

**The Myth of Meritocracy?  
SAT Preparation, College Enrollment,  
Class and Race in the U.S.**

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# What matters for College Admission today?

- academic achievement (GPA, H.S. class rank)
- extra-curricular activities
- written essays
- SAT scores

# The SAT

- **1926** SAT designed to be a measure of intelligence to reduce role of social origin in access to college
- **1935** Harvard required SAT of all applicants
- **1957** 500,000+ U.S. high school students took SAT annually (Lemann 1999)

# Today... the SAT is a national college entrance exam

- The SAT predicts about 20% of the variability in Freshman year grades (fairtest.org)
- 80% of all colleges use SAT/ACT in admission decisions
- A record 1.5 million people took test in 2008

# Strategies to improve scores include:

- Retaking the SAT: Students from high SES backgrounds are more likely to take SAT multiple times, net of other factors (Vigdor and Clotfelter 2003).
- SAT preparation such as classes, tutors, books and software: Involves substantial costs and requires access to information about SAT process.

# Our Study

- Are students from advantaged families more likely to utilize SAT prep?
- Do test prep activities pay off? Do they yield higher SAT scores?
- Do SAT scores matter in the competition for admission to selective colleges?
- Do test prep, SAT scores, and college enrollment behaviors vary by race?

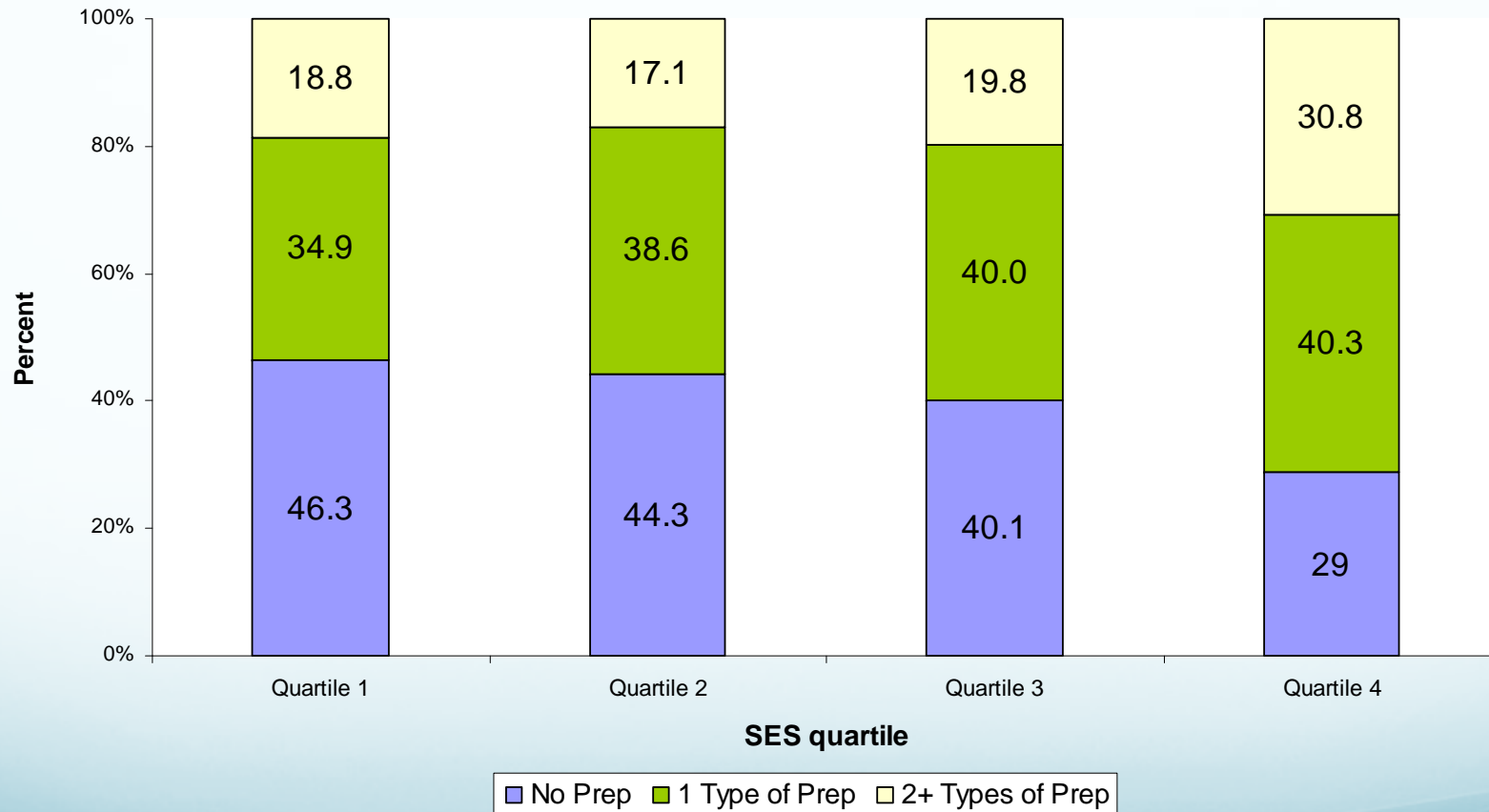
# Data

National Education Longitudinal Study (NELS): a nationally-representative sample of 8<sup>th</sup> graders in 1988, resurveyed in 1990, 1992, 1994 and 2000.

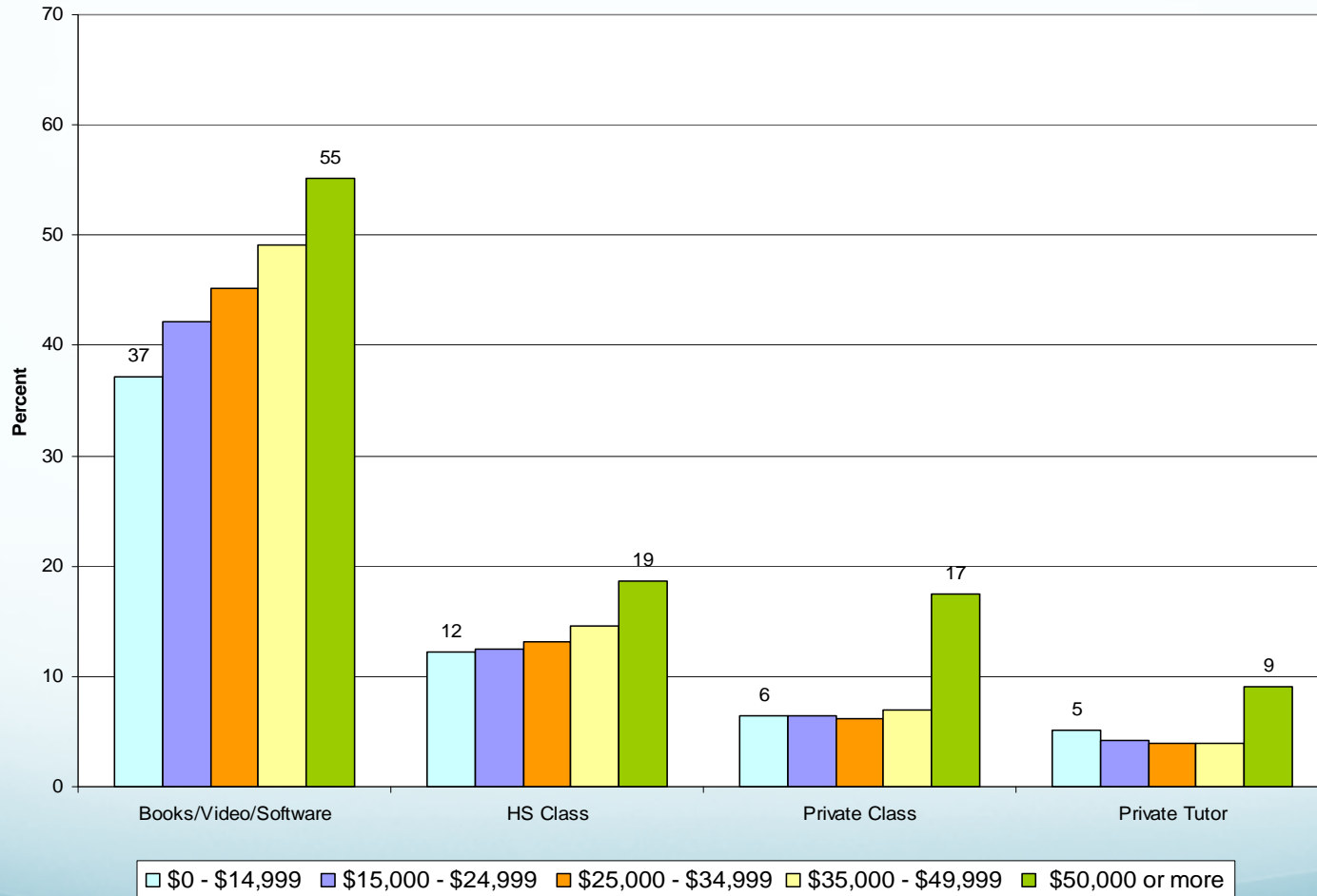
We examine 4 types of SAT prep:

- Books and computer software (52%)
- Test prep classes in high school (18%)
- Private Classes (11%)
- Private Tutors (7%)

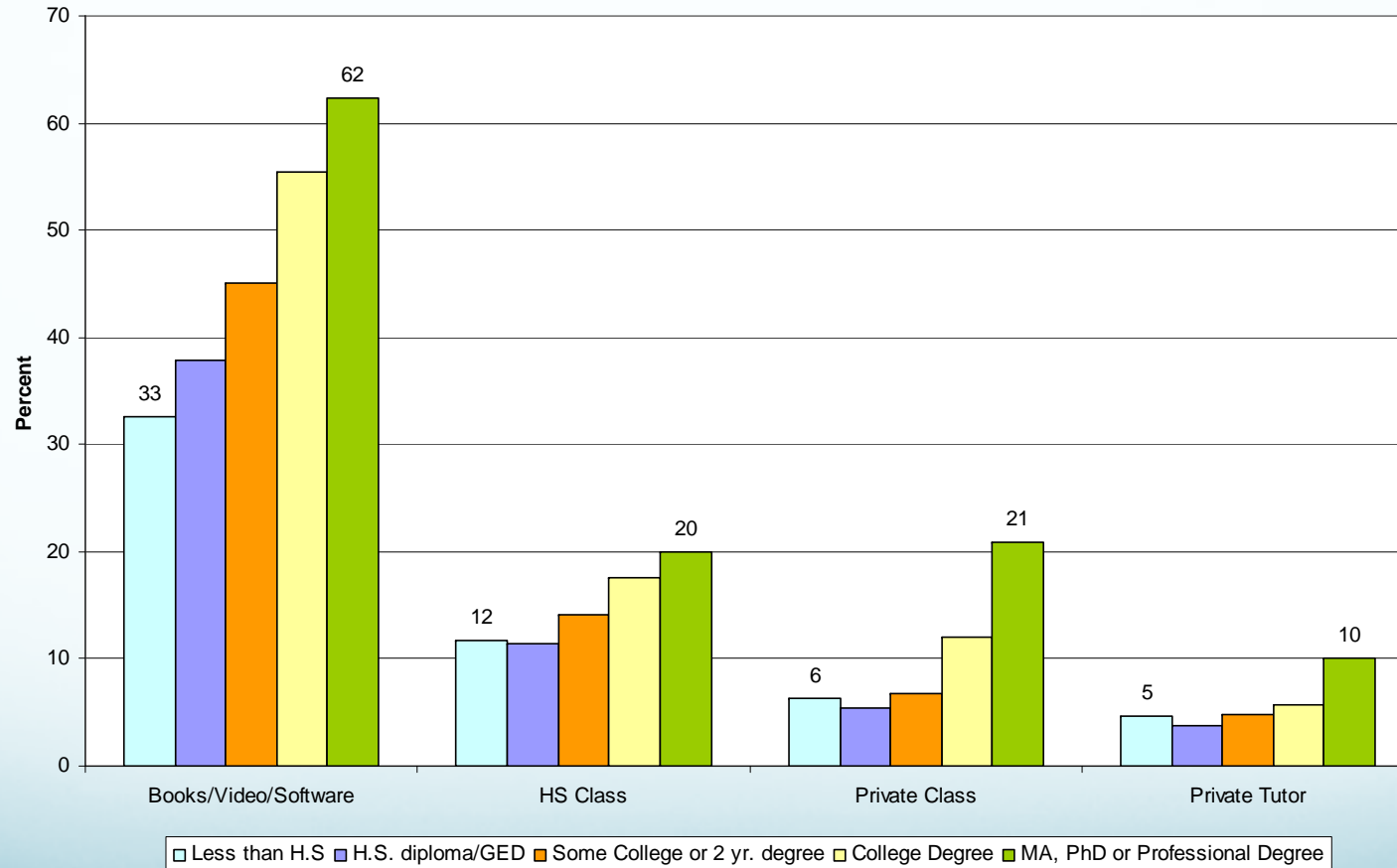
# Frequency of Test by Family Socioeconomic Status (SES)



# Test Prep by Family Income



# Test Prep by Level of Parent's Education



## Predictors of Four Types of SAT Test Prep (Multinomial Logit)

	<u>Book/Computer</u>	<u>High School Class</u>	<u>Private Class</u>	<u>Private Tutor</u>
Parental Education	1.100 **	1.106 *	1.320 **	1.309 **
Family Income	.970 **	1.283 **	1.348 **	1.542 **
Female	1.893 **	1.779 **	1.753 **	1.226
Prior Achievement	1.013 **	1.002	1.001	.964 **
Educational Expectations	1.275 **	1.332 **	1.372 **	1.235 *
Race (White=ref.)				
Black	1.663 **	3.449 **	3.299 **	5.627 **
Hispanic	1.278 *	1.712 **	1.946 **	2.066 **
Asian	1.618 **	1.860 **	2.838 **	2.086 **
Constant	-2.400 **	-6.082	-7.796	-6.748
N	11,681	11,681	11,681	11,681

\*p<.05, \*\*p<.01, \*\*\*p<.001 (one tailed tests)

# Who Uses Test Prep?

- Kids from advantaged families are more likely to all types of SAT test prep, especially private classes and tutors.
- Females and minorities are also more likely to use test preparation.

## Effects of Types of Test Prep on SAT SCORES

	SAT SCORE
Type of Test Prep	
Books/Software	11.304 **
High School Class	13.353 **
Private Tutor	21.316 **
Private Class	35.509 **
Parental education	13.186 ***
Family Income	14.438 ***
Female	-42.676 ***
Prior Achievement	16.740 **
Educational Expectations	17.731 ***
Race (White=ref.)	
Black	-29.049 **
Hispanic	-7.675
Asian	27.514 **
Constant	-103.490 **
N	6,171

\*p<.05, \*\*p<.01, \*\*\*p<.001 (one tailed tests)

# Does Test prep pay off?

- Yes, all types of test prep result in higher SAT scores, net of other factors.
- Private classes and private tutors, the most expensive forms of prep, yield largest boost in scores.
- Our study finds smaller gains than those advertised by Princeton Review or Kaplan today.

## Determinants of Type of College Enrollment,

Multinomial Logistic Odds Ratios

	Base Category= No College Enrollment			
	Less than 4 yr College	Non-Selective 4-year College	Selective 4-year College	Highly-Selective 4-year College
	3	3	3	3
Parental Education	1.249 ***	1.464 ***	1.541 ***	1.823 ***
Family Income	1.570 ***	1.581 ***	2.034 ***	2.788 ***
Female	1.150 *	1.569 ***	1.507 ***	1.549 *
Prior Achievement	1.040 ***	1.053 ***	1.043 ***	1.109 ***
Educational Expectations	1.423 ***	1.804 ***	1.970 ***	2.362 **
Race (White=ref.)				
Black	.825	1.468 **	2.073 **	8.520 ***
Hispanic	1.418 **	1.283 *	1.828 *	6.908 ***
Asian	1.919 **	1.353	2.903 **	7.364 ***
SAT Score	1.000	1.004 ***	1.009 ***	1.015 ***
Constant	-9.352	-15.153	-24.335	-43.513
N	12,189	12,189	12,189	12,189

\*p<.05, \*\*p<.01, \*\*\*p<.001 (one tailed tests)

# Do SAT scores matter in the competition for college admission?

- Yes, higher SAT scores increase chance of enrolling in all types of 4 yr. college, but especially highly-selective colleges and universities.
- Students from advantaged families are more likely to enroll in all types of colleges than those from disadvantaged families.
- Net of SES and SAT scores, race also matters.

# Summary

- Students from advantaged families are more likely to use SAT Test prep.
- Test prep activities pay off in significantly higher SAT scores.
- SAT scores matter for enrollment in 4-year colleges, especially highly-selective colleges.