

# 3<sup>rd</sup> AAIM Consensus Conference on the Physician Investigator Workforce:

## *Minority, Gender and Generational Issues: Opportunities to Improve the Physician- Investigator Pipeline*

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# Areas of Focus

- Minorities
- Gender Differences
- Generational Issues

Recognition that individuals are frequently included in more than one category.

# Underrepresented '**Minority**' (URM/URIM)

Initially, AAMC defined URM by *racial/ ethnic groups*:

African American

Mexican American

Mainland Puerto Rican

Native American (American Indians, Alaska Natives  
and Native Hawaiians)

AAMC broadened its definition in 2003 to the following:

*“those racial and ethnic populations that are underrepresented in the medical profession relative to their numbers in the general population”*

# Academic Medicine Interest

64% of all medical students are *interested* or *very interested* in pursuing a career in academic medicine with *no difference based on ethnicity or gender*

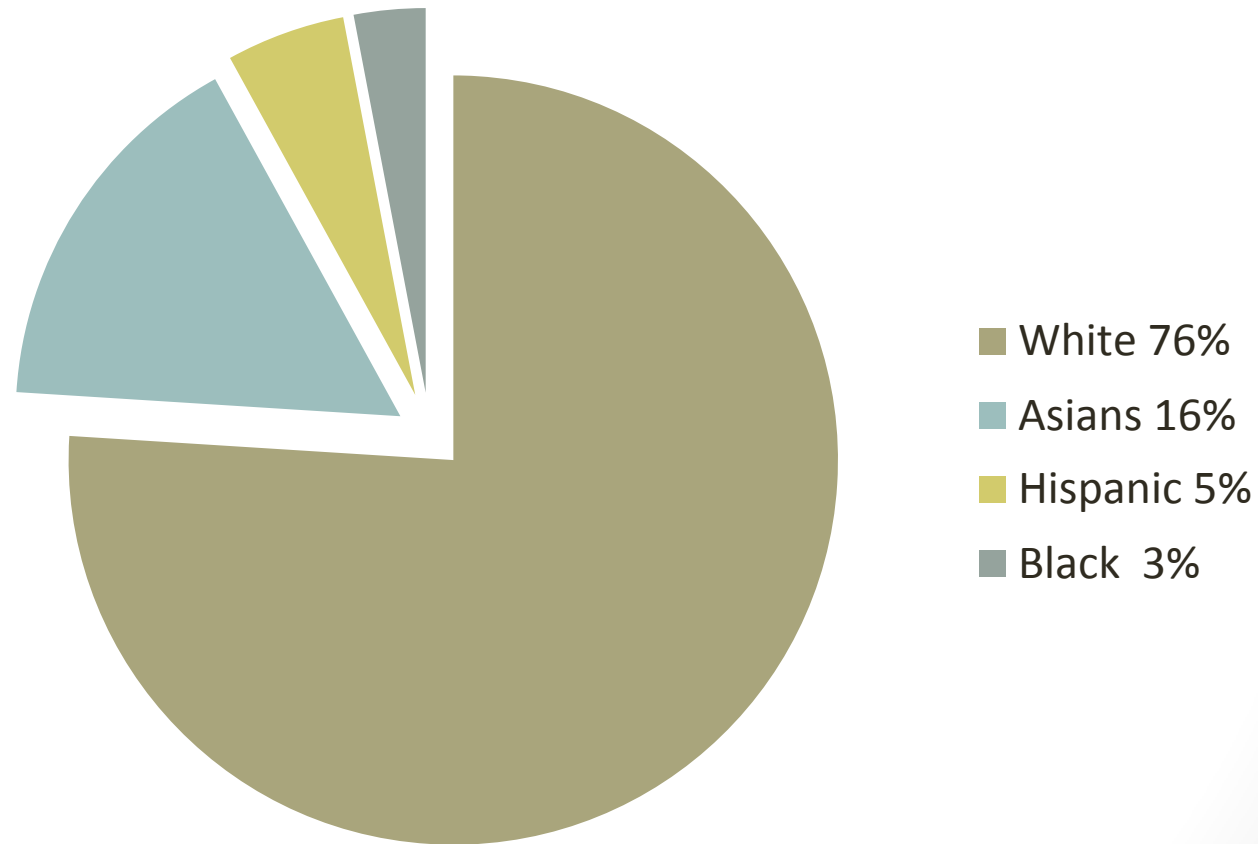
*Acad Med. 2013;88:1299–1307*

# URIM Medical Student : *What We Know*

- **Latinos** (17 % of U.S. population) constitute 4 % of medical students
- **Blacks** (13 % of U.S. population) constitute 6% of medical students
- States with ***laws banning consideration of race or ethnicity in admissions decisions*** resulted in a **17% decline** in URIM medical school admissions.
  - Arizona, Florida, Michigan, Nebraska, New Hampshire, Oklahoma

# U.S. Medical School Faculty by Race / Hispanic Origin

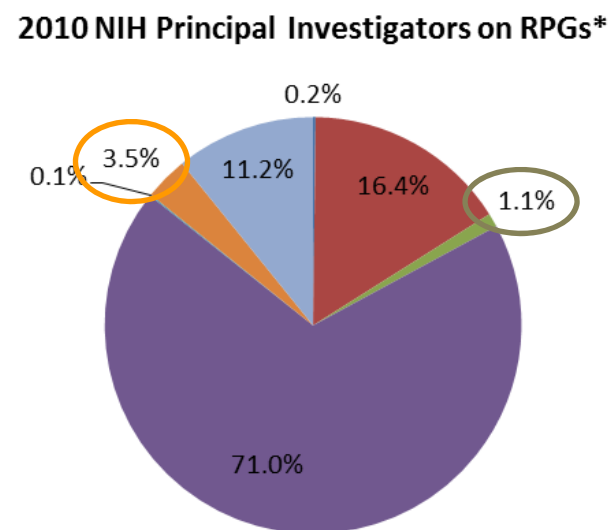
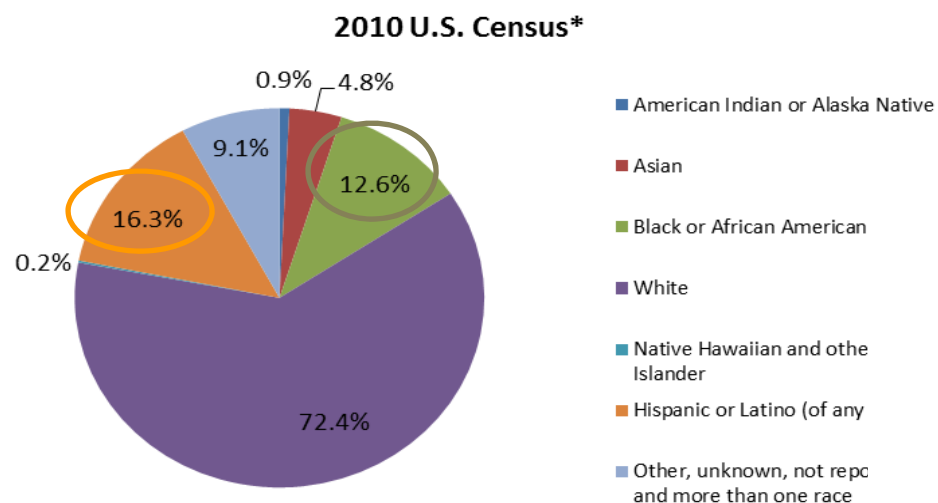
AAMC 2014



AAMC Faculty Roster 12/31/2013

<https://www.aamc.org/download/367140/data/13table3.pdf>

# Race and Ethnicity of the 2010 U.S. Population and the 2010 NIH Principal Investigators



2010 U.S. Census Bureau Report, <http://2010.census.gov/2010census/data/2010/>(left)

NIH Principal Investigators on Research Project Grants, NIH IMPAC II(right)

Total percentage is over 100 because those identified as Hispanic/Latino may also have identified as other races. PI information collected by NIH includes the option for an applicant to signify both race and ethnicity.

ACD Working Group on Diversity in the Biomedical Research Workforce:

<http://acd.od.nih.gov/Diversity%20in%20the%20Biomedical%20Research%20Workforce%20Report.pdf>

# URIM Junior Faculty: *What We Know*

URIM investigators are less likely to receive NIH funding despite similar achievements

URIM junior faculty report distinct obstacles in comparison to their counterparts to achieving academic promotion

Ginther , et al. Race, Ethnicity and NIH Research Awards. Science 19 August 2011 . Vol 333 no. 6045 pp 1015- 1019  
Palepu A, Friedman RH, Barnett RC, et al. Medical faculty with mentors are more satisfied. J Gen Intern Med. 1996;11(4 suppl):107



# Gender Equity in Compensation

## Survey of recipients of NIH K08 and K23 awards

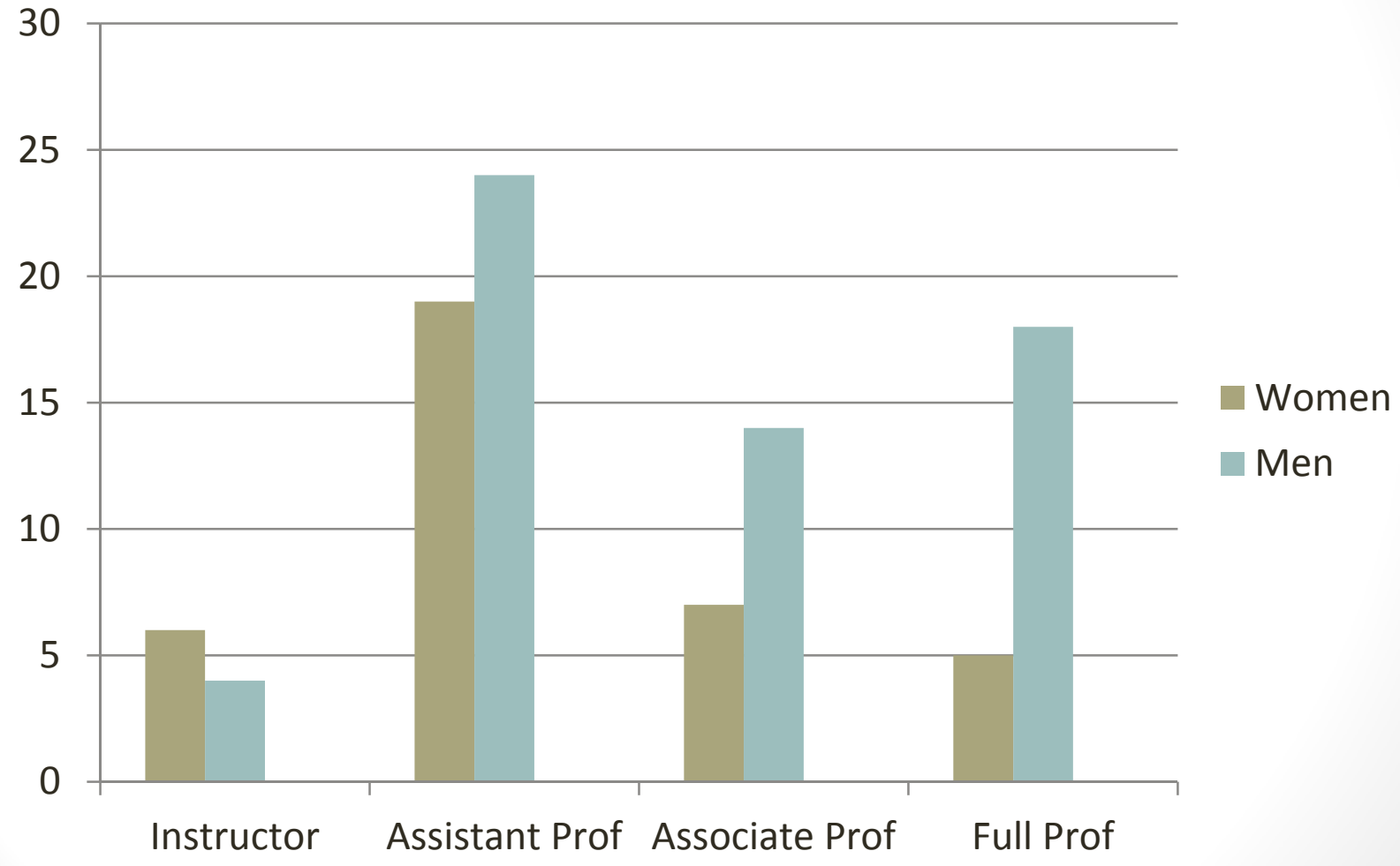
(1,729 Responses)

- Mean salary
  - Women - \$167,669
  - Men - \$200,433
- Adjusted for specialty, academic rank, publications, etc
  - Women earned \$12,194 less

# Full Time Faculty Rank and *Gender* (2014)

AAMC 2014

(Women 38%; Men 62%)

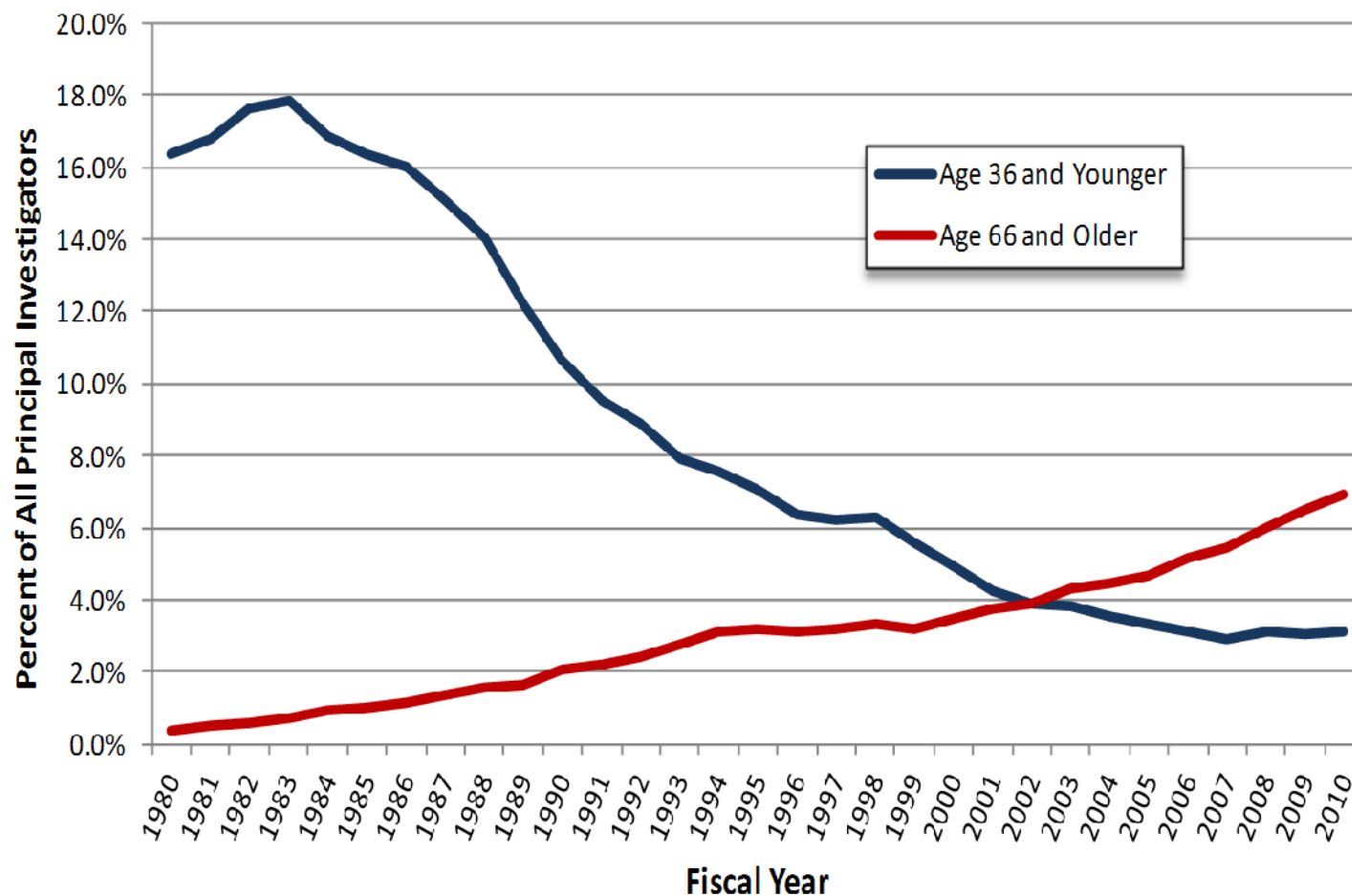


# **Women:** *What We Know*

## *“The Leaky Pipeline”*

- Increase dropout of women at the level of Assistant Professor
- Decrease number transitioning from NIH Career Development Awards to Independent Investigator grants

## Percentage of NIH R01 Principal Investigators Age 36 and Younger and Age 66 and Older (Fiscal Years 1980 to 2010)



<http://nexus.od.nih.gov/all/2012/02/13/age-distribution-of-nih-principal-investigators-and-medical-school-faculty/>

Accessed: 10/25/15

## Junior Investigators: *What We Know*

- Success rates for new applications has decreased to 17%
- Time requirement for grant submission affects productivity
- Difficulties of navigating the grant application process

FASEB (2011) Funding crisis threatens progress in medical research. Office of Public Affairs: Bethesda, MD, 3 March

Healing the NIH Funded Biomedical Research Enterprise. Commentary Cell 161, Issue 7; 18 June 2015, Pages 1485–1491

# Mentoring: *What We Know*

Studies demonstrate ***increased retention of junior faculty*** with structured mentoring

Mentoring of *URIM* and *female* junior faculty resulted in a ***58% retention rate*** (compared to 20% before the program)

Mentoring is critical to ***retain individuals in the pipeline***

Med Teach. 2002;24:550-557

Acad Med. 2002;77:377-384

J Natl Med Assoc. 2006;98:1449-1459

# Power of Diversity

- Diverse groups may outperform homogenous groups in research endeavors by increasing the number of:
  - cognitive tools
  - perspectives
- “The Difference” by Scott E. Page, PhD. examines ***complex systems and how diversity plays a critical role in the dynamics of such systems.***

# DISCUSSION POINTS



What strategies can be used to encourage individuals with diverse backgrounds to enter physician – investigator careers?

What measures can be taken within organizations to support career advancement and retention of diverse individuals in the physician-scientist pipeline?

In an increasingly competitive funding environment, which can sometimes pit the senior vs. the junior investigator, what mechanisms can be established to allow young researchers to advance?