# The state of blacks in higher education 

Darity, William A; Sharpe, Rhonda V and Swinton, Omari H A National Association for Equal Opportunity in Higher Education Study

2009

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## THE STATE OF BLACKS IN HIGHER EDUCATION

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# THE STATE OF BLACKS IN HIGHER EDUCATION 

## A National Association for Equal Opportunity in Higher Education Study

William A. Darity, Jr., PhD, Duke University Rhonda Vonshay Sharpe, PhD, University of Vermont<br>Omari H. Swinton, PhD, Howard University

# A Publication of the National Association for Equal Opportunity in Higher Education (NAFEO) 

Editor-in-Cbief<br>Lezli Baskerville, Esq.<br>Managing Editor<br>LaNitra Berger

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## PREFACE

$\uparrow$his is a study initiated by the National Association for Equal Opportunity in Higher Education (NAFEO) that provides an overview on the state ofblacks in higher education from 1986 through 2005. It focuses on bachelor's, master's, and doctorate degrees earned by black Americans. It also examines the advancement, or lack thereof, of black faculty members. The study uses data from the Integrated Postsecondary Education Data Series and the Survey of Doctorial Recipients. The following observations are select summaries of the study.

- The number ofblack Americans awarded bachelor's degrees increased 73 percent compared to 25 percent for non-black Americans. At the doctorate level, black Americans had an increase of 56 percent compared to 6 percent for non-black Americans.
- Historically black colleges and universities (HBCUs) increased both the number of degrees they awarded and the diversity of their student body at the bachelor's and doctorate degree levels. The increase in bachelor's degrees at HBCUs was 39 percent compared to 33 percent for all schools. At the doctoral level, HBCUs had a 67 percent increase compared to 14 percent for all schools.
- Although only 3.3 percent of all the institutions, HBCUs awarded nearly 50 percent of all bachelor's degrees received by black students in the natural and physical sciences, a little more than 25 percent of all bachelor's degrees in engineering, and nearly 25 percent of all bachelor's degrees awarded to black Americans.
- Blacks with doctorates are more likely to be employed in colleges and universities than non-black Americans. Blacks make up less than 5 percent of the total faculty in colleges and universities.


## THE STATE OF BLACKS IN HIGHER EDUCATION

Younger blacks with doctorates do not appear to face the same barriers to promotions as did older blacks with doctorates.

Although this study includes National Science Foundation (NSF) data, this usage does not imply NSF endorsement of the research methods or the conclusions contained in this report.

## ACKNOWLEDGIMENTS

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This publication was made possible through funding from the Lumina Education Foundation.

## ABOUT NAFEO

The National Association for Equal Opportunity in Higher education (NAFEO) is the umbrella organization of the nation's historically and predominately black colleges and universities. Founded in 1969 by a group of presidents of Historically Black Colleges and Universities, NAFEO is "the voice for blacks in higher education." The association represents the presidents and chancellors of all the nation's black colleges and universities: public, private and land-grant, two-year, four-year, graduate and professional, historically and predominantly black colleges and universities.

Whether an institution is one of the 39 private black colleges and universities that belong to UNCF, one of the 47 public colleges and universities that belong to the Thurgood Marshall Scholarship Fund; one of the 18 land-grant universities or 19 other public universities that belong to the National Association of State Universities and Land-grant Colleges' Office for the Advancement of Public Black Colleges; a black 2-year institution that belongs to the American Association of Community Colleges, or one of the emerging predominately black universities and colleges, the institution has a voice and a vote in NAFEO.

It was founded to provide an international voice for the nation's HBCUs; to place and maintain the issue of equal opportunity in higher education on the national agenda; to advocate policies, programs and practices designed to preserve and enhance HBCUs, and to increase the active participation of blacks at every level in the formulation and implementation of policies and programs in American higher education.

## NAFEO’ MISSION

- To champion the interests of historically and predominantly black colleges and universities;
- To provide services to NAFEO members;
- To build the capacity of HBCUs, their executives, administrators, faculty, staff and students;
- To serve as an international voice and advocate for the preservation and enhancement of historically and predominantly black colleges and universities and for blacks in higher education.


## NAFEO's VISION:

To be the leading and most respected advocate for historically and predominately black colleges and universities, and for blacks in higher education, serving our members professionally, effectively, and efficiently.

## INTRODUCTION

## Lezli Baskerville, J.D. President and CEO

Iam pleased to present one of NAFEO's signature publications, The State of Blacks in Higher Education. With generous support from the Lumina Foundation for Education, The State of Blacks in Higher Education is an important document for researchers, policy makers and shapers, university administrators, and those in the corporate and social sectors who are interested in understanding how blacks are faring across the higher education spectrum. This report describes the tremendous progress that blacks have made in achieving higher education over the last twenty years, and it explains what needs to be done to see this progress continue. In short, The State of Blacks in Higher Education is an essential tool in ensuring excellence and equity in postsecondary education.

The State of Blacks in Higher Education examines black progress in higher education from bachelor's degree attainment through the tenure track. As you will see in the publication, blacks are achieving higher education in unprecedented numbers. There is still, however, much to be done to ensure that the institutions that are serving minority, low-income, and firstgeneration students are receiving their fair share of funding from state and federal governments.

You will also learn about the tremendous work that our nation's black colleges are doing to provide educational opportunities not just for black students, but for any student who walks through their doors. Black colleges are the nation's quintessential equal opportunity institutions, and The State of Blacks in Higher Education demonstrates the importance of these schools in filling the gap that has been created as the costs of higher education continue to soar and access is denied to all but the most privileged. In addition to producing a disproportionate share of black graduates in all fields, The State
of Blacks in Higher Education describes how black colleges are also doing well as educating nonblack and foreign students.

Some of the report's major findings include:

- During 1996-2005, the number of degrees awarded to blacks across all discipline groupings increased.
- HBCUs increased the number of bachelor's degrees awarded from 1986-1995 to 1996-2005 by $39 \%$ compared to a $29 \%$ increase in degrees awarded by all schools.
- Of the master's degrees awarded in engineering, the physical and natural sciences, and the life and medical sciences from HBCUs, over 25 percent were earned by nonblack citizens.
- Black citizens increased the number of doctorates earned from 1986-1995 to 1995-2005 by 56 percent.

The importance of higher education in creating a globally competitive workforce is undeniable. It is imperative that our students acquire the skills to succeed in the twenty-first century economy. The State of Blacks in Higher Education provides a basis for those committed to minority student access and success in higher education to develop sound policies and best practices for increasing achievement in college and beyond.

I invite you to learn more about NAFEO and its research through The State of Blacks in Higher Education.

## CHAPTER ONE

## Bachelor's to Doctorates: Who Gave and Who Got Them?

$\leadsto$his report provides an overview of the status of blacks in higher education. It addresses the number and proportion of bachelor's, master's and doctorates awarded to black Americans, non-black Americans and non-Americans between 1986 and 2005. Additionally, this report describes the representation of black men and women in faculty positions in academe, with a focus on career paths, rank and salary.

In 1994 Robert Bruce Slater reported in the Journal of Negro Education that by the end of the Civil War, only 40 blacks had been awarded bachelor's degrees from colleges and universities located in the United States. ${ }^{2}$ These 40 degrees did not include bachelor's degrees awarded by Wilberforce University or Lincoln University, two of the nation's oldest historically black institutions. ${ }^{3}$ Additionally, the Slater report found that by 1900 the number of blacks with a bachelor's degree had increased to nearly 400.

According to the 2006 Current Population Survey, nearly 13 percent of the black U.S. population had a bachelor's degree (roughly 2.72 million people) and 6 percent of blacks held an advanced degree (approximately 1.25 million people). The chart on page 2 plots the percentage of black men and women who completed at least four years of college from 1960 through 2006. According to this chart, the percentage of men and women who are college graduates, or have completed at least four years of college, follows similar paths until 1996 when the gap between men and women widens in favor of women.


Educational Attainment, by Race, Hispanic Origin, and Sex: 1960 to 2006. See Internet site: http://www.census.gov/compendia/statab/cats/education/educational_attainment.btml.

## Bachelor's Degrees Awarded and Trends

This section analyzes the trends in the number of bachelor's degrees awarded. Specifically, it analyzes degrees earned by citizenship, race, gender, all-schools and at HBCUs in engineering, humanities, natural and physical sciences, social sciences, life and medical sciences, business and law and education. Our data set is the Integrated Postsecondary Education Data System Completions Survey by Race, accessed by way of WebCASPAR.

Table 1 illustrates the degree attainment of black men and women. For the decade 1986-1995, black men earned degrees in engineering and life and medical sciences at more than twice the rate of black women. However, black men lagged behind black women in degrees earned in the humanities, natural and physical sciences, social sciences, business and law, and education. This pattern is not replicated among non-black Americans or non-Americans, with the exception that men in both of these categories earned degrees in engineering at much higher rates than women. As a group, the bachelor's degrees awarded to black Americans were 4 percent of engineering, humanities and education degrees, 7 percent of natural and physical sciences, social sciences, and business and law degrees, and 6 percent of the life and medical sciences degrees. The share of bachelor's
degrees awarded to blacks in engineering is smaller than those awarded to non-Americans. However, blacks exceeded the share of bachelor's degrees awarded to non-Americans in all other discipline groupings.

The number of bachelor's degrees awarded by HBCUs follows the pattern for all schools. Men earned more bachelor's degrees than women in engineering, but earn fewer bachelor's degrees than women in all other disciplines. A closer look at the bachelor's degrees awarded by HBCUs shows that nearly one in four bachelor's degrees awarded in engineering and the life and medical sciences was awarded to non-black Americans ( 14 percent and 19 percent, respectively) or non-Americans ( 10 percent and 5 percent). HBCUs awarded nearly 50 percent of all bachelor's degrees to blacks in the natural and physical sciences, and a little more than 25 percent of all bachelor's degrees awarded to blacks were in engineering. Although they represent only 3.3 percent of all institutions of higher education, HBCUs awarded nearly 25 percent of all bachelor's degrees earned by blacks.

During the decade of 1986-1995, of the top 10 schools that awarded bachelor's degrees to blacks in engineering, HBCUs held six of the 10 , all 10 slots for women and nine of the 10 slots for men for natural and physical science bachelor's degrees, five of the 10 slots for bachelor's degrees awarded in the social sciences for both men and women, four of the 10 slots for women, and three of the 10 slots for men for bachelor's degrees in the humanities, and six of the 10 slots for women, and eight of 10 slots for men in the life and medical sciences. On average, the schools on the top 10 lists awarded 10 percent of all bachelor's degrees given to black Americans.

During 1996-2005, the number of degrees awarded to blacks across all discipline groupings increased. Relative to 1986-1995, the number of bachelor's degrees awarded to black men in the humanities more than doubled and nearly doubled for black women in the social sciences. The widening in the gap between men and women, shown in the chart on page 2 , seems to be driven by the massive increase in bachelor's degrees earned by black women in the social sciences relative to men. From 1986-1995, black men earned more than twice as many bachelor's degrees in the life and medical sciences as women. However, by the 1996-2005 decade, women earned nearly four times as many bachelor's degrees in the life and medical sciences. The number of bachelor's degrees earned by black women in the social sciences from 1996-2005 nearly exceeded the total number of bachelor's degrees earned by black men during that same time period. Black women increased their share of bachelor's degrees in engineering, as did women in general. The 73 percent growth in bachelor's degrees from 1986-1995 to 1996-2005 for black women and men exceeds the rate of growth for non-black Americans by 25 percent.

HBCUs increased the number of bachelor's degrees awarded from 1986-1995 to 1996-2005 by 39 percent, compared to a 29 percent increase in degrees awarded by all schools. Over the same period, the number of non-black Americans earning degrees in engineering and life and medical sciences at HBCUs decreased by 39 percent and 50 percent, respectively. The decrease in bachelor's degrees awarded in engineering, the natural and physical sciences, and life and medical sciences by HBCUs to non-black Americans was offset by nearly a 100 percent increase in bachelor's degrees awarded in the humanities, and a nearly a 425 percent increase in bachelor's degrees awarded in the natural and physical sciences. HBCUs had a 29 percent increase in the number of degrees awarded to non-black Americans, compared with a 25 percent growth for all schools.

HBCUs also continued to have strong representation in the top 10 schools producing black bachelor's degrees for the 1995-2005 decade. Morgan State University and Florida A\&M University joined the top 10 list, increasing the number of HBCUs in the top 10 from six to seven. In the natural and physical sciences, Florida A\&M University, Tennessee State University and Morgan State University joined the top 10 list for black women; for black men, Benedict College and City University of New York City joined the top 10 list. The number of HBCUs in the top 10 also increased for the life and medical sciences, as Southern University joined the top 10 for both women and men, and Morehouse College and Tennessee State University joined the top 10 for men. The top 10 schools in the social sciences and humanities for both black men and women changed a bit during the 19861995 and 1996-2006 decades, but the number-one schools-Morehouse College and Spelman College-remained the same. HBCUs had decreased representation in the top 10 lists for the humanities and social science.

Over the 20 years analyzed, the percentage of degrees awarded to blacks by the top 10 schools decreased less than 3 percent on average, suggesting that black Americans are attending a broader range of colleges and universities. The Georgia Institute of Technology, for example, is ranked high on the engineering list. This may be explained by the development of the dualdegree program with the schools in the Atlanta University Center.
Table 1. Bachelor's Degrees Awarded, 1986-2005

## All Schools 1986-1995

| Black Americans | Engineering | Humanities | Natural and Physical Sciences | Social Sciences | Life and Medical Science | Law and Business | Education | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Men | 12,911 | 14,593 | 15,508 | 37,216 | 11,686 | 55,433 | 10,677 | 158,024 |
| Percent of Degrees-All Schools | 2 | 2 | 3 | 3 | 1 | 3 | 1 | 2 |
| Women | 6,215 | 25,682 | 16,737 | 63,471 | 43,553 | 84,305 | 30,689 | 270,652 |
| Percent of Degrees-All Schools | 1 | 3 | 4 | 4 | 5 | 4 | 3 | 4 |
| Total Black Americans | 19,126 | 40,275 | 32,245 | 100,687 | 55,239 | 139,738 | 41,366 | 428,676 |
| Percent of Degrees-All Schools | 4 | 4 | 7 | 7 | 6 | 7 | 4 | 6 |
|  |  |  |  |  |  |  |  |  |
| Non-black Americans |  |  |  |  |  |  |  | 80 |
| Men | 389,541 | 358,703 | 281,224 | 617,541 | 293,175 | 992,218 | 179,674 | 3,112,076 |
| Percent of Degrees-All Schools | 75 | 37 | 61 | 42 | 30 | 48 | 19 | 43 |
| Women | 71,955 | 549,889 | 143,722 | 729,653 | 597,877 | 863,916 | 627,674 | 3,584,686 |
| Percent of Degrees-All Schools | 14 | 37 | 31 | 49 | 62 | 42 | 65 | 49 |
| Total Non-black Citizens | 461,496 | 908,592 | 424,946 | 1,347,194 | 891,052 | 1,856,134 | 807,348 | 6,696,762 |
| Percent of Degrees-All Schools | 89 | 94 | 92 | 91 | 92 | 90 | 84 | 92 |
|  |  |  |  |  |  |  |  |  |
| Non-Americans |  |  |  |  |  |  |  | 30 |
| Men | 34,535 | 8,226 | 19,050 | 15,078 | 7,638 | 45,382 | 2,205 | 132,114 |
| Percent of Degrees-All Schools | 7 | 1 | 4 | 1 | 1 | 2 | 0 | 2 |
| Women | 4,003 | 12,488 | 8,363 | 14,199 | 9,869 | 30,165 | 3,476 | 82,563 |
| Percent of Degrees-All Schools | 1 | 1 | 2 | 1 | 1 | 1 | 0 | 1 |
| Total Non-Americans | 38,538 | 21,958 | 5,250 | 28,032 | 17,507 | 75,547 | 111,285 | 186,832 |
| Percent of Degrees-All Schools | 7 | 2 | 1 | 2 | 2 | 4 | 12 | 3 |
| Total Bachelor Degrees-All Schools | 519,160 | 970,825 | 462,441 | 1,475,913 | 963,798 | 2,071,419 | 959,999 | 7,312,270 |

HBCUs 1986-1995

| Black Americans | Engineering | Humanities | Natural and Physical Sciences | Social Sciences | Life and Medical Science | Law and Business | Education | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Men | 3,104 | 3,181 | 5,912 | 8,222 | 3,732 | 17,111 | 4,077 | 45,339 |
| Percent of Degrees-HBCUs | 48 | 32 | 41 | 31 | 18 | 34 | 19 | 30 |
| Women | 1,822 | 5,769 | 7,785 | 15,599 | 11,580 | 26,766 | 12,182 | 81,503 |
| Percent of Degrees-HBCUs | 28 | 58 | 55 | 59 | 57 | 53 | 57 | 55 |
| Total Black Americans | 4,926 | 8,950 | 13,697 | 23,821 | 15,312 | 43,877 | 16,259 | 126,842 |
| Percent of Degrees-HBCUs | 76 | 90 | 96 | 90 | 76 | 87 | 77 | 85 |
|  |  |  |  |  |  |  |  |  |
| Non-black Americans |  |  |  |  |  |  |  |  |
| Men | 774 | 302 | 926 | 838 | 1,116 | 2,373 | 999 | 7,328 |
| Percent of Degrees-HBCUs | 12 | 3 | 6 | 3 | 6 | 5 | 5 | 5 |
| Women | 109 | 489 | 514 | 1,186 | 2,694 | 2,496 | 3,504 | 10,992 |
| Percent of Degrees-HBCUs | 2 | 5 | 4 | 4 | 13 | 5 | 17 | 7 |
| Total Non-black Americans | 883 | 791 | 339 | 2,024 | 3,810 | 4,869 | 4,503 | 17,219 |
| Percent of Degrees-HBCUs | 14 | 8 | 2 | 8 | 19 | 10 | 21 | 12 |
|  |  |  |  |  |  |  |  |  |
| Non-Americans |  |  |  |  |  |  |  |  |
| Men | 586 | 100 | 611 | 284 | 462 | 1,242 | 212 | 3,497 |
| Percent of Degrees-HBCUs | 9 | 1 | 4 | 1 | 2 | 2 | 1 | 2 |
| Women | 64 | 142 | 269 | 283 | 589 | 712 | 254 | 2,313 |
| Percent of Degrees-HBCUs | 1 | 1 | 2 | 1 | 3 | 1 | 1 | 2 |
| Total Non-Americans | 650 | 243 | 233 | 566 | 1,051 | 1,954 | 466 | 5,163 |
| Percent of Degrees-HBCUs | 10 | 2 | 2 | 2 | 5 | 4 | 2 | 3 |
| Total Bachelor's Degrees-HBCUs | 6,459 | 9,984 | 14,269 | 26,411 | 20,173 | 50,700 | 21,228 | 149,224 |

All Schools 1996-2005

| Black Americans | Engineering | Humanities | Natural and Physical Sciences | Social Sciences | Life and Medical Science | Law and Business | Education | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Men | 17,928 | 30,715 | 27,796 | 52,584 | 21,049 | 83,687 | 20,759 | 254,518 |
| Percent of Degrees-All Schools | 3 | 2 | 4 | 3 | 2 | 3 | 2 | 3 |
| Women | 9,568 | 51,510 | 27,139 | 124,014 | 82,890 | 142,608 | 49,984 | 487,713 |
| Percent of Degrees-All Schools | 2 | 3 | 4 | 7 | 6 | 6 | 5 | 5 |
| Total Black Americans | 27,496 | 82,225 | 54,935 | 176,598 | 103,939 | 226,295 | 70,743 | 742,231 |
| Percent of Degrees-All Schools | 5 | 5 | 8 | 10 | 8 | 9 | 7 | 8 |
| Non-black Americans |  |  |  |  |  |  |  |  |
| Men | 398,023 | 594,958 | 380,811 | 598,092 | 394,467 | 1,097,799 | 255,296 | 3,719,446 |
| Percent of Degrees-All Schools | 71 | 39 | 58 | 33 | 29 | 44 | 24 | 39 |
| Women | 93,894 | 806,000 | 179,162 | 965,937 | 852,488 | 1,039,213 | 739,349 | 4,676,043 |
| Percent of Degrees-All Schools | 17 | 53 | 27 | 54 | 62 | 42 | 69 | 49 |
| Total Non-black Americans | 491,917 | 1,400,958 | 559,973 | 1,564,029 | 1,246,955 | 2,137,012 | 994,645 | 8,395,489 |
| Percent of Degrees-All Schools | 88 | 92 | 85 | 87 | 91 | 86 | 92 | 89 |
|  |  |  |  |  |  |  |  |  |
| Non-Americans |  |  |  |  |  |  |  |  |
| Men | 34,077 | 14,005 | 27,641 | 20,875 | 8,383 | 67,157 | 3,373 | 175,511 |
| Percent of Degrees-All Schools | 6 | 1 | 4 | 1 | 1 | 3 | 0 | 2 |
| Women | 6,904 | 22,506 | 13,039 | 27,616 | 15,116 | 56,342 | 6,720 | 148,243 |
| Percent of Degrees-All Schools | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 2 |
| Total Non-Americans | 40,981 | 36,511 | 40,680 | 48,491 | 23,499 | 123,499 | 10,093 | 323,754 |
| Percent of Degrees-All Schools | 7 | 2 | 6 | 3 | 2 | 5 | 1 | 3 |
| Total Bachelor's Degrees-All Schools | 560,394 | 1,519,694 | 655,588 | 1,789,118 | 1,374,393 | 2,486,806 | 1,075,481 | 9,461,474 |

HBCUs 1996-2005

| Black Americans | Engineering | Humanities | Natural and Physical Sciences | Social <br> Sciences | Life and Medical Science | Law and Business | Education | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Men | 3,993 | 6,771 | 9,857 | 9,939 | 6,682 | 19,526 | 6,584 | 63,352 |
| Percent of Degrees-HBCUs | 52 | 35 | 47 | 26 | 19 | 34 | 24 | 31 |
| Women | 2,688 | 10,946 | 8,216 | 25,704 | 22,650 | 30,572 | 15,743 | 116,519 |
| Percent of Degrees-HBCUs | 35 | 56 | 39 | 66 | 63 | 53 | 58 | 56 |
| Total Black Americans | 6,681 | 17,717 | 18,073 | 35,643 | 29,332 | 50,098 | 22,327 | 179,871 |
| Percent of Degrees-HBCUs | 87 | 91 | 86 | 92 | 821 | 87 | 82 | 87 |
|  |  |  |  |  |  |  |  |  |
| Non-black Citizens |  |  |  |  |  |  |  |  |
| Men | 457 | 695 | 1,066 | 860 | 1,503 | 2,326 | 1,017 | 7,924 |
| Percent of Degrees-HBCUs | 6 |  | 5 | 2 | 4 | 4 | 4 | 4 |
| Women | 84 | 861 | 700 | 1,837 | 4,218 | 3,116 | 3,427 | 14,243 |
| Percent of Degrees-HBCUs | 1 | 4 | 3 | 5 | 12 | 5 | 13 | 7 |
| Total Non-black Americans | 541 | 1,556 | 1,766 | 2,697 | 5,721 | 5,442 | 4,444 | 22,167 |
| Percent of Degrees-HBCUs | 7 | 8 | 8 | 7 | 16 | 10 | 16 | 11 |
|  |  |  |  | 33 |  |  |  |  |
| Non-Americans |  |  |  |  |  |  |  |  |
| Men | 410 | 128 | 755 | 202 | 372 | 830 | 80 | 2,777 |
| Percent of Degrees-HBCUs | 5 | 1 | 4 | 1 | 1 | 1 | 0 | 1 |
| Women | 101 | 170 | 507 | 351 | 606 | 893 | 224 | 2,852 |
| Percent of Degrees-HBCUs | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 1 |
| Total Non-Americans | 511 | 298 | 1,262 | 553 | 978 | 1,723 | 304 | 5,629 |
| Percent of Degrees-HBCUs | 7 | 2 | 6 | 1 | 1 | 3 | 1 | 3 |
| Total Bachelor's Degrees-HBCUs | 7,733 | 19,571 | 21,101 | 38,893 | 36,031 | 57,263 | 27,075 | 207,667 |

Table 2. Top 10 Schools Awarding Bachelor's Degrees to Black Students, 1986-2005

| Engineering |  |  |  |
| :---: | :---: | :---: | :---: |
| 1986-1995 |  |  |  |
| Black Women | Total | Black Men | Total |
| North Carolina A\&T State University | 410 | North Carolina A\&T State University | 599 |
| Georgia Institute of Technology, Main Campus | 289 | Prairie View A\&M University | 490 |
| Tuskegee University | 264 | Tuskegee University | 424 |
| Howard University | 261 | Howard University | 401 |
| Prairie View A\&M University | 251 | Southern University at Baton Rouge | 369 |
| North Carolina State University at Raleigh | 200 | Georgia Institute of Technology, Main Campus | 364 |
| Southern University at Baton Rouge | 192 | North Carolina State University at Raleigh | 300 |
| Tennessee State University | 130 | CUNY City College | 230 |
| Purdue University, Main Campus | 119 | Pratt Institute | 217 |
| Michigan State University | 112 | University of the District of Columbia | 195 |
| Total Black Women from Top 10 | 2,228 | Total Black Men from Top 10 | 3,589 |
| Total Black Women from All Schools | 6,215 | Total Black Men from All Schools | 12,911 |
| Percent Total Black Women from Top 10 | 36 | Percent Total Black Men from Top 10 | 28 |
| 1996-2005 |  |  |  |
| Black Women | Total | Black Men | Total |
| North Carolina A\&T State University | 578 | North Carolina A\&T State University | 833 |
| Georgia Institute of Technology, Main Campus | 502 | Georgia Institute of Technology, Main Campus | 678 |
| Florida A\&M University | 341 | Florida A\&M University | 475 |
| Tuskegee University | 319 | Prairie View A\&M University | 442 |
| Morgan State University | 262 | Southern University at Baton Rouge | 420 |
| Prairie View A\&M University | 260 | North Carolina State University at Raleigh | 397 |
| North Carolina State University at Raleigh | 249 | Morgan State University | 395 |
| Tennessee State University | 221 | Tuskegee University | 387 |
| Southern University at Baton Rouge | 199 | CUNY City College | 342 |
| University of Michigan at Ann Arbor | 199 | Tennessee State University | 283 |
| Total Black Women from Top 10 | 3,130 | Total Black Men from Top 10 | 4,652 |
| Total Black Women from All Schools | 9,568 | Total Black Men from All Schools | 17,928 |
| Percent Total Black Women from Top 10 | 33 |  | 26 |

Table 2. Top 10 Schools Awarding Bachelor's Degrees to Black Students, 1986-2005 cont.

| Humanities |  |  |  |
| :---: | :---: | :---: | :---: |
| 1986-1995 |  |  |  |
| Black Women | Total | Black Men | Total |
| Spelman College | 628 | Morehouse College | 294 |
| Howard University | 502 | Howard University | 203 |
| Rutgers University at New Brunswick | 439 | Oakwood College | 185 |
| University of Virginia, Main Campus | 433 | University of Virginia, Main Campus | 176 |
| Hampton University | 318 | Rutgers University at New Brunswick | 167 |
| University of Maryland at College Park | 313 | University of California-Berkeley | 141 |
| University of California-Los Angeles | 294 | University of Illinois at Urbana-Champaign | 140 |
| SUNY at Albany | 284 | American Baptist College | 130 |
| North Carolina Central University | 248 | Florida A\&M University | 130 |
| University of Michigan at Ann Arbor | 240 | University of California-Los Angeles | 127 |
| Total Black Women from Top 10 | 3,699 | Total Black Men from Top 10 | 1,693 |
| Total Black Women from All Schools | 25,682 | Total Black Men from All Schools | 14,593 |
| Percent Total Black Women from Top 10 | 14 | Percent Total Black Men from Top 10 | 12 |
| 1996-2005 |  |  |  |
| Black Women | Total | Black Men | Total |
| Spelman College | 938 | Morehouse College | 662 |
| Howard University | 832 | Howard University | 381 |
| CUNY Hunter College | 657 | University of Maryland at College Park | 295 |
| University of Maryland at College Park | 630 | North Carolina Central University | 280 |
| Georgia State University | 571 | North Carolina A\&T State University | 264 |
| Hampton University | 480 | University of Illinois at Urbana-Champaign | 255 |
| University of Virginia, Main Campus | 480 | Florida A\&M University | 251 |
| Rutgers University, New Brunswick | 474 | University of California-Los Angeles | 251 |
| University of Michigan at Ann Arbor | 453 | University of California-Berkeley | 244 |
| University of Illinois at Urbana-Champaign | 451 | Georgia State University | 231 |
| Total Black Women from Top 10 | 5,966 | Total Black Men from Top 10 | 3,114 |
| Total Black Women from All Schools | 51,510 | Total Black Men from All Schools | 30,715 |
| Percent Total Black Women from Top 10 | 12 | Percent Total Black Men from Top 10 | 10 |

Table 2. Top 10 Schools Awarding Bachelor's Degrees to Black Students, 1986-2005 cont.

| Natural and Physical Sciences |  |  |  |
| :---: | :---: | :---: | :---: |
| 1986-1995 |  |  |  |
| Black Women | Total | Black Men | Total |
| Xavier University of Louisiana | 212 | Xavier University of Louisiana | 120 |
| Spelman College | 131 | Howard University | 106 |
| Howard University | 85 | Morehouse College | 103 |
| Fisk University | 65 | United States Naval Academy | 94 |
| Lincoln University (PA) | 60 | Lincoln University (PA) | 55 |
| Tougaloo College | 55 | Morgan State University | 42 |
| Hampton University | 53 | Southern University at Baton Rouge | 42 |
| Jackson State University | 51 | Tuskegee University | 39 |
| Dillard University | 46 | Jackson State University | 37 |
| Southern University at Baton Rouge | 45 | Hampton University | 34 |
| Total Black Women from Top 10 | 803 | North Carolina State University at Raleigh | 34 |
| Total Black Women from All Schools | 16,737 | Total Black Men from Top 11 | 706 |
| Percent Total Black Women from Top 10 | 5 | Total Black Men from All Schools | 15,508 |
|  |  | Percent Total Black Men from Top 11 | 5 |
| 1996-2005 |  |  |  |
| Black Women | Total | Black Men | Total |
| Xavier University of Louisiana | 402 | Xavier University of Louisiana | 142 |
| Spelman College | 152 | Morehouse College | 136 |
| Howard University | 131 | United States Naval Academy | 88 |
| Southern University at Baton Rouge | 105 | Lincoln University (PA) | 77 |
| Tennessee State University | 104 | Benedict College | 65 |
| Florida A\&M University | 98 | Southern University at Baton Rouge | 63 |
| Jackson State University | 88 | CUNY City College | 62 |
| Lincoln University (PA) | 77 | Jackson State University | 57 |
| Tougaloo College | 72 | Howard University | 56 |
| Morgan State University | 70 | North Carolina State University at Raleigh | 51 |
| Total Black Women from Top 10 | 1,299 | Total Black Men from Top 10 | 797 |
| Total Black Women from All Schools | 27,139 | Total Black Men from All Schools | 27,796 |
| Percent Total Black Women from Top 10 | 5 | Percent Total Black Men from Top 10 | 3 |

Table 2. Top 10 Schools Awarding Bachelor's Degrees to Black Students, 1986-2005 cont.

| Social Sciences |  |  |  |
| :---: | :---: | :---: | :---: |
| 1986-1995 |  |  |  |
| Black Women | Total | Black Men | Total |
| Spelman College | 1,172 | Morehouse College | 770 |
| University of California-Los Angeles | 883 | Howard University | 486 |
| Howard University | 881 | University of California-Los Angeles | 450 |
| North Carolina Central University | 786 | North Carolina Central University | 408 |
| Rutgers University at New Brunswick | 742 | Rutgers University at New Brunswick | 400 |
| Southern University at Baton Rouge | 666 | University of California-Berkeley | 389 |
| Hampton University | 653 | University of Virginia, Main Campus | 348 |
| University of Virginia, Main Campus | 541 | University of Maryland at College Park | 343 |
| University of California-Berkeley | 508 | Southern University at Baton Rouge | 329 |
| CUNY Hunter College | 501 | Florida A\&M University | 311 |
| Total Black Women from Top 10 | 7,333 | Total Black Men from Top 10 | 4,234 |
| Total Black Women from All Schools | 63,971 | Total Black Men from All Schools | 37,216 |
| Percent Total Black Women from Top 10 | 11 | Percent Total Black Men from Top 10 | 11 |
| 1996-2005 |  |  |  |
| Black Women | Total | Black Men | Total |
| Spelman College | 1,761 | Morehouse College | 1,031 |
| CUNY John Jay College Criminal Justice | 1,690 | University of Maryland at College Park | 642 |
| Georgia State University | 1,249 | Florida A\&M University | 547 |
| CUNY Hunter College | 1,113 | CUNY John Jay College Criminal Justice | 512 |
| Howard University | 1,085 | St. Leo College | 512 |
| CUNY York College | 1,065 | Southern University at Baton Rouge | 423 |
| Florida A\&M University | 1,042 | Ohio State University, Main Campus | 415 |
| Hampton University | 981 | Rutgers University at New Brunswick | 371 |
| University of Maryland at College Park | 977 | University of Virginia, Main Campus | 358 |
| California State University-Dominguez Hills | 930 | Florida State University | 355 |
| Total Black Women from Top 10 | 11,893 | Total Black Men from Top 10 | 5,166 |
| Total Black Women from All Schools | 124,014 | Total Black Men from All Schools | 52,584 |
| Percent Total Black Women from Top 10 | 10 | Percent Total Black Men from Top 10 | 10 |

Table 2. Top 10 Schools Awarding Bachelor's Degrees to Black Students, 1986-2005 cont.

| Life and Medical Sciences |  |  |  |
| :---: | :---: | :---: | :---: |
| 1986-1995 |  |  |  |
| Black Women | Total | Black Men | Total |
| Howard University | 1,084 | Howard University | 349 |
| Hampton University | 685 | Xavier University of Louisiana | 226 |
| SUNY Health Science Center at Brooklyn | 683 | Southern Illinois University-Carbondale | 217 |
| Xavier University of Louisiana | 654 | Prairie View A\&M University | 178 |
| Long Island University, Brooklyn Campus | 622 | Long Island University, Brooklyn Campus | 175 |
| Florida A\&M University | 583 | Florida A\&M University | 167 |
| Chicago State University | 448 | Hampton University | 161 |
| St. Joseph's College, Main Campus | 444 | Tuskegee University | 158 |
| Tennessee State University | 444 | Alcorn State University | 151 |
| Prairie View A\&M University | 433 | Tennessee State University | 135 |
| Total Black Women from Top 10 | 6,080 | Total Black Men from Top 10 | 1,917 |
| Total Black Women from All Schools | 43,553 | Total Black Men from All Schools | 11,686 |
| Percent Total Black Women from Top 10 | 14 | Percent Total Black Men from Top 10 | 16 |
| 1996-2005 |  |  |  |
| Black Women | Total | Black Men | Total |
| Florida A\&M University | 1,465 | Florida A\&M University | 384 |
| Howard University | 1,359 | Howard University | 352 |
| Xavier University of Louisiana | 1,229 | Xavier University of Louisiana | 329 |
| Hampton University | 1,092 | Morehouse College | 328 |
| Southern University at Baton Rouge | 974 | Southern Illinois University-Carbondale | 321 |
| Prairie View A\&M University | 940 | Prairie View A\&M University | 289 |
| Florida International University | 916 | Southern University at Baton Rouge | 262 |
| Tennessee State University | 904 | Tennessee State University | 257 |
| CUNY Herbert H Lehman College | 784 | Hampton University | 235 |
| St. Joseph's College, Main Campus | 712 | Tuskegee University | 230 |
| Total Black Women from Top 10 | 10,375 | Total Black Men from Top 10 | 2,987 |
| Total Black Women from All Schools | 82,890 | Total Black Men from All Schools | 21,049 |
| Percent Total Black Women from Top 10 | 14 | Percent Total Black Men from Top 10 | 14 |
| Percent Black Women from Top 11 | 12 |  |  |

Table 2. Top 10 Schools Awarding Bachelor's Degrees to Black Students, 1986-2005 cont.

| Business and Law |  |  |  |
| :---: | :---: | :---: | :---: |
| 1986-1995 |  |  |  |
| Black Women | Total | Black Men | Total |
| Hampton University | 1365 | Morehouse College | 1194 |
| Jackson State University | 1169 | Hampton University | 783 |
| Howard University | 1109 | Howard University | 753 |
| CUNY Bernard M Baruch College | 990 | North Carolina A\&T State University | 618 |
| North Carolina A\&T State University | 956 | Southern University at Baton Rouge | 610 |
| Southern University at Baton Rouge | 880 | CUNY Bernard M Baruch College | 597 |
| South Carolina State University | 803 | South Carolina State University | 576 |
| Florida A\&M University | 776 | Jackson State University | 552 |
| Grambling State University | 746 | Grambling State University | 525 |
| Morgan State University | 740 | Florida A\&M University | 495 |
| Total Black Women from Top 10 | 9,534 | Total Black Men from Top 10 | 6,703 |
| Total Black Women from All Schools | 84,305 | Total Black Men from All Schools | 55,433 |
| Percent Black Women from Top 10 | 11 | Percent Black Men from Top 10 | 12 |
| 1996-2005 |  |  |  |
| Black Women | Total | Black Men | Total |
| University of Phoenix | 3,491 | University of Phoenix | 1,413 |
| CUNY Bernard M Baruch College | 1,838 | Morehouse College | 1,342 |
| Robert Morris College (IL) | 1,644 | Park College | 1,031 |
| Florida A\&M University | 1,435 | St. Leo College | 1,019 |
| St. Leo College | 1,423 | CUNY Bernard M Baruch College | 962 |
| Strayer College | 1,396 | Florida A\&M University | 945 |
| Georgia State University | 1,335 | Hampton University | 680 |
| Faulkner University | 1,101 | Howard University | 679 |
| Detroit College of Business | 1,096 | Wayland Baptist University | 649 |
| Howard University | 1,044 | Georgia State University | 605 |
| Park College | 1,044 | Total Black Men from Top 10 | 9,325 |
| Total Black Women from Top 11 | 16,847 | Total Black Men from All Schools | 83,687 |
| Total Black Women from All Schools | 142,608 | Percent Black Men from Top 10 | 11 |
| Percent Black Women from Top 11 | 12 |  |  |

Table 2. Top 10 Schools Awarding Bachelor’s Degrees to Black Students, 1986-2005 cont.

| Education |  |  |  |
| :---: | :---: | :---: | :---: |
| 1986-1995 |  |  |  |
| Black Women | Total | Black Men | Total |
| Florida A\&M University | 662 | Nova Southeastern University | 87 |
| Southern University at Baton Rouge | 520 | Clark Atlanta University | 68 |
| Nova Southeastern University | 404 | Columbia University (New York) | 61 |
| Southern University at New Orleans | 389 | University of Maryland at College Park | 39 |
| Jackson State University | 381 | Ohio State University, Main Campus | 36 |
| Chicago State University | 358 | University of Massachusetts at Amherst | 35 |
| Alabama State University | 356 | South Carolina State University | 30 |
| Alabama A\&M University | 347 | Virginia Polytechnic Institute and State University | 29 |
| North Carolina A\&T State University | 345 | Florida State University | 26 |
| Norfolk State University | 330 | Tennessee State University | 23 |
| Total Black Women from Top 10 | 4,092 | Texas Southern University | 23 |
| Total Black Women from All Schools | 30,689 | Total Black Men from Top 11 | 370 |
| Percent Black Women from Top 10 | 13 | Total Black Men from All Schools | 10,677 |
|  |  | Percent Black Men from Top 11 | 3 |
| 1996-2005 |  |  |  |
| Black Women | Total | Black Men | Total |
| Florida A\&M University | 1,137 | Southern Illinois University-Carbondale | 728 |
| Alabama State University | 999 | Wayland Baptist University | 496 |
| Jackson State University | 791 | Alabama State University | 402 |
| Southern University at Baton Rouge | 700 | Florida A\&M University | 374 |
| Southern Illinois University-Carbondale | 686 | Southern University at Baton Rouge | 348 |
| Alabama A\&M University | 669 | Virginia State University | 315 |
| Temple University | 648 | Jackson State University | 314 |
| Chicago State University | 596 | Alabama A\&M University | 300 |
| Mississippi State University | 533 | University of Southern Mississippi | 263 |
| South Carolina State University | 498 | North Carolina A\&T State University | 206 |
| Total Black Women from Top 10 | 7,257 | Total Black Men from Top 10 | 3,746 |
| Total Black Women from All Schools | 49,984 | Total Black Men from All Schools | 20,759 |
| Percent Black Women from Top 10 | 15 | Percent Black Men from Top 10 | 18 |

## Master's Degrees Awarded

Trends in degrees conferred at the master's level is similar to that at the bachelor's level. During the decade 1986-1995, black men earned more than twice the number of master's degrees in engineering than those earned by black women in that discipline. However, black women earned more master's degrees in the social sciences, education, and life and medical sciences than black men. Black women earned fewer master's degrees than men in the natural and physical sciences and in business and law. Overall, blacks have received a smaller share of degrees awarded at the master's level than at the bachelor's level. This is also true of non-black Americans. Non-Americans increased their share of master's degrees relative to bachelor's degrees (see Table 3).

More than 25 percent of the master's degrees awarded by HBCUs in engineering, the physical and natural sciences, and the life and medical sciences were earned by non-black Americans from 1986 to 1995. In general, 29 percent of the master's degrees awarded by HBCUs were earned by nonblack Americans. Non-Americans received 8 percent of the degrees awarded by HBCUs. These numbers suggest that more than one-third of the master's degrees granted by HBCUs were awarded to non-black Americans or to non-Americans.

During the 1996-2005 decade, blacks doubled their share of master's degrees. Although black men and women earned approximately the same number of master's degrees during the 1986-1995 decade-similar to the degree gap at the bachelor's level-black women earned more than twice as many master's degrees as black men earned during the 1996-2005 decade.

The percent of master's degrees awarded to non-black Americans and non-Americans from HBCUs remained relatively unchanged from the 1986-1995 decade to the 1996-2005 decade, 26 percent and 5 percent respectively. Women who were non-black Americans earned twice as many master's degrees from HBCUs than non-black Americans men. Of the master's degrees awarded to non-black Americans, 96 percent were in the social sciences, life and medical sciences, law and business, and education. Of the master's degrees awarded to non-Americans, 72 percent were in the same disciplines.

However,from the 1986-1995 decade to the 1996-2005 decade,HBCUs increased the percentage of master's degrees awarded to black Americans. The number of master's degrees awarded to black Americans nearly doubled during the decades analyzed in this report.

The growth in the number of master's degrees awarded to Americans by HBCUs suggests some key trends. Black Americans are increasing their
Table 3. Master's Degrees Awarded by HBCUs, 1986-2005

| 1996-2005 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Black Americans | Engineering | Humanities | Natural and Physical Sciences | Social Sciences | Life and Medical Science | Law and Business | Education | Total |
| Men | 345 | 325 | 160 | 1,388 | 644 | 1,812 | 4,166 | 8,840 |
| Percent of Degrees-HBCUs | 28 | 29 | 30 | 22 | 14 | 26 | 16 | 19 |
| Women | 262 | 521 | 175 | 3,727 | 2,139 | 3,154 | 13,596 | 23,574 |
| Percent of Degrees-HBCUs | 21 | 47 | 33 | 58 | 46 | 45 | 53 | 51 |
| Total Black Americans | 607 | 846 | 335 | 5,115 | 2,783 | 4,966 | 17,762 | 32,414 |
| Percent of Degrees-HBCUs | 49 | 76 | 62 | 80 | 59 | 71 | 70 | 70 |
|  |  |  |  |  |  |  |  |  |
| Non-black Americans |  |  |  |  |  |  |  |  |
| Men | 191 | 72 | 62 | 364 | 416 | 669 | 1,874 | 3,648 |
| Percent of Degrees-HBCUs | 15 | 7 | 12 | 6 | 9 | 10 | 7 | 8 |
| Women | 41 | 112 | 32 | 711 | 1,224 | 556 | 5,544 | 8,220 |
| Percent of Degrees-HBCUs | 3 | 10 | 6 | 11 | 26 | 8 | 22 | 18 |
| Total Non-black Americans | 232 | 184 | 94 | 1,075 | 1,640 | 1,225 | 7,418 | 11,868 |
| Percent of Degrees-HBCUs | 19 | 17 | 18 | 17 | 35 | 18 | 29 | 26 |
|  |  |  |  |  |  |  |  |  |
| Non-American |  |  |  |  |  |  |  |  |
| Men | 323 | 36 | 63 | 120 | 141 | 423 | 108 | 1,214 |
| Percent of Degrees-HBCUs | 26 | 3 | 12 | 2 | 3 | 6 | 0 | 3 |
| Women | 74 | 40 | 45 | 111 | 123 | 348 | 181 | 922 |
| Percent of Degrees-HBCUs | 6 | 4 | 8 | 2 | 3 | 5 | 1 | 2 |
| Total Non-Americans | 397 | 76 | 108 | 231 | 264 | 771 | 289 | 2,136 |
| Percent of Degrees-HBCUs | 32 | 7 | 20 | 4 | 6 | 11 | 1 | 5 |
| Total Master Degrees-HBCUs | 1,236 | 1,106 | 537 | 6,421 | 4,687 | 6,962 | 25,469 | 46,418 |

credentials to remain competitive in the ever-changing global economy. In addition, the graduate programs at HBCUs are competitive and large shares of the students they serve are non-black, resulting in a diverse graduate student population. Also, the master's degrees awarded by HBCUs may serve as "training" or "skill" development degrees for those interested in pursuing the doctorate.

## Doctorate Degrees Awarded

Unlike the bachelor's and master's degrees, the doctorate signals a level of "expertise" that expands employment opportunities to include think tanks, research laboratories, and colleges and universities. We have a particular interest in the number of doctorates awarded to black Americans because of the potential impact in the college classroom and diversity in higher education.

For the 1986-1995 decade, black Americans earned 3 percent of the doctorates awarded, compared to 71 percent by non-black Americans and 26 percent by non-Americans. Black Americans hold 8 percent of the doctorates awarded in education and 4 percent of the doctorates awarded in the social sciences. The representation of black Americans in the remaining discipline groups is between 1 and 2 percent. This is drastically lower than the representation of non-black Americans and non-Americans in the remaining discipline (see Table 4).

Black Americans increased the number of doctorates earned from 19861995 to 1995-2005 by 56 percent. Additionally, black Americans increased their share of doctorates in all discipline groupings. Black American women nearly doubled the number of doctorates earned during the 20-year time span. Again, there is a widening of the gap in degrees earned by black American women and black American men. Black American women earned nearly 40 percent more doctorates than did black American men. Nonetheless, black American men continued to earn more doctorates in engineering, natural and physical sciences, law and business than black American women. HBCUs also saw a 67 -percent increase in the total number of doctorates awarded from 1986-1995 to 1996-2005. Over the 20 years analyzed, the diversity of the students receiving doctorates from HBCUs also increased from 16 percent to 21 percent among non-black Americans. However, the percentage of non-Americans decreased from 23 percent to 21 percent. Nearly 50 percent of the doctorates awarded in engineering for both decades were awarded to non-black Americans.

HBCUs saw an increase in the percentage of doctorates awarded to
non-black Americans in the natural and physical sciences, life and medical sciences, and education. It is important to note that for both decades the percentage of doctorates awarded to non-Americans from HBCUs mirror the percentage awarded to this group from all institutions. In fact, with the exception of education, the percentage of doctorates awarded to nonAmericans from HBCUs is similar to the percentage awarded from all institutions. As with the master's degree, these results suggest that HBCUs are competitive in attracting non-black Americans at the doctorate level.

Knowing the number of doctorates awarded to black Americans is important (see Table 5). So too is knowing the schools that are successful at educating black Americans at the doctorate level in order to build relationships to recruit a diverse faculty and workforce. For both decades, the Georgia Institute of Technology tops the engineering lists for both black American men and black American women. For both decades, Howard University is on the top 10 engineering list for black American men and is tied with Pennsylvania State University-College Station and Massachusetts Institute of Technology for the 1996-2005 decade. Howard University is on the top 10 lists for all disciplines, with the exception of law and business and of education.

For black American men, Meharry Medical College is on the top 10 lists for life and medical sciences for both decades and on the top 10 lists for black American women for the 1996-2005 decade. Jackson State University is on the black American men top 10 lists for business and law for the 1996-2005 decade and is the only HBCU on the law and business top 10 lists for either decade. Clark Atlanta and Jackson State University are the only HBCUs on the education top 10 lists-for both black American men and women for the 1986-1995 decade, and black American women for the 1996-2005 decade. No school is on the top 10 lists for all disciplines for both decades. However, the University of Michigan at Ann Arbor and Howard University are on more top 10 lists across disciplines than all other institutions.
Table 4. Doctoral Degrees Awarded, 1986-2005

| All Schools |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1986-1995 |  |  |  |  |  |  |  |  |
| Black Americans | Engineering | Humanities | Natural and Physical Sciences | Social Sciences | Life and Medical Science | Law and Business | Education | Total |
| Men | 359 | 472 | 350 | 1,170 | 621 | 152 | 1,726 | 4,850 |
| Percent of Degrees-All Schools | 1 | 1 | 1 | 2 | 1 | 1 | 3 | 1 |
| Women | 71 | 443 | 122 | 1,242 | 587 | 94 | 3,168 | 5,727 |
| Percent of Degrees-All Schools | 0 | 1 | 0 | 2 | 1 | 1 | 5 | 2 |
| Total Black Americans | 430 | 915 | 472 | 2,412 | 1,208 | 246 | 4,894 | 10,577 |
| Percent of Degrees-All Schools | 1 | 2 | 1 | 4 | 2 | 2 | 8 | 3 |
|  |  |  |  |  |  |  |  |  |
| Non-black Americans |  |  |  |  |  |  |  |  |
| Men | 21,049 | 18,345 | 29,647 | 24,921 | 28,401 | 5,134 | 21,791 | 149,288 |
| Percent of Degrees-All Schools | 43 | 46 | 51 | 37 | 43 | 34 | 35 | 42 |
| Women | 2,972 | 14,837 | 7,868 | 26,181 | 20,780 | 2,423 | 31,291 | 106,352 |
| Percent of Degrees-All Schools | 6 | 37 | 13 | 39 | 31 | 16 | 51 | 30 |
| Total Non-Americans | 24,021 | 33,182 | 37,515 | 51,102 | 49,181 | 7,557 | 53,082 | 255,640 |
| Percent of Degrees-All Schools | 49 | 83 | 64 | 76 | 74 | 50 | 86 | 71 |
|  |  |  |  |  |  |  |  |  |
| Non-Americans |  |  |  |  |  |  |  |  |
| Men | 22,837 | 3,496 | 17,518 | 10,025 | 11,337 | 3,980 | 3,312 | 72,505 |
| Percent of Degrees- All Schools | 47 | 9 | 30 | 15 | 17 | 26 | 5 | 20 |
| Women | 1,326 | 2,216 | 3,114 | 4,003 | 4,790 | 3,413 | 470 | 19,332 |
| Percent of Degrees-All Schools | 3 | 6 | 5 | 6 | 7 | 22 | 1 | 5 |
| Total Non-Americans | 24,163 | 5,712 | 20,632 | 14,028 | 16,127 | 7,393 | 3,782 | 91,837 |
| Percent of Degrees-All Schools | 50 | 14 | 35 | 21 | 24 | 49 | 6 | 26 |
| Total Doctoral Degrees-All Schools | 48,614 | 39,809 | 58,619 | 67,542 | 66,516 | 15,196 | 61,758 | 358,054 |

Table 4. Doctoral Degrees Awarded, 1986-2005 cont.

| HBCUs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1986-1995 |  |  |  |  |  |  |  |  |
| Black Americans | Engineering | Humanities | Natural and <br> Physical <br> Sciences | Social Sciences | Other Disciplines | Law and Business | Education | Total |
| Men | 13 | 21 | 34 | 133 | 73 | 0 | 160 | 434 |
| Percent of Degrees-HBCUs | 46 | 26 | 34 | 33 | 28 | 0 | 23 | 27 |
| Women | 1 | 34 | 13 | 113 | 83 | 1 | 285 | 530 |
| Percent of Degrees-HBCUs | 4 | 43 | 13 | 28 | 32 | 50 | 40 | 34 |
| Total Black Americans | 14 | 55 | 47 | 246 | 156 | 1 | 445 | 964 |
| Percent of Degrees-HBCUs | 50 | 69 | 47 | 61 | 59 | 50 | 63 | 61 |
| Non-black Americans |  |  |  |  |  |  |  |  |
| Men | 6 | 2 | 14 | 24 | 18 | 0 | 56 | 120 |
| Percent of Degrees-HBCUs | 21 | 3 | 14 | 6 | 7 | 0 | 8 | 8 |
| Women | 0 | 4 | 1 | 18 | 19 | 0 | 93 | 135 |
| Percent of Degrees-HBCUs | 0 | 5 | 1 | 4 | 7 | 0 | 13 | 9 |
| Total Non-black Americans | 6 | 6 | 15 | 42 | 37 | 0 | 149 | 255 |
| Percent of Degrees-HBCUs | 21 | 8 | 15 | 10 | 14 | 0 | 21 | 16 |
| Non-Americans |  |  |  |  |  |  |  |  |
| Men | 7 | 10 | 32 | 88 | 38 | 1 | 56 | 232 |
| Percent of Degrees-HBCUs | 25 | 13 | 32 | 22 | 14 | 50 | 8 | 15 |
| Women | 1 | 9 | 6 | 25 | 32 | 0 | 57 | 130 |
| Percent of Degrees-HBCUs | 4 | 11 | 6 | 6 | 12 | 0 | 8 | 8 |
| Total Non-Americans | 8 | 19 | 38 | 113 | 70 | 1 | 113 | 362 |
| Percent of Degrees-HBCUs | 29 | 24 | 38 | 28 | 27 | 50 | 16 | 23 |
| Total Doctoral Degrees-HBCUs | 28 | 80 | 100 | 401 | 263 | 2 | 707 | 1,581 |

Table 4. Doctoral Degrees Awarded, 1986-2005 cont.

| All Schools |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1996-2005 |  |  |  |  |  |  |  |  |
| Black Americans | Engineering | Humanities | Natural and <br> Physical <br> Sciences | Social Sciences | Life and Medical Science | Law and <br> Business | Education | Total |
| Men | 636 | 739 | 586 | 1,304 | 822 | 306 | 2,039 | 6,432 |
| Percent of Degrees-All Schools | 1 | 1 | 1 | 2 | 1 | 3 | 3 | 2 |
| Women | 244 | 883 | 349 | 2,207 | 1,364 | 251 | 4,762 | 10,060 |
| Percent of Degrees-All Schools | 0 | 2 | 1 | 3 | 2 | 2 | 7 | 2 |
| Total Black Americans | 880 | 1,622 | 935 | 3,511 | 2,186 | 557 | 6,801 | 16,492 |
| Percent of Degrees-All Schools | 2 | 3 | 2 | 5 | 3 | 5 | 10 | 4 |
| Non-black Americans |  |  |  |  |  |  |  |  |
| Men | 21,071 | 21,370 | 26,363 | 23,262 | 28,854 | 4,353 | 17,303 | 142,576 |
| Percent of Degrees-All Schools | 37 | 41 | 43 | 31 | 34 | 37 | 27 | 35 |
| Women | 4,546 | 20,231 | 9,335 | 31,488 | 28,488 | 2,628 | 32,180 | 128,896 |
| Percent of Degrees-All Schools | 8 | 39 | 15 | 42 | 34 | 22 | 49 | 32 |
| Total Non-black Americans | 25,617 | 41,601 | 35,698 | 54,750 | 57,342 | 6,981 | 49,483 | 271,472 |
| Percent of Degrees-All Schools | 45 | 80 | 58 | 73 | 68 | 59 | 76 | 67 |
| Non-Americans |  |  |  |  |  |  |  |  |
| Men | 26,262 | 4,457 | 19,832 | 10,245 | 14,673 | 3,176 | 3,668 | 82,313 |
| Percent of Degrees-All Schools | 46 | 9 | 32 | 14 | 17 | 27 | 6 | 20 |
| Women | 4,072 | 4,226 | 5,424 | 6,743 | 9,893 | 1,139 | 5,178 | 36,675 |
| Percent of Degrees-All Schools | 7 | 8 | 9 | 9 | 12 | 10 | 8 | 9 |
| Total Non-Americans | 30,334 | 8,683 | 25,256 | 16,988 | 24,566 | 4,315 | 8,846 | 118,988 |
| Percent of Degrees-All Schools | 53 | 17 | 41 | 23 | 29 | 36 | 14 | 29 |
| Total Master Degrees-All Schools | 56,831 | 51,906 | 61,889 | 75,249 | 84,094 | 11,853 | 65,130 | 406,952 |

Table 4. Doctoral Degrees Awarded, 1986-2005 cont.
HBCUs

| HBCUs |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1996-2005 |  |  |  |  |  |  |  |  |
| Black Americans | Engineering | Humanities | $\begin{gathered} \text { Natural and } \\ \text { Physical } \\ \text { Sciences } \end{gathered}$ | Social Sciences | Life and Medical Sciences | Law and Business | Education | Total |
| Men | 46 | 27 | 57 | 159 | 107 | 9 | 200 | 605 |
| Percent of Degrees-HBCUs | 41 | 26 | 32 | 31 | 23 | 60 | 16 | 23 |
| Women | 13 | 41 | 26 | 172 | 198 | 3 | 504 | 957 |
| Percent of Degrees-HBCUs | 12 | 40 | 15 | 33 | 42 | 20 | 41 | 36 |
| Total Black Americans | 59 | 68 | 83 | 331 | 305 | 12 | 704 | 1,562 |
| Percent of Degrees-HBCUs | 52 | 66 | 47 | 64 | 65 | 80 | 57 | 59 |
|  |  |  |  |  |  |  |  |  |
| Non-black Americans |  |  |  |  |  |  |  |  |
| Men | 6 | 6 | 15 | 46 | 27 | 1 | 121 | 222 |
| Percent of Degrees-HBCUs | 5 | 6 | 9 | 9 | 6 | 7 | 10 | 8 |
| Women | 5 | 0 | 7 | 57 | 33 | 1 | 222 | 325 |
| Percent of Degrees-HBCUs | 4 | 0 | 4 | 11 | 7 | 7 | 18 | 12 |
| Total Non-black Americans | 11 | 6 | 22 | 103 | 60 | 2 | 343 | 547 |
| Percent of Degrees-HBCUs | 10 | 6 | 13 | 20 | 13 | 13 | 28 | 21 |
|  |  |  |  |  |  |  |  |  |
| Non-Americans |  |  |  |  |  |  |  |  |
| Men | 33 | 17 | 47 | 48 | 56 | 0 | 68 | 269 |
| Percent of Degrees-HBCUs | 29 | 17 | 27 | 9 | 12 | 0 | 5 | 10 |
| Women | 10 | 12 | 24 | 36 | 48 | 1 | 129 | 260 |
| Percent of Degrees-HBCUs | 9 | 12 | 14 | 7 | 10 | 7 | 10 | 10 |
| Total Non-Americans | 43 | 29 | 71 | 84 | 104 | 1 | 197 | 529 |
| Percent of Degrees-HBCUs | 38 | 28 | 40 | 16 | 22 | 7 | 16 | 20 |
| Total Doctoral Degrees-HBCUs | 113 | 103 | 176 | 518 | 469 | 15 | 1,244 | 2,638 |

Table 5. Top 10 Schools Awarding Doctorate Degrees to Black Students, 1986-2005

| Engineering |  |  |  |
| :---: | :---: | :---: | :---: |
| 1986-1995 |  |  |  |
| Black Women | Total | Black Men | Total |
| Georgia Institute of Technology, Main Campus | 8 | Georgia Institute of Technology, Main Campus | 15 |
| University of Florida | 6 | University of California-Berkeley | 14 |
| Cornell University, All Campuses | 5 | Howard University | 13 |
| Massachusetts Institute of Technology | 5 | Cornell University, All Campuses | 11 |
| University of California-Berkeley | 5 | Columbia University (NY) | 10 |
| University of Michigan at Ann Ȧrbor | 4 | North Carolina State University at Raleigh | 10 |
| George Washington University | 2 | Stanford University | 10 |
| North Carolina State University at Raleigh | 2 | Texas A\&M University Main Campus | 10 |
| Northwestern University | 2 | University of Delaware | 10 |
| Rice University | 2 | Massachusetts Institute of Technology | 8 |
| Rutgers University at New Brunswick | 2 | Purdue University, Main Campus | 8 |
| Texas A\&M University Main Campus | 2 | University of Florida | 8 |
| University of Delaware | 2 | Total Black Men From Top 12 | 127 |
| University of Maryland at College Park | 2 | Total Black Men From All Schools | 359 |
| University of Virginia, Main Campus | 2 | Percent Total Black Men From Top 12 | 35 |
| Virginia Polytechnic Institute and State University | 2 |  |  |
| Total Black Women From Top 16 | 53 |  |  |
| Total Black Women From All Schools | 71 |  |  |
| Percent Total Black Women From Top 16 | 75 |  |  |
| 1996-2005 |  |  |  |
| Black Women | Total | Black Men | Total |
| Georgia Institute of Technology, Main Campus | 20 | Georgia Institute of Technology, Main Campus | 46 |
| North Carolina State University at Raleigh | 18 | University of Maryland at College Park | 23 |
| University of Michigan at Ann Arbor | 12 | Stanford University | 20 |
| Massachusetts Institute of Technology | 9 | North Carolina A\& T State University | 18 |
| Northwestern University | 9 | University of California-Berkeley | 18 |
| Purdue University, Main Campus | 8 | University of Michigan at Ann Ärbor | 16 |
| Stanford University | 8 | North Carolina State University at Raleigh | 14 |
| Pennsylvania State University, Main Campus | 7 | Texas A\&M University, Main Campus | 14 |
| North Carolina A\&T State University | 6 | Howard University | 13 |
| University of Maryland at College Park | 6 | Massachusetts Institute of Technology | 13 |
| Total Black Women From Top 10 | 103 | Pennsylvania State University, Main Campus | 13 |
| Total Black Women From All Schools | 244 | Total Black Men From Top 11 | 208 |
| Percent Total Black Women From Top 10 | 42 | Total Black Men From All Schools | 636 |
|  |  | Percent Total Black Men From Top 11 | 33 |

Table 5. Top 10 Schools Awarding Doctorate Degrees to Black Students, 1986-2005 cont.

| Humanities |  |  |  |
| :---: | :---: | :---: | :---: |
| 1986-1995 |  |  |  |
| Black Women | Total | Black Men | Total |
| Emory University | 22 | University of Michigan at Ann Arbor | 19 |
| Howard University | 21 | Howard University | 16 |
| Indiana University at Bloomington | 15 | Ohio State University, Main Campus | 16 |
| Clark Atlanta University | 13 | University of California-Los Angeles | 16 |
| University of Michigan at Ann Arbor | 13 | Indiana University at Bloomington | 14 |
| University of Maryland at College Park | 12 | University of Chicago | 12 |
| Ohio State University, Main Campus | 11 | Yale University | 12 |
| Temple University | 11 | Emory University | 11 |
| Stanford University | 10 | Harvard University | 10 |
| Yale University | 10 | Northwestern University | 10 |
| Total Black Women From Top 10 | 138 | Total Black Men From Top 10 | 136 |
| Total Black Women From All Schools | 443 | Total Black Men From All Schools | 472 |
| Percent Total Black Women From Top 10 | 31 | Percent Total Black Men From Top 10 | 29 |
| 1996-2005 |  |  |  |
| Black Women | Total | Black Men | Total |
| Temple University | 32 | Temple University | 32 |
| Howard University | 30 | Howard University | 21 |
| Duke University | 27 | Florida State University | 20 |
| University of California-Los Angeles | 25 | University of Michigan at Ann Arbor | 19 |
| University of Michigan at Ann Arbor | 24 | Ohio State University, Main Campus | 16 |
| Emory University | 23 | Duke University | 15 |
| New York University | 22 | Harvard University | 15 |
| University of California-Berkeley | 22 | New York University | 15 |
| Ohio State University, Main Campus | 21 | Northwestern University | 15 |
| Florida State University | 20 | University of California-Berkeley | 14 |
| Total Black Women From Top 10 | 246 | University of Iowa | 14 |
| Total Black Women From All Schools | 883 | University of California-Los Angeles | 13 |
| Percent Total Black Women From Top 10 | 28 | Yale University | 13 |
|  |  | Total Black Men From Top 13 | 169 |
|  |  | Total Black Men From All Schools | 739 |
|  |  | Percent Total Black Men From Top 13 | 23 |

Table 5. Top 10 Schools Awarding Doctorate Degrees to Black Students, 1986-2005 cont.

| Natural and Physical Sciences |  |  |  |
| :---: | :---: | :---: | :---: |
| 1986-1995 |  |  |  |
| Black Women | Total | Black Men | Total |
| Howard University | 8 | Howard University | 26 |
| Emory University | 6 | Stanford University | 14 |
| Florida State University | 6 | CUNY Graduate School and University Center | 10 |
| Nova Southeastern University | 5 | University of California-Berkeley | 10 |
| University of North Carolina at Chapel Hill | 5 | Georgia Institute of Technology, Main Campus | 8 |
| CUNY Graduate School and University Center | 4 | Pennsylvania State University, Main Campus | 7 |
| Clark Atlanta University | 4 | University of Maryland at College Park | 7 |
| Louisiana State University | 4 | Massachusetts Institute of Technology | 6 |
| University of Maryland at College Park | 4 | Polytechnic University | 6 |
|  |  |  |  |
| North Carolina State University at Raleigh | 3 | University of California-Los Angeles | 6 |
| Princeton University | 3 | University of Illinois at Chicago | 6 |
| Total Black Women From Top 11 | 52 | University of Michigan at Ann Arbor | 6 |
| Total Black Women From All Schools | 122 | Total Black Men From Top 12 | 112 |
| Percent Total Black Women From Top 11 | 43 | Total Black Men From All Schools | 350 |
|  |  | Percent Total Black Men From Top 12 | 32 |
| 1996-2005 |  |  |  |
| Black Women | Total | Black Men | Total |
| Louisiana State University | 19 | Howard University | 37 |
| Howard University | 15 | Georgia Institute of Technology, Main Campus | 17 |
| University of Michigan at Ann Arbor | 11 | Louisiana State University \& Agric \& Mechanical Col | 17 |
| Nova Southeastern University | 10 | Nova Southeastern University | 15 |
| University of North Carolina at Chapel Hill | 10 | University of Michigan at Ann Arbor | 15 |
| Auburn University, Main Campus | 9 | CUNY Graduate School and University Center | 11 |
| Georgia Institute of Technology, Main Campus | 9 | University of California-Davis | 11 |
| George Washington University | 8 | University of Maryland at College Park | 10 |
| Purdue University, Main Campus | 8 | Florida State University | 9 |
| Rice University | 8 | North Carolina State University at Raleigh | 9 |
| Total Black Women From Top 10 | 107 | Ohio State University, Main Campus | 9 |
| Total Black Women From All Schools | 349 | University of California-Berkeley | 9 |
| Percent Total Black Women From Top 10 | 31 | Total Black Men From Top 12 | 169 |
|  |  | Total Black Men From All Schools | 586 |
|  |  | Percent Total Black Men From Top 12 | 29 |

Table 5. Top 10 Schools Awarding Doctorate Degrees to Black Students, 1986-2005 cont.

| Social Sciences |  |  |  |
| :---: | :---: | :---: | :---: |
| 1986-1995 |  |  |  |
| Black Women | Total | Black Men | Total |
| Howard University | 82 | Howard University | 85 |
| University of Michigan at Ann Arbor | 36 | Clark Atlanta University | 48 |
| Clark Atlanta University | 31 | University of Michigan at Ann Arbor | 33 |
| University of Maryland at College Park | 31 | University of Maryland at College Park | 29 |
| CUNY Graduate School and University Center | 28 | CUNY Graduate School and University Center | 18 |
| Ohio State University, Main Campus | 28 | Michigan State University | 17 |
| University of California-Berkeley | 26 | Ohio State University, Main Campus | 17 |
| Emory University | 24 | University of California-Berkeley | 17 |
| University of North Carolina at Chapel Hill | 24 | Florida State University | 16 |
| California School Prof Psych at Los Angeles | 23 | Harvard University | 15 |
| Total Black Women From Top 10 | 333 | University of California-Los Angeles | 15 |
| Total Black Women From All Schools | 1,242 | Total Black Men From Top 11 | 310 |
| Percent Total Black Women From Top 10 | 27 | Total Black Men From All Schools | 1,170 |
|  |  | Percent Total Black Men From Top 11 | 26 |
| 1996-2005 |  |  |  |
| Black Women | Total | Black Men | Total |
| Howard University | 131 | Howard University | 111 |
| University of Michigan at Ann Arbor | 75 | CUNY Graduate School and University Center | 29 |
| University of Maryland at College Park | 57 | University of Michigan at Ann Arbor | 28 |
| Temple University | 47 | Clark Atlanta University | 27 |
| Wayne State University | 36 | Temple University | 25 |
| California School Prof Psych at Los Angeles | 34 | Michigan State University | 23 |
| CUNY Graduate School and University Center | 33 | University of Maryland at College Park | 23 |
| Ohio State University, Main Campus | 33 | University of California-Berkeley | 22 |
| University of North Carolina at Chapel Hill | 33 | Wayne State University | 21 |
| Nova Southeastern University | 32 | Pennsylvania State University, Main Campus | 19 |
| Total Black Women From Top 10 | 511 | University of Illinois at Urbana-Champaign | 19 |
| Total Black Women From All Schools | 2,207 | Walden University | 19 |
| Percent Total Black Women From Top 10 | 23 | Total Black Men From Top 12 | 366 |
|  |  | Total Black Men From All Schools | 1,304 |
|  |  | Percent Total Black Men From Top 12 | 28 |

Table 5. Top 10 Schools Awarding Doctorate Degrees to Black Students, 1986-2005 cont.

| Life and Medical Sciences |  |  |  |
| :---: | :---: | :---: | :---: |
| 1986-1995 |  |  |  |
| Black Women | Total | Black Men | Total |
| Howard University | 82 | Howard University | 33 |
| University of Michigan at Ann Arbor | 36 | Texas A\&M University, Main Campus | 23 |
| Clark Atlanta University | 31 | Ohio State University, Main Campus | 16 |
| University of Maryland at College Park | 31 | University of California-Berkeley | 16 |
| CUNY Graduate School and University Center | 28 | Clark Atlanta University | 15 |
| Ohio State University, Main Campus | 28 | Meharry Medical College | 15 |
| University of California-Berkeley | 26 | North Carolina State University at Raleigh | 15 |
| Emory University | 24 | Michigan State University | 14 |
| University of North Carolina at Chapel Hill | 24 | University of Florida | 14 |
| California School Prof Psych at Los Angeles | 23 | University of Maryland at College Park | 14 |
| Total Black Women From Top 10 | 333 | Total Black Men From Top 10 | 175 |
| Total Black Women From All Schools | 587 | Total Black Men From All Schools | 621 |
| Percent Total Black Women From Top 10 | 57 | Percent Total Black Men From Top 10 | 28 |
| 1996-2005 |  |  |  |
| Black Women | Total | Black Men | Total |
| Howard University | 73 | Howard University | 33 |
| Meharry Medical College | 63 | Meharry Medical College | 33 |
| The Johns Hopkins University | 50 | University of Michigan at Ann Arbor | 28 |
| University of Alabama at Birmingham | 50 | University of Alabama at Birmingham | 21 |
| University of North Carolina at Chapel Hill | 48 | Harvard University | 20 |
| University of Texas Health Science Center | 28 | Michigan State University | 20 |
| Harvard University | 23 | The Johns Hopkins University | 17 |
| University of Pennsylvania | 23 | North Carolina State University at Raleigh | 14 |
| University of South Carolina at Columbia | 23 | University of California-Davis | 14 |
| Louisiana State University Medical Center | 20 | University of North Carolina at Chapel Hill | 14 |
| Total Black Women From Top 10 | 401 | Total Black Men From Top 10 | 822 |
| Total Black Women From All Schools | 1364 | Total Black Men From All Schools | 1,304 |
| Percent Total Black Women From Top 10 | 29 | Percent Total Black Men From Top 10 | 63 |

Table 5. Top 10 Schools Awarding Doctorate Degrees to Black Students, 1986-2005 cont.

| Business and Law |  |  |  |
| :---: | :---: | :---: | :---: |
| 1986-1995 |  |  |  |
| Black Women | Total | Black Men | Total |
| George Washington University | 7 | United States International University | 17 |
| University of South Carolina at Columbia | 6 | Nova Southeastern University | 13 |
| Case Western Reserve University | 5 | Walden University | 12 |
| Walden University | 5 | Texas A\&M University Main Campus | 8 |
| United States International University | 4 | University of South Carolina at Columbia | 6 |
| University of Houston | 4 | University of Memphis | 5 |
| Virginia Polytechnic Institute and State University | 4 | Claremont Graduate School | 4 |
| Florida State University | 3 | Case Western Reserve University | 3 |
| Georgia State University | 3 | George Washington University | 3 |
| Harvard University | 3 | Georgia State University | 3 |
| University of Florida | 3 | Harvard University | 3 |
| University of Georgia | 3 | Pace University New York Campus | 3 |
| University of Texas at Austin | 3 | Temple University | 3 |
| Total Black Women From Top 13 | 53 | University of Georgia | 3 |
| Total Black Women From All Schools | 94 | University of Mississippi, Main Campus | 3 |
| Percent Total Black Women From Top 13 | 56 | University of Texas at Austin | 3 |
|  |  | Total Black Men From Top 16 | 92 |
|  |  | Total Black Men From All Schools | 152 |
|  |  | Percent Total Black Men From Top 16 | 61 |
| 1996-2005 |  |  |  |
| Black Women | Total | Black Men | Total |
| Walden University | 14 | Nova Southeastern University | 41 |
| Florida State University | 13 | Walden University | 38 |
| Nova Southeastern University | 12 | Florida State University | 11 |
| Virginia Polytechnic Institute and State University | 11 | University of Sarasota | 11 |
| Northwestern University | 10 | George Washington University | 8 |
| George Washington University | 9 | Ohio State University, Main Campus | 8 |
| Case Western Reserve University | 8 | Jackson State University | 6 |
| Georgia State University | 7 | Michigan State University | 6 |
| University of Michigan at Ann Arbor | 7 | Duke University | 5 |
| Ohio State University, Main Campus | 6 | Texas A\&M University Main Campus | 5 |
| Total Black Women From Top 10 | 97 | University of Illinois at Urbana-Champaign | 5 |
| Total Black Women From All Schools | 251 | University of Maryland at College Park | 5 |
| Percent Black Women From Top 10 | 12 | Total Black Men From Top 12 | 149 |
|  |  | Total Black Men From All Schools | 306 |
|  |  | Percent Black Men From Top 12 | 49 |

Table 5. Top 10 Schools Awarding Doctorate Degrees to Black Students, 1986-2005 cont.

| Education |  |  |  |
| :---: | :---: | :---: | :---: |
| 1986-1995 |  |  |  |
| Black Women | Total | Black Men | Total |
| Nova Southeastern University | 177 | Nova Southeastern University | 87 |
| Clark Atlanta University | 113 | Clark Atlanta University | 68 |
| Columbia University in the City of New York | 113 | Columbia University (NY) | 61 |
| University of Maryland at College Park | 87 | University of Maryland at College Park | 39 |
| Temple University | 69 | Ohio State University, Main Campus | 36 |
| $\backslash$ Texas Southern University | 55 | University of Massachusetts at Amherst | 35 |
| University of Massachusetts at Amherst | 53 | South Carolina State University | 30 |
| Wayne State University | 52 | Virginia Polytechnic Institute and State University | 29 |
| Vanderbilt University | 51 | Florida State University | 26 |
| Georgia State University | 49 | Tennessee State University | 23 |
| Total Black Women From All Schools | 819 | Texas Southern University | 23 |
| Total Black Women From Top 10 Schools | 3,168 | Total Black Men From Top 11 | 457 |
| Percent Black Women From Top 10 | 26 | Total Black Men From All Schools | 1,726 |
|  |  | Percent Black Men From Top 11 | 26 |
| 1996-2005 |  |  |  |
| Black Women | Total | Black Men | Total |
| Nova Southeastern University | 497 | Nova Southeastern University | 160 |
| University of Sarasota | 368 | University of Sarasota | 112 |
| Loyola University of Chicago | 117 | Virginia Polytechnic Institute and State University | 42 |
| South Carolina State University | 107 | Teachers College, Columbia University | 36 |
| Teachers College, Columbia University | 92 | South Carolina State University | 35 |
| Virginia Polytechnic Institute and State University | 88 | Jackson State University | 33 |
| Clark Atlanta University | 86 | Florida State University | 32 |
| Texas Southern University | 83 | Tennessee State University | 32 |
| University of Maryland at College Park | 78 | Morgan State University | 30 |
| George Washington University | 76 | University of Illinois at Urbana-Champaign | 29 |
| Jackson State University | 75 | Loyola University of Chicago | 28 |
| Total Black Women From All Schools | 1667 | Northern Illinois University | 28 |
| Total Black Women From Top 11 Schools | 4,762 | University of Texas at Austin | 28 |
| Percent Black Women From Top 11 | 35 | Total Black Men From Top 13 | 625 |
|  |  | Total Black Men From All Schools | 2,039 |
|  |  | Percent Black Men From Top 13 | 31 |

## BACHELOR'S TO DOCTORATES: WHO GAVE AND WHO GOT THEM?

## END NOTES

[^1]
## CHAPTER TWO

## Black Faculty Members in Academe: How Did They Get There and How Are They Doing?

This chapter compares black PhDs with their non-black counterparts. Black American men are compared with non-black American men. Likewise, black American women are compared with non-black American women. The comparisons are conducted across and within groups, or cohorts, having certain statistical similarities such as the year members of the group received their PhDs .

In these analyses, one cohort consists of men and women who received their doctorates between 1973-1982. Members of another cohort received their doctorates in the interval of 1983-1992. The final group in this study received their doctorates between 1993-2002. This study compared cohort members with other members in their cohort, or grouping, as well as members of other cohorts. Cohort members' responses were compared with other respondents at similar points in their careers across survey periods.

Comparisons involved the use of cross-tabulations of numerous variables that resulted in the capture of the state of blacks in higher education. The data come from the Survey of Doctorate Recipients (SDR) Doctoral Recipient files, which are a representative sample. Survey weights were used to obtain the populations. Data from the 1993 and 2003 SDR surveys were used for Cohorts 1 and 2. Only data from the 2003 SDR survey were used for Cohort 3. ${ }^{1}$ The main variables of interest in both surveys are faculty rank, the field of highest degree, salary and age. The sample is limited to persons who are Americans, hold academic positions, and earned their doctorate in computer and math sciences; life and related sciences; physical and related sciences; social and related sciences; and engineering (hard and social sciences). ${ }^{2}$

## Cohort 1 - Doctorates Received Between 1973 and 1982

Table 6 presents the percentage of those in Cohort 1 who are holding college or university positions. In each table, an asterisk (*) represents a significant statistical difference at the 95 percent level, or more, between black men and non-black men or between black women and non-black women in the same survey. A cross ( $\dagger$ ) represents a significant statistical difference at the 95 percent level, or more, between a particular group from one survey to the next. ${ }^{3}$ As the table shows, in both survey years, black men were significantly more likely to be employed in the academic world than non-black men. In the 2003 survey, black women were significantly more likely to be in academia than non-black women. Non-blacks in this cohort experienced significant decreases in their relative presence in colleges and universities, while black men and women did not.

| Table 6 | Cohort 1 <br> Doctorates in the Academy |  |
| :--- | :---: | :---: |
|  | Percent (\%) <br> 1993 Survey | 2003 Survey |
| Black Men | 58 | 53 |
| Non-black Men | $43^{*}$ | $40^{*}, \dagger$ |
| Black Women | 59 | 57 |
| Non-black Women | 47 | $41^{*}, \dagger$ |

Source: National Science Foundation, Survey of Doctoral Recipients: 1993, 1995, 1997, 1999, 2001, and 2003.

Table 7 presents the population totals in academia obtained using the sample weights. Although black men and women were more likely to be in colleges and universities, they only represent 3 percent of the total doctorates from this cohort in the academy. Black men represented 3 percent of the men in both the 1993 survey and the 2003 survey. Black women represented 4 percent of the women in 1993 and 5 percent women in 2003. As a whole, in the hard and social sciences, blacks are underrepresented.

| Table 7 | Weighted Totals in Academy (Cohort 1) |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | $\mathbf{1 9 9 3}$ <br> Survey | Percent of <br> Total | $\mathbf{2 0 0 3}$ <br> Survey | Percent of <br> Total |
| Black Men | 803 | 2 | 1156 | 2 |
| Non-black Men | 30709 | 79 | 42012 | 77 |
| Black Women | 309 | 1 | 601 | 1 |
| Non-black Women | 6969 | 18 | 10994 | 20 |

Source: National Science Foundation, Survey of Doctoral Recipients: 1993, 1995, 1997, 1999, 2001, and 2003.

Table 8 displays the weighted means of age and experience of respondents to the 1993 survey. Black men doctoral recipients are significantly older than
non-black men. Black women are not significantly different in age from non-black women. Black men and women have statistically more experience than non-black men and women. For black men, the reason more experience is there is that they are significantly older than non-black men. Black women have reported significantly more experience than non-black women without being significantly older.

| Table 8 | Mean Age <br> (Cohort 1) <br> (std. dev.) | Mean Experience <br> (Cohort 1) <br> (std. dev.) |
| :--- | :---: | :---: |
|  | 1993 Survey | 1993 Survey |
| Black Men | 49 <br> $(.74)$ | 22 <br> $1.1)$ |
|  | $46^{*}$ <br> $(.13)$ | $19^{*}$ <br> $(.18)$ |
| Black Women | 48 |  |
|  | $(1.1)$ | 23 <br> $(2.1)$ |
| Non-black Women | 46 <br> $(.27)$ | $19^{*}$ <br> $(.29)$ |

Source: National Science Foundation, Survey of Doctoral Recipients: 1993, 1995, 1997, 1999, 2001, and 2003.

Table 9 shows the proportion doctorates in the hard and social sciences at HBCUs in 2003. This data informs us that blacks are significantly more likely to be employed at HBCUs than non-blacks.

| Table 9 | Percent (\%) at HBCUs <br> (Cohort 1) | Weighted Population <br> (Cohort 1) |
| :--- | :---: | :---: |
|  | 2003 Survey | 2003 Survey |
| Black Men | 42 | 486 |
| Non-black Men | $.8^{*}$ | 336 |
| Black Women | 28 | 168 |
| Non-black Women |  |  |

Source: National Science Foundation, Survey of Doctoral Recipients: 1993, 1995, 1997, 1999, 2001, and 2003.

Table 10 represents doctoral degrees. Black men are significantly less likely to get a doctorate in computer and math sciences and physical and related sciences than non-black men, but are much more likely to get a degree in the social and related sciences. For women, there are no significant differences. There were no black women in the survey who hold an advanced degree in engineering in this cohort.

Table 10

|  |  |  |  |  | Computer <br> and Math <br> Sciences |
| :--- | :---: | :---: | :---: | :---: | :---: | | Life and |
| :---: |
| Related |
| Sciences |$\quad$| Physical |
| :---: |
| and related |
| Sciences | | Social and |
| :---: |
| Related |
| Sciences |$\quad$ Engineering

Source: National Science Foundation, Survey of Doctoral Recipients: 1993, 1995, 1997, 1999, 2001, and 2003.

Tables 11 and 12 indicate faculty rank in 1993 and 2003, respectively. No testing is done on the other categories. "CNT" means that a test could not be performed on a category or for a particular group. If it could not be performed for a group it was due to the fact that the all-black group was not in the particular category. Tables 11 and 12 show there are no significant differences at any rank between blacks and non-blacks. Placing Table 11 with Table 12 shows the career progression over 10 years. Additionally, all groups except black women are more likely to be professors and less likely to be associate professors. Black men and women did not see statistically significant decrease in the percent of assistant professors. This seems to indicate that black women from this cohort are not progressing in terms of faculty rank at the same rate as other groups, or they are leaving the academy altogether. In Table 11, percentages will not add up to 100 because some survey respondents skipped this question.

Table 11

|  | Table 11 |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N/A at <br> Institution <br> (cnt) | N/A For (\%) <br> Position | Professor | Associate <br> Professor | Assistant <br> Professor | Instructor <br> (cnt) | Lecturer | Adjunct <br> Faculty | Other |
| Black Men |  | 13 | 34 | 38 | 11 |  |  | 2 | .9 |
| Non-black Men | 3 | 7 | 45 | 34 | 6 | .6 | .8 | 1 | .2 |
| Black Women |  | 10 | 25 | 37 | 7 |  |  |  |  |
| Non-black <br> Women | 2 | 14 | 26 | 36 | 10 | 2 | 2 | 2 |  |

Source: National Science Foundation, Survey of Doctoral Recipients: 1993, 1995, 1997, 1999, 2001, and 2003.

|  | Table 12 |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N/A at <br> Institution (\%) | N/A For <br> Position | Professor | Associate <br> Professor | Assistant <br> Professor | Instructor | Lecturer | Other |
| Black Men | 1 | 9 | $61 \dagger$ | $21 \dagger$ | 4 | 2 | .8 |  |
| Non-black Men | 3 | 7 | $66 \dagger$ | $16 \dagger$ | $3 \dagger$ | $1 \dagger$ | 1 | .2 |
| Black Women | 2 | 12 | 47 | 22 | 1 | 5 |  |  |
| Non-black Women | 2 | 10 | $53 \dagger$ | $18 \dagger$ | $5 \dagger$ | 1 | 3 | .2 |

[^2]Median and mean salaries (in 2006 U.S. dollars) for Cohort 1 are shown in Table 13. Due to a large number of outliers, the focus is on medians. The table, however, shows the significance test for means. In both the 1993 and 2003 surveys, there are no significant statistical differences in the medians for black men and non-black men as there are for black women and nonblack women. When comparing changes in median salary between 1993 and 2003, we find that non-blacks experienced significant increases, but blacks did not. This suggests that for blacks in this cohort there were barriers to promotion.

| Table 13 | Median Salary (Cohort 1) |  | Mean Salary (Cohort 1) <br> (std. err.) |  |
| :--- | :---: | :---: | :---: | :---: |
|  | 1993 Survey | 2003 Survey | 1993 Survey | 2003 Survey |
| Black Men | 80,919 | 87,652 | 91,25 <br> $(12,040)$ | 95,274 <br> $(6,079)$ |
| Non-black Men | 79,524 | $93,130 \dagger$ | $120492^{*}$ <br> $(5,759)$ | $102,699 \dagger$ <br> $(1,404)$ |
| Black Women | 70,165 | 79,983 | 105,474 <br> $(20,959)$ | 69,402 <br> $(7,023)$ |
| Non-black Women | 70,455 | $82,174 \dagger$ | $192,323^{*}$ <br> $(17,689)$ | $89,381^{*} \dagger$ <br> $(24,76)$ |

Source: National Science Foundation, Survey of Doctoral Recipients: 1993, 1995, 1997, 1999, 2001, and 2003.

## Cohort 2 - Doctorates Received Between 1983 and 1992

For Cohort 2, Table 14 shows that in the 1993 and 2003 surveys black women were more likely to be in colleges and universities than non-black women. In the 2003 survey only, black men were significantly more likely to be in colleges and universities than non-black men. Non-black men's and women's likelihood of being in the academy decreased significantly between the 1993 survey to the 2003 survey.

| Table 14 | Percent (\%) of Doctorates in the Academy (Cohort 2) |  |
| :--- | :---: | :---: |
|  | 1993 Survey | 2003 Survey |
| Black Men | 53 | 54 |
| Non-black Men | 47 | $41^{*} \dagger$ |
| Black Women | 63 | 61 |
| Non-black Women | $49^{*}$ | $45^{*} \dagger$ |

[^3]Table 15 shows the population totals in the academy obtained using the sample weights. Although black men and women are more likely to be in the academy as their non-black counterparts, they only represented about 3 percent of the total doctorates from this cohort in the academy in 1993, and 4 percent in 2003. There were more black women in the academy in the hard and social sciences in the 1993 survey than black men. Black men in this cohort make up 2 percent of the men in the academy, while black women make up 5 percent of the women in 1993 and 7 percent of the women in 2003. Blacks are underrepresented for this cohort in the academy.

| Table 15 | Weighted Totals In Academy (Cohort 2) |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | 1993 Survey | Percent of Total | 2003 Survey | Percent of Total |
| Black Men | 498 | 1 | 1274 | 2 |
| Non-black Men | 25300 | 66 | 41604 | 63 |
| Black Women | 582 | 2 | 1092 | 2 |
| Non-black Women | 11844 | 31 | 21750 | 33 |

Source: National Science Foundation, Survey of Doctoral Recipients: 1993, 1995, 1997, 1999, 2001, and 2003.

Table 16 displays the mean age and experience for those in Cohort 2. The only difference in this cohort is that black women have statistically more experience than non-black women.

Table 16

| Table 16 | Mean Age <br> (Cohort 2) <br> (std. dev.) | Mean Experience <br> (Cohort 2) <br> (std. dev.) |
| :--- | :---: | :---: |
|  | 1993 Survey | 1993 Survey |
| Black Men | 39 <br> $(.84)$ | 12 <br> $(1.1)$ |
|  | 37 <br> $(.14)$ | 10 <br> $(.18)$ |
| Black Women | 40 <br> $(.74)$ | 14 <br> $(1.1)$ |
|  | 39 <br> $(.24)$ | $11^{*}$ <br> $(.26)$ |

Source: National Science Foundation, Survey of Doctoral Recipients: 1993, 1995, 1997, 1999, 2001, and 2003.

Table 17 shows that blacks are significantly more likely to be at a HBCU than non-blacks. Non-black men from Cohort 2 outnumber black men, while black women outnumber non-black women.

| Table 17 | Percent(\%) at HBCUs <br> (Cohort 2) | Weighted Population <br> (Cohort 2) |
| :--- | :---: | :---: |
|  | 2003 Survey | 2003 Survey |
| Black Men | 17 | 217 |
| Non-black Men | $.8^{*}$ | 333 |
| Black Women | 16 | 175 |
| Non-black Women | $.6^{*}$ | 131 |

Source: National Science Foundation, Survey of Doctoral Recipients: 1993, 1995, 1997, 1999, 2001, and 2003.

Table 18 reports the percentage of members in each group in the field of their doctoral degree for Cohort 2 . Non-black men statistically are significantly more likely than black men to obtain their doctorates in computer and math sciences and in physical and related sciences (the "hard" sciences). Non-black women also are more likely than black women to obtain their degree in life and related sciences and in physical and related sciences. All blacks are more likely than non-blacks to obtain their degree in social and related sciences.

| Table 18 | Percent (\%) in Field of Highest Degree (Cohort 2) 1993 Survey |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Computer <br> and Math <br> Sciences | Life and <br> Related <br> Sciences | Physical <br> and Related <br> Sciences | Social and <br> Related <br> Sciences | Engineering |
| Black Men | 2 | 20 | 11 | 60 | 9 |
| Non-black Men | $7^{*}$ | 28 | $22^{*}$ | $34^{*}$ | 9 |
| Black Women | 3 | 22 | 1 | 72 | 2 |
| Non-black Women | 4 | $35^{*}$ | $9^{*}$ | $50^{*}$ | 2 |

Source: National Science Foundation, Survey of Doctoral Recipients: 1993, 1995, 1997, 1999, 2001, and 2003.

Tables 19 and 20 show faculty rank for 1993. Non-black men were significantly more likely than black men to state that rank is not applicable at their institution. For 2003, black men were more likely than non-black men to be instructors. Comparing the change in rank from 1993 to 2003, there are numerous improvements. Non-blacks are much less likely to state that tenure is not applicable for their position. All groups have experienced statistically significant increases in the number of professors and decrease in the number of assistant professors. Black women are the only group that did not experience a significant increase in the number of associate professors. For all groups in Cohort 2 there is progress in rank of professor and assistant professor over the 10 -year span, which is not seen for Cohort 1.This suggests that the barriers faced by the older cohorts no longer exist, or do not affect the younger cohorts in the same manner.

| Table 19 | Percent (\%) Faculty Rank (Cohort 2) 1993 Survey in percentages |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N/A at <br> Institution | N/A <br> For <br> Position | Professor | Associate <br> Professor | Assistant <br> Professor | Instructor | Lecturer | Adjunct <br> Faculty | Other |
| Black Men |  | 13 | .9 | 19 | 50 | 4 |  | 5 | 1 |
| Non-black Men | $2^{*}$ | 20 | 3 | 25 | 41 | 2 | .9 | 2 | .5 |
| Black Women |  | 16 | 4 | 20 | 50 | 5 |  |  |  |
| Non-black Women | 1 | 23 | 3 | 17 | 42 | 5 | 1 | 3 | 1 |

Source: National Science Foundation, Survey of Doctoral Recipients: 1993, 1995, 1997, 1999, 2001, and 2003.

| Table 20 | Percent (\%) Faculty Rank (Cohort 2) 2003 Survey |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N/A at <br> Institution | N/A For <br> Position | Professor | Associate <br> Professor | Assistant <br> Professor | Instructor | Lecturer | Other |
| Black Men | .9 | 9 | $32 \dagger$ | $37 \dagger$ | $6 \dagger$ | 4 |  |  |
| Non-black Men | 2 | $10 \dagger$ | $41 \dagger$ | $34 \dagger$ | $8 \dagger$ | $1^{*}, \dagger$ | 2 | .1 |
| Black Women |  | 14 | $24 \dagger$ | 35 | $9 \dagger$ |  | 2 |  |
| Non-black Women | 2 | $11 \dagger$ | $27 \dagger$ | $35 \dagger$ | $12 \dagger$ | $3 \dagger$ | 2 | .1 |

Source: National Science Foundation, Survey of Doctoral Recipients: 1993, 1995, 1997, 1999, 2001, and 2003.

Table 21 presents the median and mean salaries (in 2006 U.S. dollars) for those in Cohort 2. The focus is on the medians. The only significant difference in the median is that black women in 2003 have a higher median than non-black women. Due to the significant progress made by all groups in rank, there has been a statistically significant increase in the median salaries for all groups.

| Table 21 | Median Salary (Cohort 2) |  | Mean Salary (Cohort2) <br> (std. err.) |  |
| :--- | :---: | :---: | :---: | :---: |
|  | 1993 Survey | 2003 Survey | 1993 Survey | 2003 Survey |
| Black Men | 64,177 | $79,983 \dagger$ | 133,096 <br> $(47,881)$ | 81,148 <br> $(3,294)$ |
| Non-black Men | 58,567 | $79,983 \dagger$ | 107,827 <br> $(6,608)$ | $86,516 \dagger$ <br> $(1,021)$ |
| Black Women | 58,597 | $82,338 \dagger$ | 134,117 <br> $(45,976)$ | 76,020 <br> $(3,974)$ |
| Non-black Women | 55,806 | $71,217 * \dagger$ | 214,325 <br> $(15,212)$ | $74,790 \dagger$ <br> $(1,398)$ |

Source: National Science Foundation, Survey of Doctoral Recipients: 1993, 1995, 1997, 1999, 2001, and 2003.

## Cohort 3 - Doctorates Received Between 1993 and 2003

Among doctorate recipients during the years 1993-2002, black women were more likely to be in colleges and universities. There is no statistical difference between black men and non-black men.

| Table 22 | Percent (\%) of Doctorates in the Academy (Cohort 3) |
| :--- | :---: |
|  | 2003 Survey |
| Black Men | 48 |
| Non-black Men | 45 |
| Black Women | 63 |
| Non-black Women | $50^{*}$ |

Source: National Science Foundation, Survey of Doctoral Recipients: 1993, 1995, 1997, 1999, 2001, and 2003.

Table 23 presents the population totals in the academy obtained using the sample weights. There are more non-black men, black women, and nonblack women in the academy in Cohort 3 than there are black men. Blacks make up 5 percent of those in the academy in the hard and social sciences. Black men make up 3 percent of the men, while black women make up 6 percent of the women. Blacks from this cohort are underrepresented in the academy in the hard and social sciences.

| Table 23 | Weighted Totals in Academy (Cohort 3) |  |
| :--- | :---: | :---: |
|  | 2003 Survey | of total |
| Black Men | 1670 | 2 |
| Non-black Men | 47870 | 55 |
| Black Women | 2299 | 3 |
| Non-black Women | 35946 | 41 |

Source: National Science Foundation, Survey of Doctoral Recipients: 1993, 1995, 1997, 1999, 2001, and 2003.

Table 24 shows there are no significant differences in age among the groups.

Table 24

| Table 24 | Mean Age (Cohort 3) <br> (std. dev.) |
| :--- | :---: |
|  | 2003 Survey |$|$| 40 |  |
| :---: | :---: |
| Black Men | $41)$ |
| Non-black Men | $(.15)$ |
|  | 41 |
| Non-black Women | $(.61)$ |

Source: National Science Foundation, Survey of Doctoral Recipients: 1993, 1995, 1997, 1999, 2001, and 2003.

Table 25 shows that, again, black men and women are more likely to be employed at an HBCU than non-blacks. Black men and women from Cohort 3 outnumber their non-black counterparts.

| Table 25 | Percent (\%) at HBCUs <br> (Cohort 3) | Weighted Population <br> (Cohort 3) |
| :--- | :---: | :---: |
|  | 2003 Survey | 2003 Survey |
| Black Men | 23 | 384 |
| Non-black Men | $.4^{*}$ | 191 |
| Black Women | 14 | 322 |
| Non-black Women | $.6^{*}$ | 216 |

Source: National Science Foundation, Survey of Doctoral Recipients: 1993, 1995, 1997, 1999, 2001, and 2003.

Table 26 displays the field of doctoral degrees for Cohort 3. Black men and women are less likely than their non-black counterparts to earn their doctorates in the physical and related sciences; biological, agricultural and environment; science; and engineering and related fields. In the 1993 survey, biological, agricultural and environment; science; and engineering and their related fields are the same as life and related sciences. Blacks are less likely than all other groups to earn their doctorates here. Black men and women are more likely to earn their degree in social and related sciences.

|  | Percent (\%) in Field of Highest Degree (Cohort 3) 2003 Survey |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Computer <br> Tnd Math <br> Sciences | Biological, <br> agricultural <br> and <br> environment | Physical <br> and <br> related <br> sciences | Social and <br> Related <br> Sciences | Engineering | Science and <br> Engine-ering <br> Related Fields |
| Black Men | 6 | 17 | 10 | 44 | 16 | 6 |
| Non-black Men | 9 | $31^{*}$ | $17^{*}$ | $27^{*}$ | 12 | $4^{*}$ |
| Black Women | 3 | 21 | 4 | 56 | 3 | 13 |
| Non-black Women | 4 | $29^{*}$ | $7^{*}$ | $43^{*}$ | 4 | $12^{*}$ |

Source: National Science Foundation, Survey of Doctoral Recipients: 1993, 1995, 1997, 1999, 2001, and 2003.

The faculty rank for Cohort 3 is presented in Table 27. Black men were more likely than non-black men to say rank is not applicable at their institution. There are no other significant differences in rank for Cohort 3.

| Table 27 | Percent (\%) Faculty Rank (Cohort 3) 2003 Survey |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N/A at <br> Institution | N/A for <br> Position | Professor | Associate <br> Professor | Assistant <br> Professor | Instructor | Lecturer | Other |
| Black Men |  | 17 | 4 | 23 | 42 | 2 | 3 |  |
| Non-black Men | $2^{*}$ | 24 | 4 | 22 | 40 | 4 | 2 | .3 |
| Black Women | 4 | 22 | 6 | 11 | 41 | 6 | 4 |  |
| Non-black Women | 3 | 23 | 3 | 16 | 41 | 6 | 3 | .2 |

Source: National Science Foundation, Survey of Doctoral Recipients: 1993, 1995, 1997, 1999, 2001, and 2003.
Table 28 gives the median and mean salaries (in 2006 U.S. dollars). Again, the focus is on the median. Black men and women had significantly higher median salaries than non-black men and women.

| Table 28 | Median Salary (Cohort 3) | Mean Salary (Cohort 3) <br> (std. err.) |
| :--- | :---: | :---: |
| 2003 Survey | 2003 Survey |  |
| Black Men | 64,863 | 67,554 <br> $(3,833)$ |
| Non-black Men | $59,165^{*}$ | 64,056 <br> $(721)$ |
| Black Women | 60,261 | 60714 <br> $(1,667)$ |
| Non-black Women | $54,783^{*}$ | 57,527 <br> $(986)$ |

Source: National Science Foundation, Survey of Doctoral Recipients: 1993, 1995, 1997, 1999, 2001, and 2003.

## Comparisons Across Cohorts

| Comparison timeline | 1 to 10 years since degree | 11 to 20 years since degree |
| :---: | :---: | :---: |
| Cohort 1 (1973 to 1982) |  | 1993 Survey |
| Cohort 2 (1983 to 1992) | 1993 Survey | 2003 Survey |
| Cohort 3 (1993 to 2002) | 2003 Survey |  |

Comparisons are made between Cohort 1 in 1993 and Cohort 2 in 2003 when both groups are 11 to 20 years removed from receiving their degree. Additionally, Cohort 2 in 1993 and Cohort 3 in 2003 are compared when both groups are within a decade from receiving their doctorate.

Across all cohorts, in 2003 blacks are more likely than non-blacks to be in colleges and universities. Comparing Cohort 1 in 1993 to Cohort 2 in 2003, and comparing Cohort 2 in 1993 to Cohort 3 in 2003-there are no significant differences. For the population numbers in the academy, there is an increase over time for all cohorts and groups. Black men doctorates do
not increase as rapidly as black women from cohort to cohort. Furthermore, blacks are the only group in Cohort 3 in which the majority of those with doctorates in the academy are women.

Black men generally are older in only Cohort 1. Comparing Cohort 2 in 2003 to Cohort 1 in 1993, and Cohort 3 in 2003 to Cohort 2 in 1993, Table 29 shows that non-black men and women are significantly older. This indicates that the age of PhD attainment is increasing for these groups.

Table 29

| Table 29 | Cohort 1 (1993 survey) to 2 <br> (2003 survey) | Cohort 2 (1993 survey) to 3 (2003 <br> survey) |
| :--- | :---: | :---: |
|  | Age | Age |
| Black Men |  |  |
| Non-black Men | + | + |
| Black Women |  |  |
| Non-black Women | + | + |

Blacks in all cohorts are more likely to work at an HBCU.In addition, across all cohorts, black men are more likely than non-black men to have obtained their degrees in social and related sciences and less likely to obtain their degree in physical and related sciences. For Cohorts 2 and Cohort 3, black women are more likely to have obtained their degree in social and related sciences and less likely to obtain a degree in life and related sciences, and physical and related sciences. Across cohorts, black and non-blacks have the same likelihood of reaching rank of professor, associate professor, and assistant professor. The lack of progression in rank for black women for Cohort 1 did not present itself for progress for Cohort 2 except in the rank of associate professor.

Comparing Cohort 1 in 1993 to Cohort 2 in 2003, the only significant difference occurs for non-blacks. Those in Cohort 2 were more likely to say rank was not applicable for their position, assistant professor, and instructor, and less likely to have the rank of professor.

There are only a few differences when comparing Cohort 3 in 2003 to Cohort 2 in 1993. All groups are more likely to be lecturers. Non-black men and women are more likely to say rank was not applicable for position and instructor. Non-black women are less likely to be associate professors. When comparing medians for Cohort 1 in 1993 to Cohort 2 in 2003, and Cohort 2 in 1993 to Cohort 3 in 2003, there are no significant differences.

## Professional Transitions

This study looked at the overall professional advancement of black doctorial recipients-specifically at the probability of a black doctorial
recipient moving among one of six mutually exclusive employment outcomes: postdoctoral fellowship, tenure-track faculty, adjunct faculty, academic research, other (academic administration, government, or industry position) and none (unemployed). To analyze the progression of black doctorial recipients we use transitional matrices, which calculate the probability of moving from any one of these employment outcomes to another. The data for this analysis is limited to doctorial recipients who completed the doctorate after 1973, completed the 1993, 1995, 1997, 1999, 2001 and 2003 Survey of Doctorial Recipients, were U.S. citizens in 1993, and earned their doctorate in computer and math sciences, life and related sciences, physical and related sciences, social and related sciences, and engineering.

Compared to non-black men, black men take 25 percent of successive postdoctoral fellowships. Non-black men weigh in at 6 percent, and nonblack women at 5 percent. However, black women do not take successive postdoctoral fellowships. One would expect postdoctoral fellowships to lead to a higher probability of securing a tenure-track faculty position, which is true for blacks but not for whites. With the exception of black men, the probability of making a transition from a postdoctoral fellowship to an academic administration, government or industry position is more than 40 percent. Unfortunately, black women also have a higher probability of making a transition from a postdoctoral fellowship to an adjunct position (14 percent) and have the highest probability of making a transition to unemployment after a postdoctoral fellowship ( 21 percent).

Although black women with a postdoctoral fellowship have the highest probability of unemployment, they have the lowest probability of moving from unemployment to the employment (59 percent); non-black men have the highest ( 85 percent). Black women also have the lowest tenure-track faculty retention rate ( 54 percent), compared to 57 percent for black men, 65 percent for non-black women, and 68 percent for non-black men. More than 40 percent of black women move from the tenure-track faculty position to the other employment outcome. However, 4 percent of black women move from the tenure-track faculty position to the adjunct research employment outcome, which is 2 percentage points higher than the other groups.

Black women and men in the academic research employment outcome transition to the other employment outcome at 64 percent and 33 percent, respectively, compared to less than 30 percent for non-blacks. Black men have the highest probability of making the transition from the academic research employment outcome to the tenure-track faculty employment outcome, 10 percent, compared to about 3 percent for non-blacks, and zero percent for black women. One explanation for this is that one-third of black men moved from the postdoctoral fellowship to the academic research employment

| Table 30 | Percent (\%) of Black Men |  |  |  |  |  |  | Percent (\%) Non-Black Men |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employment Outcome | Postdoc | Tenure Track Faculty | Adjunct | Academic Research | None | Other | Employment Outcome | Postdoc | Tenure Track Faculty | Adjunct | Academic Research | None | Other |
| Postdoc | 25 | 8 | 0 | 33 | 0 | 33 | Postdoc | 6 | 6 | 10 | 27 | 5 | 45 |
| Tenure Track Faculty | 0 | 57 | 2 | 1 | 1 | 38 | Tenure Track Faculty | 0 | 68 | 2 | 1 | 2 | 27 |
| Adjunct | 0 | 2 | 58 | 3 | 8 | 29 | Adjunct | 0 | 5 | 64 | 3 | 6 | 22 |
| Academic Research | 5 | 10 | 29 | 24 | 0 | 33 | Academic Research | 2 | 3 | 8 | 55 | 4 | 28 |
| Other | 0 | 5 | 2 | 1 | 3 | 89 | Other | 0 | 4 | 1 | 1 | 5 | 89 |
| None | 1 | 0 | 7 | 1 | 78 | 12 | None | 0 | 0 | 2 | 1 | 85 | 13 |
| Total | 0 | 11 | 6 | 1 | 6 | 75 | Total | 0 | 10 | 5 | 2 | 11 | 71 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Percent (\%) Black Women |  |  |  |  |  |  | Percent (\%) Non-black Women |  |  |  |  |  |
| Employment Outcome | Postdoc | Tenure Track Faculty | Adjunct | Academic Research | None | Other | Employment Outcome | Postdoc | Tenure Track Faculty | Adjunct | Academic Research | None | Other |
| Postdoc | 0 | 7 | 14 | 14 | 21 | 43 | Postdoc | 5 | 3 | 11 | 30 | 6 | 44 |
| Tenure Track Faculty | 0 | 54 | 4 | 1 | 0 | 41 | Tenure Track Faculty | 0 | 65 | 2 | 1 | 1 | 31 |
| Adjunct | 0 | 0 | 63 | 3 | 3 | 30 | Adjunct | 0 | 3 | 68 | 3 | 5 | 20 |
| Academic Research | 0 | 0 | 14 | 21 | 0 | 64 | Academic Research | 4 | 4 | 14 | 46 | 6 | 25 |
| Other | 1 | 4 | 3 | 1 | 4 | 88 | Other | 0 | 4 | 2 | 1 | 5 | 88 |
| None | 2 | 2 | 10 | 2 | 59 | 24 | None | 0 | 0 | 4 | 1 | 77 | 18 |
| Total | 1 | 8 | 10 | 2 | 6 | 74 | Total | 0 | 9 | 9 | 3 | 11 | 68 |

Source: National Science Foundation, Survey of Doctoral Recipients: 1993, 1995, 1997, 1999, 2001, and 2003.
outcome, which may have allowed black men to generate greater research output. This also may explain the low adjunct faculty retention rate for black men, 58 percent, compared to 63 percent for black women, 68 percent for non-black women, and 64 percent for non-black men. The probability of a black woman moving from the adjunct employment outcome to the tenuretrack faculty employment outcome is zero; but it is only 5 percent for nonblack men, which is the highest rate. The majority who leave the adjunct employment outcome shift to the "other" employment outcome-about 30 percent for black men and women compared to about 20 percent for nonblack men and women.

The other employment outcome has the highest retention rate of all the employment outcomes analyzed, nearly 90 percent for all groups. Transitions from the other-employment outcome to the tenure-track faculty employment outcome or unemployed employment outcome are similar: 5 percent versus 3 percent for black men; equal for black women at 4 percent; 4 percent versus 5 percent for non-blacks. It is important to note that nearly 75 percent of black men and women are in the other-employment outcome compared to approximately 70 percent of non-blacks. The transitional matrices provide a glimpse into the professional employment outcome of blacks and non-blacks.

## Conclusion

The state of blacks in higher education is encouraging. The number of black degree recipients at the bachelor's, master's and doctorate levels are increasing. The growth in the number of degrees earned by blacks at the bachelor's level is 73 percent compared to 25 percent for non-black Americans. At the doctorate level the growth for black Americans is 56 percent compared to 6 percent for non-black Americans. Much of the progress for black Americans is driven by the increase in degrees earned by black women who earned nearly twice as many degrees at the bachelor's, master's and doctorate degree levels as did black American men.

The progress of black Americans is shared by the HBCUs, which were established to educate blacks during segregationist years. HBCUs increased the number of bachelor's degrees awarded by 61 percent. The increase for doctorates was 40 percent. Additionally, HBCUs increased the diversity of the student body from 21 percent to 23 percent for non-black Americans. The progress of HBCUs and black Americans has positive implication for the faculty pipeline.

The number of blacks at the college and university level is increasing,
and the proportion of that being black women has also increased. Compared to all schools, HBCUs have the most diverse faculty and hire a large share of black doctorial recipients in faculty positions. The barriers that seem to impede the promotion of the older black doctorial recipients do not seem to affect younger black doctorial recipients in the same manner. Blacks are more likely to be faculty members in the social sciences rather than in the hard sciences. Despite this progress, blacks make up less than 5 percent of the faculty in academe.


#### Abstract

${ }^{1}$ The use of NSF data does not imply NSF endorsement of the research methods or conclusions contained in this report. NSF does not allow results to be reported when the sample size is less than 5 or the weighted population size is less than 50 . In cases where this occurs, the cell is left empty. ${ }^{2}$ Computer and Math Sciences fields are computer/information sciences, applied mathematics, mathematics (general), operations research, statistics, and other mathematical sciences. Life and Related Sciences fields are animal sciences; food sciences and technology; plant sciences; other agricultural sciences; biochemistry and biophysics; biology (general); botany; cell and molecular biology; ecology; genetics (animal and plant); microbiology; nutritional science; pharmacology (human and animal); physiology (human and animal); zoology (general); other biological sciences; audiology and speech pathology; medicine; nursing; pharmacy; physical therapy and other rehab; public health, including environment, other health/medical sciences, environmental science studies, and forestry services. Physical and Related Sciences fields are chemistry (except biochemistry); atmospheric sciences and meteorology; geology; other geological sciences; oceanography; astronomy and astrophysics; physics, and other physical sciences. Social and Related Sciences fields are agricultural economics; economics; public policy studies; international relations; political science and government; educational psychology; clinical psychology; counseling psychology; experimental psychology; psychology (general); industrial and organizational psychology; social psychology; other psychology; anthropology and archeology; criminology; sociology; area and ethnic studies; linguistics; geography; history of science; and other social sciences. Engineering fields are aerospace and related engineering; chemical engineering; civil engineering; computer and systems engineering (electrical, electronics, and communication); industrial engineering; mechanical engineering; agricultural engineering; bioengineering and biomedical engineering (engineering sciences, mechanical and physical); environmental engineering; engineering (general); materials engineering; metallurgical engineering; mining and minerals engineering; naval architecture and marine engineering; nuclear engineering; petroleum engineering; and other engineering. ${ }^{3}$ The testing is done using probit regression if the dependent variable is a binary variable, or linear probability regression if the dependent variable is continuous.


## CONTRIBUTOR BIOGRAPHIES

William A. ("Sandy") Darity Jr. currently serves as a Professor of Public Policy Studies, African and African American Studies and Economics at Duke University and Director of the Research Network on Racial \& Ethnic Inequality at Duke University. Professor Darity is the foremost US economist conducting research on racial inequality. His research also focuses on stratification economics, schooling and the racial achievement gap, North-South theories of trade and development, skin shade and labor market outcomes, the economics of reparations, the Atlantic slave trade and the Industrial Revolution, doctrinal history and the social psychological effects of unemployment exposure. He earned his PhD in economics from the Massachusetts Institute of Technology and a bachelor's degree in economics and political science from Brown University.

Rhonda Vonshay Sharpe currently serves as the 2008-09 Fellow at the Institute of Higher Education Law \& Governance at the University of Houston Law Center and is on leave from her position as Assistant Professor of Economics at the University of Vermont. Professor Sharpe has three primary areas of research interest: affirmative action policies and their impact on faculty diversity; the impact of disparate treatment in education policy; and discrimination in labor and sports markets. She is the 2004 co-recipient of the Rhonda Williams Prize awarded by the International Association for Feminist Economics. She earned her PhD in economics and mathematics from Claremont Graduate University and a bachelor's degree in mathematics from North Carolina Wesleyan College.

Omari Holmes Swinton earned his B.S.from Florida A \& M University in 2001. He completed his PhD in economics from Duke University in 2007. He is currently employed at Howard University as an Assistant Professor of Economics. His research interests include labor economics and education. In particular, he is working on projects taking a look at the returns to effort for students and the obstacles to faculty diversity in higher education. Dr. Swinton is married to the former Phyllis Perryman of Detroit, Michigan, and they have one child.


[^0]:    Online at http://mpra.ub.uni-muenchen.de/34411/ MPRA Paper No. 34411, posted 31. October 2011 / 16:02

[^1]:    ${ }^{1}$ See http://www.math.buffalo.edu/mad/special/reason_charles_1.html.
    ${ }^{2}$ Retrieved July 21, 2008 from bttp://www.math.buffalo.edu/mad/special/reason_charles_1.html. H. Drewry \& H. Doermann, Stand and Prosper: Private Black Colleges and Their Student, Princeton University Press (2003). R. B. Slater, "The Blacks Who First Entered the World of White Higher Education." Journal of Blacks in Higher Education (1994) (4), pp. 47-56.
    ${ }^{3}$ Lincoln University awarded its first B.A. degree in 1865, but at the time Lincoln was the Ashmun Institute. Records indicate that Wilberforce awarded its first B.A. degree in 1865 as well. Drewry, Doermann and Anderson, p. 33.

[^2]:    Source: National Science Foundation, Survey of Doctoral Recipients: 1993, 1995, 1997, 1999, 2001, and 2003.

[^3]:    Source: National Science Foundation, Survey of Doctoral Recipients: 1993, 1995, 1997, 1999, 2001, and 2003.

