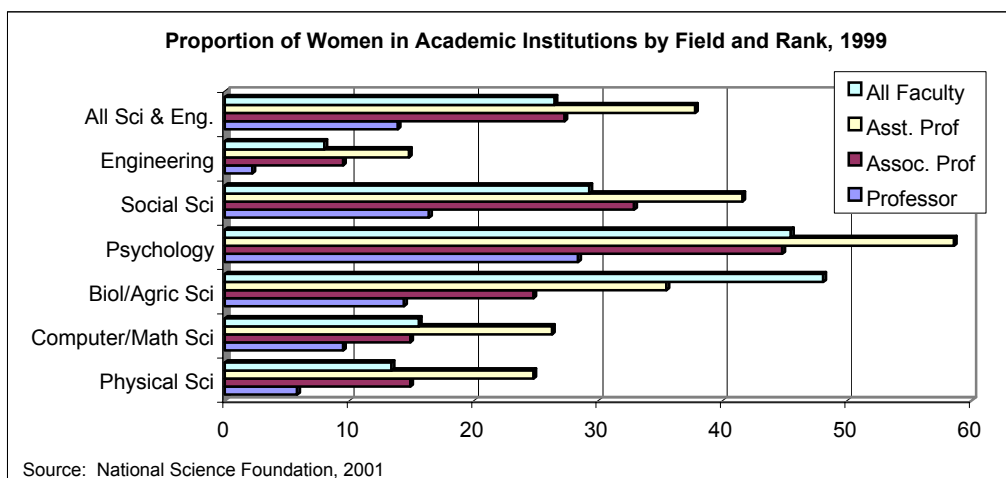


CHAPTER 5 – ACADEMIC WORKFORCE

Doctoral scientists and engineers are still more likely to be employed in academe, although the proportion varies greatly by field. Highlights from the academic section include:

- Women science and engineering faculty differ from their male colleagues in many respects. Women are less likely to be full

professors and are more likely than men to be assistant professors or instructors. Part of this difference in rank can be explained by age differences, but differences in rank remain even after taking age into account. Women S&E faculty are much more likely to be full professors in the field of psychology and least likely to have reached that rank in engineering.



- Women faculty also are less likely to be tenured or in tenure-track positions regardless of field. Overall, of the more than 124,080 tenured doctoral scientists and engineers employed in academe, 81.7% are men and 18.3% are women. Of the 37,390 who are in tenure-track positions, 66.3% are men and 33.7% are women. Again, these proportions vary greatly by field. The health sciences are the only area in which women represent a greater proportion of the tenured faculty – 54% vs. 46%.

- Racial/ethnic groups differ in academic employment characteristics such as rank and tenure. Minorities represented over 17% of full-time ranked doctoral science and engineering faculty in 1999: African Americans constituted 3.0%, Asians, 10.9%; Native Americans, 0.4%; and Hispanics, 3.1%. Although Asians are not underrepresented in science and engineering employment, like underrepresented minorities, they are less likely to be full professors. Among full-time ranked science and engineering faculty, 25% of Asians, 22% of African Americans and 25% of Hispanics, compared with 38% of whites

are full professors. Some of these differences can be explained by age, but not all.

- Looking at faculty in tenure or tenure-track positions by the length of time since they completed their doctorates, data show that gains have been made within the last 10 years, and that the future should definitely offer a more diversified distribution.

- Despite the progress made by minority groups in all higher education institutions, the majority of the faculty in 1999 were white, non-Hispanics – 81.6%. African Americans represented 5.2% of all faculty; Hispanics, 3.0%; Native Americans, 0.4%; Asians, 4.8%; and non-U.S. citizens, 0.9%.

- The number of recent PhD graduates entering postdoctoral positions has been growing. Over the past decade, the number has increased substantially – from nearly 28,000 in 1989 to 41,548 in 2000. Postdoctoral positions are most prevalent in the biosciences and health fields, and less prevalent in the math and computer sciences.