

African Americans & Hispanics among Physics & Astronomy Faculty

Results from the 2008 Survey of Physics & Astronomy Degree-Granting Departments

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**REPORTS ON
PHYSICS &
ASTRONOMY
FACULTY**

Number of Physics Faculty
(October 2009)

Astronomy Faculty
(December 2009)

**African Americans &
Hispanics among
Physics & Astronomy
Faculty (February 2010)**

Hiring in Physics &
Astronomy Departments
(April 2010)

Minority Faculty in Physics

Table 1 provides data on the race and ethnicity of physics faculty since 2000. African Americans and Hispanic Americans continue to be under-represented among physics faculty members, and the number of Native American faculty members is too small count. The good news, though, is that both the number of African-American and Hispanic faculty members and their proportion among all faculty have grown steadily since 2000. The rest of this report will examine the African-American and Hispanic presence among physics faculty.

Table 1

Race and Ethnicity of Physics Faculty

| | Physics | | | All Disciplines* |
|------------------|-------------|-------------|-------------|---------------------|
| | 2000 (%) | 2004 (%) | 2008 (%) | 2007 (%) |
| African-American | 1.8 | 2.0 | 2.2 | 6.9 |
| Asian | 9.9 | 10.6 | 13.2 | 6.2 |
| Hispanic | 2.0 | 2.7 | 3.1 | 4.1 |
| White | 84.2 | 82.2 | 80.0 | 82.2 |
| Other | 2.0 | 2.2 | 1.5 | 0.6 |

* Data for all disciplines (which includes non-science disciplines) found at <http://nces.ed.gov/fastfacts/display.asp?id=61>

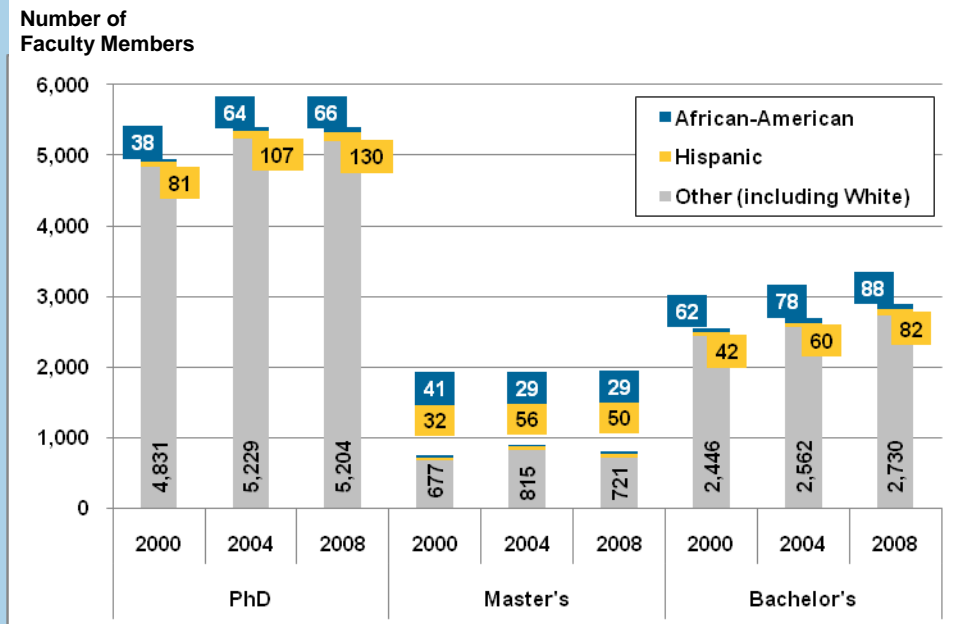
<http://www.aip.org/statistics>

**THE 2008 SURVEY OF
PHYSICS &
ASTRONOMY DEGREE-
GRANTING
DEPARTMENTS**

During the spring semester of 2008, we contacted all of the departments in the US that offered at least a bachelor's degree in physics and/or astronomy. These reports describe our findings.

Figure 1

Number of African-American and Hispanic Physics Faculty by Highest Degree Awarded by Department, 2008



<http://www.aip.org/statistics>

The Hispanic presence among physics faculty has grown faster than that of the African-American.

In 2000, the number of Hispanic physics faculty members outnumbered that of African Americans by about 10% (155 Hispanics and 141 African Americans). By 2008, the difference had grown to about 40% (262 and 183). These data are depicted in Figure 1. It should be noted that 7 of the 63 departments that offer a Master's as the highest degree are at HBCUs.

Some of the faster growth seen in the number and proportion of Hispanic physics faculty members is likely attributable to the faster growth of Hispanic Americans among physics PhD recipients. In 2000, African Americans represented about 2.6% of physics PhDs and about 2.1% were Hispanic. By 2008, the numbers had reversed with about 2.7% of the physics PhD recipients being Hispanic and about 2.1% being African American.

Where are the minority physics faculty?

Almost 70% of all physics departments have no African-American or Hispanic faculty members at all; this includes 80% of the departments that award a bachelor's as the highest degree and half of those that award a master's. About one-fourth of the bachelor's departments with African-American faculty members are located in HBCUs (historically black colleges and universities); these HBCU departments account for more than half of the total number of African-American physics faculty members (100 of the 183). Interestingly, about one-fourth of the physics departments at HBCUs have no African-American or Hispanic faculty members. These data are provided in Tables 2 and 3.

Table 2

Number of Physics Departments with African-American and Hispanic Faculty by Highest Degree Awarded, 2008

| Number of Departments that have ... | Highest Degree Awarded | | | |
|---|------------------------|----------|------------|-------|
| | PhD | Master's | Bachelor's | Total |
| <u>both</u> African-American & Hispanic faculty | 20 | 4 | 6 | 30 |
| African-American faculty (and <u>no</u> Hispanic faculty) | 16 | 9 | 46 | 71 |
| Hispanic faculty (and <u>no</u> African-American faculty) | 66 | 19 | 49 | 134 |
| <u>neither</u> African-American <u>nor</u> Hispanic faculty | 87 | 31 | 410 | 528 |
| Total | 189 | 63 | 511 | 763 |

Only 101 physics departments (out of 763) include African-American faculty members.

<http://www.aip.org/statistics>

Table 3

Number of Physics Departments in HBCUs* with African-American and Hispanic Faculty by Highest Degree Awarded, 2008

| Number of Departments that have ... | Highest Degree Awarded | | | |
|---|------------------------|----------|------------|-------|
| | PhD | Master's | Bachelor's | Total |
| <u>both</u> African-American & Hispanic faculty | 3 | 1 | 1 | 5 |
| African-American faculty (and <u>no</u> Hispanic faculty) | 1 | 6 | 15 | 22 |
| Hispanic faculty (and <u>no</u> African-American faculty) | 0 | 0 | 1 | 1 |
| <u>neither</u> African-American <u>nor</u> Hispanic faculty | 0 | 0 | 5 | 5 |
| Total | 4 | 7 | 22 | 33 |

* HBCUs are historically black colleges and universities.

<http://www.aip.org/statistics>

Five of the physics departments at HBCUs include no African-American or Hispanic faculty members.

Minorities in Astronomy Departments

Historically minorities have not been as well represented in physics and astronomy as they have in other science fields. The data for physics departments, shown in Tables 1 through 3 and Figure 1, suggest that the movement toward more diversity is slow. The minority presence among faculty in departments that award degrees only in astronomy lags behind that in physics departments. The data are shown in Tables 4 and 5.

Table 4

Under-Represented Minorities Among Astronomy Faculty, 2008

| Degrees Awarded by Department | African American % | Hispanic American % |
|-------------------------------|--------------------|---------------------|
| Astronomy only | 1 | 2 |
| Physics | 2 | 3 |
| All Disciplines ⁺ | 7 | 4 |

⁺ Data for all disciplines (which includes non-science disciplines) found at <http://nces.ed.gov/fastfacts/display.asp?id=61>
<http://www.aip.org/statistics>

Minority representation among astronomy faculty lags behind that of other disciplines.

Table 5

Number of Departments that Award Degrees only in Astronomy with African American and Hispanic Faculty, 2008

| Number of Departments that have ... | |
|---|----|
| <u>both</u> African-American & Hispanic faculty | 1 |
| African-American faculty (and <u>no</u> Hispanic faculty) | 4 |
| Hispanic faculty (and <u>no</u> African-American faculty) | 7 |
| <u>neither</u> African-American <u>nor</u> Hispanic faculty | 25 |

<http://www.aip.org/statistics>

Survey Methodology

Between March 20 and July 8, 2008, we contacted each of the 800 departments (763 physics departments and 37 departments that award degrees only in astronomy) that award at least a bachelor's degree in physics or astronomy by e-mail, mail, and certified mail. Up to seven follow-up contacts were made for departments that had not yet responded. We received responses from 749 departments (94%). We offer our sincere gratitude to the responding departments. Without your help, we could not track these data.