



# The State of Women in Academic Medicine

2018-2019

EXPLORING  
PATHWAYS  
TO EQUITY

---

Learn

---

Serve

---

Lead

---

## CONTENTS

---



<b>Executive Summary</b>	<b>3</b>
<b>Methodology</b>	<b>5</b>

### **SECTION 01: LEARNERS 6**

U.S. Medical School Applicants, Matriculants, and Graduates by Gender, Academic Year 2018-2019	7
U.S. Medical School Applicants and Graduates by Gender, Academic Years 1980-1981 Through 2018-2019	8
U.S. Medical School Graduates by Gender and Race/Ethnicity, Academic Years 2013-2014 and 2018-2019	9
Residents by Gender, 2018	10
Percentage of Women Residents by Specialty, 2018	11
Scientific Trainees: Biological and Medical Sciences Graduate Students Enrolled in Doctorate Programs by Gender, 1994-2017	12
Scientific Trainees: Biological and Medical Sciences Postdoctorates at Doctorate-Granting Institutions by Gender, 1994-2017	13
Scientific Trainees: Biological and Medical Sciences Postdoctorates by Gender and Citizenship/Visa Status at Doctorate-Granting Institutions, 2017	14

### **SECTION 02: FACULTY 15**

Percentage of Full-Time U.S. Medical School Faculty by Gender, 2009-2018	16
Part-Time Faculty by Gender, 2018	17
Full-Time Women Faculty as a Percentage of Each Rank, 2009-2018	18
Full-Time Women Faculty by Race/Ethnicity, 2009-2018	19
Full-Time Women Faculty by Rank and Race/Ethnicity, 2018	20
Departments With the Largest Proportion of Full-Time Women Faculty, 2018	21
Departments With the Smallest Proportion of Full-Time Women Faculty, 2018	22
Average Full-Time Women Faculty New Hires and Departures, Academic Years 2005-2006 Through 2017-2018	23
Average Full-time Women Faculty Promotions by Rank, Academic Years 2005-2006 Through 2017-2018	24
Seven-Year and 10-Year Promotion Outcomes for Full-Time, First-Time Assistant and Associate Professors in Academic Year 2008-2009	25

### **SECTION 03: SENIOR LEADERSHIP 26**

Division and Section Chiefs by Gender, 2018	27
Center and Institute Directors by Gender, 2018	28
Percentage of Department Chairs by Gender, 2009-2018	29
Department Chairs by Gender and Department, 2018	30
Women Department Chairs by Race/Ethnicity and Department Type, 2018	31
Administrative Faculty Leaders by Gender, 2018	32
Administrative Staff Leaders by Gender, 2018	33
Administrative Faculty Leaders by Gender, Rank, and Office, 2018	34
Administrative Staff Leaders by Gender, Rank, and Office, 2018	35
Percentage of Medical School Deans by Gender, 2009-2018	36

### **SECTION 04: SUPPORTING FACULTY IN THE ACADEMIC MEDICINE WORKPLACE 37**

Perceptions of Workplace Equity, 2019	38
Feeling Respected in the Workplace, 2019	39
Departments With the Largest Percentages of Women Reporting Disrespect Based on Gender, 2019	40
Institutional Roles To Support Women Faculty, 2018	41
Institutional Resources To Support Women Faculty, 2018	42

### **SECTION 05: DISCUSSION POINTS 43**

Learners	44
Faculty	45
Senior Leadership	46

<b>Moving Forward</b>	<b>47</b>
<b>Endnotes</b>	<b>48</b>

---

## AUTHORS

---

Diana M. Lautenberger, MA, and  
Valerie M. Dandar, MA

---

## ACKNOWLEDGMENTS

---

The authors wish to thank the following people for their contributions to this project: Marie Caulfield, PhD, Brianna Gunter, Lindsay Roskovensky, Rae Anne Sloane, and the AAMC Group on Women in Medicine and Science (GWIMS) Steering Committee.

This is a publication of the Association of American Medical Colleges. The AAMC serves and leads the academic medicine community to improve the health of all. To request additional copies or download copies of this report, visit [aamc.org/publications](http://aamc.org/publications).

© 2020 Association of American Medical Colleges. May not be reproduced or distributed without prior permission. To request permission, please visit: [aamc.org/91514/reproductions.html](http://aamc.org/91514/reproductions.html).

# Executive Summary

Since 1983, the AAMC has published a national snapshot of women students, residents, faculty, and administrative leaders in academic medicine. The data have served as a reliable resource to support gender equity studies and to understand the progress in increasing women's representation among medical school learners, faculty, and leadership.

*The State of Women in Academic Medicine 2018-2019: Exploring Pathways to Equity* updates the edition of the report published in 2014. This report uses various AAMC and external datasets to illustrate the pipeline of women in academic medicine and science. In combination, the data present a snapshot of women's representation at key junctures in their roles as learners, faculty, and leaders. While previous editions of this report were released every year, the AAMC is exploring releasing the report in five-year increments to better illustrate demographic changes in the composition of individuals across the academic medicine continuum.

## New data points in this report include:

- Scientific trainee pipeline data by gender.
- Center and institute director counts by gender.
- Women in administrative faculty leadership roles across deans' offices.
- Women in administrative staff leadership roles across deans' offices.
- Faculty department chairs by race/ethnicity and gender.
- Perceptions of disrespect in the workplace.



## The data in this report show that:

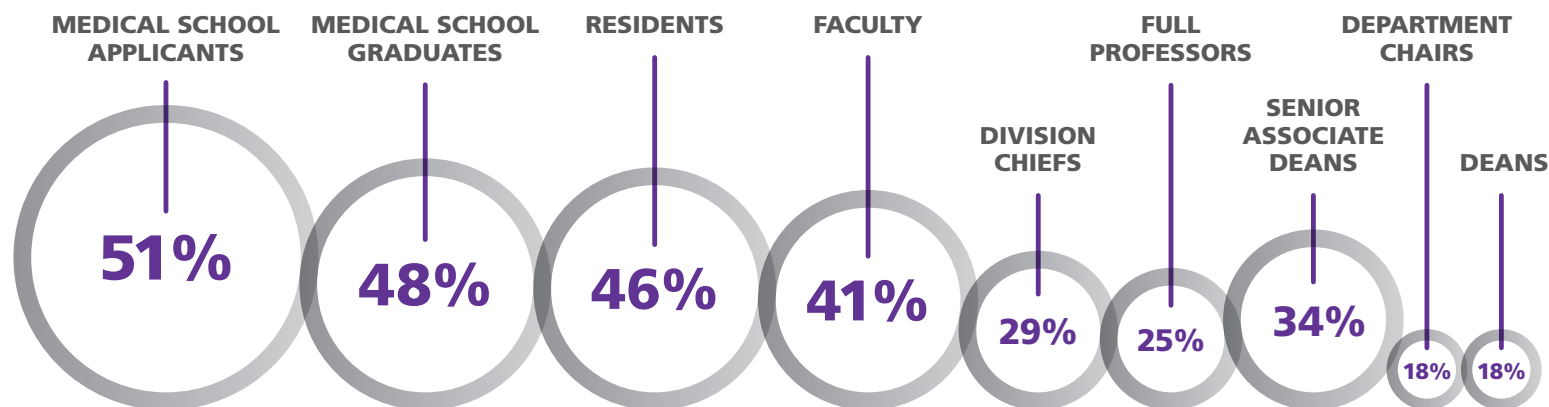
- Women and men have continued to apply, enter, and graduate from medical school in similar proportions since 2003.
- Women have constituted 58% or more of graduate students in biological, clinical, and health science doctoral programs (excluding MDs) since 1994; however, in 2018, women made up just 40% of full-time basic science, clinical science, and other health science MD-PhD and PhD faculty at U.S. medical schools.
- The overall proportion of full-time women faculty has continued to rise since 2009, now at 41%, with similar increases at each faculty rank; yet, women make up a majority of faculty only at the instructor rank.
- Among full-time women faculty, the proportion of women from an underrepresented in medicine race or ethnicity (URiM) group was 12% in 2009 and 13% in 2018; the greatest proportions of URiM women faculty were at the assistant professor rank.
- Departments with the highest proportion of full-time women faculty were similar to the specialties with the most women residents; in many cases, those departments also had more women chairs.
- Among cohorts of both new assistant and associate professors starting in 2008-2009, a larger percentage of men than women advanced after seven years. However, the gap between men's and women's advancement narrows when 10-year promotion trends are examined.
- While there has been a steady rise in the number of women department chairs over the past 10 years, women still make up only 18% of all department chairs.
- Women faculty leaders were more heavily represented in roles related to diversity, faculty, and student affairs and less represented in leadership roles within clinical affairs and research.
- Since 2009, the number of women deans increased by about one each year, on average.

## EXECUTIVE SUMMARY

Note: This report excludes applicant, matriculant and enrollee data from 2019 due to unavailable graduation date for the 2019-2020 medical school student class. Student data in this report reflects available data for applicants, matriculants, and graduates through the 2018-2019 academic year. See the AAMC definition of underrepresented in medicine (URiM) here: <https://www.aamc.org/what-we-do/mission-areas/diversity-inclusion/underrepresented-in-medicine>

# Executive Summary

## REPRESENTATION OF WOMEN IN ACADEMIC MEDICINE 2018-2019



Knowing the data is the first step toward creating a more equitable and inclusive environment. Institutions can use these data and the full collection of national and school-level data available through the AAMC to analyze their local setting, identify opportunities to foster greater equity, and create actionable plans to improve the academic medicine learning environment and workplace. Understanding the state of women in academic medicine is key to acknowledging and evaluating the existing systems and structures that may be limiting or supporting them. While dedicated programming for women is necessary and should continue, these data indicate that new systemic and institution-level interventions are needed to address and achieve gender equity and inclusion in academic medicine.

# Methodology

The Women in Medicine and Science (WIMS) Benchmarking Survey was distributed by email to the Group on Women in Medicine and Science (GWIMS) designated institutional representatives and faculty roster representatives at the 154 U.S. medical schools accredited by the Liaison Committee on Medical Education. Members had five and a half weeks to complete the survey (the survey opened Aug. 1 and closed Sept. 9, 2019) and were encouraged to partner with other leaders at their schools to complete the survey, such as those in faculty or diversity affairs offices. Ninety-eight medical schools completed the survey, yielding a response rate of 63.6%. While the AAMC has regularly collected data about women in the workforce for several years, the 2019 WIMS Benchmarking Survey is the fourth iteration of the data collection with specific questions about part-time faculty counts and leadership appointments.

**New information collected this year includes leadership counts by gender for center and institute directors and counts of faculty and staff administrative leadership roles by functional area within the dean's office.**

In addition to data collected through the WIMS survey, this report includes data from the following AAMC resources to enhance the description of the academic medicine learning environment and workplace:

- Faculty Roster
- FACTS Tables
- GME Track®
- Council of Deans records
- AAMC Standpoint™ Faculty Engagement Survey

Lastly, this report also includes data from the National Science Foundation Survey of Graduate Students and Postdoctorates in Science and Engineering.





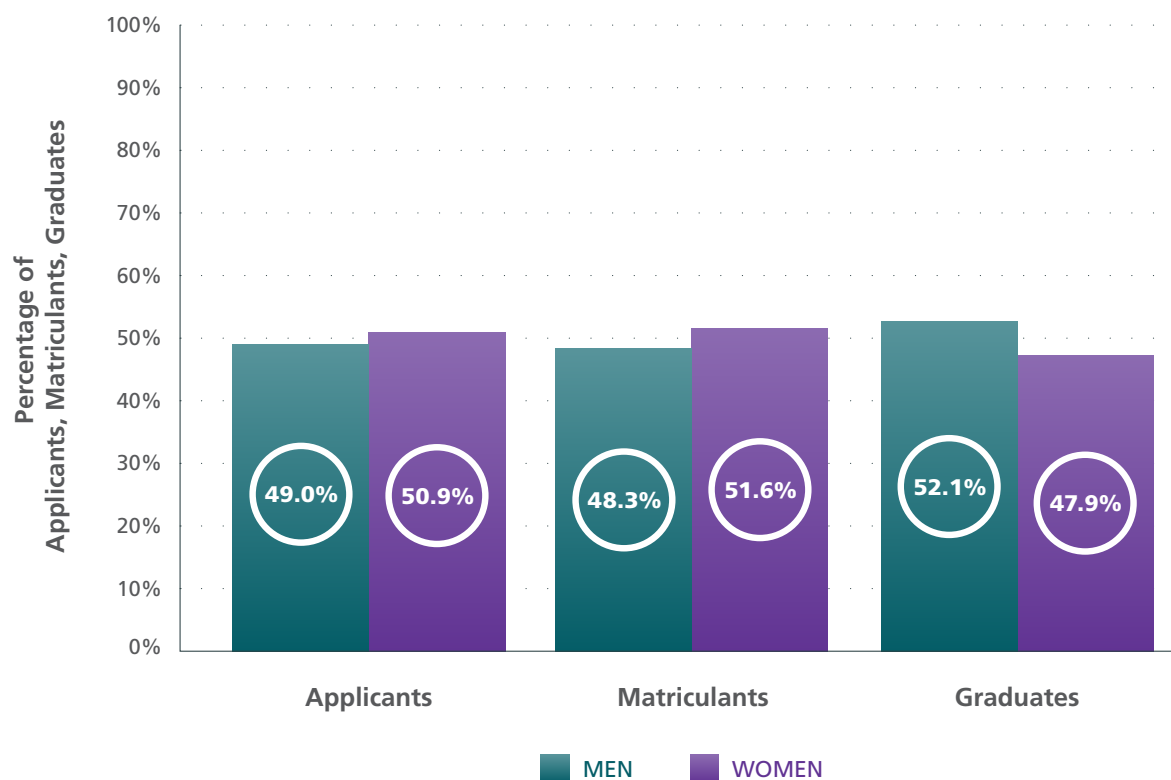
01

WOMEN IN ACADEMIC MEDICINE

# LEARNERS

# U.S. Medical School Applicants, Matriculants, and Graduates by Gender, Academic Year 2018-2019

FIGURE 1



## KEY TAKEAWAY

In 2018-2019, women constituted slightly more of both applicants (50.9%) and matriculants (51.6%) but less of graduates (47.9%).



LEARNERS

FACULTY

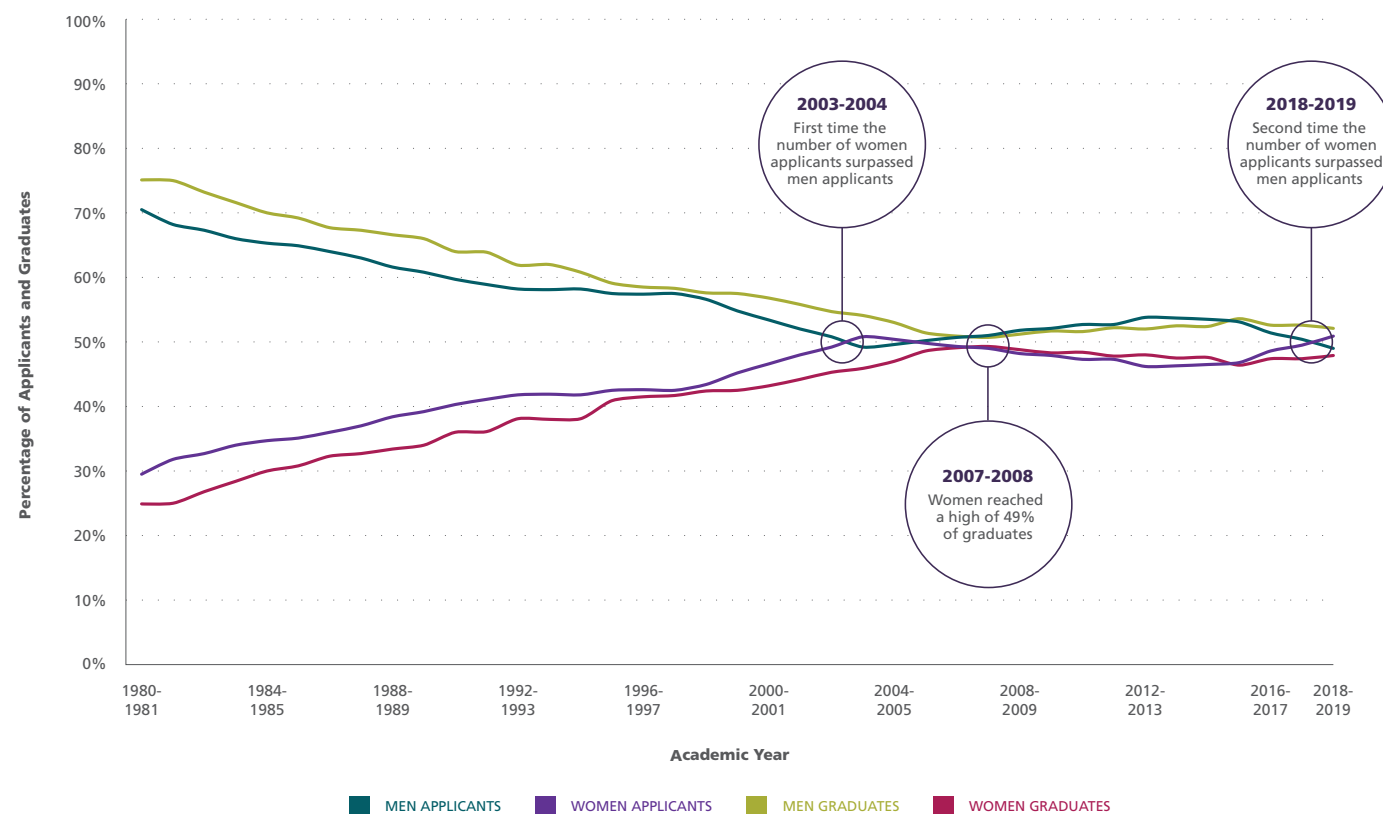
SENIOR LEADERSHIP

Source: Table A-7.2: Applicants, First-Time Applicants, Acceptees, and Matriculants to U.S. Medical Schools by Sex, 2009-2010 through 2018-2019, and Table B-6.1: Total Graduates by U.S. Medical School and Race/Ethnicity, 2018-2019.

Note: Each academic year includes applicants and matriculants who applied to enter medical school in the fall of the given year. For example, academic year 2018-2019 represents the applicants and matriculants who applied to enter medical school during the 2018 application cycle. A total of 52,777 applicants submitted 849,678 applications, an average of 16 applications per applicant. Applicants who declined to report their gender are not reflected.

# U.S. Medical School Applicants and Graduates by Gender, Academic Years 1980-1981 Through 2018-2019

FIGURE 2



## KEY TAKEAWAY

Since 2007-2008, women have represented a near-majority of graduates (49%) but have never reached 50% or more.



LEARNERS



FACULTY



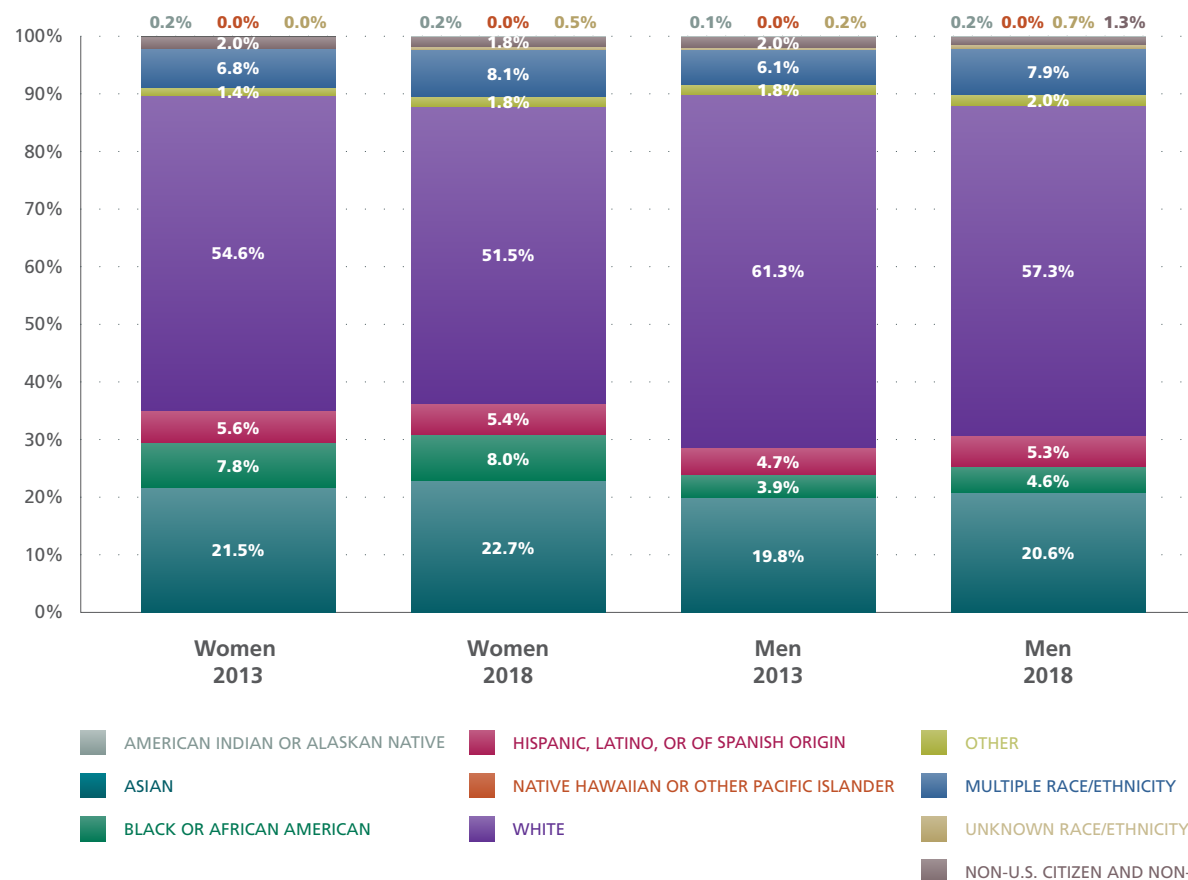
SENIOR LEADERSHIP

Source: AAMC FACTS Data Chart 2, Applicants to U.S. Medical Schools by Sex, 1980-1981 Through 2018-2019, as of Oct. 30, 2019, and AAMC FACTS Data Chart 5, Graduates to U.S. Medical Schools by Sex, 1980-1981 Through 2018-2019, as of Oct. 15, 2019.

Note: Does not include applicant, matriculant, or enrollee data from the 2019-2020 academic year because graduation rates won't be available until summer 2020.

# U.S. Medical School Graduates by Gender and Race/Ethnicity, Academic Years 2013-2014 and 2018-2019

FIGURE 3



## KEY TAKEAWAY

While racial and ethnic diversity of the graduate pool increased, women graduates were slightly more diverse than men graduates in both 2013-2014 and 2018-2019.



LEARNERS



FACULTY



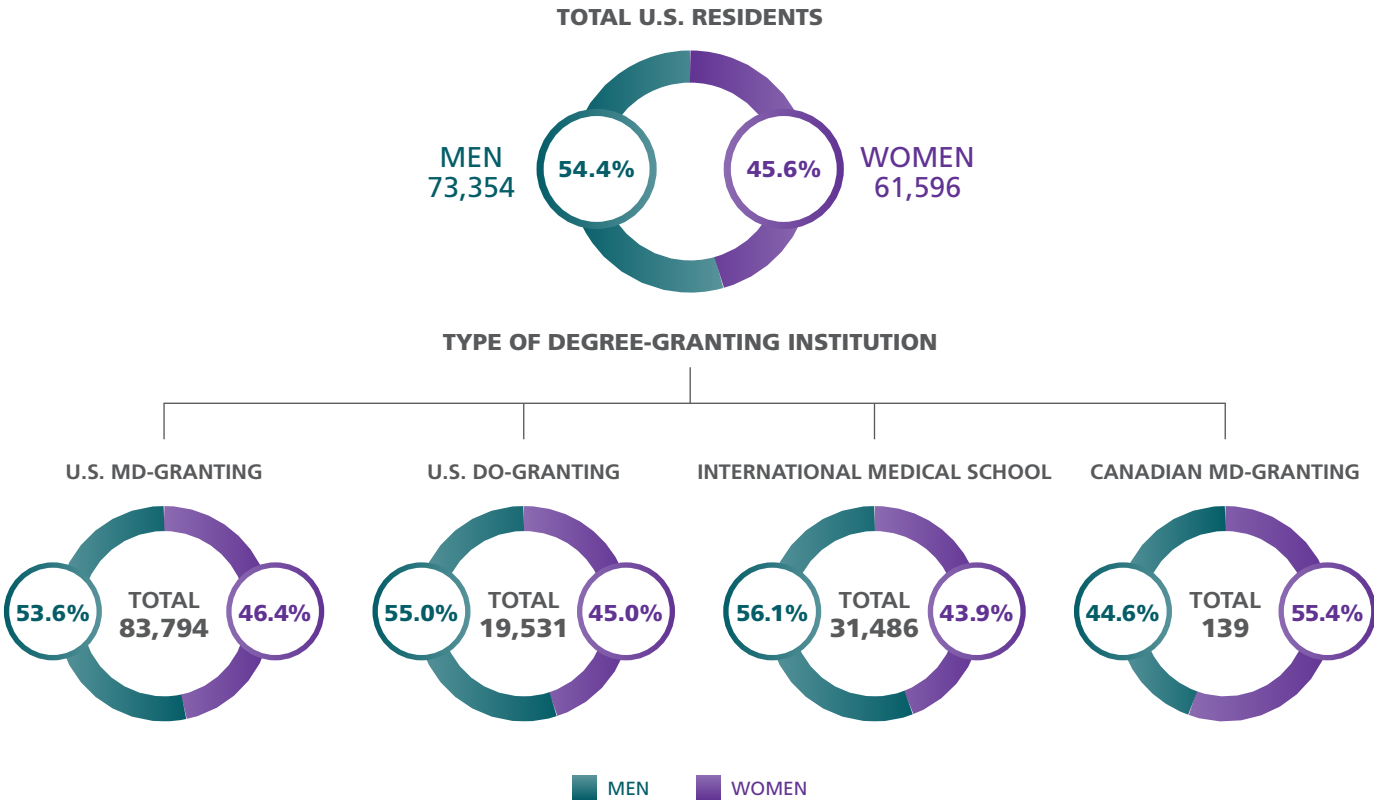
SENIOR LEADERSHIP

Source: AAMC 2018 FACTS Table B-4, AAMC 2019 FACTS Table B-4.

Note: Race and ethnicity categories are unduplicated counts that reflect those who identified as one race/ethnicity only or were otherwise categorized as "multiple race/ethnicity" if they identified with more than one race/ethnicity.

# Residents by Gender, 2018

FIGURE 4



**KEY TAKEAWAY**

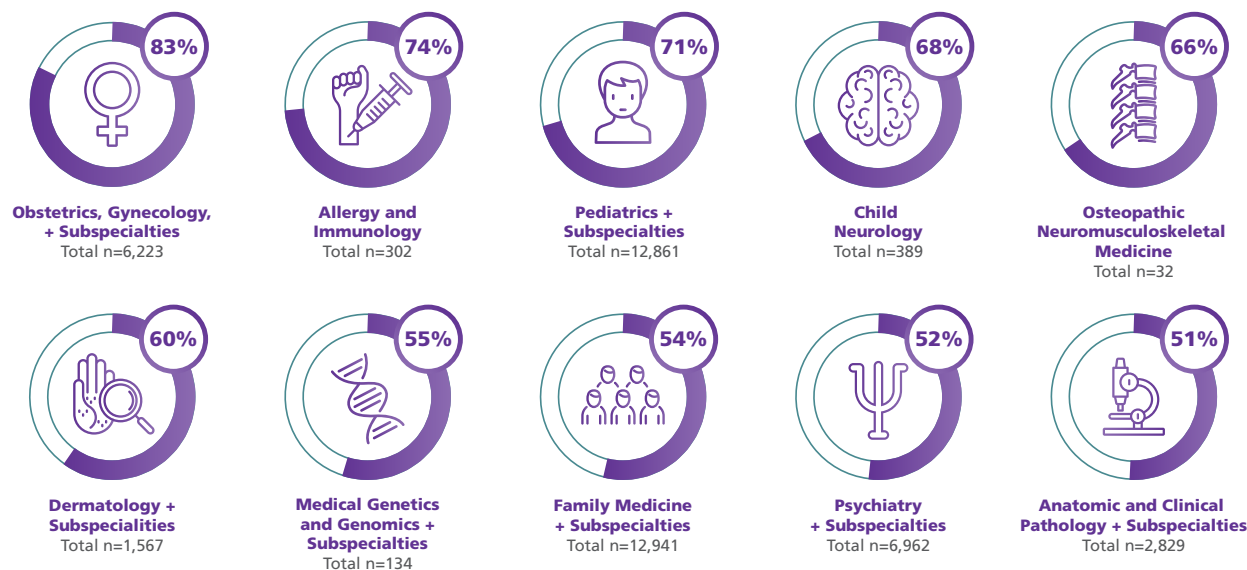
Men still outnumbered women in MD and DO residencies, with similar proportions of women across U.S. MD-granting, U.S. DO-granting, and international medical schools.



Source: GME Track® as of Sept. 6, 2019.  
Note: GME year indicates residents active as of Dec. 31 of the corresponding year. Therefore, GME year 2018 represents residents active in training as of Dec. 31, 2018. Residents whose gender was unknown are removed from total counts.

# Percentage of Women Residents by Specialty, 2018

FIGURE 5



**Preventative Medicine + Subspecialties:** 50%, Total n=294

**Neurology + Subspecialties:** 45%, Total n=3,254

**Colon and Rectal Surgery:** 44%, Total n=88

**Nuclear Medicine:** 44%, Total n=68

**Plastic Surgery — Integrated + Subspecialties:** 41%, Total n=921

**Surgery-General + Subspecialties:** 41%, Total n=9,856

**Internal Medicine + Subspecialties:** 41%, Total n=39,109

**Ophthalmology + Subspecialties:** 40%, Total n=1,337

**Physical Medicine and Rehab + Subspecialties:** 39%, Total n=1,432

**Transitional Year:** 37%, Total n=1,262

**Emergency Medicine + Subspecialties:** 36%, Total n=7,943

**Otolaryngology + Subspecialties:** 36%, Total n=1,671

**Anesthesiology + Subspecialties:** 34%, Total n=6,704

**Vascular Surgery — Integrated:** 34%, Total n=319

**Plastic Surgery:** 31%, Total n=205

**Radiation Oncology:** 30%, Total n=744

**Urology + Subspecialties:** 27%, Total n=1,423

**Thoracic Surgery — Integrated:** 27%, Total n=217

**Radiology — Diagnostic:** 26%, Total n=4,972

**Pain Medicine (Multidisciplinary):** 24%, Total n=319

**Thoracic Surgery + Subspecialties:** 21%, Total n=244

**Interventional Radiology — Integrated:** 20%, Total n=215

**Neurological Surgery + Subspecialties:** 18%, Total n=1,479

**Orthopedic Surgery + Subspecialties:** 15%, Total n=4,410



## KEY TAKEAWAY

Women continued to represent a large proportion of residents in obstetrics and gynecology and pediatrics and related subspecialties, while many surgical subspecialties had a smaller proportion of women residents.

LEARNERS

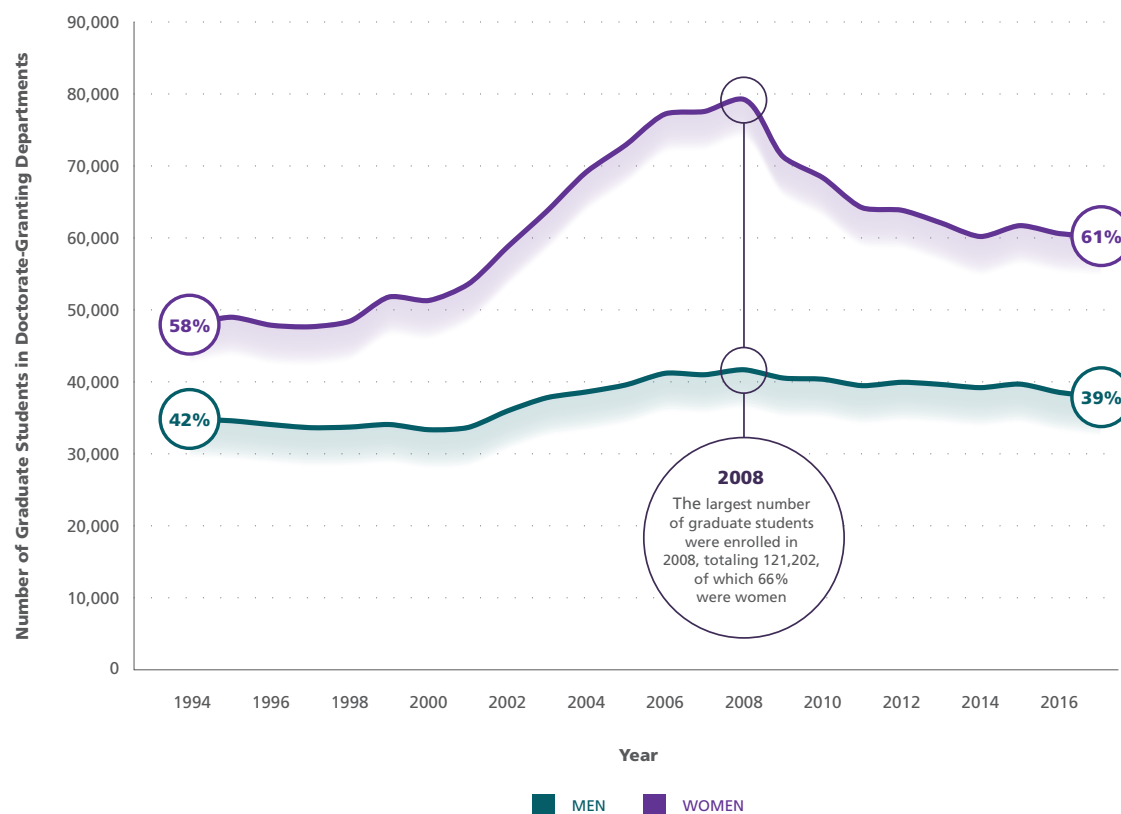
FACULTY

SENIOR LEADERSHIP

# Scientific Trainees

## Biological and Medical Sciences Graduate Students Enrolled in Doctorate Programs by Gender, 1994-2017

FIGURE 6



### KEY TAKEAWAY

Since 1994, women have represented 58% or more of graduate students enrolled in doctorate programs in the biological and medical sciences. Yet, the numbers of women enrolled have been declining since 2008.



LEARNERS



FACULTY



SENIOR LEADERSHIP

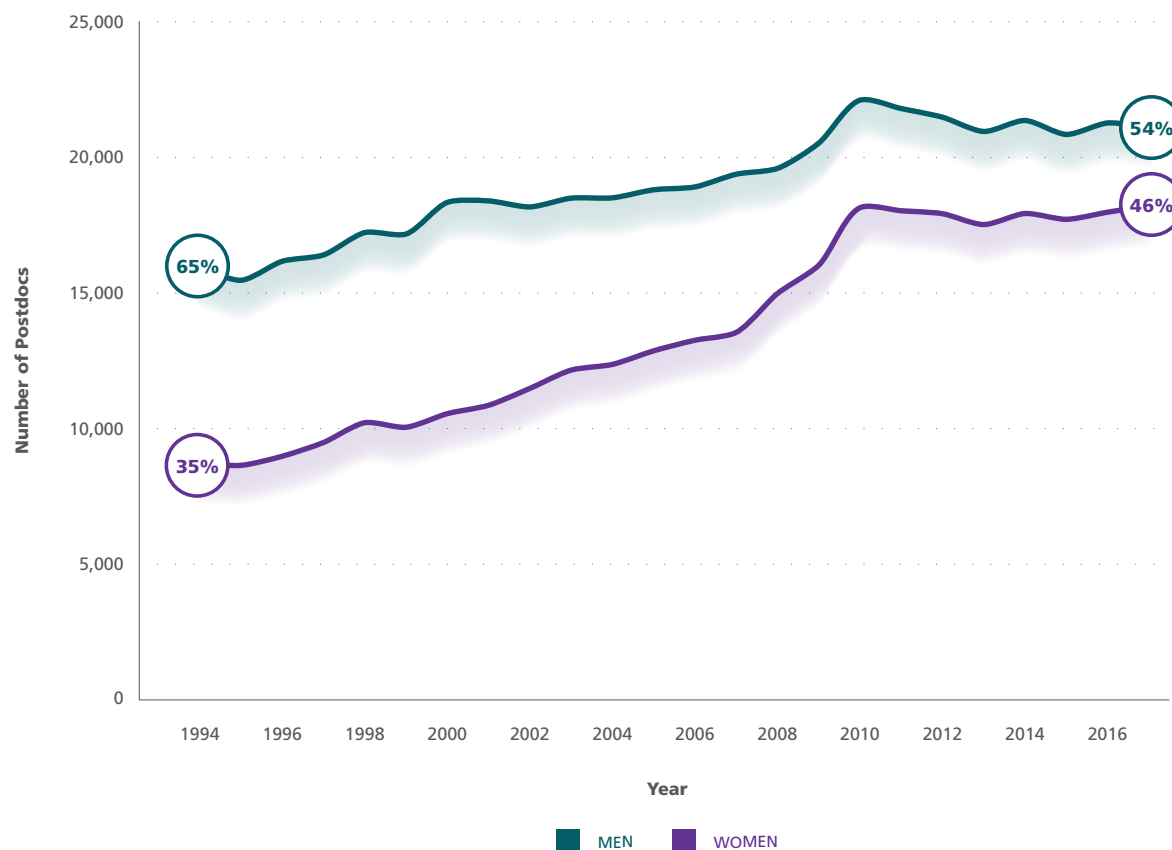
Source: National Science Foundation, Survey of Graduate Students and Postdoctorates in Science and Engineering Enrolled in Doctorate Programs at Doctoral Granting Institutions, 1994-2017.

Note: Data reflect postdoctorates enrolled in doctorate or postdoctorate/non-degree programs at doctorate-granting institutions in the fields of biological and biomedical sciences (prior to 2017, neurobiology and neuroscience was an independent category), clinical medicine, and other health sciences. See endnotes for fields included in "biological and medical sciences."

# Scientific Trainees

## Biological and Medical Sciences Postdoctorates at Doctorate-Granting Institutions by Gender, 1994-2017

FIGURE 7



### KEY TAKEAWAY

While there have been fewer women than men postdoctorates since 1994, women have continued to increase in number and proportional representation since that time.



LEARNERS

FACULTY

SENIOR LEADERSHIP

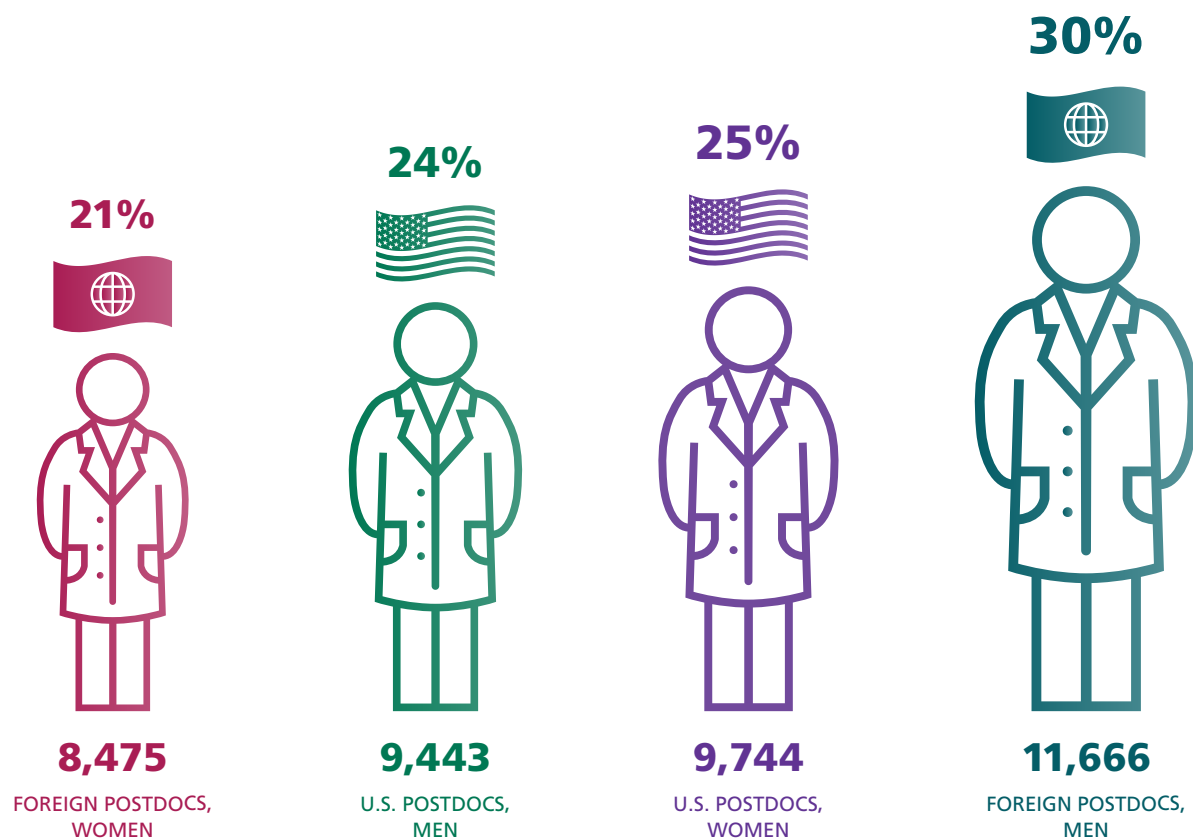
Source: National Science Foundation, Survey of Graduate Students and Postdoctorates in Science and Engineering (GSS), 1994-2017.

Note: Data reflect postdoctorates enrolled in doctorate or postdoctorate/non-degree programs at doctorate-granting institutions in the fields of biological and biomedical sciences (prior to 2017, neurobiology and neuroscience was an independent category), clinical medicine, and other health sciences. See endnotes for fields included in "biological and medical sciences."

## Scientific Trainees

Biological and Medical Sciences Postdoctorates by Gender and Citizenship/Visa Status at Doctorate-Granting Institutions, 2017

FIGURE 8



### KEY TAKEAWAY

In 2017, men and women who were U.S. citizens or permanent residents were about equally represented among postdoctorates, while men who were foreign nationals represented a slightly larger proportion of foreign postdoctorates than women.



LEARNERS

FACULTY

SENIOR LEADERSHIP

Source: National Science Foundation, Survey of Graduate Students and Postdoctorates in Science and Engineering (GSS), 2017.

Note: Data reflect postdoctorates enrolled in doctorate or postdoctorate/non-degree programs at doctorate-granting institutions in the fields of biological and biomedical sciences (prior to 2017, neurobiology and neuroscience was an independent category), clinical medicine, and other health sciences. See endnotes for fields included in "biological and medical sciences."



02

WOMEN IN ACADEMIC MEDICINE

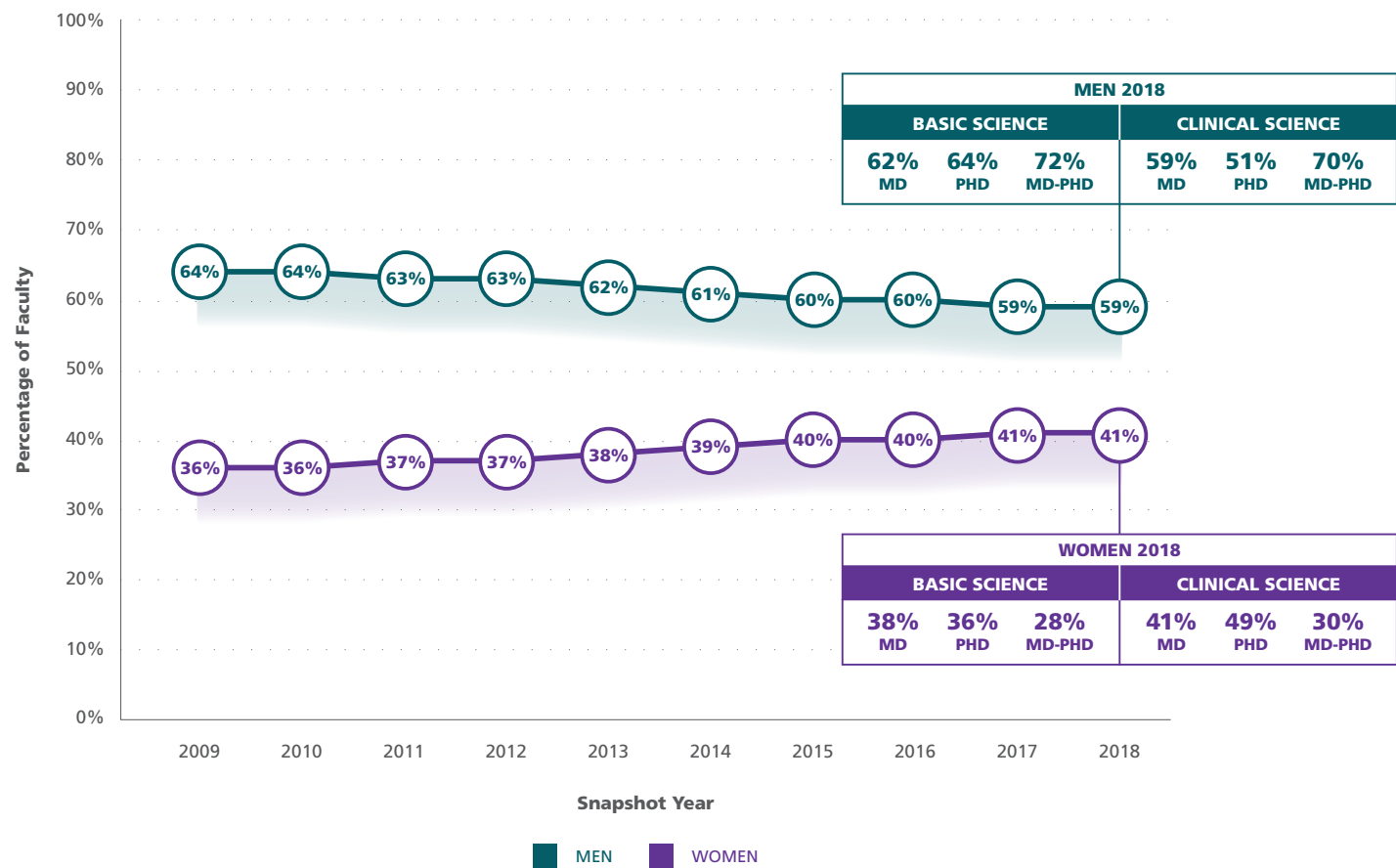
---

# FACULTY



# Percentage of Full-Time U.S. Medical School Faculty by Gender, 2009-2018

FIGURE 9



### KEY TAKEAWAY

The proportion of full-time women faculty has increased steadily over the past 10 years, from 36% in 2009 to 41% in 2018.

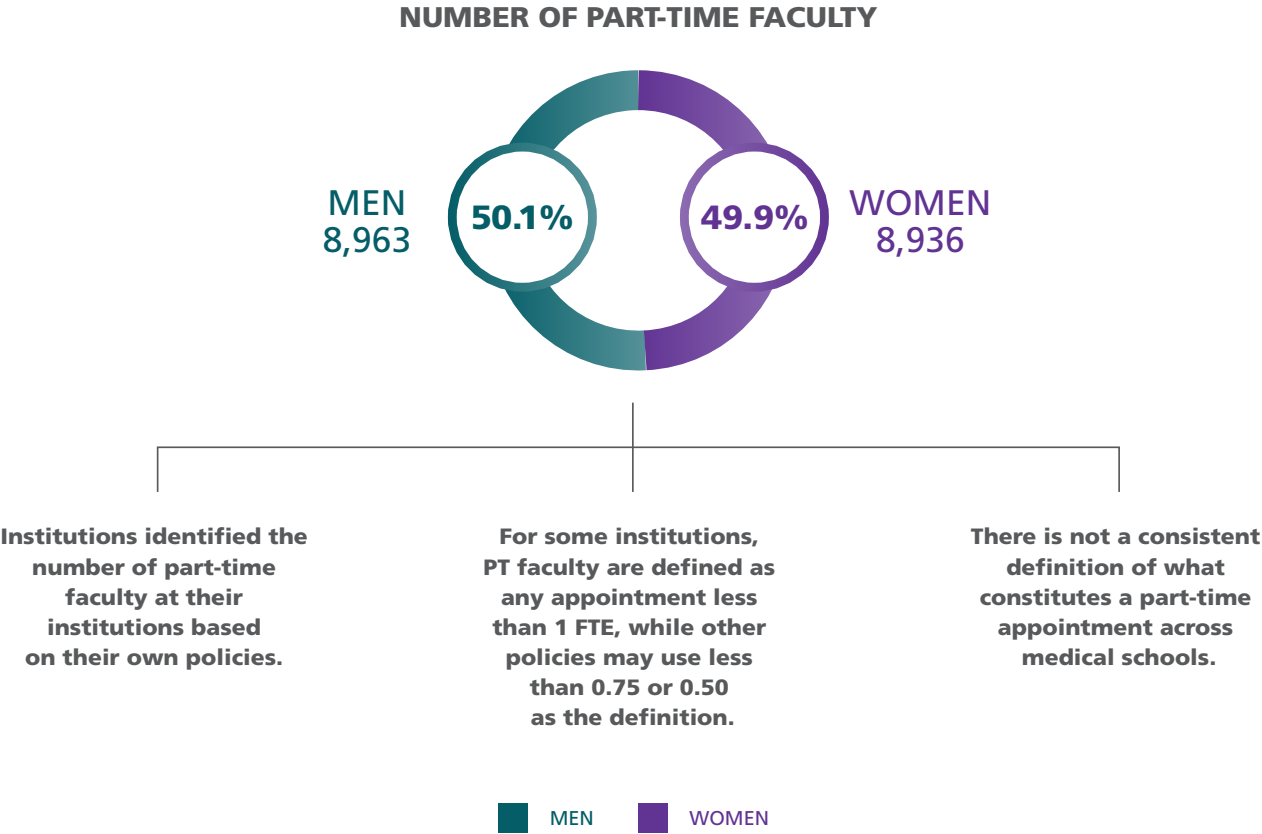


Source: AAMC Faculty Roster, Dec. 31, 2018 snapshot. Data represent Dec. 31 snapshots for each year presented. US Medical School Faculty Tables, Table 14. U.S. Medical School Faculty by Sex, Degree, and Department, 2018.

Note: This figure excludes faculty with missing gender, which accounts for less than 0.5% of all faculty in each snapshot year. The data displayed by department type and degree type include faculty in basic science and clinical departments only; faculty in "Other" departments and faculty with other degrees were excluded. Department degree type breakouts exclude faculty of other and unknown degree types and faculty in "Other Health" departments.

# Part-Time Faculty by Gender, 2018

FIGURE 10



**KEY TAKEAWAY**

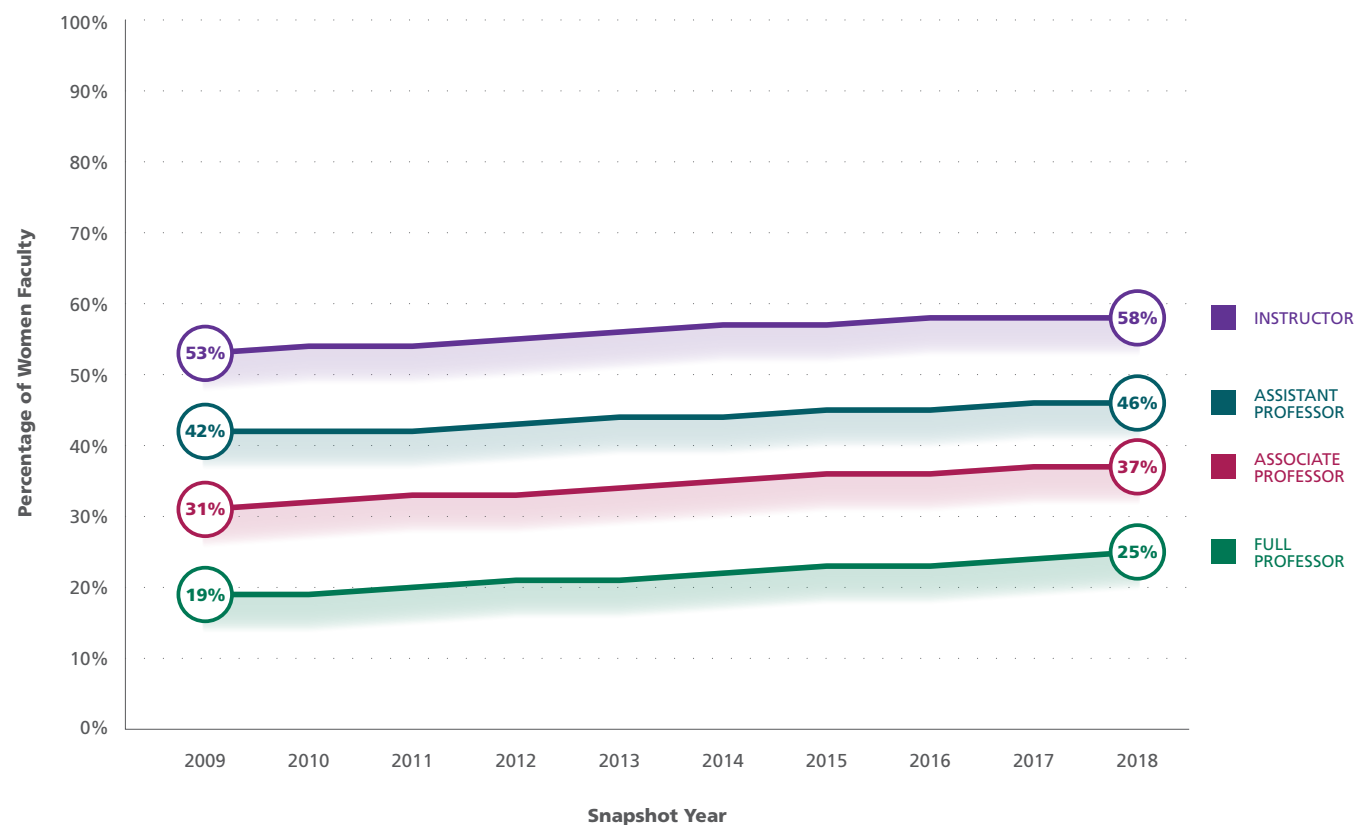
Institutions reported that similar proportions of men and women faculty (50.1% and 49.9%, respectively) had part-time appointments.



Source: AAMC 2019 WIMS Benchmarking Survey. Data reflect faculty counts as of Dec. 31, 2018 (n=98 institutions; n=17,899 part-time faculty).  
Note: In surveys before 2018, part-time was defined as 0.75 FTE or less.

# Full-Time Women Faculty as a Percentage of Each Rank, 2009-2018

FIGURE 11



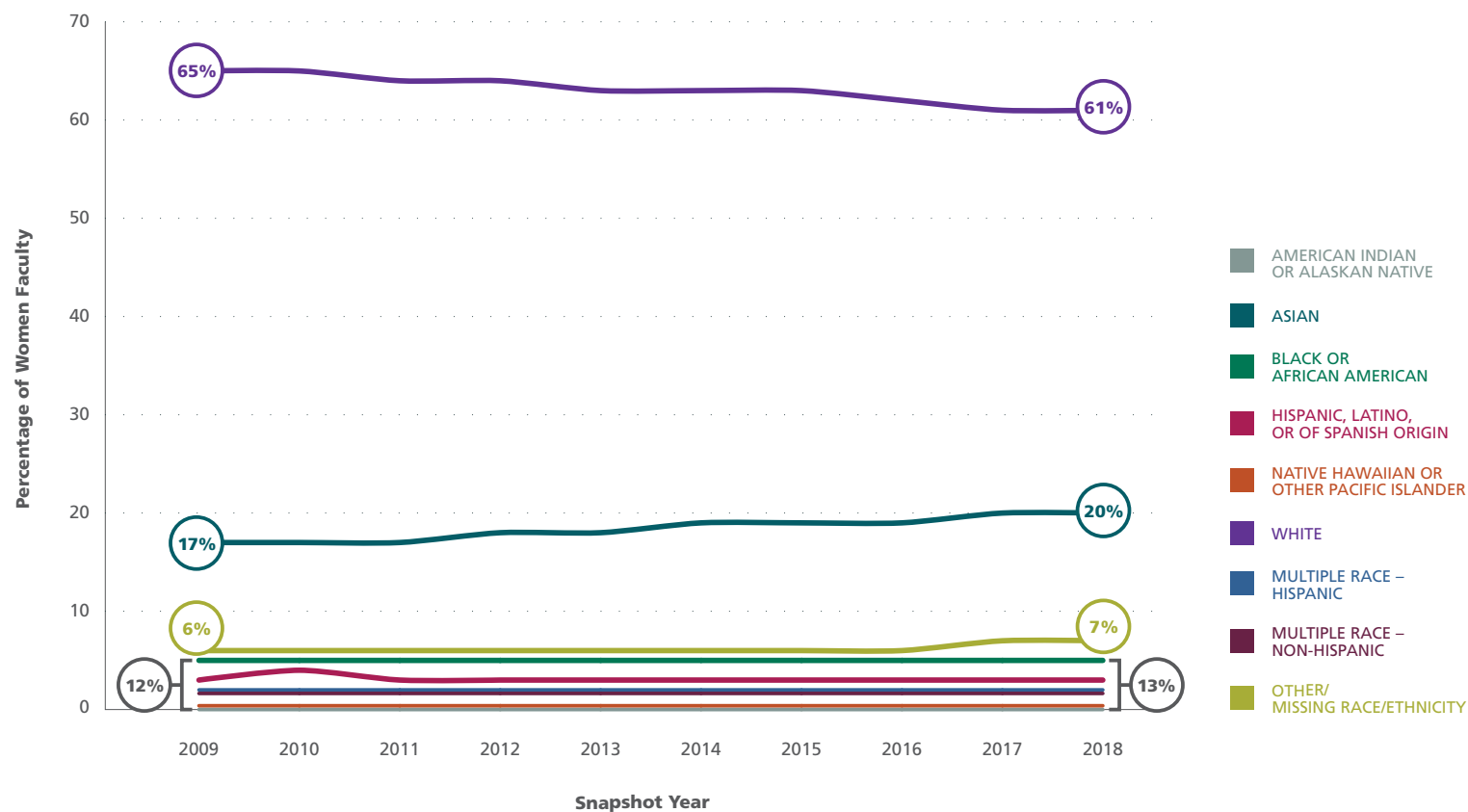
## KEY TAKEAWAY

While the proportion of women faculty has increased at assistant, associate, and full professor ranks since 2009, women continued to represent a majority of faculty only at the instructor ranks (58%).



# Full-Time Women Faculty by Race/Ethnicity, 2009-2018

FIGURE 12



## KEY TAKEAWAY

The proportion of women from an underrepresented-in-medicine race or ethnicity group was 12% in 2009 and 13% in 2018.

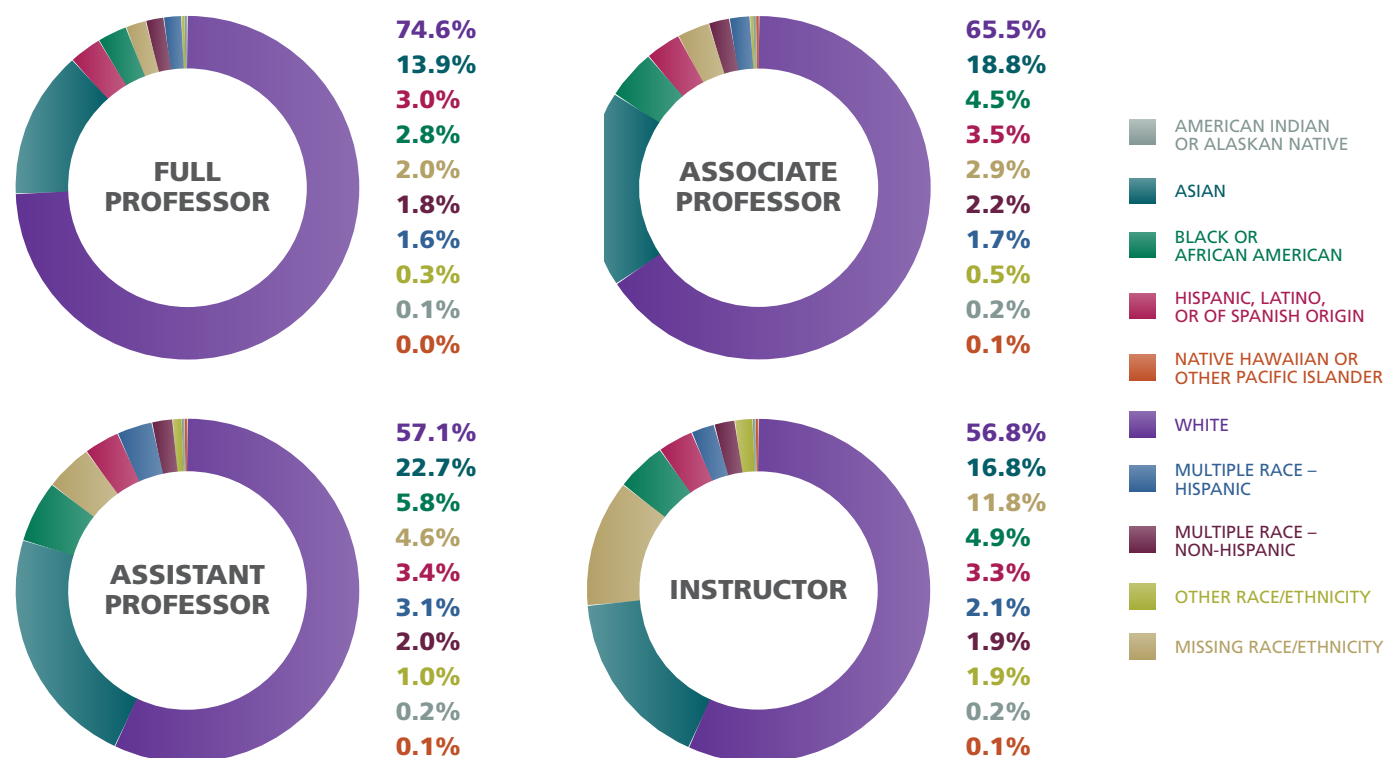


Source: AAMC Faculty Roster, Dec. 31, 2018 snapshot.

Note: This figure excludes faculty with missing gender, which accounts for less than 0.5% of all faculty in each snapshot year. Percentages may not sum to 100% due to rounding. Statistics in this key takeaway exclude the category "Other/Unknown" in calculating the percentage of URIM individuals.

# Full-Time Women Faculty by Rank and Race/Ethnicity, 2018

FIGURE 13



## KEY TAKEAWAY

The greatest proportions of URiM women faculty were at the assistant professor and instructor ranks.



LEARNERS



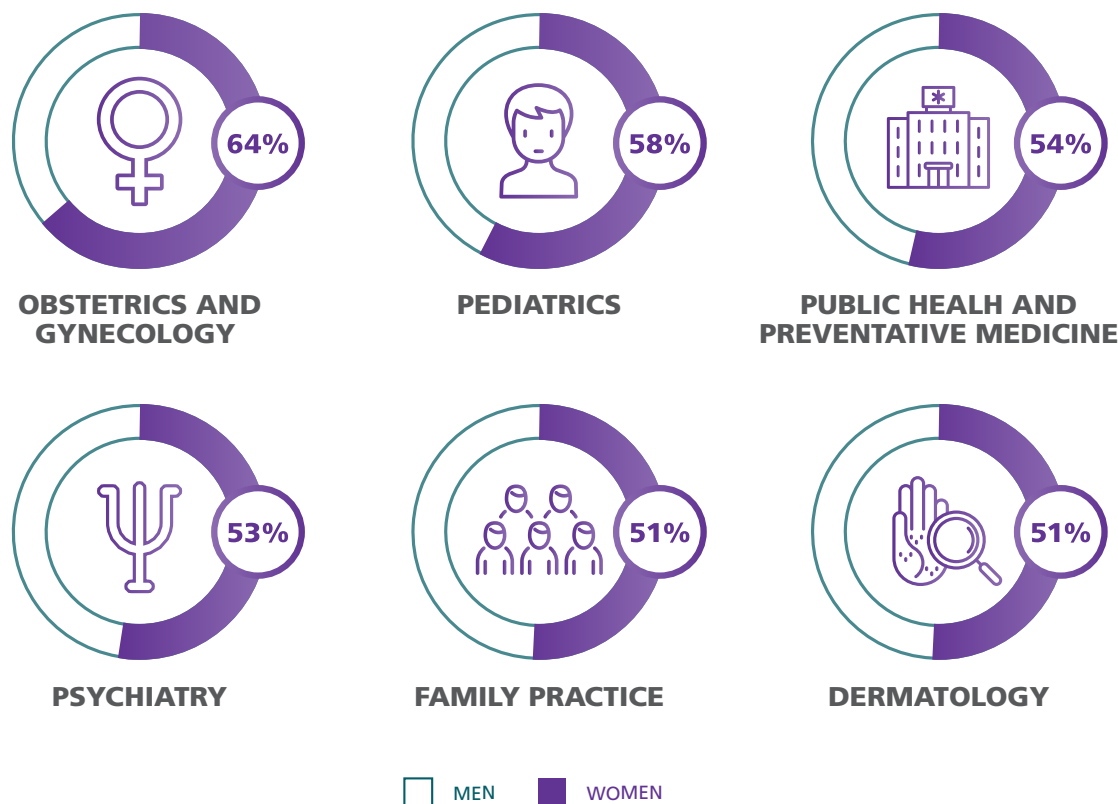
FACULTY



SENIOR LEADERSHIP

# Departments With the Largest Proportion of Full-Time Women Faculty, 2018

FIGURE 14



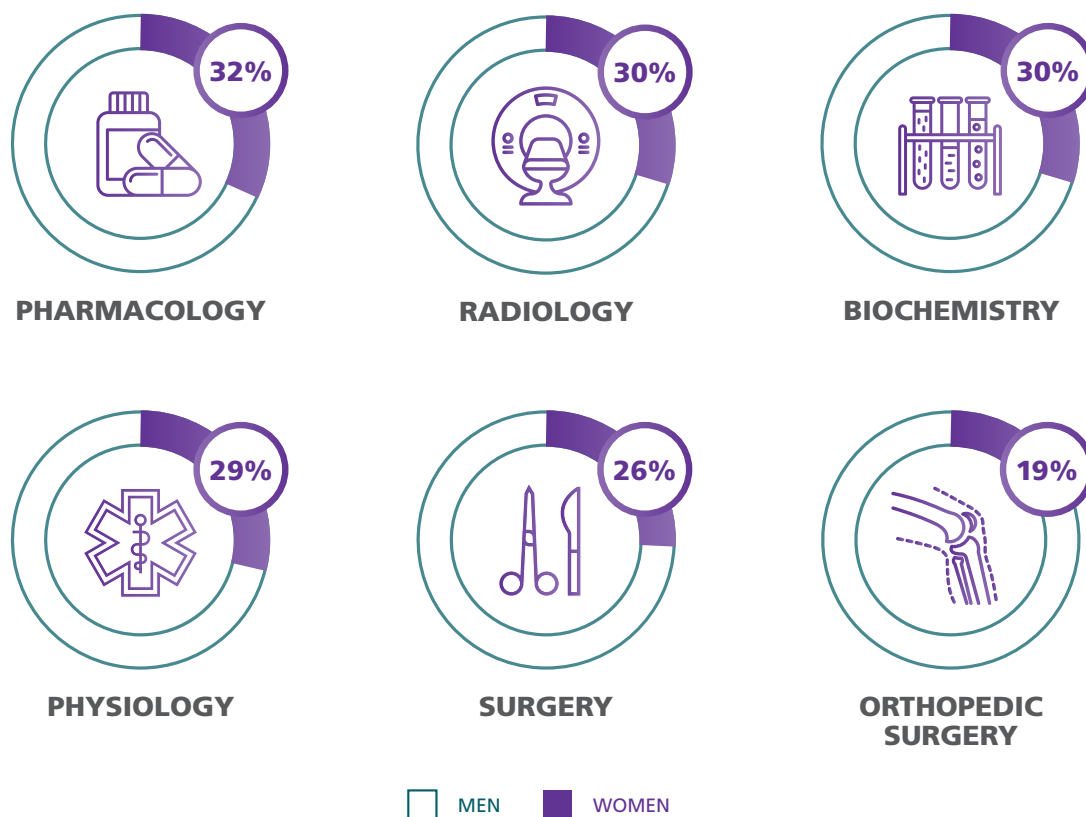
## KEY TAKEAWAY

The six academic departments with 50% or more full-time women faculty are represented among the specialty programs with 50% or more women residents.



# Departments With the Smallest Proportion of Full-Time Women Faculty, 2018

FIGURE 15



## KEY TAKEAWAY

While six academic departments with 50% or more full-time women faculty were all among clinical disciplines, the six departments with the smallest proportion of full-time women faculty (between 32% and 19%) included both clinical and basic science disciplines.



LEARNERS



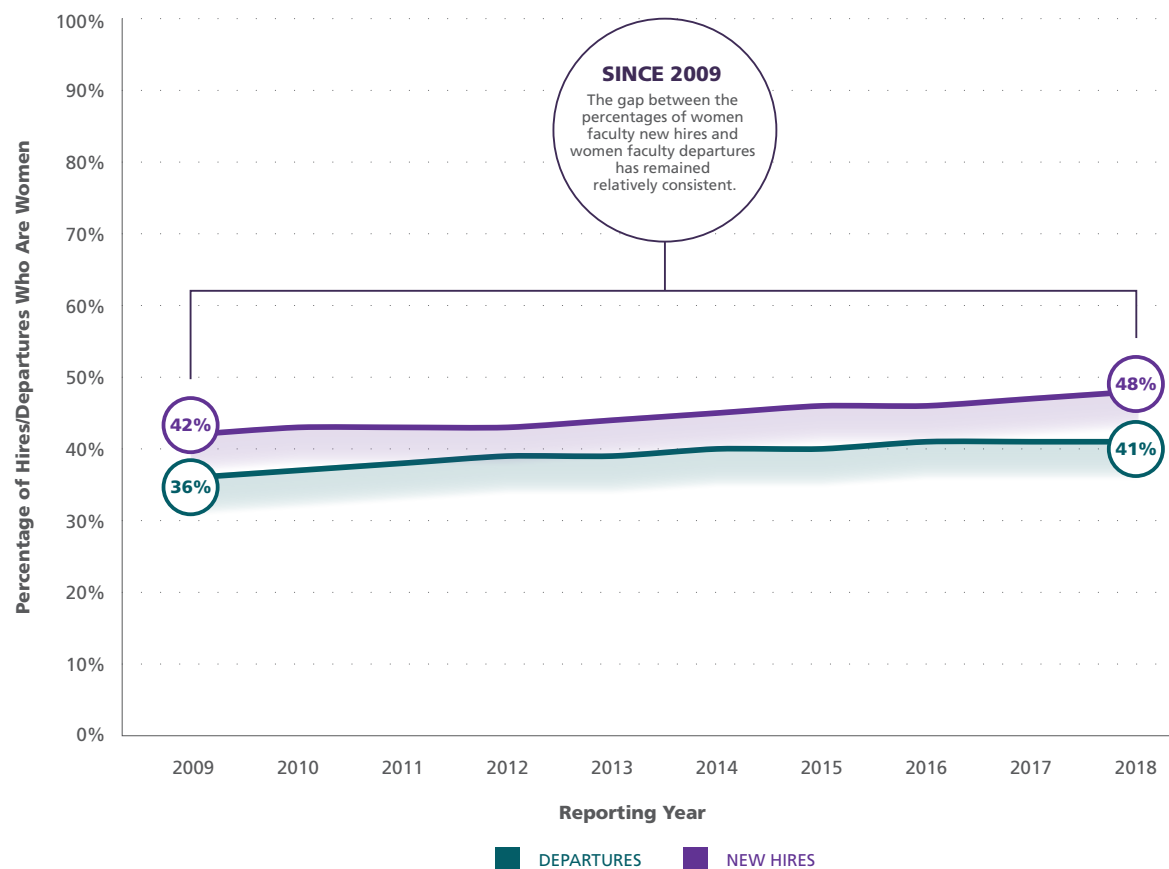
FACULTY



SENIOR LEADERSHIP

# Average Full-Time Women Faculty New Hires and Departures, Academic Years 2005-2006 Through 2017-2018

FIGURE 16



## KEY TAKEAWAY

The proportion of new full-time faculty hires who were women continued to be larger than the proportion of full-time faculty departures who were women.

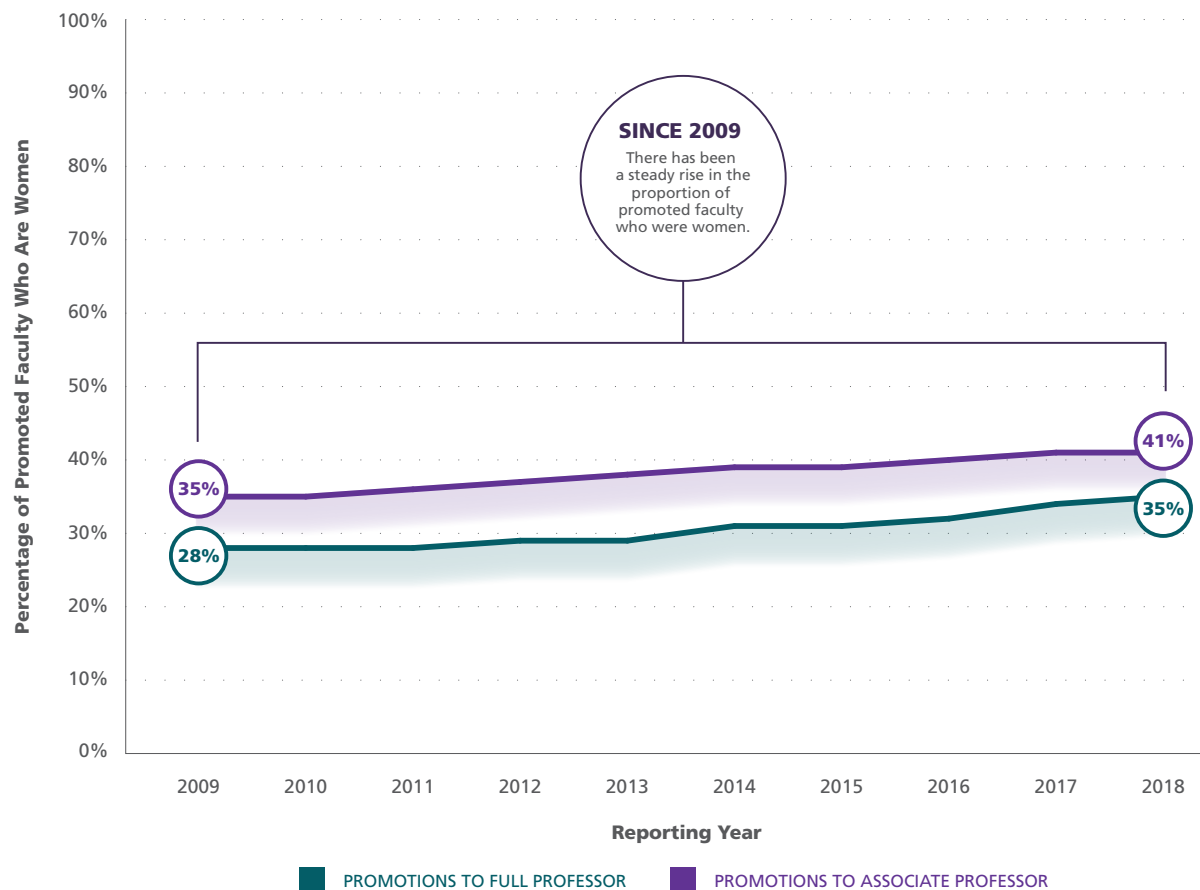


Source: AAMC Faculty Roster, March 31, 2019 snapshot.

Note: Each reporting year displays the percentage of new hires and departures who are women based on the average number of hires/departures over the previous four academic years. For example, the percentage displayed for the 2009 reporting year is calculated on the average number of full-time faculty who were hired at or who left a medical school per year during academic year 2005-2006 through academic year 2008-2009. This figure excludes faculty with missing gender, which accounts for less than 1% of all new hires and departures in each reporting year.

# Average Full-time Women Faculty Promotions by Rank, Academic Years 2005-2006 Through 2017-2018

FIGURE 17



## KEY TAKEAWAY

The overall proportion of full-time faculty promotions who were women continued to grow over time, with the percentage of promotions for women being consistently higher than the percentage of women currently at those ranks. For example, 25% of women were full professors in 2018, while 35% of promotions to full professor were for women, on average.

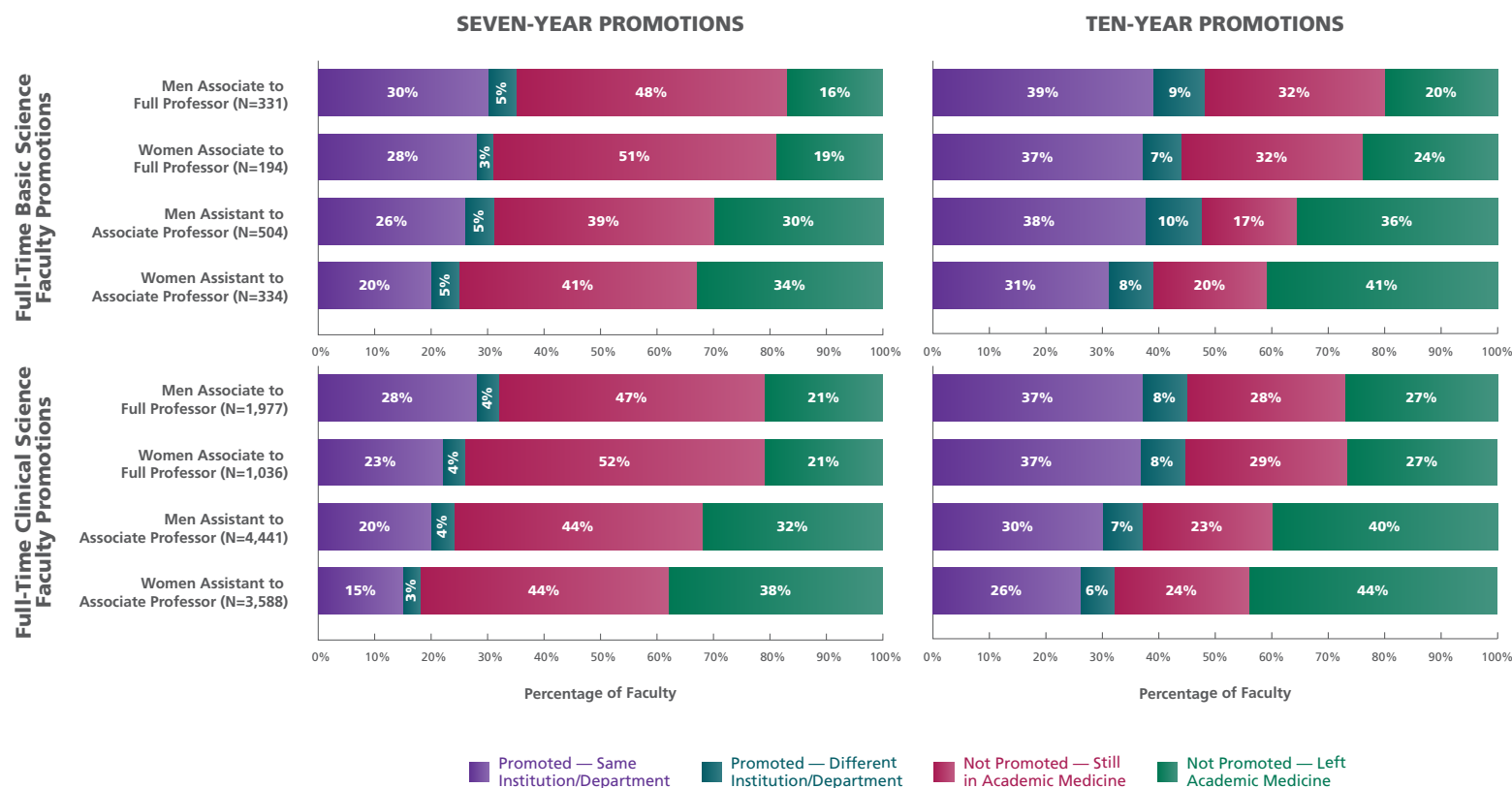


Source: AAMC Faculty Roster, March 31, 2019 snapshot.

Note: Each reporting year displays the percentage of promoted faculty who are women, based on the average number of promotions over the previous four academic years. For example, the percentage displayed for the 2009 reporting year is calculated on the average number of full-time faculty who were promoted at a medical school per year during academic year 2005-2006 through academic year 2008-2009. This figure excludes faculty with missing gender, which accounts for less than 1% of all promotions in each reporting year.

# Seven-Year and 10-Year Promotion Outcomes for Full-Time, First-Time Assistant and Associate Professors in Academic Year 2008-2009

FIGURE 18



## KEY TAKEAWAY

Among cohorts of both new assistant and associate professors starting in 2008-2009, a larger percentage of men than women advanced after seven years. However, the gap between men's and women's advancement narrows when 10-year promotion trends are examined.

LEARNERS

FACULTY

SENIOR LEADERSHIP



03

WOMEN IN ACADEMIC MEDICINE

# SENIOR LEADERSHIP

# Division and Section Chiefs by Gender, 2018

FIGURE 19



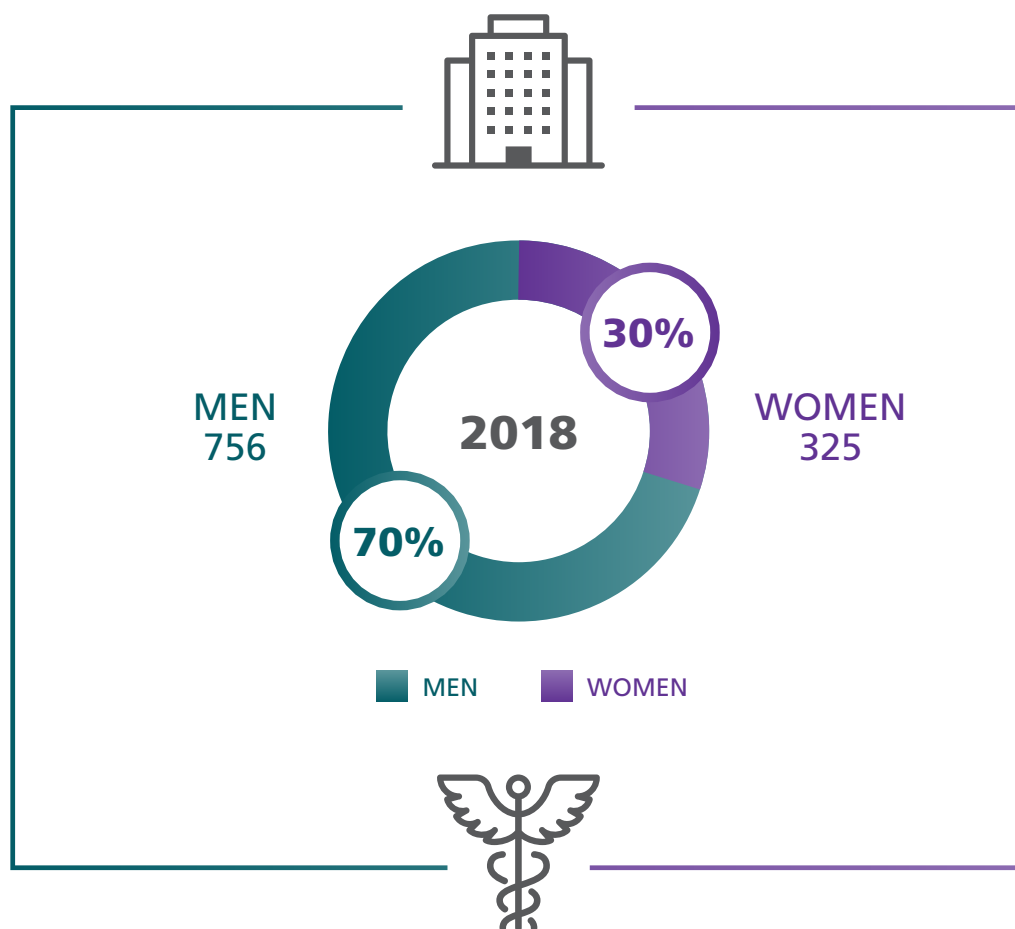
## KEY TAKEAWAY

The proportion of women who were section chiefs, division chiefs, or both has nearly doubled since 2004; however, less than a third of all chiefs were women in 2018.



# Center and Institute Directors by Gender, 2018

FIGURE 20



## KEY TAKEAWAY

Women constituted slightly less than a third of all center and institute directors.



LEARNERS



FACULTY



SENIOR LEADERSHIP

# Percentage of Department Chairs by Gender, 2009-2018

FIGURE 21



## KEY TAKEAWAY

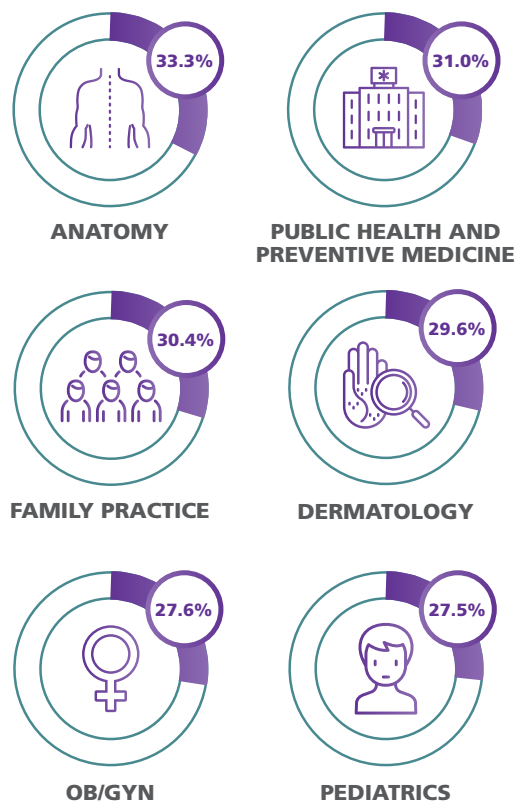
While there has been a steady rise in the proportion of women department chairs over the past 10 years, women still made up only 18% of all department chairs.



# Department Chairs by Gender and Department, 2018

FIGURE 22

DEPARTMENTS WITH HIGHEST PERCENTAGE OF WOMEN CHAIRS



	WOMEN	MEN	% WOMEN CHAIRS
<b>BASIC SCIENCES</b>			
Anatomy	26	52	33.3%
Biochemistry	26	74	26.0%
Microbiology	19	81	19.0%
Pathology (Basic Science)	10	30	25.0%
Pharmacology	17	71	19.3%
Physiology	12	67	15.2%
Other Basic Sciences	84	236	26.3%
<b>CLINICAL SCIENCES</b>			
Anesthesiology	16	107	13.0%
Dermatology	24	57	29.6%
Emergency Medicine	13	102	11.3%
Family Practice	42	96	30.4%
Internal Medicine	31	144	17.7%
Neurology	14	115	10.9%
Obstetrics and Gynecology	42	110	27.6%
Ophthalmology	14	89	14.0%
Orthopedic Surgery	1	118	0.8%
Otolaryngology	3	83	3.5%
Pathology (Clinical)	20	72	21.7%
Pediatrics	41	108	27.5%
Physical Medicine and Rehabilitation	10	53	15.9%
Psychiatry	34	120	22.1%
Public Health and Preventive Medicine	9	20	31.0%
Radiology	36	178	16.8%
Surgery	24	356	6.3%
Other Clinical Sciences	17	64	21.0%
<b>OTHER DEPARTMENTS</b>			
Dentistry	0	6	0.0%
Other Health Professions	9	18	33.3%
Social Sciences	3	0	100%
Veterinary Sciences	2	1	66.7%
All Others	19	28	40.4%
<b>TOTALS (Numbers and Average %)</b>	<b>618</b>	<b>2,656</b>	<b>18.9%</b>



## KEY TAKEAWAY

Many of the departments with the largest proportions of full-time women faculty also had the largest proportions of women chairs, except for anatomy.

LEARNERS

FACULTY

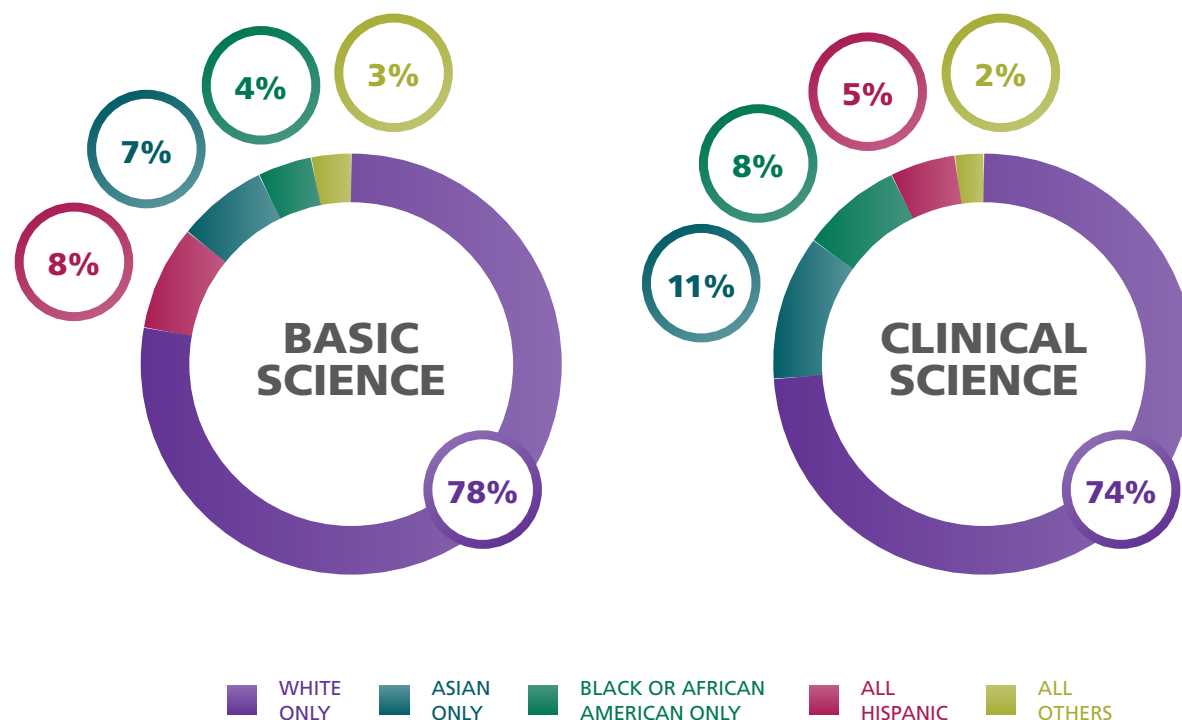
SENIOR LEADERSHIP

Source: AAMC Faculty Roster, Dec. 31, 2018 snapshot, as of April 30, 2019.

Note: This table excludes six chairs with missing gender data. The analysis of departments with the highest percentage of women chairs includes basic science and clinical departments only; "Other" departments were excluded.

# Women Department Chairs by Race/Ethnicity and Department Type, 2018

FIGURE 23



## KEY TAKEAWAY

URiM women made up 15% of women chairs in basic science and clinical science departments.

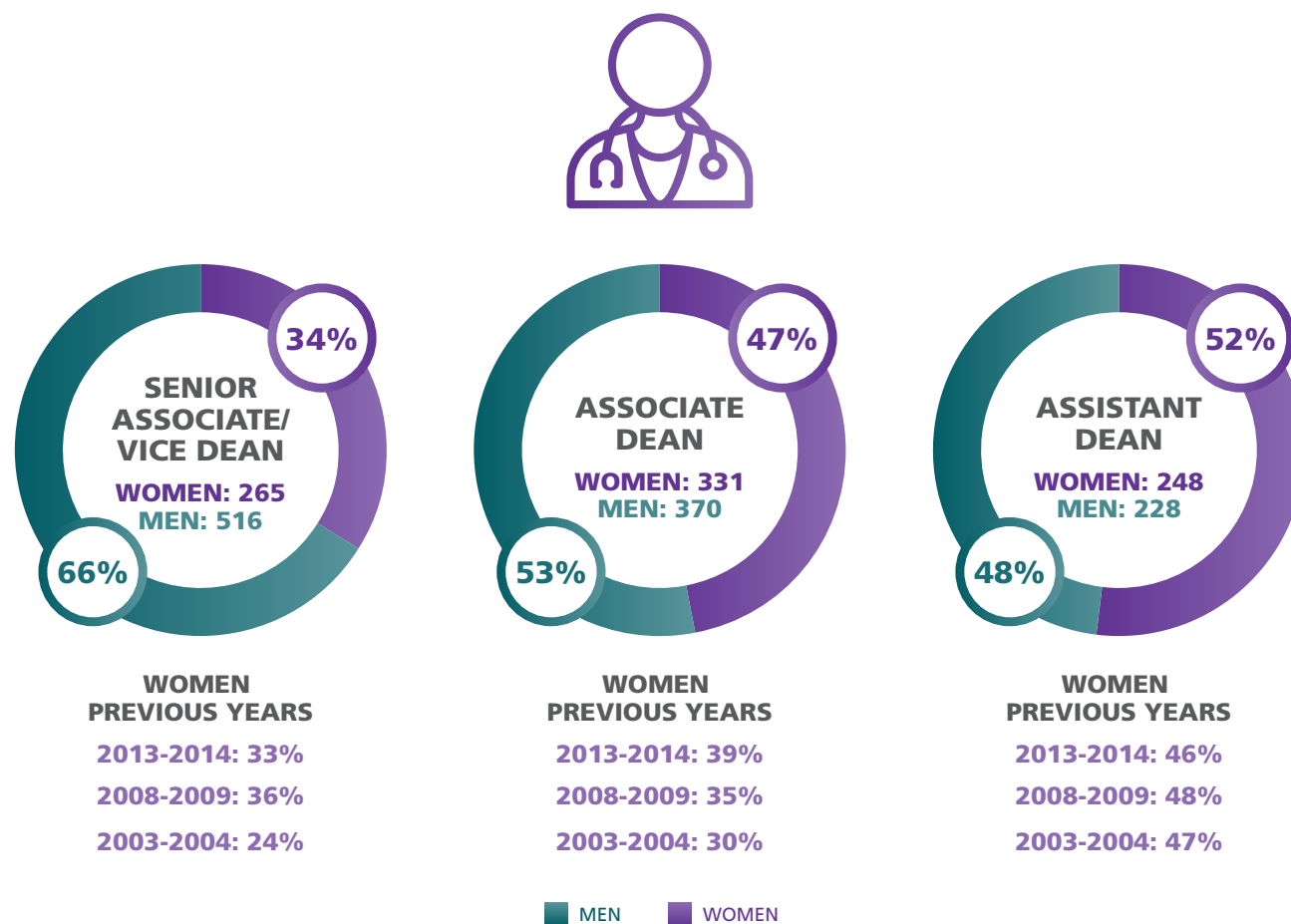


Source: AAMC Faculty Roster, Dec. 31, 2018 snapshot, as of April 30, 2019.

Note: This figure excludes six chairs with missing gender data and nine chairs with missing race/ethnicity data. The All Hispanic breakout includes all chairs who are reported as Hispanic/Latino alone or in combination with another race/ethnicity. The "All Others" breakout includes chairs who are reported as American Indian or Alaskan Native, Native Hawaiian or Other Pacific Islander, or other race/ethnicity and chairs who are reported as more than one race/ethnicity (who are not reported as Hispanic).

# Administrative Faculty Leaders by Gender, 2018

FIGURE 24



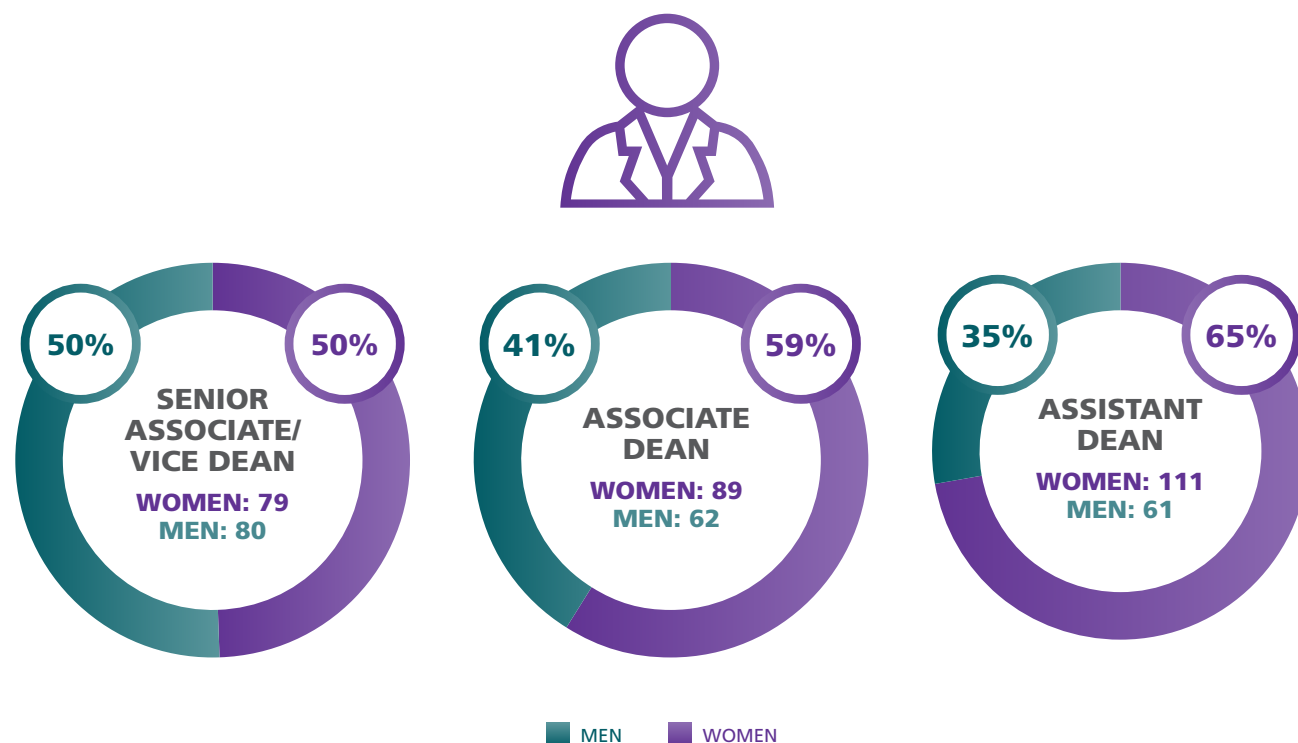
## KEY TAKEAWAY

The largest gains for women in faculty leadership positions since 2014 were at the associate dean level (8-percentage-point increase); the smallest gains were at the senior associate dean level (1-percentage-point change), with assistant deans remaining the only leadership position with a majority of women.



# Administrative Staff Leaders by Gender, 2018

FIGURE 25



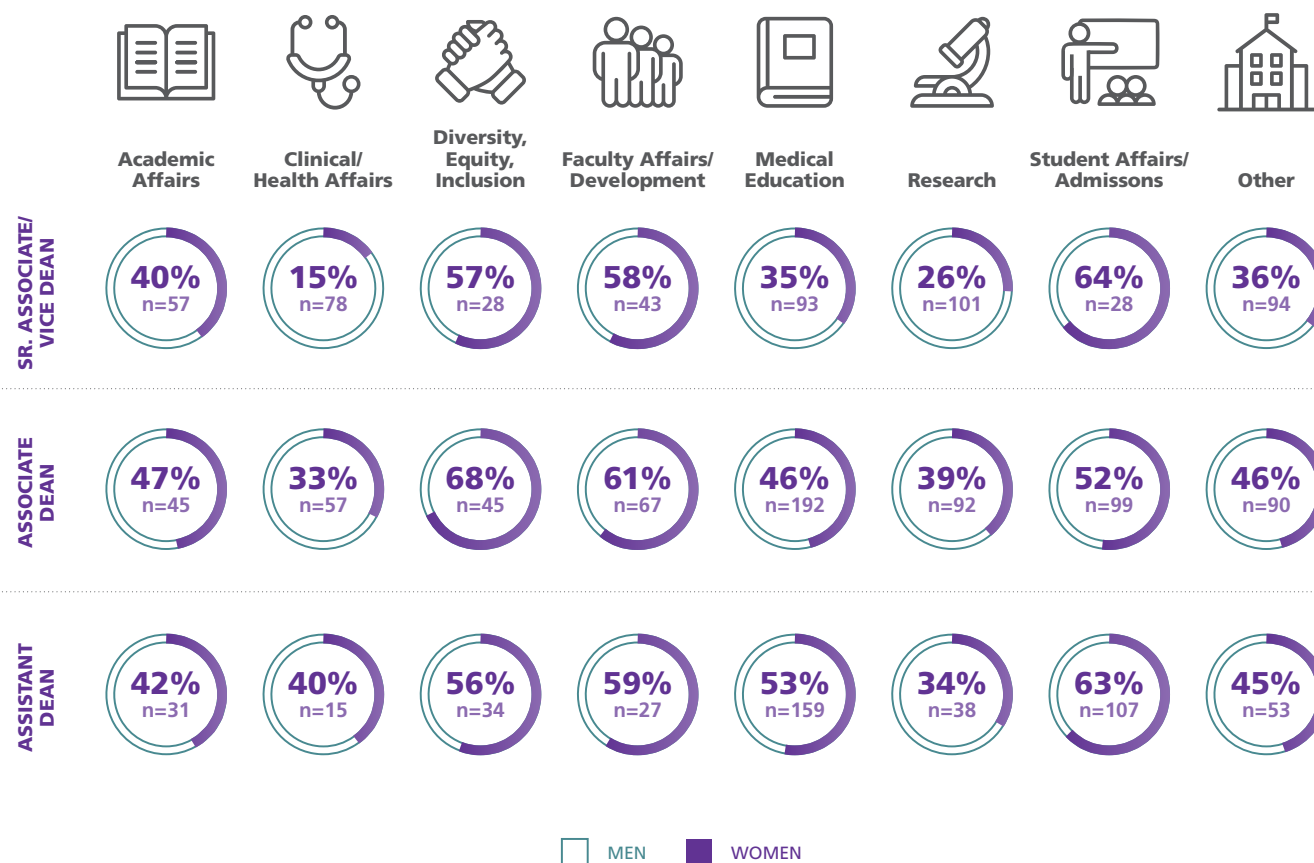
## KEY TAKEAWAY

At every administrative level, women made up a much larger proportion of staff leaders than faculty leaders.



# Administrative Faculty Leaders by Gender, Rank, and Office, 2018

FIGURE 26



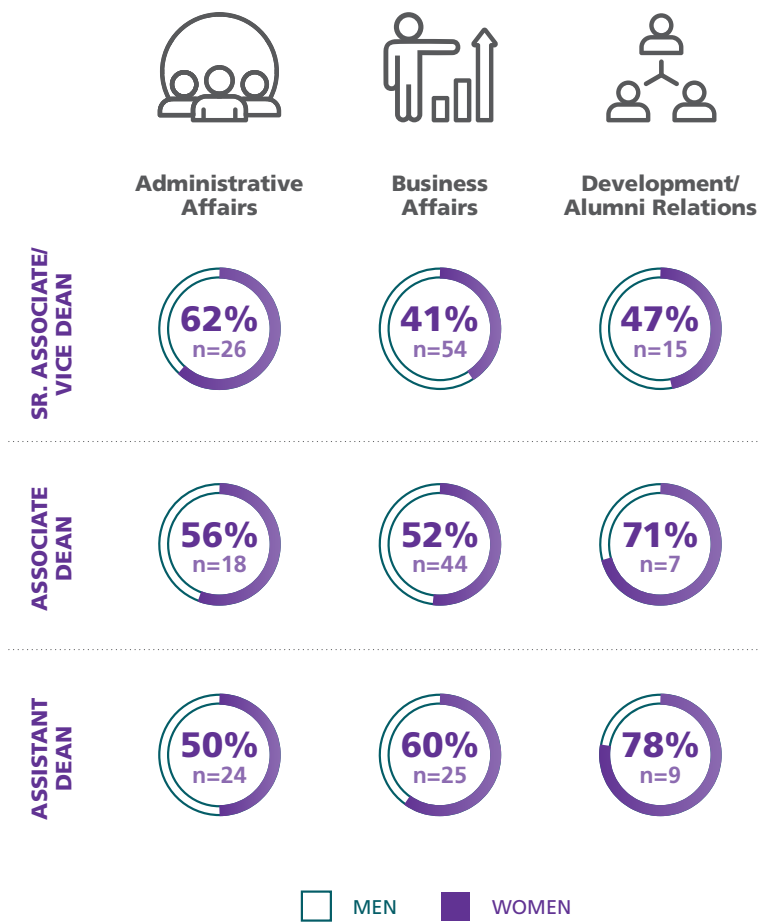
## KEY TAKEAWAY

The largest proportions of women faculty at all administrative levels were in offices for diversity, equity, and inclusion, faculty affairs/development, and student affairs/admissions, while the smallest proportions were in offices for research and clinical/health affairs.



# Administrative Staff Leaders by Gender, Rank, and Office, 2018

FIGURE 27



### KEY TAKEAWAY

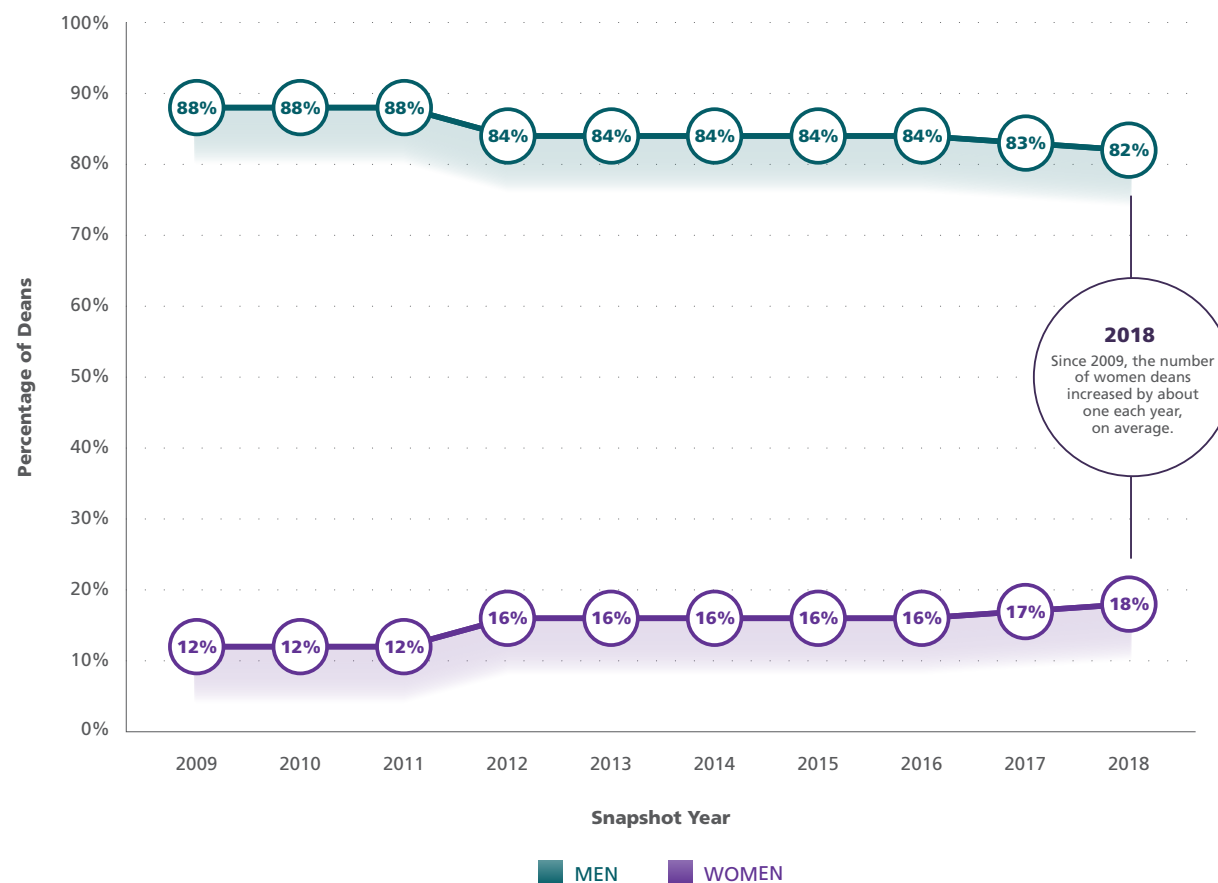
Women staff constituted at least 50% of medical school administrative leaders, except for senior associate deans in the business affairs and development/alumni relations offices.



Source: AAMC 2019 WIMS Benchmarking Survey. Data reflect staff counts as of Dec. 31, 2018 (n=98 institutions).  
Note: Academic Affairs, Clinical/Health Affairs, Diversity, Equity, and Inclusion, Faculty Affairs/Development, Medical Education, Research Affairs, and Student Affairs/Admissions have been removed due to small sample sizes.

# Percentage of Medical School Deans by Gender, 2009-2018

FIGURE 28



## KEY TAKEAWAY

While there has been a steady rise in the proportion of women deans over the past 10 years, women still made up only 18% of all U.S. medical school deans.



Source: AAMC Council of Deans records, as of Jan. 7, 2019. Data represent Dec. 31 snapshots for each year presented.

Note: This figure includes permanent deans, interim deans, and acting deans.



04

WOMEN IN ACADEMIC MEDICINE

---

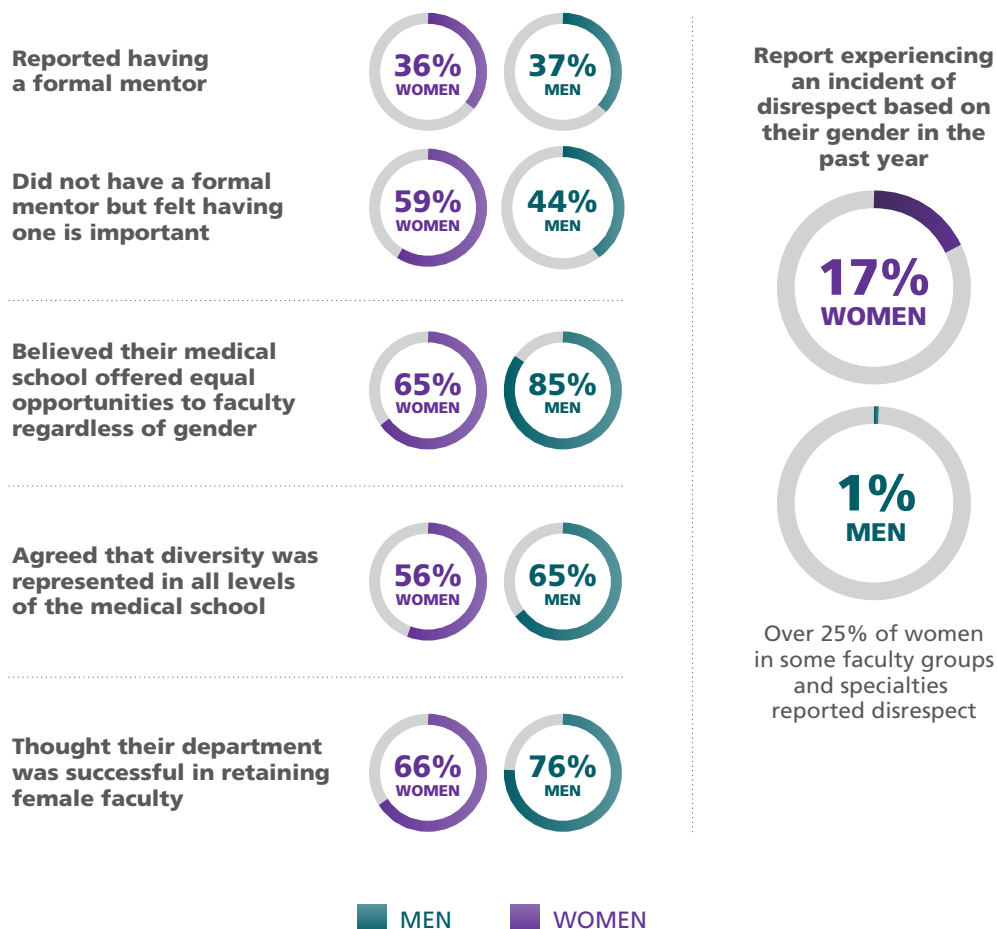
# **SUPPORTING FACULTY IN THE ACADEMIC MEDICINE WORKPLACE**



# Perceptions of Workplace Equity, 2019

FIGURE 29

## PERCENTAGE OF FACULTY WHO ...



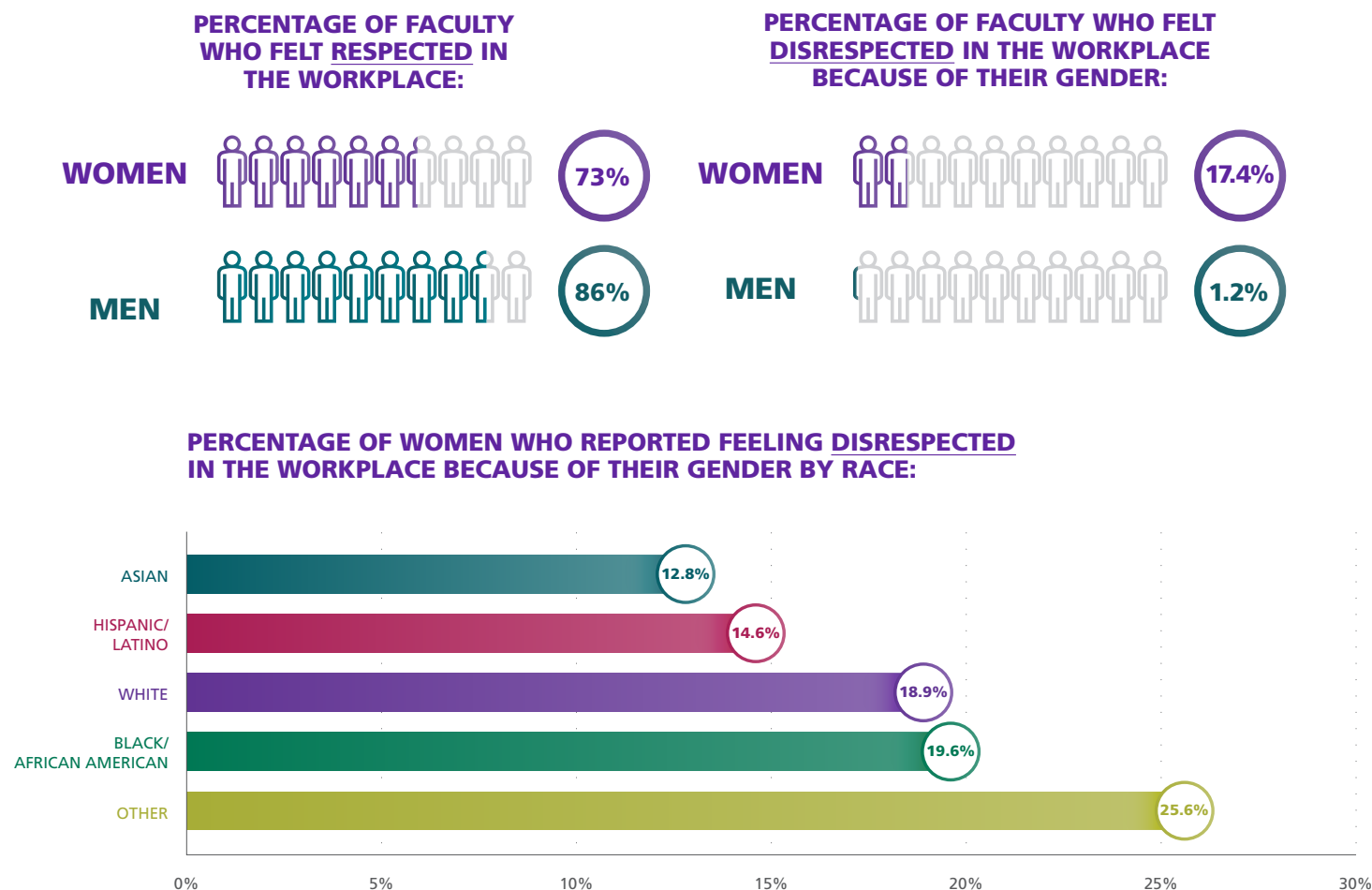
### KEY TAKEAWAY

Only 65% of women faculty agreed that their medical school offers equal opportunities regardless of gender, compared with 85% of men.

# Feeling Respected in the Workplace, 2019

FIGURE 30

## OVER THE PAST YEAR ...



### KEY TAKEAWAY

Overall, 73% of women faculty felt respected and 27% felt disrespected in the academic medicine workplace, with disrespect based on one's gender as the most cited reason.

#### PERCEPTIONS OF ACADEMIC MEDICINE IN THE WORKPLACE

Source: Data are from the AAMC StandPoint Faculty Engagement Survey and were collected between October 2015 and May 2019 from 36 institutions representing 22,233 faculty respondents.

Note: "Other" represents an aggregation of data from faculty who identified as "American Indian/Alaskan Native," "Native Hawaiian/Other Pacific Islander," "Other Race/Ethnicity," and those who selected two or more races/ethnicities.

# Departments With the Largest Percentages of Women Reporting Disrespect Based on Gender, 2019

FIGURE 31



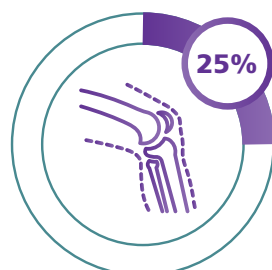
APPROXIMATELY 1 IN 4 WOMEN IN THE FOLLOWING DEPARTMENTS REPORTED EXPERIENCING DISRESPECT BASED ON THEIR GENDER OVER THE PAST YEAR.



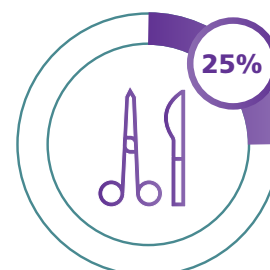
ANESTHESIOLOGY



EMERGENCY  
MEDICINE



ORTHOPEDIC  
SURGERY



SURGERY

□ MEN ■ WOMEN



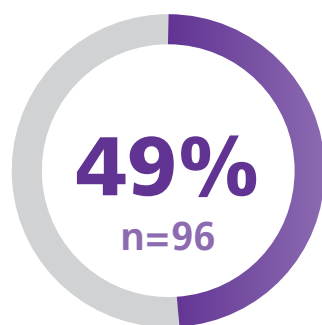
## KEY TAKEAWAY

Two of the four departments with the highest levels of disrespect were also among the departments with the smallest proportion — less than a third — of women full-time faculty.

# Institutional Roles To Support Women Faculty, 2018

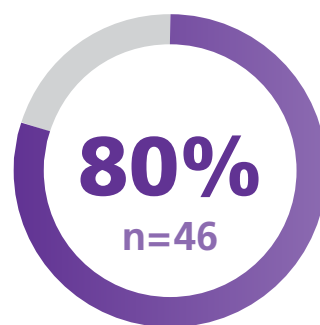
FIGURE 32

## PERCENTAGE OF MEDICAL SCHOOLS



Medical schools with a formal role dedicated to women/gender equity beyond Title IX/compliance roles

**0.38**  
Average Professional FTE Allocated for the Role  
(range=0.1-1.5)



Medical schools without a formal role but with a formal diversity role that includes efforts related to women/gender equity

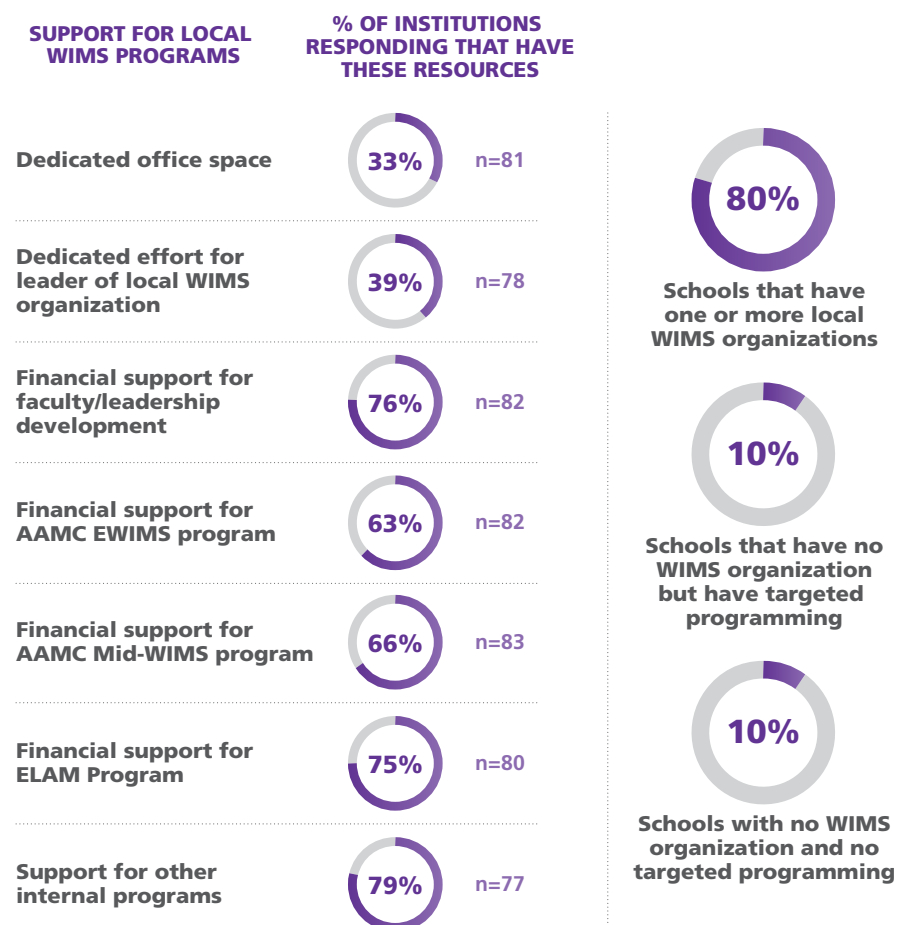


### KEY TAKEAWAY

Approximately half (49%) of medical schools had a formal administrative role dedicated solely to women/gender equity issues, beyond compliance roles.

# Institutional Resources To Support Women Faculty, 2018

FIGURE 33



## KEY TAKEAWAY

Twenty percent of schools did not have a local Women in Medicine and Science (WIMS) organization.



05

WOMEN IN ACADEMIC MEDICINE

---

# DISCUSSION POINTS



## Learners

Women and men have continued to apply to and enter medical school at similar rates, but women have never constituted 50% or more of medical school graduates. The class of 2008 (who applied in 2003-2004) yielded the most equitable matriculating and graduating class to date, yet women still constituted only 49% of those graduates. Women were again represented at over 50% among both 2018-2019 applicants and matriculants, so monitoring the attrition and graduate rates of these students will be imperative to better understand how to achieve equity among graduates and, ultimately, residents. In addition to monitoring gender equity, institutions should continue to monitor the other types of diversity women learners bring to their campuses. As shown in this report, women graduates continue to increasingly identify with racial and ethnic groups underrepresented in medicine whereas this is not the case with men.

Among residents, women continue to enter fields such as obstetrics and gynecology, pediatrics, and dermatology at high rates (83%, 71%, and 60%, respectively); however, little progress has been made in growing their representation in surgical specialties and other fields, such as radiology, that have traditionally had few women. As described in the AAMC's recent *Promising Practices for Understanding and Addressing Salary Equity at U.S. Medical Schools* report, there may continue to be inherent structural barriers or biases keeping women from entering certain fields. To fully understand how to grow women's representation across all medical fields, institutions must explore the factors, including mentorship and sponsorship, that influence women's specialty choice.

For the first time, this report features data about women's representation among graduate students and postdoctorate learners in the biological and medical sciences. To fully understand the faculty and leadership pipeline in academic medicine, examining the composition of these populations is critical. According to data collected by the National Science Foundation, while women have long outnumbered men among doctoral students in these fields, there have continued to be fewer women in postdoctorate positions than men. Given the importance of the postdoctorate experience for individuals who aspire to be faculty and the continued underrepresentation of women in many basic science departments, institutions must continue to mentor women graduate students, encourage them to pursue these advanced positions, and promote careers in academic medicine.



### DISCUSSION POINTS

# Faculty



The representation of full-time women faculty has grown by 5 percentage points in the past 10 years, from 36% to 41%, with no greater than a 1 percentage point increase in any given year during that period. While the definitions used to count part-time faculty differed slightly in the 2013 and 2019 WIMS surveys, women and men with part-time appointments continued to be almost equally represented (49.9% and 50.9%, respectively). Sharing data on part-time appointments by gender is important in debunking cultural narratives that purport that part-time schedules are discouraged and held primarily by women.

The percentage of promotions for women have been consistently higher than the proportion of women currently at those ranks since 2009. For example, 25% of women were full professors in 2018 while, on average, 35% of promotions to full professor were for women, perhaps indicating that the percentages of women at higher faculty ranks may continue to grow. However, data also illustrate that a larger percentage of men than women were promoted after a seven-year period. This gap between men and women narrows in examining 10-year promotion rates of the same cohort. Great attention needs to be paid to increasing the representation and the advancement of women of color. Over the past 10 years, the percentage of women from races/ethnicities underrepresented in medicine has grown approximately 1 percentage point in aggregate, with URiM women mostly concentrated at the assistant professor and instructor ranks.

Data from the AAMC StandPoint Faculty Engagement Survey presented in this report provide supporting evidence of women's perceptions of diversity, equity, and inclusion in the academic medicine workplace. In addition to the trends presented here on advancement, only 65% of women StandPoint Survey respondents agreed that their schools provided equal opportunities for promotion regardless of gender. Additionally, 27% of women felt disrespected in their workplaces, and respondents most commonly cited gender as the reason they felt disrespected. Institutions must increase their efforts to recruit and retain not only women, but diverse women in faculty positions at all ranks and provide a climate that promotes inclusion, professional success, and engagement.



## DISCUSSION POINTS

## Senior Leadership

While women have continued to grow in representation among division chiefs (up from 21% in 2008 to 29% in 2018) and made up 30% of center directors in 2018, they still account for slightly less than a third of these leaders. Because these positions may be precursors to more senior leadership roles within academic and clinical leadership, such as department chair roles, institutions must focus on increasing the representation of women at this level in order to create a pipeline for diversity among department chairs.

In looking at leadership across the dean's office, women have increasingly grown in representation at the assistant and associate dean level positions since 2014 (up 6 and 8 percentage points, respectively), but growth among senior associate dean positions has only risen 1 percentage point. While growth in assistant and associate dean positions is critical to developing pipelines for more senior roles, final decision-making and budgetary power often reside with senior associate deans. Additionally, this year's analysis showed that women who were in academic leadership positions were concentrated in roles seen as requiring "soft skills," such as offices for faculty, diversity, and student affairs, and were less represented in roles seen as requiring "hard skills," such as research and clinical affairs. This speaks to the ongoing need for fostering more diverse mentorship and sponsorship opportunities and integrating different kinds of educational programming in leadership courses for women.

Lastly, the steady, yet small, increases in the number of women department chairs and senior associate deans were mirrored in trends across medical school deans, of which 18% are women. Despite research that indicates the median tenure of first-time decanal positions is around five years and the number of new medical schools has increased over the past 10 years, the number of women deans has only increased by about one each year, on average, since 2009. Until greater progress is made earlier in the leadership pipeline, large increases in women's representation among medical school deans are unlikely.



### DISCUSSION POINTS

## Moving Forward

As academic medicine continues efforts to diversify the workforce, both within academia and among all medical and scientific fields, the unique needs of all women must remain an intentional focus and approached through an intersectional lens. Furthermore, institutions must take a hard look at the systemic inequities that have created and sustained barriers to the success of all individuals and identify ways to remove these barriers. The steady, incremental progress made since the *State of Women in Academic Medicine Report 2013-2014* suggests that leaders in academic medicine must continue to promote diversity and find solutions and devote resources to address gender inequity at their institutions. Using these data to take an evidence-based approach, along with recognizing the potential of every person in the academic medicine community, will help accelerate progress and move toward true equity and inclusion.

## FIGURES 6-8

### FIELD SPECIFICATIONS

#### National Science Foundation, Survey of Graduate Students and Postdoctorates in Science and Engineering, 2017 Fields

##### Biological and Biomedical Sciences

Biochemistry, Biology, Biomedical sciences, Biophysics, Biostatistics and bioinformatics, Biotechnology, Botany and plant biology, Cell, cellular biology, and anatomical sciences, Ecology and population biology, Epidemiology, Genetics, Microbiological sciences and immunology, Molecular biology, Neurobiology and neuroscience, Nutrition science, Pathology and experimental pathology, Pharmacology and toxicology, Physiology, Zoology and animal biology, Biological and biomedical sciences not elsewhere classified.

##### Health Sciences

**Clinical Medicine:** Anesthesiology, Cardiology, Endocrinology, Gastroenterology, Hematology, Neurology, Obstetrics/gynecology, Oncology/cancer research, Ophthalmology, Otorhinolaryngology, Pediatrics, Psychiatry, Public health, Pulmonary disease, Radiological sciences, Surgery, Clinical medicine not elsewhere classified.

**Other Health:** Communication disorders sciences, Dental sciences, Nursing science, Pharmaceutical sciences, Veterinary biological and clinical sciences, Other health not elsewhere classified.

#### National Science Foundation, Survey of Graduate Students and Postdoctorates in Science and Engineering, Fields Prior to 2017

##### Biological and Biomedical Sciences

Anatomy, Biochemistry, Biology, Biometry/epidemiology, Biophysics, Botany, Cell biology, Ecology, Entomology/parasitology, Genetics, Microbiology/immunology/virology, Nutrition, Pathology, Pharmacology, Physiology, Zoology, and Biosciences not elsewhere classified.

Beginning in 2007, Neurosciences was treated as a separate field.

##### Health Sciences

**Clinical Medicine:** Anesthesiology, Cardiology, Endocrinology, Gastroenterology, Hematology, Neurology, Obstetrics/gynecology, Oncology/cancer research, Ophthalmology, Otorhinolaryngology, Pediatrics, Preventive medicine/community health, Psychiatry, Pulmonary disease, Radiology, Surgery, Clinical medicine not elsewhere classified.

**Other Health:** Dental sciences, Nursing, Pharmaceutical sciences, Speech pathology/audiology, Veterinary sciences, Health related not elsewhere classified.



**Association of  
American Medical Colleges**

655 K Street, NW, Suite 100, Washington, DC 20001-2399

**T** 202 828 0400  
[aamc.org](http://aamc.org)