Reforming Municipal Aid in Massachusetts

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Background

- MA distribution of non-school aid is badly outdated.
- 2006 Municipal Finance Task Force ("Hamill Commission") expressed concerns about opaqueness and inequities.
- Boston Fed Springfield project team has heard widespread complaints about Springfield's low share of state aid.
- Our research documents the problems and proposes a workable solution.

Overview

- Today's topic is non-school (a.k.a. "unrestricted") aid from state government to cities and towns in MA.
- Cities and towns in MA face a wide variation in non-school gaps between their costs of providing municipal services and their capacity to raise revenues locally.
- Non-school state aid to municipalities is not closely aligned with these gaps.
- Reform can and should be implemented.
- If done correctly, reform of non-school state aid would help equalize the ability of cities and towns to provide services to their residents, commuters, and businesses.

Measuring a community's need for aid: Municipal gap = costs - capacity

- "Costs" refer to spending that local governments must incur to provide common municipal services.
  - Not actual spending!
  - Depend on factors outside the control of local officials – population density, poverty rate, unemployment rate, jobs per capita

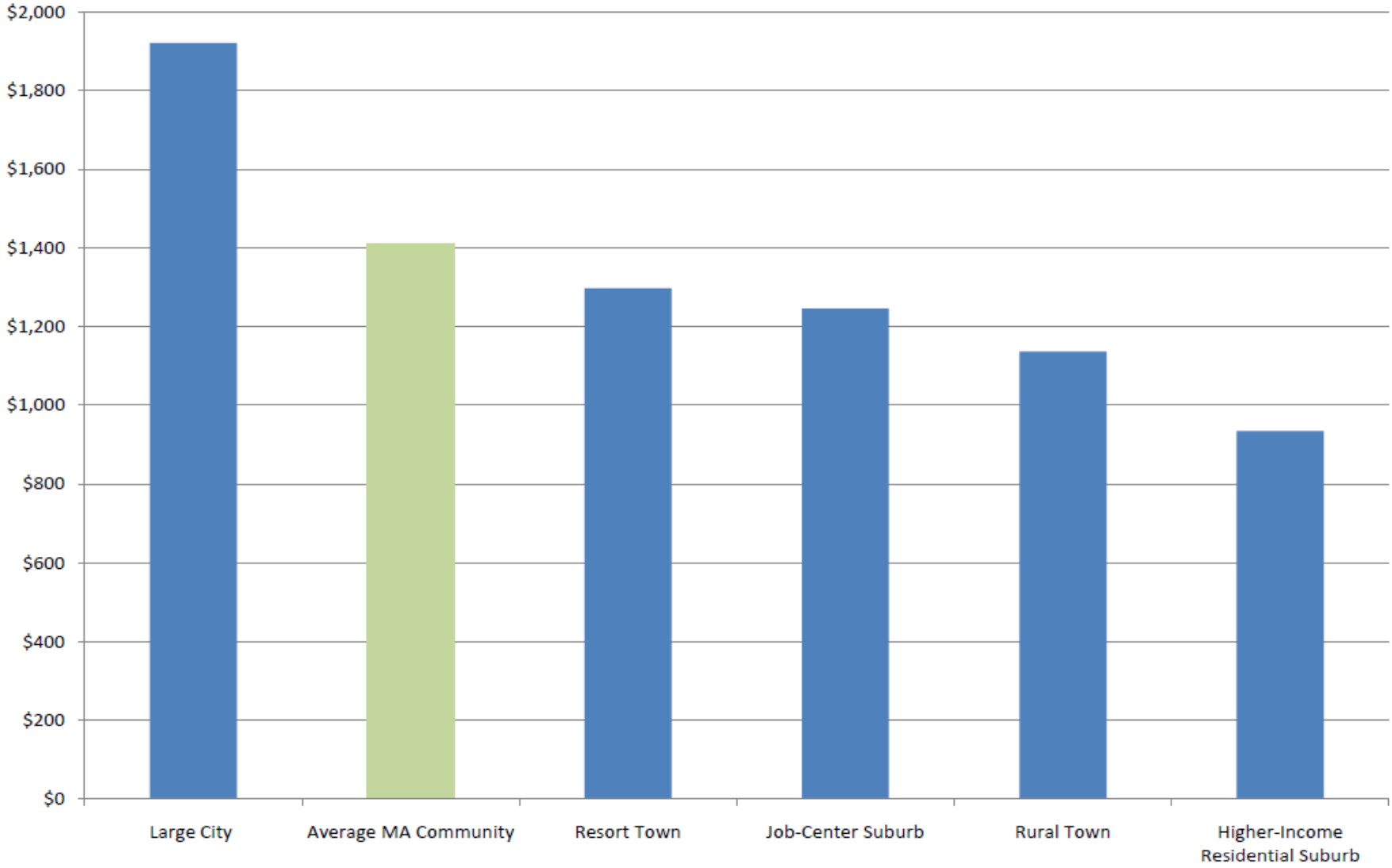
- "Capacity" is the ability to raise revenue locally for non-school purposes.
  - Not actual revenue!
  - Biggest drivers are total taxable property value and income of residents

Municipal Cost Factors of Prototype Massachusetts Communities (FY 2007)

	Cost Factors				Municipal Costs ($ per Capita)
	Population Density (thousands per square mile)	Poverty Rate (%)	Unemployment Rate (%)	Jobs per Capita	
Large City	8.84	22.82	6.87	0.35	1,921.39
Rural Town	0.08	5.39	4.68	0.29	1,135.96
Job-Center Suburb	1.55	3.84	3.54	0.99	1,245.32
Higher-Income Residential Suburb	1.42	2.84	2.60	0.21	933.67
Resort Town	0.25	7.16	5.32	0.54	1,296.72
Average MA Community	4.02	9.93	4.90	0.49	1,410.86

Note: The average MA community is defined as a hypothetical community experiencing the weighted average among 351 Massachusetts cities and towns (weighted by population size) for municipal cost and revenue capacity factors. Based on the approach developed by Bradbury and Zhao (2009), per capita municipal costs = 28.0 * population density + 19.8 * poverty rate + 81.0 * unemployment rate + 272 * jobs per capita + 570.2. The Large City prototype is based on the communities of Lawrence, Lowell, Lynn, New Bedford, Springfield, and Somerville. The Resort Town prototype is based on the communities of Eastham, Edgartown, Nantucket, Orleans, Stockbridge, and Williamstown. The Job-Center Suburb prototype is based on the communities of Andover, Braintree, Canton, Natick, and Westborough. The Rural Town prototype is based on the communities of Ashby, Ashfield, Blandford, Clarksburg, Huntington, Lanesborough, Oakham, and Whately. The Higher-Income Residential Suburb prototype is based on the communities of Belmont, Carlisle, Dover, Lincoln, and Wayland.

Municipal Costs of Prototype Massachusetts Communities (per capita, FY 2007)



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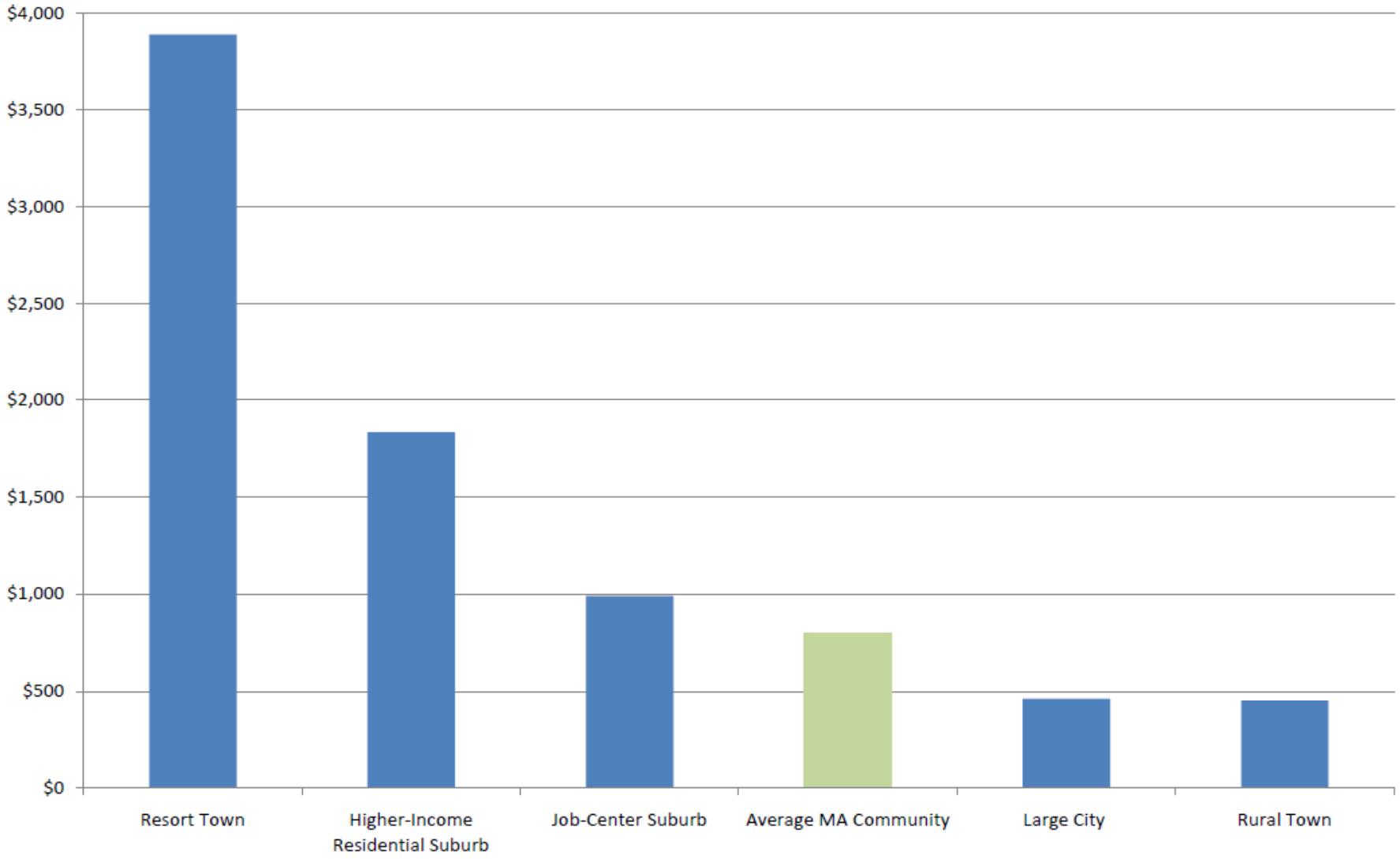
Municipal Capacity Factors of Prototype Massachusetts Communities (dollars per capita, FY 2007)

	Property Tax Capacity Factors			Property Tax Capacity	Other Local Revenue Capacity	Required Reductions in Capacity	Municipal Revenue Capacity
	Taxable Residential Property Value	Taxable Nonresidential Property Value	Income				
Large City	62,526.93	10,841.84	16,372.30	704.05	69.07	311.69	461.43
Rural Town	99,425.94	11,874.37	23,656.71	1,022.68	126.94	696.32	453.29
Job-Center Suburb	147,735.92	47,778.98	45,762.15	2,019.94	162.01	1,192.55	989.41
Higher-Income Residential Suburb	283,207.24	8,715.80	123,235.25	3,144.90	166.95	1,476.37	1,835.47
Resort Town	805,425.12	61,880.11	35,629.81	4,657.66	296.16	1,063.26	3,890.56
Average MA Community	128,549.00	23,314.87	33,240.16	1,457.51	124.64	784.32	797.84

Note: The average MA community is defined as a hypothetical community experiencing the weighted average among 351 Massachusetts cities and towns (weighted by population size) for municipal cost and revenue capacity factors. Based on the approach developed by Bradbury and Zhao (2009), property tax capacity = 0.0142 * (taxable residential property value)$^{2/3}$ * (income)$^{1/3}$ + 0.0126 * taxable nonresidential property value (all in per capita terms). The sources for other local revenue capacity include motor vehicle excise, hotel/motel excise, urban redevelopment excise, local share of racing taxes, and state government payments in lieu of taxes for state-owned land. Required reductions in capacity include net minimum required local contribution for schools; county taxes; charges for MBTA, regional transit, Boston metro transit, and regional planning authorities; and state assessments for air pollution control and mosquito control. Municipal revenue capacity = property tax capacity + other local revenue capacity - required reductions in capacity.

Municipal Revenue Capacity of Prototype Massachusetts Communities (per capita, FY 2007)



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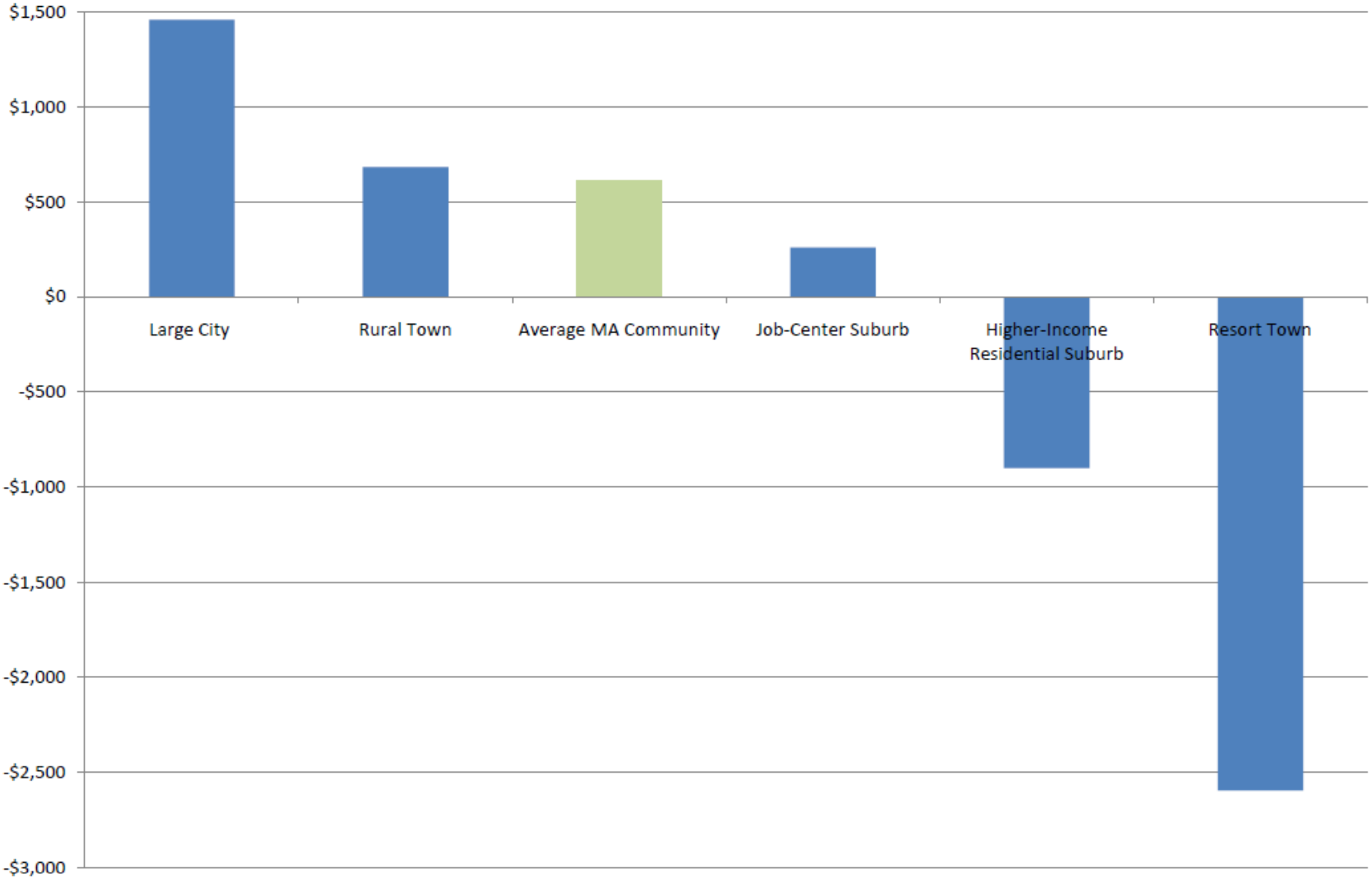
Municipal Gap of Prototype Massachusetts Communities (per capita, FY 2007)

(Gap=Costs-Capacity)



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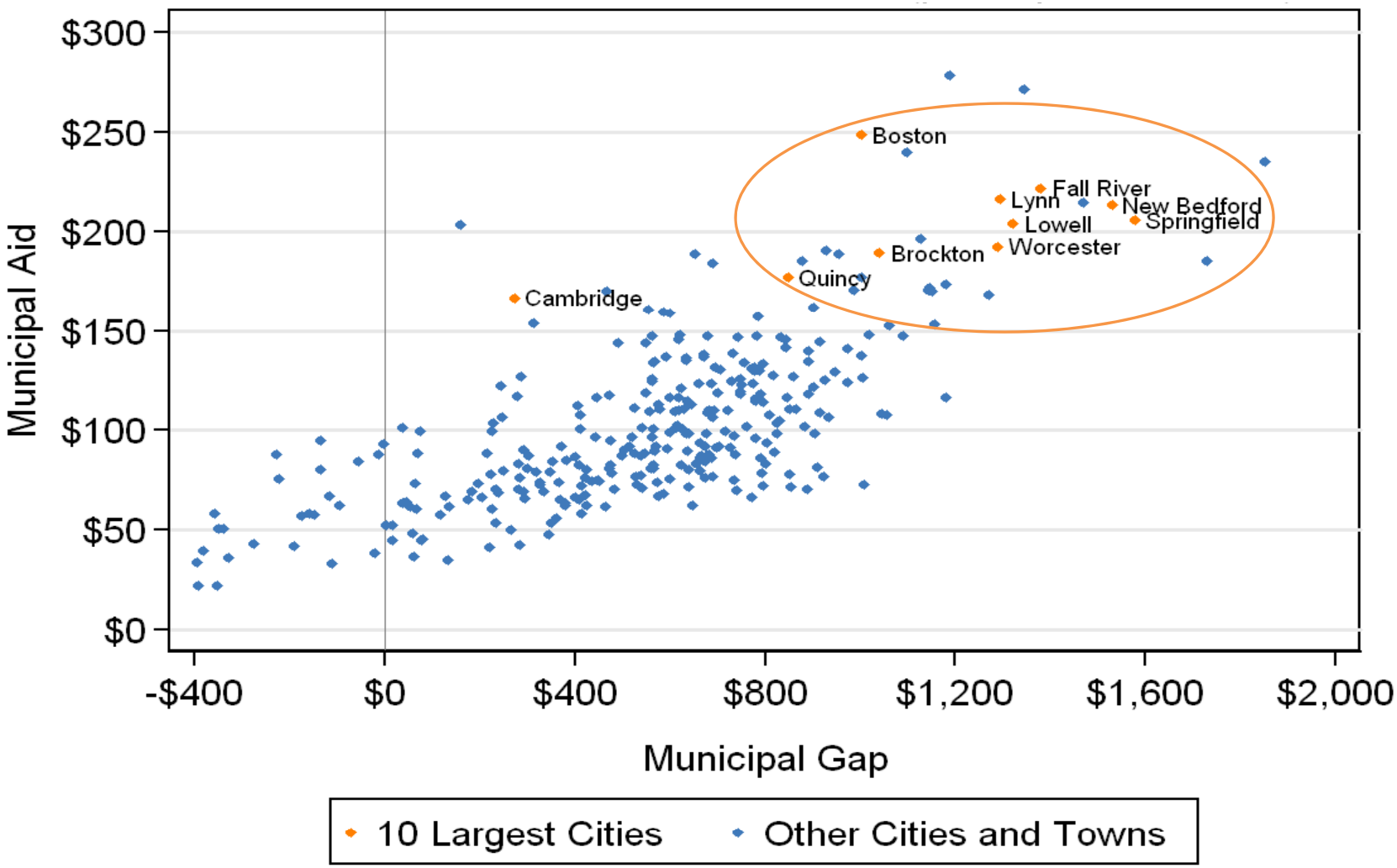
Aid is only loosely correlated with municipal gaps

(per capita, FY 2011)

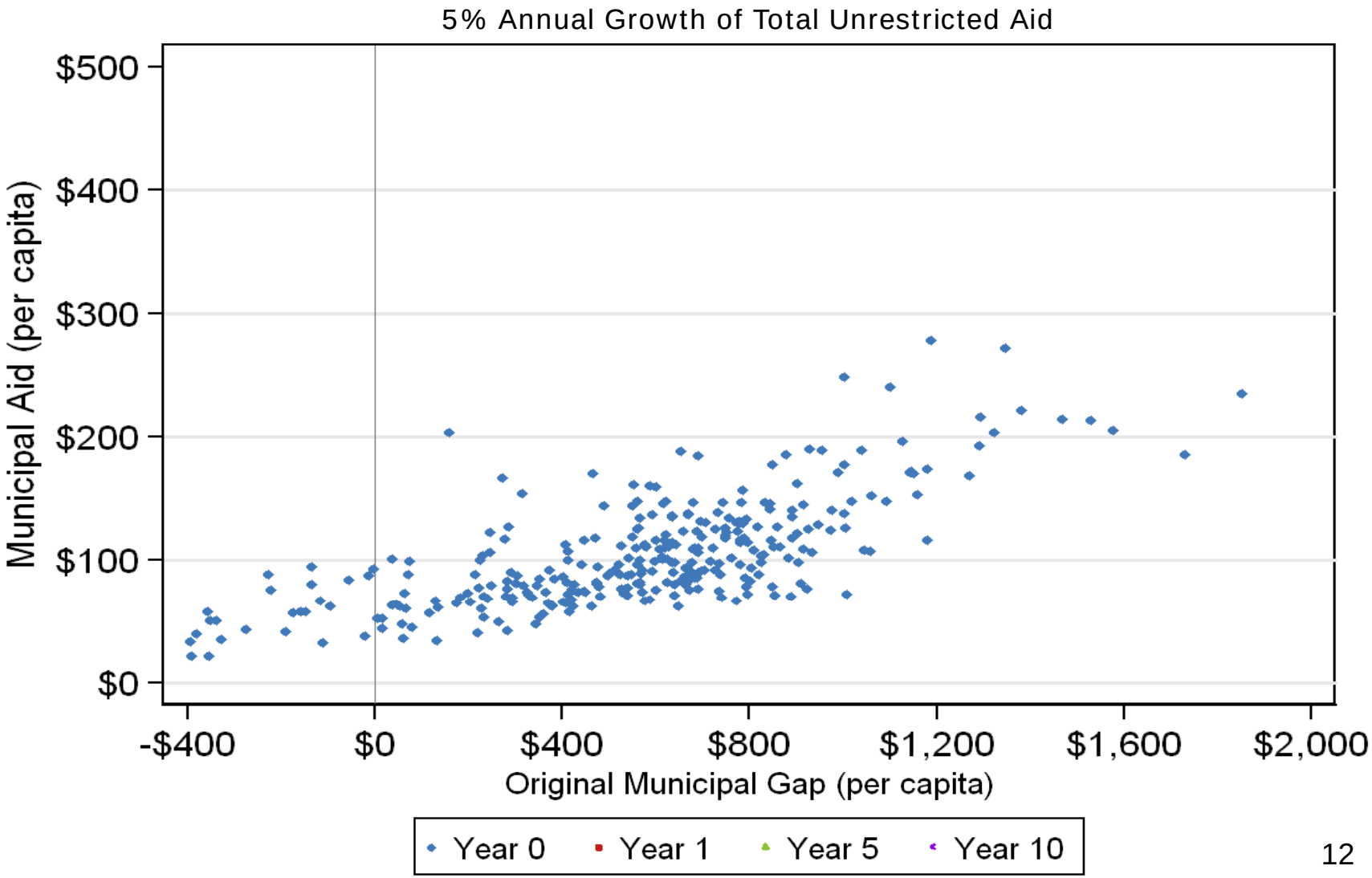


Note: Weighted correlation between per capita aid and municipal gap for 10 largest cities: 0.11
Weighted correlation between per capita aid and municipal gap for 351 MA cities and towns: 0.67

Proposed Approach to Distributing Aid

- Hold existing aid harmless to avoid disrupting local budgets (i.e., no municipality experiences reduction in local aid).
- Distribute more new aid per capita to higher-gap communities.
- Specific outcomes depend on policy choices.
  - Size of new aid pool
  - Minimum aid per capita
  - Baseline gap
  - Approach to holding harmless

Reform can bring municipal aid into line with gaps within 5-10 years



See Appendix for details.

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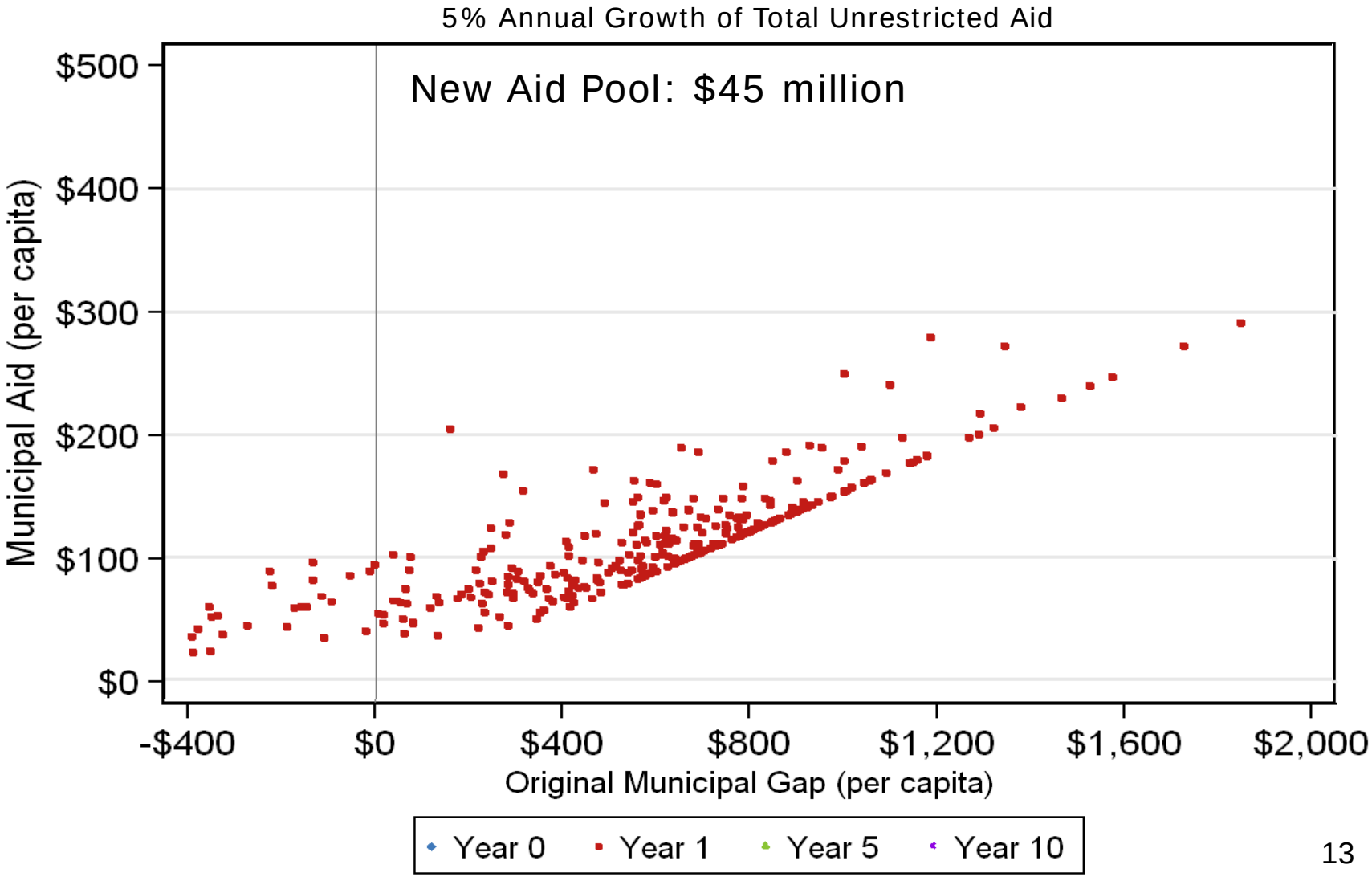

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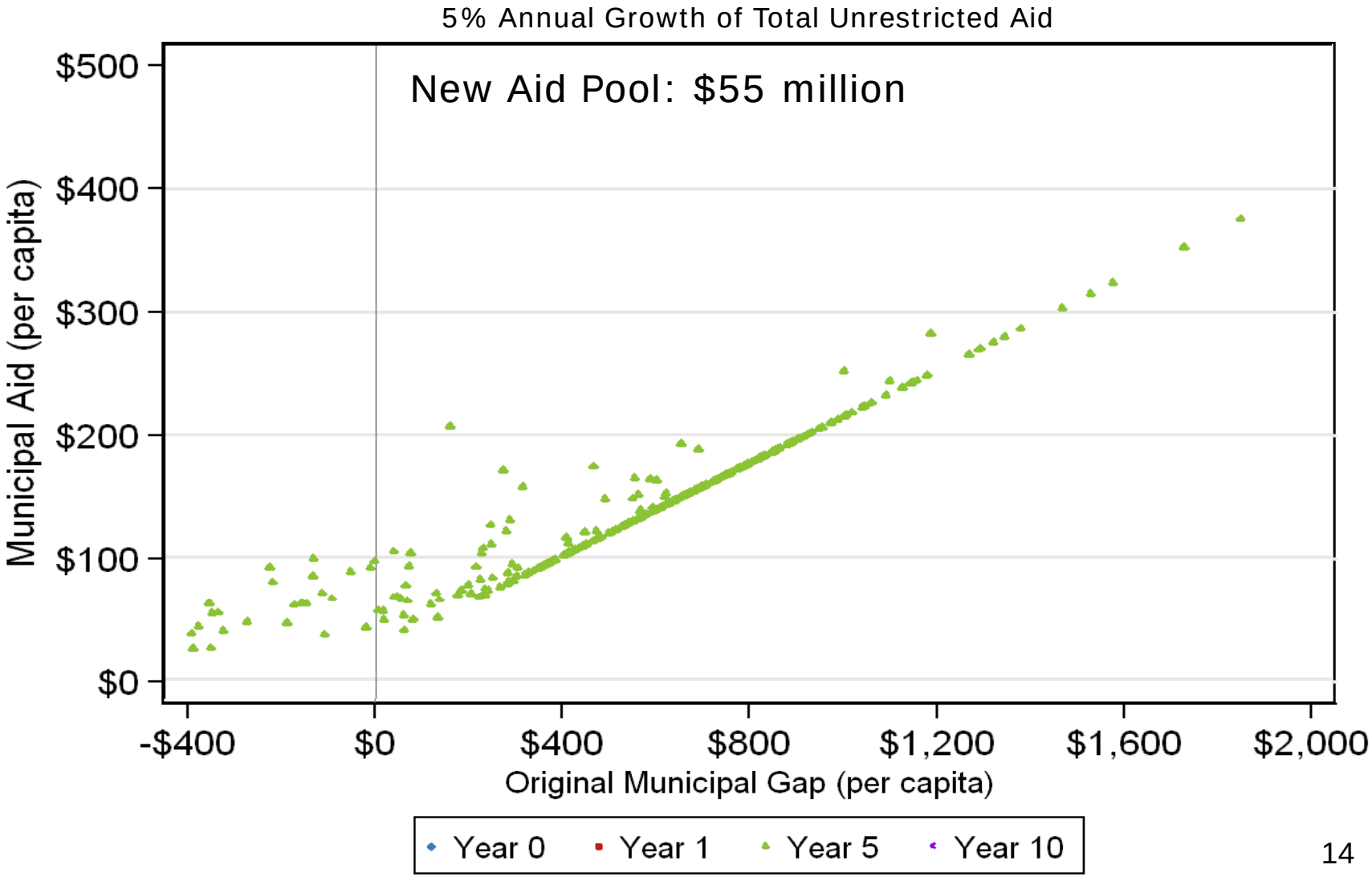

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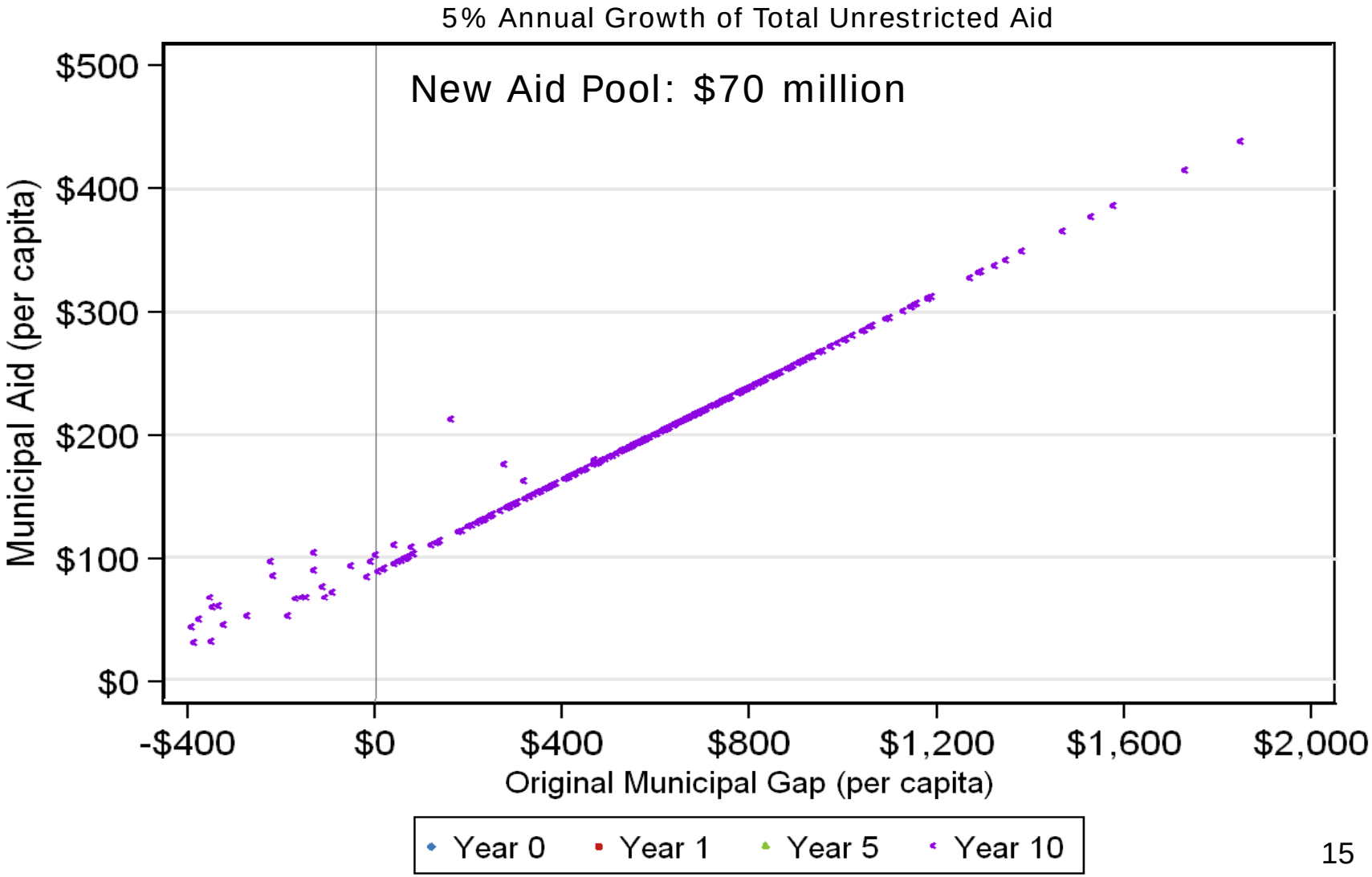

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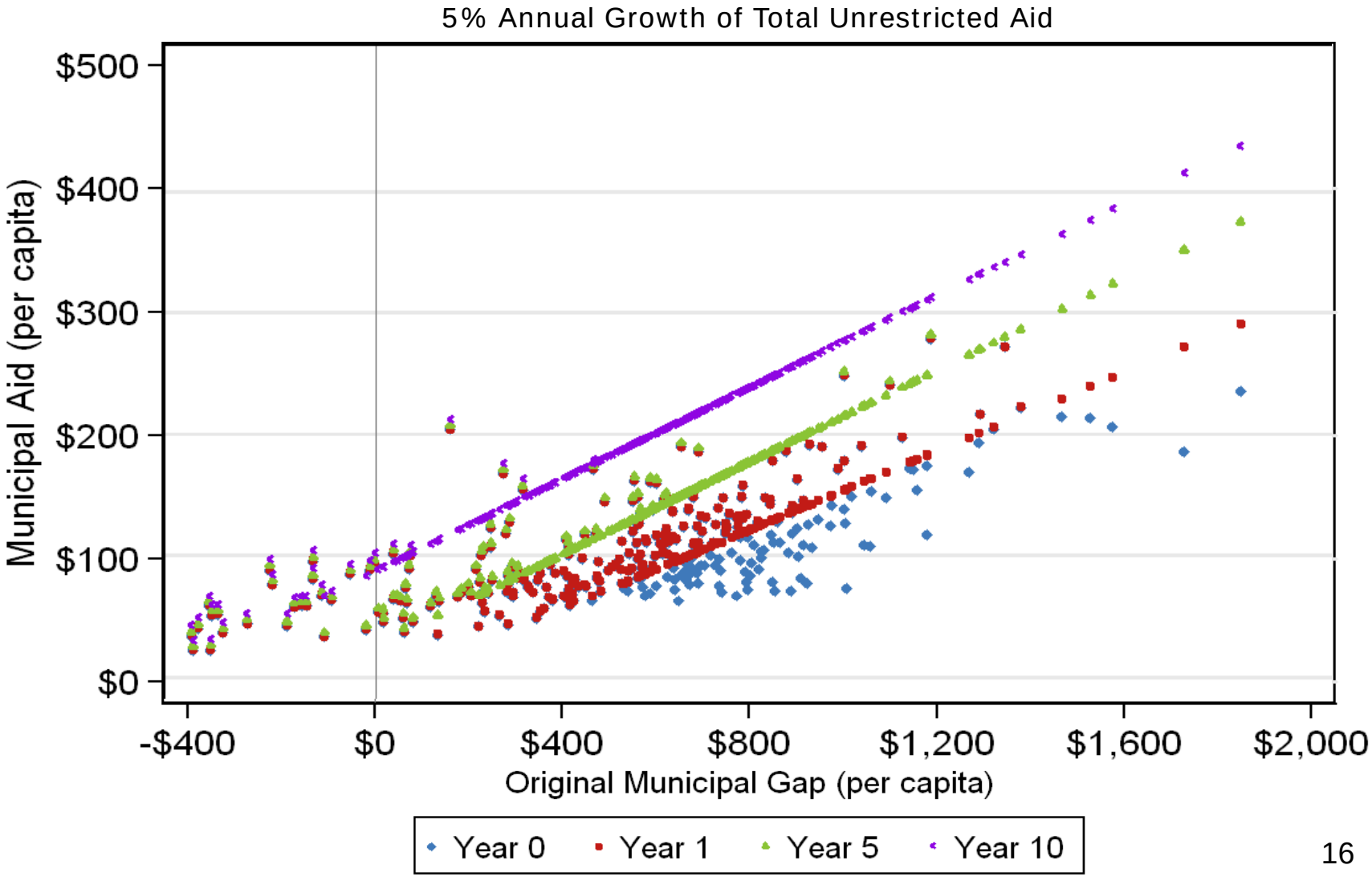

See Appendix for details.

Summary

- Massachusetts should adopt a new approach to distributing local aid.
  - Hold existing aid harmless
  - Distribute new aid using a gap-based formula
- In one scenario, within 5 years, aid to most MA cities and towns could be proportional to their needs.

Appendix: Policy parameters and outcomes for 10-year reform simulation

Summary of 10-Year Aid Distribution Simulation for Massachusetts;
Equal-Weights Approach to Hold Harmless

	Year 0 (FY 11)	Year 1 (FY 12)	Year 5 (FY 16)	Year 10 (FY 21)
Policy Parameters				
New aid pool ($ millions)	--	45	55	70
Minimum new aid ($ per capita)	--	0.68	0.83	1.06
Baseline gap (percentile of the original gap distribution)	--	20th	16th	11th
Simulation Results				
Number of communities receiving more than minimum new aid	--	95	223	284
Percent of state population in communities receiving more than minimum new aid	--	31	63	87
Weighted correlation of unrestricted aid with original gap	0.67	0.71	0.79	0.84

Note: Total unrestricted aid is assumed to grow at 5% per year. Minimum new aid is 10% of the statewide new aid per capita. Baseline gap is assumed to decrease by 1 percentile of the original gap distribution per year. Correlation of unrestricted aid with original gap is weighted by population.

Additional Materials

Table 1. Municipal Costs of Springfield and an Average Massachusetts Community (per capita, FY 2007)

		Springfield		Average MA Community		
	Coefficient	Factor Value	Contribution to Cost ($)	Factor Value	Contribution to Cost ($)	Cost Differentials ($)
	(1)	(2)	(3) = (1) X (2)	(4)	(5) = (1) X (4)	(6) = (3) - (5)
Cost Factors						
Population density (thousands per square mile)	28.0	4.71	132.01	4.02	112.60	19.41
Poverty rate (%)	19.8	28.40	562.31	9.93	196.57	365.74
Unemployment rate (%)	81.0	7.00	567.00	4.90	397.20	169.80
Jobs per capita	272	0.50	136.40	0.49	134.34	2.07
Statewide Constant	570.2	1.00	570.2	1.00	570.2	0.00
Municipal Costs			1,967.88		1,410.86	557.02

Most large cities have higher-than-average costs

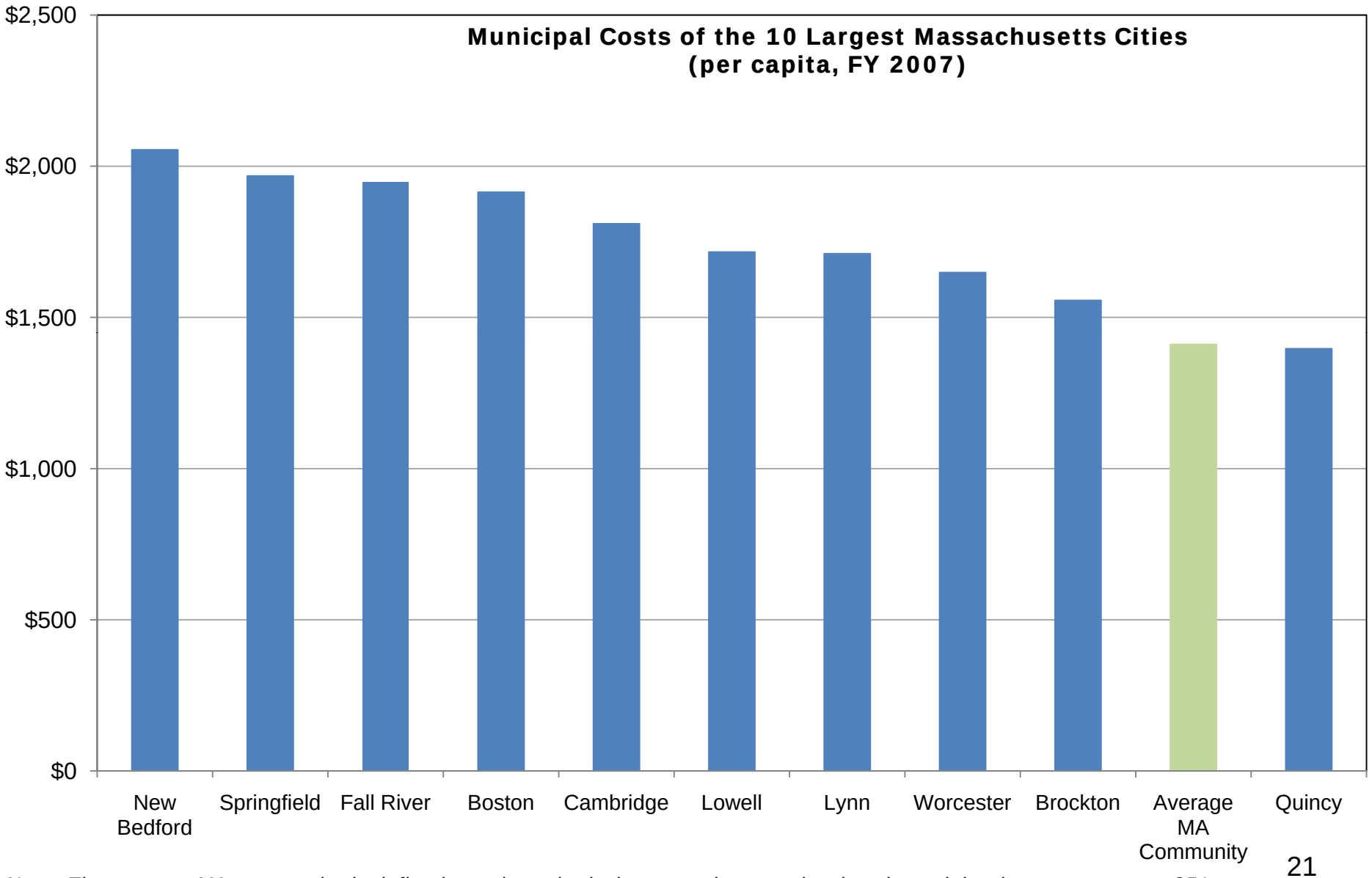

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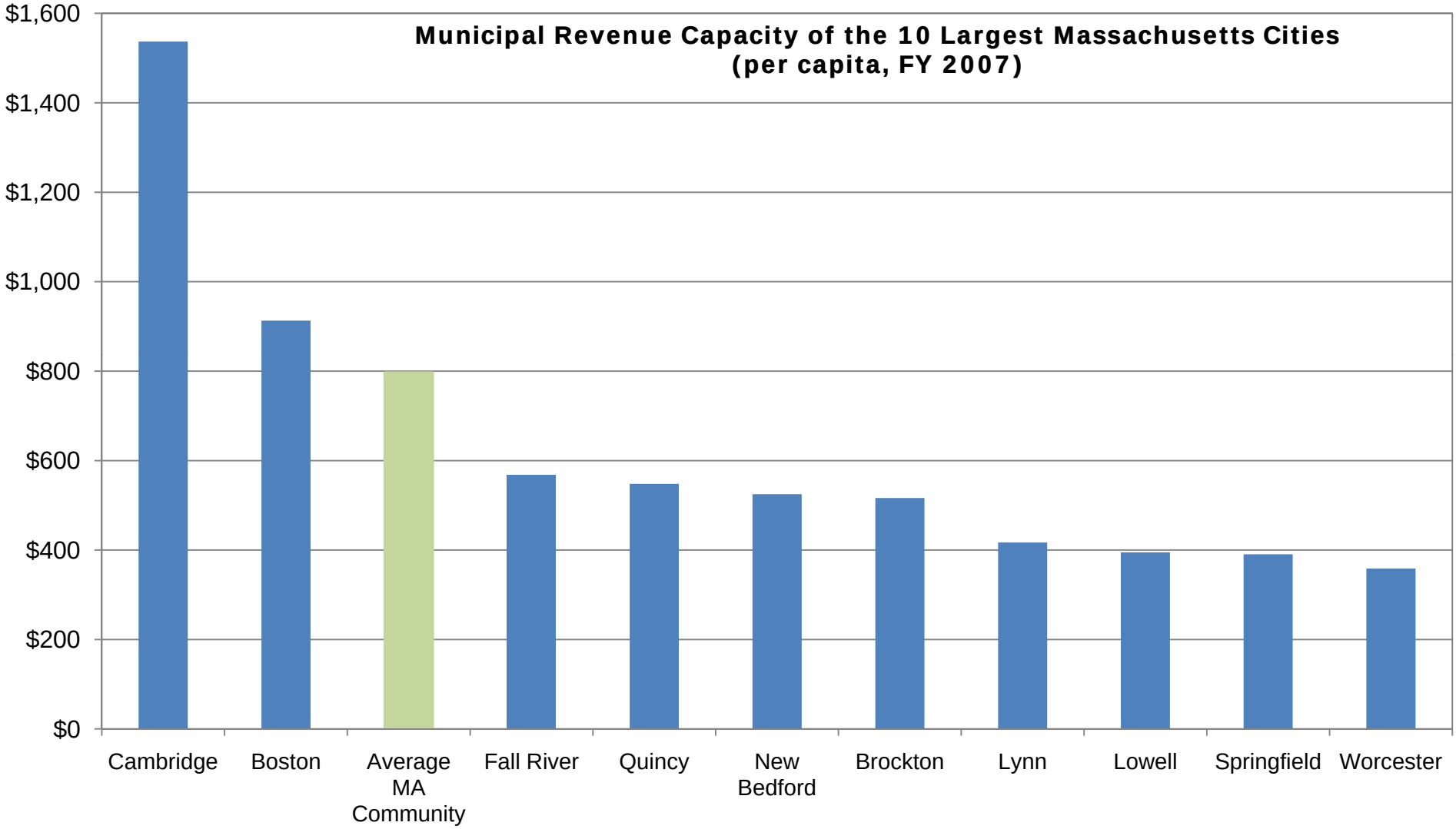
Table 2. Municipal Revenue Capacity of Springfield and an Average Massachusetts Community
(dollars per capita, FY 2007)

	Springfield	Average MA Community	Differentials
Property Tax Capacity Factors			
Taxable residential property value	38,171.59	128,549.00	-90,377.41
Taxable nonresidential property value	10,946.64	23,314.87	-12,368.23
Income	13,117.66	33,240.16	-20,122.50
Property Tax Capacity	517.93	1,457.51	-939.58
Other Local Revenue Capacity	86.87	124.64	-37.77
Required Reductions in Capacity	214.28	784.32	-570.04
Municipal Revenue Capacity	390.53	797.84	-407.31

Note: Municipal Revenue Capacity = Property Tax Capacity + Other Local Revenue Capacity – Required Reductions in Capacity

Municipal revenue capacity varies widely



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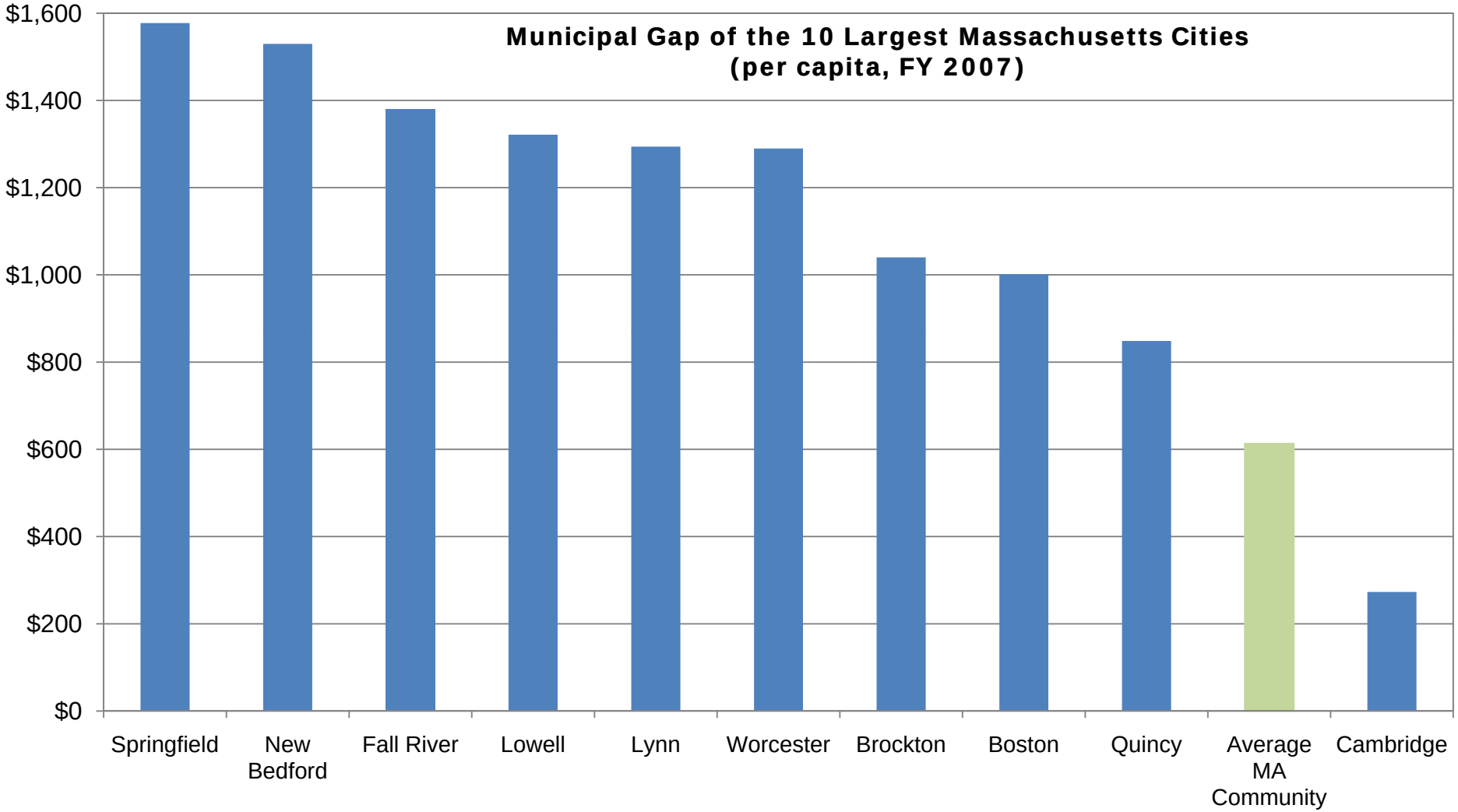
Lower-income cities have larger gaps (Gap=Costs-Capacity)



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