The Evaluation of Charter School Impacts

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Study Questions

- **What are the impacts of charter schools on student achievement and other outcomes?**

- **What characteristics of charter schools and their environments are related to charter schools' impacts?**

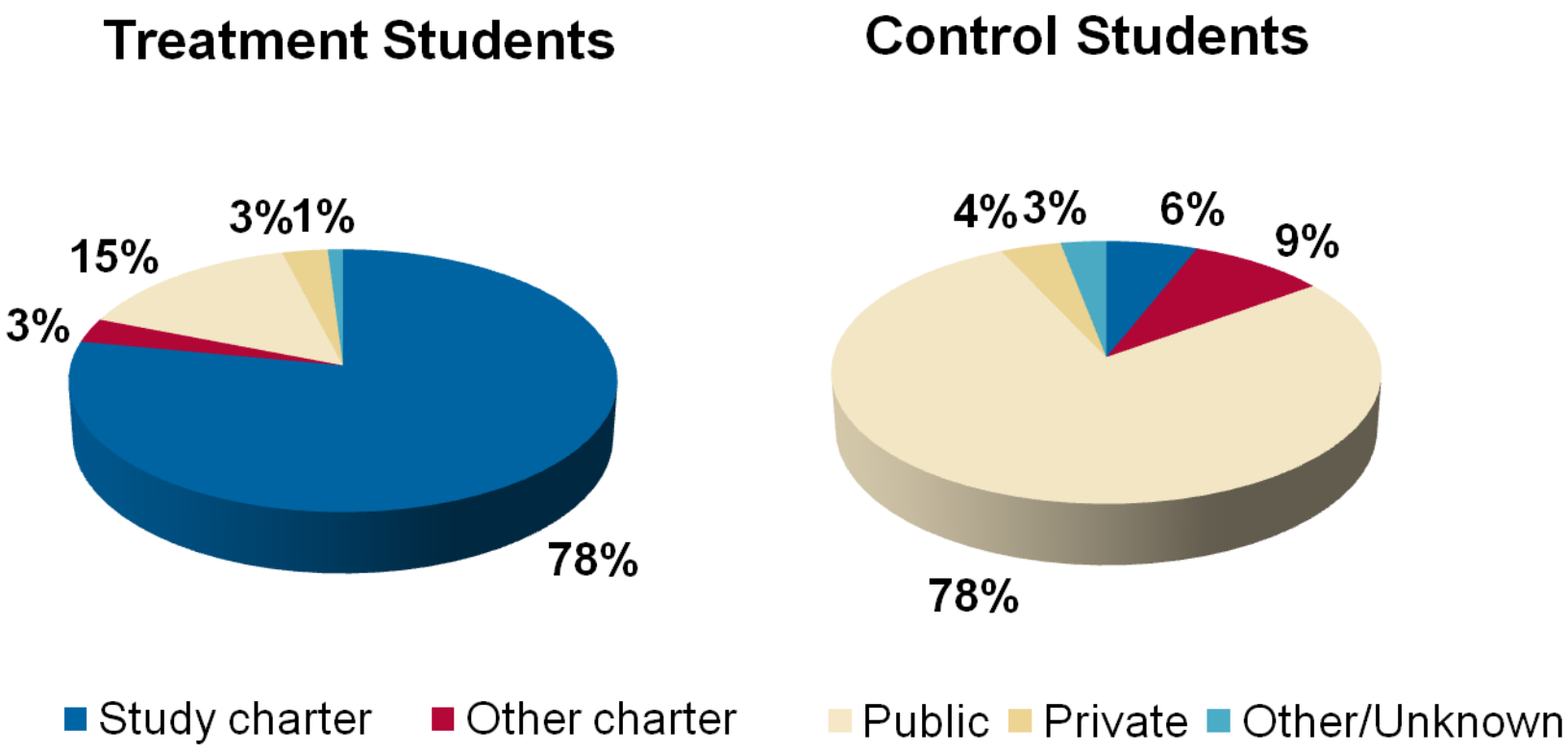
Experimental Design Based on Admissions Lotteries

- Careful monitoring of admissions lotteries at 36 charter middle schools in 15 states
- Sample: 2,330 applicants to charter schools in study
- Data
  - State assessments in reading and math
  - Other outcomes from school records
  - Surveys of students, parents, and principals

Characteristics of Students in the Sample

Characteristic	Treatment	Control
Average Test Scores		
Reading	0.43	0.45
Math	0.46	0.46
Number of absences	5.94	5.49
Race/Ethnicity		
Proportion white	0.60	0.57
Proportion black	0.11	0.10
Proportion Hispanic	0.27	0.29
Age (years)	11.52	11.51
Proportion with IEP	0.18	0.16
Proportion getting free/RP meals	0.34	0.34

Type of School Attended in Year 1



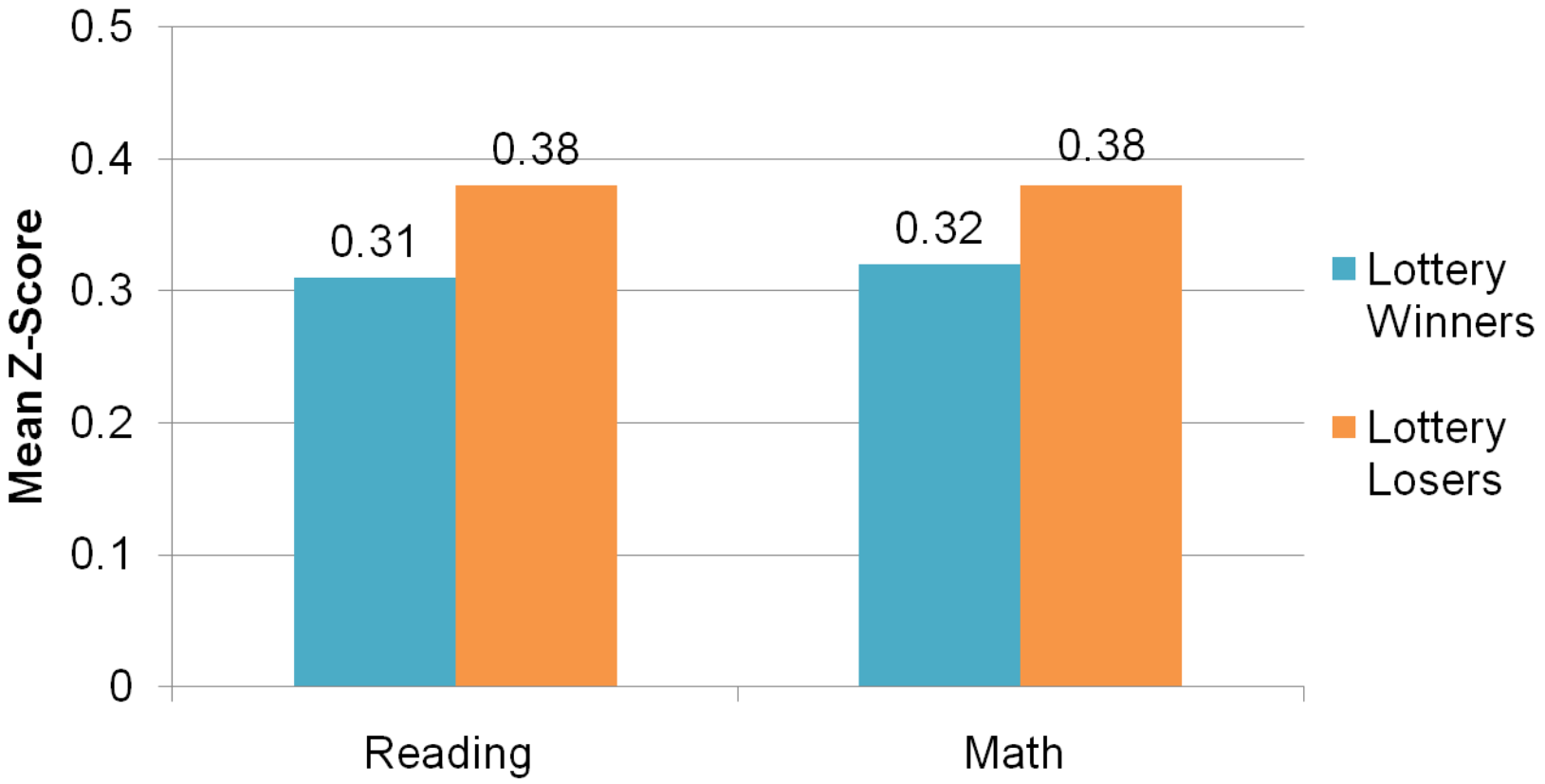
Estimating Charter School Impacts

- **Each charter school is mini-experiment**
  - **Calculate difference in average outcomes between treatment and control groups**
  - **Control for baseline achievement & other characteristics**
- **Average impacts across charter school sites**
- **Calculate both:**
  - **Impact of being admission to a study charter school (ITT)**
  - **Impact of attending charter school (TOT)**

Summary of Impacts on Key Outcomes

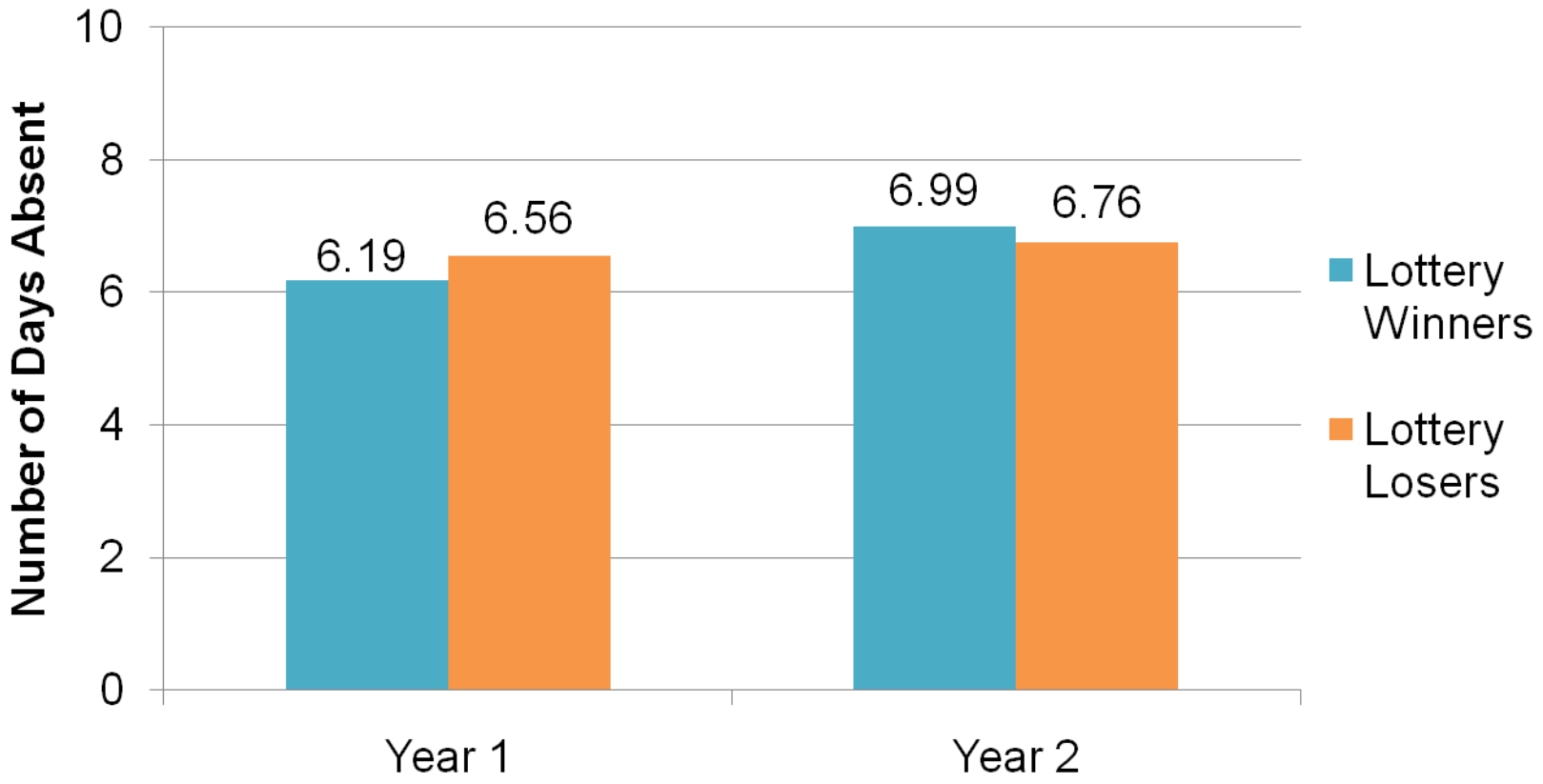
Category of outcomes	Significant Difference Between Treatment and Control Students?
Student achievement/proficiency	No
Other measures of academic progress	No
Homework completion	No
Behavior in and out of school	No
Parent/student satisfaction with school	**Yes (+)**
Parental involvement in child's education	Mixed

Impacts on Average Test Scores, Year 2



* Difference is statistically significant at the 0.05 level after adjusting for multiple hypothesis testing.
**Difference is statistically significant at the 0.01 level after adjusting for multiple hypothesis testing.

Impacts on Attendance



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Impacts on Student Behavior

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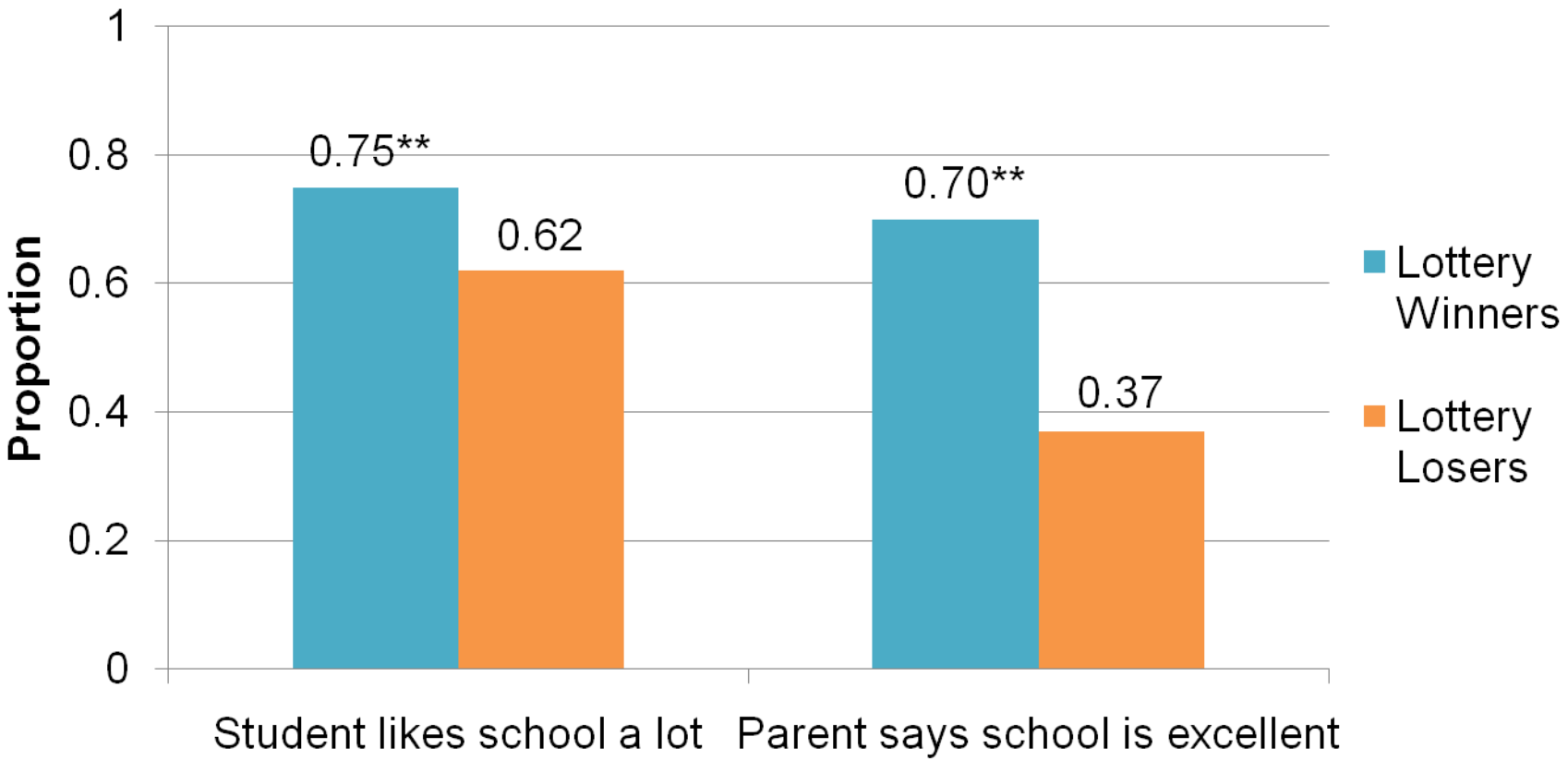
Impacts on Satisfaction with School



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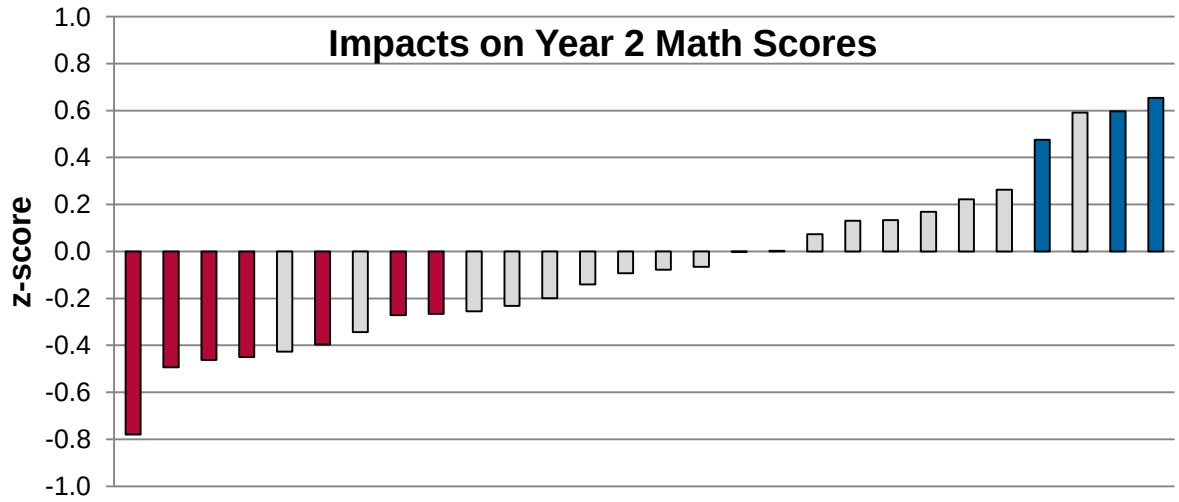
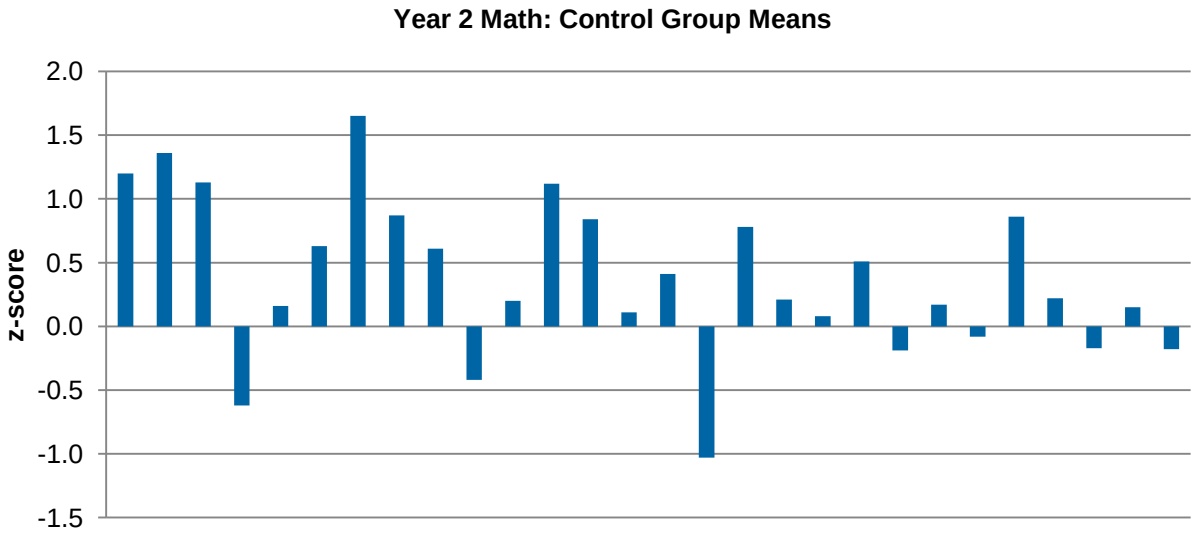
Significant Variation in Site-Level Impact Estimates

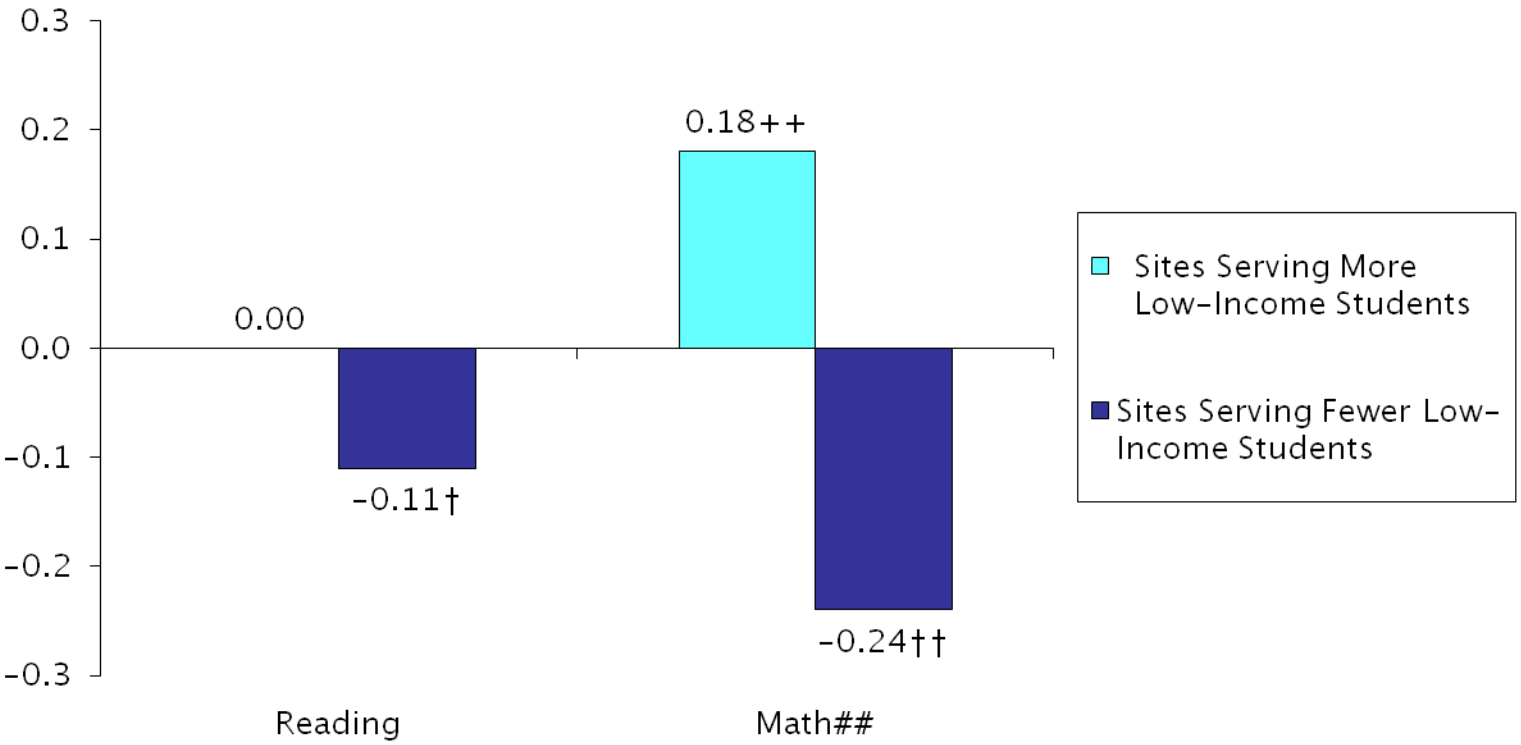




Variation in impacts is statistically significant at the 0.01 level, two-tailed test.

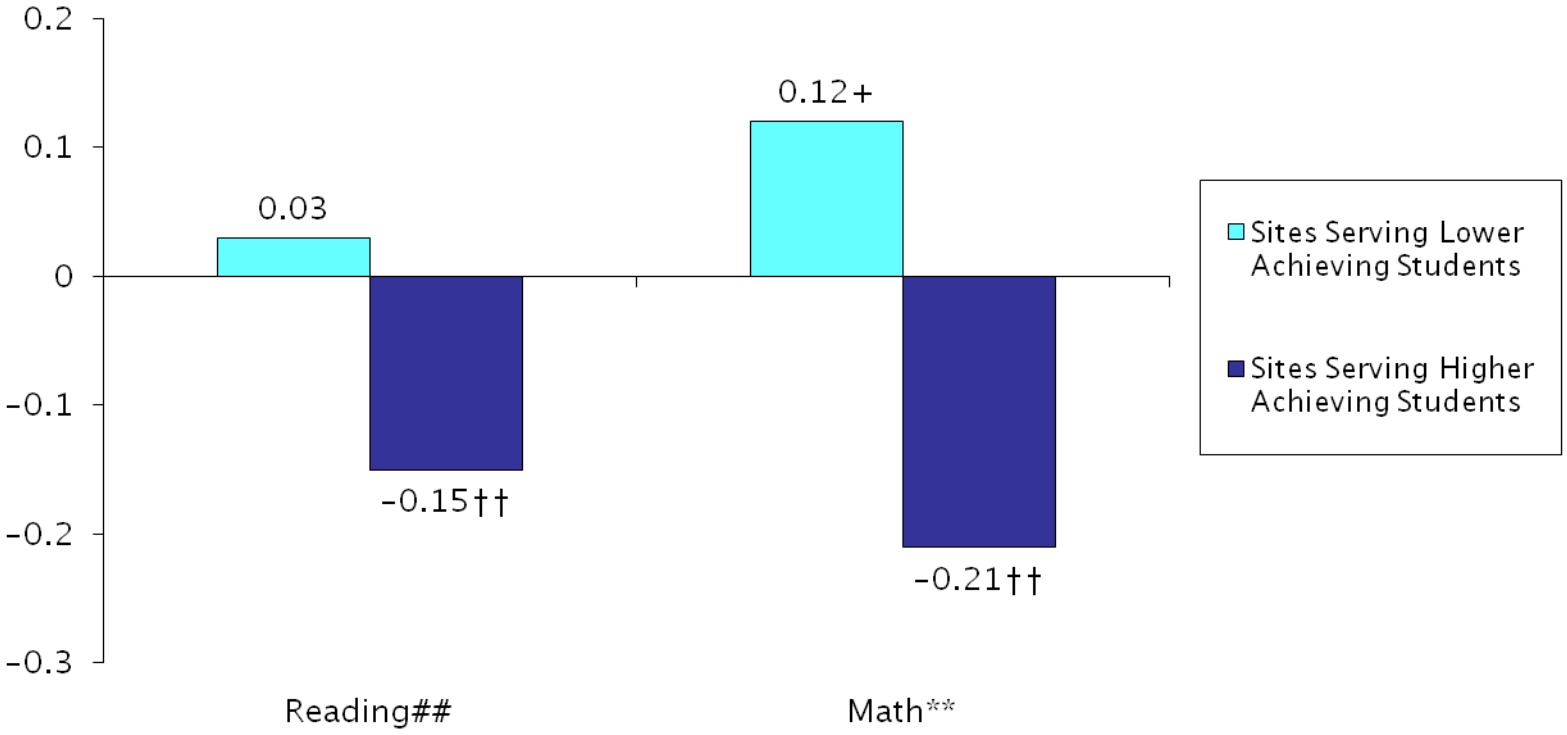
Colored bars are statistically significant impacts at the 0.05 level, two-tailed test.

Impacts on Year 2 Test Scores, by Percent Eligible for Free or Reduced Price Meals



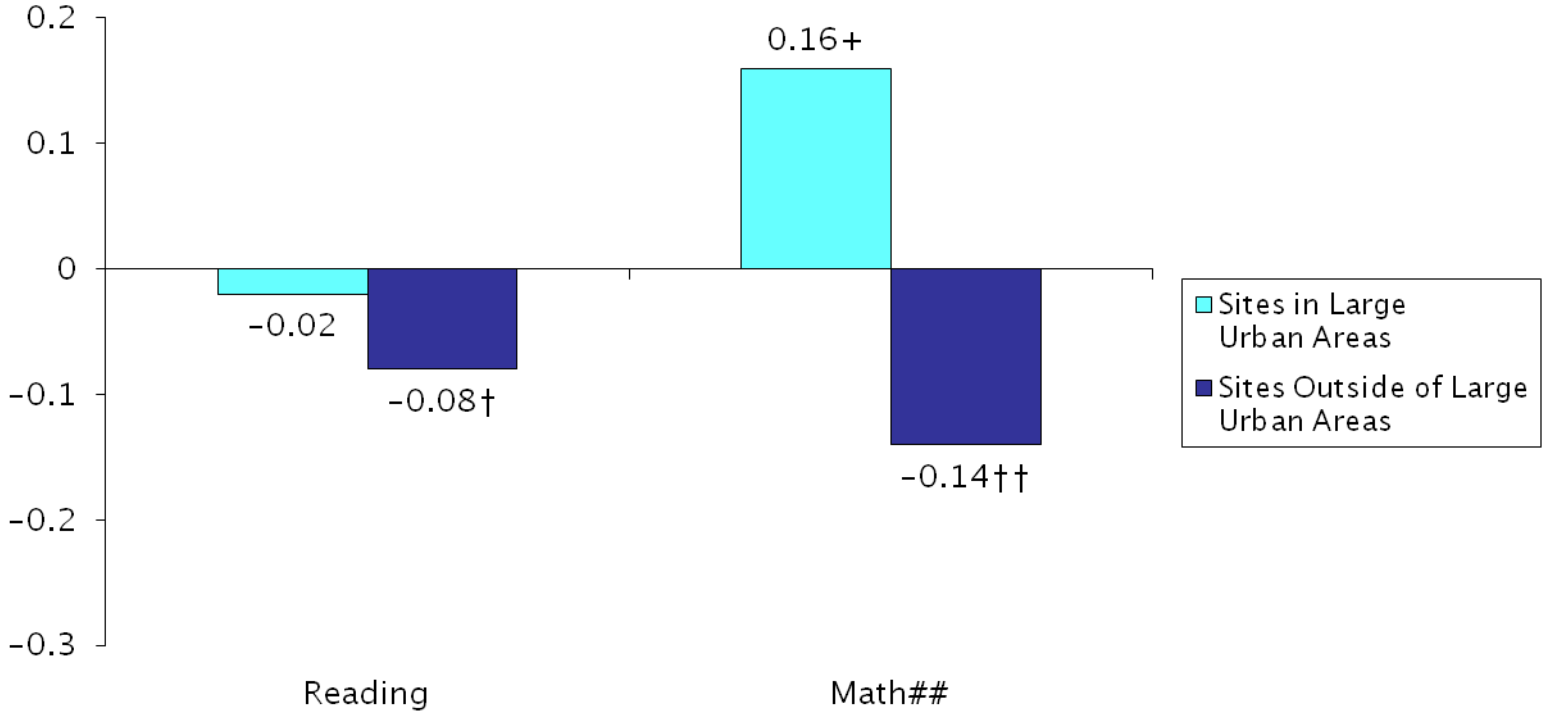
Impact statistically significant at the 0.05 (†) or 0.01 (††) level.
Difference between subgroups significant at the 0.05 (#) or 0.01 (##) level.

Impacts on Year 2 Test Scores, by Baseline Achievement in Site



Impact statistically significant at the 0.05 (†) or 0.01 (††) level.
Difference between subgroups significant at the 0.05 (#) or 0.01 (##) level.

Impacts on Year 2 Test Scores, By Urbanicity



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Summary of Key Findings

- **No significant impacts on student achievement**
  - **Positive impacts on student/parent satisfaction with school**
- **Impacts vary significantly across sites**
- **Most successful schools were those serving disadvantaged students, in large urban areas**

Contribution to Literature

- First study to provide experimental estimates for a national sample of charter schools
- Existing experimental studies limited to large urban areas (Boston, NYC)
  - They find positive impacts, consistent with our results for large urban areas
- Existing national studies are nonexperimental
  - They find insignificant or slightly negative results, consistent with our overall impact estimates

For More Information

- **Report available at**
  - **http://ies.ed.gov/ncee/pubs/20104029/pdf/20104030.pdf**
  - **http://www.mathematica-mpr.com**
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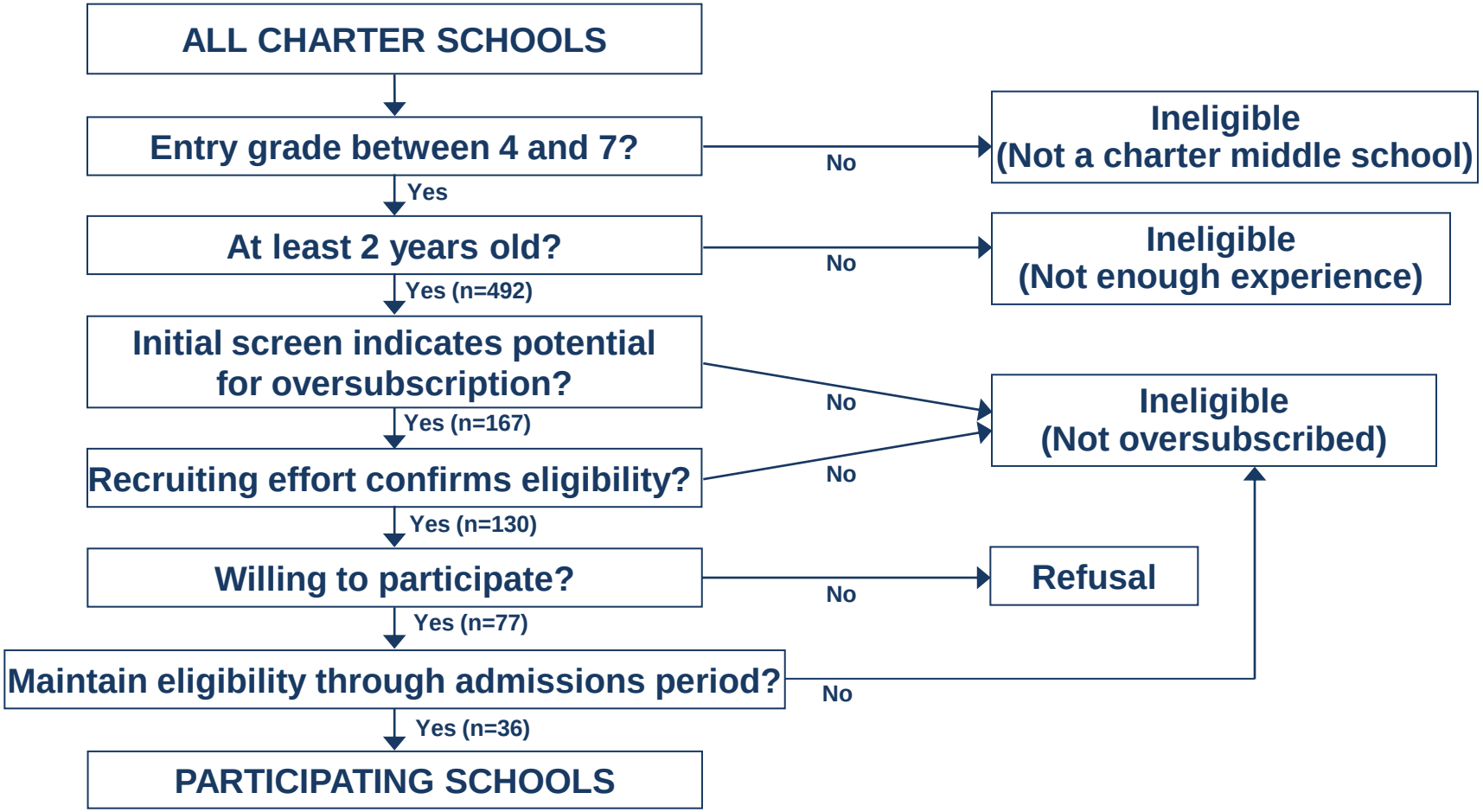
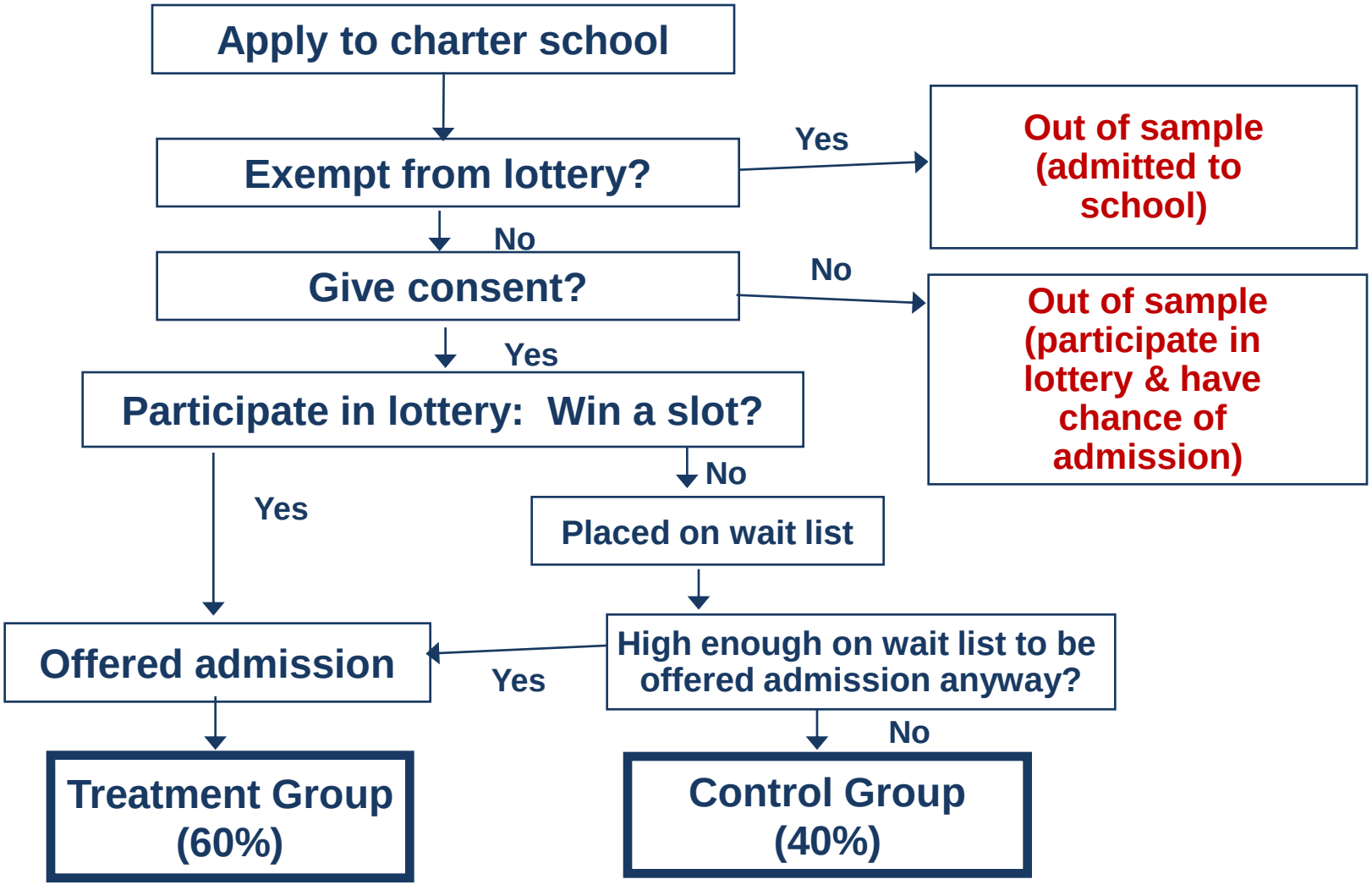
Supplemental Slides

School Selection Process



Student Sample Selection Process



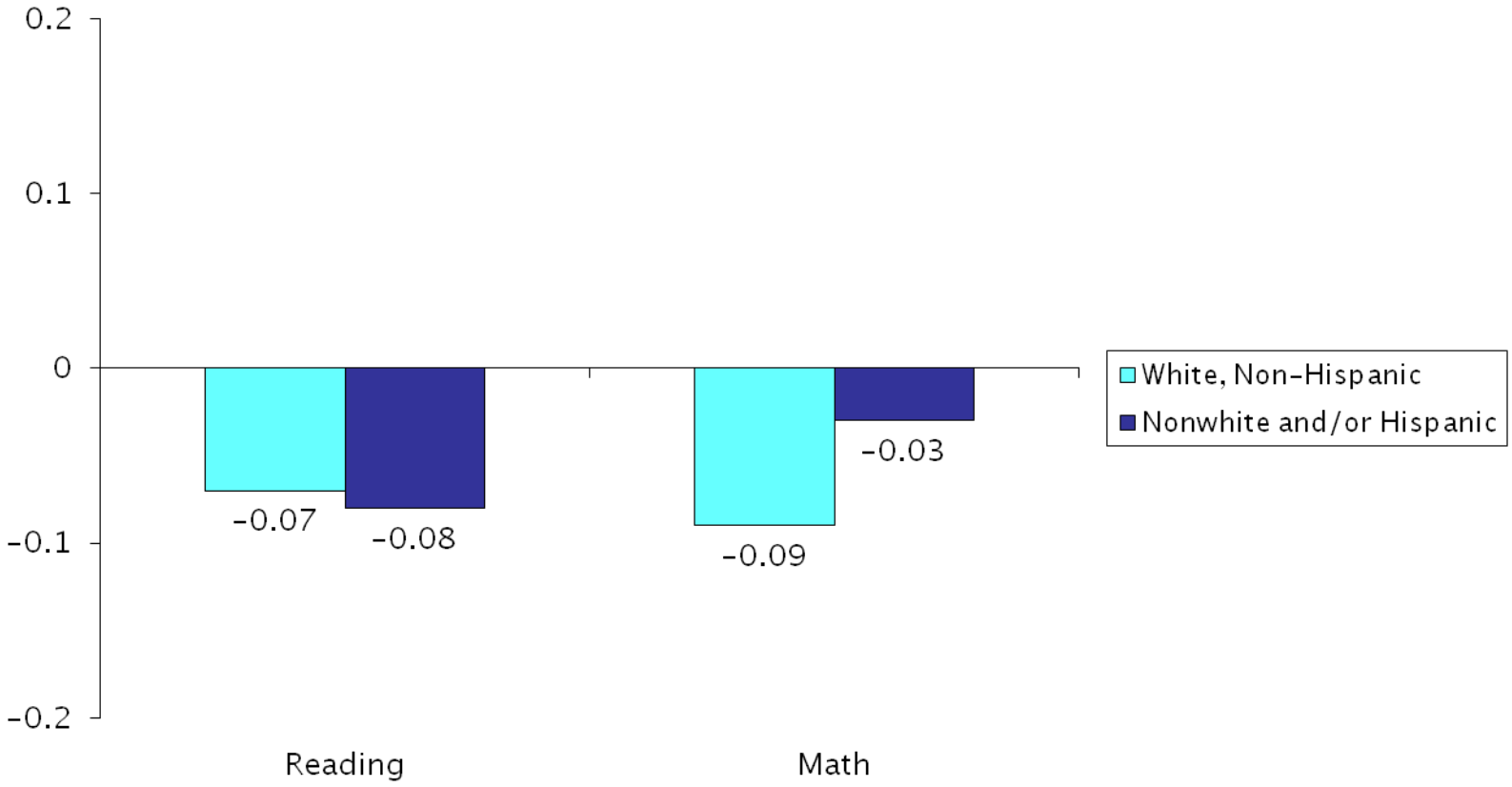
Data Collection Timeline

Instrument	Cohort 1	Cohort 2
Baseline survey	Spring/Summer 2005	Spring/Summer 2006
School records		
Baseline year	2004-2005	2005-2006
1st follow-up year	2005-2006	2006-2007
2nd follow-up year	2006-2007	2007-2008
Student/parent surveys		
Student survey	Spring 2006	Spring 2007
Parent survey	Spring 2006	Spring 2007
Principal surveys		
Study schools	Fall 2006	Fall 2007
Non-study charter schools	Fall 2007	

Impacts on Student Subgroups

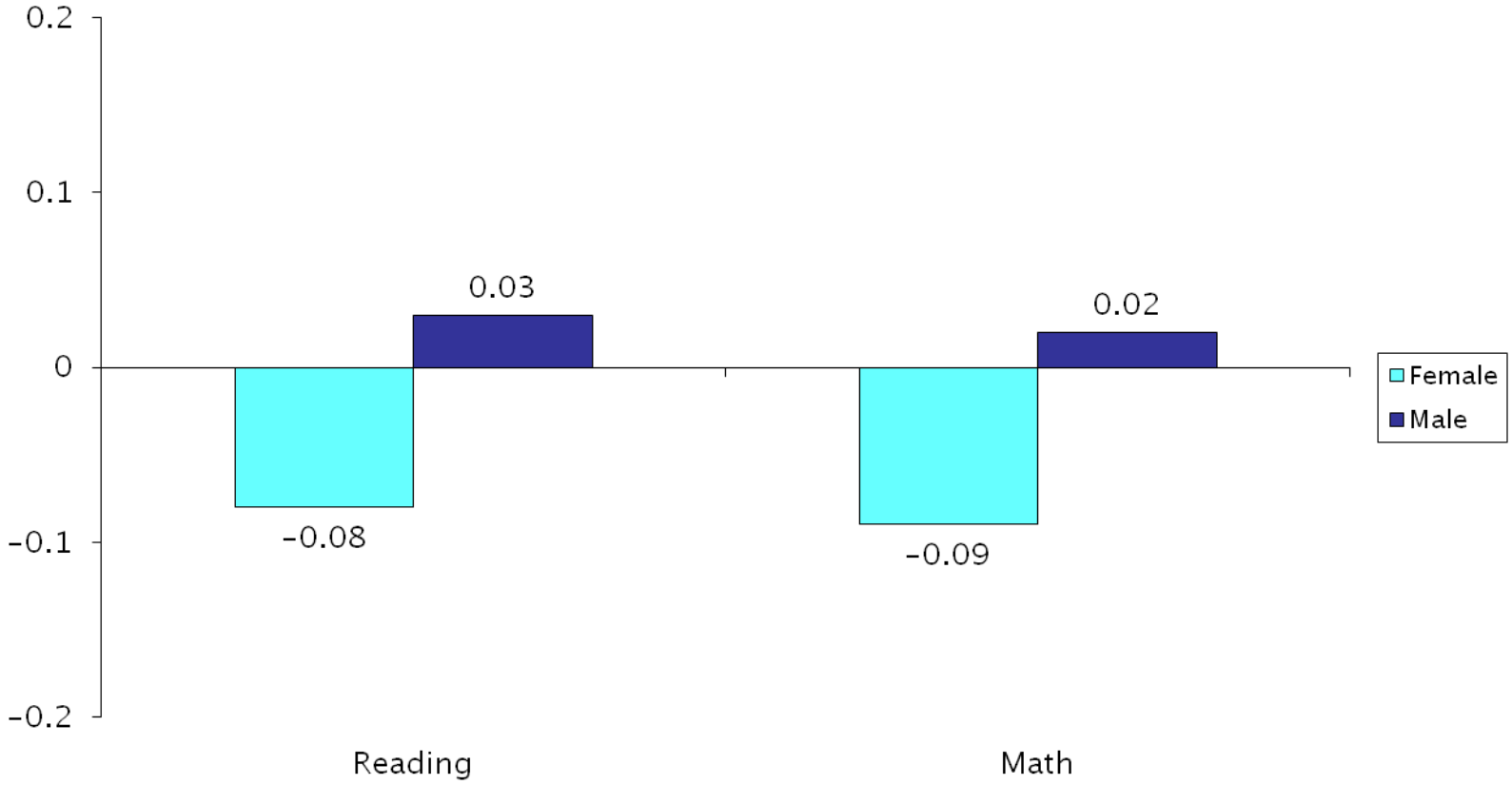
Subgroup categories	Significant difference in impacts?
Certification for free or reduced price lunch	Yes
Race (white vs. nonwhite and Hispanic)	No
Gender	No
Baseline reading/math achievement	Yes

Impacts on Year 2 Test Scores, by Race



Statistically significant at the 0.05 (*) or 0.01 (**) level after multiple comparison adjustment.
Difference between subgroups significant at the 0.05 (^) or 0.01 (^^) level after multiple comparison adjustment.

Impacts on Year 2 Test Scores, by Gender



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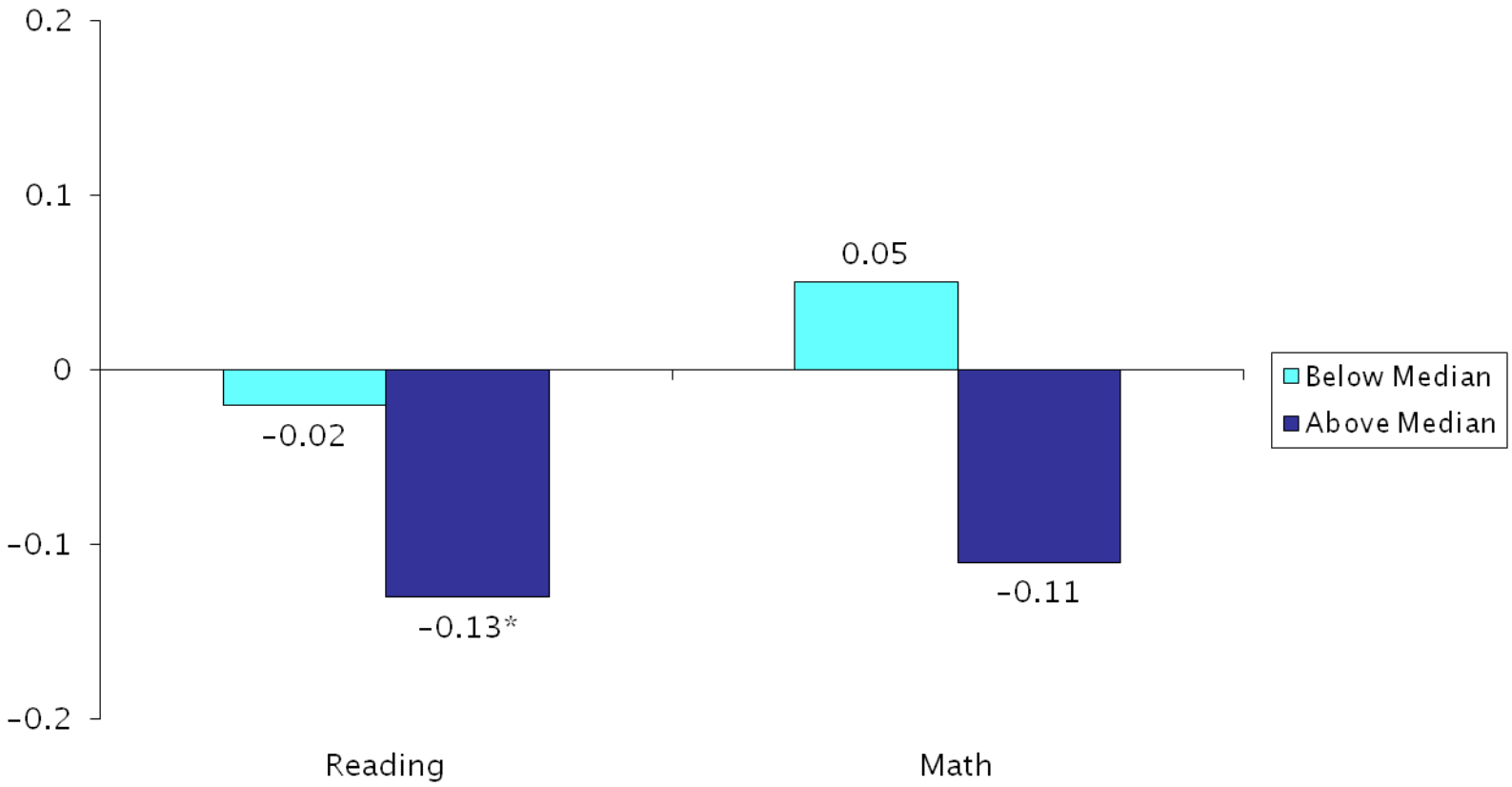
Impacts on Year 2 Test Scores, by Baseline Reading Achievement



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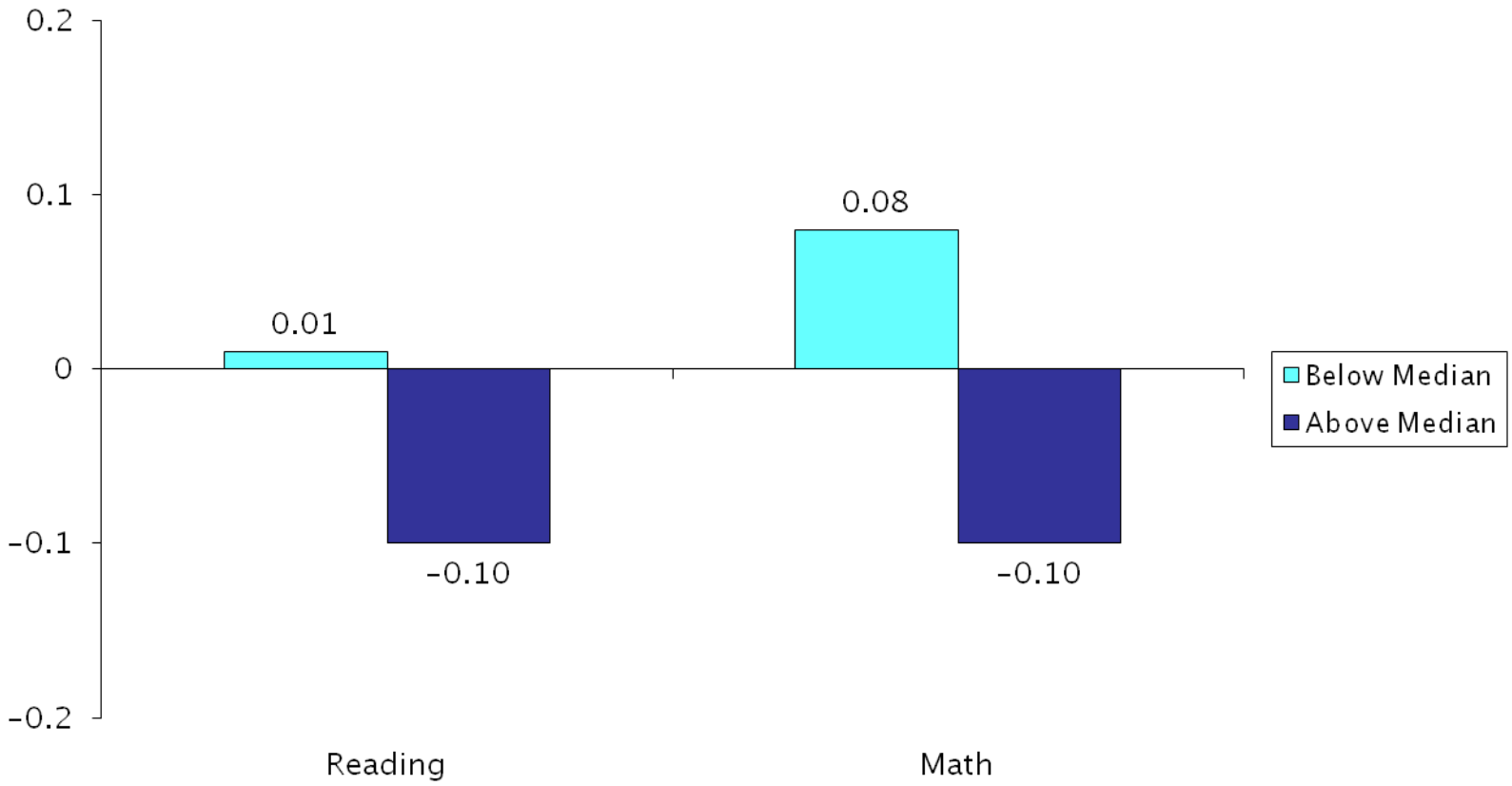
Impacts on Year 2 Test Scores, by Baseline Math Achievement



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