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*Who Will Do Science: Educating the Next Generation* is a collection of related articles on an important topic—the supply of scientific personnel. Sociologists who are interested in the topic will find the new empirical evidence presented in the book refreshing and challenging, although some may find the book's treatment of the evidence too descriptive.

This edited volume has a strong policy focus. The coeditors, Willie Pearson Jr. and Alan Fechter, did a good job of integrating eight seemingly disparate chapters around two broad issues. The first issue is how to assess the possible shortfall of scientists and engineers in the future American work force. The second is how to recruit women and non-Asian minorities to pursue science and engineering careers. While the expansion of the talent pool to include women and non-Asian minorities has been proposed as a solution to projected future shortages in scientific personnel, the editors and the authors are careful to separate the two issues. They argue that the underrepresentation of non-Asian minorities and women in science is inequitable and requires policy intervention, even if there is no shortage in scientific personnel.

The first chapter, contributed by Betty M. Vetter, provides good background empirical information on Americans' interest, readiness, and attainment in science education. In the second chapter, Marsha Lakes Matyas reports major findings from an earlier AAAS study on institutional programs aimed at increasing the participation of women, minorities, and persons with physical disabilities in science and engineering. The third chapter, "Barriers to Women's Participation in Academic Science and Engineering," coauthored by Henry Etzkowitz, Carol Kemelgor, Michael Neuschatz, and Brian Uzzi, is based on the authors' in-depth interviews with a small group of female graduate students and faculty. Although this chapter closely resembles a standard sociological analysis, the study itself suffers from the lack of a comparable male sample, as its authors acknowledge. Chapter 4, by William Trent and John Hill, is a valuable study of the role of historically black colleges and universities in the production of African American scientists and engineers. In chapter 5, Terrence Russell presents some interesting demographic, educational, and labor force statistics on chemists with bachelor's degrees, drawing heavily from surveys conducted by the American Chemical Society. The sixth chapter, coauthored by Earl Smith and Joyce Tang, is an ambitious study of doctoral scientists and engineers between 1975 and 1990, based on two National Research Council data sources on doctorates. Chapter 7 is Alan Fechter's judicious, powerful, and justifiably critical evaluation of two widely circulated projection studies, one predicting a severe shortage of doctoral scientists and engineers, and the other predicting a shortage of academics in general. In the concluding chapter, Sheryl B. Leggon and Shirley M. Malcom draw policy implications from earlier chapters and emphasize the importance of policy intervention in order to increase the representation of women and non-Asian minorities in science and engineering.

*Who Will Do Science? Educating the Next Generation*, edited by **Willie Pearson Jr.** and **Alan Fechter**. Baltimore, MD: Johns Hopkins University Press, 1994. 169 pp. $31.95 cloth. ISBN: 0-8018-4857-1.

An unstated assumption throughout *Who Will Do Science?* is that science/engineering careers are desirable. However, other high status occupations can be just as desirable. Why should we privilege science? Should we care about "who will do law" and "who will do medicine"? Is it necessarily detrimental that women have increased their representation in law and medicine, perhaps at the expense of making faster inroads into science and engineering? Since we can only expect a book to address issues of a limited scope, these questions are obviously rhetorical. But they are not just rhetoric, for they could frame studies of scientific personnel by embedding such studies within a larger social context. After all, scientists and engineers

only comprise a small fraction of the labor force. If we wish to understand why certain groups are under- or over-represented in science, we need to know where such groups stand in the overall educational and occupational structure. Isolating scientific and engineering occupations from the whole occupational structure constrains the authors to limited explanations and limited tests of the explanations.

A major drawback of the book lies in its lack of systematic attempts to explain *why* women and non-Asian minorities are underrepresented in science and engineering. Although the pattern of under-representation is the same, available evidence suggests that women and non-Asian minorities are underrepresented for different reasons. For women, gender-role socialization and family responsibilities have been shown to be important. For non-Asian minorities, access to quality education, particularly at precollege levels, is critical. These ideas are proposed but not fully pursued by various contributors of the book. To complicate the matter, how should we account for the over-representation to Asian Americans, a group that still faces discrimination in the larger society? Is it possible that scientific and engineering occupations provide Asian Americans a better shelter against discrimination because there is relatively more reliance on credentials and performance (i.e., more universalism) in science and engineering?

Tough questions can only be answered with rich data. The limitations of *Who Will Do Science?* are closely related to the limited data that are used by the authors. While many large longitudinal data sets are now available, it is surprising that none of the chapters is based on longitudinal data. One of the databases used by Smith and Tang is longitudinal in design, but the authors did not utilize the longitudinal information in the data. Longitudinal data provide far richer information than cross-sectional data because they allow us to examine, at the individual's level, changes along the pipeline of becoming a scientist or engineer. For example, it takes longitudinal data to test Vetter's insight (p. 3) that we need to study not only exits from, but also returns to, the science and engineering pool. Using longitudinal data, I have found evidence in my own work suggesting that the second form of transitions (i.e., entries and re-entries) differentiates men and women much more than the first form of transitions (i.e., exits).

Readers who are interested in the question of "who will do science" are unlikely to find satisfactory answers in this book. In essence, the book describes "who has done science." This is no small accomplishment, but we need further work that aims to explain why women and non-Asian minorities are underrepresented in science and engineering.

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*Equity and Excellence in Higher Education: The Decline of a Liberal Educational Reform*, by **Alan R. Sadovnik**. New York: Peter Lang, 1994. 297 pp. $29.95 paper. ISBN: 0-8204-1593-6.

The 1960s saw the emergence of liberal educational reforms among institutions of higher education across the country. These were designed to ameliorate educational inequality and to ensure greater access for minority and white working-class youth whose entry into such institutions had been restricted by educational and economic disadvantages. To compensate for the relatively poor precollege preparation of many of these youths and to enhance the conditions for their successful achievement, many colleges and universities instituted remedial programs in basic subject areas (reading, writing, and mathematics), together with a range of other support services. In addition, some public institutions implemented an open-admissions policy designed to "democratize" the admissions process.

Such reforms were instituted amid considerable debate over their implications for traditional academic standards, the propriety of remediation at the postsecondary level, and the stigmatizing effects of compensatory programs and special admissions standards on minority, if not white working-class,