

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

*Analysis of changes in police data following four years of activity at Plainridge Park Casino*

*Preliminary report with executive summary*

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Full report issued later in November will contain agency breakdowns, State Police statistics, and regional trend analyses.

## Important note

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

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



# Executive summary

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## Brief Summary

Plainridge Park opened at the end of June 2015. Since that time, it has reported a number of crimes and calls for service commensurate with facilities of similar size and number of visitors. As for the surrounding community (including six towns), the totality of the evidence shows little impact on most crimes and calls for service. The types of calls for service to increase are those highly correlated with the number of cars and visitors to a community, such as traffic issues and reports of lost property and suspicious activity. One potential crime increase concerns the use of stolen credit cards in the area, but this did not persist past the first year. The area is seeing an increase in domestic violence and spikes in fraud and identity theft, but none of these patterns can be traced definitively to PPC.

For readers who read previous annual analyses, there are few new findings in this report. Most trends from the first two or three years continued, a few dissolved, and no new major trends developed.

## About this report

- The primary purpose of this report is to conduct an analysis of the increases and decreases in activity in the communities surrounding Plainridge Park since the casino opened and to identify which changes in activity might be attributable to the casino.
- Data was collected from the records management systems of Plainville, Attleboro, Foxborough, Mansfield, North Attleborough, and Wrentham since 2010. The period of 1 July 2015 through 30 June 2019 (4 years post-casino) was compared to the same periods of previous years. Both crimes and non-crime calls for service were included.
- Overall crime was down in the communities, but there were significant variations across communities and across crime categories within individual communities.
- Any significant increases were analyzed in more detail with both quantitative and qualitative data. Rarely was I able to establish a casino relationship, and the general sense from the participating agencies was that they did not feel that Plainridge Park had contributed significantly to crime or calls for service. Two agencies cited a heroin epidemic as more likely causing their crime increases.
- To determine likelihood of a casino relationship, I used a rubric of my own design that analyzes the data for several variables: logical connection to a casino, complementary increases in other communities, complementary increases in similar crimes, evidence of increased participation from individuals outside the local area, spatial proximity to the casino, comparison to control communities, and specific mention of the casino or gambling in the police reports.
- Some of the variances can be explained by changes in reporting practices, particularly in North Attleborough.

## Major findings

- During Plainridge Park's first four years of operation, the Gaming Enforcement Unit reported 5,194 "incidents" at the casino, of which 843 incidents were actual crimes. Trends include thefts of gaming credits, drug use and distribution in the parking areas, angry and intoxicated patrons, and thefts of personal property.
- The casino directly (i.e., incidents on casino property) led to a 2% increase in violent crime (+3 incidents), a 7% increase in property crime (+44 incidents), an 9% increase in total crime (+104 incidents), and a 3%

increase in calls for service (+872 incidents) for the Plainville Police Department. Crime by all measures has been declining at PPC since its first year,

- Statistics at the casino are similar to those at the top call-for-service locations in other communities (see page 20). I have not yet had a chance to study its similarity to other casinos specifically.
- Based on a totality of the quantitative and qualitative evidence, my judgement is that the following trends in the surrounding community are “likely” to be related to the presence of Plainridge Park:
  - Increases in credit card fraud in multiple communities during the first year. (The trend abated in the second and third years.)
  - At least part of an increase in traffic collisions in the area, primarily minor collisions with no injury not reported to the state
  - An increase in traffic complaints along Route 1 south of PPC, including parts of Plainville and North Attleborough
  - Several additional disorderly conduct incidents at Plainville Commons Marketplace, across the street from the casino, in 2017
  - An increase in “lost property” reports in Plainville
  - An increase in “suspicious activity” reports in Plainville
- Analysis of the latest available year of statewide traffic data (2017) suggests that increases in reported collisions have simply kept track with trends that existed before PPC. Data from the agencies’ CAD systems tells a different story, but those datasets include low property-damage, non-injury crashes.
- A recent increase in drunk driving collisions plus state Alcoholic Beverage Control Commission data on “last drinks” suggests a mild increase in drunk driving in the area, likely influenced more by Patriot Place than Plainridge Park.
- There were other increases among the six communities, but evidence cast doubt on a Plainridge Park relationship or directly implicated other factors.
- Total arrests and other charges were down significantly in the area, particularly for liquor-related offenses at the major event venues. Even controlling for liquor-related offenses, arrests were down in most communities.
- No related increase was seen in state police crime statistics, excepting incidents at Plainridge Park specifically.
- Increases in domestic violence, identity theft, and fraud remain a major concern in the area, but no evidence ties these crimes directly to PPC.
- Even though burglary declined 40% in the region, Wrentham Police identified a burglary pattern whose perpetrator was principally motivated by a gambling and drug addiction, and who was known to frequent Plainridge Park. He committed three burglaries in Wrentham, three in Norton, and one in Easton.

# 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 studies had 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. This is the fourth annual report to investigate the changes since Plainridge Park opened.

### Publicly-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 agencies	Established statistical measures for post-casino comparison
November 2015	Evaluation of change in police data after the first three months of Plainridge Park	Few changes discernible in immediate 3 months.
April 2016	Analysis of changes in police data after the first six months of operation at Plainridge Park Casino	Identified traffic-related calls for service as likely related to PPC. Noted increases in fraud-related crimes.
December 2016	Analysis of changes in police data after the first year of operation at Plainridge Park Casino	Continued to note increases in traffic-related calls; established credit card fraud increases as “likely related.”
December 2017	Analysis of changes in police data after the first 2 years of operation at Plainridge Park Casino	Most comprehensive report so far. Included comparative analysis of control areas.
June 2018	Report on baseline activity in Springfield-area agencies	First report in preparation for MGM casino.
March 2019	Three-year analysis of Plainridge Park area.	
March 2019	Three-month analysis of MGM Springfield	
May 2019	Four-month analysis of MGM Springfield	
November 2019	Baseline analysis of Encore Boston Harbor area	
November 2019	Eight-month analysis of MGM Springfield	
November 2019	Four-year analysis of Plainridge Park area	This report

## Methodology

Data used in this report was extracted from the individual records management systems of the Plainville, Attleboro, Foxborough, Mansfield, North Attleborough, and Wrentham Police Departments. I first established an ODBC connection to each of these agencies' records management and computer-aided dispatch databases (Plainville, Wrentham, and North Attleborough used the Pamet records management system for this period; Mansfield and Foxborough used IMC; and Attleboro used QED until 2018). I then connected to the databases via Microsoft Access, and used a series of "make table" queries to copy the data into Access data tables. I then copied the Access databases to my own computer, password-protecting them in the process, but leaving the originals on the agencies' networks so they could be updated by designated agency members as needed.

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

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

Figure 1: Data combined into a master call-for-service table.

## Interpreting the statistics in this report

This report compares four years of activity post-Plainridge Park to the average of activity prior to the opening of Plainridge Park. I offer statistics for the four individual years and then an average of the four years, with associated measures of change. In all cases, the year given is the time period **ending** on 30 June of that year. For instance, statistics for "2019" are for the period 1 July 2018–30 June 2019.

To the right of the Pre-Plainridge Park average is a column called "Window." This represents 1.5 standard deviations on either side of the average, creating a range in which we would expect any given year to fall about 87% of the time. (For statisticians, the specific percentage "under the normal curve" doesn't hold here because we do not have enough past observations, but it will be close enough, covering 4 or 5 of the years that make up the average.) Statistics outside of this normal window are unusual and worthy of additional investigation, particularly if they persist over a multi-year period. I have highlighted the years that are above or below this window for each crime or call-for-service.

## Incidents reported to Mansfield, 1 July–30 June

Category	Pre-PPC Avg.	Window	2016	2017	2018	2019	Post-PPC Avg
Murder	0.6	0–2	0	0	0	0	0.0
Sexual Assault	8.2	6–11	10	11	7	10	9.5
Robbery	4.4	1–8	2	2	2	4	2.5
Aggravated Assault	35.8	32–39	31	25	24	43	30.8
Simple Assault	120.2	106–134	147	140	151	146	146.0
Kidnapping	1.6	0–4	5	0	0	0	1.3
Burglary	143.4	63–224	53	34	47	28	40.5
Purse-Snatching	1.2	0–2	1	1	0	0	0.5
Shoplifting	50.0	37–63	39	38	60	29	41.5
Theft from Building	57.4	39–76	46	35	62	26	42.3

Figure 2: A sample from the data tables in this report. Years that are unusually high or low in the years since Plainridge Park opened are highlighted.

As you review the statistics, however, it is important to keep several things in mind:

- 1. Statistics for crime, calls for service, and other police activity increase and decrease between time periods for many reasons.** Plainridge Park is not the only thing to have happened in this six-community area that affect over this four-year period. Changes in economics, demographics, geography, and culture—both obvious and subtle—constantly affect the types of crimes, disorder, and traffic issues experienced by a community.
- 2. The purpose of these statistics is not to provide proof of a casino effect.** Quantitative studies that reach conclusions about the influence of casinos are possible, but only with multiple years of observation in both the affected area and control areas. Anyone who reports that one crime increased X% after Plainridge Park opened or decreased Y%, and who uses such statistics (alone) to suggest a casino relationship, is being irresponsible with this report.
- 3. The purpose of these statistics is to triage issues for further analysis.** When statistics increased for an agency, I, with the help of the participating agencies, took a closer look at both quantitative and qualitative data to try to determine if there was a mechanism by which the Plainridge Park Casino and its visitors could have contributed to the increase. The next section discusses our approach to making that determination.

### Determining likelihood of a casino relationship

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

The model considers seven factors:

- 1. Whether the type of activity increasing has a logical relationship to a casino.** Causality is more certain when it “makes sense” that such a crime or other activity would increase in the surrounding area in a particular way. Since casinos draw a large number of people to an area, and since cash plays a large role in their operation, there are



very few crimes that would not fit this definition, but it’s still worth considering. An increase in theft or traffic issues has a logical connection to a facility like a casino; an increase in harassing telephone calls or animal complaints does not.

2. *Whether more offenders and victims are from outside the local area.* If there is a relationship between an observed increase in activity and the presence of Plainridge Park, one would expect a corresponding increase in the percentage of victims and offenders from outside the immediate community, as the majority of casino patrons are from outside the local community.

3. *Whether multiple agencies are reporting an increase in the same category.* If only one agency reports a major increase in a particular crime and call for service, the cause is more likely to be related to another factor specific to that jurisdiction than to Plainridge Park. Complementary increases reported by multiple agencies strengthen the likelihood of a casino relationship.

4. *Whether related offenses also report increases.* Some crime and call-for-service categories are closely related to each other, so that a factor that influences one is likely to influence the others. If the casino were to cause an increase in traffic collisions, for instance, we might expect a corresponding increase in disabled vehicles, traffic complaints, and other traffic-related calls for service. An increase in a single category without increases in complementary categories is more likely to suggest a fluke specific to that category than a casino relationship.

5. *Whether the spatial distribution of offenses is related to the casino location.* For certain crimes and calls for service, if the presence of the casino caused their increase, we would expect to see a spatial distribution of incidents either near the casino or on routes to and from the casino. An increase in “disorderly conduct” in a residential neighborhood 15 miles from Plainridge Park is less likely to be caused by the casino than an increase in such activity at hotels and restaurants within 1 mile of the casino.

6. *Whether the casino is specifically mentioned by victims and offenders involved in cases.* If an increase in activity is causally tied to the casino, we would expect a certain percentage of victims to say that they were in town to visit the casino, or a certain percentage of offenders (if arrested) to admit that their crimes had something to do with the casino. If we cannot find any such evidence across multiple offenses, a casino relationship is less likely.

7. *Whether comparison agencies have failed to report a similar increase.* If a certain crime increased only in the Plainridge Park area and not at identified control areas in eastern Massachusetts, this provides stronger evidence of a casino relationship. Unfortunately, statewide data collection lags behind our data collection for the Plainridge Park 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 since there is no standardized reporting of this data on a statewide basis.

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

Factor	Hypothetical example (likely to be related) <sup>1</sup>	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

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

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

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

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

In the end, the determination of the “likelihood” of a casino relationship is an *analytical judgement* that considers both qualitative and quantitative factors and the opinions of the law enforcement agencies servicing these areas.

### Limitations and threats to validity

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

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

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

3. *A switch in a records management system.* Attleboro changed its records management system in July 2018. The new business processes occasioned by this change have either led to under-coding of certain crimes or the previous records system was leading to over-coding. The specific offenses under concern are noted in the analyses for Attleboro and the region.

5. *Missing offense codes in North Attleborough.* At the time of this report, North Attleborough had not coded offense types in its records management system for the period of 1 January 2019 to 30 June 2019. Offenses for this period are estimated based on CAD incident types.

The estimates were based on the following logic:

- For the previous three-year period, 84% of “shoplifting” calls for service led to an offense of “shoplifting.”
- There were 43 calls for service for “shoplifting” between January and June of 2019
- Thus, we estimate  $43 \times 0.84 = 36.12$ , or 36 shoplifting offenses for those six months.

The same math was repeated for every combination of call for service category and final offense. Estimated totals seems commensurate with past patterns, and I am confident that the estimation method did not significantly affect the findings for North Attleborough or for the total number of offenses in the area.

## Discussions with agency representatives

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

## Acknowledgements

The analysis in this report would not have been possible without the cooperation and good will of the police executives and personnel in the Plainville area. Each executive evinced a sincere commitment to objective analysis

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<sup>2</sup> See, for instance: Seelye, K. Q. (2016, March 6). Heroin epidemic increasingly seeps into public view. *The New York Times*. Retrieved March 20, 2016, from <http://www.nytimes.com/2016/03/07/us/heroin-epidemic-increasingly-seeps-into-public-view.html>; Leonard, K. (2015, July 7). Heroin use skyrockets in U.S. Retrieved March 20, 2016 from U.S. News and World Report: <http://www.usnews.com/news/blogs/data-mine/2015/07/07/heroin-use-skyrockets-in-us-cdc-says>

of data and unfettered cooperation in providing that data. We owe a debt of gratitude to Chief James Alfred and Officer William McEvoy of the Plainville Police Department; Chief Kyle Heagney, Sergeant Kevin Blackwell, and crime analysts Lisa Schultz and Anthony Stevens of the Attleboro Police Department; Chiefs William Baker and Michael Grace and Lieutenant Allan Haskell (ret.) of the Foxborough Police Department; Chief Ronald Sellon and crime analyst Erika Baburins of the Mansfield Police Department; Chief John Reilly, Captain Joseph DiRenzo, Officer Julie Cannata, and assistant IT director Steve Almeida of the North Attleborough Police Department; Chiefs James Anderson and William McGrath, Lieutenant George Labonte, and IT administrators Darrell True and Craig Gavazzi of the Wrentham Police Department; and Lieutenant Brian Connors, Lieutenant Matthew Murphy (ret.), and analyst Carol Fitzgerald of the Massachusetts State Police.

## **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).

Mr. 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.

## Historical and literature review<sup>3</sup>

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

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

Casinos proved so profitable for Native American communities that states and communities began to look to gaming for sources of tax revenue and general economic growth. In 1989, South Dakota became the first state outside Nevada and New Jersey to legalize gambling when they allowed a commercial slot casino in Deadwood. Iowa legalized riverboat gambling the same year. Colorado and Illinois followed in 1990; Missouri and Louisiana in 1991; Mississippi in 1992; and Indiana in 1993.<sup>4</sup> As of the time of this writing, 24 U.S. states allow some form of commercial casino gambling, and an additional 19 have some form of tribal gambling.

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

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

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<sup>3</sup> Except for some figures related to the number of states with casinos, this section is largely unchanged since last year’s report covering three years. No significant casino/crime research has been released since then.

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

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

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

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

Only as the body of literature has grown is it possible to discern key differences in the study areas. A "casino" is not the same thing across all geographies and demographics. There are variances in the types of casinos, size of casinos, types of gaming offered at casinos, other types of amenities and recreation offered at casinos, and the nature of the geography in which they are built, from dense, impoverished urban areas to the (literal) middle of the woods. Differences between the means of accessing the casinos, the surrounding road network, and the existing crime rate all have potential parts to play in any increases or decreases in crime and other social harms. Thus, when one body of researchers concludes that a neighborhood casino had no increase on crime in Philadelphia (see the Johnson and Ratcliffe study below), but another group says that video gambling terminals led to an additional 1,450–4,100 violent and property crimes in Chicago over four years<sup>8</sup>, the results are not necessarily in conflict. The nature of casino gambling differs from diffused video gambling terminals, and Chicago and Philadelphia are different cities with different histories, geographies, and demographics.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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



# Incidents at Plainridge Park Casino

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

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

## Incidents at Plainridge Park reported by the Gaming Enforcement Unit

The following statistics were compiled by the Gaming Enforcement Unit from July 2015 to June 2019. These numbers should be considered the most authoritative of the sources for total figures at Plainridge Park; however, they might exclude some activity in the exterior reported to the Plainville Police. These numbers were supplied in summary form (statistics only) and are thus not subject to further analysis.

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

### Crimes and other incidents, 1 July–30 June

Crime Type	2016	2017	2018	2019	Total
Assault	1	4	2	1	8
Assistance to security	461	516	466	472	1915
Assistance to other agency	317	247	203	176	943
Burglary	5	0	0	0	5
Child Abuse/Endangerment	3	0	0	1	4
Firearms Offenses	1	0	0	0	1
Forgery/counterfeiting	19	30	22	29	100
Fugitive from justice	1	2	1	1	5
Gambling violations	1	3	0	1	5
Identity theft	4	0	3	2	9
Theft, fraud, embezzlement	146	149	105	68	468
Missing persons	16	0	3	1	20
Drug investigations	77	66	88	24	255
Intoxicated persons	114	138	107	92	451
Suspicious persons	224	187	117	104	632
Medical	113	61	51	148	373
<b>Total</b>	<b>1503</b>	<b>1403</b>	<b>1168</b>	<b>1120</b>	<b>5194</b>

GEU statistics show that crimes committed in the facility were highest in the year after it opened, presumably as different offenders were testing security levels and the security staff and assigned police officers were getting used to their jobs. Incidents declined after that, reaching their lowest level so far in the year ending June 2019.

## **Trends seen among data supplied by the Gaming Enforcement Unit**

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

The list of trends below is based on Gaming Enforcement Unit summaries of activity. Because not all activity is so summarized, I cannot attach exact numbers to the identified trends. I caution readers that pending further analysis with statistics from comparison casinos, the identification of these trends does not signify that Plainridge Park has *uniquely* high volumes in these areas.

Trends are presented in descending order by volume.

1. *Theft of gaming credits*, generally in the form of TITO tickets, committed by one patron against another. The offending patron snatches a ticket printed by the victim and cashes it in, often before the victim notices that it's gone. Because of widespread surveillance, the GEU and casino security have generally been able to identify and charge the perpetrators. Casino policy is to make restitution to the victims in such cases so the casino, rather than the patron, takes the loss.

2. *Drug use and distribution outside the casino*. The parking garages and lots have been sites for drug users to ingest cocaine, heroin, and marijuana in their vehicles. Such individuals are generally identified by security and reported to the GEU or the Plainville Police.

3. *Drunk, angry, obnoxious patrons on the casino floor*. These represent intoxicated patrons expressing anger, bothering customers, or harassing employees.

4. *Drunk patrons getting into cars and/or attempting to drive away from the casino*. The GEU, casino security, and the Plainville Police occasionally have identified intoxicated individuals in the parking areas preparing to drive away from the casino. They are typically placed into protective custody until they regain sobriety. In a couple of instances, the individuals have ignored police and driven away, resulting in subsequent stops and arrests for drunk driving.

5. *Theft of personal property*. A number of patrons report losing personal electronic devices, jackets, wallets, and other small items of personal property in the busy casino floor. Copious surveillance often makes identification of the offender possible.

6. *Fake ID*. Banned or underaged patrons or those with active warrants passing fraudulent identification to enter the casino floor.

7. *Angry patrons damaging casino machines*. Patrons frustrated with losses breaking glass or pouring drinks into machines.

8. *Domestic disputes and assaults*. Although a trend, this number seems low given the number of couples that must visit the casino. All so far have been male assailants victimizing girlfriends and wives, often while intoxicated.

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

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

## Incidents at Plainridge Park reported to the Plainville Police Department

Plainville Police responded to Plainridge Park a modest number of times in its opening years, but the total number of responses has dropped considerably in the more recent two years. The decrease is probably the result of two factors: better coordination with the Gaming Enforcement Unit on the reports that it takes versus the PPD, and an actual decrease in attempted crimes at the casino once the extent of video monitoring became clear to the criminal community.

### Crimes, 1 July to 30 June

Crime Type	2016	2017	2018	2019	Total
Aggravated Assault	0	0	2	0	2
Bad checks	1	0	0	0	1
Burglary	2	0	0	0	2
Credit card fraud	1	1	1	0	3
Drug offenses	12	3	1	0	16
Drunkenness	12	10	4	3	29
Other theft	3	0	0	0	3
Stolen property offenses	3	0	0	0	3
Theft from building	13	14	9	2	38
Theft from vehicle	0	3	1	0	4
Trespassing	3	0	0	0	3
Vandalism	2	1	0	0	3
Threats	0	1	0	0	1
Family offenses	3	0	0	0	3
Weapon offenses	1	0	0	0	1
All other	1	0	0	0	1
<b>Total</b>	<b>57</b>	<b>33</b>	<b>18</b>	<b>5</b>	<b>113</b>

### Calls for service, 1 July–30 June

Call Type	2016	2017	2018	2019	Total
Administrative	367	371	364	362	1464
Animal complaint	4	5	6	2	17
Assault*	0	2	0	0	2
Assist other agency	2	8	10	6	26
Building check	1	0	1	0	2
Child abuse or neglect	1	0	0	0	1
Crime enforcement	3	1	3	0	7
Disabled vehicle	15	15	10	9	49
Disturbance	16	13	4	2	35
Domestic dispute	4	1	2	0	7

Call Type	2016	2017	2018	2019	Total
Drugs*	5	0	1	0	6
Fire	13	4	0	2	19
Fraud and forgery*	0	2	0	1	3
General service	35	33	67	50	185
Investigation	14	6	4	1	25
Liquor*	2	2	2	1	7
Lost property	3	1	1	2	7
Medical	2	0	0	4	6
Missing person	1	1	3	0	5
Municipal or utility prob.	1	1	1	0	3
Notification	2	0	0	0	2
Other Theft*	24	26	13	4	67
OUI	0	1	0	0	1
Prisoner transport	10	4	2	1	17
Suspicious activity	122	50	25	11	208
Theft from vehicle*	2	1	1	0	4
Traffic collision	25	26	17	21	89
Traffic complaint	88	66	63	54	271
Traffic enforcement	2	1	2	1	6
Traffic offenses	14	14	15	17	60
Trespassing*	4	0	0	0	4
Vandalism*	0	1	0	0	1
Vehicle stop	56	44	17	18	135
Warrant service	4	5	1	2	12
Well-being check	4	3	0	3	10
Youth disorder	2	0	0	0	2
<b>Total</b>	<b>848</b>	<b>708</b>	<b>635</b>	<b>574</b>	<b>2765</b>

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

## How much did Plainridge Park impact Plainville’s statistics?

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

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

**Plainville Activity, July 2015–June 2019**

Category	Number at Casino	Total Plainville Number	Prior 4-year Average at Racetrack	% New Caused by Casino
Violent crime offenses	3	135	0	+2%
Property crime offenses	57	664	13	+7%
Total crime offenses	121	1106	17	+9%
Calls for service	2,772	31,036	1,900	+3%

Thus, in an extremely literal sense, in a four-year period, Plainridge Park is responsible for 2% more violent crimes (3 total), 7% more property crimes (44 total), 9% more total crimes (114 total), and 3% more calls for service (872 total) than the agency would have reported without the casino—not accounting for any surrounding community impact, which is analyzed in the next sections. The police department, it must be noted, received a 36% increase in sworn officers (14 to 19) to handle this increase in activity.

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

**Percentage of activity at top locations, July 2015–June 2018**

Community	Top Offense Location	% Violent Crimes	% Property Crimes	% Total Crimes	% Calls for Service
Plainville	Plainridge Park	3%	7%	9%	3%
Plainville #2	Plainville Commons	0%	12%	10%	2%
Attleboro	Bristol Place	1%	9%	8%	3%
Mansfield	Xfinity Center*	24%	4%	58%	<1%
North Attleborough	Emerald Square	5%	17%	14%	11%
Wrentham	Wrentham Village outlets	12%	68%	63%	29%

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

# Before-and-after analysis of crimes and calls for service

This section looks at how crimes and calls for service changed in the Plainville area between the five years before Plainridge Park and the four years afterwards. For Plainville and the region as a whole, the numbers exclude Plainridge Park specifically, as they are meant to help assess notable changes in the surrounding area.

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

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

To facilitate reading the tables, I have highlighted in yellow any crime or call for service whose post-Plainridge Park average is outside the 1.5 standard deviation “window” of prior. Similarly, I have highlighted in blue any category whose average is lower than its window. Any major increases are discussed after the statistical tables.

## Summary of all communities’ activity

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

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

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

## Incidents reported to all communities, 1 July–30 June

Category	Pre-PPC Avg.	Window	2016	2017	2018	2019	Post-PPC Avg
Murder	1.2	0–2	1	1	2	0	1.0
Sexual Assault	52.2	40–64	59	68	71	66	66.0
Robbery	33.0	21–45	22	24	19	24	22.3
Aggravated Assault	170.6	156–186	157	184	164	160	166.3
Simple Assault	607.4	537–678	670	700	729	622	680.3
Kidnapping	6.0	1–11	12	6	8	4	7.5
Burglary	516.0	384–648	425	267	250	166	277.0
Purse-Snatching	4.4	2–7	2	2	0	1	1.3
Shoplifting	526.6	437–616	608	523	479	446	514.0

Category	Pre-PPC Avg.	Window	2016	2017	2018	2019	Post-PPC Avg
Thefts from Persons	8.0	5-11	14	14	3	2	8.3
Thefts from Buildings	230.2	179-281	200	240	220	169	207.3
Thefts from Vehicles	311.4	167-456	221	255	274	290	260.0
Thefts of Vehicle Parts	55.4	43-68	64	37	77	58	59.0
Other Thefts <sup>12</sup>	1022.0	909-1135	981	603	699	368	662.8
Auto Theft	109.4	94-125	88	76	72	78	78.5
Arson	7.4	4-11	8	6	5	3	5.5
Bad Checks	31.6	22-41	30	18	11	7	16.5
Credit Card Fraud	104.0	82-126	176	117	92	121	126.5
Employee Theft	30.0	21-39	26	29	20	25	25.0
Counterfeiting/Forgery	92.0	77-107	95	64	83	94	84.0
Fraud/Con Games	139.0	125-153	192	179	184	234	197.3
Identity Theft	92.4	19-166	147	158	149	116	142.5
Stolen Property Offs.	53.2	34-72	64	56	56	47	55.8
Vandalism	570.4	488-652	540	469	491	474	493.5
Drug Offenses	226.0	204-248	199	203	158	131	172.8
Drunk Driving	269.6	226-314	305	266	244	238	263.3
Disorderly	410.4	359-462	424	350	329	288	347.8
Drunkenness	1400.4	991-1810	960	712	404	373	612.3
Family Offenses <sup>12</sup>	420.6	359-482	511	556	599	154	455.0
Liquor Law Violations	418.0	201-635	148	78	66	69	90.3
Pornography	9.2	2-17	13	9	12	16	12.5
Prostitution	1.4	0-3	3	1	0	13	4.3
Threats	220.2	163-277	163	168	159	118	152.0
Trespassing	110.6	91-130	108	94	65	71	84.5
Weapon Offenses	44.0	33-55	38	41	43	42	41.0
Violent Crime	870.4	802-939	921	983	993	876	943.3
Property Crime	3903.4	3586-4221	3881	3113	3165	2699	3214.5
Total Crime	8304.2	7533-9075	7674	6574	6237	5088	6393.3
Alarm	5748.0	5629-5867	5740	5623	6053	5152	5642.0
Disabled Vehicle	2179.2	1900-2458	2008	2002	2153	1927	2022.5
Disturbance	3503.0	3133-3873	3152	3249	3593	1752	2936.5
General Service	6037.6	5503-6572	6070	5393	5221	4315	5249.8
Lost Property	233.8	199-269	277	425	359	368	357.3
Medical	2797.2	2245-3350	3305	3975	5446	6175	4725.3
Psychological	381.0	345-417	470	425	509	112	379.0
Suspicious Activity	7166.6	6557-7776	7346	6959	6777	3864	6236.5
Traffic Collision	4583.2	4309-4857	4869	5081	5782	4982	5178.5
Traffic Complaint	1692.4	1457-1927	1954	1939	2396	2115	2101.0

<sup>12</sup> Incidents of this category fell significantly in Attleboro after the implementation of its new records management system in 2018. Thus, 2019 figures cannot be trusted compared to previous totals.

## Sexual Assaults

**Unlikely.** Sexual assaults include the IBR categories of forcible rape, forcible sodomy, sexual assault with an object, and forcible fondling (molestation). The crime has been high since 2017. However, there is little reason to believe that the increase is connected to Plainridge Park. It is localized to one community—Attleboro (although because of greater variability in the range in Attleboro, it didn't trip the threshold in the city's statistics)—and there was no increase at the types of locations (like hotels) that an increased visiting population would be likely to frequent. Victims are overwhelmingly from the local area, and there is otherwise no evidence that the victims represented in these statistics are related to human trafficking. While there is always the possibility of trends hidden within unreported sexual assaults, based on the data available for this report, it is my analytical judgement that the increase in sexual assaults is not related to Plainridge Park.

## Simple Assaults

**Uncertain.** The yearly simple assault average for the area increased 15% after Plainridge Park opened, with numbers increasing every year until 2019. The increase was not universal; Plainville and Foxborough saw slight decreases, though Plainville had an increase in aggravated assaults. Available evidence suggests that the assaults are primarily domestic (i.e., committed by and against family members, spouses, or intimate partners). It has been difficult to find any direct link to the casino. See the "Detailed Analysis of Trends" section of this report for a full analysis.

## Thefts from Persons

**Unlikely.** The area total is attributed entirely to Attleboro, where our conclusion was that the trend was caused by better coding of crimes formerly coded as "all other larceny."

## Fraud/Con Games

**Uncertain.** The increase in con games and swindles is seen in multiple communities and is analyzed in the "Trends" section of the report.

## Family Offenses

**Uncertain.** "Family offenses" is an IBR code used for family-related crimes that don't fit under any of the other categories, such as aggravated or simple assault. In practice, it is typically dominated by violations of restraining orders issued after a previous case of domestic abuse. Thus, it tends to go up or down with the prevalence of domestic-related assaults, and (as above), we have seen an increase in domestic simple assaults in the area. This phenomenon is analyzed in the "Trends" section later in the report.

## Prostitution

**Unlikely.** The sharp increase in this category in 2019, affecting the overall post-PPC average, is related to two stings that the Attleboro Police Department conducted at the Attleboro Motor Inn on 15 December 2018 and 23 February 2019. In both cases, Attleboro Police lured "johns" to the motel by having an officer pretend to be a prostitute and offer services online. Almost all the men were lured from their homes in local communities and thus did not seem to be in the area for the use of PPC.



## Lost Property

**Mix depending on agency.** It's tempting to put this increase on the casino, since it's the type of call for service that you would logically expect to increase with more visitors \ to the area. There is also evidence that PPC is responsible for the increase in Plainville specifically. But most of the area increase is contributed by Foxborough, which saw a near-tripling of its average from 2017 to 2019. The most increased address is the police station itself. These indicators suggest some kind of change in policy in how the agency takes lost property reports more so than a real trend.

My judgement on this category is thus a mix: "likely" caused by Plainridge Park for Plainville itself (which makes up a small portion of the area increase); not likely for the remainder.

## Medical Aids

**Unlikely.** Medical aids would be expected to increase with extra traffic to a community, but that doesn't seem to be what's happening here. The increase is localized to two communities, Attleboro and Foxborough, and in both cases the number increased so quickly that it suggests changes in data procedures rather than a real trend. For more, see the analysis of this call type within those two communities.

## Psychological Calls

**Uncertain.** Plainville, Mansfield, and Attleboro all reported increases in this call-for-service type, which can involve residents or visitors experiencing any variety of mental disorders, including mania, delusions, paranoia, or depression. There's no direct evidence of casino relationship, but these are CAD-only incidents, so documentation is scant. A review of call remarks suggests increase in "suicidal" individuals in these communities. Determining any relationship with PPC will probably need to rely on data outside the scope of this analysis.

## Traffic Collisions

**Mix depending on agency.** Traffic collisions were above their normal window all four years post-PPC, likely reflecting some of the negative effects of extra traffic in the region. See the "Traffic Collision Analysis" and "Full Analysis of Trends" sections for a full review.

## Traffic Complaints

**Likely.** Traffic complaints increased in Plainville, North Attleborough, Wrentham, and Mansfield, and there are some signs of a logical and spatial relationship to PPC. See the deeper analysis of this call type in the "Detailed analysis of trends" section later in the report.

# Appendix: Abbreviations and definitions

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## 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.
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 Gaming in Massachusetts	A multi-year research project hosted by the University of Massachusetts Amherst School of Public and Health Sciences. The SEIGMA project has a much broader mandate for its study than just crime.
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:** Consensual 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 Offense	Drug/Alcohol Crime
Drug Offense	Drug/Alcohol Crime
Drunk Driving	Drug/Alcohol Crime
Drunkenness	Drug/Alcohol Crime
Employee Theft	Property Crime
Extortion	Property Crime
Family Offenses	Other Crime
Forgery	Property Crime
Fraud/Con Games	Property Crime
Gambling	Societal Crime
Identity Theft	Property Crime
Kidnapping	Violent Crime

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