expected	Expected
Animal	20	-1	С	14–26	24	Expected	Expected
Fixed object	27	0	С	15-39	19	Expected	Expected
Curb/barrier	11	-1	С	7-15	5	Low	Expected
Rollover/Jackknife	2	0	С	0-4	2	Expected	High
Other/Unknown	13	-4	T	4–12	12	Expected	Expected
Total	286	-7	С	244-328	256	Expected	Expected

There are no increases in East Longmeadow's collision reports for his period. Instead, an existing trend of decreasing collisions accelerated for the agency, producing the second-lowest total in at least a decade (2016 had 233).

18-month comparison: Hampden





Population (est. 2019): 5,199

Area: 19.7 square miles

Police officers: 11

City center distance from MGM:

9.06 miles

The most geographically isolated of the 11 communities in this study (the town has no highways, major state routes, or PVTA bus routes), it was always a long shot that this low-crime community would see much activity post-MGM. During the year after MGM opened, the agency saw expected volumes of violent crimes and set a 10-year low (at least) for both property crime and total crime. It had no significant increases in any crime category. The only calls for service to see significant increases were traffic complaints, which seem to have a local cause.

Crimes reported to Hampden, 1 September-29 February

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1 Year Result
Murder	0	0	С	0-0	0	Expected	Expected
Sexual Assault	0	0	С	0-0	0	Expected	Expected
Kidnapping	0	0	С	0-0	0	Expected	Expected
Robbery	0	0	С	0-0	0	Expected	Expected
Aggravated Assault	1	0	C	0-2	1	Expected	Expected
Simple Assault	4	0	С	o–8	2	Expected	Expected
Threats	2	0	C	1-4	0	Low	Expected
Arson	0	0	C	0-0	0	Expected	Expected
Burglary	6	-1	С	1–12	2	Expected	Expected
Theft from Persons	0	0	С	0-0	0	Expected	Expected
Purse-Snatching	0	0	C	0-0	0	Expected	Expected
Shoplifting	0	0	C	0-1	0	Expected	Expected
Theft from Building	3	-1	Т	0-4	2	Expected	Expected
Theft from Machine	0	0	С	0-0	0	Expected	Expected
Theft from Vehicle	3	0	С	o–8	0	Expected	Expected
Theft of MV Parts	0	0	С	0-0	0	Expected	Expected

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1 Year Result
Other Theft	11	-2	С	2-21	3	Expected	Low
Auto Theft	2	0	С	0-4	1	Expected	Expected
Forgery	0	0	С	0-1	1	Expected	Expected
Fraud/Con Games	1	0	С	0-3	3	Expected	Expected
Credit Card Fraud	0	0	С	0-1	0	Expected	Expected
Identity Theft	1	0	С	0-3	1	Expected	Expected
Employee Theft	0	0	С	0-0	0	Expected	Expected
Extortion	0	0	С	0-0	0	Expected	Expected
Stolen Property	1	0	Т	0-1	0	Expected	Expected
Vandalism	11	-1	С	5-17	3	Low	Expected
Drugs	1	0	T	0-1	0	Expected	Expected
Statutory Rape	0	0	С	0-0	0	Expected	Expected
Pornography	0	0	С	0-0	0	Expected	Expected
Prostitution	0	0	С	0-0	0	Expected	Expected
Weapons	0	0	С	0-1	1	Expected	Expected
Bad Checks	0	0	С	0-1	0	Expected	Expected
Disorderly	1	0	Т	0-1	1	Expected	Expected
Drunk Driving	5	0	С	2-9	4	Expected	Expected
Drunkenness	1	0	С	0-3	1	Expected	Expected
Family Offenses	0	0	С	0-0	0	Expected	Expected
Liquor Laws	3	0	С	1–6	3	Expected	Expected
Trespassing	3	-1	С	1-7	0	Low	Expected
Violent Total	7	o	C	1-14	3	Expected	Expected
Property Total	42	-4	C	24-50	16	Low	Low
Total	64	-6	T	30–69	29	Low	Low

Hampden reported some of its lowest crime totals in a decade, showing no influence from MGM or indeed any other influences.

Selected calls for service reported to Hampden, 1 September-29 August

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Abandoned Vehicle	1	0	С	0-2	1	Expected	Expected
Disabled Vehicle	20	-2	Т	11–21	19	Expected	Expected
Disturbance	15	-2	С	6–24	12	Expected	High
Domestic Dispute	12	0	C	7–17	11	Expected	Expected
General Service	401	-9	Т	305-425	403	Expected	Expected
Hunting	2	0	C	0-5	1	Expected	High
Medical	142	9	Т	144-211	181	Expected	High
Suspicious Activity	89	-3	Т	59-97	81	Expected	Expected
Traffic Collision	49	1	С	38–60	47	Expected	Expected
Traffic Complaint	3	0	С	o–6	10	High	Expected

Most call types rated "high" for the first year did not continue into the subsequent 6 months. One new call type emerged as unusually high during that later period.

Traffic complaints

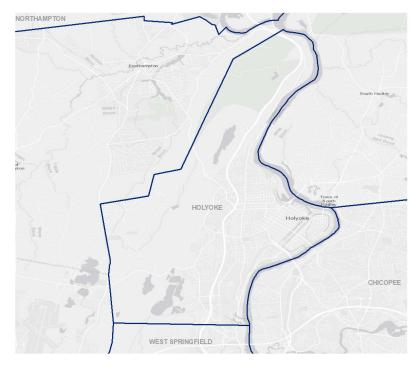
Seven of the 10 incidents that make up this increase are complaints of a recreational vehicle on Potash Hill Lane between 1 September and 6 October. The increase thus seems unique to this specific situation.

Collisions reported to Hampden, 1 September-29 February

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Vehicle in traffic	10	1	T	10–19	7	Low	Low
Parked vehicle	4	0	С	2–6	1	Low	Expected
Pedestrian	0	0	С	0-0	0	Expected	Expected
Bicyclist	0	0	С	0-0	0	Expected	Expected
Animal	11	1	С	4-21	14	Expected	Expected
Fixed object	10	0	С	8–12	8	Expected	Expected
Curb/barrier	3	-1	T	1–5	3	Expected	Low
Rollover/Jackknife	0	0	С	0-0	0	Expected	Expected
Other/Unknown	2	0	С	1–4	2	Expected	Expected
Total	40	1	C	30–50	35	Expected	Expected

Hampden was essentially dead average with its collision total during this period.

18-month comparison: Holyoke





Population (est. 2019): 40,178

Area: 22.8 square miles

Police officers: 112

City center distance from MGM:

7.97 miles

Holyoke was the only participating city to have significant decreases in violent crime, property crime, and total crime in the one year post-MGM. Violent crime continued to decrease within the next six months, although property crime and total crime leveled out. Yet amid those decreases in broad categories, the agency also showed many sustained increases in individual crimes. Those increases are analyzed below, but it's important to keep in mind that Holyoke seems to have embarked on a mission to improve its coding in 2019, and so many of the increases may just be shifts from historically bad codes to correct ones.

Holyoke has a lot of bars, restaurants, hotels, convenience stores, and gas stations that might ultimately see an increase in activity from MGM patrons, but this has not been reflected in the crime statistics so far. We will continue to monitor.

Crimes reported to Holyoke, 1 September-29 February

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Murder	1	0	C	0-2	2	Expected	Expected
Sexual Assault	14	0	C	8–20	20	Expected	High
Kidnapping	4	-1	T	2-4	0	Low	Expected
Robbery	50	-4	С	31–69	28	Low	Low
Aggravated Assault	122	3	С	103–141	114	Expected	Low
Simple Assault	355	-5	С	304–406	273	Low	Expected
Threats	192	-5	C	163–221	113	Low	Low
Arson	5	0	T	2–6	2	Expected	Low
Burglary	175	-21	T	79-134	120	Expected	Low
Theft from Persons	0	0	С	0-0	5	High	High
Purse-Snatching	0	0	С	0-1	8	High	High
Shoplifting	237	-23	T	144–186	207	High	High

Category	Pre-MGM	Slope	Window	Pred.	2020	Result	1-Year
	Avg		Type	Window			Result
Theft from Building	7	0	C	3-11	16	High	High
Theft from Machine	0	0	C	0-0	0	Expected	Expected
Theft from Vehicle	99	-10	Т	48–125	45	Low	Low
Theft of MV Parts	4	-1	Т	1-4	0	Low	Expected
Other Theft	561	-49	Т	242-547	275	Expected	Low
Auto Theft	58	1	C	43-73	53	Expected	Expected
Forgery	18	0	C	11–25	14	Expected	Expected
Fraud/Con Games	6	3	С	0-21	26	High	High
Credit Card Fraud	26	-1	C	20-32	48	High	Low
Identity Theft	0	0	C	0-0	2	High	Expected
Employee Theft	0	0	С	0-1	0	Expected	Expected
Extortion	1	0	C	0-3	0	Expected	Expected
Stolen Property	33	-1	C	25–41	8	Low	Expected
Vandalism	394	-31	T	204-359	322	Expected	Expected
Drugs	243	-13	T	146–263	173	Expected	Expected
Statutory Rape	0	0	C	0-0	7	High	Expected
Pornography	3	1	T	2–6	2	Expected	High
Prostitution	1	0	C	0-3	3	Expected	Expected
Weapons	37	5	Т	41–69	50	Expected	High
Bad Checks	0	0	Т	0-3	0	Expected	Expected
Disorderly	81	-3	C	63–99	58	Low	Expected
Drunk Driving	19	1	C	12-26	36	High	Expected
Drunkenness	0	0	C	0-0	0	Expected	Expected
Family Offenses	1	0	С	0-3	10	High	High
Liquor Laws	1	0	Т	0-1	9	High	High
Trespassing	25	-17	Т	0–26	56	High	High
Violent Total	738	-12	C	611-863	550	Low	Low
Property Total	1625	-133	T	874–1340	1151	Expected	Low
Total	2774	-173	T	1784–2380	2105	Expected	Low

Thefts from persons and purse snatchings

These offense categories are often confused, and it seemed to make sense to report on them together since Holyoke had a high incidence of both throughout the 18-month period post-MGM. Victims were almost all from Holyoke or immediate surrounding towns; only one offender was identified among the 13 incidents during the sixmonth period; he was a 40-year-old man from Southampton.

There is a fairly clear geographic concentration in the north end of downtown, though spread throughout this period.

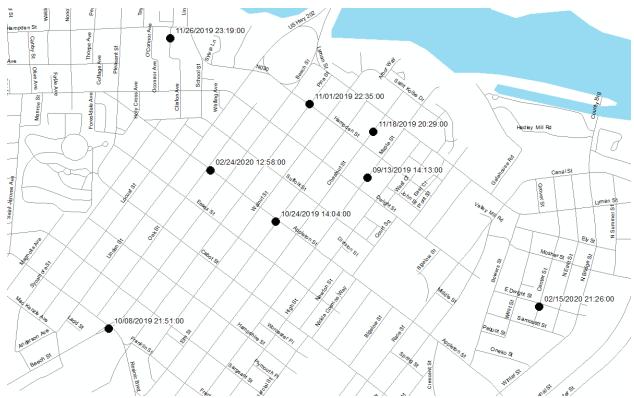


Figure 8: Thefts from persons in Holyoke, September 2019 to February 2020

Shoplifting

This increase continues from the previous year and is largely explained by a few locations, including Victoria's Secret at the Holyoke Mall, Ulta Beauty on Holyoke Street, and Save-a-Lot on South Street. Enough agencies are reporting similar increases that I am persuaded as to the existence of a regional trend, but this category is heavily influenced by security practices at the reporting stores, changes to which have not yet been sufficiently researched.

Thefts from buildings

There are no commonalities in the businesses affected by this increase, which started in April 2019, about the same time that the agency started improving its coding in other categories. A comparable drop in "all other" thefts suggests a shifting of categories rather than a real trend.

Fraud/con games

There are coding problems with this category. The agency reported single-digit totals in this IBR code (26A) until the end of 2018; then it reported 63 in the one year post-MGM. A review of the charges associated with the codes shows that they are almost all mis-coded credit card fraud (26B) or larceny by check (90A). There are a couple of repeat locations, including the Holyoke Mall and a local package store. It will take a bit longer to untangle the data to see if there are any real increasing trends in these categories.

Credit card fraud

Here again we have a likely coding issue. Most of the incidents are occurring at residences, where it is tough to commit credit card fraud, and the offense associated with the incidents indicates "identify fraud" rather than credit card fraud. I am designating this a coding error pending further investigation.

Identity theft

The agency used this code for the first time in the dataset in November 2019 and once more in February 2020. Under-use of the code almost certainly occludes the actual number of incidents occurring in Holyoke, in both the past and present (see "credit cad fraud"), and thus nothing can be drawn from the fact of the "increase." Both incidents involved men from the city of Holyoke.

Statutory rape

The seven incidents in this category represent a significant increase given that the agency has only used this code once before, in 2010. The increase during this period is probably not a "real" increase, then, but rather a result of better coding. Still, seven incidents, even given those circumstances, is a bit high. The available data suggests incidents happening at residences and schools, making an MGM connection unlikely. The agency itself will have to report otherwise.

Drunk driving

Holyoke made a lot more drunk driving arrests than normal during this period, which doesn't necessarily correspond with increases in drunk driving. See the special section later in this report for a full analysis of area drunk driving.

Family offenses

Between February and 2015 and May 2019, the agency reported no crimes in this category, so the sudden increase seems to be a matter of improved coding rather than an actual increase. There is notably no corresponding increase in domestic violence or domestic dispute calls.

Liquor laws

As with Chicopee and Springfield, the increase seems to exclusively involve charges of open containers of alcohol in vehicles stopped during traffic enforcement.

Trespassing

A massive increase in this crime category began in March 2019, after several years of virtually no use of this code. All evidence points to under-reporting in previous years rather than an actual increase in the number of trespassing incidents. There is a high concentration at several apartment buildings on Elm Street and Essex Street.

Selected calls for service reported to Holyoke, 1 September-29 February

			,	,			/
Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Abandoned Vehicle	45	-2	С	32-58	54	Expected	Expected
Disabled Vehicle	177	-2	C	136–218	154	Expected	Expected
Disturbance	1518	-35	Т	1189–1569	1360	Expected	Low
Domestic Dispute	169	-1	С	136–202	115	Low	Low
General Service	662	0	С	592-732	609	Expected	Low
Gunshots	58	-2	С	41-75	111	High	High
Hunting	0	0	С	0-1	0	Expected	Expected
Liquor	37	-1	С	25-49	25	Expected	Low
Lost Property	46	-3	С	30–62	18	Low	Expected
Medical	831	42	С	617–1045	523	Low	Low
Overdose	39	15	Т	50-113	163	High	Expected
Psychological	107	43	Т	121–350	267	Expected	Expected
Suspicious Activity	572	-22	С	441-703	423	Low	Low
Traffic Collision	1058	15	T	1027–1212	1035	Expected	Expected
Traffic Complaint	97	-9	T	50–119	61	Expected	Expected
Vagrancy	165	4	C	123–207	133	Expected	Expected

Gunshots

Reports of shots fired increased in Holyoke throughout the 18-month period after MGM opened. Unlike Springfield's similar increase, Holyoke's cannot be blamed on gunshot detection systems. Fortunately, there is no corresponding increase in murder or aggravated assault, indicating that no one is getting hit. Unlike the 2019 increase, which was concentrated late at night, the increase during this period seems to be spread throughout the day. The geographic concentration remains in the downtown, between Beech Street and the canal. There is no logical connection between this type of activity and MGM.

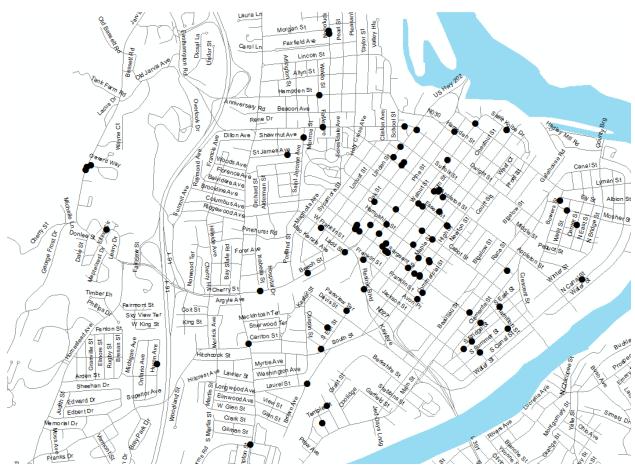


Figure 9: Gunshots reported in Holyoke from September 2019 to February 2020

Overdoses

Holyoke was the only agency to report such an increase in this tragic category. A lack of corroborative increases (in both other regions and other drug-related incidents) suggests that this is likely a local problem. Incidents are heavily concentrated in the downtown and waterfront.

Collisions reported to Holyoke, 1 September-29 February

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1 Year Result
Vehicle in traffic	601	17	Т	591-750	565	Low	Expected
Parked vehicle	173	6	Т	164–231	186	Expected	Expected
Pedestrian	18	0	С	11–25	19	Expected	Expected

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1 Year Result
Bicyclist	4	-1	T	2-4	3	Expected	Expected
Animal	4	0	C	1–7	7	Expected	Low
Fixed object	40	1	Т	37-55	50	Expected	Expected
Curb/barrier	28	0	C	19-37	31	Expected	High
Rollover/Jackknife	2	0	C	0-4	2	Expected	Expected
Other/Unknown	17	0	С	15–19	20	High	Expected
Total	887	25	T	896–1076	883	Low	Expected

Only the "other/unknown" category showed an unusual increase during this period (and just by one). Overall, collisions were extremely low in Holyoke during this period.

18-month comparison: Longmeadow





Population (est. 2019): 15,737

Area: 9.7 square miles

Police officers: 27

City center distance from MGM:

3.67 miles

Longmeadow is physically close to Springfield and MGM, and the northern part of the town has often seen a spillover of crime from Springfield's summer neighborhoods. In the year post-MGM, we saw a pattern of increased thefts from vehicles and residences within several northern Longmeadow neighborhoods, suppressed for a while by DDACTS deployments but returning in the summer of 2019 and then disappearing again in the fall and winter. Traffic collisions had also been high in the last four months of 2018 but not in 2019 or 2020, bringing the total just barely into the "expected" range. Traffic related complaints, on the other hand, remained high.

Crimes reported to Longmeadow, 1 September-29 February

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Murder	0	0	C	0-0	0	Expected	Expected
Sexual Assault	2	0	Т	1-4	0	Low	Expected
Kidnapping	0	0	С	0-1	0	Expected	Expected
Robbery	1	0	Т	0-1	0	Expected	Expected
Aggravated Assault	3	0	С	1–6	3	Expected	Expected
Simple Assault	7	0	C	5-9	5	Expected	Expected
Threats	9	-2	Т	3-5	5	Expected	Expected
Arson	0	0	С	0-1	1	Expected	Expected
Burglary	15	1	C	9-22	21	Expected	Expected
Theft from Persons	1	0	C	0-2	0	Expected	Expected
Purse-Snatching	0	0	C	0-1	0	Expected	Expected
Shoplifting	3	0	С	0-7	4	Expected	Expected
Theft from Building	17	-1	С	7–28	12	Expected	Expected
Theft from Machine	0	0	С	0-0	0	Expected	Expected
Theft from Vehicle	17	-2	С	8–26	19	Expected	High
Theft of MV Parts	0	0	С	0-1	1	Expected	Expected

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Other Theft	25	-2	С	15-35	29	Expected	Expected
Auto Theft	4	0	С	1–8	6	Expected	High
Forgery	2	0	T	1-3	0	Low	Expected
Fraud/Con Games	12	-1	C	6–18	25	High	Expected
Credit Card Fraud	3	0	C	1–5	1	Expected	Low
Identity Theft	13	1	С	5-21	18	Expected	Expected
Employee Theft	0	0	С	0-0	0	Expected	Expected
Extortion	0	0	С	0-0	0	Expected	Expected
Stolen Property	2	0	C	0-4	2	Expected	Low
Vandalism	21	-2	Т	7–26	17	Expected	Low
Drugs	3	-1	T	1-2	1	Expected	Low
Statutory Rape	1	0	С	0-2	4	High	Expected
Pornography	0	0	С	0-1	1	Expected	Expected
Prostitution	0	0	С	0-0	0	Expected	Expected
Weapons	1	0	С	0-2	1	Expected	Expected
Bad Checks	1	0	T	0-1	0	Expected	Expected
Disorderly	1	0	С	0-2	0	Expected	Expected
Drunk Driving	11	-2	Т	6–16	6	Expected	Expected
Drunkenness	0	0	T	0-1	2	High	Expected
Family Offenses	0	0	С	0-0	2	High	Expected
Liquor Laws	4	-1	T	0-4	2	Expected	Expected
Trespassing	2	0	С	0-4	1	Expected	Expected
Violent Total	22	-1	T	10-24	14	Expected	Expected
Property Total	136	-6	T	92-143	156	High	Low
Total	183	-12	T	118–176	190	High	Low

Fraud/con games

Like many agencies in the region, Longmeadow saw an increase in the code used for various types of fraud and confidence schemes, reporting record highs for the six-month period ending in February 2020. As Longmeadow Police reported themselves in 2020 to the media, they have identified a pattern of these scams that target elderly residents by telephone, often claiming that the resident has won the lottery, or that his children or grandchildren are in trouble and need financial assistance. There is some evidence that this increase is statewide. We have seen no specific casino nexus yet.

Statutory rape

There were four such incidents between September 2019 and February 2020. Due to the sensitive nature of such reports, the Longmeadow Police will have to report if there are any likely MGM connections, but given that all are tagged as happening at residences (as opposed to hotels or places where visitors would stay), it seems unlikely.

Drunkenness

The agency reported two protective custodies in early 2020, which is two more than it usually has during this period. The locations are not inconsistent with travel routes from MGM.

Family offenses

A pair of incidents in November and February seem to involve residents with no MGM connection.

Selected calls for service reported to Longmeadow, 1 September-29 February

							<u> </u>
Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Disabled Vehicle	57	-2	Т	36–61	59	Expected	Expected
Disturbance	51	-2	С	36–66	53	Expected	Expected
Domestic Dispute	33	-1	С	24-42	0	Low	Expected
General Service	425	3	С	384–466	424	Expected	Low
Medical	530	27	T	560–717	635	Expected	Expected
Suspicious Activity	228	-5	С	204–252	243	Expected	Expected
Traffic Collision	210	2	С	185–235	198	Expected	Low
Traffic Complaint	70	4	Т	73-99	119	High	Expected

Traffic complaint

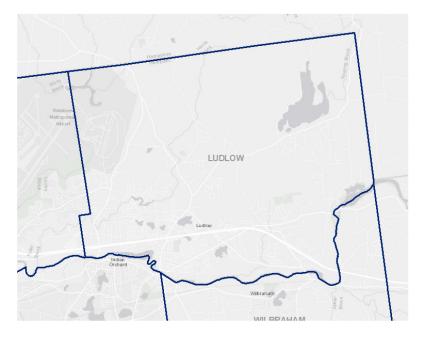
Longmeadow showed a slightly high value for erratic, improper, and annoying driving and parking behaviors, but with no particular geographic or temporal concentration. As noted in several of the other communities' profiles, this is a call type that almost inevitably increases with extra traffic in a community. A repeat issue on Grassy Gutter Road accounted for 7 of the increased incidents.

Collisions reported to Longmeadow, 1 September-29 February

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Vehicle in traffic	138	5	C	107–169	121	Expected	Expected
Parked vehicle	40	1	C	31-49	39	Expected	High
Pedestrian	1	0	Т	1-3	1	Expected	Expected
Bicyclist	1	0	Т	1-3	1	Expected	Low
Animal	14	1	C	6–22	9	Expected	Expected
Fixed object	16	1	T	13-25	14	Expected	High
Curb/barrier	5	1	C	1-10	7	Expected	High
Rollover/Jackknife	0	0	Т	0-1	0	Expected	High
Other/Unknown	5	0	C	3-7	6	Expected	Expected
Total	221	8	C	171–271	198	Expected	High

Increases seen during the first year reversed during the "winter without a winter," keeping everything in normal range.

18-month comparison: Ludlow





Population (est. 2018): 21,395

Area: 28.2 square miles

Police officers: 42

City center distance from MGM: 9.55 miles

A largely residential community, Ludlow showed no increases in crime along the travel routes to MGM that we hypothesized might see greater activity. Nor did it see any changes in traffic collisions. A brief increase in domestic violence and disputes in 2018 seems to have fallen off; it was unlikely that this trend was related to MGM Springfield.

Crimes reported to Ludlow, 1 September-29 February

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1 Year Result
Murder	0	0	Ċ	0-0	0	Expected	Expected
Sexual Assault	2	-1	Т	0-3	3	Expected	Expected
Kidnapping	1	0	C	0-2	0	Expected	Expected
Robbery	2	-1	Т	0-4	1	Expected	Expected
Aggravated Assault	15	3	Т	19-31	26	Expected	Expected
Simple Assault	34	6	T	34-78	50	Expected	High
Threats	19	1	С	12-27	26	Expected	Expected
Arson	0	0	С	0-1	1	Expected	Expected
Burglary	37	-6	Т	16–39	17	Expected	Expected
Theft from Persons	1	0	С	0-2	5	High	Expected
Purse-Snatching	1	0	С	0-1	1	Expected	Expected
Shoplifting	14	2	T	9–38	18	Expected	Expected
Theft from Building	21	-2	C	9-33	5	Low	Low
Theft from Machine	0	0	С	0-0	0	Expected	Expected
Theft from Vehicle	20	-1	С	6–40	13	Expected	Expected
Theft of MV Parts	0	0	Т	0–3	2	Expected	Expected
Other Theft	60	-4	Т	34-64	55	Expected	Expected
Auto Theft	10	1	С	3-17	11	Expected	Low

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1 Year Result
Forgery	8	0	C	4-12	6	Expected	Low
Fraud/Con Games	16	2	T	13–28	17	Expected	Low
Credit Card Fraud	6	0	С	0-13	2	Expected	Low
Identity Theft	14	1	C	6–22	14	Expected	Low
Employee Theft	1	0	C	0-3	0	Expected	Low
Extortion	0	0	С	0-0	0	Expected	Expected
Stolen Property	4	-1	С	1–8	0	Low	Expected
Vandalism	59	-3	T	41–64	50	Expected	Expected
Drugs	20	0	C	12-28	10	Low	Expected
Statutory Rape	1	0	С	0-3	0	Expected	Low
Pornography	1	0	С	0-2	0	Expected	Expected
Prostitution	0	0	С	0-0	0	Expected	Expected
Weapons	5	1	Т	3-10	4	Expected	Expected
Bad Checks	2	0	С	0-4	0	Expected	Low
Disorderly	10	-1	С	3-17	9	Expected	Low
Drunk Driving	21	1	С	14–28	22	Expected	Expected
Drunkenness	6	-1	Т	2–6	1	Low	Expected
Family Offenses	0	0	C	0-0	0	Expected	Expected
Liquor Laws	7	0	С	5-9	2	Low	Expected
Trespassing	5	0	С	2–8	2	Expected	Expected
Violent Total	73	8	T	65–145	106	Expected	High
Property Total	273	-9	C	223-323	217	Low	Expected
Total	425	-1	C	371-479	373	Expected	Low

Theft from persons

This category includes pocketpicking and theft of property directly from the area of control of an individual, such as a purse stolen from the back of a chair while dining or a smartphone swiped from a bar while the victim isn't paying attention. The nature of the crime means that it rarely occurs at houses, which makes it all the more confusing that four of the five incidents reported by Ludlow have "residence" as the location type.

Selected calls for service reported to Ludlow, 1 September-29 February

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1 Year Result
Abandoned Vehicle	4	1	С	1–8	5	Expected	High
Disabled Vehicle	90	1	С	81–99	86	Expected	Expected
Disturbance	391	-26	Т	240–338	400	High	Expected
Domestic Dispute	78	2	С	60–96	87	Expected	High
General Service	446	25	Т	498–591	502	Expected	Expected
Lost Property	3	1	T	2–6	4	Expected	Expected
Medical	862	25	Т	913–1007	1146	High	High
Psychological	4	0	С	2–6	2	Expected	Expected
Suspicious Activity	289	11	С	214–364	299	Expected	Low
Traffic Collision	292	7	С	256–328	340	High	Expected
Traffic Complaint	56	20	T	49–100	103	High	High

Disturbance

A large increase (a reversal of a historically downward trend) is found in codes for "disturbance general," "disturbance loud noise," and "disturbance neighbor." Geographic analysis shows a heavy concentration south of the Turnpike and west of the country club, in the mixed residential-commercial neighborhood near the riverfront, particularly on weekday evenings. A single address at 100 State Street (Ludlow Mills) accounts for about 15% of the increase. This trend is consistent with ongoing redevelopment and improvement of this area and thus seems unlike to relate to MGM.

Medical aids

This increase, which stretches throughout the 18-month period, seems associated with several high-volume addresses, particularly a dialysis center on Chestnut Place, a senior living facility on West Street a residence on Miller Street, a residence on Nash Hill Road, an apartment building on State Street, and a residence on Highland Avenue. Each of these addresses had at least 20 calls during the six-month period and together accounted for 221 calls, an increase of 136 from their collective norm. As none of them are influenced by a visiting or traveling population, an MGM connection seems unlikely.

Traffic complaints

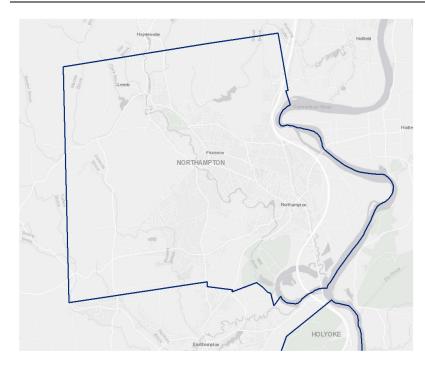
Complaints of "erratic operation" increased in Ludlow during this period, primarily on Center Street, East Street, Chapin Street, and West Street on weekday evenings. However, the agency did not start using this code until 2016, making average and predictive volumes difficult to calculate.

Collisions reported to Ludlow, 1 September-29 February

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Vehicle in traffic	175	14	T	188–269	211	Expected	Expected
Parked vehicle	42	2	Т	44-52	36	Low	Expected
Pedestrian	4	-1	T	1-7	2	Expected	Expected
Bicyclist	1	0	С	0-2	2	Expected	High
Animal	6	1	T	6–13	14	High	Expected
Fixed object	34	1	C	25-43	35	Expected	Low
Curb/barrier	17	0	С	14-20	10	Low	Expected
Rollover/Jackknife	3	0	С	2-4	2	Expected	High
Other/Unknown	16	0	C	12-20	25	High	High
Total	297	17	Т	315-412	337	Expected	Expected

Ludlow had a couple of "high" categories and overall didn't see the same decreases that other agencies did during this period. Nonetheless, it ended the six months with total collisions well within the expected range.

18-month comparison: Northampton





Population (est. 2019): 28,735

Area: 35.8 square miles

Police officers: 63

City center distance from MGM:

16.70 miles

As the farthest community from MGM in this study, if Northampton were likely to have an increase in crimes or calls because of MGM, it would most likely be reflected in its few hotels, services near its highway exits, and perhaps a general increase in the population visiting its arts community. So far, it does not appear that these trends have occurred. Total crime was low for the agency this period, though there were increases in, auto theft, fraud, family offenses, and trespassing. A pattern of bad checks and forged checks seen in the final months of 2018 did not continue into 2019 or 2020. A few increases seen below seem contained to this community.

Crimes reported to Northampton, 1 September-29 February

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1 Year Result
Murder	0	0	С	0-1	0	Expected	Expected
Sexual Assault	19	1	С	12-26	19	Expected	Expected
Kidnapping	2	0	С	0-5	2	Expected	Expected
Robbery	9	-1	С	4–14	10	Expected	Expected
Aggravated Assault	45	2	С	35-55	29	Low	Low
Simple Assault	140	-6	Т	89–154	121	Expected	Expected
Threats	32	-3	Т	20-34	18	Low	Expected
Arson	1	0	С	0-3	2	Expected	Expected
Burglary	49	-5	Т	27-47	22	Low	Expected
Theft from Persons	1	0	С	0-3	3	Expected	Low
Purse-Snatching	1	0	С	0-1	6	High	Expected
Shoplifting	75	0	С	58–92	58	Expected	Expected
Theft from Building	100	-12	T	46–70	48	Expected	Low
Theft from Machine	1	0	С	0-2	0	Expected	Expected
Theft from Vehicle	29	1	С	17–41	14	Low	Low

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1 Year Result
Theft of MV Parts	10	-1	Ċ	5-17	8	Expected	Expected
Other Theft	53	-3	Т	32–58	47	Expected	Expected
Auto Theft	9	0	С	5-13	7	Expected	High
Forgery	14	-1	Т	6–15	6	Expected	Expected
Fraud/Con Games	24	2	Т	21–41	42	High	High
Credit Card Fraud	8	0	С	3-13	3	Expected	Expected
Identity Theft	20	-3	Т	9–19	15	Expected	Low
Employee Theft	1	0	С	0-3	0	Expected	Low
Extortion	0	0	Т	0-1	0	Expected	Expected
Stolen Property	7	0	С	3–11	7	Expected	Expected
Vandalism	94	-9	Т	52-82	80	Expected	Low
Drugs	43	-5	C	19–67	30	Expected	Expected
Statutory Rape	3	0	Т	2–6	2	Expected	Expected
Pornography	4	0	C	2–6	3	Expected	Expected
Prostitution	0	0	C	0-1	0	Expected	Expected
Weapons	6	0	C	2-11	9	Expected	Expected
Bad Checks	4	0	С	1-7	5	Expected	Expected
Disorderly	31	-2	C	20-42	34	Expected	Expected
Drunk Driving	64	-1	C	34-94	76	Expected	Low
Drunkenness	63	-4	T	36–67	48	Expected	Expected
Family Offenses	0	0	C	0-1	2	High	High
Liquor Laws	17	-1	С	10-24	14	Expected	Expected
Trespassing	20	2	Ţ	16–34	28	Expected	High
Violent Total	247	-7	C	160–289	199	Expected	Expected
Property Total	498	-33	T	295-445	368	Expected	Expected
Total	1001	-52	T	644-945	818	Expected	Expected

Purse Snatching

A pattern of this rare crime hit the city during the six-month period, including three incidents in December, two at the same retirement community (but with different suspects), and one at an assisted living facility not far away. Two of the six incidents resulted in the identification of suspects: a 37-year-old woman from Florence and a 28-year-old woman from Holyoke. One incident resulted in the rest of a 22-year-old man from Holyoke. Thus far, there is no evidence of an MGM connection.

Fraud/Con Games

A fairly significant increase in fraud incidents from March to December 2019 seem to be mostly mis-coded credit card frauds, but that simply shifts the increase to a different category. The Wal-Mart on North King Street reported 12 incidents (up from a usual 4-5 per year), and there was another concentration along Main Street businesses.

Family offenses

As with Holyoke, the increase here seems to be one of improved coding rather than an actual change. The code was almost never used before 2019.

Selected calls for service reported to Northampton, 1 September-29 February

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1 Year Result
Abandoned Vehicle	9	-1	Т	3-12	5	Expected	Low
Disabled Vehicle	160	-3	С	135–185	140	Expected	Expected
Disturbance	786	-16	С	667–905	730	Expected	Expected
General Service	429	14	T	440-531	407	Low	Expected
Liquor	156	-1	С	127–185	139	Expected	Low
Lost Property	206	1	С	172-240	201	Expected	Low
Medical	827	48	T	852–1183	919	Expected	Expected
Overdose	13	4	T	18–30	18	Expected	Low
Psychological	64	-37	Т	o–76	2	Expected	Expected
Suspicious Activity	874	-58	Т	506–927	781	Expected	Expected
Traffic Collision	679	7	С	626–732	661	Expected	Expected
Traffic Complaint	437	-3	C	400-474	390	Low	Expected
Vagrancy	12	2	C	0-27	8	Expected	Low

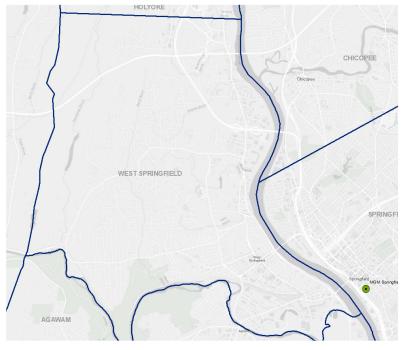
Increases in disabled vehicles and general service calls seen in late 2018 did not continue into 2019, resulting in no unusually "high" incident types for the 18-month period.

Collisions reported to Northampton, 1 September-29 February

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Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Vehicle in traffic	208	-3	C	184–232	169	Low	Expected
Parked vehicle	26	-2	C	17-35	13	Low	Expected
Pedestrian	8	-1	C	5–11	8	Expected	Expected
Bicyclist	5	-1	Т	2–6	10	High	Low
Animal	11	2	Т	6–29	7	Expected	High
Fixed object	24	0	C	11-37	27	Expected	Low
Curb/barrier	13	0	C	6–20	7	Expected	Expected
Rollover/Jackknife	2	0	C	0-4	2	Expected	Expected
Other/Unknown	7	0	С	5-10	10	Expected	Low
Total	304	-4	C	284-324	253	Low	Low

Like the other communities, Northampton saw a significant decrease in collisions during this period, likely because the "winter without a winter" made driving conditions less dangerous. The increase in bicycle-related crashes is oddly concentrated in the last two weeks of September 2019, when four crashes were reported. They are spread across the town and across days and times.

18-month comparison: West Springfield





Population (est. 2019): 28,628

Area: 17.5 square miles

Police officers: 85

City center distance from MGM:

3.83 miles

With a large hotel cluster directly across the river from MGM Springfield, it seemed inevitable that West Springfield would see an increase in activity at hotels specifically. Eighteen months later, the hotels may have more patrons, but their presence isn't being reflected in any additional crime. Hotel crime in the city is down from the average.

In general, crime is expected or low in the city. Patterns seen during the first year did not continue into the fall and winter of 2019–2020. The agency is however, one of several to report increases in drunk driving. It and other liquor-related offenses are analyzed below.

Crimes reported to West Springfield, 1 September-29 February

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Murder	1	0	С	0-2	0	Expected	Expected
Sexual Assault	14	1	T	12-23	18	Expected	Expected
Kidnapping	2	0	С	0-4	3	Expected	Expected
Robbery	16	-2	T	6–18	11	Expected	Low
Aggravated Assault	56	1	C	51–61	41	Low	Expected
Simple Assault	102	-7	T	58–120	94	Expected	Expected
Threats	31	0	C	26–36	36	Expected	Expected
Arson	3	0	C	o–6	1	Expected	Expected
Burglary	93	-13	T	44-87	60	Expected	Expected
Theft from Persons	3	0	C	o–6	4	Expected	Expected
Purse-Snatching	5	0	С	1–9	7	Expected	Expected
Shoplifting	160	9	C	111–209	201	Expected	Expected
Theft from Building	67	-3	С	49-85	40	Low	Low

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Theft from Machine	0	0	C	0-0	0	Expected	Expected
Theft from Vehicle	57	0	С	39-75	44	Expected	Expected
Theft of MV Parts	1	0	С	0-2	2	Expected	Expected
Other Theft	243	-17	Т	151-242	173	Expected	Expected
Auto Theft	38	-3	Т	22–46	40	Expected	Expected
Forgery	18	0	С	15–21	13	Low	Expected
Fraud/Con Games	38	3	Т	32–68	42	Expected	High
Credit Card Fraud	7	0	C	3-11	3	Expected	Expected
Identity Theft	24	2	C	15-33	25	Expected	Expected
Employee Theft	5	0	C	2–9	0	Low	Low
Extortion	0	0	C	0-1	1	Expected	Expected
Stolen Property	16	-1	C	10-22	10	Expected	Expected
Vandalism	150	-10	T	99-149	104	Expected	Expected
Drugs	49	1	C	30–68	56	Expected	Expected
Statutory Rape	3	0	Т	2–6	5	Expected	Expected
Pornography	2	1	Т	1–6	4	Expected	Expected
Prostitution	1	0	С	0-3	1	Expected	Expected
Weapons	6	0	C	2-10	7	Expected	Expected
Bad Checks	4	-1	T	1-5	5	Expected	Low
Disorderly	15	0	С	11–22	22	Expected	Expected
Drunk Driving	12	-1	C	4-20	27	High	Expected
Drunkenness	0	0	C	0-1	1	Expected	Expected
Family Offenses	2	0	С	1-4	4	Expected	Expected
Liquor Laws	4	-1	Т	2-3	5	High	Expected
Trespassing	12	0	С	8–16	13	Expected	Expected
Violent Total	222	-7	T	154–263	203	Expected	Expected
Property Total	927	-33	T	691–900	770	Expected	Expected
Total	1257	-40	T	950-1243	1125	Expected	Expected

West Springfield was one of several agencies to report an increase in **drunk driving** and **liquor laws**, analyzed in a later section. A major increase in fraud during the 12 months post-MGM did not continue past September 2019.

Selected calls for service reported to West Springfield, 1 September-29 February

Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
858	-17	Т	670–908	835	Expected	Expected
199	23	Т	216–355	268	Expected	Expected
358	-31	Т	216–378	329	Expected	Expected
584	15	Т	549-738	604	Expected	High
864	20	Т	831–1058	880	Expected	High
432	32	T	445–675	463	Expected	Expected
	Avg 858 199 358 584 864	Avg 858 -17 199 23 358 -31 584 15 864 20	Avg Type 858 -17 T 199 23 T 358 -31 T 584 15 T 864 20 T	Avg Type Window 858 -17 T 670-908 199 23 T 216-355 358 -31 T 216-378 584 15 T 549-738 864 20 T 831-1058	Avg Type Window 858 -17 T 670-908 835 199 23 T 216-355 268 358 -31 T 216-378 329 584 15 T 549-738 604 864 20 T 831-1058 880	Avg Type Window 858 -17 T 670–908 835 Expected 199 23 T 216–355 268 Expected 358 -31 T 216–378 329 Expected 584 15 T 549–738 604 Expected 864 20 T 831–1058 880 Expected

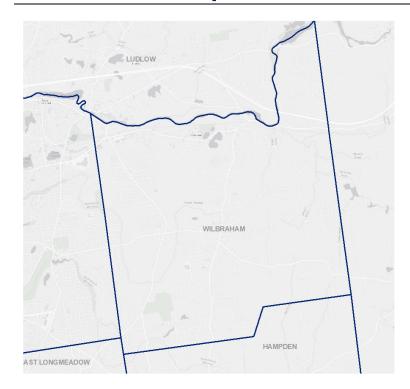
All calls for service were as expected in West Springfield during the study period, with increases in suspicious activity and traffic collisions failing to carry over into the fall and winter. Suspicious activity calls had been traced to panhandlers and loiterers outside businesses near the city's two bridges, and the naturally colder weather in the winter may have suppressed that activity. The weather was still better than normal, however, and West Springfield benefited from a regional decrease in collisions.

Collisions reported to West Springfield, 1 September-29 February

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Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Vehicle in traffic	265	9	Ť	242-358	356	Expected	High
Parked vehicle	32	4	Т	26–66	46	Expected	High
Pedestrian	12	1	С	7-17	13	Expected	High
Bicyclist	2	0	С	0-5	3	Expected	Expected
Animal	3	1	Т	1-8	3	Expected	High
Fixed object	28	1	Т	28–39	31	Expected	High
Curb/barrier	26	-1	С	21–31	20	Low	Expected
Rollover/Jackknife	1	0	С	0-2	1	Expected	Expected
Other/Unknown	12	-1	T	6–14	6	Expected	High
Total	381	13	T	351–516	479	Expected	High

West Springfield had the sharpest increases in traffic collisions during the one year post-MGM, but even its totals withered in the sunlight of the "winter without a winter." We will watch to see if crashes creep up again during seasons less susceptible to weather-based trends.

18-month comparison: Wilbraham





Population (est. 2019): 14,730

Area: 22.4 square miles

Police officers: 27

City center distance from MGM:

8.36 miles

Wilbraham is physically close to Springfield but lacks significant travel routes to and from MGM Springfield. A concern going into this study was increased retail crimes along Route 20. There were increased shopliftings at Home Depot and CVS, but these have not yet shown a definitive MGM relationship. Overall, the agency experienced total crime and property crime within expected parameters, with a few notable increases discussed below.

Crimes reported to Wilbraham, 1 September-29 February

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1 Year Result
Murder	0	0	С	0-0	0	Expected	Expected
Sexual Assault	3	1	T	2–8	5	Expected	High
Kidnapping	0	0	T	0-1	0	Expected	Expected
Robbery	1	0	С	0-2	0	Expected	Expected
Aggravated Assault	6	0	С	3-9	7	Expected	Expected
Simple Assault	26	0	С	17-35	22	Expected	Expected
Threats	19	-1	С	13-25	18	Expected	Expected
Arson	0	0	С	0-1	0	Expected	Expected
Burglary	19	-4	T	7–16	10	Expected	Expected
Theft from Persons	0	0	T	0-0	0	Expected	Expected
Purse-Snatching	0	0	С	0-0	0	Expected	Expected
Shoplifting	21	3	T	19–48	34	Expected	High
Theft from Building	8	-2	T	2-13	4	Expected	Low
Theft from Machine	0	0	С	0-0	0	Expected	Expected
Theft from Vehicle	11	-1	T	4-12	5	Expected	Expected
Theft of MV Parts	1	0	С	0-2	0	Expected	Low
Other Theft	34	-4	T	15–29	30	High	Expected

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1 Year Result
Auto Theft	7	-1	C	2-13	4	Expected	Expected
Forgery	4	-1	С	1-7	7	Expected	Expected
Fraud/Con Games	8	0	C	5–11	11	Expected	Expected
Credit Card Fraud	4	0	C	2–6	0	Low	Expected
Identity Theft	5	1	C	2–8	10	High	High
Employee Theft	1	0	С	0-2	0	Expected	Low
Extortion	0	0	T	0-3	0	Expected	Expected
Stolen Property	4	0	C	1-7	5	Expected	Expected
Vandalism	28	-3	T	10–36	23	Expected	Expected
Drugs	25	-5	T	6–36	11	Expected	Low
Statutory Rape	2	0	С	0-4	0	Expected	Expected
Pornography	1	0	С	0-2	3	High	Expected
Prostitution	0	0	C	0-0	0	Expected	Expected
Weapons	2	0	С	0-5	0	Expected	Expected
Bad Checks	1	-1	T	0-2	1	Expected	Expected
Disorderly	6	0	C	3-9	5	Expected	Expected
Drunk Driving	28	-2	С	17-39	20	Expected	Expected
Drunkenness	5	0	C	2–8	3	Expected	Expected
Family Offenses	0	0	С	0-0	0	Expected	Expected
Liquor Laws	9	0	С	2–16	8	Expected	Expected
Trespassing	4	1	С	1-7	6	Expected	Expected
Violent Total	55	О	C	35–80	52	Expected	Expected
Property Total	156	-13	Т	94-144	143	Expected	Expected
Total	296	-21	Т	173-272	252	Expected	Expected

Shoplifting and other theft

The "other theft" category was slightly higher than expected during the analysis period. Home Depot, which was high in shopliftings during the one year post-MGM, shows up as a repeat location in this dataset, accounting for six of the incidents. A review of stolen items suggests that the "other thefts" are likely miscoded shopliftings, which means the two trends are one in the same, continued across the 18-month period. The stolen property is primarily power tools, with a heavy preference for the Milwaukee brand. Most suspects and arrestees are men from the Springfield or Hartford areas.

Identity theft

The agency saw a big jump in identify fraud throughout the 18-month period. About half the incidents were reported at the police department. None of the incidents have resulted in the identification of a specific offender.

Pornography

No similarities are immediately apparent among incidents in October, November, and January.

Selected calls for service reported to Wilbraham, 1 September-29 February

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Abandoned Vehicle	4	0	С	1–7	2	Expected	Expected
Disabled Vehicle	103	2	С	87–119	101	Expected	Expected
Disturbance	57	2	T	52-78	56	Expected	Expected

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Domestic Dispute	78	4	С	58–98	88	Expected	Expected
General Service	302	6	С	269–335	307	Expected	High
Gunshots	13	0	С	8–18	11	Expected	Expected
Hunting	3	1	T	4-10	5	Expected	High
Lost Property	21	0	С	18-24	23	Expected	Expected
Medical	448	38	Т	459–698	507	Expected	Expected
Psychological	21	3	Т	20-45	37	Expected	Expected
Suspicious Activity	419	-16	С	337-501	374	Expected	Expected
Traffic Collision	216	5	T	203-271	183	Low	Expected
Traffic Complaint	105	9	Т	114–165	142	Expected	High

Wilbraham showed no significant increases in any of the selected calls for service during this period. Increases seen during the first 12-month period did not continue.

Collisions reported to Wilbraham, 1 September-29 February

Category	Pre-MGM	Slope	Window	Pred.	2020	Result	1 Year
	Avg		Type	Window			Result
Vehicle in traffic	99	2	С	83–115	74	Low	Expected
Parked vehicle	16	-1	С	10-22	16	Expected	Expected
Pedestrian	1	0	C	0-2	1	Expected	Expected
Bicyclist	1	0	С	0-2	1	Expected	Expected
Animal	17	4	Т	19-40	31	Expected	Expected
Fixed object	28	0	С	22-34	20	Low	Expected
Curb/barrier	13	0	С	7–19	8	Expected	Expected
Rollover/Jackknife	1	0	С	0-1	0	Expected	Expected
Other/Unknown	9	0	С	5-13	6	Expected	High
Total	184	5	Т	174-232	157	Low	Expected

Total collisions were in the normal range in Wilbraham, as were all the individual categories.

18-month comparison: State Police



Figure 10: A network of State Police-patrolled highways and routes feeds the MGM Springfield area.

State Police patrol state highways (principally I-90, I-91, I-291, and I-391) in the Springfield area, plus state properties and parks. They assist local police in response to some crime issues, and in particular have a longstanding partnership with the Springfield Police to patrol hot spots and reduce street violence and gang activity. In 2018, The State Police Gaming Enforcement Unit took over primary enforcement responsibilities at MGM Springfield.

The Massachusetts State Police operates a records system with different conventions and reporting rules than the local agencies, so the categories and totals are not directly compatible. In some cases, where both agencies responded to an incident, the two systems may duplicate each other. The data below comes from a combination of multiple State Police stations, including B-3 (Springfield), B-6 (Northampton), several sections of Troop E eliminated in 2018, and various mobile statewide units such as headquarters units, canine units, and investigators. As with the local agencies, it excludes MGM specifically, as those were covered in a previous section of the report.

Incidents reported to the State Police in the MGM area, 1 September-29 February

Category	Pre-MGM	Slope	Window	Pred.	2020	Result	1 Year
	Avg		Type	Window			Result
Abandoned Vehicle	12	4	T	15–41	20	Expected	High
Assault	6	0	C	4–8	6	Expected	Expected
Building Check	2230	52	C	1640–2820	1608	Low	Expected
Disabled Vehicle	1347	-14	C	1117–1577	1560	Expected	Expected
Disturbances	19	0	C	8–30	25	Expected	High
Domestic Dispute	9	1	C	5-13	8	Expected	Expected
Drugs	28	-4	C	5-51	23	Expected	High
Field Interview	2	0	C	1-3	2	Expected	Expected
Fraud and Forgery	0	0	Т	0-0	0	Expected	Expected
General Service	71	-15	Т	16–77	101	High	High
Gunshots	25	6	Т	20-79	157	High	Expected
Lost Property	14	-1	C	7–21	13	Expected	High
Medical	48	4	Т	44-84	77	Expected	Expected
Psychological	5	0	C	3-7	11	High	High
Robbery	6	-1	Т	2-5	3	Expected	Low
Suspicious Activity	19	1	C	14-24	16	Expected	Expected
Traffic Collision	1086	38	Т	1051–1425	1225	Expected	Expected
Traffic Complaint	299	-12	Т	197–331	407	High	High
Trespassing	8	-2	Т	1-10	1	Expected	Expected

General service

There was a large increase in "assist motorist" calls in 2019 and 2020, particularly on Route 91 in Northampton and Holyoke. There were also a large number on Reservation Road in Holyoke.

Gunshots

This increase seems to involve the State Police assisting Springfield Police with gunshot reports, which in turn have been inflated by an expansion of the city's gunshot detection system.

Psychological

A big jump in "emotionally disturbed person" and "suicide attempt" calls in 2019 and 2020, scattered throughout the region with no commonalities.

Traffic complaints

Complaints of aggressive driving and erratic operation increased on state roads in this area, particularly Routes 90 and 91. There are no other concentrations by month, day, or time. This again could be reflective of a general increase in traffic in the area.

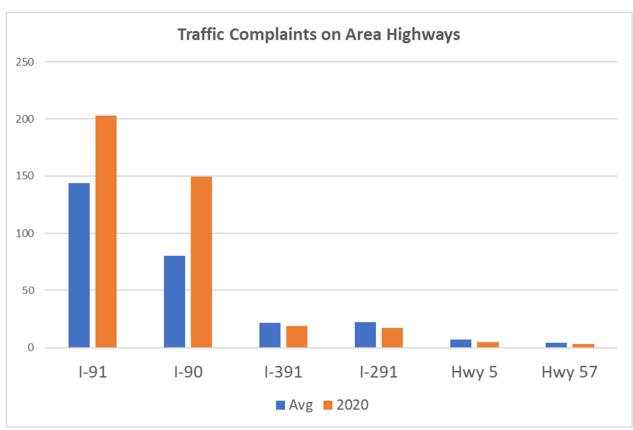


Figure 11: 2019-2020 was marked with extra complaints of erratic driving and aggressive driving on I-90 and I-91.

Crashes on state roadways, 1 September-29 February

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Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
l-90	151	-3	С	132–170	210	High	Expected
l-91	564	32	Т	568–814	594	Expected	Expected
l-291	123	0	С	94-152	119	Expected	Expected
l-391	87	2	С	74-100	119	High	High
Hwy 5	49	4	Т	38–88	63	Expected	High
Hwy 57	35	2	Т	36–50	36	Expected	Low
Total	1008	36	Т	976–1330	1141	Expected	Expected

State Police data contradicted the local trend, which showed unexpectedly low volume of traffic collisions during this period, likely because of the mild winter. Overall state police numbers were in the normal range, but the Turnpike and I-391 both outperformed their expected numbers during this period. The Turnpike (Route 90) increase was almost all in December 2019, but I-391 was high throughout the fall. The routes are consistent with carrying extra traffic to MGM, but I am wary about crediting the extra collisions to the casino given the decreases seen elsewhere during this period.

Preliminary analysis of COVID-19 closure period

The data for this report was mostly collected in June 2020. The report had always been intended to cover through February 2020—an 18-month period after MGM opened in August 2018. However, a number of landmark things occurred towards the end of this analysis period and immediately afterwards.

- 31 December 2019: The World Health Organization confirms a mysterious outbreak of a pneumonia-like disease in Wuhan, China.
- 11 January 2020: China reports the first death from the new coronavirus.
- 22 January 2020: The first COVID-19 case in the United States is confirmed by the Centers for Disease Control and prevention.
- 30 January 2020: The World Health Organization declares a global health emergency.
- **1 February 2020:** The first Massachusetts COVID case is confirmed.
- 11 February 2020: The new virus is given the designation COVID-19 by the WHO.
- 26 February 2020: The first case of local transmission is confirmed in the United States.
- 29 February 2020: The first confirmed U.S. death from COVID-19, a man in Washington State.
- 10 March 2020: Massachusetts Governor Charlie Baker declares a state of emergency.
- 12 March 2020: A man who visited Encore Boston Harbor on 5 March is diagnosed with COVID-19.
- 13 March 2020: President Trump declares a national emergency.
- **14 March 2020:** The Massachusetts Gaming Commission votes unanimously to suspend operation at all three casinos.
- **15 March 2020:** The CDC warns against large gatherings of people. Governor Charlie Baker issues an order prohibiting gatherings of more than 25 people and closes K–12 schools. Amendments would keep schools closed for the rest of the season.
- 17 March 2020: With West Virginia's first COVID-19 case, the virus is present in all 50 states.
- **18 March 2020:** Governor Baker orders the closure of non-emergency childcare.
- 23 March 2020: Governor Baker's 15 March order is amended to prohibit gatherings of more than 10 people.
- 1 May 2020: Governor Baker issues an order requiring face coverings in public places.
- 8-12 July 2020: Massachusetts casinos re-open with restrictions on occupancy and types of activities.

Ultimately, Massachusetts casinos were completely closed from the period of 14 March to 8 July 2020 and have been operating at 25% capacity since re-opening, naturally eliminating or vastly mitigating their effects on the surrounding communities. But these closures occurred during a period in which many bars, restaurants, schools, and other facilities were closed, too, or operating under severe restrictions. Countless workers began working remotely, and many residents changed their attitudes about the desirability of certain activities, even if they were technically legal.

The impact on crime and public safety was immediate and detectable. The tables below show significant decreases in violent and total crimes. Media reports during this period have correctly identified decreases in crimes like robbery, burglary, thefts from persons, and thefts from vehicles. The media has also widely suggested that domestic violence increased during this period—a result of too many family members on top of each other for too

long—but if that's the case elsewhere, it isn't reflected in the first three months of Springfield-area data. Murder is oddly the only crime to have shown a significant increase during this period, escaping its predicted upper boundary by a single incident. Springfield had 4 of the incidents, Chicopee 3, and Holyoke 2.

The reason for such heavy decreases in most crimes was worked out in the 1970s by criminologists Marcus Felson and Larry Cohen. They argued that crime is largely a byproduct of the routine activities of society. In their daily lives, people going about their business unwittingly create opportunities for crimes to occur. They leave their houses unoccupied during large potions of the day. They leave their cars unattended for hours in large parking lots. They get tipsy in bars and casinos and then go walking through dark alleys. Criminals simply find the right target in the right time and place.

A pandemic suppresses such activities. People stay at home, where they and their family members are able to guard their houses, cars, and persons. Criminal stay at home, too. Most daily interactions that would give rise to crime are vastly suppressed.

Incidents reported to region, 1 March to 31 May

Category	Pre-MGM	Slope	Window	Pred. Window	2020	Result
	Avg		Type			
Murder	8	-1	Т	4–8	9	High
Sexual Assault	101	2	C	91–111	66	Low
Kidnapping	28	4	T	27–50	13	Low
Robbery	152	-18	Ţ	53-140	104	Expected
Aggravated Assault	439	-8	C	408–470	342	Low
Simple Assault	1416	-19	C	1304–1528	1024	Low
Threats	758	-8	C	696–820	522	Low
Arson	20	-1	C	15-25	12	Low
Burglary	566	-65	Т	151–589	307	Expected
Theft from Persons	20	-3	Τ	0–28	12	Expected
Purse-Snatching	6	0	C	3-9	2	Low
Shoplifting	391	14	Τ	386-479	304	Low
Theft from Building	304	-1	C	257-351	166	Low
Theft from Machine	2	0	C	0-5	2	Expected
Theft from Vehicle	339	-12	C	275-403	318	Expected
Theft of MV Parts	128	-9	C	94–162	137	Expected
Other Theft	916	-169	Т	0-970	563	Expected
Auto Theft	227	-19	T	93-244	219	Expected
Forgery	79	6	Т	68–127	50	Low
Fraud	186	18	T	180-300	135	Low
Credit Card Fraud	84	13	Т	74-173	92	Expected
Identity Theft	182	-26	Т	0–229	141	Expected
Employee Theft	18	0	C	7–29	4	Low
Extortion	7	4	Т	9–26	9	Expected
Stolen Property	74	-5	Т	31–87	51	Expected
Vandalism	1066	-70	Т	618–1096	796	Expected
Drugs	392	-43	T	205–319	180	Low
Statutory Rape	19	4	Т	13–46	13	Expected
Pornography	21	3	Т	17–40	24	Expected

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result
Prostitution	9	0	С	2–16	0	Low
Weapons	152	3	С	136–171	169	Expected
Bad Checks	13	-4	T	0-22	2	Expected
Disorderly	183	0	С	168–198	101	Low
Drunk Driving	129	2	С	117–141	78	Low
Drunkenness	64	-3	С	45-83	36	Low
Family Offenses	86	25	Т	59–261	109	Expected
Liquor Laws	46	3	С	35-57	25	Low
Trespassing	156	24	Т	181–273	147	Low
Violent Total	2902	-48	C	2696–3108	2080	Low
Property Total	4614	-323	T	2967–4321	3320	Expected
Total	8786	-359	Т	6580-8839	6284	Low

The effect of the closures on collision reports is also quite significant. People do not crash when they aren't driving.

Collisions reported to the region, 1 March to 31 May

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result
Vehicle in traffic	1937	134	Т	2218–2731	1099	Low
Parked vehicle	435	33	Т	474–656	336	Low
Pedestrian	62	3	Т	57–88	31	Low
Bicyclist	27	-2	C	16-38	13	Low
Animal	22	3	Т	22–46	18	Low
Fixed object	224	10	Т	219–306	162	Low
Curb/barrier	113	6	Т	113–156	99	Low
Rollover/Jackknife	12	1	Т	13–19	11	Low
Other/Unknown	66	-1	C	55-77	20	Low
Total	2898	186	T	3282-4002	1789	Low

The implications of these figures are stark. First, even during a period of limited reopening, any trends influenced by MGM are likely to be undetectable amidst the more significant decreases caused by societal reaction to COVID unless I invent new methods of detection. Second, 2020 (and probably 2021) will be useless as baseline years in any future analysis of crime statistics.

Geographic analysis

The preceding sections of this report have presented statistics for the 11 participating communities as a whole. For the most part, they have noted few increases in crime. But it's worth ensuring that some smaller trends aren't being overlooked in amidst the large volume of crime and calls for service reported at the agency level.

Metro Center Springfield

MGM Springfield's official address is 1 MGM Way, a street built specifically for the casino. It occupies about half a block bordered by Union Street, Main Street, State Street, and East Columbus Avenue, its construction having obliterated the middle section of Howard Street, which became a couple of driveways on either side of the building. It is at the southeast end of a busy, downtown Metro Center with dozens of businesses, shops, restaurants, and hotels. Its close neighbors include the Springfield District Court, Symphony Hall, the MassMutual Center, Tower Square, the UMass Center at Springfield, and the CityStage performing arts center, and it's a good bet that all of these businesses stand to do more business with MGM bookending their block. Metro Center ends at roughly Union Station to the northwest, just before Route 291 serves as a natural hard boundary to the neighborhood.

An elevated Route 91 runs to the southwest of MGM and the Metro Center area. On the other side is Riverfront Park and a variety of businesses and attractions along Hall of Fame Avenue, including the Naismith Memorial Basketball Hall of Fame. The Connecticut River serves as a hard boundary to the southwest. Northeast and southeast of the Metro Center, mixed business and residential areas sprawl for miles.

Into this area, we have introduced over 8 million visitors in an 18-month period. These individuals, their cars, their wallets and purses, their trusting natures, are all potential targets for thieves, robbers, con artists, and more. The patrons themselves will occasionally drink too much, talk too loudly, get into fights, and get arrested for disorderly conduct. But at the same time, there are crime suppressors. There are plenty of people to witness criminal activity, to serve as mutual guardians for each other. There dozens of law enforcement officers and security guards within shouting distance, and cameras covering most of the major streets. Nearby businesses are staying open later. Late at night, the streets aren't quite as dark or empty. Which factors win out? The attractors or the suppressors?

For this analysis, we will consider three geographies:

- 1. The immediate MGM block, including both sides of Main, State, and Union Streets and East Columbus Avenue, but excluding the casino building itself, as there was nothing there but a construction site before September 2018.
- 2. The larger Metro Center area surrounding MGM, southeast to the Basketball Hall of Fame and northwest to Union Station.
- 3. The mixed business/residential neighborhoods that surround the Metro Center.

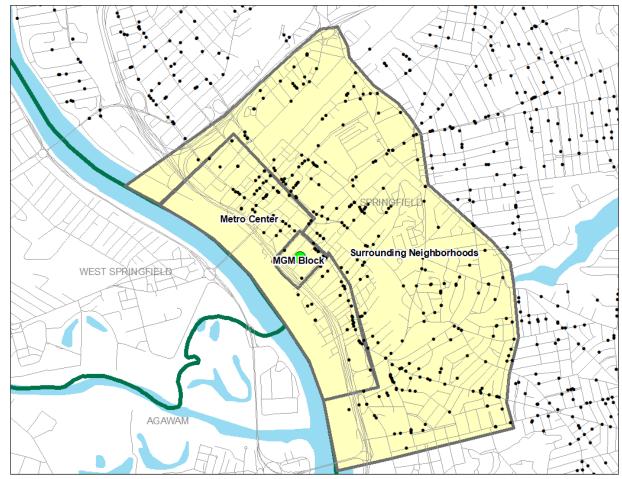


Figure 12: The three geographies analyzed in this section. Borders take in both sides of major streets.

To avoid wasting time with very low numbers, I have eliminated (put into the "All Other" category) crimes that reported an average and 2019 figure of less than 2.

Crimes on the MGM block, 1 September-29 February

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Sexual Assault	0	0	С	0-1	0	Expected	Expected
Robbery	3	-1	Т	0-3	2	Expected	Expected
Aggravated Assault	2	0	С	0-4	3	Expected	Expected
Simple Assault	6	-1	С	3-9	7	Expected	Expected
Threats	4	0	С	2–6	1	Low	Expected
Burglary	2	0	С	0-4	2	Expected	Low
Shoplifting	0	0	C	0-0	19	High	Expected
Theft from Building	2	-1	C	0-5	3	Expected	Expected
Theft from Vehicle	6	0	C	1–11	3	Expected	Expected
Other Theft	8	-3	Т	1–4	2	Expected	Expected
Auto Theft	1	0	C	0-2	0	Expected	High
Vandalism	4	-1	С	1–7	3	Expected	Low
Drugs	1	0	С	0-2	1	Expected	Expected

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Prostitution	1	-1	C	0-4	0	Expected	Expected
Disorderly	3	1	Т	1–8	2	Expected	High
All other	4	0	С	3-5	8	High	Expected
Total Violent	15	-1	С	7-23	13	Expected	Expected
Total Property	27	-4	T	7-24	38	High	Expected
Total Crime	55	-5	T	21–65	65	Expected	Expected

For the most part, the MGM block has absorbed the extra traffic without any impact on crime. The sole exception is the category of shoplifting, which also drove increases in total property crime and total crime. These incidents are split between two locations: the Pride gas station and convenience store at 1211 East Columbus Avenue and the CVS at 991 Main Street. The CVS is a new business, having opened in November 2019. It experienced both robberies during this period, 15 incidents of shoplifting, and one purse snatching. CVS arguably would not have opened a store at this location without the economic influence of MGM, so in an indirect way we can attribute this increase to a casino "cause." Times are spread throughout the day, however, and do not necessarily involve casino patrons.





Figure 13: The CVS (left) and the Pride gas station (right) as captured on Google Street View, fall 2019

Unllie the CVS, the Pride station is open all night, and half of its activity during this period occurred between 23:00 and 06:00. The 15 incidents reported here during this period are four to five times its pre-MGM norm, and include three simple assaults, one aggrvated assault, four shopliftings, three thefts, a vandalism, and an incicent of disorderly conduct.

Crimes in the Metro Center, 1 September-29 February

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Murder	0	0	С	0-1	0	Expected	Expected
Sexual Assault	3	1	С	1–6	1	Expected	High
Kidnapping	2	0	С	0-4	0	Expected	Expected
Robbery	27	-2	Т	16–27	16	Expected	Expected
Aggravated Assault	32	-1	С	23-41	19	Low	Low
Simple Assault	92	0	С	77-107	72	Low	Expected
Threats	44	-1	Т	34–46	34	Expected	Expected
Arson	0	0	С	0-1	0	Expected	Low
Burglary	28	-4	Т	14–26	18	Expected	Expected
Theft from Persons	4	0	С	o–8	4	Expected	Expected
Purse-Snatching	1	0	С	0-2	1	Expected	Expected
Shoplifting	12	2	Т	14-20	16	Expected	Low
Theft from Building	28	1	С	16-40	28	Expected	Expected
Theft from Machine	1	1	T	o–6	1	Expected	Expected

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Theft from Vehicle	46	-2	С	32–60	32	Expected	Expected
Theft of MV Parts		1	T	2-9	9	Expected	Expected
Other Theft	79	-24	Т	14-25	22	Expected	Expected
Auto Theft	16	-2	T	6–15	17	High	Expected
Forgery	7	0	С	5-9	8	Expected	High
Fraud	10	1	С	7-13	8	Expected	Expected
Credit Card Fraud	5	2	Т	8–11	8	Expected	Expected
Identity Theft	5	0	С	2-9	2	Expected	Expected
Employee Theft	2	0	С	0-4	4	Expected	Expected
Extortion	0	0	Т	0-1	0	Expected	Expected
Stolen Property	4	0	С	o–8	8	Expected	Expected
Vandalism	62	-4	С	38–86	43	Expected	Low
Drugs	25	1	С	15-35	21	Expected	Expected
Statutory Rape	0	0	С	0-0	0	Expected	Expected
Prostitution	9	0	С	1–17	5	Expected	Low
Weapons	10	0	С	5–15	8	Expected	Expected
Bad Checks	1	-1	T	0-2	0	Expected	Expected
Disorderly	26	0	С	18-34	22	Expected	Expected
Drunk Driving	3	0	Т	1–3	4	High	Expected
Drunkenness	0	0	С	0-1	0	Expected	Expected
Family Offenses	3	2	Т	6–11	11	Expected	Expected
Liquor Laws	2	0	С	1-3	1	Expected	Expected
Trespassing	11	1	T	10–19	22	High	Expected
Violent Crime	200	-3	С	151–232	142	Low	Low
Property Crime	252	-25	Т	142-218	186	Expected	Expected
Total Crime	604	-30	T	410-573	466	Expected	Expected

Individual highs and lows during this period should not detract from the larger story: Springfield's Metro Center managed to accommodate 2 to 3 million visitors during this period (and around 6 million in the previous year) without any significant impacts on total crime. Violent crime and total crime figures, in fact, were the lowest they'd ever been. (Property crime had a slightly lower year in 2018.) Vice, drugs, liquor, and prostitution are absent or keeping a low profile. An increase in sexual assaults during the first year post-MGM did not continue into the following six-month period.

Nonetheless, it is worth analyzing the increases. Of particular concern are the high number of **auto thefts** during this period, which show clusters both north and south of MGM, six between the hours of oo:oo and o4:oo. **Drunk driving** figures, though low in raw volume, are still higher than expected—see the preliminary drunk driving analysis later in this report for more.

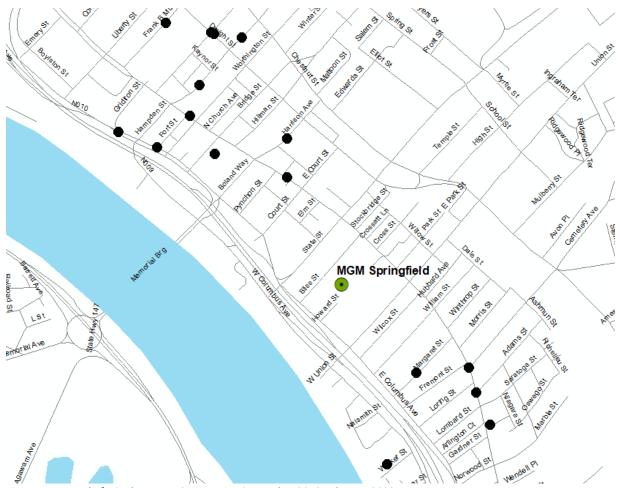


Figure 14: Auto thefts in the Metro Center area, September 2019-February 2020.

The **trespassing** increase is centered at Union Station, which also had a robbery, eight assaults, and 15 thefts during the same period.

Crimes in the surrounding neighborhoods, 1 September-29 February

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Murder	3	0	С	2-4	4	Expected	Expected
Sexual Assault	37	-1	С	32-42	42	Expected	Expected
Kidnapping	11	-1	C	8-14	22	High	Expected
Robbery	121	-13	Т	50-115	84	Expected	Low
Aggravated Assault	206	-8	Т	140-226	187	Expected	Low
Simple Assault	684	-2	С	663–705	709	High	Low
Threats	405	-15	Т	286–433	358	Expected	Low
Arson	9	-1	C	3-15	5	Expected	Expected
Burglary	289	-52	Т	101–165	174	High	Low
Theft from Persons	10	-1	С	5-15	7	Expected	Expected
Purse-Snatching	1	0	С	0-2	2	Expected	Expected
Shoplifting	62	7	С	33-91	94	High	Expected
Theft from Building	131	15	T	99-253	131	Expected	Expected

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
Theft from Machine	1	0	C	0-3	0	Expected	Expected
Theft from Vehicle	157	12	C	113–201	135	Expected	Expected
Theft of MV Parts	59	7	C	33-85	57	Expected	Low
Other Theft	359	-156	Т	0-315	152	Expected	Expected
Auto Theft	135	-14	Т	46–138	122	Expected	Expected
Forgery	34	1	C	28-40	30	Expected	Expected
Fraud	55	3	C	43-67	39	Low	Expected
Credit Card Fraud	36	13	Т	50-97	31	Low	Expected
Identity Theft	70	-15	Т	o- <u>5</u> 8	56	Expected	Expected
Employee Theft	5	2	Т	2-17	2	Expected	Expected
Extortion	4	2	Т	6–11	6	Expected	High
Stolen Property	25	1	C	22–28	15	Low	Expected
Vandalism	464	-20	C	394-534	375	Low	Expected
Drugs	132	-4	C	79–185	100	Expected	Expected
Statutory Rape	3	-2	Т	0-3	3	Expected	Expected
Pornography	5	2	Т	6–13	6	Expected	Expected
Prostitution	1	-1	Т	0-3	0	Expected	Expected
Weapons	100	14	Т	113–169	135	Expected	Expected
Bad Checks	6	-2	Т	0-10	0	Expected	Low
Disorderly	46	-3	C	32–60	53	Expected	Expected
Drunk Driving	9	-3	Т	o–8	14	High	Expected
Drunkenness	1	0	Т	0-1	1	Expected	Expected
Family Offenses	49	24	Т	45–198	133	Expected	Expected
Liquor Laws	10	0	C	5–15	23	High	Expected
Trespassing	73	15	Т	63–174	95	Expected	Expected
Violent Crime	1467	-40	Т	1282–1415	1406	Expected	Low
Property Crime	1905	-198	Т	990–1627	1433	Expected	Expected
Total	3806	-198	Т	2831–3595	3407	Expected	Expected

The available data for the **kidnapping** incidents suggests a mix of child custody disputes (parental kidnappings) and adult domestic disputes that resulted in confinement or kidnapping charges. Every identified offender and most of the identified victims are from Springfield, suggesting minimal if any MGM influence.

Burglary reversed what had been a downward trend during the first post-MGM year. The September–February total was below average but above the window predicted by the pre-MGM decreasing trend. The available data shows that most of the burglaries are happening at residences during the day, with clothing the most common target. The offenders who are known to the police (38 cases) have almost all ben men from Springfield itself (28/38 cases). There is so far no direct evidence of an MGM link.

The increase in **liquor law violations** is almost all related to open containers found during traffic stops, which is consistent with extra police presence in the area. This is also true of the increase in **drunk driving** arrests, although see the next section for more information about that crime specifically.

Exit Radiuses

One of the original hypotheses of this study was that crime would increase at facilities near highway exits to and from MGM Springfield. Such a trend did not come to pass. Whether we consider all exit radiuses and individual crime, or individual radiuses and all crimes, no combination outperforms its expected values for the period.

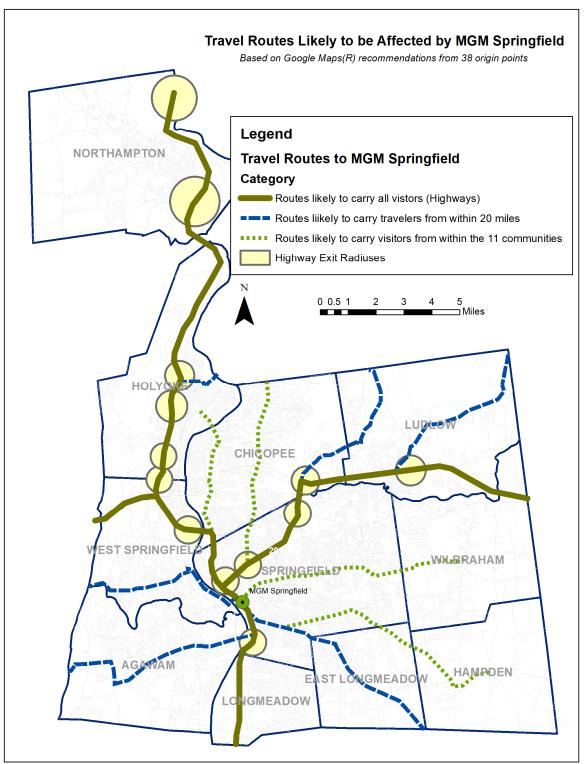


Figure 15: An analysis of crimes and calls for service only in "exit radiuses" shows no category higher than their expected values.

Crimes in exit radiuses, September 2019—February 2020

Category	Pre-MGM	Slope	Window	Pred.	2020	Result	1 Year
	Avg		Type	Window			Result
CH 90 Exit 6	28	-4	Т	14–18	18	Expected	Expected
HO 91 Exit 15	396	-19	Т	259–382	347	Expected	Expected
HO 91 Exit 16	153	-14	T	69–135	92	Expected	Low
HO 91 Exit 17	92	-7	Т	39–88	50	Expected	Expected
LU 90 Exit 7	99	-2	С	79-119	94	Expected	Low
NH 91 Exit 18	222	-12	T	152-201	190	Expected	Expected
NH 91 Exit 21	6	-1	С	0-12	8	Expected	Low
SP 291 Exit 3	385	-7	T	332–385	343	Expected	Expected
SP 291 Exit 5	47	-3	Т	31-45	45	Expected	Expected
SP 91 Exit 2	37	-1	С	21–53	27	Expected	Low
SP 91 Exit 9	360	-12	T	234–387	340	Expected	Expected
WS 91 Exit 13	235	9	Т	215–329	248	Expected	Expected
Total	2060	-72	Т	1642-1901	1802	Expected	Expected

A similar analysis based on counts of crashes shows that if there were any additional crashes caused by extra traffic going to MGM, they were overwhelmed by a general decrease in collisions during this period, likely caused by an extremely mild winter.

Crashes in exit radiuses, September 2019-February 2020

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result	1-Year Result
CH 90 Exit 6	28	3	С	13-43	12	Low	Expected
HO 91 Exit 15	104	0	С	85–123	89	Expected	Low
HO 91 Exit 16	63	1	С	49-77	56	Expected	Expected
HO 91 Exit 17	45	0	C	38-52	21	Low	Expected
LU 90 Exit 7	82	6	Т	86–126	68	Low	Expected
NH 91 Exit 18	43	-1	С	36–50	33	Low	Low
NH 91 Exit 21	5	1	T	4-9	3	Low	Expected
SP 291 Exit 3	98	8	Т	112–150	97	Low	Expected
SP 291 Exit 5	40	3	Т	39–64	37	Low	Expected
SP 91 Exit 2	19	1	С	12–26	17	Expected	Low
SP 91 Exit 9	99	7	Т	90–163	91	Expected	Expected
WS 91 Exit 13	43	0	С	32-54	44	Expected	High
Total	668	29	T	691–875	568	Low	Expected

Preliminary analysis of drunk driving data

Like any responsible facility that serves alcohol, MGM has a number of 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 makes it inevitable that some intoxicated patrons—and thus intoxicated drivers—will slip through the cracks.

This report makes no attempt to render judgement on what number is reasonable; it only attempts to collect the available evidence. This preliminary analysis is offered in anticipation of a longer report later this year that will cover all three casinos.

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. For simplicity's sake, I have looked at full calendar years for the statistics below.

Drunk driving arrests by jurisdiction

The statistics below showed that drunk driving arrests were high in some agencies in 2019, and at the upper end of the "normal" range for all agencies. In the first two months of 2020, however, got even busierfor the region. These figures indicate that agencies are making a lot more stops and arrests for drunk driving, but not necessarily that drunk driving itself has increased.

Arrests and summonses for drunk driving in 2019

City/Town	Pre-MGM Avg	Slope	Window Type	Pred. Window	2019	Result
Agawam	31	-1	C	21-41	53	High
Chicopee	47	5	Т	40-94	87	Expected
East Longmeadow	28	-2	Т	15-32	20	Expected
Hampden	12	-2	Т	5–16	10	Expected
Holyoke	40	1	С	24–56	57	High
Longmeadow	21	-1	С	15-27	12	Low
Ludlow	44	3	Т	42-72	58	Expected
Northampton	126	-1	С	84–168	108	Expected
Springfield	57	-5	Т	28–53	54	High
Wilbraham	57	-2	С	29–85	36	Expected
West Springfield	24	-1	С	15-33	41	High
Total	490	-6	С	436-544	536	Expected

Arrests and summonses for drunk driving in January and February of 2020

City/Town	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result
Agawam	5	0	C	2-9	11	High
Chicopee	8	0	Т	8–12	17	High
East Longmeadow	4	0	С	1-7	1	Expected
Hampden	2	0	C	0-4	2	Expected

City/Town	Pre-MGM Avg	Slope	Window Type	Pred. Window	2020	Result
Holyoke	7	0	C	3-11	13	High
Longmeadow	4	-1	Т	1–6	4	Expected
Ludlow	7	0	C	4-10	5	Expected
Northampton	20	-1	C	9-31	26	Expected
Springfield	9	-2	Т	3-13	10	Expected
Wilbraham	8	-1	C	3-13	7	Expected
West Springfield	4	0	C	1–7	12	High
Total	77	-3	Т	49-83	108	High

Crashes flagged as alcohol-related

The IMC records management system has a field to indicate whether the collision is "alcohol-related." However, the statistics suggest that none of the contributing agencies use it often enough for the statistics to be valid.

Crashes for which the alcohol-related flag is marked "Y", calendar years

Crasiles for WillCirti		accu mag is		, calellual years		
City/Town	Pre-MGM Avg	Slope	Window Type	Pred. Window	2019	Result
Agawam	5	-1	T	1–6	3	Expected
Chicopee	2	1	Т	1–8	2	Expected
East Longmeadow	3	0	C	1–5	2	Expected
Hampden	1	0	C	1-2	1	Expected
Holyoke	1	0	С	0-2	0	Expected
Longmeadow	0	0	С	0-1	1	Expected
Ludlow	2	-1	Т	0-1	0	Expected
Northampton	2	-1	Т	0-1	1	Expected
Springfield	13	-3	Т	1-7	1	Expected
Wilbraham	2	0	С	0-4	0	Expected
West Springfield	2	0	Т	1-2	3	High
Total	32	-6	Т	11-24	14	Expected

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.

Calls for service for traffic collisions with a later offense for drunk driving, calendar years

					9,	,
City/Town	Pre-MGM Avg	Slope	Window Type	Pred. Window	2019	Result
Agawam	2	1	C	o–6	1	Expected
Chicopee	28	2	Т	28–46	37	Expected
East Longmeadow	9	0	C	4-14	6	Expected
Hampden	2	0	C	1-3	4	High
Holyoke	22	0	C	13-31	28	Expected

City/Town	Pre-MGM Avg	Slope	Window Type	Pred. Window	2019	Result
Longmeadow	6	1	C	3-9	4	Expected
Ludlow	15	0	С	8–22	11	Expected
Northampton	22	-1	С	15–29	21	Expected
Springfield	19	2	Т	16-35	32	Expected
Wilbraham	12	0	С	7–17	13	Expected
West Springfield	13	0	C	7–19	19	Expected
Total	150	4	C	131–169	176	High

Although Hampden is the only agency to show a notably high figure for the period (and it's a small number), the totality of the contributing agencies produces a figure just slightly north of normal: 26 crashes higher than average, and 7 higher than the upper end of the predicted range.

"Last Drink" Locations from adjudication

According to data received from the Massachusetts Alcoholic Beverages Control Commission, MGM Springfield was named as the location of the "last drink" for **seven** drunk drivers whose cases were adjudicated between 1 August 2019 and 31 January 2020 (roughly the period of this report), a number that will likely rise as more cases that resulted in arrest during this period wrap up in court. MGM Springfield is the top single location mentioned by drunk drivers in this dataset, although the many establishments at Foxboro Stadium are divided into different addresses and together make for the top "real" hot spot.

Top "Last Drink" locations from cases adjudicated between 1 July 2019 and 30 January 2020

Location	City/Town	Total
MGM Springfield	Springfield	7
TD Garden	Boston	6
The Still	Agawam	5
The Zone	Springfield	4
Encore Boston Harbor	Everett	4
Scorpion Bar	Foxboro	4
Six String Grill & Stage	Foxboro	4

"Last Drink" locations as reported to police

This dataset is currently undergoing collection within all three casino areas, and it will be released in a special report later this year.

Conclusion

This preliminary evidence suggests that MGM Springfield is responsible for at least a handful of additional drunk drivers—not as many as the police departments' arrest statistics would indicate, but at least a single-digit figure. It is possible that this figure is actually remarkably low given the sheer number of visitors to the facility. In the coming months, we hope that comparative data will help to answer that question.

Special event analysis

In reviewing previous reports, local police officials asked whether the impact of "special events" at MGM Springfield might be washed out in the overall crime and call-for-service volume for the year—whether it was possible to detect a greater increase in crime and public safety issues on certain days that draw larger numbers of people to the area.

I recorded the dates of 12 concerts and other special events in the 2019–2020 period and compared just those days and the days after to typical crime volumes for the same days of week during the some months across the pre-MGM years.

Dates/Times	Event
04/30/2019 19:30	Cher concert (MassMutual center)
05/11/2019 21:00	Dokken concert
06/01/2019 20:30	Collective Soul and Gin Blossoms concert
06/08/2019 20:00	Hanson concert
06/21/2019 20:00	Matt and Kim concert
06/29/2019 20:00	Village People concert
07/05/2019 20:00	Fab Four tribute concert
07/27/2019 20:00	Warrant and Firehouse concert
08/10/2019 21:00	Jazz and heritage festival
08/23/2019 20:00	LoCash concert
09/05/2019 10:00	Springfield Jam Fest
01/17/2020-01/18/2020	Red Sox Winter Weekend

Figure 16: Events considered for this analysis.

The result Is uniform across almost all categories: "event nights" might as well be normal nights when it comes to overall volumes of crime, calls for service, and collisions. This is true whether we consider the entire 11-community area, just Springfield, or just exit radiuses (where travelers are most likely to stop for services). The one exception is a small increase in complaints of bad or erratic drivers within those exit radiuses, but absent any corroborating increases in other categories and areas, I'm tempted to call that a fluke.

It is certainly possible that individual travelers have stopped to wreak havoc on their way to or from special events at Springfield, but if so, their activity has not been sufficient to be detectable in the overall volume of activity on those days.

Crime and calls for service during special events, 2019-2020

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2019- 2020	Result
Violent crime (all communities)	117	-1	С	101–133	108	Expected
Property crime (all communities)	229	-14	Т	132–219	181	Expected
Drugs, alcohol, disorder (all)	36	0	C	32-40	35	Expected
Drunk driving arrests (all)	6	0	C	3-9	7	Expected
Collision reports (all communities)	779	49	Т	809–1139	809	Expected
Suspicious activity (all communities)	1381	34	C	1203–1559	1296	Expected
Traffic complaints (all communities)	322	32	T	292–609	389	Expected
Violent crime (Springfield)	70	0	C	59–81	72	Expected

Category	Pre-MGM Avg	Slope	Window Type	Pred. Window	2019– 2020	Result
Property crime (Springfield)	109	-12	Т	55-93	81	Expected
Drugs, alcohol, disorder (Springfield)	17	0	С	12-22	12	Expected
Drunk driving arrests (Springfield)	1	0	С	0-1	1	Expected
Collision reports (Springfield)	300	22	T	291–485	340	Expected
Suspicious activity (Springfield)	579	35	T	565–801	483	Low
Violent crime (Exit radiuses)	8	0	С	4-12	6	Expected
Property crime (Exit radiuses)	10	-1	T	4-12	6	Expected
Drugs, alcohol, disorder (Exit rad.)	2	0	С	0-4	3	Expected
Drunk driving arrests (Exit radiuses)	0	0	С	0-1	1	Expected
Collision reports (Exit radiuses)	36	5	T	40–65	35	Low
Suspicious activity (Exit radiuses)	110	0	С	86–134	100	Expected
Traffic complaints (Exit radiuses)	16	-1	С	12-20	25	High

Conclusion and future plans

The increases in crimes and the existence of patterns that can be tied specifically or even circumstantially to MGM are small and rare. The casino has reported a certain amount of crime within its own walls, creating new challenges for the responding law enforcement agencies, but except for a few phenomena discussed within this report, the influence of MGM does seem to be contained within those walls. Even a slight increase in traffic-related issues seen in 2018 and 2019 was washed away by warmer weather.

This report mostly covers a period that ended before society was completely overturned by the COVID-19 pandemic. During the following near-year, MGM Springfield was occasionally closed and occasionally open, but never operating at full capacity, and never again with a populace as interested in traveling and intermingling with others. This situation has also affected bars, restaurants, hotels, stores, schools, and entertainment venues.

Most crime is a consequence of the routine activities of everyday life—moments of opportunity seized by offenders when they encounter suitable targets at the right place and time. COVID-19 has brough essentially unmeasurable changes to these routine activities. As a crime analyst, I have seen nothing like it except in occasional cases of natural disasters.

As if COVID-19 was not enough, 31 May 2020 marked the beginning of another major social movement, when George Floyd was tragically killed by the Minneapolis Police. This act sparked a wave of mass protests that included the Springfield region, with Northampton taking particular damage. The effects of these protests and their larger movement on police practice will somehow have to be assessed in the middle of an already-unsettled time.

Until life returns to normal, and perhaps not even for a while after that, the continuing effects of MGM Springfield on public safety issues in the surrounding communities will be very difficult to untangle from changes wrought by the general COVID upheaval. That does not mean they will be impossible to discern, but the task may require significantly different and innovative analytical methods, and I am not prepared at this time to say exactly what those will be.

While I work with other researchers and analysts to generate ideas for continuing analysis, there are several reports waiting to be written based largely on pre-COVID data. These include:

- An analysis of changes in the MGM Springfield area compared to control areas and the rest of the state. Statewide data for 2019 and 2020 will be available soon.
- 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, likely in 2021.
- Comparison of MGM Springfield with other casinos, normalized by the number of annual visitors each facility receives. We are currently the process of collecting data from comparison casinos nationwide.
- A more thorough analysis of drunk driving and alcohol-related crashes, which will be released as a separate report that covers all three casinos.
- A summary report with the aggregated findings from Plainridge Park, MGM Springfield, and Encore Boston Harbor.

Watch for these additional reports in 2020 and 2021.

Appendix: Abbreviations and definitions

Acronyms and abbreviations

CAD	Computer-aided Dispatch (system)	A police database that holds information about police dispatches to calls for service, including incidents discovered by police officers. Some but not all of the incidents reported in CAD are crimes and have longer records in the RMS.
IBR	Incident-based reporting	See NIBRS.
MGC	Massachusetts Gaming Commission	The commonwealth agency charged with overseeing and regulating gaming in Massachusetts
FBI	Federal Bureau of Investigation	National investigative agency, part of the U.S. Department of Justice, in charge of collecting national crime statistics.
IACA	International Association of Crime Analysts	A global nonprofit professional association that provides training, literature, and networking to individuals who analyze crime data.
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.
PPC	Plainridge Park Casino	Massachusetts's first casino, a slot machine-only parlor in Plainville, opened in June 2015.
PVTA	Pioneer Valley Transit Authority	The organization that operates bus service and other public transportation in western Massachusetts.
RMS	Records Management System	A police data system that stores information about crimes and offenders. See also CAD.

SEIGMA Social and Economic Impacts of A multi-year research project hosted by the

Gaming in Massachusetts

University of Massachusetts Amherst School of
Public and Health Sciences. The SEIGMA project

has a much broader mandate for its study than just

crime.

UCR Uniform Crime Reporting National program for the reporting of crime (program) statistics to the FBI. Captures only summary d

statistics to the FBI. Captures only summary data about a limited number of crime types. Contrast

with NIBRS.

Crime definitions

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

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

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

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

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

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

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

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

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

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

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

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

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

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 as "custodial" kidnappings involving a parent taking a child in violation of a custodial agreement.

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

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

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

Pornography: Possession, sale, or manufacturing of illegal pornography. Because 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 actually displayed or employed, or if an assault is actually attempted, the crime is categorized as a simple or aggravated assault instead.

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

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

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.

Call for service definitions

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

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

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

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

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

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

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

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.

Offense types by associated crime category

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

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

Assessing the Impact of Gambling on Public Safety in Massachusetts

UPDATES ON MGM SPRINGFIELD AND ENCORE BOSTON HARBOR

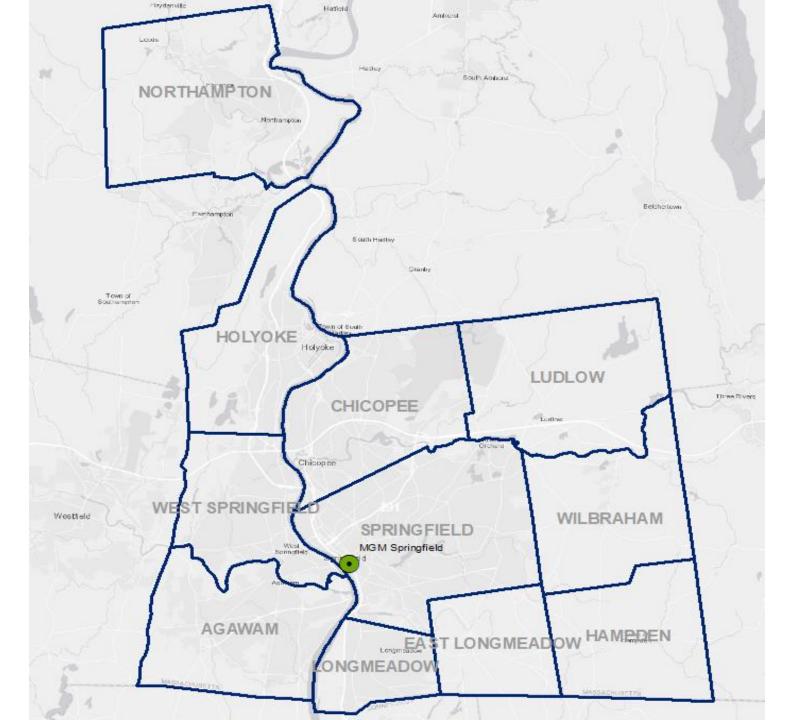
Christopher W. Bruce

Crime analysis consultant



Agenda

Review of MGM 18-month findings through February 2020
Review of Encore 8-month findings through February 2020
COVID closure period for both casinos (March – July 2020)
COVID reopening for Encore (July – December 2020)s
Future of the project



General Trends

Shoplifting high, driven by stores in Chicopee and Holyoke [874 vs. pred. 746-814]

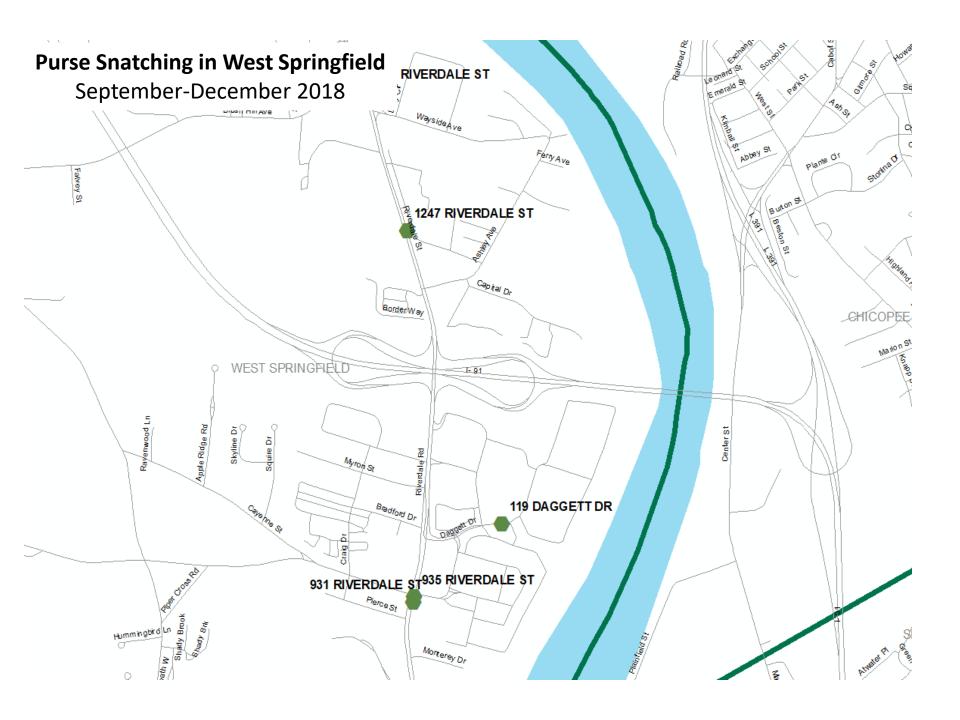
Drunk driving *mostly* seems to suggest greater enforcement with some extra contributions from MGM [312 vs. pred. 133-254].

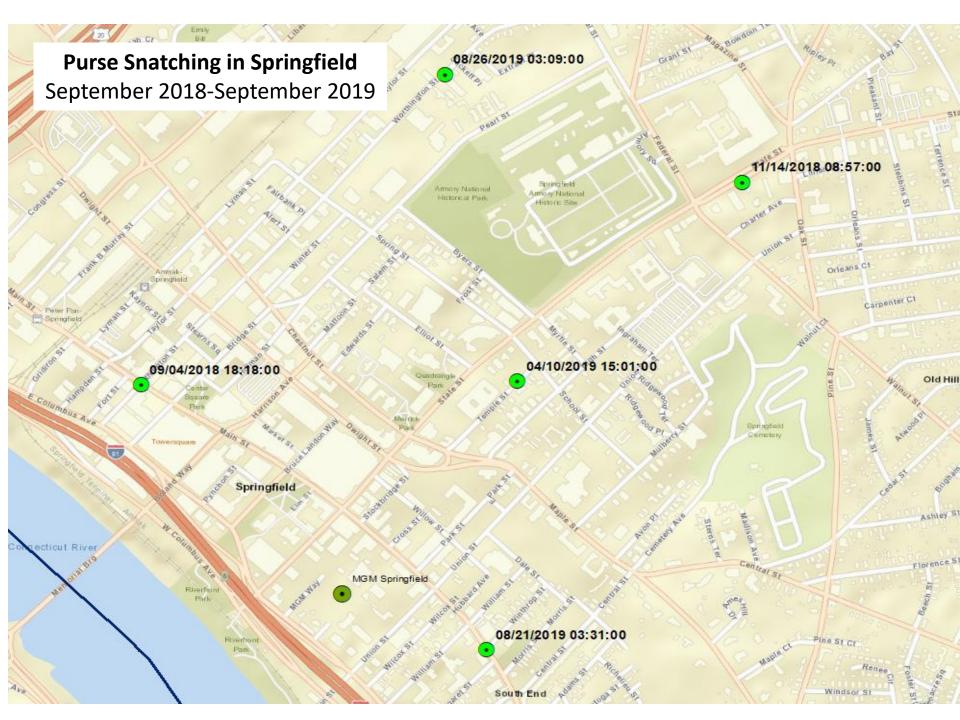
Liquor laws increased, mostly open containers, consistent with extra stops/enforcement [111 vs. pred. 73-97]

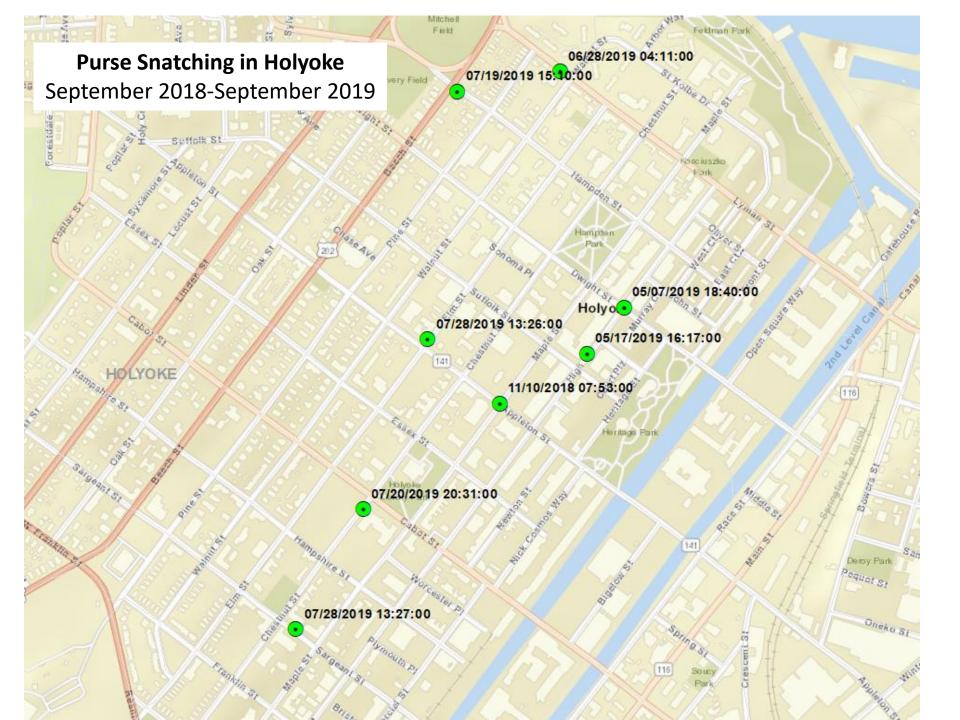
Fraud and identity theft are high, but seem to be statewide issues

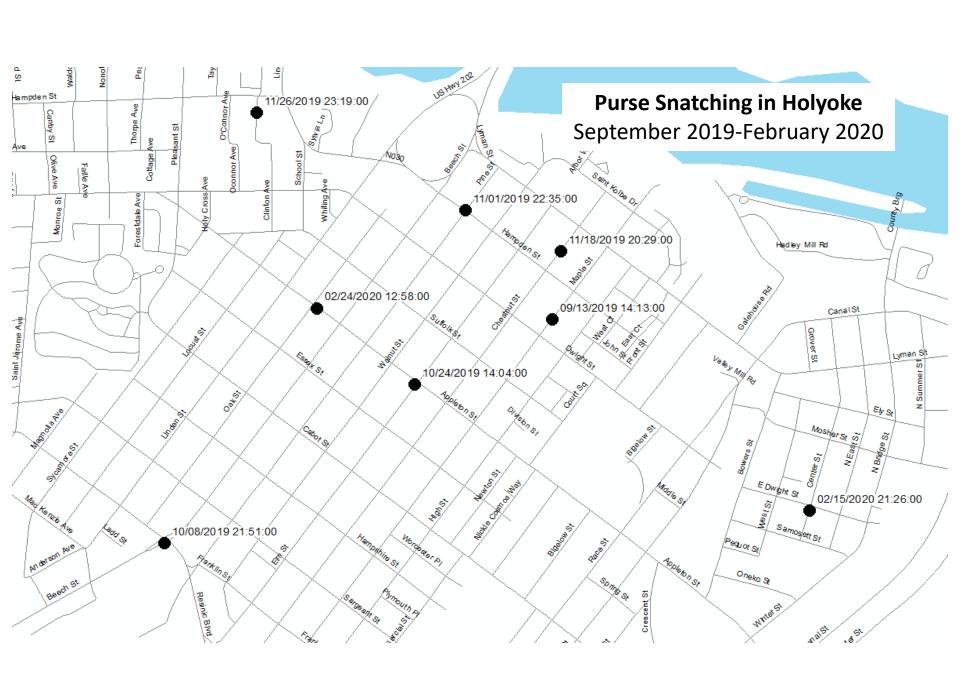
Trends that disappeared

- Any increases in traffic collisions ("winter without a winter")
- Increases in domestic violence
- West Springfield suspicious activity/disturbances near bridges
- Springfield/Longmeadow/East Longmeadow residential thefts

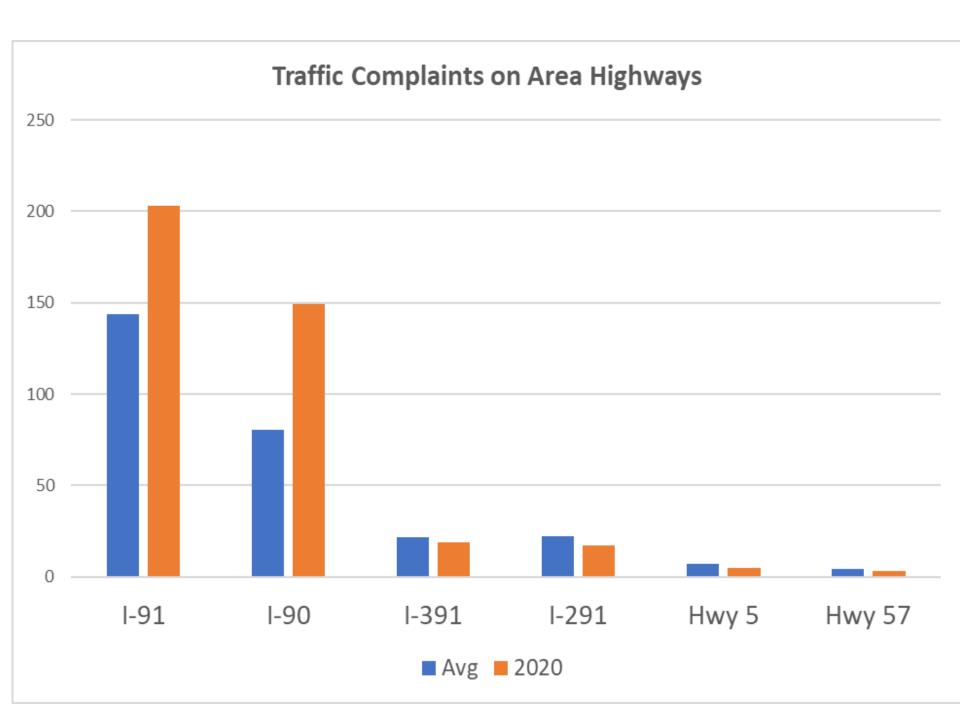






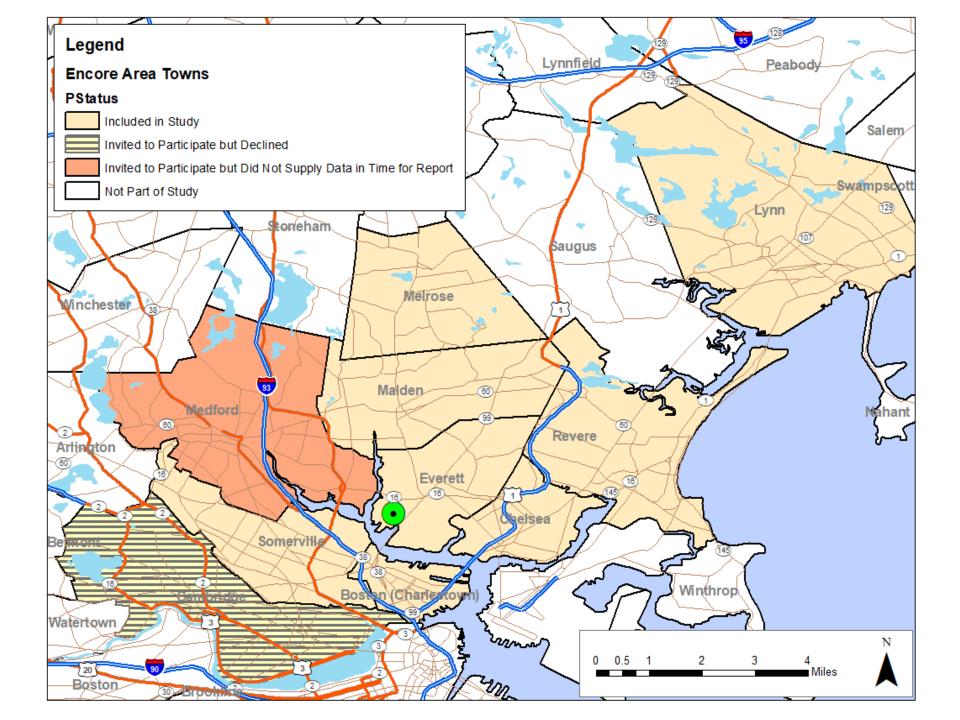






Drunk driving evidence

- Many communities reported increases in arrests, particularly in early months of 2020
- Crashes with drunk driving offense are slightly high
- MGM appears 7 times amid "last drink" adjudications



General Trends July 2019 – February 2020

Thefts from vehicles higher in Boston and Everett.

- Not so much "high" as not as low as trend predicted
- Both patterns continued into COVID period

Statutory rape: high in Chelsea, Somerville, Lynn.

Prostitution: high for region based almost solely on Lynn figures.

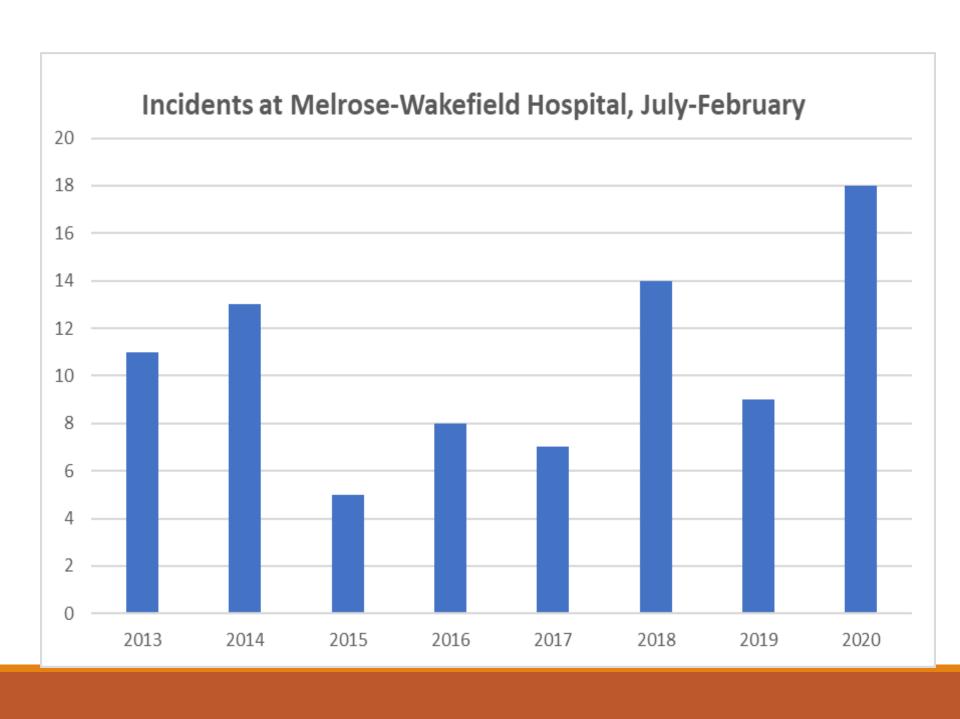
Liquor laws high in Lynn (crimes) and Everett (calls)

Melrose saw increase in assault, drugs, fraud at Melrose-Wakefield Hospital.

Some evidence of general increase in calls in areas north and east of casino

Other crimes, calls, collisions all normal.







Drunk driving evidence

Everett's arrests for drunk driving were up by more than 100% during first 8 months

Went down 50% during closing

17 incidents in drunk driving arrests reported as crashes (+467%)

Went down 75% during closing

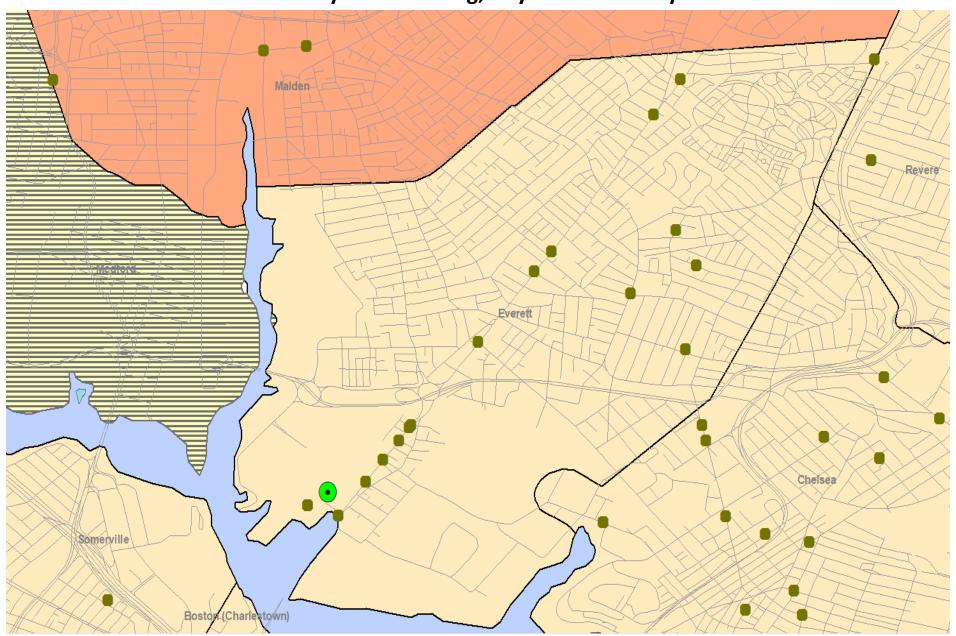
Concentration of incidents on Broadway Street

But Everett PD reports no "last drinks" at Encore

EBH listed as "last drink" location by 7 drunk drivers adjudicated in 2019-2020

All other communities normal in statistics.

Crashes caused by drunk driving, July 2019-February 2020



COVID Closures: March-June

Category	MGM Area	EBH Area
Violent Crime	-28%	-16%
Property Crime	-9%	0%
Crashes	-51%	-43%

Percentages are compared to predicted location on trendline.

Encore Area Limited Reopening (July-December)

Violent crime still very low

Thefts from vehicles still high (Boston and Revere)

Miscellaneous theft, fraud, credit card fraud, identity theft all high

Collisions still down (-27%)

No comparative data yet from other agencies

Next steps

Try for more data

- Malden
- Medford
- Boston calls for service and crashes

Better method of reporting incidents at the casino

Create model to figure out how to analyze COVID-era dataset once statewide NIBRS data is available in the summer

Multi-area drunk driving analysis

Thank You!

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