

## Trends in Student Loan Debt for Graduate School Completers

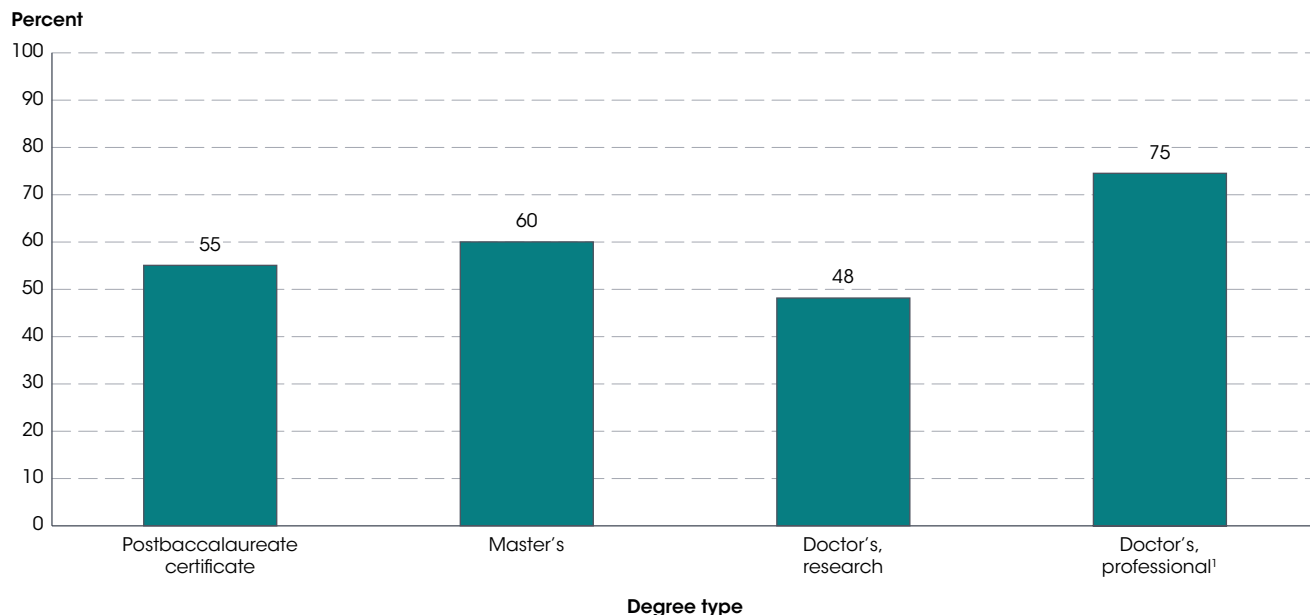
*Average loan balances for students who completed a research or professional doctorate increased between 1999–2000 and 2015–16 for all degree programs for which data were available (in constant 2016–17 dollars). Average loan balances approximately doubled for those who completed medical doctorates (from \$124,700 to \$246,000, an increase of 97 percent), Ph.D.'s outside the field of education (from \$48,400 to \$98,800, an increase of 104 percent), and other non-Ph.D. doctorates (from \$64,500 to \$132,200, an increase of 105 percent).*

Recently released data from the National Postsecondary Student Aid Survey (NPSAS)<sup>1</sup> shed new light on how the student loan burden of graduate school completers has changed over time. This spotlight analysis uses NPSAS data to describe the percentage of graduate school completers who hold student loans from undergraduate or graduate education and, for those who have student loans, the average combined balance for undergraduate and graduate school loans. Specifically, the analysis examines how trends in student loan debt vary by the following characteristics:

- broad degree type (postbaccalaureate certificate,<sup>2</sup> master's degree,<sup>3</sup> research doctorate,<sup>4</sup> or professional doctorate<sup>5</sup>),
- specific degree program (for example, law, medicine, or business administration), and

- institutional control (public, private nonprofit, or private for-profit).

This indicator uses data on the combined balance of undergraduate and graduate student loans to examine the total student loan debt burden that a typical graduate school completer faces as he or she enters the workforce. The data represent the principal balance (excluding interest) as of June 30th of the survey year. For example, the 2015–16 data represent balances as of June 30, 2016. The data include federal and private student loans, but exclude Parent PLUS loans.<sup>6</sup> Data on graduate student loans only (separate from undergraduate loans) are available in *Digest of Education Statistics 2017*, [table 332.45](#). All dollar amounts are expressed in constant 2016–17 dollars.

**Figure 1. Percentage of graduate school completers with student loans, by degree type: 2015–16**

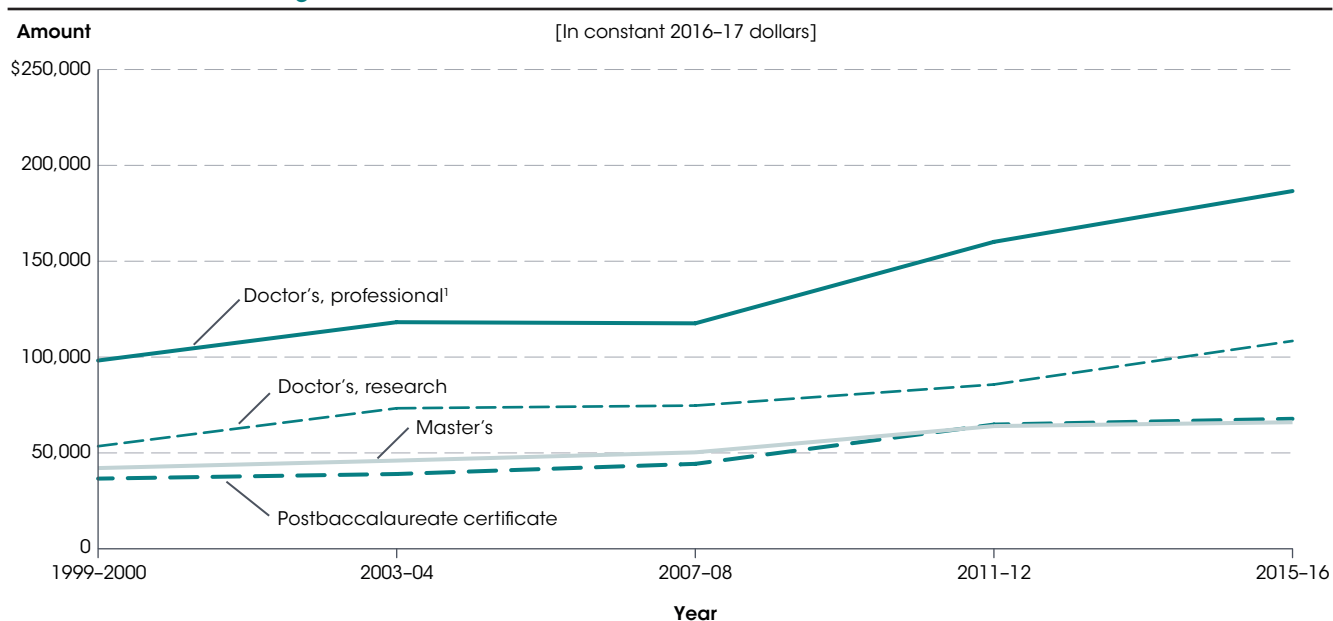
<sup>1</sup> Includes chiropractic, dentistry, law, medicine, optometry, pharmacy, podiatry, and veterinary medicine.

NOTE: Data refer to students who completed graduate degrees in 2015–16. Includes student loans for undergraduate and graduate studies.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2015–16 National Postsecondary Student Aid Study (NPSAS:16). See *Digest of Education Statistics 2017*, table 332.45.

In 2015–16, a higher percentage of students who completed professional doctorates (such as a medical doctorate or law degree) had student loans (75 percent) than those who completed master's degrees (60 percent), postbaccalaureate certificates (55 percent), and research doctorates (48 percent). The percentage of master's degree

completers with student loans was higher in 2015–16 than in 1999–2000 (60 vs. 47 percent). For other degree types, the percentage of completers with student loans in 2015–16 was not measurably different from the percentage with student loans in 1999–2000.

**Figure 2. Average cumulative student loan balance for graduate school completers, by degree type: Selected years, 1999–2000 through 2015–16**

<sup>1</sup> Includes chiropractic, dentistry, law, medicine, optometry, pharmacy, podiatry, and veterinary medicine.

NOTE: Data refer to students who completed graduate degrees in the academic years indicated. Includes student loans for undergraduate and graduate studies. Average excludes students with no student loans. Constant dollars are based on the Consumer Price Index, prepared by the Bureau of Labor Statistics, U.S. Department of Labor, adjusted to an academic-year basis.

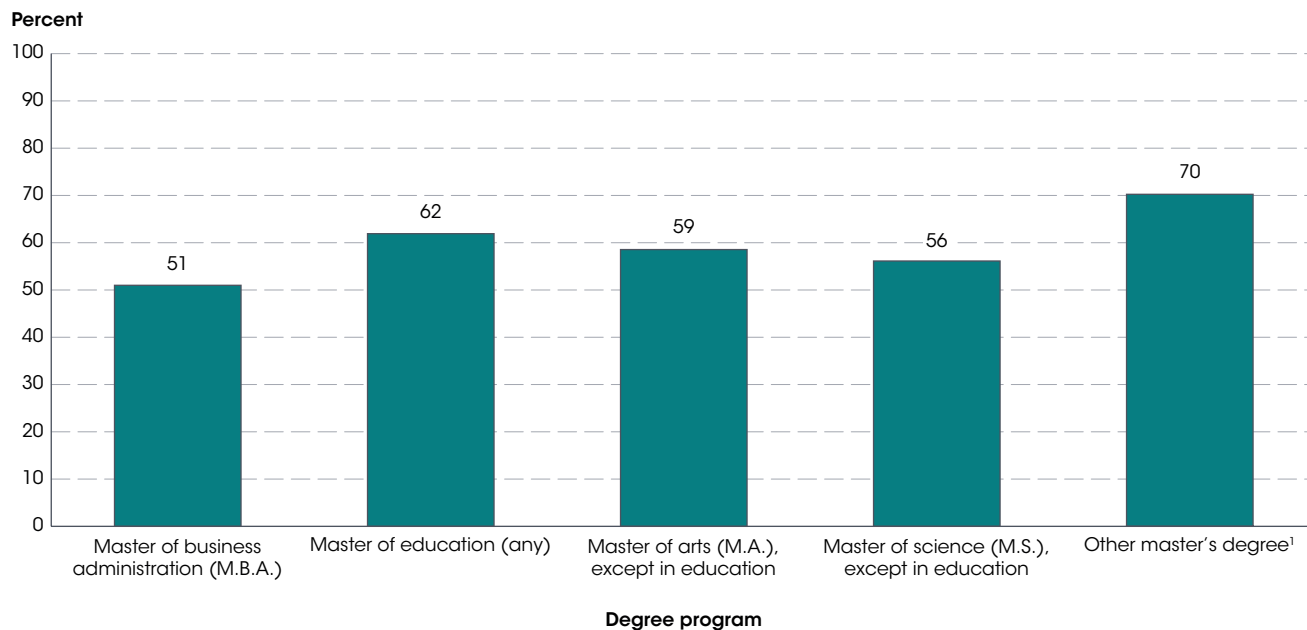
SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999–2000, 2003–04, 2007–08, 2011–12, and 2015–16 National Postsecondary Student Aid Study (NPSAS:2000, NPSAS:04, NPSAS:08, NPSAS:12, and NPSAS:16). See *Digest of Education Statistics 2017*, table 332.45.

Among graduate school completers who had student loans for undergraduate or graduate studies, the average cumulative loan balance in 2015–16 was highest for those completing a professional doctorate (\$186,600). The average loan balance for students who completed research doctorate degrees, such as Ph.D.'s or education doctorates, was \$108,400; this balance was higher than the average loan balances for those who completed postbaccalaureate certificates (\$67,800) and master's degrees (\$66,000).

Between 1999–2000 and 2015–16, average student loan balances for graduate school completers increased

for all degree types (in constant 2016–17 dollars).

Average student loan balances for those who completed research doctorate degrees roughly doubled during this time period, from \$53,500 to \$108,400 (an increase of 103 percent). Average student loan balances increased by 90 percent for those who completed professional doctorate degrees (from \$98,200 to \$186,600), by 85 percent for those who completed postbaccalaureate certificates (from \$36,600 to \$67,800), and by 57 percent for those who completed master's degrees (from \$42,100 to \$66,000).

**Figure 3. Percentage of master's degree completers with student loans, by degree program: 2015–16**

<sup>1</sup> Includes public administration or policy, social work, fine arts, public health, and other.

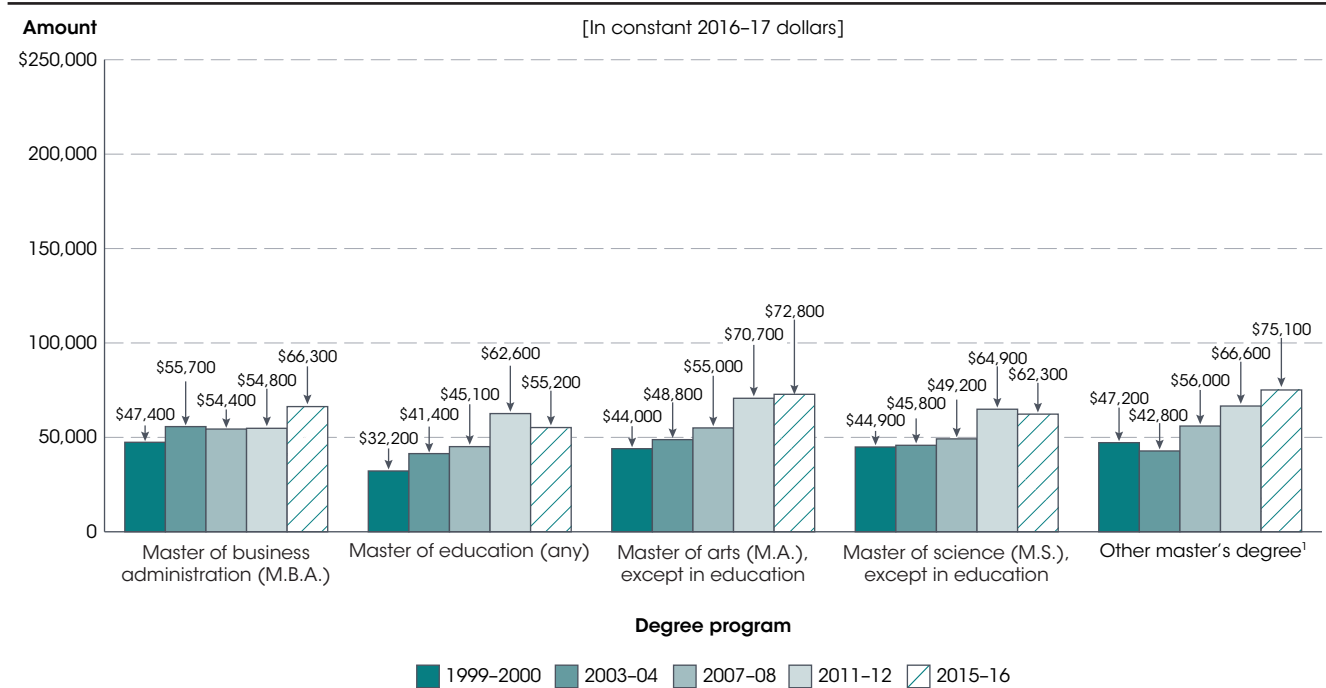
NOTE: Data refer to students who completed graduate degrees in 2015–16. Includes student loans for undergraduate and graduate studies.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2015–16 National Postsecondary Student Aid Study (NPSAS:16). See *Digest of Education Statistics 2017*, table 332.45.

Among students who completed a master's degree in 2015–16, the percentage with student loans varied by degree program. The percentage who had student loans was highest (70 percent) for those completing master's degrees in the “other” category, which includes public administration or policy, social work, fine arts, public health, and other fields. In comparison, the percentage of master's degree completers who had student loans was lower for students who completed a master of education degree (62 percent), master of arts degree<sup>7</sup> (59 percent), master of science degree<sup>8</sup> (56 percent), or master of business administration degree (51 percent). In addition, the percentage of students with loans was higher for those

completing a master of education degree than for those completing a master of business administration degree.

The percentage of master's degree completers with student loans was higher in 2015–16 than in 1999–2000 for those completing a master's degree in an “other” field (70 vs. 58 percent), a master of education degree (62 vs. 46 percent), a master of science degree (56 vs. 42 percent), or a master of business administration degree (51 vs. 41 percent). For those completing a master of arts degree, there was no measurable difference between 1999–2000 and 2015–16 in the percentage with student loans.

**Figure 4. Average cumulative student loan balance for master's degree completers, by degree program: Selected years, 1999–2000 through 2015–16**

<sup>1</sup> Includes public administration or policy, social work, fine arts, public health, and other.

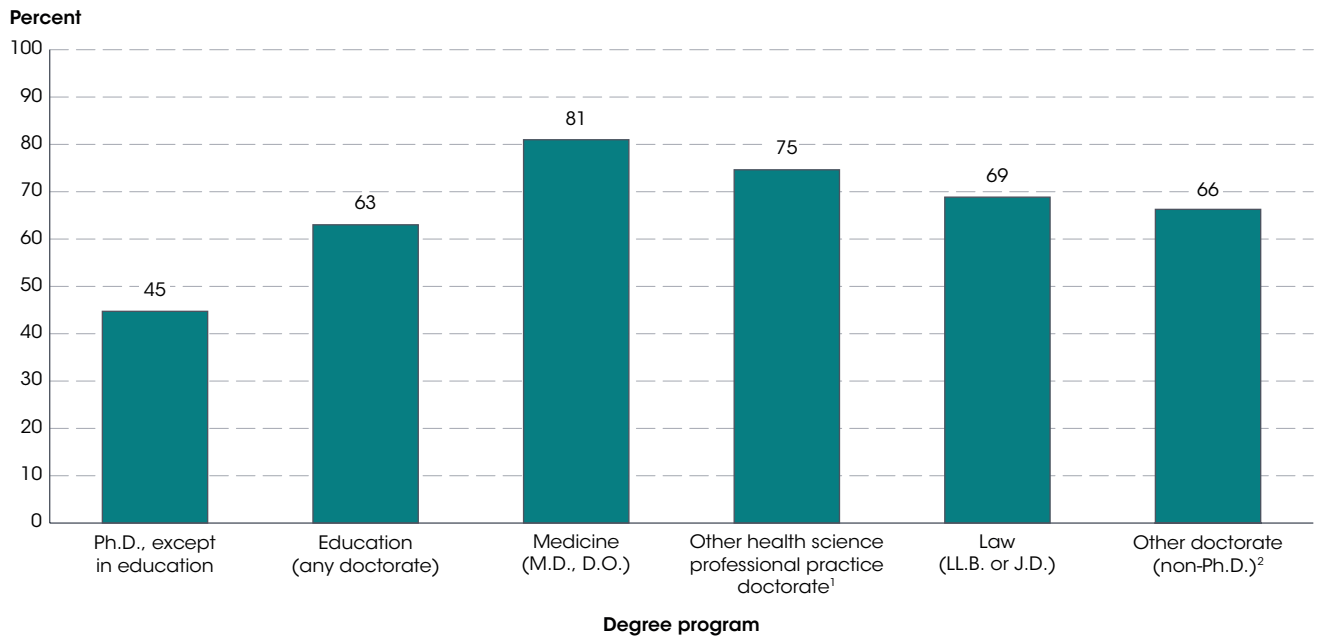
NOTE: Data refer to students who completed graduate degrees in the academic years indicated. Includes student loans for undergraduate and graduate studies. Average excludes students with no student loans. Constant dollars are based on the Consumer Price Index, prepared by the Bureau of Labor Statistics, U.S. Department of Labor, adjusted to an academic-year basis.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999–2000, 2003–04, 2007–08, 2011–12, and 2015–16 National Postsecondary Student Aid Study (NPSAS:2000, NPSAS:04, NPSAS:08, NPSAS:12, and NPSAS:16). See *Digest of Education Statistics 2017*, table 332.45.

Among students who completed a master's degree in 2015–16 and had student loans, the average student loan balance varied by degree program. The average student loan balance for those completing a master's degree in the “other” category (\$75,100) was higher than the average student loan balances for those completing master of science degrees (\$62,300) and master of education degrees (\$55,200). In addition, average student loan balances for those completing master of arts degrees (\$72,800) and master of business administration degrees (\$66,300) were also higher than the average balance for those completing a master of education degree.

Average student loan balances (in constant 2016–17 dollars) were higher in 2015–16 than in 1999–2000

for all master's degree fields. During this time, average loan balances increased by 71 percent (from \$32,200 to \$55,200) for completers of master of education degrees, by 65 percent for master of arts degree completers (from \$44,000 to \$72,800), by 59 percent for “other” master's degree completers (from \$47,200 to \$75,100), and by 39 percent for master of science degree completers (from \$44,900 to \$62,300). The average loan balance for master of business administration completers was 40 percent higher in 2015–16 (\$66,300) than in 1999–2000 (\$47,400), but showed no clear trend during this period.

**Figure 5. Percentage of doctorate degree completers with student loans, by degree program: 2015–16**

<sup>1</sup> Includes chiropractic, dentistry, optometry, pharmacy, podiatry, and veterinary medicine.

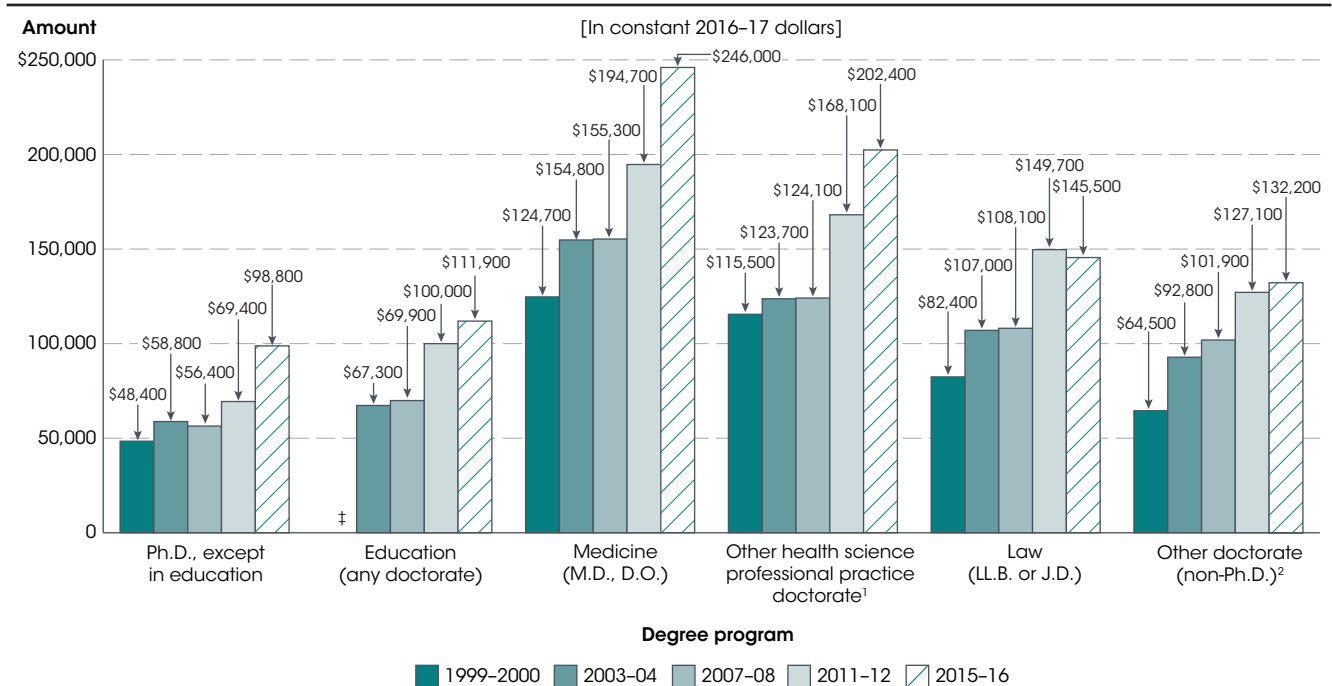
<sup>2</sup> Includes science or engineering, psychology, business or public administration, fine arts, theology, and other.

NOTE: Data refer to students who completed graduate degrees in 2015–16. Includes student loans for undergraduate and graduate studies.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2015–16 National Postsecondary Student Aid Study (NPSAS:16). See *Digest of Education Statistics 2017*, table 332.45.

Among students who completed research or professional doctoral degrees in 2015–16, the percentage with student loans was lowest for those completing Ph.D.'s in fields other than education (45 percent). In comparison, the percentage of graduate completers with loans was 63 percent for those who completed education doctorates, 66 percent for doctorate completers in the “other” (non-Ph.D.) category,<sup>9</sup> 69 percent for law degree completers, 75 percent for other health science doctorate completers,<sup>10</sup> and 81 percent for medical doctorate

completers. The percentage of graduate completers with student loans was higher in 2015–16 than in 1999–2000 for students who completed education doctorates (63 vs. 33 percent), but lower in 2015–16 than in 1999–2000 for students who completed law degrees (69 vs. 85 percent). For completers in all other research and professional doctoral program categories, there was no measurable difference between 1999–2000 and 2015–16 in the percentages who had student loans.

**Figure 6. Average cumulative student loan balance for doctorate degree completers, by degree program: Selected years, 1999–2000 through 2015–16**

‡ Reporting standards not met. Either there are too few cases for a reliable estimate or the coefficient of variation (CV) is 50 percent or greater.

<sup>1</sup> Includes chiropractic, dentistry, optometry, pharmacy, podiatry, and veterinary medicine.

<sup>2</sup> Includes science or engineering, psychology, business or public administration, fine arts, theology, and other.

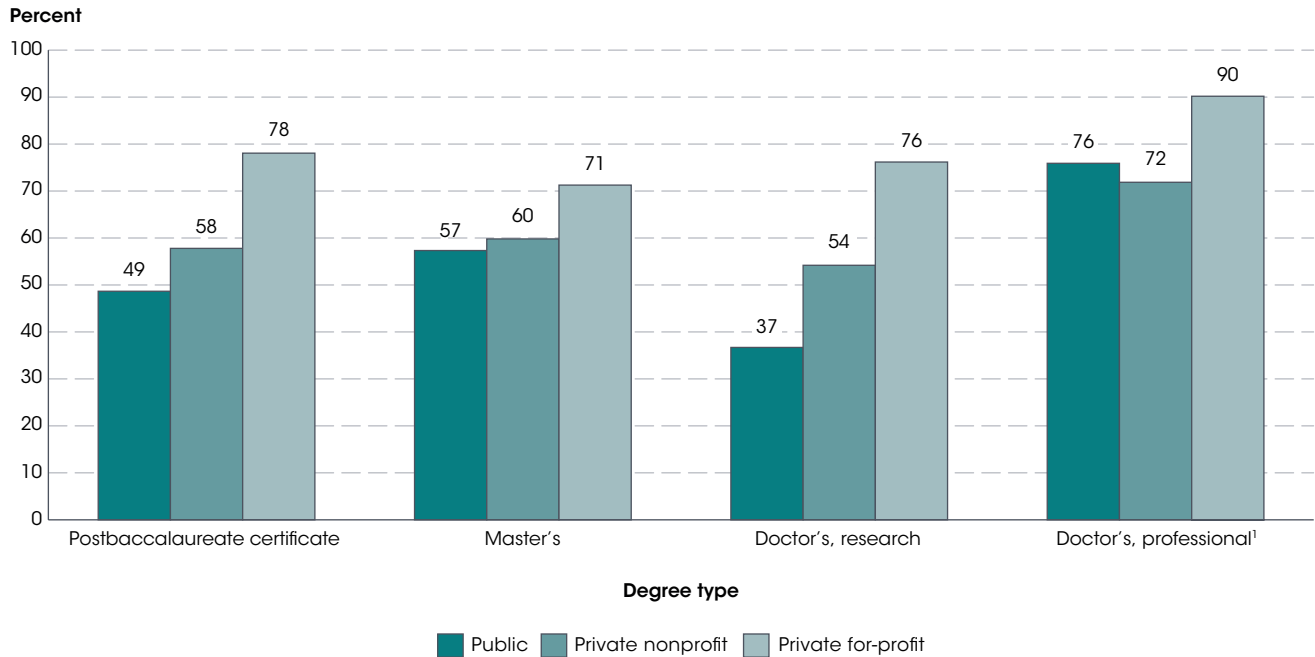
NOTE: Data refer to students who completed graduate degrees in the academic years indicated. Includes student loans for undergraduate and graduate studies. Average excludes students with no student loans. Constant dollars are based on the Consumer Price Index, prepared by the Bureau of Labor Statistics, U.S. Department of Labor, adjusted to an academic-year basis.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1999–2000, 2003–04, 2007–08, 2011–12, and 2015–16 National Postsecondary Student Aid Study (NPSAS:2000, NPSAS:04, NPSAS:08, NPSAS:12, and NPSAS:16). See *Digest of Education Statistics 2017*, table 332.45.

Among students who completed doctorates in 2015–16 and had student loans, average loan balances were highest for those completing medical doctorates (\$246,000) and other health science doctorates (\$202,400). In comparison, average loan balances were \$145,500 for law degree completers, \$132,200 for completers of doctorates in an “other” (non-Ph.D.) field, \$111,900 for education doctorate completers, and \$98,800 for those who completed Ph.D.’s (excluding those who completed Ph.D.’s in education).

Average loan balances (in constant 2016–17 dollars) for students who completed a research or professional doctorate increased between 1999–2000 and 2015–16 for

all degree programs for which reporting standards were met in both years.<sup>11</sup> Average loan balances approximately doubled for completers of “other” (non-Ph.D.) doctorates (from \$64,500 to \$132,200, an increase of 105 percent), Ph.D.’s outside the field of education (from \$48,400 to \$98,800 an increase of 104 percent), and medical doctorates (from \$124,700 to \$246,000, an increase of 97 percent). In addition, average loan balances increased by 77 percent for law degree completers (from \$82,400 to \$145,500) and by 75 percent for other health science doctorate completers (from \$115,500 to \$202,400). The average loan balance for education doctorate completers in 2015–16 (\$111,900) was 66 percent higher than in 2003–04 (\$67,300).

**Figure 7. Percentage of graduate school completers with student loans, by degree type and control of institution: 2015–16**

<sup>1</sup> Includes chiropractic, dentistry, law, medicine, optometry, pharmacy, podiatry, and veterinary medicine.

NOTE: Data refer to students who completed graduate degrees in 2015–16. Includes student loans for undergraduate and graduate studies. Although rounded numbers are displayed, the figures are based on unrounded estimates.

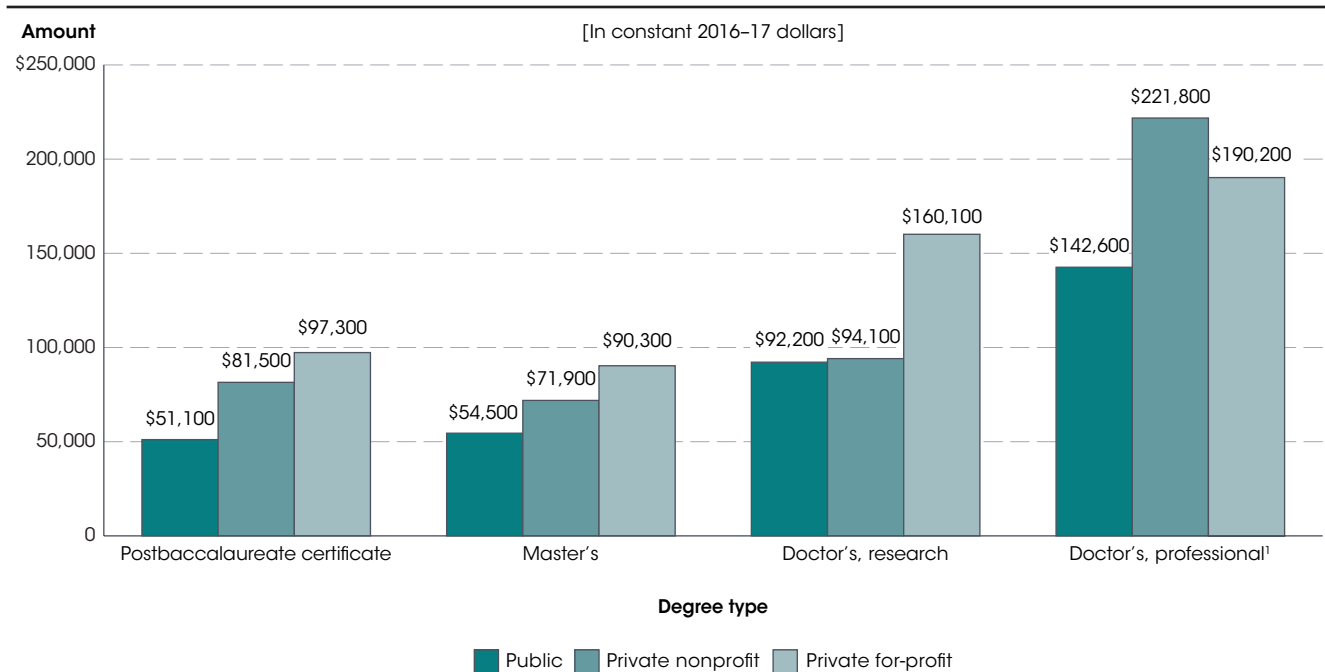
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2015–16 National Postsecondary Student Aid Study (NPSAS:16). See *Digest of Education Statistics 2017*, table 332.45.

NPSAS data also shed light on how the student loan debt of graduate school completers varied by the control of the institution (public, private nonprofit, or private for-profit) attended.<sup>12</sup> For students who completed a postbaccalaureate certificate in 2015–16, the percentage who had student loans was higher for those who attended private for-profit institutions (78 percent) than for those who attended private nonprofit (58 percent) and public (49 percent) institutions. Similarly, the percentage of master's degree completers who had student loans was higher for those who attended private for-profit institutions (71 percent) than for those who attended private nonprofit (60 percent) and public (57 percent) institutions. Among students who completed a research doctorate, the percentage who had student loans was higher for those who attended private for-profit institutions (76 percent) than for those who attended private nonprofit institutions (54 percent), and both percentages, in turn, were higher than the percentage for those who attended public institutions (37 percent). Among students who completed a professional doctorate,

the percentage who had student loans was higher for those who attended private for-profit institutions (90 percent) than for those who attended public (76 percent) and private nonprofit (72 percent) institutions.

The percentage of master's degree completers who had student loans was higher in 2015–16 than in 1999–2000 for those who attended public institutions (57 vs. 44 percent) and private nonprofit institutions (60 vs. 51 percent), but not measurably different for those who attended private for-profit institutions. For the other degree types (postbaccalaureate certificate, research doctorate, and professional doctorate), there were no measurable differences between the percentages of students at public or private nonprofit institutions who had student loans in 2015–16 and the percentages who had student loans in 1999–2000. For private for-profit institutions, the complete time series data for completers of postbaccalaureate certificates, research doctorates, and professional doctorates did not meet reporting standards.



**Figure 8. Average cumulative loan balance for graduate school completers, by degree type and control of institution: 2015–16**

<sup>1</sup> Includes chiropractic, dentistry, law, medicine, optometry, pharmacy, podiatry, and veterinary medicine.

NOTE: Data refer to students who completed graduate degrees in 2015–16. Includes student loans for undergraduate and graduate studies. Average excludes students with no student loans. Constant dollars are based on the Consumer Price Index, prepared by the Bureau of Labor Statistics, U.S. Department of Labor, adjusted to an academic-year basis.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2015–16 National Postsecondary Student Aid Study (NPSAS:16). See *Digest of Education Statistics 2017*, table 332.45.

Among postbaccalaureate certificate completers in 2015–16 who had student loans, the average balance was higher for those who attended private for-profit institutions (\$97,300) than for those who attended public institutions (\$51,100), but neither was measurably different from the average balance for those who attended private nonprofit institutions (\$81,500). Among master's degree completers who had student loans, the average balance was higher for those who attended private for-profit institutions (\$90,300) than for those who attended private nonprofit institutions (\$71,900), and both were higher than the average balance for those who attended public institutions (\$54,500). For students who completed a research doctorate and had student loans, the average balance was higher for those who attended private for-profit institutions (\$160,100) than for those who attended private nonprofit (\$94,100) and public (\$92,200) institutions. For students who completed a professional doctorate and had student loans, the average balances for those who attended private nonprofit (\$221,800) and private for-profit (\$190,200) institutions were not measurably different, but both were higher than the average student loan balance for those who attended public institutions (\$142,600).

Average student loan balances were 57 percent higher in 2015–16 than in 1999–2000 for postbaccalaureate

certificate completers who attended public institutions (\$51,100 vs. \$32,600, in constant 2016–17 dollars), but trend data for those who attended private nonprofit and private for-profit institutions did not meet reporting standards. For master's degree completers who had student loans, average loan balances in 2015–16 were higher than in 1999–2000 for those who attended private for-profit institutions (54 percent higher, or \$90,300 vs. \$58,700), private nonprofit institutions (53 percent higher, or \$71,900 vs. \$46,900), and public institutions (49 percent higher, or \$54,500 vs. \$36,700). Among students who completed a research doctorate and had student loans, the average balance was 103 percent higher in 2015–16 than in 1999–2000 for those who attended public institutions (\$92,200 vs. \$45,500), but there was no measurable difference between average balances in 1999–2000 and 2015–16 for those who attended private nonprofit institutions. Among students who completed a professional doctorate and had student loans, the average balance was 107 percent higher in 2015–16 than in 1999–2000 for those who attended private nonprofit institutions (\$221,800 vs. \$107,000) and 64 percent higher in 2015–16 than in 1999–2000 for those who attended public institutions (\$142,600 vs. \$87,200). Trend data on average student loan balances for those who completed research doctorates and professional doctorates at private for-profit institutions did not meet reporting standards.

**Endnotes:**

<sup>1</sup> NPSAS is a nationally representative survey administered every 4 years by the National Center for Education Statistics. This analysis uses data from the 1999–2000, 2003–04, 2007–08, 2011–12, and 2015–16 NPSAS data collections.

<sup>2</sup> An award that requires completion of an organized program of study beyond a bachelor's degree. It is designed for persons who have completed a baccalaureate degree, but does not meet the requirements of a master's degree. Even though teacher preparation certificate programs may require a bachelor's degree for admission, they are considered subbaccalaureate undergraduate programs, and students in these programs are undergraduate students.

<sup>3</sup> A degree awarded for successful completion of a program generally requiring 1 or 2 years of full-time college-level study beyond the bachelor's degree. One type of master's degree, including the master of arts degree, or M.A., and the master of science degree, or M.S., is awarded in the liberal arts and sciences for advanced scholarship in a subject field or discipline and demonstrated ability to perform scholarly research. A second type of master's degree is awarded for the completion of a professionally oriented program, for example, an M.Ed. in education, an M.B.A. in business administration, an M.F.A. in fine arts, an M.M. in music, an M.S.W. in social work, and an M.P.A. in public administration. Some master's degrees—such as divinity degrees (M.Div. or M.H.L./Rav), which were formerly classified as “first-professional”—may require more than 2 years of full-time study beyond the bachelor's degree.

<sup>4</sup> A Ph.D. or other doctor's degree that requires advanced work beyond the master's level, including the preparation and defense of a dissertation based on original research, or the planning and execution of an original project demonstrating substantial artistic or scholarly achievement. Examples of this type of degree may include the following and others, as designated by the awarding

institution: the Ed.D. (in education), D.M.A. (in musical arts), D.B.A. (in business administration), D.Sc. (in science), D.A. (in arts), or D.M. (in medicine).

<sup>5</sup> A doctor's degree that is conferred upon completion of a program providing the knowledge and skills for the recognition, credential, or license required for professional practice. The degree is awarded after a period of study such that the total time to the degree, including both preprofessional and professional preparation, equals at least 6 full-time-equivalent academic years. Some doctor's degrees of this type were formerly classified as first-professional degrees. Examples of this type of degree may include the following and others, as designated by the awarding institution: the D.C. or D.C.M. (in chiropractic); D.D.S. or D.M.D. (in dentistry); L.L.B. or J.D. (in law); M.D. (in medicine); O.D. (in optometry); D.O. (in osteopathic medicine); Pharm.D. (in pharmacy); D.P.M., Pod.D., or D.P. (in podiatry); or D.V.M. (in veterinary medicine).

<sup>6</sup> When comparing graduate student loan debt over time, it is important to note that Direct Subsidized Loans for graduate students were discontinued after academic year 2011–12.

<sup>7</sup> Excludes master of arts in education degrees.

<sup>8</sup> Excludes master of science in education degrees.

<sup>9</sup> Other doctorate (non-Ph.D.) includes science or engineering, psychology, business or public administration, fine arts, theology, and other.

<sup>10</sup> Other health science doctorates include chiropractic, dentistry, optometry, pharmacy, podiatry, and veterinary medicine.

<sup>11</sup> Data for education doctorates in 1999–2000 did not meet reporting standards.

<sup>12</sup> Data by institutional control (public, private nonprofit, or private for-profit) exclude individuals who attended more than one institution for graduate studies.

**Reference tables:** *Digest of Education Statistics 2017*, table 332.45

**Related indicators and resources:** [Graduate Degree Fields](#); [Loans for Undergraduate Students](#); [Postsecondary Certificates and Degrees Conferred](#)

**Glossary:** College, Constant dollars, Consumer Price Index (CPI), Control of institutions, Doctor's degree—professional practice, Doctor's degree—research/scholarship, Master's degree, Postbaccalaureate certificate, Private institution, Public school or institution