

Eliminating Institutional Barriers to Career Advancement for Diverse Faculty in Academic Surgery

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There is critical need to address achievement barriers in Academic Medicine. Although opportunities for professional development of women and under-represented minority physician scientists are growing, academic promotion rates remain historically low. Moreover, underrepresented groups are not likely to advance to decanal and leadership positions. To eliminate institutional barriers to achievement for diverse faculty, strategies to strengthen environment, recruitment, professional development, and leadership were implemented. This multifaceted approach is adaptable to Academic Surgery universally and we wish to share early progress.

Keywords: academic surgery, barriers, faculty development, equity, gender gap, inequity, medicine, minority surgeons, organizational change, women surgeons

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Strong evidence demonstrates the benefits of organizational diversity,¹ though marked sex and racial disparities remain in Academic Surgery. Although women and men enter medicine at equal rates, women are less likely to pursue surgical disciplines, advance in rank, and achieve leadership roles.^{2,3} Similarly, under-represented minority faculty are less likely to be promoted or advance to leadership positions in US medical schools.⁴ There is, at present, an alarming absence of black men in medicine at all levels.⁵ Given these gaps, comprehensive strategies to ensure equal opportunities for career achievement is a critical priority.

GENDER AND RACIAL GAPS IN ACADEMIC SURGERY

Promotion and attrition rates differ by sex and race. Women are less likely than men to reach tenured positions, and only 9.8% of full professors are women.⁶ Women are less likely to achieve decanal and executive leadership positions and are more likely to have roles related to service, rather than clinical, research, or leadership positions.^{3,7,8} For under-represented minority faculty, promotion gaps lag even farther, and faculty are promoted to the associate professor level 3 to 7 years later than white faculty.⁹ Given this, intentional strategies, rather than passive approaches to overcome barriers, are necessary to achieve equity in academic surgery.

DEPARTMENTAL ASSESSMENT

We undertook a cultural assessment of the Department of Surgery to identify barriers to advancement among faculty and

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trainees. A 67-item instrument was created that captured domains pertaining to satisfaction, autonomy, professional relationships, and inclusion (51% response rate). Women were more reluctant to voice career concerns and less likely to perceive policies and procedures as fair and equitable. Women were significantly more likely to perceive discrimination based on sex.

We also longitudinally examined departmental promotional metrics (Fig. 1A). Women were significantly less likely to advance from assistant professor to associate professor. Women faculty reported lower professional satisfaction compared with men and were less likely to hold tenure-track or tenured positions.³ Male faculty were more likely to be referred for tenure track positions by department leaders and were more likely to choose this path due to career advancement potential.

The demographic assessment over the 10-year period ending in 2015 demonstrated no significant progress in the proportion of women and significant absence of under-represented minority faculty (Fig. 1B and C). These findings made it clear that a systematic and sustainable effort was required if the Department of Surgery were to become more equitable and inclusive.

DIVERSE, EQUITABLE, AND INCLUSIVE FACULTY DEVELOPMENT

To intentionally build an equitable and inclusive environment, targeted faculty development programs were integrated within the organizational structure of the Department of Surgery. New policies and procedures were implemented to ensure that each faculty member has a clear and equal opportunity for career advancement in an open and inclusive environment (termed The Michigan Promise; Fig. 1D). These efforts have been established as a critical component of the departmental mission. The Michigan Promise is centered around 6 domains: environment, achievement, recruitment, leadership development, innovation, and outreach. Each element was developed by teams of volunteer faculty within the Department of Surgery. The Department Chair and Executive Committee (includes section chiefs) were fully engaged in strategic planning and have made a 10-year financial commitment to long-term creativity and program growth.

ENVIRONMENT

Focused efforts to strengthen the environment in the Department of Surgery were initiated to develop cultural competence, improve implicit bias awareness, and raise consciousness. Because implicit biases can perpetuate racial and sex disparities in impactful areas such as hiring, leadership opportunities, and policy development, structured programming was initiated to build cultural awareness and to decrease the influences of implicit bias. This includes broad implicit bias awareness training and initiatives to minimize bias in the workplace.

Efforts at consciousness raising have been reinforced by a series of educational interventions. The department sponsored 3 national conferences: *Embracing Gender Diversity in Leadership*

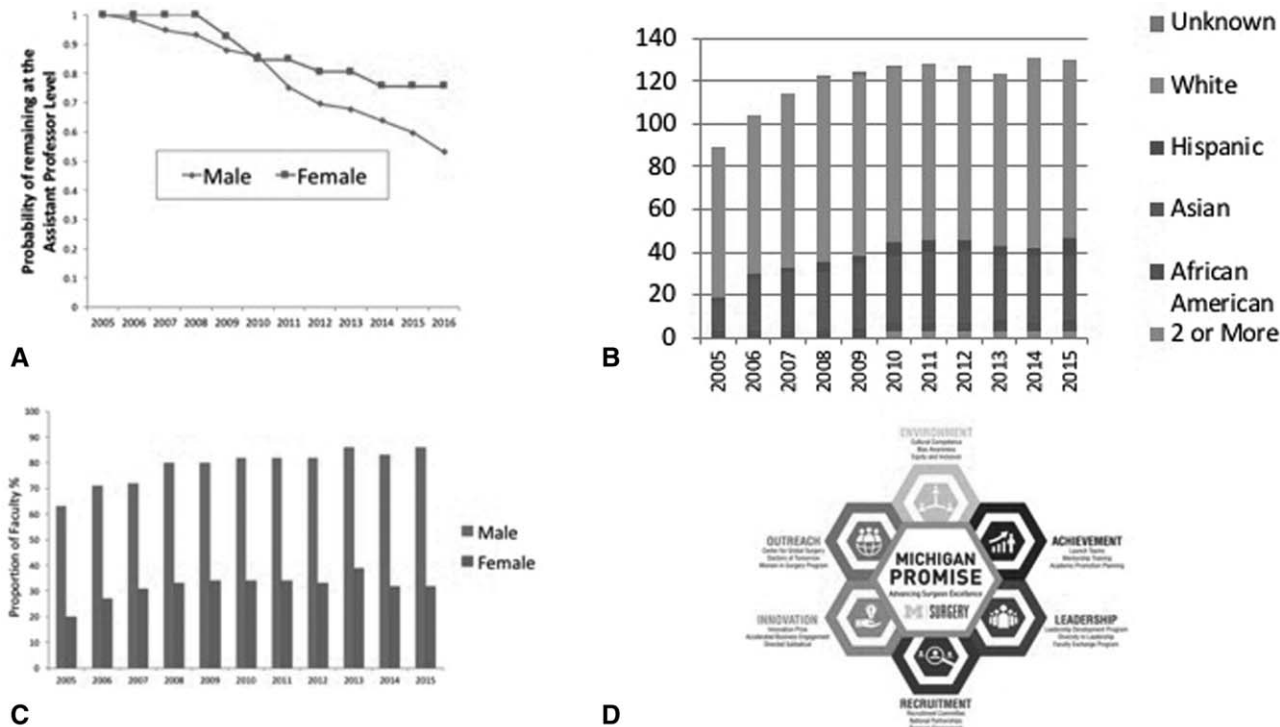


FIGURE 1. (A) Women are more likely to remain at the Assistant Professor level. (B) The proportion of women and (C) underrepresented minority faculty did not increase with time. (D) The Michigan Promise is a Department of Surgery commitment to achieve equity and eliminate institutional barriers by strengthening: environment, achievement, recruitment, leadership development, innovation, and global outreach.

(June, 2017); *Women in Surgery Leadership Development Conferences: Becoming Who You Want to Be* (October, 2017); and *Leading From Your Best Self* (November, 2018). Topics included the power of implicit bias in the work place, biology of sex differences, creating a culture of amplifying and speaking up, #heforshe sessions, mentorship, and sponsorship. The national conferences have attracted more than 170 attendees and have generated a large in-meeting following on social media.

ACHIEVEMENT

Strategies to accelerate academic development were implemented to address barriers and challenges which may be unique to underrepresented groups. Differences in mentoring resources at the outset of a career lead to persistent gaps. Successful mentorship programs lead to faculty who are academically productive, promoted earlier, and more likely to stay at their institution. In a survey of Surgery Departments across the United States, 50% of departments do not have formal mentorship pairings and 80% have no formal training for mentors and mentees.¹⁰ To address this, a Faculty Launch Program, initiated in July, 2017, is a 3-year program that provides a rigorous team-based approach to mentorship of early-career faculty members. An individualized career advancement plan is tailored to an individual’s unique professional and personal needs. Mentorship occurs through teams of multidisciplinary faculty with expertise in critical areas of clinical care, research, professionalism, and education. The Michigan Promise also supports mid-level and senior faculty through a focused mentor training program that equips faculty to serve as effective mentors and sponsors across sex and race, and to maintain productive mentoring relationships. This

program includes a newly established Michigan Mentoring Academy, designed to actively develop the skills of mentees and mentors.

RECRUITMENT

To maintain the highest performing faculty and house staff teams, institutions must be able to recruit and retain underrepresented groups. To address this, new procedures were implemented to enhance effectiveness of recruitment for all open faculty positions in the department and to decrease the influences of implicit bias. This includes an active Departmental Recruitment Committee with 20 standing faculty surgeons. Key elements of oversight include delineation of processes and procedures that the committee follows in compiling candidate pools, interviewing, conduction of campus visits, and evaluating candidates. The committee is broadly representative across surgical specialties with diversity in thought, clinical practice, research interests, sex, and ethnic backgrounds. Standard behavior-based questions and a standard objective assessment tool are utilized to evaluate candidates at assistant, associate, and full professor ranks. All committee members receive implicit bias training and awareness tools. A critical component of the committee’s work is ensuring that candidate pool selections are composed of the most talented and diverse surgeons, and that hiring procedures are handled in accordance with guidelines that reflect departmental values of excellence.

Leadership Development

A major focus of the Michigan Promise is to improve retention and to eliminate under-representation in executive leadership roles. An established mid-career Leadership Development Program has

been expanded to Early Career Leadership Development with emphasis on fundamental leadership skills using goal-directed tasks that are individualized to specific career needs. The program is centered on topics relevant to early-stage faculty such as managing teams, conflict resolution, and prioritizing goals. A Diversity in Leadership Initiative tracks faculty accomplishments annually to recognize and develop leadership potential. Specific focus is on identifying leadership opportunities for qualified faculty and providing tailored approaches to sponsorship to eliminate under-representation in leadership roles.

Innovation and Outreach

Specific strategies to enhance academic life with respect to innovation and entrepreneurship were also established. Traditional funding models are often limited in their ability to support all aspects of academic research with rapid translation into practice. The Innovation Prize enhances entrepreneurship by partnering faculty discoveries with industry leaders, venture capital fund managers, and subject matter experts. Also, to advance faculty innovation is the 8-week Directed Sabbatical Program with goals to enable faculty to devote focused time away from the daily operational tasks of clinical surgery in the pursuit of productive scholarship.

The Department has also committed to broaden outreach locally, nationally, and globally. This includes establishing the Michigan Center for Global Surgery where the mission is to reduce barriers to access basic surgical care globally.

Sustainability

For long-term sustainability, each programmatic initiative described is executed in the newly established Office of Faculty and Resident Life. The departmental governance structure has been reorganized to include a Vice Chair of Faculty Life and an Associate Chair of Faculty Development with responsibilities to advance the work described. To broaden impact and reach, work is now focused on building national academic partnerships (The Promise Coalition) that will bring surgical departments together to assess measurable metrics and establish best practices.

Together, these efforts represent major steps towards achieving equity and are a full and longitudinal commitment to professional fulfillment and career success for all surgeons.

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