Analysis IN BRIEF

AAMC
Tomorrow's Doctors, Tomorrow's Cures®

Volume 15, Number 2
February 2015

Association of American Medical Colleges

The Underrepresentation of Women in Leadership Positions at U.S. Medical Schools

Academic medicine has made substantial progress toward gender parity among faculty in medical schools and teaching hospitals over the past several decades: 38 percent of all full-time faculty were women as of December 31, 2013, up from 25 percent two decades earlier.[a(1)] Yet women remain underrepresented in leadership positions in academic medicine, particularly at the highest rungs. Disparity in leadership representation, which is incompletely understood, is a national issue because it has implications for talent entering the healthcare workforce and our ability to strengthen the broader health system.[a(2)]

This Analysis in Brief (AIB) presents a snapshot of the percentage of women in leadership positions in U.S. medical schools. Gender differences in faculty rank progression and promotion rates are examined, as this progression represents a typical career path to leadership positions. While research suggests that women faculty have greater representation in certain specialties,[a(3)] no analysis examines whether the representation of women in departmental leadership positions is associated with their representation among faculty by department. This information will add a new dimension to the collective understanding of gender parity in academic medicine today.

Methodology

Descriptive statistics come from responses to the 2014 Web-based Women in Medicine and Science (WIMS) Benchmarking survey, which was distributed to the designated representative of the Group on Women in Medicine and Science at each U.S. medical schools fully accredited by the Liaison Committee on Medical Education. Of the 129 medical schools surveyed, 117 completed the survey. The AAMC Faculty Roster was used to backfill information where responses were missing on the WIMS survey (i.e., for the 12 schools that did not respond to the survey). The 2013–14 data are compared with data collected in corresponding surveys in prior years.

Promotion rates were calculated using only the Faculty Roster data.[b] Ten-year promotion rates were calculated for first-time assistant and first-time associate professor appointed in the academic year 2003–04. This new faculty cohort was observed because they are the most recent cohort for which 10-year outcomes are available. The percentages of individuals promoted to the next rank were calculated for full-time faculty by gender and department, regardless of whether individuals had breaks in their appointment histories, mirroring the methodology used in similar promotion rate analysis.[a(4)]

Table 1: Percentage of Women in Leadership Positions Held by Women in U.S. Medical Schools, 2003–04 and 2013–14

Leadership position:	2003–04 (%)	2013–14 (%)
Division Head	16	24
Vice Department Chair	19	24
Department Chair	10	15
Assistant Dean	47	46
Associate Dean	30	39
Sr. Associate Dean	24	33
Medical School Dean	10	16

*Table reprinted from "The State of Women in Academic Medicine" (full reference at end)

Results

Overall, the percentage of women in positions of leadership has increased over the past 10 years. The proportion of women in the lowest ranking leadership positions is relatively high, though, while the proportion of women in the highest ranking leadership positions is relatively low (Table 1). For example in 2013-14, women comprised 46 percent of all assistant deans, 39 percent of associate deans, and 33 percent of senior associate deans, but only 16 percent of medical school deans.

This pattern of reduced representation of women by rank is consistent across most departments. Regardless of the proportion of women faculty in the department, the proportion of women in department chair positions is low (Table 2). For example, obstetrics & gynecology departments have larger percentages of women (57 percent of all full-time faculty ranks), but the percentage of women department chairs is only 22 percent.[c]

Finally, results show promotion rates differ between men and women. For example, for all first-time assistant professors in the 2003-04 cohort, the 10-year promotion rate for men was 37 percent versus 31 percent for women. In some departments the difference is even more pronounced (see Supplemental Table 1 for promotion rates by department).Supplemental Table 1 shows that some departments have greater promotion outcome rates for women at the assistant professor level, while others have greater rates at the associate professor level.

Discussion

While women comprise more than a third of U.S. medical school full-time faculty, continued gender disparities in leadership positions are striking. Importantly, these data do show that the percentage of women in leadership positions has

a. For a full list of references, see Supplemental Information.

c. The AAMC Faculty Roster is a census database with employment, training, and demographic data on all full-time U.S. medical school faculty.

increased over the past decade. They also, however, illustrate the precipitous decline in the proportion of women in the highest ranking leadership positions relative to the proportion in the lowest ranking leadership positions. These data extend previous research that found persistent discrepancies in promotion rates—a proxy for development of the "pool" for leadership positions (i.e., faculty rank progression can affect eligibility for leadership positions). Contemporary gender disparities in faculty leadership are not merely a legacy of distal disparities in the leadership pipeline; rather, recent gender disparities in promotion rates play a contributing role in the current women's leadership gap. While this study did not look at why gaps exist, institutional barriers and certain aspects of institutional culture—including lack of mentoring and unconscious bias[a(5-6)]—may keep women at mid-level positions, both in rank and administrative roles, for longer than their men counterparts.[a(7)] The extant literature also suggests that women also may experience a number of gender-related individual challenges that impact their promotion and path to leadership, including gender differences in approaches to career and life goals.[a(6)]

As medical schools strive to attract talented faculty, they should consider addressing barriers to the advancement and development of women for all leadership roles, including equal access to opportunities, support for work-life integration, sound promotion policies, and mitigation of unconscious gender bias (e.g., by including women as job candidates and members of search committees). Additionally, departments that are more successful at achieving greater promotion rates for women can share practices for advancing careers of women so that interventions may be emulated. Research across industries has shown that increasing the numbers of women in leadership positions has significant organizational and productivity benefits.[a(8)] The results of this AIB can help institutions understand where women are getting caught in the academic medicine leadership pipeline as they strive to increase and intensify interventional strategies to achieve gender parity in academic medicine in the 21st century.

Table 2: Percentage of Full-time Faculty and Department Chairs by Department, Rank, and Gender, 2014

	Total Faculty % Women	Assistant Professor % Women	Associate Professor % Women	Full Professor % Women	Department Chairs % Women
BASIC SCIENCE DEPARTMENTS					
Anatomy	32	37	32	25	21
Biochemistry	28	34	30	20	15
Microbiology	32	41	31	25	18
Pathology (Basic Science)	42	53	39	29	21
Pharmacology	29	35	28	21	17
Physiology	27	37	27	18	9
Other Basic Sciences	36	42	37	26	20
SUBTOTAL	**33**	**41**	**33**	**23**	**18**
CLINICAL DEPARTMENTS					
Anesthesiology	36	38	27	19	13
Dermatology	49	58	43	31	19
Emergency Medicine	33	36	25	15	10
Family Practice	48	52	43	28	19
Internal Medicine	37	43	33	19	12
Neurology	36	44	33	18	11
Obstetrics & Gynecology	57	67	46	28	22
Ophthalmology	34	43	32	18	8
Orthopedic Surgery	16	19	13	7	0
Otolaryngology	31	32	27	12	3
Pathology (Clinical)	38	48	39	24	14
Pediatrics	53	60	48	31	20
Physical Medicine & Rehabilitation	46	51	43	26	16
Psychiatry	47	54	42	27	13
Public Health & Preventive Medicine	52	52	56	41	27
Radiology	28	31	26	18	16
Surgery	22	27	18	10	1
Other Clinical Sciences	37	41	33	25	24
SUBTOTAL	**39**	**45**	**34**	**21**	**12**
TOTAL	**38**	**44**	**34**	**21**	**14**

Source: AAMC Faculty Roster, May 2014

Authors
Diana Lautenberger, M.A.T., Director, Women in Medicine and Science, dlautenberger@aamc.org

Claudia Raezer, Program Specialist, Women in Medicine and Science, craezer@aamc.org

Sarah A. Bunton, Ph.D., Research Director, Organization and Management Studies, sbunton@aamc.org

The authors acknowledge and thank Christine Qi Liu, Ph.D., for her generous assistance calculating promotion rates presented, and Rae Anne Sloane for her data review and thoughtful feedback.

This AIB highlights and builds on "The State of Women in Academic Medicine: The Pipeline and Pathways to Leadership"—a 2014 AAMC publication available at: https://www.aamc.org/members/gwims/statistics/.

Association of American Medical Colleges
655 K St., NW, Suite 100
Washington, D.C. 20001-2399
analysis@aamc.org
www.aamc.org/data/aib

c. Institutions can compare their own proportions of women faculty in ranks and leadership positions using WIMS Benchmarking Tables at: https://www.aamc.org/members/gwims/statistics/