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Science and Affirmative Action

Science has become inextricably woven into the fabric of our government and society and is not independent of the complex and socially controlled institutional circumstances that contain it. Science is funded because it is vital to the achievement of national objectives. Another, and now a related national objective, is that there be a fair participation of women and minorities in science and engineering. This is a national purpose of high priority, and the present scarcity of women and practically nonexistent number of minority persons in science and engineering must be recognized as an unstable and unacceptable situation in the face of this objective.

Fair and just participation of all segments of our society is fundamental to our democracy. Civil rights legislation was passed to provide social justice. Affirmative action requirements and programs were adopted to implement the civil rights movement by assuring the employment of minority persons and women in reasonable and representative numbers.

There is, of course, a pyramidal structure to the employment system. To increase the number of women and minority persons in senior faculty and research positions, we need a great many minority and women junior scientists, and even more minority and women graduate students. We can predict with a high degree of accuracy that if present enrollment levels continue there will not be in 5 years or ever the numbers needed.

Access to graduate work in science is controlled by university departments, whose typical pattern of behavior is to maximize the quality of their work and, incidentally, their Roose-Anderson ratings. They are not actively responsive to other or more general requirements of our society, for these are regarded as secondary to—or even at odds with—the overriding concern about quality. But in the view of many people outside it, the system is one predominantly controlled by white male gatekeepers of graduate education and faculty and research employment, insensitive to goals held by the society that funds and supports their establishment. This outside view leads to threats to apply the coercive power of the federal purse and remove funding from institutions that do not meet federal guidelines in employment. The next step may be to require enrollment quotas in graduate programs so that the availability of qualified minority and female Ph.D.'s will be adequate. Scientists must be concerned about the quality of such degrees and what a quota system might do to quality.

It is not in the interest of science to be in conflict with society, nor is it in the interest of society to coerce scientists. Some acceptable means certainly must be found to increase minority and female participation in graduate science education in the near future and at the same time maintain opportunity for traditional students. The means and goals must be voluntarily set and implemented by federal support, not at the expense of the ongoing system. If the civil rights program is a high-priority federal concern—as it certainly must be—then the provision of increased access to and opportunities in science for minorities and women should not be at the cost of science and its quality.

Early identification of talented students, the development of high school programs and of undergraduate programs in science departments to prepare them, and, finally, full funding of graduate student support programs in cooperation with institutions committed to quality education are all reasonably well demonstrated ways to increase the supply of talented and well-educated people.

However the objective is achieved, in all fairness minority persons and women must, in a predictable time, be well represented in the pool of science graduates. We can hope that "affirmative action requirements" will ultimately be replaced by an educational system that functions naturally to fairly represent all segments of society. Such a system might really provide equal opportunity and may realistically overcome the major educational impediments that have existed and have resulted in the low participation of minority persons and women in graduate education.—F. P. THIEME, *Department of Anthropology, University of Colorado, Boulder 80302*