UNIVERSITY OF MASSACHUSETTS SCHOOL OF PUBLIC HEALTH AND HEALTH SCIENCES

### Lottery Revenue and Plainridge Park Casino: Two Years of Casino Operation

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#### Overview and Context

- Focus on impact of Plainridge Park Casino (PPC)
- Results presented by:
  - fiscal year data (2003-2016).
  - bi-weekly agent-level sales (year 1 and 2 relative to year prior to opening).
- Analyze sales statewide, in host and surrounding communities, varying distances from casino, and patron origination cities and regions.



## Overview of Key Findings

- No large, significant decline in lottery revenue can be attributed to Plainridge Park Casino.
- Lottery sales in Plainville increased ~25% in first year and remained at that level in year 2.



## Overview of Key Findings

- Sales in surrounding communities grow more slowly in year 1 and declined in year 2.
- Same is true for agents within 15 minute drive.
- Agents 16-30 minute drive grew more rapidly in year 1 and year 2.
- Over the two-year period, average bi-weekly sales for agents in Plainville and the surrounding communities combined are essentially unchanged compared to year prior to opening.



### Lottery Size and Relevance

- MA lottery is the largest in country for per capita sales (\$767 in 2016).
- MA pays out 73 cents per dollar; US average is 63 cents.
- Until 2012 (2013), MA lottery revenue exceeded Florida (California).



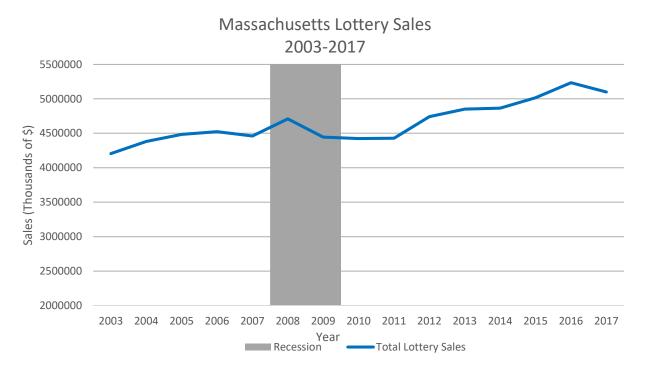
### Lottery Size and Relevance

- Direct Aid from Lottery to casino host communities in FY 17:
  - Plainville: \$729,447 (16.6% of total state aid)
  - Everett: \$6,642,634 (8.8% of total state aid)
  - Springfield: \$36,399,631 (9.7% of total state aid)
- Sales decreased in FY 17, but total profit increased and equaled a record \$1.039 billion.
- Sales in FY 16 were record high to date.



## Massachusetts Lottery Trends

 Average annual growth rate 2003-2017: 1.38%. Not adjusted for <u>inflation</u>.

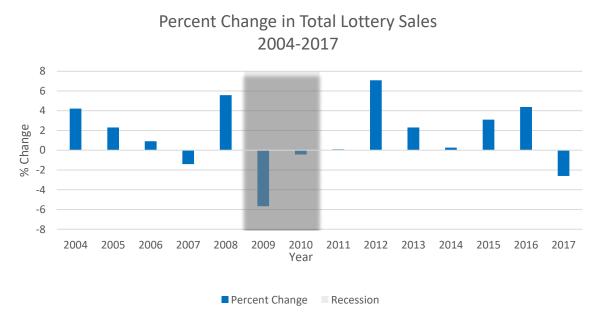


Nominal Dollars, FY 2003-2017. Source: MA Lottery



## Percent Change: Statewide Sales

Lottery revenue is volatile year-to-year. Increased
 4.3% in FY 16; decreased 2.6% in FY 17.

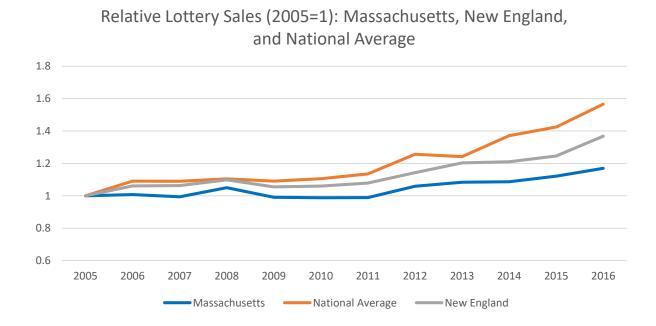


Percent Change in Nominal Dollars. Source: MA Lottery



# Massachusetts Lottery Trends vs US and New England

 Lottery sales growth in MA below US and New England since 2005.



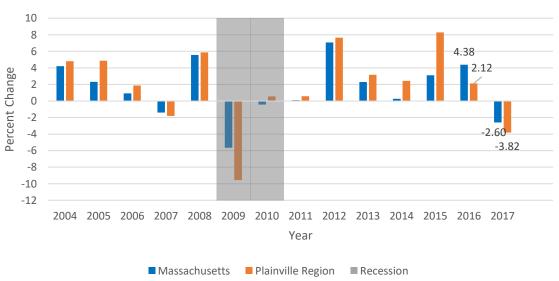
Nominal Dollars, FY 2003-2017. Source: MA Lottery



# Plainville and Surrounding Communities

 FY Sales in Plainville and surrounding communities grew less (FY 16) or decreased more (FY 17).





Nominal Dollars, FY 2003-2017. Source: MA Lottery



## Weekly Lottery Outlet Data

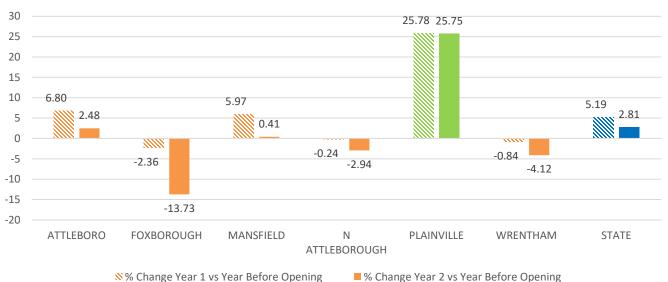
- MA Lottery providing weekly sales data <u>by</u> agent.
- Unique opportunity to analyze lottery sales by community, driving time, mileage from casino, game, and multiple time periods.
- More accurate pre/post time period than fiscal year.



## Change in Plainville and Surrounding Communities (vs year before opening)

Sales in Plainville increase in year 1 and stay at that level.
 Surrounding communities mixed (y1), less than state avg. (y2).

Percent Change in Total Lottery Revenue First and Second Year After Opening of Plainridge Park Casino: Host and Surrounding Communities





## Pre and Post PPC Lottery Sales: Plainville and Surrounding Community

Sales growth in surrounding communities has been below state average

		Year Prior to PPC	1 Year After PPC	2 Years After PPC
Surrounding Communities	Sales (\$)	\$ 90,941,442	\$ 94,218,696	\$ 89,515,317
	% Change from Year Prior to PPC		3.60%	-1.57%
State	Sales (\$)	\$5,020,973,872	\$5,281,590,259	\$5,161,857,754
	% Change from Year Prior to PPC		5.19%	2.81%



## Pre and Post PPC Lottery Sales: Plainville and Surrounding Community

• Year 1 sales in Plainville and surrounding communities slightly above state avg. Year 2 unchanged.

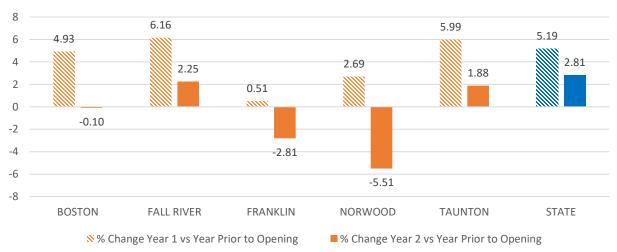
		Year Prior to PPC	1 Year After PPC	2 Years After PPC
Plainville + Surrounding Communities	Sales (\$)  % Change from Year Prior to PPC	\$ 99,374,101	\$ 104,825,013 <b>5.48%</b>	\$ 100,119,390 <b>0.74</b> %
State	Sales (\$)  % Change from Year Prior to PPC	\$5,020,973,872	\$5,281,590,259 <b>5.19%</b>	\$5,161,857,754 <b>2.81%</b>



## Change in Sales for Select Cities

 Cities with most visitors according to patron survey (excluding Plainville and surrounding). Sales growth in year 2 below state avg. Mixed in year 1.

> Percent Change in Total Lottery Revenue First and Second Year After Opening of Plainridge Park Casino Compared to Year Prior to Opening: Patron Origination Cities





#### Pre and Post PPC Lottery Sales: Select Cities

Year 1 sales growth near state avg. Year 2 below.

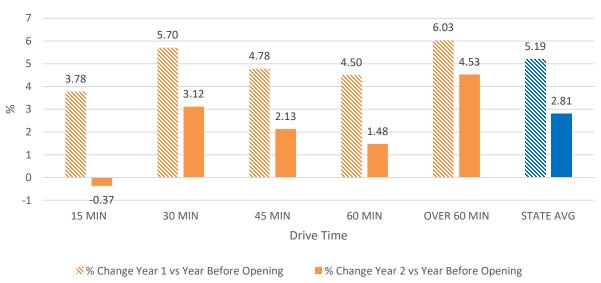
		Year Prior to PPC	1 Year After PPC	2 Years After PPC
Patron Origination Cities	Sales (\$)  % Change from Year Prior to PPC	\$ 724,782,022	\$ 760,395,347 <b>4.91%</b>	\$ 724,279,754 - <b>0.07%</b>
State	Sales (\$)  % Change from Year Prior to PPC	\$5,020,973,872	\$5,281,590,259 <b>5.19</b> %	\$5,161,857,754 <b>2.81</b> %



## Sales Growth by Drive Time from Plainridge Park Casino

Sales for agents 0-15 minutes drive away grow slightly less in year 1;
 decline in year 2; agents with 16-30 minutes grow slightly more.

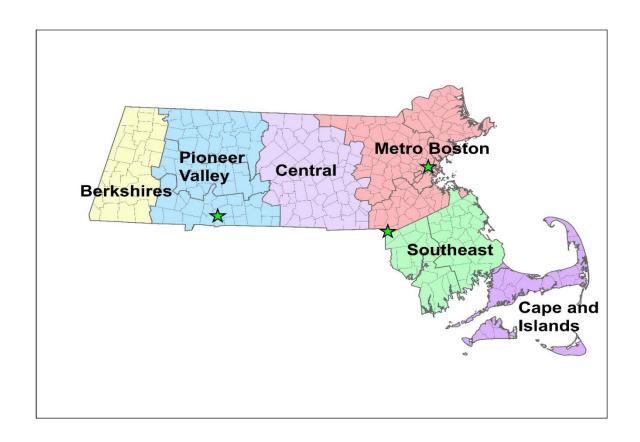
Percent Change in Total Lottery Revenue First and Second Year After Plainridge Park Casino Opening: Driving Distance from PPC





## Regional Analysis

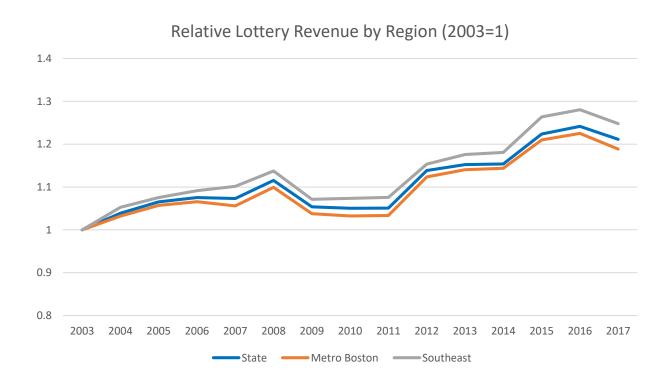
Regions used for Economic Analysis.





## Regional Sales Trends

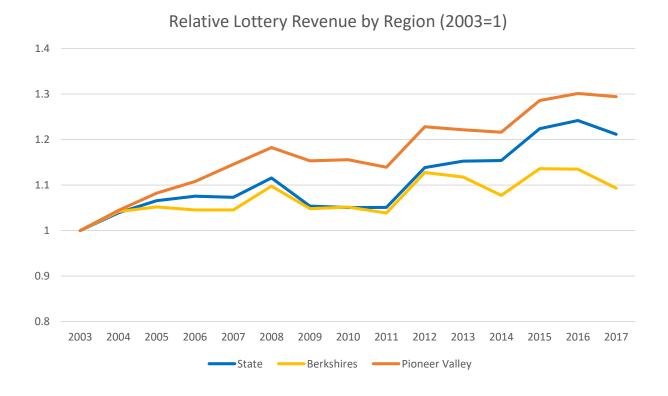
Metro Boston and Southeast similar growth to state as whole.





## Regional Analysis

 Sales growth in Pioneer Valley exceeds state; Berkshires fall below after 2012.

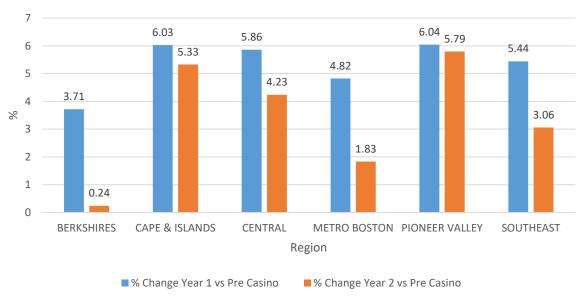




# Sales Growth by Region First and Second Year after PPC

• Southeast region growth exceed state avg; Metro Boston similar, but slightly below in years 1 and 2.

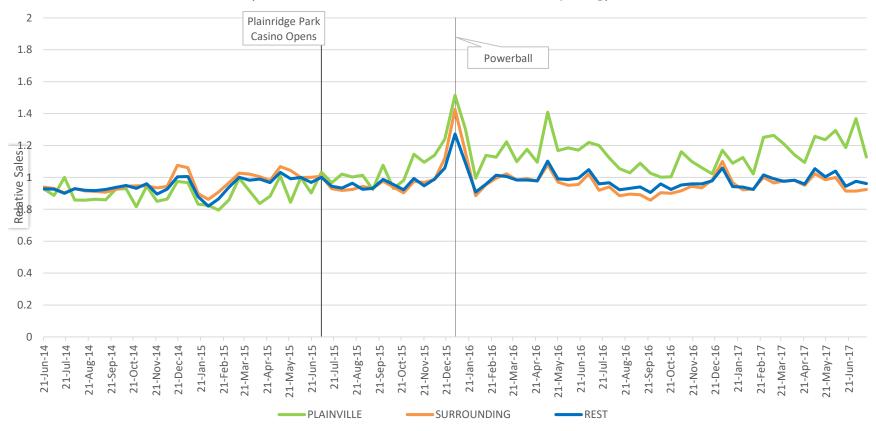
Percent Change in Total Lottery Revenue First and Second Year After Opening of Plainridge Park Casino Compared to Year Prior to Opening: Regions





# Community Relative Sales Analysis (Sales relative to period prior to PPC opening)

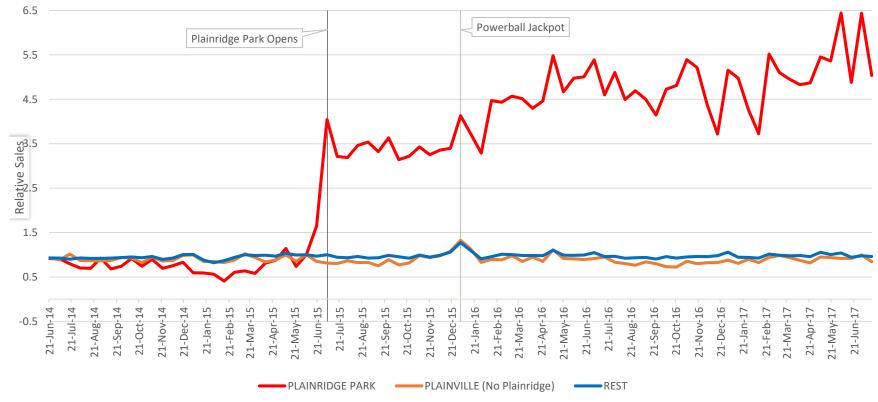
Total Lottery Sales over Time: Host & Surrounding Communities and Rest of State (Relative to Sales in Period Prior to Slot Parlor Opening)





## Plainridge Park Casino Relative Sales Analysis (Sales relative to period prior to casino opening)

Total Lottery Sales over Time: Plainridge Park, Rest of Plainville, Rest of State (Relative to Sales in Period Prior to Slot Parlor Opening)





#### Conclusions

- No clear evidence of a significant decline in lottery revenue attributed to Plainridge Park Casino.
- Lottery revenue at PPC grew significantly in year 1 and remained at that level in year 2.
- Compared to year prior to PPC opening:
  - sales for surrounding communities grew more slowly in year 1 and decreased in year 2 (relative to rest of Massachusetts).
  - Same is true for top 5 patron origination cities and agents within 15 minute drive of PPC.



#### Conclusions

- Compared to year prior to PPC opening:
  - Change in sales in Plainville and surrounding communities combined slightly higher than rest of Massachusetts in year 1 (5.48% vs 5.19%) but lower in year 2 (0.74% vs 2.19%)
- Gains in Plainville sufficient to offset declines in the surrounding communities, leaving sales essentially unchanged in year 2.
- Sales for agents within 16-30 minute drive exceed state average.



#### Conclusions

- Short-term impact; results may change over time.
- May be different for casinos in Springfield and Everett.



### Future Analysis

- Continue to analyze PPC
- Analyze impact of casinos in Springfield and Everett (have good pre-casino, weekly data)
- Analyze by various geographies: host, surrounding, distance, visitor cities, regions.
- Combining with patron survey to better determine if lottery expenditures have changed as a result of casino gambling.



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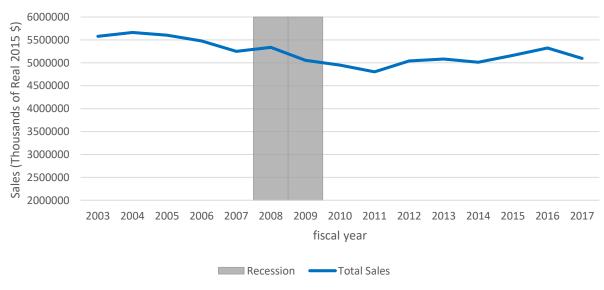
#### Thank You!

Questions?

## Massachusetts Lottery Trends

Real Average annual growth rate 2003-2017: -0.64%. (Return)

Massachusetts Lottery Sales 2003-2017 (Inflation Adjusted)



Real Dollars, FY 2003-2017. Source: MA Lottery

