

# Psychic in the Classroom: The Effects of Teacher Expectations on Student Outcomes

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## Introduction

- Studies show teacher expectations have a substantial effect on student achievement. For policy makers on the quest to closing the achievement gap, understanding these effects is essential. It has been proven many teachers treat their high achievers differently than their low achiever, therefore resulting in low performance from the “low” achievers. What then are the long term effects of differential expectations?
  - Do teacher expectations have a long term effect on student outcomes?**
  - Student outcomes are expected to be greater when teacher expectations are greater.**
- Previous research points out the positive and negative short term outcomes of teacher expectations.

Christine Davies (2006)  
Student Characteristics and Teacher Expectations → Reading Level

Rosenthal and Jacobson (1992)  
Teacher expectations → academic achievement

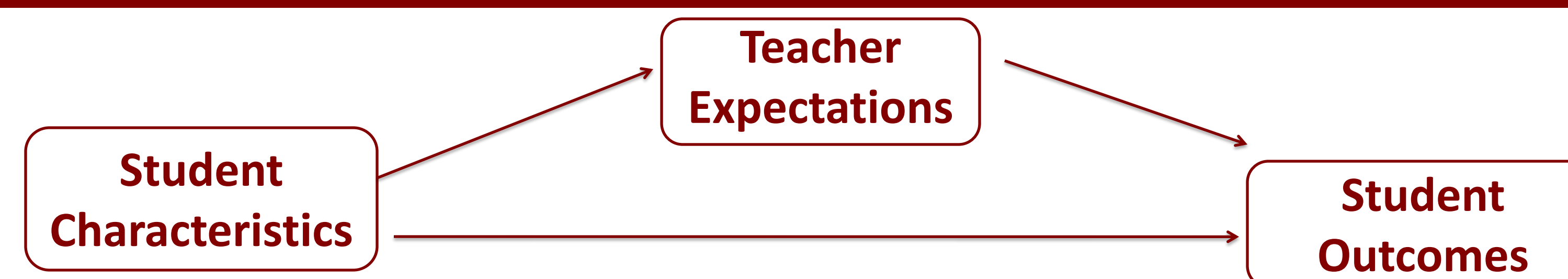
Ray Rist (2009)  
Student Characteristics → Teacher Perception

## Sample

The participants in this study were 7,159 students with recorded Math and English Teacher Expectations from the *Educational Longitudinal Study* of 2002; a national sample of young people as they progress from 10<sup>th</sup> grade through high school and on to postsecondary education and/or the world of work. Following is the breakdown of the students and teachers included in this analysis.

Demographic	Student	English Teacher	Math Teacher
White	67%	90%	89%
Black	10%	4%	4%
Hispanic	12%	3%	2%
Asian	9%	1%	3%
Other	5%	2%	2%
Male	48%	27%	43%
Female	52%	73%	57%

## Measures & Methods



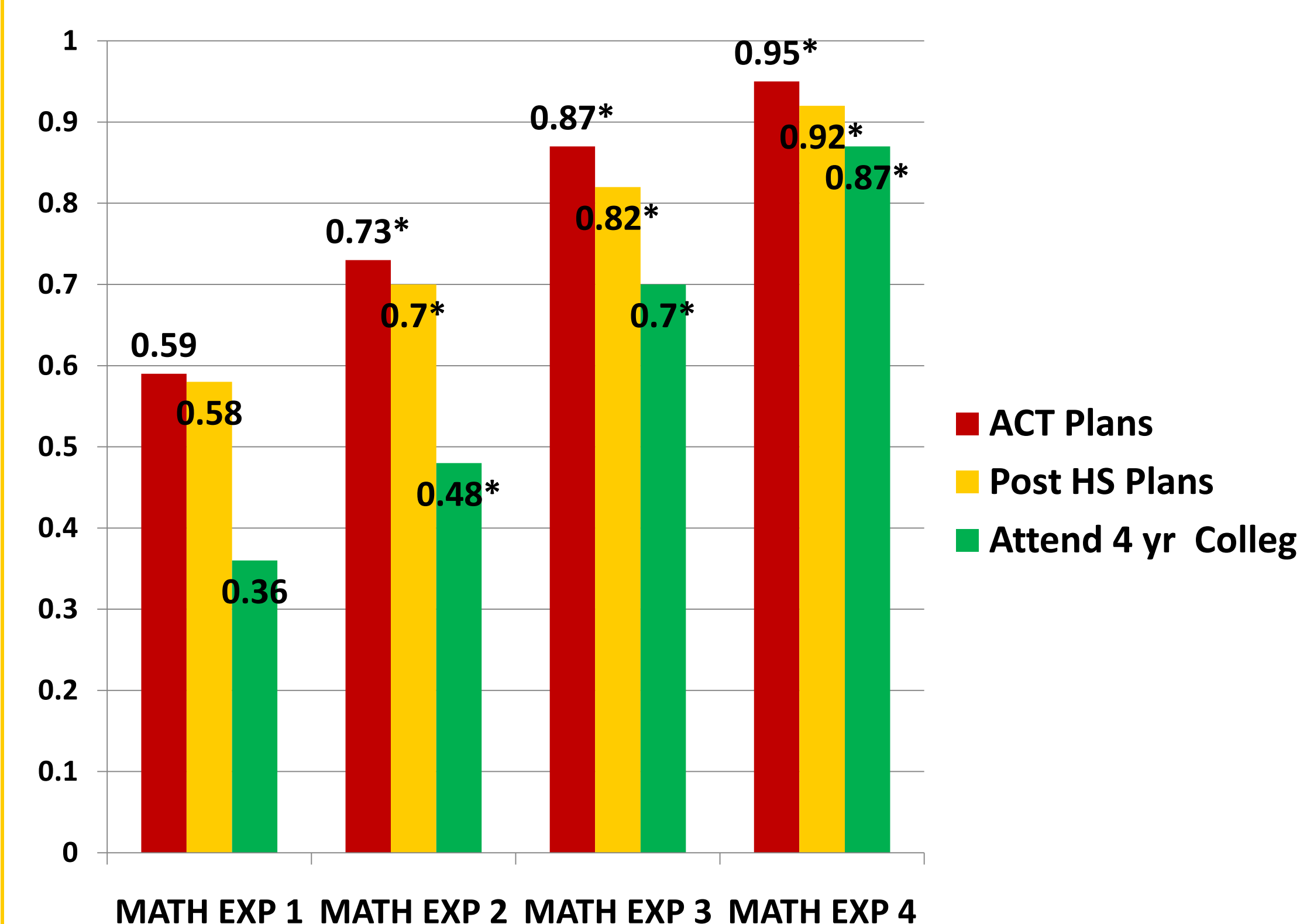
- Outcome Variables:** Students math test score in follow up year, plans to take the ACT, and type of college student plans to attend
- Explanatory Variables:** Math Teacher Expectations & English Teacher Expectations for student categorized as follows less than high school or high school, attend/complete 2 year college, attend/complete 4 year college, more than 4 year degree
- Control Variables:**
  - Student Characteristics:** student race (Black, White, Hispanic, Asian, & other), student gender, student SES (4 levels)
  - Teacher Characteristics:** Teacher experience (total years of experience) & Teacher Level of Education (No Degree, Associate, Bachelor’s, Education Specialist, Master’s, Doctorate, 1<sup>st</sup> Professional)
  - School Characteristics:** School size, % of free-lunch, and location (rural, suburb, and urban).
  - Parent Characteristics:** Parent’s level of education

### ANALYSIS

- Means:** Teacher Expectations by Student Outcomes
- Significance Tests:** Collapsed Math Expectations by Student Outcome
- Regression:**
  - Student Outcomes =  $B_0 + B_1 \text{Teacher Expectation} + B_2 \text{Student Race} + B_3 \text{Student Gender} + B_4 \text{Student SES} + B_5 \text{Teacher Experience} + B_6 \text{Percentage Free Lunch} + B_7 \text{Location} + B_8 \text{Parent Education Level}$

## Results

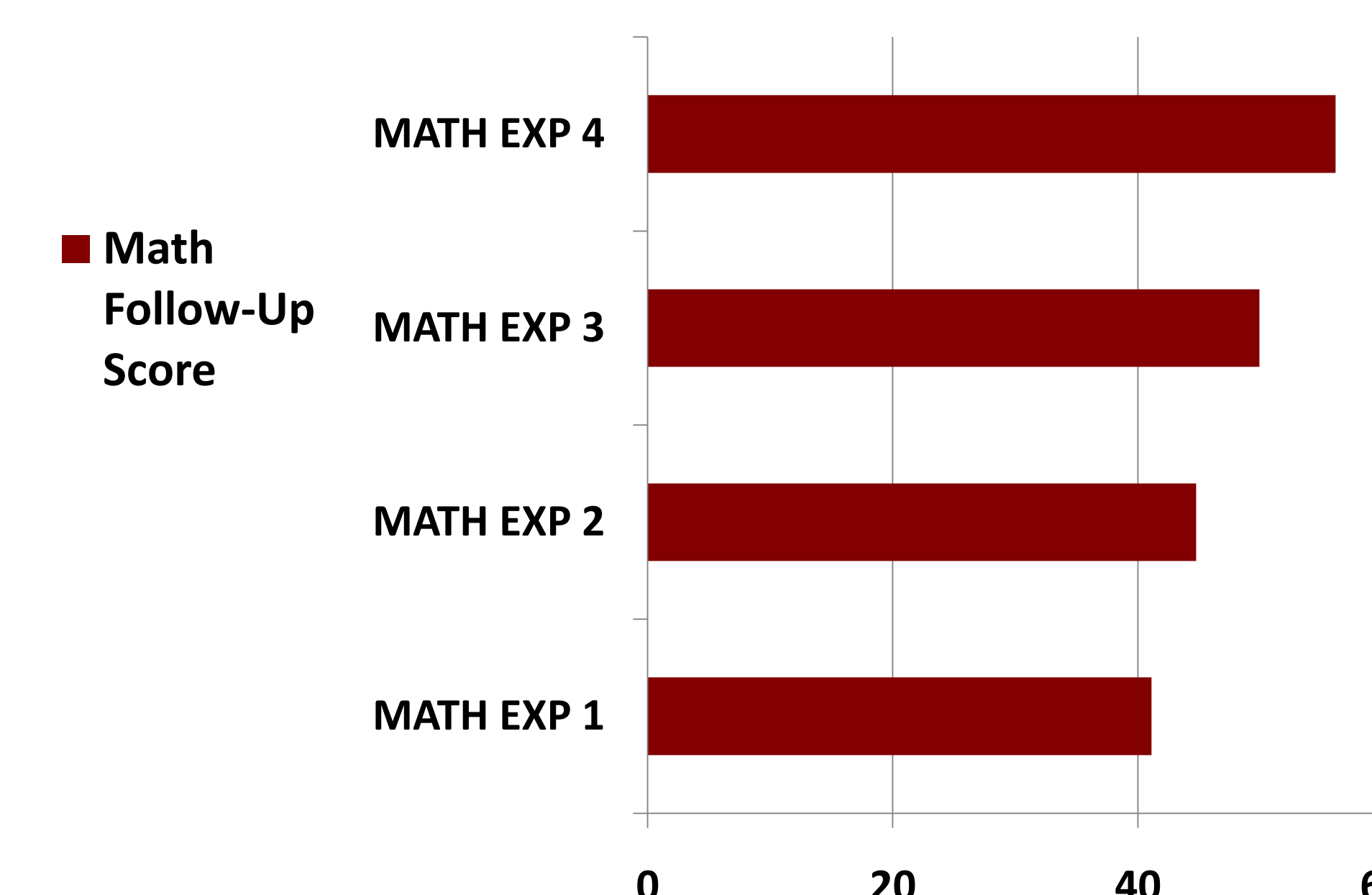
Students’ Outcomes in Comparison to Their Teachers’ Expectations



Graph 1: Marked with \* indicates significant differences in math teacher expectations when compared to student outcomes at the following significance levels: \*p<.05.

Graph 2: Marked with \* indicates significant differences in math teacher expectations when compared to student s’ math follow up score at the following significance levels: \*p<.05, \*\*p<.01, \*\*\*p<.001.

Students’ Math Score Compared to Their Teachers’ Expectations



## Regressions

	FOUR-YEAR COLLEGE	FOUR-YEAR COLLEGE	FOUR-YEAR COLLEGE
MATH EXP4	0.505**	0.386**	0.326**
MATH EXP3	0.343**	0.27**	0.225**
MATH EXP2	0.114**	0.081**	0.07**
MATH SCORE		0.009**	0.008**
PARENT EDUC			0.012**
2 <sup>ND</sup> LAN ENGL			-0.037*
ASIAN			-0.146**
HISPANIC			-0.163**
OTHER			-0.15**
WHITE			-0.157**
SES LEVEL 2			0.032*
SES LEVEL 3			0.075**
SES LEVEL 4			0.128**
FEMALE			0.042**
FREE LUNCH			-0.018**
SUBURB			0.002
URBAN			0.044**
TEACH EXPER			0.001
TEACH EDUC			0.006

\* significant at 5% level; \*\* significant at 1% level

## Discussion

- Students’ mean outcomes were significantly higher for **ACT PLANS** with Math teachers in category four. Math and English teachers expectations for the student were relatively equal for each outcome
- Students’ mean outcomes were significantly higher for **Math Follow Up Score** with Math teachers and English teachers in category four. Math and English teachers expectations for the student were relatively equal for students’ follow up scores.
- Student outcomes** was significantly associated with teacher expectations. Student ability (base year scores) had the greatest effect on teacher expectations. Other student characteristics, teacher and school characteristics had little effects, if any.

## Acknowledgements

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