

Girls and Science and Math

- ◆ Girls and boys have similar math and science proficiency scores.¹¹ [See Figure 1]
- ◆ In a study of over 900 5th through 9th graders in Ohio, more boys and girls reported that their friends “think science is dumb” (32 percent and 31 percent, respectively) than reported that their friends think science is interesting (31 percent and 25 percent, respectively). However, 19 percent of girls and 18 percent of boys indicated that their friends enjoyed science-related activities outside of class.¹
- ◆ In general, girls and boys take advanced science courses for the same reasons. However, boys are more likely than girls to take science courses because they do well in them (84 percent vs. 77 percent, respectively) or because they are interested in them (83 percent vs. 74 percent, respectively). Girls are slightly more likely than boys to take these courses to meet a college or trade school admission requirement (85 percent vs. 82 percent) or to meet requirements for college (51 percent vs. 50 percent).¹⁰
- ◆ A 1999 study of nearly 400 Midwestern high school students found that while boys have a higher level of perceived ability than girls in *required* math classes, girls have a higher level of perceived ability than boys in *elective* math classes.⁷
- ◆ By high school graduation, more girls than boys have taken algebra, algebra II, geometry, biology and chemistry; more boys than girl shave taken calculus and physics.¹¹ [See Figure 2]
- ◆ Among students taking The College Board Advanced Placement (AP) tests in 1999, young women and men took math (49 percent vs. 51 percent, respectively) and chemistry (47 percent vs. 53 percent, respectively) in nearly equal numbers. In biology, young women outnumbered young men 58 percent to 42 percent. Young men outnumbered young women about three to one in computer science (73 percent vs. 27 percent, respectively) and almost two to one in physics (63 percent vs. 37 percent, respectively).⁵

Figure 1. Average NAEP proficiency scores among U.S. students, 1996 (11)

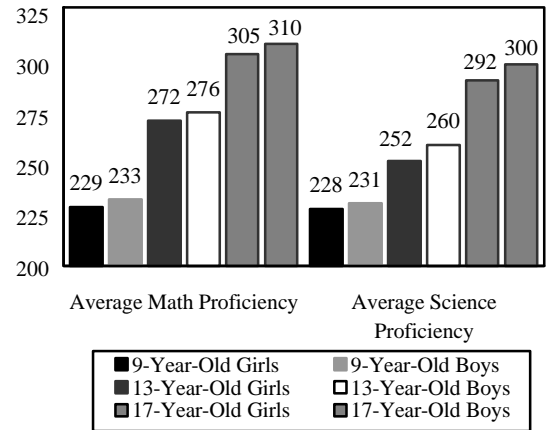
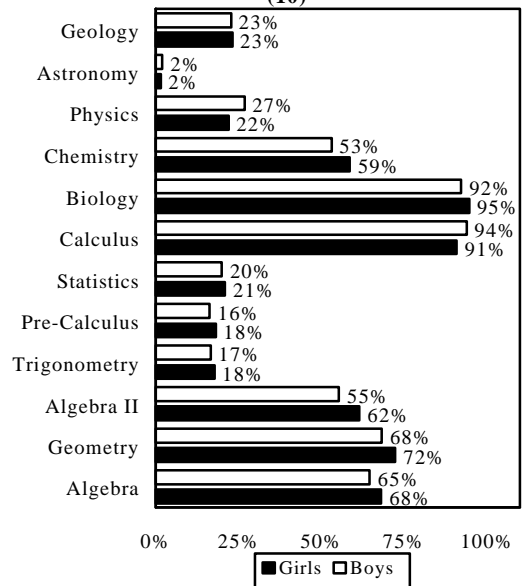


Figure 2 Percentage of high school graduates taking math and science courses in high school, by gender, 1994 (10)



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- ◆ A 1998 study found that while half of girls and boys (52 percent) have at least one adult at home who requires them to complete their homework, a much smaller percentage of girls and boys have an adult who watches science programs on television with them (22 percent and 27 percent, respectively) or who takes them to science or technology museums (8 percent and 14 percent, respectively).¹
- ◆ A national longitudinal study of over 3,000 8th graders found students with a lower socioeconomic status have low expectations for educational attainment.⁸

Careers in math and science will be good choices for tomorrow's women.

- ◆ According to the Bureau of Labor Statistics, career opportunities in engineering, natural sciences and mathematics are likely to increase by 28 percent between 1994 and 2005.² Careers in computer science and systems analysis, expected to grow more than any other occupation, will more than double by 2006.³
- ◆ Among women between the ages of 25 and 34, those working in the following fields experience the smallest gender-based wage gap: accounting, chemistry, computer and information sciences, engineering, mathematics and pharmacy.⁴
- ◆ While certain types of sciences currently attract more of one gender or another, young women and men choose to major in mathematics or a science in nearly equal numbers.⁶ [See Figure 3]
- ◆ Women of different races and/or ethnic groups currently differ in their level of representation among graduates with degrees in mathematics or science. For instance, women of Asian or Pacific Islander descent represent the same or greater percentage of these graduates as they do the total U.S. population (2 percent). In contrast, non-Hispanic white women are vastly underrepresented in many sciences (e.g. Engineering, Computer and Information Sciences) relative to the percentage of the total U.S. population this group represents (37 percent).¹¹ [See Figure 4]

Figure 3 Intended math and science majors among students taking the SAT by gender ratio, 1999 (6)

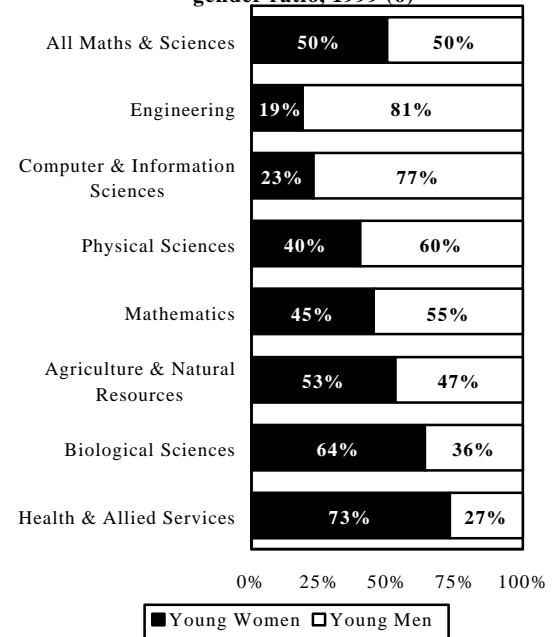
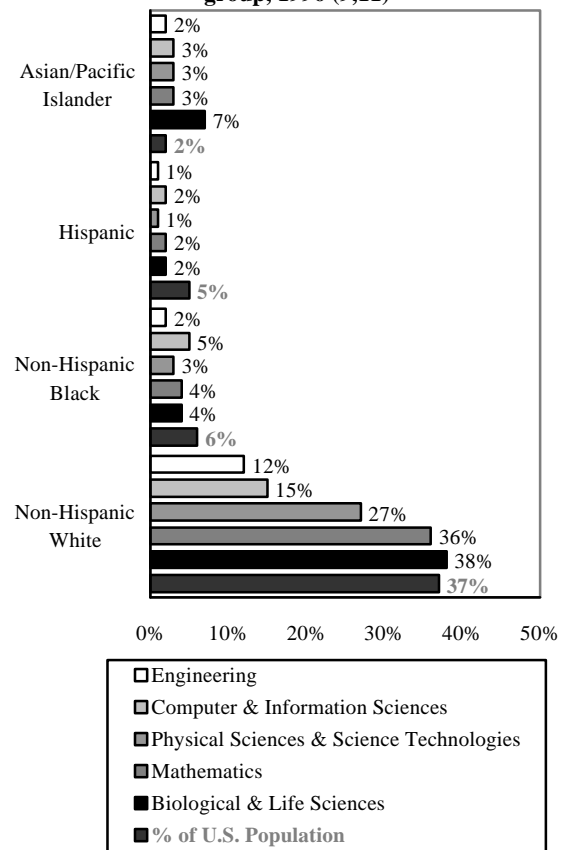


Figure 4 Percentage of women in U.S. population and among Bachelor's Degree recipients (by subject), by race/ethnic group, 1996 (9,11)



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References

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