

# Race and Ethnicity in Higher Education: A Status Report

## CHAPTER 8



### How Students Finance Graduate Study



## Race and Ethnicity in Higher Education: A Status Report

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This chapter is part of a larger report by the American Council on Education (ACE) titled *Race and Ethnicity in Higher Education: A Status Report*. The report and its accompanying microsite provide a data-informed foundation for those working to close persistent equity gaps by providing a comprehensive review of the educational pathways of today's college students and the educators who serve them.

*Race and Ethnicity in Higher Education: A Status Report* and the microsite were made possible through the generous support of The Andrew W. Mellon Foundation.

Visit [www.equityinhighered.org](http://www.equityinhighered.org) to learn more about the project and to download the full report containing more than 200 indicators on race and ethnicity. Also available on the site are downloadable figures, detailed data, and other resources on race and ethnicity in higher education.

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# RACE AND ETHNICITY IN HIGHER EDUCATION

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**45.2%** of Undergraduates were Students of Color

**32.0%** of Graduate Students were Students of Color

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# INTRODUCTION

While much of the national discourse on college affordability focuses on undergraduate education, it is important to examine how students afford graduate education given the workforce importance of these credentials and the role of advanced training in knowledge discovery. It is also true that graduate education differs greatly in terms of how students finance their studies. For example, the most common form of grant aid was not from the federal government, but from the colleges themselves. In addition, loans were more prevalent and loan amounts were higher than at the undergraduate level. Still, like undergraduates, graduate students from different demographic groups enrolled and completed their scholarly work across a range of difference, in types of institutions attended, in types of degrees sought, and in fields of study chosen.<sup>1</sup> Because of these differences, as well as those in students' economic circumstances, there was considerable variation in how students financed their post-baccalaureate studies.<sup>2</sup> For example, as was the case in Chapter 7, "How Students Finance Undergraduate Study," African American<sup>3</sup> students were more likely to borrow and have higher levels of debt than students from other backgrounds.

## KEY FINDINGS

- Across all types of graduate degrees and at all types of institutions, Black graduate students were more likely to borrow and accrue larger debts than other graduates. Asian graduate students were least likely to borrow to fund their graduate education.
- The most common source of grant aid for graduate students was support from their institutions, especially at the doctoral<sup>4</sup> and professional<sup>5</sup> degree levels.
- In 2015–16, only one-quarter of Black doctoral students received institutional aid, compared with over half of Asian students. In contrast, about half of Black professional degree students received institutional grants.
- Approximately 56 percent of all master's degree recipients borrowed to fund their graduate education, but this was true for 81.3 percent of Black master's degree recipients.
- Half of all Asian master's degree recipients who borrowed accrued average debt of \$59,824, with a median of \$48,802, compared with a mean of \$51,699 and a median of \$47,093 for Black students.
- Ninety percent of Black master's degree students had borrowed for at least part of their undergraduate and graduate education, compared with 61.5 percent of Asian and 75.9 percent of White master's degree recipients. This average cumulative debt for Black students amounted to roughly \$69,000. Seventy-eight percent of professional degree recipients borrowed to fund their graduate education, but 91.6 percent of Black graduates and 85.2 percent of Hispanic graduates accrued debt.

1 Data presented in this chapter reflect how graduate students finance their education by award level and the type of institution where they complete. When analyzing differences in how graduate students finance their education and their student loan debt, representation by field should be considered. However, as shown in Chapter 6 of this report, "Graduate School Completion," the fields of study in which students complete their graduate education varied widely by demographic group. As a result, small sample sizes at the intersection of race and ethnicity, field of study, and award level decrease the ability to provide reliable estimates for debt by field and award level.

2 Because of sample sizes in the survey data on which this chapter relies, in most cases meaningful comparisons were possible only across larger racial and ethnic groups.

3 The terms Black and African American are used interchangeably.

4 Doctoral degrees reflect those classified as doctorate-research/scholarship degrees, including PhD, EdD, DMA, and other research-based degrees.

5 Professional degrees reflect those classified as doctorate-professional practice, including chiropractic, dentistry, law, medicine, pharmacy, veterinary medicine, and other degrees for which a credential or license is required for professional practice.



- Roughly half of all doctoral degree recipients borrowed. Overall, Black students had the highest average debt level at \$109,148. This number grew to \$128,359 among Black students who earned their doctoral degree at a for-profit institution.
- Black and Hispanic doctoral degree recipients arrived with similar levels of debt, but the higher borrowing of Black students for graduate school led to average combined postsecondary debt per student of \$103,097, compared with a total of \$86,556 per Hispanic student, including both borrowers and non-borrowers. The combined debt level for White doctoral degree holders was \$51,078.

As presented in Chapter 4 of this report, “Enrollment in Graduate Education,” Whites represented the majority of graduate students (56.0 percent) in 2015–16. Blacks were the second largest racial and ethnic group (13.5 percent), followed by Hispanics (9.2 percent), Asians (6.3 percent), students of more than one race (2.3 percent), American Indians or Alaska Natives (0.4 percent), and Native Hawaiians or other Pacific Islanders (0.2 percent). An additional 12.0 percent were international students.<sup>6</sup> Comparisons of data presented in this chapter across groups should be made with caution, as small sample sizes for certain racial and ethnic groups may not be meaningful.

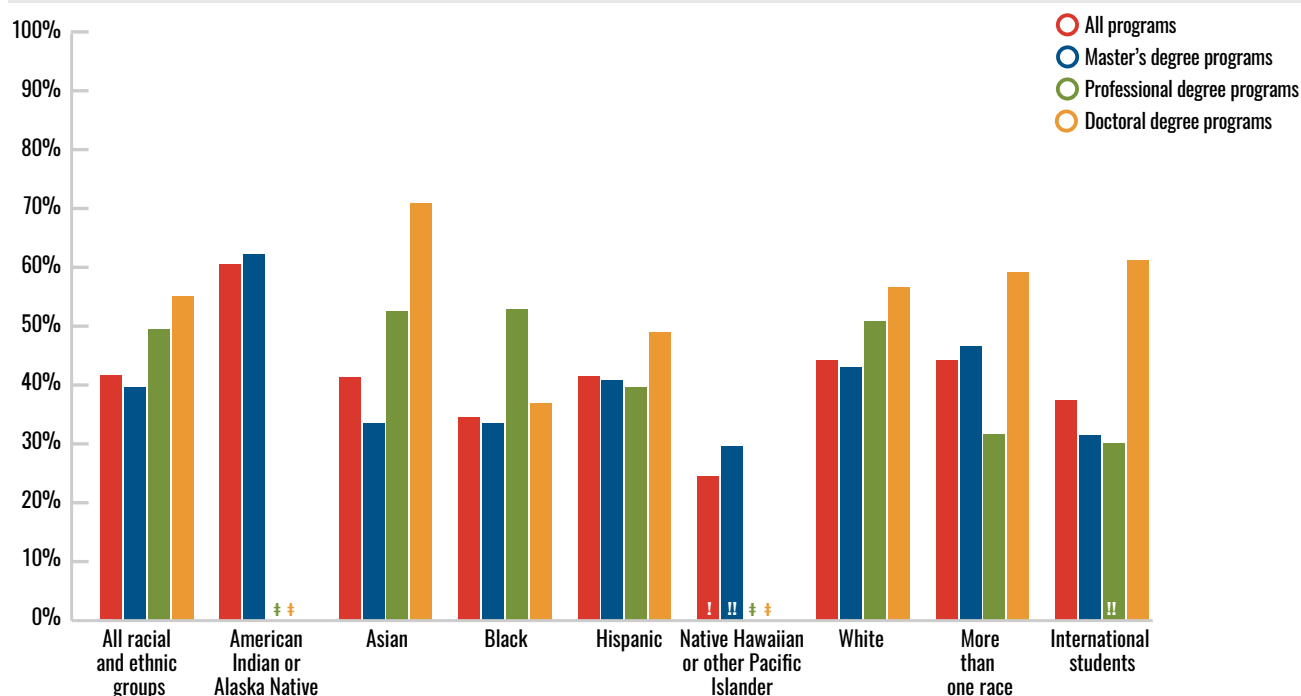
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<sup>6</sup> The National Center for Education Statistics (NCES) defines a nonresident alien as “a person who is not a citizen or national of the United States and who is in this country on a visa or temporary basis and does not have the right to remain indefinitely.” In this report, nonresident aliens are labeled as international students.

## GRANT AID

In general, graduate students received less grant aid than undergraduates and covered more of their expenses through earnings and loans. In 2015–16, approximately 42.1 percent of all graduate students received some amount of grant aid. Grant aid was most common among students pursuing doctoral degrees (55.7 percent) and least common for master's students (40.0 percent). Patterns of grant receipt across racial and ethnic groups varied by program type.

**Figure 8.1: Share of Graduate Students Receiving Any Grant Aid, by Degree Program and Race and Ethnicity: 2015–16**



Source: U.S. Department of Education, National Postsecondary Student Aid Study, 2016

Notes: ‡ Estimate suppressed. Reporting standards not met. | ! Interpret with caution. Ratio of standard error to estimate is >30% but <50%. | !! Interpret with caution. Ratio of standard error is > 50%.

- American Indian or Alaska Native master's students and Asian doctoral students were the most likely to receive grant aid—62.8 percent and 71.6 percent, respectively.
- Within the Asian graduate student population, 33.8 percent of master's students received grant aid, compared with 71.6 percent of doctoral students—a nearly 38 percentage point difference, the largest difference for any group.
- A smaller share of Black doctoral students (37.3 percent) than of other doctoral students received grant aid.

## Types of Grant Aid

Five percent or less of master's, doctoral, and professional degree students received federal or state grant aid or educational aid to veterans and military in 2015–16. Instead, the most common source of grant aid for graduate students was from the colleges and universities in which they were enrolled, including graduate fellowships and tuition waivers.<sup>7</sup> In 2015–16, about one-quarter of these students received grant aid from their universities. The second largest source of grant aid for graduate students was from employers; around 13.5 percent received this type of assistance. Patterns varied by degree type and by race and ethnicity within degree types. While not explored here, differences may also occur based on field of study.

**Table 8.1: Shares of Graduate Students Receiving Grant Aid from Institutions, Employers, and Other Private Sources, by Degree Program and Race and Ethnicity: 2015–16**

		All racial and ethnic groups	American Indian or Alaska Native	Asian	Black	Hispanic	Native Hawaiian or other Pacific Islander	White	More than one race
Master's Degree Programs	Institutional	21.9%	31.2%!	20.1%	16.8%	21.3%	22.8%!!	22.6%	27.7%
	Employer	15.2%	15.0%!!	9.8%	11.7%	14.0%	11.3%!!	19.1%	14.0%
	Private	4.8%	35.3%!	5.2%!	4.0%	4.8%	11.8%!!	5.2%	3.8%!
Professional Degree Programs	Institutional	41.7%	‡	42.3%	49.9%	32.4%	‡	42.4%	27.7%!
	Employer	4.2%	‡	3.6%!	4.0%!	3.9%!	‡	4.1%	‡
	Private	8.3%	‡	12.7%	6.9%!	5.5%!	‡	8.2%	4.7%!!
Doctoral Degree Programs	Institutional	45.1%	‡	56.1%	25.4%	41.4%	‡	44.3%	47.5%
	Employer	10.1%	‡	16.0%!!	8.5%	8.9%!	‡	13.5%	6.9%!!
	Private	5.3%	‡	5.9%!	1.4%	4.0%!	‡	6.4%	5.7%!

Source: U.S. Department of Education, National Postsecondary Student Aid Study, 2016

Notes: ‡ Estimate suppressed. Reporting standards not met. | ! Interpret with caution. Ratio of standard error to estimate is >30% but <50%. | !! Interpret with caution. Ratio of standard error is > 50%.

- Overall, 45.1 percent of doctoral students received institutional grant aid, a much larger share than among master's students (21.9 percent) and slightly more than among professional degree students (41.7 percent).
- Only 25.4 percent of Black doctoral students received institutional grant aid, compared with 45.1 percent of all doctoral students and 56.1 percent of Asian students.
- In contrast, Black professional degree students were more likely than others to receive institutional grants. The shares of students that received this aid ranged from 32.4 percent of Hispanic students to 49.9 percent of Black students.
- There was less institutional grant aid and less variation across racial and ethnic groups for master's degree students. The shares that received this aid ranged from 16.8 percent of Black students to 27.7 percent of students of more than one race.

Master's degree students were more likely than professional and doctoral degree students to receive support from employers. Overall, 15.2 percent of all master's degree students received grant aid from their employers.

<sup>7</sup> Teaching and research assistantships are forms of employment and are not included in institutional grant aid.

**Table 8.2: Average Grant Aid per Recipient, by Degree Program, Source, and Race and Ethnicity: 2015–16**

		All racial and ethnic groups	American Indian or Alaska Native	Asian	Black	Hispanic	Native Hawaiian or other Pacific Islander	White	More than one race
Master's Degree Programs	Institutional	\$7,094	‡	\$6,846	\$6,132	\$5,210	‡	\$6,966	\$5,044!
	Employer	\$6,204	‡	\$10,878	\$4,568	\$4,875	‡	\$6,051	\$5,355
	Private	\$4,926	‡	‡	\$3,521	\$3,615	‡	\$4,453	‡
Professional Degree Programs	Institutional	\$13,472	‡	\$15,562	\$12,321	\$16,189	‡	\$13,114	‡
	Employer	\$7,299	‡	‡	‡	‡	‡	\$6,101	‡
	Private	\$7,952	‡	‡	‡	‡	‡	\$4,892	‡
Doctoral Degree Programs	Institutional	\$16,502	‡	‡	\$15,742	\$19,059	‡	\$16,227	\$19,577
	Employer	\$6,649	‡	‡	\$4,322	\$7,472	‡	\$6,278	‡
	Private	\$15,282	‡	‡	‡	‡	‡	\$16,465	‡

Source: U.S. Department of Education, National Postsecondary Student Aid Study, 2016

Notes: ‡ Estimate suppressed. Reporting standards not met. | ! Interpret with caution. Ratio of standard error to estimate is >30% but <50%.

- Only around 4.2 percent of professional degree students received employer grant aid.
- Approximately 19.1 percent of White and 14.0 percent of Hispanic master's degree students received employer grant aid, compared with 11.7 percent of Black and 9.8 percent of Asian master's degree students.
- Although Asian master's degree students were 1.9 to 9.3 percentage points less likely than those from other racial and ethnic groups to receive employer grant aid, their average grant per recipient was \$10,878, compared with \$6,204 overall.
- Black professional degree students were 7.5 to 22.2 percentage points more likely than those from other racial and ethnic groups to receive institutional grant aid, but their average grant per recipient was \$12,321, compared with \$13,472 overall.

## ANNUAL BORROWING

Borrowing patterns also differed quite a bit across racial and ethnic groups during the 2015–16 academic year. Segmenting students by the types of graduate degree programs they enrolled in helps to identify and recognize meaningful borrowing patterns. Students enrolled in professional degree programs were more likely to borrow (72.3 percent borrowed), and borrow larger amounts than those in master's and doctoral degree programs. The amount borrowed did not follow the same pattern as the share of students borrowing. Almost all of the borrowing was from federal loan programs, through which graduate students can borrow to cover their full budgets not covered by other financial aid, including housing, food, books and supplies, transportation, and other expenses, in addition to tuition and fees.

**Table 8.3: Annual Borrowing, by Type of Loan, Degree Program, and Race and Ethnicity: 2015–16**

		Federal Loans			Private Loans			Any Loans		
		% Receiving Loans	Average Amount Borrowed per Borrower	Median Amount Borrowed per Borrower	% Receiving Loans	Average Amount Borrowed per Borrower	Median Amount Borrowed per Borrower	% Receiving Loans	Average Amount Borrowed per Borrower	Median Amount Borrowed per Borrower
All Graduate Degree Programs	All racial and ethnic groups	42.2%	\$23,959	\$20,360	5.1%	\$13,125	\$9,000	45.9%	\$23,749	\$20,000
	American Indian or Alaska Native	53.3%	\$21,157	\$13,704	5.3%!!	‡	‡	54.2%	\$21,234	\$13,704!
	Asian	33.3%	\$32,203	\$20,500	5.0%	\$21,196	\$10,374!!	37.5%	\$31,471	\$20,500
	Black	68.1%	\$22,347	\$19,197	4.1%	\$11,134	\$4,433!!	70.1%	\$22,440	\$19,163
	Hispanic	57.9%	\$23,429	\$20,218	4.4%	\$7,312	\$3,101!!	59.7%	\$23,262	\$20,000
	Native Hawaiian or other Pacific Islander	71.3%	‡	‡	‡	‡	‡	71.8%	‡	‡
	White	43.0%	\$23,993	\$20,465	4.1%	\$10,002	\$7,094	45.5%	\$23,862	\$20,019
	More than one race	54.4%	\$24,441	\$20,500	3.4%!	‡	‡	55.1%	\$25,360	\$20,500
Master's Degree Programs	All racial and ethnic groups	39.8%	\$18,430	\$17,010	5.5%	\$13,324	\$8,553	43.8%	\$18,570	\$16,724
	American Indian or Alaska Native	51.3%	‡	‡	4.9%!!	‡	‡	51.5%	‡	‡
	Asian	23.9%	\$21,701	\$20,449	6.2%	\$23,236	\$10,374	29.7%	\$22,362	\$20,449
	Black	67.0%	\$17,927	\$17,693	4.7%	\$11,783	\$4,433	69.4%	\$18,119	\$17,422
	Hispanic	56.3%	\$18,477	\$16,958	4.4%	\$5,955	\$3,100	58.0%	\$18,402	\$16,930
	Native Hawaiian or other Pacific Islander	70.5%	‡	‡	‡	‡	‡	70.5%	‡	‡
	White	39.9%	\$18,706	\$16,609	3.9%	\$9,035	\$6,277	42.3%	\$18,684	\$16,560
	More than one race	51.1%	\$14,769	\$15,375	4.6%!	‡	‡	51.9%	\$16,280	\$15,900



		Federal Loans			Private Loans			Any Loans		
		% Receiving Loans	Average Amount Borrowed per Borrower	Median Amount Borrowed per Borrower	% Receiving Loans	Average Amount Borrowed per Borrower	Median Amount Borrowed per Borrower	% Receiving Loans	Average Amount Borrowed per Borrower	Median Amount Borrowed per Borrower
Professional Degree Programs	All racial and ethnic groups	69.6%	\$45,348	\$43,500	5.4%	\$13,126	\$9,000	72.3%	\$45,136	\$43,500
	American Indian or Alaska Native	‡	‡	‡	‡	‡	‡	‡	‡	‡
	Asian	59.8%	\$43,894	\$41,000	3.8%	NA	NA	61.8%	\$43,470	\$40,500
	Black	88.3%	\$55,579	\$59,413	3.7%	NA	NA	89.3%	\$55,498	\$59,413
	Hispanic	79.3%	\$46,952	\$43,500	6.2%	NA	NA	82.8%	\$45,988	\$41,026
	Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡	‡
	White	68.6%	\$42,931	\$40,500	6.2%	\$13,606	\$10,000	71.6%	\$42,982	\$40,500
	More than one race	80.9%	\$50,320	\$48,042	‡	‡	‡	81.0%	\$50,314	\$48,042
Doctoral Degree Programs	All racial and ethnic groups	28.8%	\$18,409	\$19,197	1.9%	\$9,269	\$7,983	30.6%	\$17,984	\$18,500
	American Indian or Alaska Native	‡	‡	‡	‡	‡	‡	‡	‡	‡
	Asian	20.6%	\$16,838	\$14,700	NA	NA	NA	20.9%	\$16,803	\$14,700
	Black	59.0%	\$17,479	\$16,488	0.6%	NA	NA	59.2%	\$17,756	\$16,488
	Hispanic	42.3%	\$20,246	\$20,500	1.3%	NA	NA	43.2%	\$20,165	\$20,500
	Native Hawaiian or other Pacific Islander	‡	‡	‡	‡	‡	‡	‡	‡	‡
	White	31.7%	\$18,087	\$19,308	2.6%	\$9,228	\$7,000	34.4%	\$17,481	\$18,506
	More than one race	36.3%	\$26,961	\$20,500	‡	‡	‡	36.7%	\$26,725	\$20,500

Source: U.S. Department of Education, National Postsecondary Student Aid Study, 2016

Notes: ‡ Estimate suppressed. Reporting standards not met. | ! Interpret with caution. Ratio of standard error to estimate is >30% but <50%. | !! Interpret with caution. Ratio of standard error is > 50%.

- The share of all graduate students that borrowed ranged from approximately 37.5 percent of Asian students to 70.1 percent of Black students and 71.8 percent of Native Hawaiian or other Pacific Islander students.
- Professional degree students from all racial and ethnic groups borrowed at higher rates than master's and doctoral students from all groups, with the exception of Asian professional degree students (61.8 percent) and Black master's degree students (69.4 percent).
- Master's degree annual borrowing rates ranged from 29.7 percent of Asian students to 69.4 percent of Black students; doctoral student borrowing rates ranged from 20.9 percent of Asian students to 59.2 percent of Black students; and professional degree student borrowing rates ranged from 61.8 percent of Asian students to 89.3 percent of Black students.
- Asian master's degree students were much less likely than others to borrow (only around 29.7 percent borrowed), but among borrowers, their average loans were the largest, at \$22,362.
- The average borrowing of Black professional degree students (\$55,498) was nearly \$5,000 more than that of the next largest average amount borrowed. The same was not true among master's and doctoral students, where Black graduate students, on average, borrowed amounts similar to students of other race and ethnicities.

## DEBT LEVELS

The data presented here provide information on the average amount borrowed per borrower and per student. The average amount borrowed per borrower includes only those students who took out loans to finance their education. The average amount borrowed per student includes all students, regardless of whether or not they took out loans to finance their education.

### Master's Degree Students

The differences in annual borrowing patterns of graduate degree students across racial and ethnic groups are reflected in differences in the total debt levels accumulated by those who complete their degrees. Additionally, across all student groups, the average amount of debt accumulated for graduate study, \$43,354, surpassed the median, \$35,250, indicating that a subset of the population took out substantially larger amounts of debt.

**Table 8.4: Cumulative Debt for Graduate Study: Master's Degree Recipients, by Race and Ethnicity: 2015–16**

	% Who Borrowed	Average Amount Borrowed per Borrower	Median Amount Borrowed per Borrower	Average Debt per Student
All racial and ethnic groups	56.4%	\$43,354	\$35,250	\$24,446
American Indian or Alaska Native	‡	‡	‡	‡
Asian	50.1%	\$59,824	\$48,802	\$29,996
Black	81.3%	\$51,699	\$47,093	\$42,009
Hispanic	72.9%	\$42,411	\$37,532	\$30,924
Native Hawaiian or other Pacific Islander	‡	‡	‡	‡
White	57.3%	\$41,506	\$32,500	\$23,786
More than one race	54.1%	\$40,336	\$30,681 <sup>!</sup>	\$21,814

Source: U.S. Department of Education, National Postsecondary Student Aid Study, 2016

Notes: ‡ Estimate suppressed. Reporting standards not met. ! Interpret with caution. Ratio of standard error to estimate is >30% but <50%.

- Approximately 56.4 percent of all master's degree recipients borrowed to fund their graduate education, compared with 81.3 percent of Black graduates.
- The 50.1 percent of Asian master's degree completers who borrowed accrued larger average debts than others. Asian graduates had an average debt of \$59,824, with a median of \$48,802.
- The 81.3 percent of Black master's degree completers who accrued debt had an average debt of \$51,699 and a median of \$47,093.
- White students borrowed at about the same rate as the average across all races, 56.4 percent for all students versus 57.3 percent for White students, but borrowed less on average than all racial and ethnic groups (\$41,506 and \$43,354, respectively).

Some of the variation in borrowing across racial and ethnic groups is a function of the institutions they attend. Master's degree completers who attended public four-year institutions<sup>8</sup> borrowed at lower rates (53.1 percent) and on average less (\$37,251) than master's degree completers at for-profit or private nonprofit four-year institutions.

<sup>8</sup> Institutions were categorized into sectors based upon control of the institution and the length of the predominant award granted. For more information, please refer to the report's methods section.

**Table 8.5: Cumulative Debt for Graduate Study: Master's Degree Recipients, by Sector and Race and Ethnicity: 2015–16**

		% Who Borrowed	Average Amount Borrowed per Borrower	Median Amount Borrowed per Borrower	Average Amount Borrowed per Student
Public Four-Year	All racial and ethnic groups	53.1%	\$37,251	\$29,958	\$19,795
	Asian	57.0%	\$48,344	\$40,741	\$27,540
	Black	77.9%	\$52,658	\$47,258	\$41,044
	Hispanic	75.8%	\$33,700	\$31,000	\$25,554
	White	52.9%	\$35,758	\$26,887	\$18,900
Private Nonprofit Four-Year	All racial and ethnic groups	56.3%	\$48,235	\$40,529	\$27,153
	Asian	37.4%	\$82,958	\$73,558!	\$31,019
	Black	83.6%	\$48,597	\$47,803	\$40,612
	Hispanic	69.3%	\$50,641	\$41,000	\$35,112
	White	60.1%	\$46,612	\$37,391	\$28,004
For-Profit	All racial and ethnic groups	74.4%	\$48,829	\$41,000	\$36,320
	Asian	80.4%	\$47,890	\$34,051!	\$38,527
	Black	82.3%	\$54,946	\$47,093	\$45,217
	Hispanic	78.0%	\$40,982	\$35,000	\$31,971
	White	77.3%	\$47,513	\$40,000	\$36,707

Source: U.S. Department of Education, National Postsecondary Student Aid Study, 2016

Notes: Estimates were suppressed for all other groups due to small sample size. | Institutions were categorized into sectors based upon control of the institution and the length of the predominant award granted. |

! Interpret with caution. Ratio of standard error to estimate is >30% but <50%.

- Within each institution type, Black master's degree recipients borrowed at the highest rate among all race and ethnicities, with 77.9 percent at public four-year, 82.3 percent at for-profit, and 83.6 percent at private nonprofit four-year institutions accumulating debt.
- Within each race and ethnicity, master's degree recipients who attended for-profit institutions generally borrowed at higher rates than students of the same race at other types of institutions.
- Asian master's degree recipients at private nonprofit four-year institutions borrowed at the lowest rate of only 37.4 percent, but their average debt per borrower was \$82,958. In contrast, 83.6 percent of Black master's degree recipients who earned their degrees in this sector borrowed, but had an average debt per borrower of \$48,597.
- The \$31,971 average debt per student for Hispanic master's degree recipients at for-profit institutions was lower than the average debt of other racial and ethnic groups.

Some students who did not borrow for graduate school had debt remaining from their undergraduate studies. Approximately 14 percent of 2015–16 master's degree recipients without graduate school debt did borrow for their undergraduate education. For master's degree recipients with debt, the majority of their debt (61.6 percent) was accumulated during their graduate study.

**Table 8.6: Undergraduate and Graduate Debt: Master's Degree Recipients, by Race and Ethnicity: 2015–16**

	Average Graduate Debt per Student	Average Undergraduate Debt per Student	Average Combined Undergraduate and Graduate Debt per Student	% of Total Debt That Is from Graduate Study	% with Any Debt	% with Graduate Debt
All racial and ethnic groups	\$24,446	\$15,215	\$39,661	61.6%	70.8%	56.4%
Asian	\$29,996	\$9,096	\$39,091	76.7%	61.5%	50.1%
Black	\$42,009	\$26,950	\$68,959	60.9%	90.1%	81.3%
Hispanic	\$30,924	\$18,335	\$49,259	62.8%	88.0%	72.9%
White	\$23,786	\$16,274	\$40,061	59.4%	75.9%	57.3%
More than one race	\$21,814	\$14,377	\$36,191	60.3%	69.2%	54.1%

Source: U.S. Department of Education, National Postsecondary Student Aid Study, 2016  
 Note: Estimates were suppressed for all other groups due to small sample size.

- The gap in the share of students with any debt and the share of students with graduate debt was largest among White master's degree recipients, among whom 75.9 percent borrowed for part of their education, but only 57.3 percent borrowed for graduate education.
- Despite the high average graduate school debt per borrower among Asian master's degree recipients, the relatively low share of these students who borrowed (50.1 percent) made their debt per student (including borrowers and non-borrowers) substantially lower than that for Black students.
- Black master's degree recipients borrowed \$42,009 per student, compared with an overall average (across all races and ethnicities) of \$24,446.
- Black students also came to their master's degree programs with higher levels of undergraduate debt than did others—\$26,950 per student, compared with just \$9,096 for Asian students and an overall average of \$15,215. As a result, Black master's degree recipients left graduate school having borrowed \$68,959 per student.
- Approximately 90 percent of Black master's degree recipients had borrowed for at least part of their education, compared with 61.5 percent of Asian and 75.9 percent of White students.
- Hispanic master's recipients also had a very high rate of borrowing for their education (88.0 percent), with an average debt of \$49,259 per student. Although high, this was nearly \$20,000 less than the average for Black students.

## Professional Degree Students

Nearly 80 percent of students who earned professional degrees in 2015–16 borrowed to fund their graduate studies. The average debt level among borrowers was almost \$150,000. Comparing debt levels of professional degree recipients across racial and ethnic groups within sectors was not possible because of small sample sizes in available survey data.

**Table 8.7: Cumulative Debt for Graduate Study: Professional Degree Recipients, by Race and Ethnicity: 2015–16**

	% Who Borrowed	Average Amount Borrowed per Borrower	Median Amount Borrowed per Borrower	Average Debt per Student
All racial and ethnic groups	78.3%	\$149,356	\$140,038	\$116,926
Asian	65.6%	\$153,372	\$125,000	\$100,680
Black	91.6%	\$204,754!	\$206,700!	\$187,614!
Hispanic	85.2%	\$132,692	\$147,203	\$113,007
White	78.2%	\$142,469	\$134,322	\$111,468

Source: U.S. Department of Education, National Postsecondary Student Aid Study, 2016

Notes: Estimates were suppressed for all other groups due to small sample size. | ! Interpret with caution. Ratio of standard error to estimate is >30% but <50%.

- Around 78 percent of professional degree recipients borrowed to fund their graduate education, but 91.6 percent of Black and 85.2 percent of Hispanic professional degree students accrued debt.
- The average amount borrowed among Hispanic professional degree recipients was \$132,692, nearly \$17,000 less than the average for all students (\$149,356).
- Asian professional degree students borrowed at a much lower rate (65.6 percent), but borrowed on average more than both White and Hispanic borrowers—\$153,372.

Because both the share of students borrowing and the average amount borrowed were highest among Black professional degree recipients, the gaps in borrowing per student across racial and ethnic groups were even larger than the gaps among borrowers.

**Table 8.8: Undergraduate and Graduate Debt: Professional Degree Recipients, by Race and Ethnicity: 2015–16**

	Average Graduate Debt per Student	Average Undergraduate Debt per Student	Average Combined Undergraduate and Graduate Debt per Student	% of Total Debt That Is from Graduate Study	% with Any Debt	% with Graduate Debt
All racial and ethnic groups	\$116,926	\$11,378	\$128,303	91.1%	80.7%	78.3%
Asian	\$100,680	\$9,994	\$110,674	91.0%	70.1%	65.6%
Black	\$187,614!	\$13,699!	\$201,312!	93.2%	92.4%	91.6%
Hispanic	\$113,007	\$10,320	\$123,327	91.6%	85.3%	85.2%
White	\$111,468	\$11,642	\$123,110	90.5%	80.6%	78.2%

Source: U.S. Department of Education, National Postsecondary Student Aid Study, 2016

Notes: Estimates were suppressed for all other groups due to small sample size. | ! Interpret with caution. Ratio of standard error to estimate is >30% but <50%.

- Black students came to professional degree programs with higher levels of undergraduate debt than others—\$13,699 per student, compared with just \$9,994 for Asian students and an overall average of \$11,378 per student.
- In 2015–16, 92.4 percent of Black professional degree recipients had borrowed for at least part of their education, compared with 70.1 percent of Asian and 80.6 percent of White professional degree recipients.
- In total, Black professional degree recipients left graduate school having borrowed \$201,312 per student.



## Doctoral Degree Students

Institutional funding for doctoral students varies widely by institution and field. For example, 2016 doctoral degree recipients in the physical and earth sciences covered 95.7 percent of their expenditures with fellowships, grants, and assistantships and 2.2 percent with their own resources. For psychology and social science students, these shares were 72.8 percent and 23.9 percent, respectively (National Science Foundation 2018). Students from different racial and ethnic groups had different enrollment patterns that contributed to the range of average debt levels for students in these degree programs.

Nearly half of doctoral students borrowed to finance their education (47.7 percent). The average debt level among borrowers was \$81,176, with the highest debt levels occurring for Black and Hispanic borrowers.

**Table 8.9: Cumulative Debt for Graduate Study: Doctoral Degree Recipients, by Race and Ethnicity: 2015–16**

	% Who Borrowed	Average Amount Borrowed per Borrower	Median Amount Borrowed per Borrower	Average Debt per Student
All racial and ethnic groups	47.7%	\$81,176	\$65,897	\$38,758
Asian	21.7%!!	‡	‡	‡
Black	80.6%	\$109,148	\$113,054	\$87,920
Hispanic	72.3%	\$96,947	\$65,897!	\$70,065
White	55.7%	\$72,699	\$58,093	\$40,461

Source: U.S. Department of Education, National Postsecondary Student Aid Study, 2016

Notes: Estimates were suppressed for all other groups due to small sample size. | ! Interpret with caution. Ratio of standard error to estimate is >30% but <50%. | !! Interpret with caution. Ratio of standard error is >50%.

- The shares of Black and Hispanic doctoral degree recipients who borrowed for their graduate study, 80.6 and 72.3 percent, respectively, were far higher than the shares of White doctoral degree recipients, 55.7 percent.
- Debt levels were highest for Black doctoral degree recipients, with an average of \$109,148 and a median of \$113,054 among borrowers.
- The 72.3 percent of Hispanic doctoral degree recipients who borrowed had lower debt levels than Black students.
- Among those who borrowed, the median White doctoral degree recipient borrowed just \$58,093, considerably less than Black graduates (\$113,054).

The differences in the borrowing patterns of White and Black doctoral degree students were stark. Small sample sizes did not permit comparisons among other racial and ethnic groups of doctoral degree recipients by sector.

**Table 8.10: Cumulative Debt for Graduate Study: Doctoral Degree Recipients, by Sector and Race and Ethnicity: 2015–16**

		% Who Borrowed	Average Amount Borrowed per Borrower	Median Amount Borrowed per Borrower
Public Four-Year	All racial and ethnic groups	45.5%	\$72,130	\$54,490
	Black	66.5%	\$111,486	\$107,602
	White	62.7%	\$71,724	\$57,968

		% Who Borrowed	Average Amount Borrowed per Borrower	Median Amount Borrowed per Borrower
Private Nonprofit Four-Year	All racial and ethnic groups	67.1%	\$74,590	\$50,000!
	Black	86.0%	\$111,611	\$80,926!!
	White	78.7%	\$57,568	\$34,217
For-Profit	All racial and ethnic groups	87.9%	\$120,110	\$129,795
	Black	95.2%	\$128,359	\$133,965
	White	86.0%	\$108,317	\$101,293

Source: U.S. Department of Education, National Postsecondary Student Aid Study, 2016

Notes: Estimates were suppressed for all other groups due to small sample size. | Institutions were categorized into sectors based upon control of the institution and the length of the predominant award granted. | ! Interpret with caution. Ratio of standard error to estimate is >30% but <50%. | !! Interpret with caution. Ratio of standard error is > 50%.

- The shares of Black graduates who borrowed to fund their doctoral degrees ranged from 66.5 percent at public four-year universities to 95.2 percent in the for-profit sector. However, average debt per borrower was similar for Black students in all sectors, ranging from an average of approximately \$111,000 at public and private nonprofit four-year universities to \$128,359 at for-profit institutions.
- The range of borrowing rates was smaller among White doctoral degree recipients, from 62.7 percent at public four-year institutions to 86.0 percent in the for-profit sector, but the differences in average debt levels were larger—\$57,568 at private nonprofit four-year universities and \$108,317 at for-profit institutions.
- As a result, the racial gap in debt levels varied by sector. Average debt per Black borrower was almost twice as high as average debt per White borrower at private nonprofit four-year universities—\$111,611 versus \$57,568.
- Average debt per borrower was more similar for Black and White graduates in the for-profit sector, although the median was lower for White students. Debt per borrower was substantially larger for Black doctoral degree recipients at for-profit institutions (\$133,965) than for their White peers (\$101,293) because a much larger share of them borrowed.

Nearly 58 percent of doctoral degree recipients borrowed across their undergraduate and graduate degree programs. This was true for 70.8 percent of master's degree recipients and 80.7 percent of professional degree recipients. As undergraduates, Black and Hispanic doctoral degree recipients borrowed more per student than their White counterparts.

**Table 8.11: Undergraduate and Graduate Debt: Doctoral Degree Recipients, by Race and Ethnicity: 2015–16**

	Average Graduate Debt per Student	Average Undergraduate Debt per Student	Average Combined Undergraduate and Graduate Debt per Student	% of Total Debt That Is from Graduate Study	% with Any Debt	% with Graduate Debt
All racial and ethnic groups	\$38,758	\$9,244	\$48,002	80.7%	57.9%	47.7%
Asian	‡	‡	\$16,617!!	‡	27.9%!!	21.7%!!
Black	\$87,920	\$15,176	\$103,097	85.3%	85.2%	80.6%
Hispanic	\$70,065	\$16,491	\$86,556	80.9%	74.1%	72.3%
White	\$40,461	\$10,617	\$51,078	79.2%	70.9%	55.7%

Source: U.S. Department of Education, National Postsecondary Student Aid Study, 2016

Notes: Estimates were suppressed for all other groups due to small sample size. | ! Interpret with caution. Ratio of standard error to estimate is >30% but <50%. | !! Interpret with caution. Ratio of standard error is > 50%.

- Black and Hispanic doctoral degree recipients entered graduate school with similar levels of debt—\$15,176 and \$16,491, respectively—but the higher borrowing rates of Black doctoral degree recipients for graduate school led to average combined undergraduate and graduate debt per student of \$103,097, compared with \$86,556 per Hispanic doctoral degree recipient.

## REFERENCES

National Science Foundation. 2018. *Survey of Earned Doctorates, 2016*, Table 35. <https://www.nsf.gov/statistics/2018/nsf18304/data/tab35.pdf>.