

### Promotion Rates for First-time Assistant and Associate Professors Appointed from 1967 to 1997

Over the years, promotion through the ranks has been viewed as an important component of faculty vitality, touching on the ability of medical schools to attract, nurture, and retain individuals who will contribute to the teaching, research, patient care, and service missions of academic medicine. To provide benchmark information against which medical schools can compare their own promotion data, this *Analysis in Brief* examines the 10-year promotion outcomes of full-time faculty who were first-time assistant professors or first-time associate professors at any time from 1967 to 1997. The changing landscape of academic medicine in recent decades, especially changes in the demographics of faculty, the meaning of tenure, faculty productivity, the importance of work-life balance, and the growth of Ph.D. faculty in clinical departments, provides an important context for our study.

#### Methodology

Data for this analysis come from the AAMC's Faculty Roster, the only national database on the employment, training, and demographic backgrounds of individual U.S. medical school faculty. We tracked every first-time assistant professor or first-time associate professor appointed during the academic years 1967 to 1997 for 10 years.<sup>1</sup> For these faculty, we determined the percentage of individuals from a given year promoted to the next rank and the average time to promotion. We report the total time to promotion, regardless of whether individuals had breaks in their appointment histories. We ended with 1997 (i.e., July 1, 1997, through June 30, 1998) because that is the last year 10-year outcomes are available.

The following table and figures present department, degree, rank,

**Table 1: 10-Year Promotion Statistics for Full-time U.S. Medical School Faculty First-time Assistant Professors or First-time Associate Professors Entering Faculty from 1967 through 1996**

Study Group	First-time Assistant Professors						First-time Associate Professors					
	Average 10-Year Promotion Rates			Average No. of Years to Promotion for Promoted Faculty			Average 10-Year Promotion Rates			Average No. of Years to Promotion for Promoted Faculty		
	1967-76 Cohorts	1977-86 Cohorts	1987-96 Cohorts	1967-76 Cohorts	1977-86 Cohorts	1987-96 Cohorts	1967-76 Cohorts	1977-86 Cohorts	1987-96 Cohorts	1967-76 Cohorts	1977-86 Cohorts	1987-96 Cohorts
All Faculty <sup>2</sup>	43.5	40.4	32.8	5.2	5.8	6.2	41.7	42.6	38.6	5.7	5.9	6.1
Clinical Departments												
M.D. or Equivalent	44.7	39.4	31.2	5.1	5.8	6.3	44.1	43.1	37.8	5.6	5.9	6.2
Ph.D. or Equivalent	37.9	37.6	30.8	5.6	5.8	6.3	28.9	35.3	33.0	6.0	6.2	6.2
M.D. and Ph.D. or Equivalent	55.0	52.1	48.1	4.9	5.6	6.0	51.2	54.0	49.8	5.6	5.7	5.9
Basic Sciences												
M.D. or Equivalent	39.0	37.0	33.2	5.1	5.9	6.2	46.9	43.4	40.1	6.1	5.9	6.0
Ph.D. or Equivalent	54.5	53.9	44.2	5.5	5.8	6.2	42.3	47.1	45.8	5.5	5.6	5.4
M.D. and Ph.D. or Equivalent	44.7	42.0	50.0	5.4	5.5	6.2	44.6	49.7	46.5	5.5	5.6	6.4
Men	45.0	42.6	35.6	5.1	5.7	6.2	42.9	44.2	39.8	5.7	5.9	6.1
Women	36.0	32.1	26.4	5.7	6.2	6.5	31.0	32.6	34.1	6.0	6.2	6.4
White (Not Hispanic/Latino)	46.3	42.6	34.9	5.2	5.8	6.2	42.7	43.9	40.2	5.7	5.9	6.1
Non-white <sup>3</sup>	32.6	30.9	25.2	5.4	5.8	6.3	35.0	36.0	31.1	5.9	6.0	6.2
Tenure Track <sup>4</sup>	71.8	51.6	46.8	5.0	5.7	6.2	52.2	51.2	48.6	5.6	5.9	6.0
Non-tenure Track	46.4	33.8	28.0	5.4	5.9	6.3	34.5	32.3	29.2	5.5	5.9	6.3

and demographic breakouts similar to those in the June 2008 *Analysis in Brief* on long-term faculty retention and attrition. In addition, we provide a breakout of tenure track in recognition of the increasing proportion of faculty in non-tenure-track lines. Over the study period, as data in the supplement to this analysis shows, there had been more than a four-fold increase in the number of first-time professors and more than a three-fold increase in the number of first-time associate professors. Moreover, women increased from 18 percent to 37 percent of first-time assistant professors and from 8 percent to 26 percent of first-time associate professors. For non-white faculty, the corresponding increase was from 20 percent to 28 percent of first-time assistant professors and from 14 percent to 18 percent of associate professors.

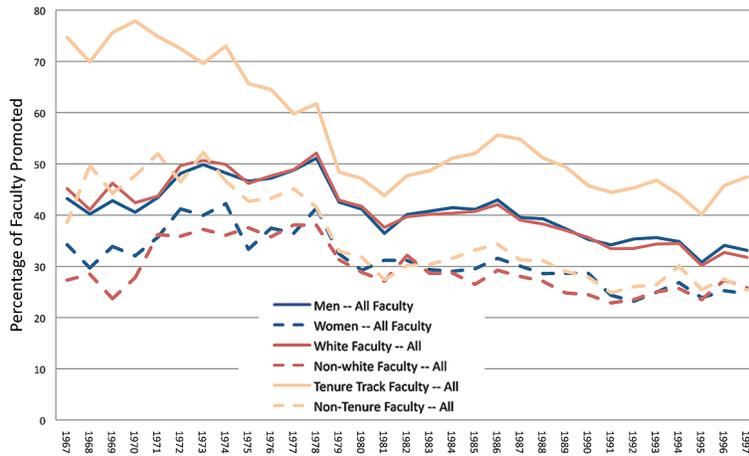
#### Results

**Average 10-year promotion rates.** Table 1 shows the average 10-year promotion rates and time to promotion for selected study

groups. Across all first-time assistant professors, the average 10-year promotion rates declined from 43.5 percent for the 1967 through 1976 cohorts, to 40.4 percent for the 1977 through 1986 cohorts, and to 32.8 percent for the 1987 through 1996 cohorts. Additionally, the average time to promotion for these respective groups of cohorts lengthened (i.e., 5.2 years, 5.8 years, and 6.2 years). For all first-time associate professors, the average promotion rate to full professor varied across the groups of cohorts (i.e., 41.7 percent for 1967-1976, 42.6 percent for 1977-1986, and 38.6 percent for 1987-1996). The corresponding average time to promotion increased, however (i.e., 5.7 years, 5.9 years, and 6.1 years).

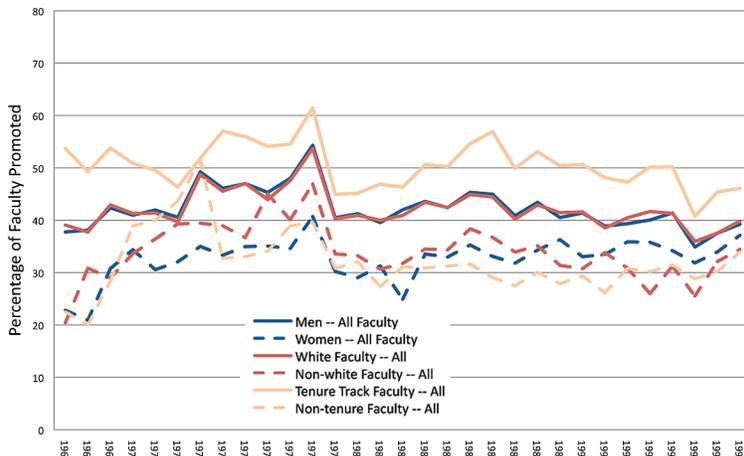
**Trends in promotion rates.** Figure 1 tracks promotion rates across each of the 31 cohorts of first-time assistant professors from 1967 through 1997. Tenure-track faculty had consistently higher promotion rates than did others. In each cohort, men had higher promotion rates than did women, while white faculty had higher

**Figure 1: 10-Year Promotion Rates\* for First-time Assistant Professor to Associate Professors from Academic Years 1967 through 1997**



\*Every first-time assistant professor appointed in each of the academic years 1967 to 1997 was tracked for 10 years to determine promotion rates.

**Figure 2: 10-Year Promotion Rates\* for First-time Associate Professor to Full Professors from Academic Years 1967 through 1997**



\*Every first-time associate professor appointed in each of the academic years 1967 to 1997 was tracked for 10 years to determine promotion rates.

promotion rates than did non-white faculty.<sup>2</sup>

Figure 2 shows similar patterns for first-time associate professors. Regardless of cohort, tenure-track faculty had higher promotion rates than did all other study groups. Moreover, men had higher promotion rates than did women faculty, and white faculty had higher promotion rates than did non-white faculty.

### Discussion

This *Analysis in Brief* documents generally declining promotion rates and increasing average times to promotion for medical school faculty. What constitutes reasonable promotion rates and average times to promotion may depend on the context of a given medical school and department. Even so, this study may touch on important policy issues. For instance, the findings

seem consistent with suggestions that women are more likely than men to face a variety of challenges, including a lack of mentoring opportunities, experiencing a “glass ceiling,” and work-life balance issues—among first-time assistant professors, women were less likely to be promoted than were men, and the time to promotion for promoted women was longer than it was for promoted men. In addition, the promotion rates and times to promotion for women may reflect hypotheses that men are more inclined to promote men than women. Concerns about the adequacy of faculty diversity efforts may tie into the finding that non-white faculty tended to have lower promotion rates and higher average times to promotion than did white faculty. Nevertheless, the growth in the proportion of first-time faculty who were women faculty or non-white faculty suggests positive outcomes with regards to recruitment efforts aimed at increasing the pipeline for future promotions. Yet, the steep decline in promotion rates for first-time assistant professors compared with first-time associate professors may suggest a need to be sensitive to intergenerational faculty concerns. Speculation about the declining significance of tenure tracks may be echoed in the finding that tenure-track faculty saw their promotion rates fall and their average times to promotion increase.<sup>3</sup> The finding of different promotion outcomes between basic sciences and clinical departments for Ph.D. faculty could have implications for individuals involved in the mentoring and training of Ph.D. students.

#### Authors:

Christine Qi Liu, Ph.D.  
Senior Research Analyst  
cliu@aamc.org, 202-862-6014

Hershel Alexander, Ph.D.  
Director, Medical School and Faculty Studies  
halAlexander@aamc.org, 202-828-0649

<sup>1</sup> We chose 10-year outcomes in recognition that some medical schools extend the tenure-track period beyond the traditional 7-year period. For 15-year outcomes and for cohort sizes, see the supplemental data.

<sup>2</sup> The non-white faculty category includes individuals with Hispanic/Latino ethnicity as well as Alaska natives, American Indians, Asians, blacks, native Hawaiians, and other Pacific Islanders.

<sup>3</sup> The tenure-track and non-tenure-track faculty categories include individuals with identifiable tenure-track information. A considerable proportion of track information is missing for the cohorts from 1967 to 1976, which we suspect influences the magnitude--but not the relationship--of tenure-track faculty trends to non-tenure-track faculty trends.

#### Association of American Medical Colleges

2450 N Street, N.W.  
Washington, D.C. 20037-1127  
analysis@aamc.org www.aamc.org/  
data/aib