



**HOWARD**  
**UNIVERSITY**

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# **UNCONSCIOUS BIAS IN ACADEMIA**

**BROOKHAVEN NATIONAL LABORATORY**

**WAYNE A. I. FREDERICK, M.D., MBA, FACS**

**President**

**Howard University**

**June 6, 2016**



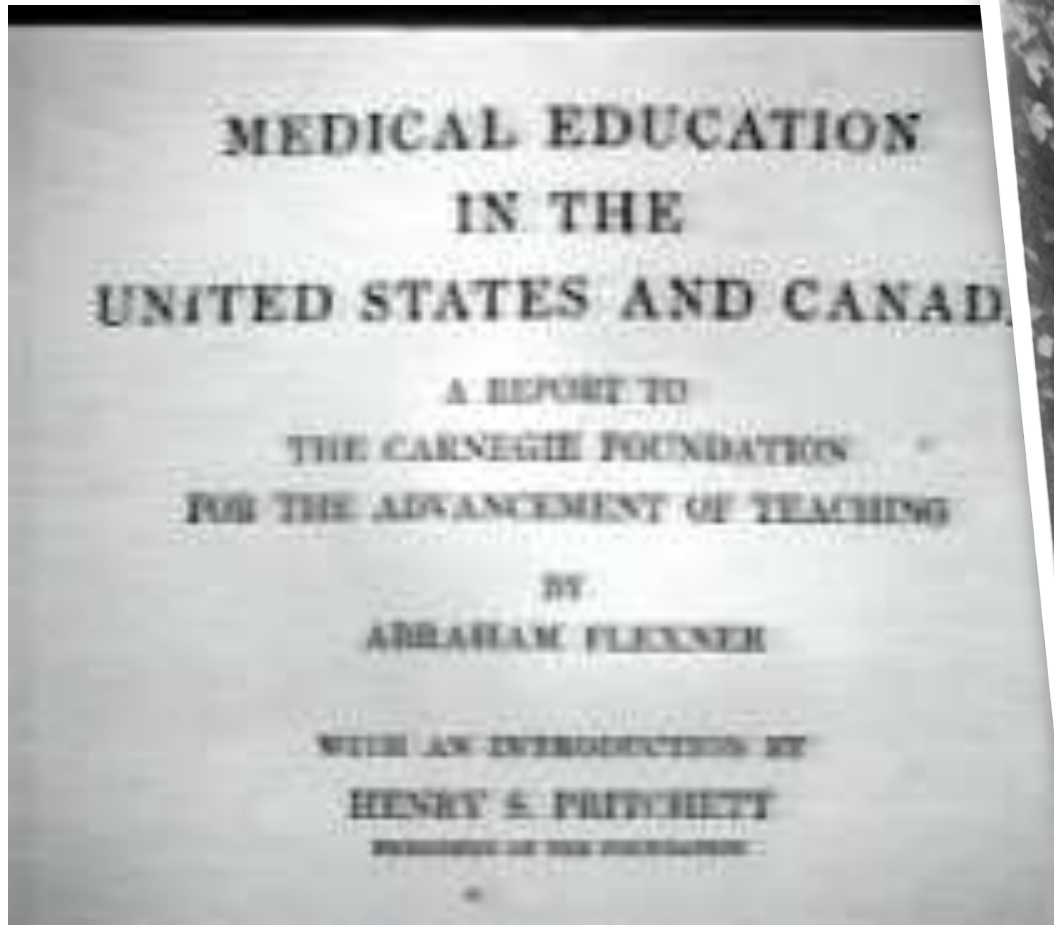
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# ACADEMIC MEDICINE YESTERDAY

# FLEXNER REPORT

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# **FLEXNER REPORT RECOMMENDATIONS AND OUTCOMES**

- Entrance requirements and adherence to them
- The size and training of the faculty
- The sum and allocation of endowment and fees to support the institution
- The adequacy and quality of the laboratories as well as the training and qualifications of the laboratory instructors
- The relationships between the school and its associated hospitals.
- His intent was to reduce the physician supply
- He called for reducing the number of schools to 31
- Annual output of physicians from 4,442 to 2,000
- The number of medical schools decreased to 85
- The number of students from 28,142 to 13,798
- The percentage of schools requiring two years of college for admission rose from 3 to 92



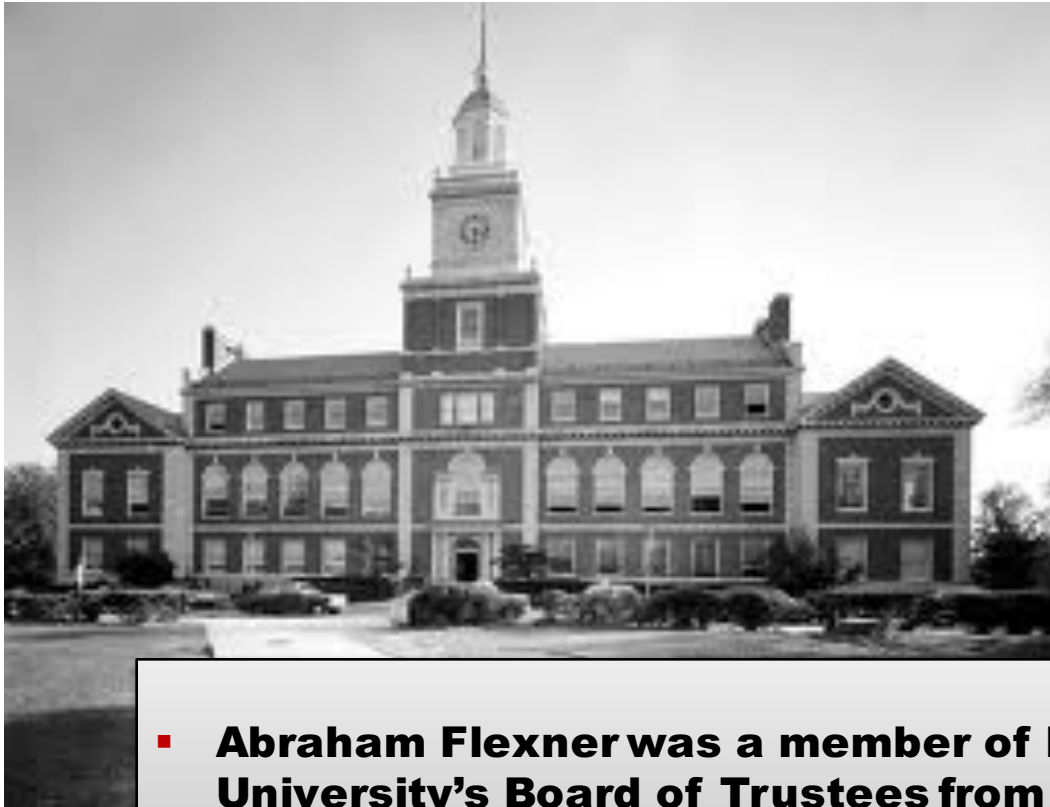


## **FLEXNER REPORT: IMPACT ON WOMEN AND PEOPLE OF COLOR**

- “it is clear that [women] show a decreasing inclination”
- “the seven medical schools for negroes” be reduced to two
- Blacks, being “a potential source of infection and contagion,” needed their own physicians.
- “hygiene rather than surgery” be “strongly accentuated” in these schools.
- By 1923, only two medical schools for blacks remained.
- Between 1920 and 1964, less than three percent of students entering American medical schools were black.



# **FLEXNER & HOWARD UNIVERSITY**

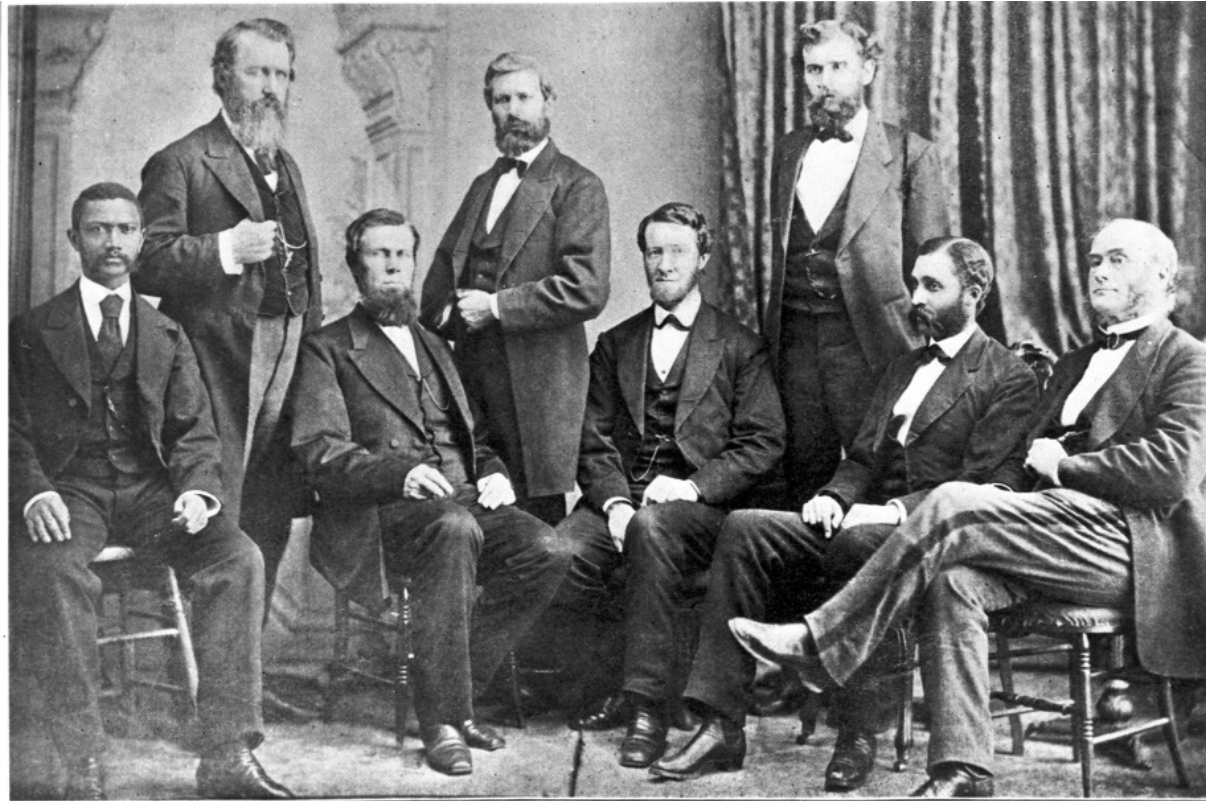


- **Abraham Flexner was a member of Howard University's Board of Trustees from 1930-1936.**
- **He served as board chairman (1932-35).**



# **FIRST FACULTY MEMBERS**

## **HOWARD UNIVERSITY COLLEGE OF MEDICINE**



(Front Row: L-R) A. T. Augusta, G. S. Palmer, R. Reyburn, C. B. Purvis, P. H. Strong  
(Back Row: L-R) S. L. Loomis, O. O. Howard, J. T. Johnson.





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# UNCONCIOUS BIAS

# TYPES OF BIAS

- SEXISM
- RACISM
- ELITISM
- SPECIALTY BIAS
- CONSCIOUS OR UNCONSCIOUS





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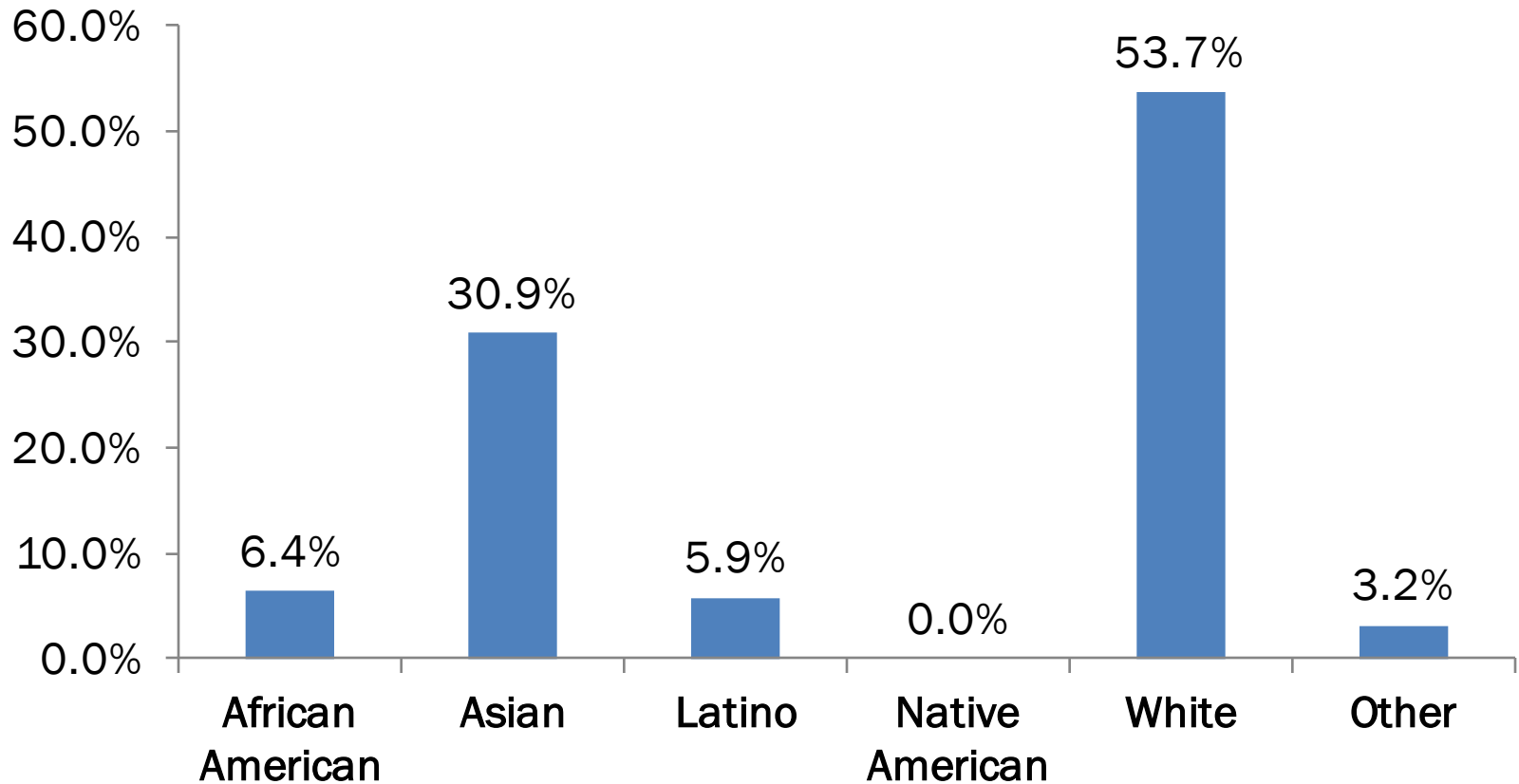
# UNCONSCIOUS/IMPLICIT RACE AND CLASS BIAS AMONG FIRST YEAR MEDICAL STUDENTS

Findings from a study conducted by Cornwell et al for the Journal of the American Medical Association

- **211 total participants**
- **202 completed entire survey**
- **52% Females**

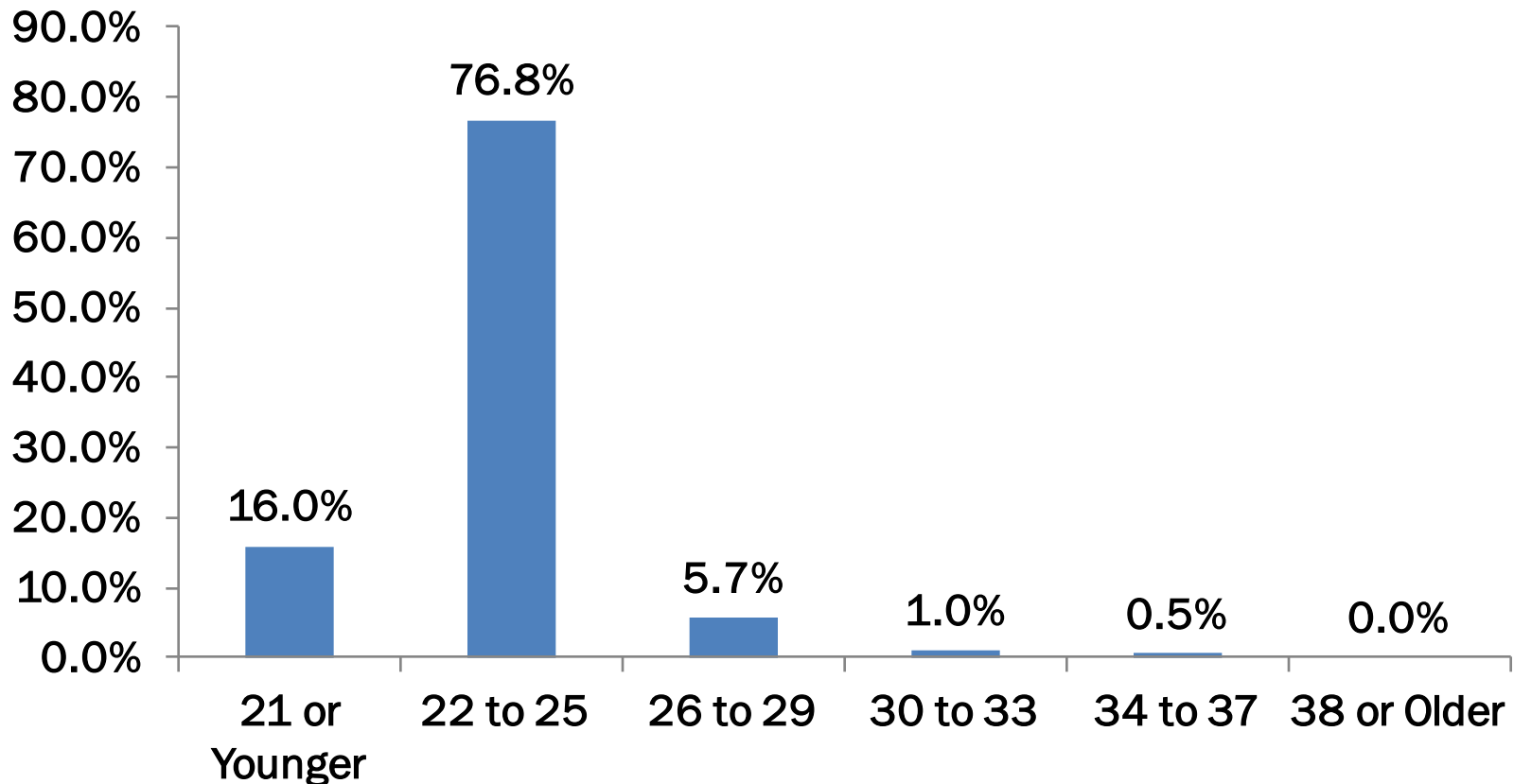


## RACE AND ETHNICITY OF PARTICIPANTS

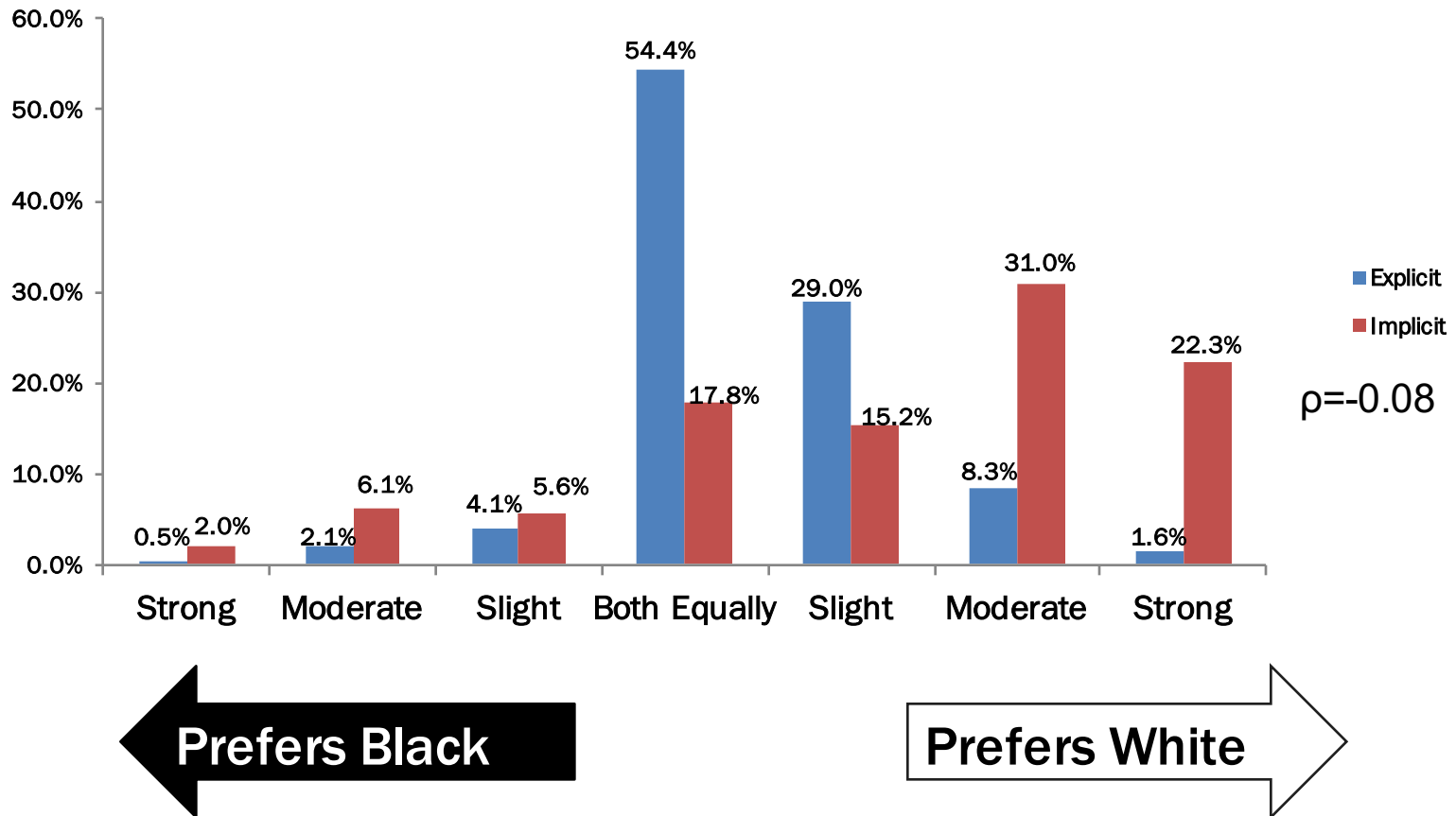




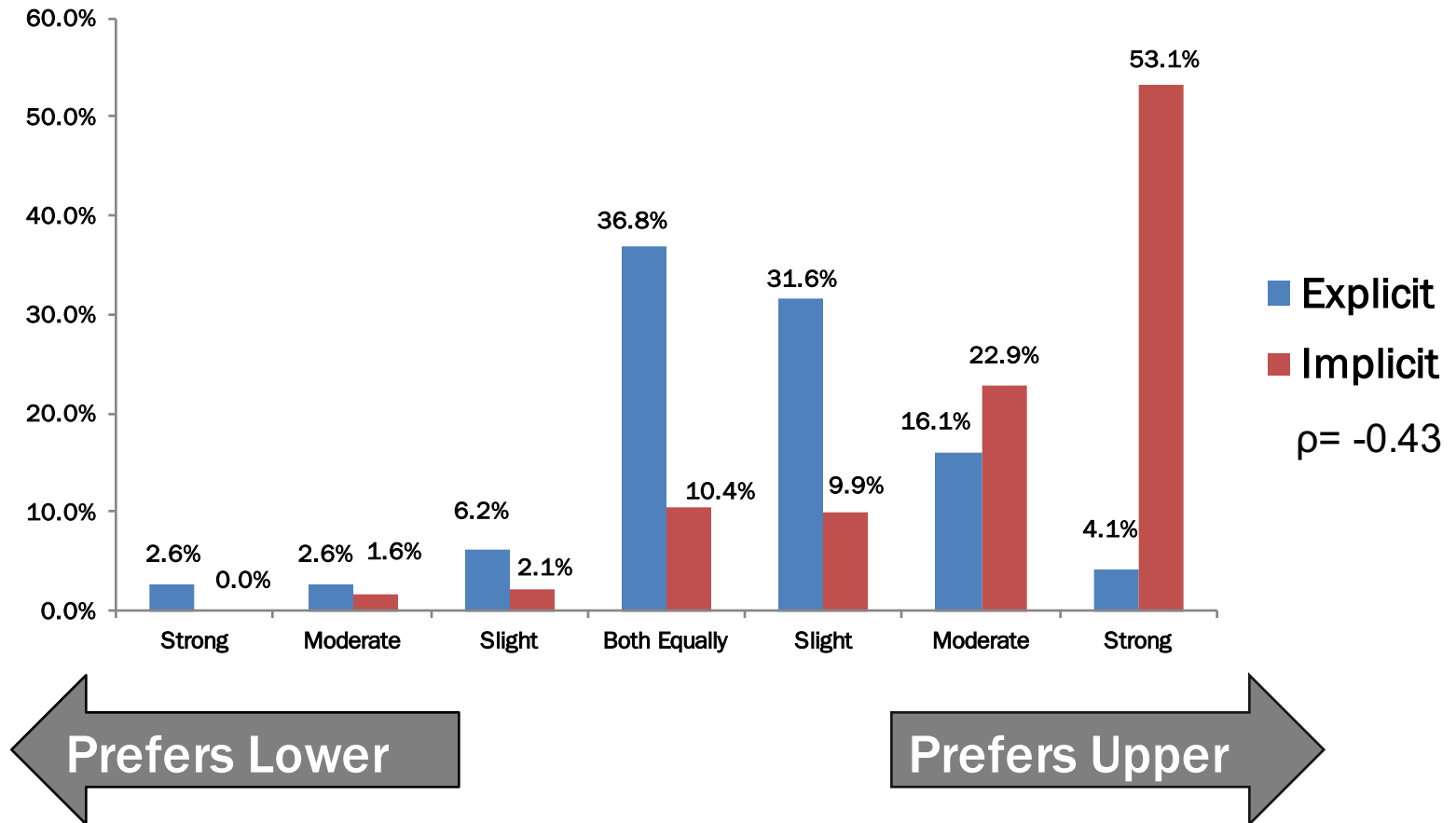
# AGE DISTRIBUTION OF PARTICIPANTS



# EXPLICIT VS. IMPLICIT RACE PREFERENCES



## EXPLICIT AND IMPLICIT PREFERENCES LOWER VS. UPPER CLASS



## CONCLUSION

- A majority of medical students exhibit an unconscious bias preferring Whites and Upper Social class
- Unlike data on physicians, these biases do not impact their assessment of surgical patients



# IMPLICATIONS

**Further studies are needed to determine if experiences during training contribute to potential unconscious differential treatment of patients by physicians.**





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# BIAS IN RESEARCH FUNDING



**In the August 19<sup>th</sup> issue of *Science* an article documented that between 2000 and 2006 minority scientists were less likely to receive NIH funding.**

- Donna K. Ginther, Walter T. Schaffer, Joshua Schnell, Beth Masimore, Faye Liu, Laurel L. Haak, Raynard Kington, “Race, Ethnicity, and NIH Research Awards”
- SCIENCE VOL 333 19 AUGUST 2011 1015-19





**The observations of Ginther *et al.* suggest the presence of an “inverse Matthew effect,” that is, residual cultural biases may have disproportionate adverse consequences on minority subgroups of our scientific community.”**







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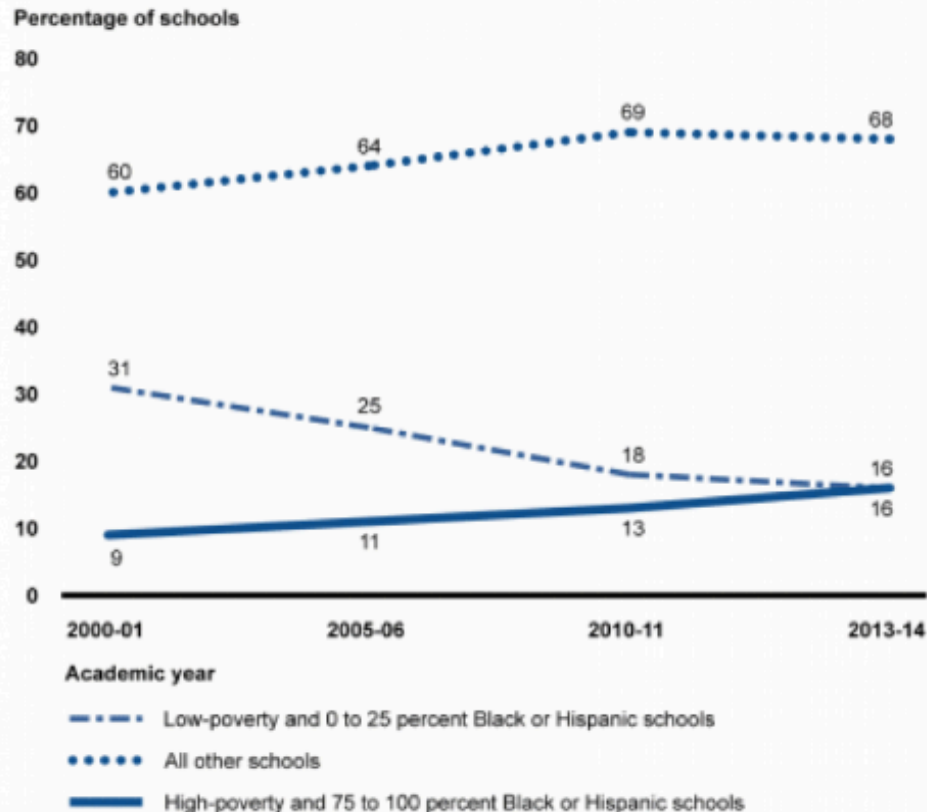
# IMPROVING ACCESS

## **On The Anniversary Of Brown V. Board, New Evidence That U.S. Schools are Re-segregating**

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- Poor, black and Hispanic children are becoming increasingly isolated from their white, affluent peers in the nation's public schools, according to new federal data showing that the number of high-poverty schools serving primarily black and brown students more than doubled between 2001 and 2014.
- The data was released by the Government Accountability Office last month, 62 years to the day after the Supreme Court decided that segregated schools are "inherently unequal" and therefore unconstitutional.

**Figure 1: Changes in the Percentage of High-Poverty Schools Comprised of Mostly Black or Hispanic Students, Selected School Years from 2000-01 to 2013-14**



Source: GAO analysis of Department of Education, Common Core of Data, 2000-14. | GAO-16-345

Notes: "Low-poverty" refers to schools in which 0 to 25 percent of the students were eligible for free or reduced-price lunch. "High-poverty" refers to schools in which 75 to 100 percent of the students were eligible for free or reduced-price lunch. "All other schools" refers to schools that fall outside of the other two categories of schools in this figure. This figure excludes schools that did not report (1) free or reduced-price school lunch, which we used as a proxy to categorize the poverty level of the school or (2) the number of Black or Hispanic students, which we used to categorize the level of Black or Hispanic students in the school.



- We all have biases.....
  - **Well-intended people** may have no idea about the unconscious process that they use to make decisions about people who are different from them.
  - Not a good-people vs. bad-people paradigm
- Unconscious Bias Training will be offered to APT and Search committees as part of the HU ADVANCE-IT cooperative agreement with the National Science Foundation(NSF)
- Cook-Ross(11/2014-1/14/2015) or Language & Culture Worldwide (LCW) have conducted the training on campus

# HU ADVANCE-IT

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 EDUCATION.



 ADVOCACY.



 EMPOWERMENT.



[www.howard.edu/huadvanceit](http://www.howard.edu/huadvanceit)

Committed to  
Attract, Advance & Retain Howard University's STEM Women Faculty



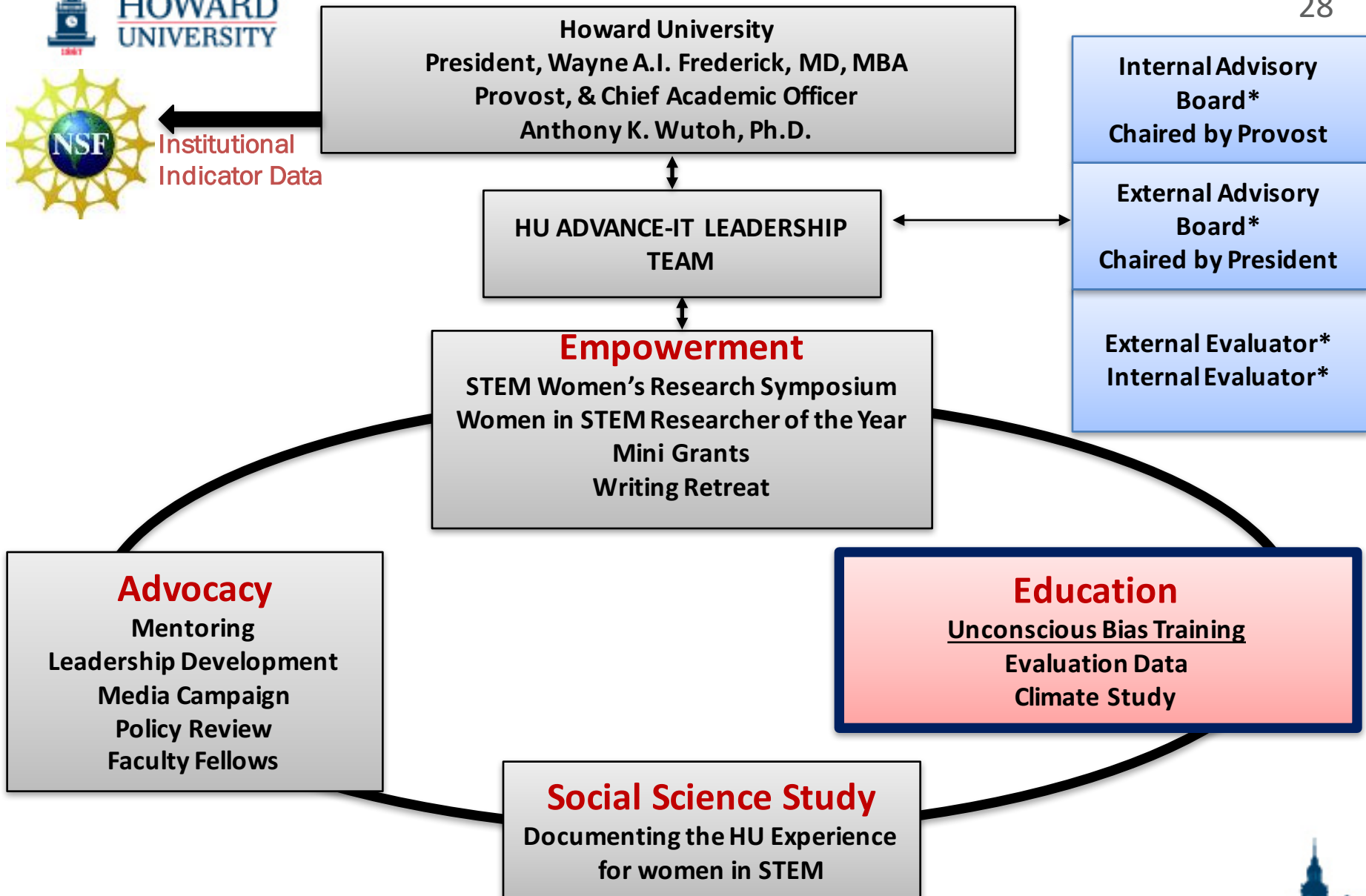
- **Howard University has historically been a leader in the development of Women/Women of Color faculty/leaders in STEM disciplines**
- **The future faculty we want to recruit and retain expect advancement opportunities/initiatives to be available on campus**
- **HU ADVANCE-IT is committed to solving the institutional and national problem of Advancement and Leadership of Women in STEM.**

## HU ADVANCE-IT OBJECTIVES

- **Education.** To foster and sustain a climate and culture which seeks inclusion of all faculty regardless of race, gender, or other target characteristics at the University and in the department
- **Advocacy.** To advance the careers of women faculty in STEM disciplines at Howard University
- **Empowerment.** To position Howard University as a national repository of scholarship on women of color STEM faculty professional experiences, accomplishments, and leadership



Institutional  
Indicator Data

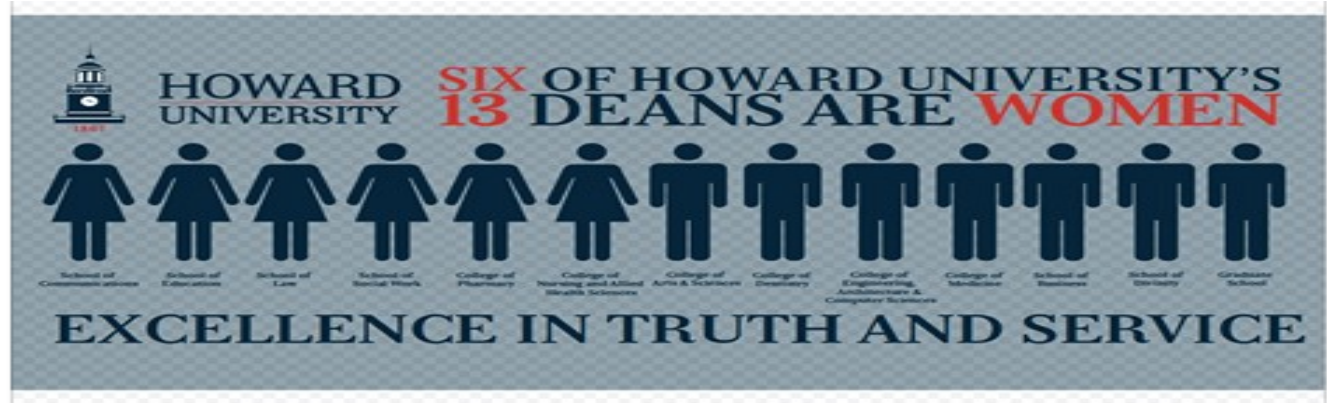




# **DISTINGUISHED HU FACULTY MEMBERS IN 1950**

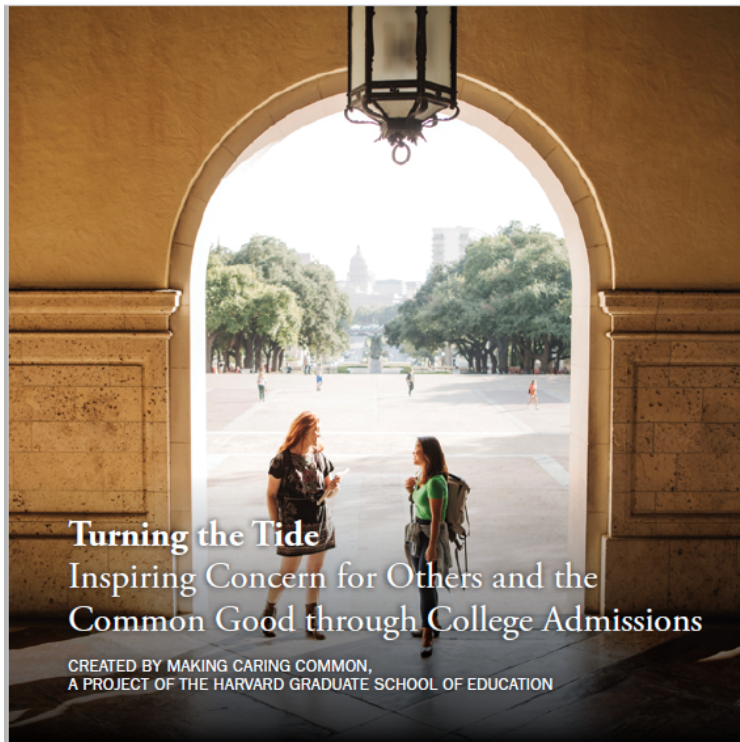


James Nabrit, Jr. (Law), Charles Drew (Medicine), Sterling Brown (English),  
E. Franklin Frazier (Sociology), Rayford W. Logan (History), Alain LeRoy Locke (Philosophy).



# CURRENT DECANAL LEADERSHIP





MAKING  
CARING  
COMMON  
PROJECT



“College admissions can send compelling messages that both **ethical engagement—especially concern for others and the common good**—and intellectual engagement are highly important.”



# RECOMMENDATIONS FOR RESHAPING THE ADMISSIONS PROCESS IN THREE AREAS

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1. Community Engagement and Service
2. Assessing Ethical Engagement and Contributions to Others Across Race, Culture and Class
3. Reducing Undue Achievement Pressure, Redefining Achievement, and Leveling the Playing field for economically diverse students

SOURCE: “Turning the Tide: Inspiring Concern for Others and the Common Good through College Admissions”







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# **HISTORICALLY BLACK COLLEGES AND UNIVERSITIES (HBCUs)**



## **CRITICAL ROLE OF HBCUS**

- **312,000 students attend HBCUs**
  - **Of this population 79% are African American**
- **HBCUs represent 4 % of all four-year institutions**
- **HBCUs produce 21% of bachelor's degrees awarded to African Americans**

Source: National Center for Education Statistics





## **HBCUS PRODUCE 28 PERCENT OF AFRICAN AMERICANS IN THE STEM FIELDS\***

- **34% of African Americans who received bachelor's degrees in physics, chemistry, astronomy, mathematics and biology earned them from HBCUs\***
- **Of the top 10 colleges whose African American graduates went on to get PhDs in science and engineering, the top eight were HBCUs\*\***

\*National Center for Education Statistics

\*\*National Science Foundation





# TOP 50 U.S. BACCALAUREATE-ORIGIN INSTITUTIONS OF 36 2002–11 BLACK SCIENCE AND ENGINEERING DOCTORATE RECIPIENTS

## 1. Howard University 220

2. Spelman College 175
3. Florida A & M University 154
4. Hampton University 150
5. Xavier University of LA 126
6. Morehouse College 106
7. Morgan State U. 102
7. NC A&T State U. 102
9. Southern U. 100
10. Tuskegee U. 80
10. U. Maryland, Baltimore County 80
12. U. Maryland, College Park 76
13. U. Michigan, Ann Arbor 73
14. U. Virginia, 72
15. Harvard U. 71
16. Jackson State U. 69
17. U. California, Berkeley 64
18. U. Illinois, Urbana-Champaign 62
18. U. North Carolina, Chapel Hill 62
20. Tennessee State U. 61
21. Yale U. 60
22. Brown U. 55
22. Massachusetts Institute of Technology 55
24. U. Florida 54
25. Cornell U. No 51
26. Alabama A&M U. 50
26. North Carolina State U. 50

28. Duke U. 49
29. Princeton U. 47
29. Rutgers, State U. NJ, New Brunswick 47
31. CUNY City C. 46
31. Georgia Institute of Technology, 46
31. Michigan State U. 46
34. Clark Atlanta U. 45
34. Florida State U. 45
34. Prairie View A&M U. 45
37. Tougaloo C. 44
38. U. Pennsylvania 43
39. CUNY, Hunter C. 42
39. Pennsylvania State U. 42
41. Norfolk State U. 41
42. Louisiana State U. 40
42. North Carolina Central U. 40
42. U. California, Los Angeles 40
45. Grambling State U. 39
45. U. South Carolina, Columbia 39
47. Stanford U. 36
47. Texas A&M U., 36
47. U. Georgia 36
50. Dillard U. 35
50. Fisk U. 35
50. Temple U. 35

**Total from Harvard, MIT and Stanford  
combined = 162**







## TOP 10 U.S. BACCALAUREATE-ORIGIN INSTITUTIONS OF 2002–11 BLACK S&E DOCTORATE RECIPIENTS BY FIELD OF DOCTORAL DEGREE

### Life Sciences

1. Xavier U. LA, 74
2. **Howard U., 61**
3. Hampton U. 57
4. Spelman C. 55
5. U. MD, Baltimore County 50
6. FL A&M U. 46
7. NC A&T State U. 35
8. Southern U. 34
9. Tuskegee U. 32
10. Morehouse C. 31
10. Morgan State U. 31

### Physical Sciences

1. **Howard U. 28**
2. Hampton U. 24
2. Morehouse C. 24
4. Spelman C. 23
5. Southern U. 22
6. FL Agricultural and Mechanical U. 19
7. Xavier U. LA 16
8. Jackson State U. 13
8. Norfolk State U. 13
10. AL A&M U. 12
10. NC A&T State U. 12

### Social Sciences

1. **Howard U. 109**
2. Spelman C. 84
3. Hampton U. 61
4. FL A&M U. 52
5. Harvard U. 44
6. U. CA, Berkeley 42
7. Morehouse C. 39
8. U. MD, College Park 37
8. U. VA 37
10. Yale U. 36

### Engineering

1. NC A&T State U. 48
2. FL A&M U. 37
3. Morgan State U. 32
4. Brown U. 28
5. GA Institute of Technology 25
6. **Howard U. 22**
7. Tuskegee U. 20
8. U. MI, Ann Arbor 18
9. U. MD, College Park 16
9. U. MD, Baltimore County 16

Source: National Science Foundation





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# HU PROGRAMS IMPACTING THE HIGHER ED PIPELINE



## HOWARD UNIVERSITY MIDDLE SCHOOL OF MATHEMATICS AND SCIENCE

- Completely non-selective middle school
- Open to all students, regardless past academic performance, social-economic condition, or learning style
- While achievement outcomes are on par or above national standards, 2/3 of students enter performing below grade level
- Since it was founded in 2005, (MS)<sup>2</sup>'s performance on the state-mandated standardized assessments has consistently been in the top 5% for the District of Columbia.



### Student demographic profile

- 95% African American
- 5% Latino/Hispanic



## **HOWARD UNIVERSITY MIDDLE SCHOOL OF MATHEMATICS AND SCIENCE**

### **College Enrollment**

**95% of the class of 2008 attended college  
(two finished high school one year early)**

- (MS)<sup>2</sup> students in the graduating class of 2008 were commonly accepted by 4 or 5 colleges and universities.**
- Nearly 50 percent (MS)<sup>2</sup> graduates from the Class of 2009 are majoring in a STEM field .**
- (MS)<sup>2</sup> graduates had scholarship offers from more than one school. Total monetary and scholarship offers ranged from \$10,000 to \$200,000.**



# RECOMMENDATIONS TO DEVELOP THE PIPELINE

- **Feeder Programs**, beginning in Middle Schools – e.g. support for and refocus of science fair projects toward dental research. Service assignments at dental schools
- **Better undergraduate dental clubs**, with structured learning in DAT and dental basic sciences core areas
- **IPE** - Restructuring of dental learning environment to accommodate provision of comprehensive care with better follow-up and prevention.
- 
- **Mentoring** – with concern for diversity at less diverse dental colleges
- **Academic Reinforcement** – funding and better models to identify those moving toward the safety net.
- Collaborative Student Exchange Programs



# SELECTED HOWARD UNIVERSITY INITIATIVES TO IMPROVE ACCESS

- Federal funding that has been used to help increase Minority Applicants who would otherwise be discouraged because of financial or social barriers
  - The Special Health Careers Opportunity Grant
  - Health Careers Opportunity Grant
- New approaches to attract minority students to STEM education
  - Inform students earlier about careers in oral healthcare
    - BS/MD, BS/DDS, MD/PhD Programs
  - Strengthen efforts of K-12 education
    - Howard Middle School ( STEM)
- Community outreach
  - Howard College of Dentistry opens its doors to 325 Washington DC public school children for the annual “Give Kids A Smile Day”



## **HOWARD UNIVERSITY'S PRE-HEALTH SCHOLARS SUMMER ENRICHMENT PROGRAM (PHSEP)**

- The PHSEP is designed to prepare under-represented minority students of Howard University and other HBCU partner universities for a four-week intensive program at Howard University campus, Washington, DC.
- This program develops and enhances the academic skills necessary for success in the health professional schools.
- Students meet with various academic mentors, physicians, dentists and scientists at HU campus and other site visits to better understand the health professions and the health policymaking process to become effective healthcare and community leaders.



# IMPROVING ACCESS

## ➤ **Health Careers Opportunity Pipeline Programs to Increase Diversity**

Although admissions policies were a primary strategy for increasing student diversity among health professions, other important approaches include diversifying the applicant pool with outreach and recruitment programs.

- Summer Medical Dental Enrichment Program (SMDEP)
- Pre-Health Summer Enrichment Program (PHSEP)
- Advanced College Summer Enrichment Program (ACSEP)







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# INTER-PROFESSIONAL EDUCATION

- **Inter-professional Education:** Two or more students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes
- **Inter-professional Collaborative Practice:** Multiple health workers from different professional backgrounds work together with patients, families, caregivers, and communities to deliver the highest quality of care
- **Inter-professional Teamwork:** The levels of cooperation, coordination and collaboration characterizing relationships between professions delivering patient-centered care.



## ➤ **State-of-the-Art Simulation Center**

- GOAL: Promote IPE and patient safety through simulation education.

## ➤ **Introduction to Health Care Ethics Course**

- GOAL: Develop healthcare professionals who work as an interdisciplinary team to resolve ethical issues.

## ➤ **Institute for Healthcare Improvement (IHI) Open School - Interprofessional Chapter at Howard University organized in 2013**

- GOAL: Advance health care & patient safety competencies in the next generation of healthcare providers nationwide

# INTERDISCIPLINARY HEALTH SCIENCES SIMULATION CENTER

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## Simulation Center

Welcome

About Us

- [Overview](#)
- [Facility Description](#)
- [Center Layout](#)
- [Our Team](#)
- [Contact Us](#)
- [News & Acknowledgements](#)

Education

Equipment

Research

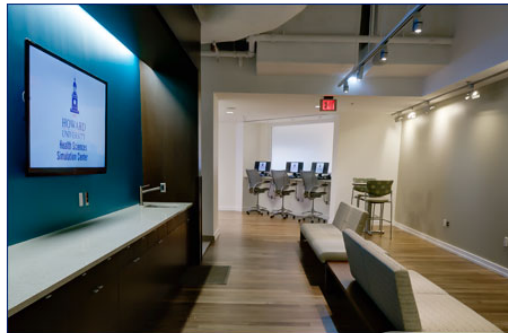
Make a Gift

Contact Us

## Overview and Mission

Howard University Health Sciences Simulation Center

**"Promoting Patient Safety through Simulation  
Education and Deliberate Practice"**



*The Center is specifically designed to promote inter-professional simulation-based education for all levels of healthcare professionals using the latest technology and equipment.*



# **INTER-PROFESSIONAL EDUCATION COLLABORATION SATURDAY COLLEGE FOR KIDS – HEALTH SCIENCES SCREENING**

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**Oral  
mechanism**



**Oral Health  
Education**



**Body Mass  
Index**



**Nutrition**



**Hearing**



**Speech and  
Language**



**Orthodontics**



**Pediatric  
Dentistry**





## Equality doesn't mean Justice



**Equality**



**Justice**



# **“EXCELLENCE OF PERFORMANCE WILL TRANSCEND ARTIFICIAL BARRIERS CREATED BY MAN”**





# HOWARD UNIVERSITY'S 148<sup>TH</sup> COMMENCEMENT CONVOCATION





# FUTURE OF ACADEMIA



# FUTURE OF ACADEMIA

