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## Faculty Recruitment

A recent National Science Foundation report\* projects an easier period of recruiting new members for science and engineering faculties. The students' view of the same projections is that new Ph.D.'s who want academic positions will probably not have as many offers to choose from as recent Ph.D.'s have had. Specifically, the NSF projections indicate that, in order to keep up with enrollment growth and avoid diminishing the percentage of faculty members holding the doctor's degree, colleges and universities needed to add 28,000 Ph.D.'s to their faculties in engineering and in the biological, physical, and social sciences in the 2 years 1965-66 and 1966-67. The 12,000 new Ph.D.'s in science and engineering available for faculty appointments in those years left a gap of 16,000 positions unfilled or filled by non-Ph.D.'s. In contrast, in the 8 years from 1967-68 through 1974-75, the colleges and universities will need 81,000 additional Ph.D.'s, and there will be 79,000 new ones seeking academic appointments.

Projections of this nature are always based upon certain assumptions. A major one in this case is that about half of all new Ph.D.'s in science and engineering will want academic appointments. Another is that existing enrollment trends will require doubling the number of teachers of science and engineering between 1964-65 and 1974-75. The additional numbers required for research (both full-time and part-time) were projected on the assumption that the 1965 ratio of faculty research time to teaching time would continue through 1975; NSF chose to make this assumption instead of making independent projections of how research budgets would increase. The third component of total requirements is the need for administrative staff. This need was projected to continue at the 1965 level of 12 percent of teaching and research needs.

One of the uses of projections is to focus attention on the feasibility or desirability of making the underlying assumptions come true. An interesting example is the research projection. Translated into dollar terms, it means that funds for academic research (exclusive of contract research centers) will have to increase from \$1.9 billion in 1965 to \$4.9 billion in 1975 if the ratio of research time to teaching time is as high in 1975 as it was in 1965. If the actual increase is less rapid, the demand for new Ph.D.'s is likely to fall below the projected figures.

Various factors might make the projections inaccurate. For example, Selective Service policies concerning induction of graduate students after the summer of 1968 are still unknown. They could diminish both the need for additional graduate faculty and the number of new Ph.D.'s conferred.

After 1975, the rate of increase of undergraduate enrollment will slow down, and so will the need for faculty expansion. These trends, which are supported by studies of the Department of Labor and the Commission on Human Resources and Advanced Education, make it appear that after 1975 the number of new Ph.D.'s available for faculty appointment is likely to exceed the number required by major employers. The sellers' market of recent years will not, however, suddenly become a buyers' market, for junior colleges and small undergraduate institutions should have an opportunity to improve the quality of their faculties, and nonacademic needs are expanding. New Ph.D.'s in science and engineering are too valuable to become a surplus commodity, but the federal and other arrangements that have increased graduate enrollment now offer universities hope for a little easier recruiting than they have experienced in recent years.—DAEL WOLFE

\* "Science and Engineering Staff in Universities and Colleges," *National Science Foundation Publication NSF 67-11* (Government Printing Office, Washington, D.C., 1967), 30¢.