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The Academic Tenure System and Openings for Science and Engineering Faculty

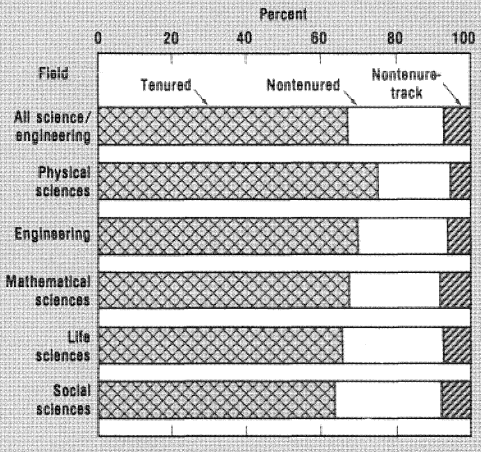
To a large extent, the operation of academic tenure systems determines how many faculty can be hired each year. Between the 1978/79 and 1979/80 academic years, there were science and engineering faculty openings equal to about one-tenth of the total number of positions in the earlier year. Failure to earn tenure and expiration of non-tenure-track appointments each led to the separation of about 2 percent of full-time science and engineering faculty. Compared to this 4 percent tenure-related turnover, between 5 percent and 7 percent of faculty positions became vacant as a result of retirements, voluntary separations other than retirement, deaths, and growth in the total number of positions.

At the beginning of the 1978/79 school year, about two-thirds of the 123,000 full-time science and engineering faculty at universities and four-year colleges held tenure, one-fourth were not tenured but in tenure-track positions, and about one in fourteen were in non-tenure-track positions. In that year, approximately 5 percent of university and four-year college science and engineering faculty were considered for tenure, of whom about three-fifths were approved. By specific field, tenure-approval proportions varied from 70 percent in engineering to 53 percent in the social sciences. About one in five of the science and engineering faculty considered for tenure in 1978/79 was denied this standing, but was eligible for reconsideration in the future. Faculty at public universities received the highest proportion of deferred tenure decisions—29 percent.

Some faculty appointments are terminated prior to tenure review and other faculty resign because of anticipated failure to receive tenure. Together such departures accounted for less than 1 percent of all science and engineering full-time faculty in the 1978/79 academic year.

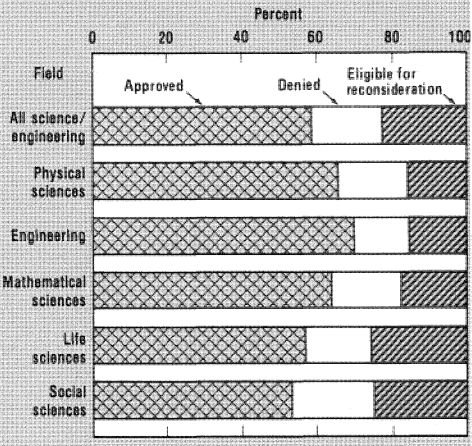
About 7 percent of university and college science and engineering faculty have contracts of fixed length and thereby are ineligible for tenure. Such staff affords institutions flexibility in meeting short-term needs without adding to the ranks of tenured faculty. In each field, public institutions had larger concentrations of faculty outside the tenure system than did private institutions. Of all types of academic institutions, public four-year colleges had the highest percentage of science and engineering faculty not in the tenure system. For all institutions combined, the average expected length of employment for non-tenure-track faculty was about three years. The length of employment was slightly greater at public than at private institutions and was longest (almost four years) at public universities.

Full-time science/engineering faculty
All institutions, 1978-79



SOURCE: American Council on Education

Tenure decision rates,
science/engineering faculty
All institutions, 1978-79



SOURCE: American Council on Education

Expected average length of employment for nontenure-track S/E faculty by institution level and control: 1978-79

Institutional level	Years by institutional control	
	Public	Private
All institutions	3.2	2.9
University	3.7	2.8
4-year college	3.1	2.9

Source: American Council on Education

Sources of faculty openings for recent doctorates between 1978-79 and 1979-80

	Approximate annual percentage of total 1978-79 full-time S/E faculty
Total	9-11
Expiration of contracts of nontenure-track faculty	2
Denial of tenure to nontenured faculty after tenure review	1
Involuntary separation of nontenured faculty prior to tenure review	1
Other (growth in number of faculty, retirements, voluntary separations other than retirements, and deaths)	5-7

Sources: American Council on Education and National Science Foundation