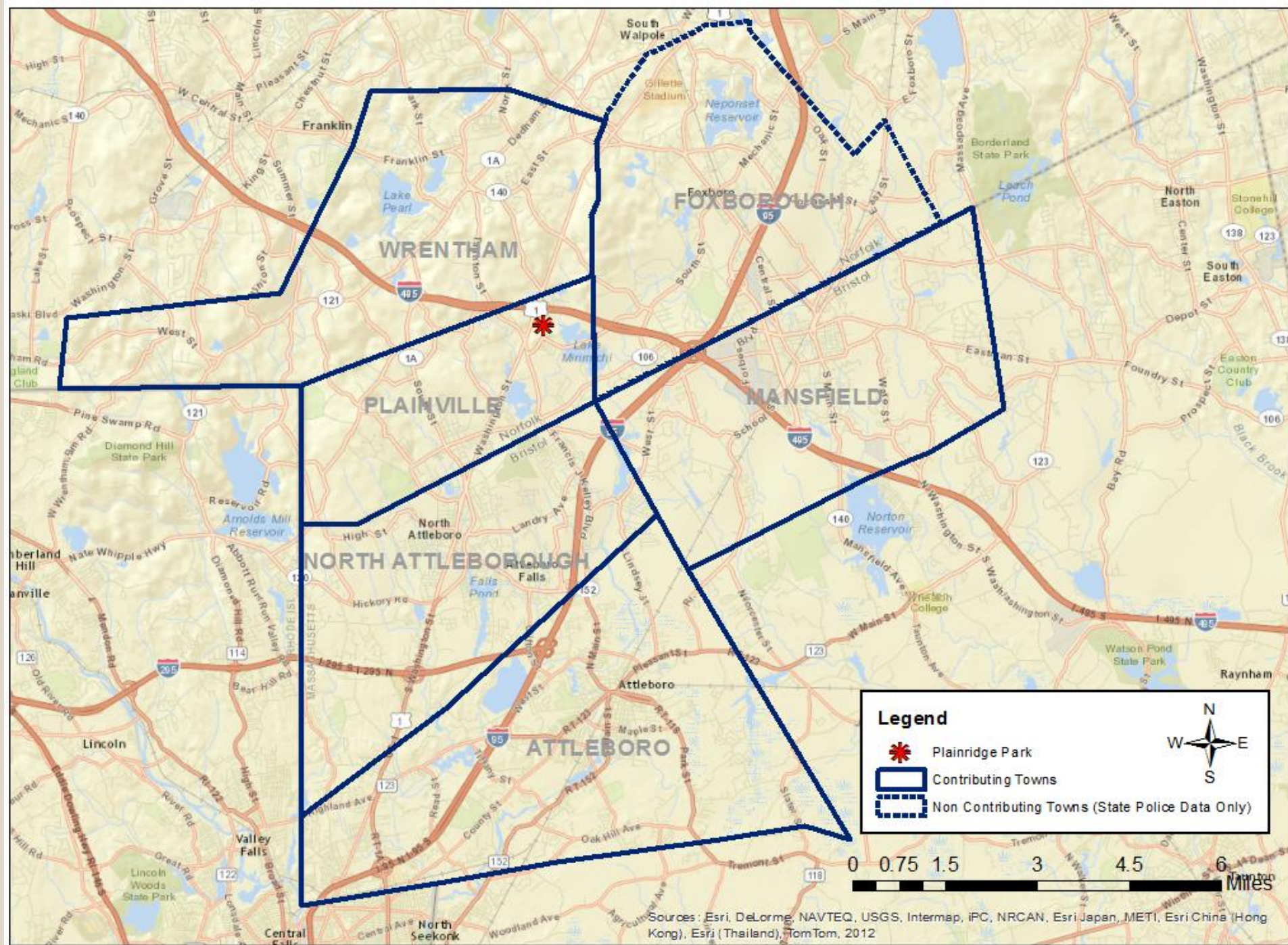# Assessing the Impact of Gambling on Public Safety in Massachusetts

Analysis of first quarter changes

Christopher W. Bruce

Trainer and consultant in crime analysis and data-driven policing

Legend

* Plainridge Park

☐ Contributing Towns

☐ Non Contributing Towns (State Police Data Only)

0   0.75   1.5   3   4.5   6
Miles

Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2012

Purpose of the six-month study

- Initial scan of changes in crime and calls for service

- Highlight notable increases to help inform police analysis and response

- Raise research questions for one-year study

- Plant the seed for associated programs and services

Methodology

- Data collected from records systems of Plainville, Attleboro, Mansfield, North Attleborough, Wrentham, and State Police RAMS system.

- Merged and translated into common database.

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

- Any category significantly higher than normal fully analyzed with collected data; plus:

- Memo sent back to each agency with list of increased crimes for review of individual crime reports, in an attempt to identify patterns and/or determine casino relationship.

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 ST
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 ST
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

Notes from previous research

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

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

- Changes in crime may fluctuate across temporal "bands" after the casino's introduction.

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

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

Findings: Plainridge Park

Category	Plainville Police	State Police RAMS	Gaming Enforcement
Assault (simple)		1	
Burglary	2		4
Theft/fraud/forgery/ID theft/checks	13	13	55
Drug offenses	2		
Drug offenses/investigations	7	8	31
Drunkenness/liquor/disorderly	3	3	60
Possession stolen property	2	2	
Trespassing	2	2	
Vandalism	2	4	
Motor vehicle offenses		5	
Suspicious activity	74	87	113

Incidents at Plainridge Park

- Because incidents might be reported to/discovered by different police agencies/units, and duplicated, statistics can neither be combined nor regarded as separate.

- We will continue to work on a mechanism for comprehensive statistics.

- Incidents at Plainridge Park are commensurate with expected totals at similar facilities that draw lots of people, have a large parking area, offer retail, entertainment, and dining options, and serve alcohol.

Notes on findings from area

- As with all agencies in all time periods, area agencies reported some significant increases and decreases in various crimes and calls for service.

- There were many increases that clearly had nothing to do with Plainridge Park; examples:
  - Increase in kidnapping statistics in region (custodial)
  - "Increase" in prostitution—2 incidents at hotel in Wrentham
  - Serial burglars responsible for increase in North Attleborough

- Statistics complicated by:
  - Increase in heroin/opioid use within the region
  - Lower gas prices likely increasing miles driven
  - Improvements in data quality and reporting by 2 agencies

Signs of a casino relationship

Sign	Hypothetical example	Hypothetical opposite
Type of crime logically tied to activity at casino	Increase in robberies in surrounding area	Increase of thefts of property at schools
More offenders and victims from outside the local area	Increase in domestic dispute and violence calls at area hotels	Increase in domestic dispute and violence calls at area homes
Same category increasing in multiple agencies	3 of 5 communities see increase in thefts from cars	1 community reports increase in burglary while 4 report decreases
Complementary increases in related offenses	Theft, robbery, and fraud all increase in area	Only identity theft increases in area
Casino specifically mentioned by offenders/victims	Drunk drivers mention they were last drinking at casino	Serial burglar admits to stealing for heroin
Increase is spatially related to location of casino	Traffic collisions increase on Route 1 in Plainville, N. Attleborough	Traffic collisions in crease on residential streets in Attleboro

Findings from area

- **Likely related to presence of casino (more coming up)**
  - Increases in traffic-related calls for service, primarily in Plainville, somewhat in North Attleborough. Improper or erratic driving, parking, disabled vehicles, suspicious vehicles.
  - General increase in traffic collisions in the area, significant in State Police data, modest in area community data.

- **Possibly related (will be researched further)**
  - Increases in credit card fraud in 4 of 5 agencies
  - Increases in fraud and identity theft in Mansfield and North Attleborough
  - Increase in drunk driving in 3 communities

Findings from area (cont.)

- **Likely not related** (sample)
  - Increases in kidnapping (all custodial)
  - "Increase" in prostitution (2 at Wrentham hotel)
  - Serial burglaries in North Attleborough (local heroin addicts)
  - Many drug/alcohol crimes in North Attleborough (improved coding)
  - Increase in "psychological" calls, particularly in Attleboro
- **Did not happen at all**
  - No increase in robbery
  - No increase in burglary area-wide
  - No increases in thefts from buildings, persons, or vehicles
  - Significant decrease in auto thefts
  - Significant increase in reported drug offenses and liquor law violations

Comparison to baseline: Selected Crimes

Plainville, Attleboro, Mansfield, North Attleboro, and Wrentham

Crime	July-Sep Avg.	St. Dev.	2015	Z
Sexual Assault	22.8	4.87	30	1.48
Robbery	18.4	7.96	8	-1.31
Aggravated Assault	71.2	10.19	77	+0.57
Burglary	248.6	32.61	234	-0.45
Theft from buildings	110.4	11.64	81	-2.53
Thefts from vehicles	179.4	34.77	125	-1.56
Auto theft	57.2	8.49	33	-2.85
Credit card fraud	49.0	5.76	92	+7.46
Forgery	38.2	10.46	33	-0.50
Vandalism	266.6	30.32	274	+0.24
Total Violent Crime	379.4	20.37	415	+1.75
Total Property Crime	1897.8	91.63	1866	-0.35

Comparison to baseline: Selected Calls

Plainville, Attleboro, Mansfield, North Attleboro, and Wrentham

Crime	July-Sep Avg.	St. Dev.	2015	Z
Alarms	2522.8	173.62	2384	-0.80
Disabled vehicles	855.4	63.60	927	+1.13
Disorderly	1786.6	153.80	1587	-1.30
General service	2647.4	169.99	2700	0.31
Lost property	71.4	12.86	108	2.85
Medical aid	940.4	99.82	900	-0.40
Psychological	176.0	20.95	219	2.05
Suspicious activity	3044.2	186.51	3322	1.49
Traffic collisions	2040.4	67.90	2149	1.60
Traffic complaints	808.8	93.43	930	1.30

Increase in traffic-related calls

- Traffic complaints up to 2,149 from average of 2040 (z=1.6) in region
  - Up to 164 from average of 117 in Plainville (z=3.41)
  - Up to 272 from average of 237 in N. Attleborough (z=2.12)
  - Disabled vehicles also up to 85 from average of 58 in Plainville (z=2.65)
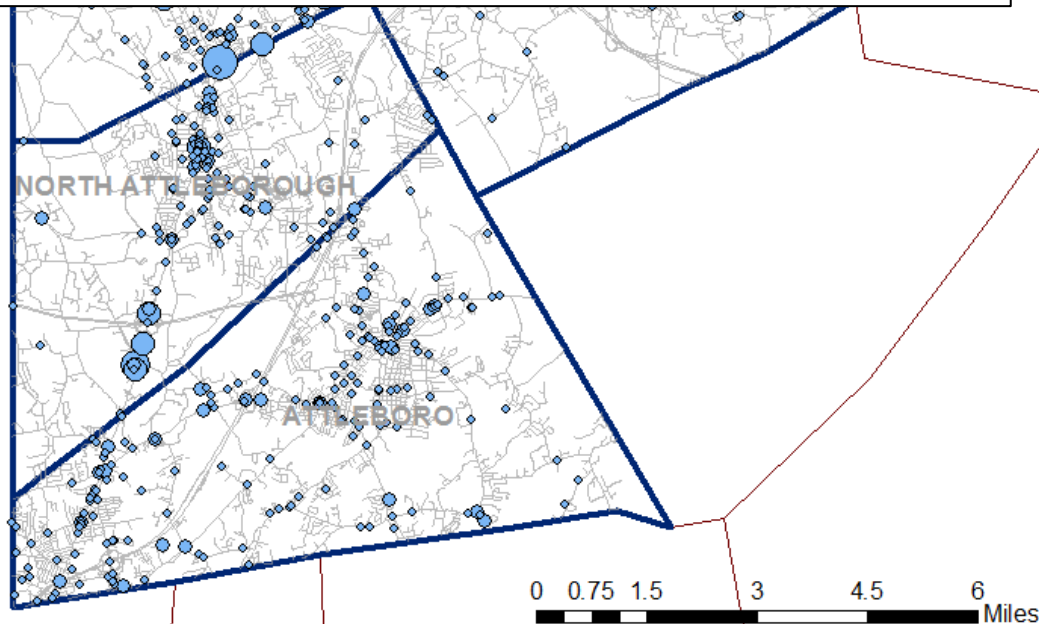 - And suspicious activity (mostly vehicles) up to 411 from averae of 319 in Plainville (z=4.08)

Increase in traffic-related calls

- ✓ **Logical ties to activity (increased traffic flow)**
- ✓ **Increased in multiple agencies (though not always significantly)**
- ✓ **Complementary increases in other offenses**
- ✓ **Spatially related to casino**

Legend

July-December 2015

- · 1-2
- ○ 3-6
- ○ 7-14
- ○ 17-26
- ○ 42-45
- ✳ Plainridge Park

NORTH ATTLEBOROUGH

ATTLEBORO

0 0.75 1.5   3   4.5   6
                                Miles

Increase in traffic collisions

- Traffic complaints up modestly but consistently across region.

Agency	Avg.	2015	Z
Plainville	157	164	0.83
Attleboro	912	941	0.56
Mansfield	341	361	1.16
North Attleborough	524	540	0.69
Wrentham	106	129	1.53
State	547	592	N/A

Increase in traffic collisions

(Maps to come once I get ArcGIS working again)

- ✓ **Logical ties to activity (increased traffic flow)**
- ✓ **Increased in multiple agencies (though not significantly)**
- ✓ **Complementary increases in other offenses**
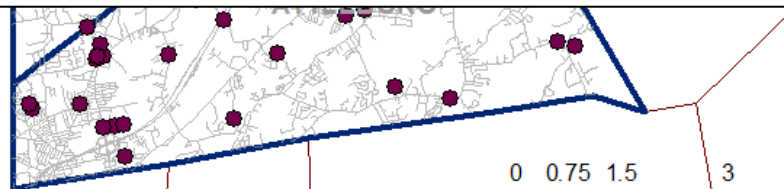- ✓ **Spatially related to casino**

Increase in credit card fraud

- Major increases in category in most agencies

- Review of individual reports shows no patterns and no casino mention but slight increase in out-of-town victims

Agency	Avg.	2015	Z
Plainville	5	12	3.37
Attleboro	16	36	8.77
Mansfield	12	8	-1.17
North Attleborough	14	23	1.53
Wrentham	1	13	8.55

Increase in credit card fraud

- ✓ **Logical ties to activity**
- ✓ **Increased in multiple agencies (and very significantly)**
- ✓ **Some increase in out-of-area victims and offenders**

- ○ **No spatial relationship to casino**
- ○ **No evidence of casino relationship (or any patterns at all) in review of narrative data**
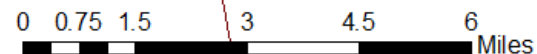- ○ **Few complementary increases in related crimes**

Drunk driving

- Big increase seen in region and particularly North Attleborough

- Concentration on Route 1

- But drunk driving statistics are driven by police activity, so difficult to trust increases or decreases.

- North Attleborough, with largest increase, may have under-coded in previous years

Agency	Avg.	2015	Z
Plainville	9	11	0.59
Attleboro	60	51	-1.83
Mansfield	25	30	1.77
North Attleborough	7	40	11.35
Wrentham	4	1	-1.91

Drunk driving

✓ **Logical ties to activity**
✓ **Spatial relationship to casino**

○ **No evidence of casino relationship in review of narrative data (but not fully reviewed)**
○ **No complementary increases in related crimes**
○ **Agencies mixed in reporting (2 decreases)**
○ **Several reasons not to trust statistics**

Summary

- In the first 6 months of activity, Plainridge Park produced crime and call figures commensurate with similarly-sized facilities in the region.

- Few significant increases in crimes in the surrounding area.

- Most significant increases were tied to traffic activity: complaints, collisions, disabled vehicles, suspicious vehicles.

- Major increase in credit card fraud disturbing/puzzling, but no specific evidence of Plainridge Park involvement.

- Some agencies seeing drunk driving increases, but data is inconsistent and phenomenon needs further study.

One-year report (fall 2016) plan

- Analysis of one year of statistics post-casino

- Full analysis of major incident types

- Full analysis of all "likely" or "possible" increases in the data

- Full analysis of traffic collisions

- (Hopefully) data from Foxborough and other towns with hotel population

- Survey of officers' perceptions

- Various tests of statistical significance

Thank You!

Christopher W. Bruce

Trainer and consultant in crime analysis and data-driven policing

978-853-3502

cwbruce@gmail.com