

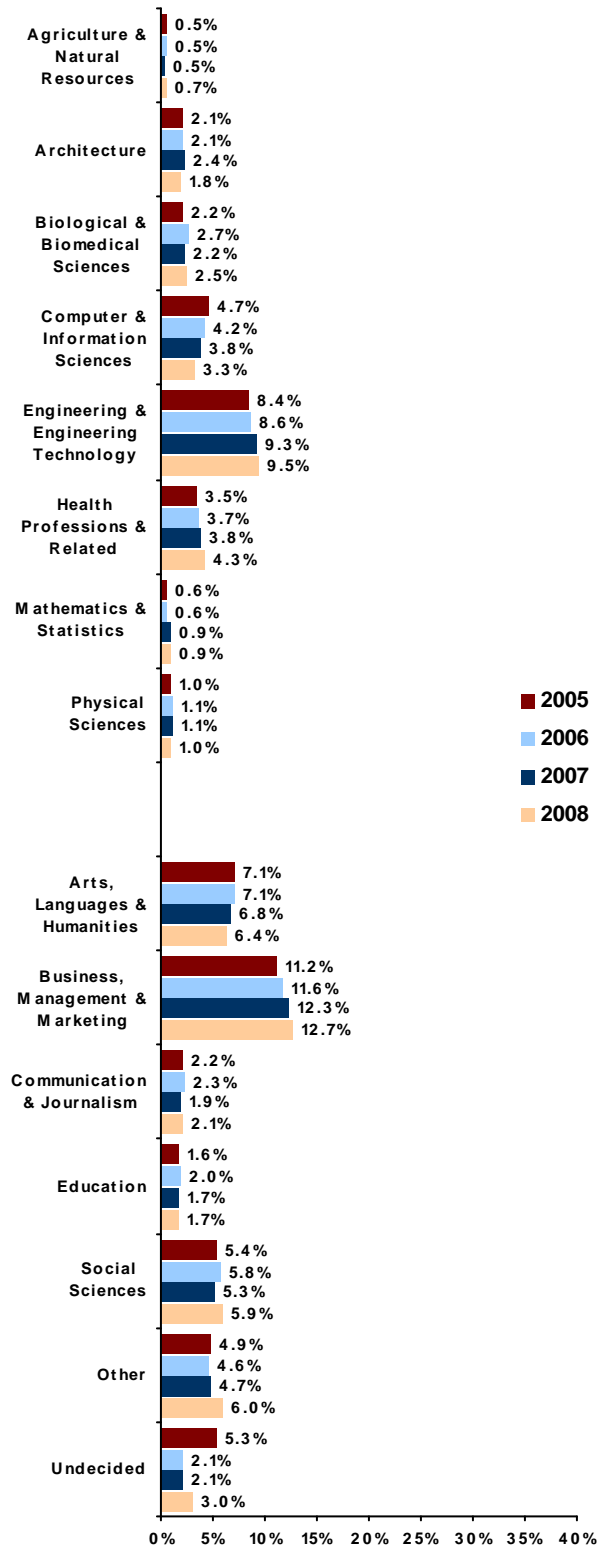
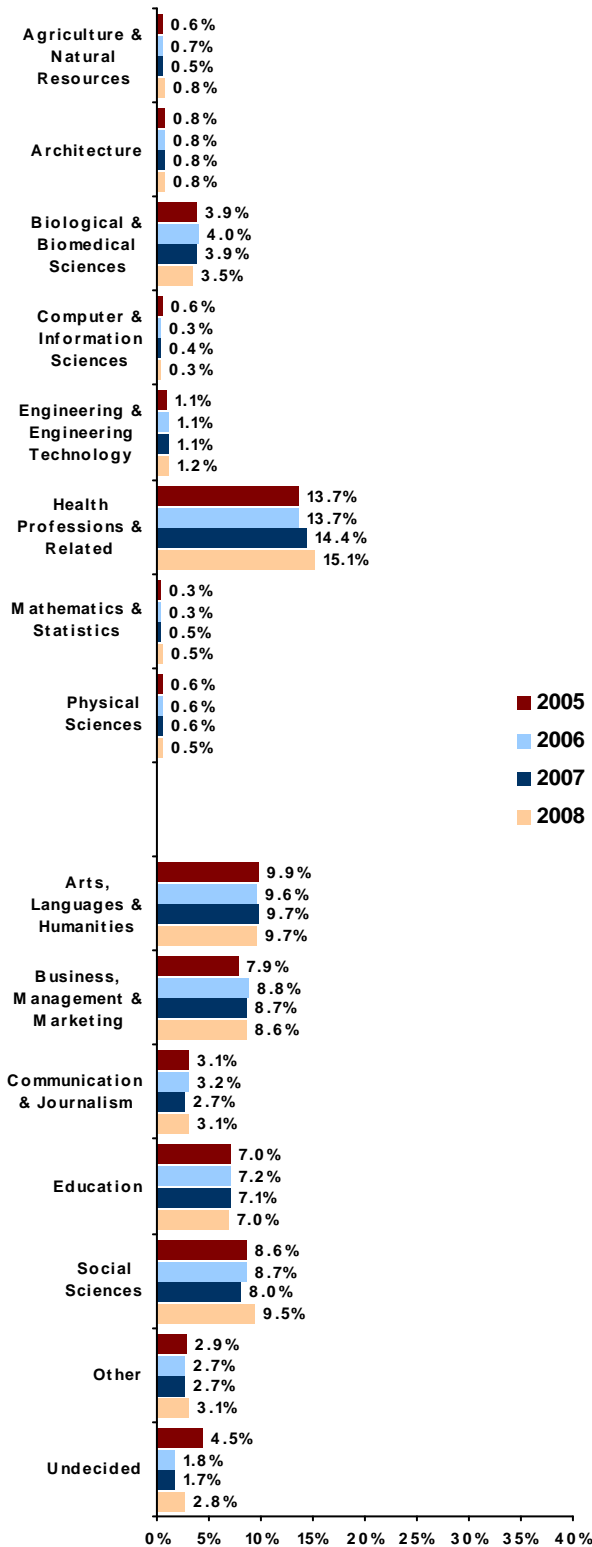
Interest in STEM College Majors among Massachusetts SAT Test-Takers

Initial Points of Interest

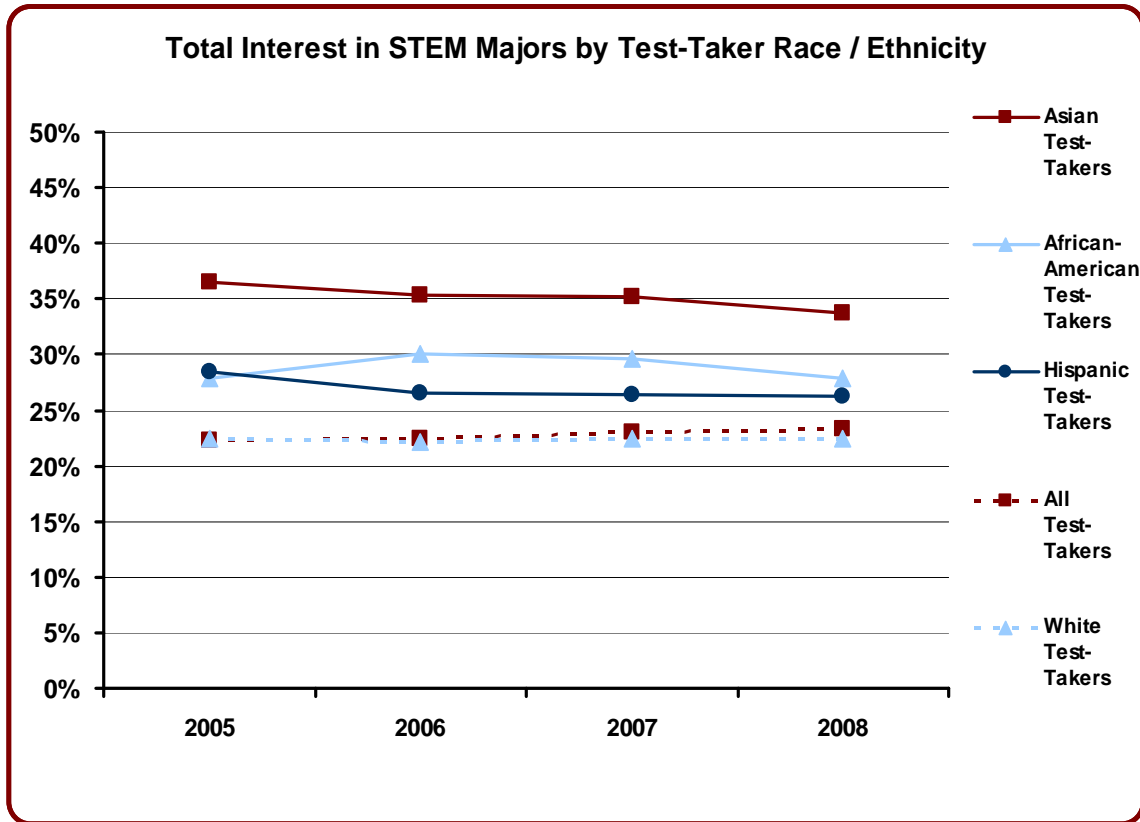
While total interest in STEM college majors among female and male test-takers is close (23% for females and 24% for males in 2008), meaningful differences exist in the kinds of majors in which female and male test-takers are interested:

Female Test-Takers

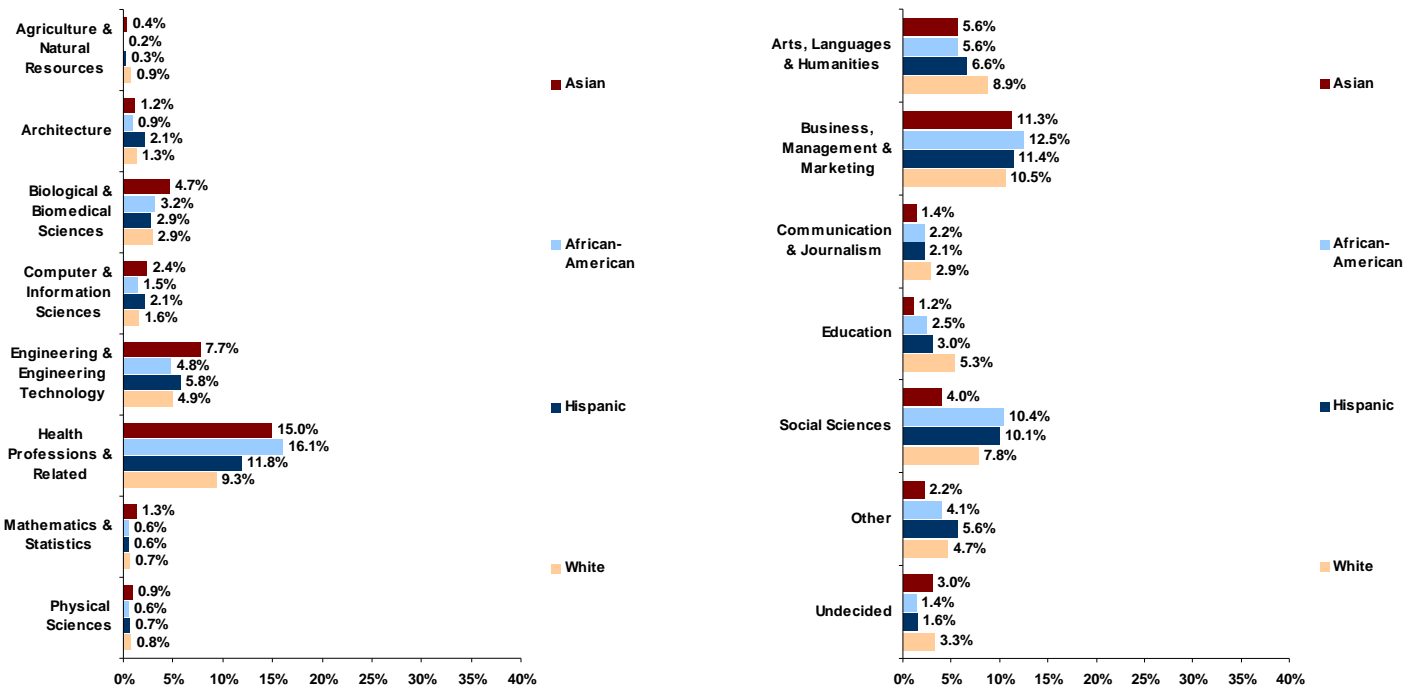
Male Test-Takers



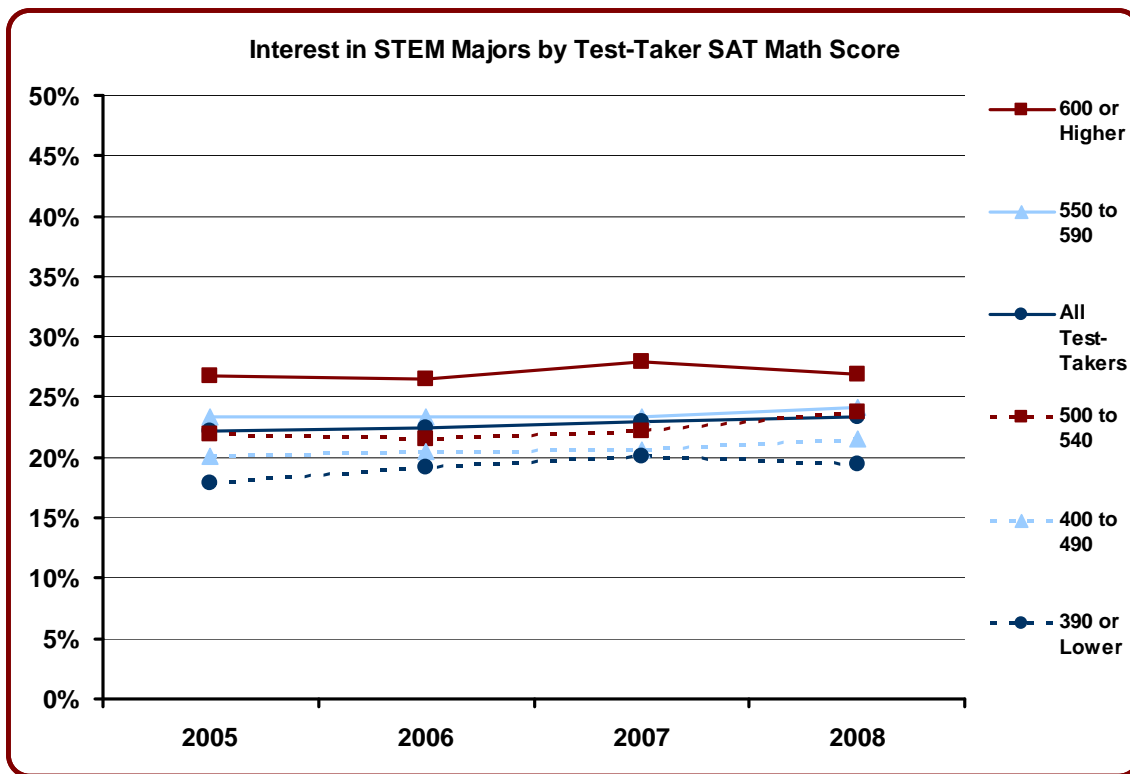
Racial differences exist in both total STEM interest and interest in specific majors.



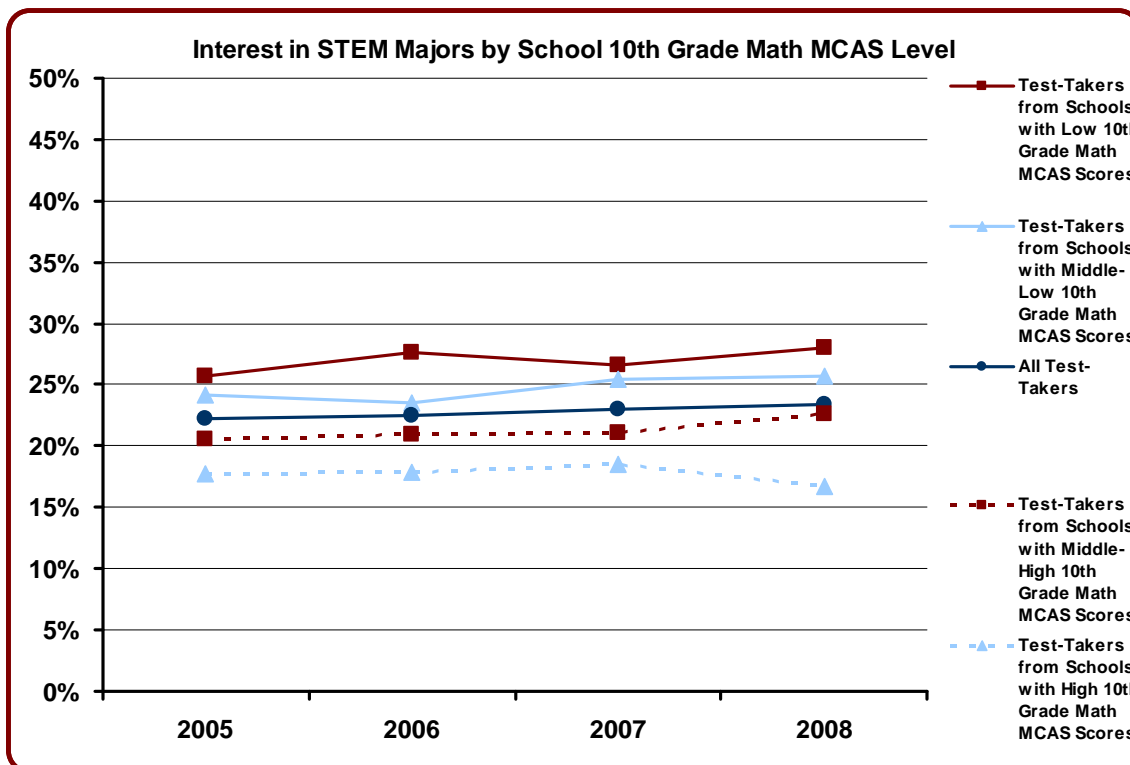
2008 Interest in Specific Majors by Race / Ethnicity



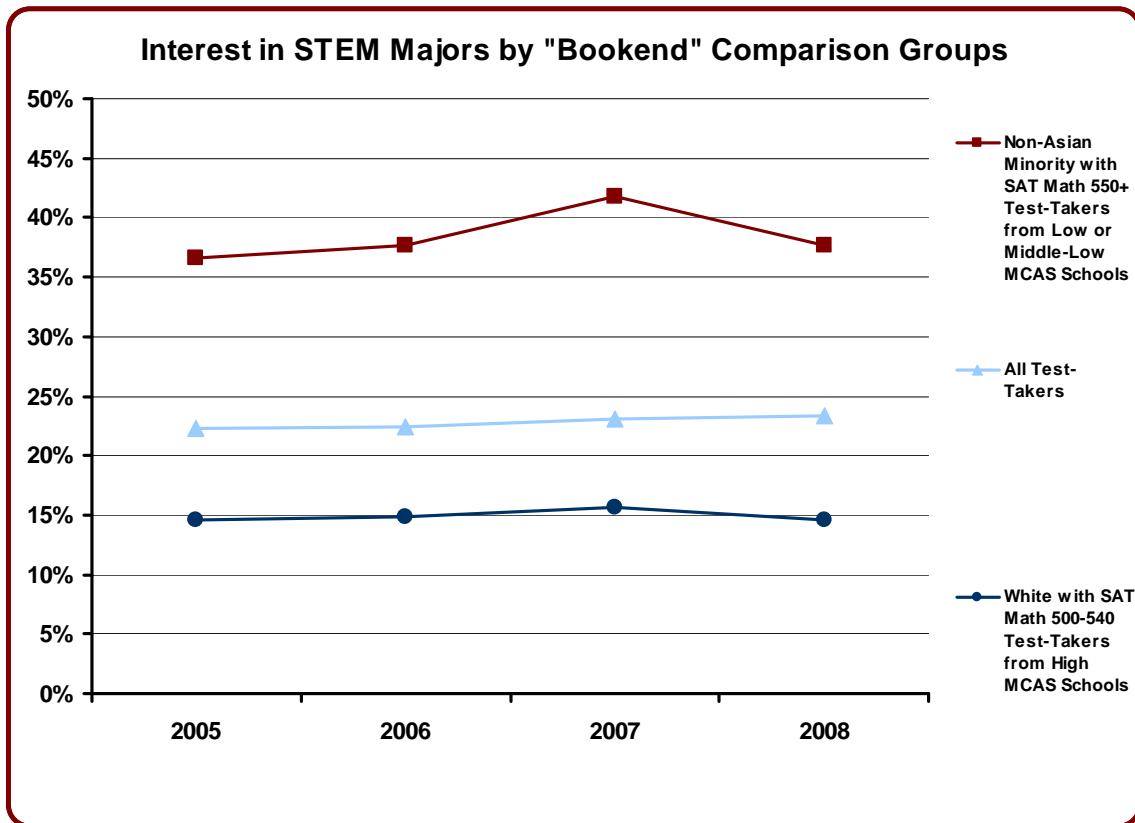
In general, test-takers with higher SAT math scores are more interested in STEM majors than test-takers with lower SAT math scores.



However, also in general, test-takers from higher performing MCAS schools are less interested in STEM majors than test-takers from lower performing MCAS schools.



When we create groups based on several test-taker characteristics even larger differences in STEM interest emerge. The following chart demonstrates differences in STEM total interest between two “bookend” groups.



Going Forward

STEM Interest Among Massachusetts Public School Students: Analysis of SAT Survey Responses is an ongoing project of the UMass Donahue Institute and Massachusetts Department of Higher Education. The project involves analyzing individual test-taker responses to the SAT registration questionnaire (see <http://dl.dropbox.com/u/3561120/2007-2008%20SAT%20Registration%20Questionnaire.pdf>) for all Massachusetts public school students who took the test in 1995, 1999, and 2005-2009, with a focus on their interest in, and preparation for, STEM college majors. The number of test-takers for whom we have data ranges from 45,000 – 50,000 each year.

For all of the years being analyzed, we know the high school attended by each test-taker. This enables us to analyze both individual-level and school-level factors that may be related to test-takers’ STEM interest and preparation. For selected years we have secondary data sets which do not have school information, but do have additional personal student information such as family income and parental education.

Project staff are currently working with an advisory group to prioritize research and set a publication timeline. The project plans to issue periodic briefs over the coming year that can help inform analysis of various STEM interest and preparation issues.

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