Women in Science and Engineering

Every 10 years the Bureau of the Census supplies a wealth of new information about the population of the U.S., and each time the information is collected and reported in greater detail than before. A recent report, Characteristics of Professional Workers, furnishes, among much else, a variety of statistical information concerning women in science and engineering.

Like all data of the most recent census, the information is as of 1960, or in some cases 1959, and was supplied by the individual or some other member of the household. These inevitable limitations should be kept in mind in an evaluation of the data. The statistics show that in 1960 there were 7714 women engineers (less than 1 percent of all engineers), 14,616 women natural scientists (about 10 percent of natural scientists), and 13,773 women social scientists (about 25 percent of that group). Their median annual earnings from professional work were approximately $5600 in engineering, $5000 in natural sciences, and $4600 in social sciences. The corresponding medians for men were some $2500 to $3000 higher.

In such comparisons men are taken as the standard, and it is not clear that this is the proper standard for all of the women involved. Well over half the women in all three professional groups were or had been married. At least partly as a result of the choices they must make in playing their dual role, women averaged a slightly shorter work week than men, worked fewer weeks during the year, and, except in the natural sciences, had less formal education. Each of these differences may well account for part of the difference in income. But only for education do the census data allow a partial analysis. It turns out that the difference in earnings is about as great for men and women of equivalent education as it is for the total groups.

It is also of interest to compare the 1960 figures with those for 1950. In 1950 women constituted 1.2 percent of all employed engineers; in 1960, 0.9 percent. In 1950 women made up almost 12 percent of the group of natural scientists; in 1960, only 10 percent. In the social sciences the proportion of women dropped from 32 percent in 1950 to 25 percent in 1960.

These decreases reversed the rapid increases of the 1940–50 decade and have run counter to the general increase in professionally employed women between 1950 and 1960. They have done so during a period in which university administrators, government offices, and professional associations have given a considerable amount of attention to efforts to improve opportunities for women. These efforts have not been limited to science and engineering, but those fields have been prominent. Why then should the relative participation of women in science and engineering have decreased? Census data do not answer this question, but their essentially complete coverage of the entire population indicates that a good deal remains to be done in the way of providing opportunities for the reeducation of scientifically and technically trained women who wish to return to their professions when family responsibilities lighten, and that we have not yet developed the employment practices and social policies that encourage the fullest use of capable women who want professional careers.

—DAEL WOLFE