Women in Academic Medicine

NATIONAL INITIATIVES AND THE JCSW

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Past Chair, AAMC Group on Women in Medicine and Science
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Conflict of Interest Disclosure

I have no relevant financial relationships with a commercial entity producing healthcare-related products and/or services.
Today’s agenda

• The state of equity in
  o Leadership
  o Academic rank
  o Salary
• Why is the scale still tipped?
• What do we do about it?
Resources

Women in Academic Medicine Statistics

Recent data on full-time faculty, department chairs, and medical school deans are available on the AAMC Faculty Roster website at https://www.aamc.org/data/facultyroster/reports/.

The State of Women in Academic Medicine: The Pipeline and Pathways to Leadership, 2015-2016

GWIMS Toolkit

The GWIMS Toolkit is a series of presentations designed to provide practical guidance on a variety of topics relevant to women faculty in academic medicine. Each presentation provides an overview of the topic, relevant best practices, tips on implementation, and useful references for more information. We encourage you to share these resources with interested colleagues at your organization.

GWIMS Toolkit

Webinars

A collection of webinars on topics relating to the issues commonly experienced by women in academic medicine and science.

Webinars

Additional Resources

Women's Specialty Societies

A listing of women's specialty societies and specialty societies with women's groups or committees. If you know of additional women's specialty societies, please submit a link to their website to gwims@aamc.org.

Women's Specialty Societies
The State of Women in Academic Medicine

The Pipeline and Pathways to Leadership

2013-14

Learn
Serve
Lead

Association of American Medical Colleges
FIGURE 5
Then & Now: Full-Time Men and Women Faculty by Rank

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Professor</td>
<td>21%</td>
<td>79%</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>34%</td>
<td>66%</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>44%</td>
<td>56%</td>
</tr>
<tr>
<td>Instructor</td>
<td>56%</td>
<td>44%</td>
</tr>
<tr>
<td>Other</td>
<td>49%</td>
<td>51%</td>
</tr>
</tbody>
</table>

+7% points

<table>
<thead>
<tr>
<th>Rank</th>
<th>2003 – 2004</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Professor</td>
<td>14%</td>
<td>22%</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>26%</td>
<td>35%</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>37%</td>
<td>44%</td>
</tr>
<tr>
<td>Instructor</td>
<td>52%</td>
<td>57%</td>
</tr>
</tbody>
</table>
AAMC 2015: The State of Women in Academic Medicine

https://www.aamc.org/members/gwims/statistics/
HMS full-time faculty by rank

Total Full Time Faculty: 9,392

- Professor (1,286)
- Associate Professor (1,584)
- Assistant Professor (3,022)
- Instructor (4,602)
- Lecturer/Principal Associates (965)
Harvard women full-time faculty by rank (1980–2017)

- Instructor/Lecturer
- Assistant Professor
- Associate Professor
- Professor

21% (1980), 31% (2017)

07-1-16

Harvard women full-time faculty by rank (1980–2017)
Why does rank matter?

- Tenure...
- Compensation benchmarking includes rank
- Candidacy for leadership roles
- Self reinforcing – who drives decisions
  - Search committee membership
  - Promotion committees

... and because there should be equity
National leadership roles

Figure 9: A 10-year Comparison of Women’s Representation in Permanent Leadership Positions

Women are continuing to make progress in obtaining administrative positions in the dean’s office, yet the percentage of women in department-level and dean-level positions remains low compared to men.
### Department chairs and gender 2013

<table>
<thead>
<tr>
<th>Department</th>
<th>Total # of Chairs</th>
<th>% of Chairs Who Are Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Sciences</td>
<td>2</td>
<td>100%</td>
</tr>
<tr>
<td>Other Health Professions</td>
<td>18</td>
<td>39%</td>
</tr>
<tr>
<td>All Other Departments</td>
<td>24</td>
<td>23%</td>
</tr>
<tr>
<td>Public Health &amp; Preventive Medicine</td>
<td>26</td>
<td>27%</td>
</tr>
<tr>
<td>Other Clinical Sciences</td>
<td>42</td>
<td>24%</td>
</tr>
<tr>
<td>Obstetrics &amp; Gynecology</td>
<td>129</td>
<td>22%</td>
</tr>
<tr>
<td>Anatomy</td>
<td>71</td>
<td>21%</td>
</tr>
<tr>
<td>Other Basic Sciences</td>
<td>228</td>
<td>20%</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>129</td>
<td>20%</td>
</tr>
<tr>
<td>Family Practice</td>
<td>109</td>
<td>19%</td>
</tr>
<tr>
<td>Dermatology</td>
<td>58</td>
<td>19%</td>
</tr>
<tr>
<td>Microbiology</td>
<td>90</td>
<td>18%</td>
</tr>
<tr>
<td>Pharmacology</td>
<td>82</td>
<td>17%</td>
</tr>
<tr>
<td>Veterinary Sciences</td>
<td>6</td>
<td>17%</td>
</tr>
<tr>
<td>Pathology</td>
<td>127</td>
<td>16%</td>
</tr>
<tr>
<td>Physical Medicine &amp; Rehabilitation</td>
<td>49</td>
<td>16%</td>
</tr>
<tr>
<td>Radiology</td>
<td>150</td>
<td>16%</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>108</td>
<td>15%</td>
</tr>
<tr>
<td>Anesthesiology</td>
<td>101</td>
<td>13%</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>126</td>
<td>12%</td>
</tr>
<tr>
<td>Internal Medicine</td>
<td>130</td>
<td>12%</td>
</tr>
<tr>
<td>Neurology</td>
<td>101</td>
<td>11%</td>
</tr>
<tr>
<td>Emergency Medicine</td>
<td>83</td>
<td>10%</td>
</tr>
<tr>
<td>Physiology</td>
<td>80</td>
<td>9%</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>89</td>
<td>8%</td>
</tr>
<tr>
<td>Otolaryngology</td>
<td>72</td>
<td>3%</td>
</tr>
<tr>
<td>Surgery</td>
<td>294</td>
<td>1%</td>
</tr>
<tr>
<td>Orthopedic Surgery</td>
<td>100</td>
<td>0%</td>
</tr>
<tr>
<td>Dentistry</td>
<td>6</td>
<td>0%</td>
</tr>
</tbody>
</table>
Department Chairs and Gender in 2015

https://www.aamc.org/members/gwims/statistics/
# Department Chairs and Gender

<table>
<thead>
<tr>
<th></th>
<th>Basic Science</th>
<th></th>
<th>Clinical</th>
<th></th>
<th>All chairs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Women</td>
<td>Men</td>
<td>Women</td>
<td>Men</td>
<td>Women</td>
</tr>
<tr>
<td>2015 Total</td>
<td>141</td>
<td>546</td>
<td>277</td>
<td>1742</td>
<td>437</td>
</tr>
<tr>
<td>2015 Average</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>13</td>
<td>3</td>
</tr>
<tr>
<td>2009 Average</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>13</td>
<td>3</td>
</tr>
<tr>
<td>HMS 2018</td>
<td>4</td>
<td>7</td>
<td>8</td>
<td>41</td>
<td>11</td>
</tr>
</tbody>
</table>

Average denotes average by medical school

<table>
<thead>
<tr>
<th>2015</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deans</td>
<td>20</td>
<td>105</td>
</tr>
<tr>
<td>Interim Deans</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>HMS Affiliate CEOs</td>
<td>4</td>
<td>7</td>
</tr>
</tbody>
</table>

https://www.aamc.org/members/gwims/statistics/
Residency graduates in NY state

Physician Starting Salaries Over Time, Mean And Controlling For Observable Characteristics, By Gender, Selected Years 1999-2008


LoSasso et al., Health Affairs, 2011
Income by race and gender

Fig 1 | Trends in adjusted annual median income of US physicians in American Community Survey, by race-sex subgroup. 2000-13. Adjusted earned incomes are

Ty, Seabury, Jena BMJ 2016
Salaries for physician investigators

- Mailed survey to 2000-2003 K award recipients
- Females earned ~$13,400 less than males after adjustment for specialty, academic rank, leadership positions, publications, and research time

Jagsi et al., JAMA, 2012
Internal Medicine Residency Program Directors

Salary differential in cardiology

- National data base of 3187 cardiologists in 161 practices
  - 229 female (7%)
  - 53% of women, 28% men non-invasive cardiology
  - 11% of women, 39% men invasive cardiology
- Analysis adjusted for age, sex, subspecialty, full-time status, half-days worked, days off, wRVUs, types of visits and procedures; practice geographical area, compensation model, ownership model

Jagsi R et al. JACC 2016
Salary differential in cardiology

Jagsi R et al. JACC 2016
Resources beyond salary?

• Administrative support
• Laboratory space
• Access to postdocs, RAs
• Clinical practice support
• Examination room space
• OR block time

• No data
Why is the scale still tipped?
Age and Earnings in College Graduates

Potential reasons for pay gap

- “Explained”
  - Hours worked
  - Education
  - Experience/employment gaps

- “Residual”
  - Blatant discrimination
    - Sexual harassment
  - Implicit bias
  - Bargaining and negotiation
  - Willingness to leave for another job

Maternity leave and salary

- 17 year follow up of ~500 faculty in 24 institutions
- Leave associated with decrease in salary
  - Defined as >2 months on leave
- Median leave <3 months
- Median time part-time <3 years
- Associated with $28,000 decrease in salary

Freund et al, Ac Med 2016
Implicit bias

Age ('Young - Old' IAT). This IAT requires the ability to distinguish old from young faces. This test often indicates that Americans have automatic preference for young over old.

Gender - Career. This IAT often reveals a relative link between family and females and between career and males.

Gender - Science. This IAT often reveals a relative link between liberal arts and females and between science and males.

Weapons ('Weapons - Harmless Objects' IAT). This IAT requires the ability to recognize White and Black faces, and images of weapons or harmless objects.

Sexuality ('Gay - Straight' IAT). This IAT requires the ability to distinguish words and symbols representing gay and straight people. It often reveals an automatic preference for straight relative to gay people.

Race ('Black - White' IAT). This IAT requires the ability to distinguish faces of European and African origin. It indicates that most Americans have an automatic preference for white over black.

Arab-Muslim ('Arab Muslim - Other People' IAT). This IAT requires the ability to distinguish names that are likely to belong to Arab-Muslims versus people of other nationalities or religions.

Presidents ('Presidential Popularity' IAT). This IAT requires the ability to recognize photos of Donald Trump and one or more previous presidents.

Weight ('Fat - Thin' IAT). This IAT requires the ability to distinguish faces of people who are obese and people who are thin. It often reveals an automatic preference for thin people relative to fat people.

Native American ('Native - White American' IAT). This IAT requires the ability to recognize White and Native American faces in either classic or modern dress, and the names of places that are either American or Foreign in origin.
RCT of Jane or Joe

Fig. 1. Competence, hireability, and mentoring by student gender condition (collapsed across faculty gender). All student gender differences are significant ($P < 0.001$). Scales range from 1 to 7, with higher numbers reflecting a greater extent of each variable. Error bars represent SEs. $n_{\text{male student condition}} = 63$, $n_{\text{female student condition}} = 64$.

Handelsman PNAS 2012
## Mean projected salary offers

<table>
<thead>
<tr>
<th></th>
<th>Male target student</th>
<th>Female target student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male hiring faculty</td>
<td>$30,520</td>
<td>$27,111</td>
</tr>
<tr>
<td>Female hiring faculty</td>
<td>$29,333</td>
<td>$25,000</td>
</tr>
</tbody>
</table>

Handelsman PNAS 2012
Are goals influencing outcomes?

Career goals by gender amongst 1267 K award recipients
Jones et al. Ac Med 2016
### Academic productivity by gender

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
<th>Adjusted relative number</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean total publications</td>
<td>69</td>
<td>49</td>
<td>0.71</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>H-index</td>
<td>34</td>
<td>25</td>
<td>0.72</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Federal funding past 2 yrs</td>
<td>27.6%</td>
<td>29%</td>
<td>0.96</td>
<td>.8</td>
</tr>
</tbody>
</table>

National faculty survey recruited 1995; data from 2012-2013
24 medical schools, >1200 faculty

Raj et al. Academic Medicine 2016
Research publications and gender 2010-11

Erren et. Al. JAMA Int Med 2014
Authorship Roles

Macaluso et al. Ac Med 2016
Journal reviews and gender

Erren et. Al. JAMA Int Med 2014
Editorial board membership and gender

Erren et. Al. JAMA Int Med 2014
Break the scholarship barrier

- Negotiate authorship early in projects
- Collaborators
- Mentors
- Commit to timeline
- Schedule on your calendar
- Writing groups
- Resubmit if rejected
Time spent parenting

- Study of K awardees
- Women spent 8.5 hours more per week on parenting or domestic tasks
- Women spent 2.9 hours fewer hours per week on research
- Difficulty with completion of after hours work:
  - 41% of women vs 26% of men

Jolly et al, Ann Int Med 2014
How can we fix this?
Increasing women in leadership

• Stop sexual harassment
• Mitigate bias
  o Hiring, promotions, stretch roles
  o Watch and monitor language in ads, evaluations, promotion letters
• Bystander training
• Mentorship
• Sponsorship
• Transparency
From >80,000 military evaluations

Managers Use More Positive Words to Describe Men in Performance Reviews and More Negative Ones to Describe Women

Words used to describe men
- Analytical
- Competent
- Athletic
- Dependable
- Confident
- Versatile
- Articulate
- Level-headed
- Logical
- Practical
- Arrogant
- Irresponsible

Words used to describe women
- Compassionate
- Enthusiastic
- Energetic
- Organized
- Inept
- Selfish
- Frivolous
- Passive
- Scattered
- Opportunistic
- Gossip
- Excitable
- Vain
- Panicky
- Temperamental
- Indecisive

IN DESCENDING ORDER OF RELATIVE FREQUENCY

SOURCE: AN ANALYSIS OF 81,000 PERFORMANCE EVALUATIONS, DAVID G. SMITH ET AL., 2018

Harvard Business Review  May 25, 2018
Results

This advert is masculine-coded

This job ad uses more words that are subtly coded as masculine than words that are subtly coded as feminine (according to the research). It risks putting women off applying, but will probably encourage men to apply.

Of course, there are plenty of other factors that affect the diversity of applicants for this role, and of the people who end up being hired. These include the company’s reputation for inclusiveness, its culture, and the behaviour and prejudices (both conscious and unconscious) of the interviewers.

Masculine-coded words in this ad

- individual
- analysis
- analyses

See the full list of masculine-coded words

Feminine-coded words in this ad

- support

http://gender-decoder.katmatfield.com
Search Practices

- Policies and procedures
- Committee membership
  - Diversity in many dimensions
  - Not just 1 underrepresented member
  - Attention to diversity tax
- Unconscious bias training
- Care in advertisement language
- Outreach focused on female candidates
- Objective selection criteria
- Diverse pool and short list
Leadership Training

• OFA Leadership Training

• National Training
  o AAMC
    • Early Career Leadership Seminar (EWIMS)
      o Instructors/Assistants at least 1-2 years on faculty
    • Mid-Career Leadership Seminar (mid-WIMS)
      o Associate Professors eligible
      o Executive Leadership in Academic Medicine (ELAM)
        • Associate or full Professor

• Professional Societies
When Harvard established the JCSW in 1973

- 2 of 136 ad hoc committee members were women
- 94% of the voting faculty were men
- <20% of Instructors were women; now >50%

Interval accomplishments include:
- Ombuds office
- Lactation rooms
- Family leave policies
- Tenure clock extensions
- Child care summit
- Dean’s award for women’s leadership
Current vision statement

To facilitate and promote leadership, career development, professional advancement, community building, and work life integration for women faculty, trainees (fellows and residents), students (graduate, medical and dental) and staff at Harvard Medical School (HMS) and Harvard School of Dental Medicine (HSDM).
Statement of purpose

This inclusive committee exists to:

• Promote professional equity and inclusion
• Cultivate leadership and personal advocacy skills
• Facilitate mentorship for women staff, trainees, students and faculty
• Provide community and enhance networking opportunities within the JCSW
• Influence policies that advance women
• Support work-life integration
• Facilitate community outreach to help empower women
• Identify issues, barriers and challenges within the HMS and HSDM community
• Offer resolutions and recommendations to the Dean’s Office and administration
Eleanor and Miles Shore 50th Anniversary Fellowship Program for Scholars in Medicine

• Established 1996
• ~ 75 fellowships each year of $30,000
  o Some awarded by central committee
    • 2/3 score scientific merit; 1/3 “personal need”
    • departmental programs may consider personal need
HMS Shore Fellowship Program

Connelly MT et al. Acad Med 2016; doi: 10.1097/ACM.0000000000001541
AAMC Efforts
AAMC GWIMS accomplishments

- Academic medicine position papers
- Awards for advancement of women
- Many tool kits
  - Building WIMS programs
  - Negotiation
  - Successful award nominations
  - Women of color
  - Preparing for your first job in academic medicine
  - Caretaking in academic medicine
  - Equity in promotion
- Advocacy partnership
  - Salary equity
  - Awards for women
GWIMS Toolkit Volumes and Chapters:
Volume 1: Leveraging Your Career

Chapter 1: Managing through Teamwork for Maximum Performance (Judy Weber)

Chapter 2: Crafting a Fundable Grant (Emina Huang)

Chapter 3: Workshop Preparation and Presentation (Carla Spagnoletti, Rachel Bonnema, Melissa McNeil, Abby Spencer, & Megan McNamara)

Chapter 4: Crafting Successful Award Nominations
  - The Art of Successful Nominations (Jocelyn Chertoff)
  - Preparing Successful Award Nominations (Elizabeth Travis)

Chapter 5: Part-time Faculty in Academic Medicine, Individual and Institutional Advantages (Linda Chaudron, Susan Pollart & Aimee Grover)

Chapter 6: Writing an Effective Executive Summary (Roberta Sonnino)

Chapter 7: Mentoring Women- A Guide for Mentors (Mary Lou Voytko & Joan Lakoski)

Chapter 8: Mentoring Women- A Guide for Mentees (Mary Lou Voytko & Joan Lakoski)
Chapter 9: Strategies for Cultivating Career Satisfaction and Success through Negotiation (Reshma Jagsi, Martha Gulati, & Rochelle DeCastro Jones) PDF

Chapter 10: A Case Study: Creative Faculty Development through your GWIMS Office (Catherine Lynch) PDF

Chapter 11: Transitioning to a New Role: Practical Tips on Navigating From One Chapter to the Next (Archana Chatterjee, Meenakshi Singh, Roberta Sonnino) PDF

Chapter 12: Strategies for Advancing the Careers of Women of Color in Academic Medicine- Individual Strategies (Archana Chatterjee, Chiquita Collins, Linda Chaudron, Barbara Fivush, Laura Castillo-Page, Diana Lautenberger, Ashleigh Moses) PDF

Chapter 13: A Guide to Prepare for Your First Job in Academic Medicine (Marin Gillis, Lori Wagner, Catherine Dayton, Allison Quick, Gwen McIntosh, Julie Lockman, Julie Boiko, Nicole Redmond, Rebecca Ganetzky, Erin E Medlin, Michele Kutzler, Diann Krywko, Reena Bhatt, Kelly Quesnelle, Robyn Gray, Julie C. Servoss, Simone Thavaseelan & Cynthia Fuhrmann) PDF

Volume 2: Institutional Strategies for Advancing Women in Medicine

Chapter 1: How to Start and Maintain a Robust WIMS Organization (Julie Wei & Paige Geiger)


Chapter 3: Women’s Leadership and the Impact of Gender (Toi Blakley Harris, Susan Pepin, & Amelia Grover)

Chapter 4: Implementing an Intensive Career Development Program for Women Faculty (Tamara Nowling, Elizabeth Travis, Abby Mitchell, Mugé Simsek, Erin McClure)

Chapter 5: Strategies for Advancing the Careers of Women of Color in Academic Medicine- Institutional Strategies (Archana Chatterjee, Chiquita Collins, Linda Chaudron, Barbara Fivush, Laura Castillo-Page, Diana Lautenberger, Ashleigh Moses)

Chapter 6: Equity in Promotion (Toi Blakley Harris, Maria Baggstrom, Melissa Bauman, Camille Clare, Libby Ellinas, Magali Fassiotto, Elizabeth Gillespie, Kathy Giendlung, Richelle Koopman, Linda Nelson, Jennifer Sasser & Nancy Spector)
Engaging with GWIMS

- GWIMS conference with GFA July 2019 in Chicago
- Join the newly bi-directional listserve
- Volunteer to join task force