Postsecondary Education & Economics Research Center

# The Devil Is in the Details with High Graduate Student Loan Borrowing

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In recent years, broad concerns about student loans have found focus on a new, and perhaps surprising, target: graduate school debt. The introduction of the Graduate PLUS program in 2007 effectively eliminated caps on graduate borrowing, allowing students to borrow up to the full cost of attendance (i.e., the tuition and fees plus living expenses set by colleges) even after they've exceeded the available $20,500 per year in other graduate direct loans. The resulting increase[1] in high loan amounts have contributed to nearly half (47 percent) of all dollars disbursed annually through the federal student loan program going to graduate students, even though graduate students make up just one in five (21 percent) borrowers.

These high debt levels have led to concerns about whether borrowers can afford to repay their loans, whether taxpayers will shoulder high costs for federal loan programs, and how colleges are pricing their graduate programs in the first place. In response to these concerns, there have been bipartisan calls for reforms to federal graduate loan programs, especially by introducing limits to annual and cumulative borrowing.

Many occupations that individuals pursue graduate credentials for, such as law and medicine, are very highly paid on average, and for some graduate borrowers, even six-figure student loan debts may be easily managed. On the other hand, past research has documented that loan levels are often untethered from the earnings prospects of program graduates. When loan levels can reach above $100,000 and as high as $300,000-400,000, a close look at whether programs requiring these levels of debt produce outcomes that justify those costs is even more important.

A new report, along with detailed data, recently released from the Office of the Chief Economist (OCE) at the U.S. Department of Education on borrowing for graduate school based on the Department's administrative data[2] offers a much richer picture than was previously available of who these high-debt borrowers are, how much they borrow, and which institutions and programs are associated with the highest borrowing levels. This detail provides new insights that are important to current policy discussions about reforms to graduate loan programs. Below, we highlight some important insights from these new data, giving some important context for ongoing debates about reform of the federal student loan programs.

## WHICH FIELDS OF STUDY ACCOUNT FOR THE MOST GRADUATE STUDENT LOAN BORROWING?

Master's, professional, and doctoral degree programs for health professions account for nearly half (48 percent) of all annual student loan dollars borrowed by graduate students. Half of this, or about one-fourth of all graduate borrowing, goes to fund professional or doctoral degrees in just four health fields: medicine, pharmacy, dentistry, and osteopathy. These shares have been increasing over time, with borrowing for professional and doctoral medicine programs alone accounting for over $2 billion per year in increased annual graduate borrowing between 2016 and 2023—more than half of the $3.8 billion dollar increase in overall graduate loan volume between those years.[3]

Health professions account for nearly half of all graduate student loans (48 percent). Annual borrowing is dominated by professional and doctoral programs in just four health fields—medicine, pharmacy, dentistry, and osteopathy—which together account for one-fourth of all graduate borrowing.

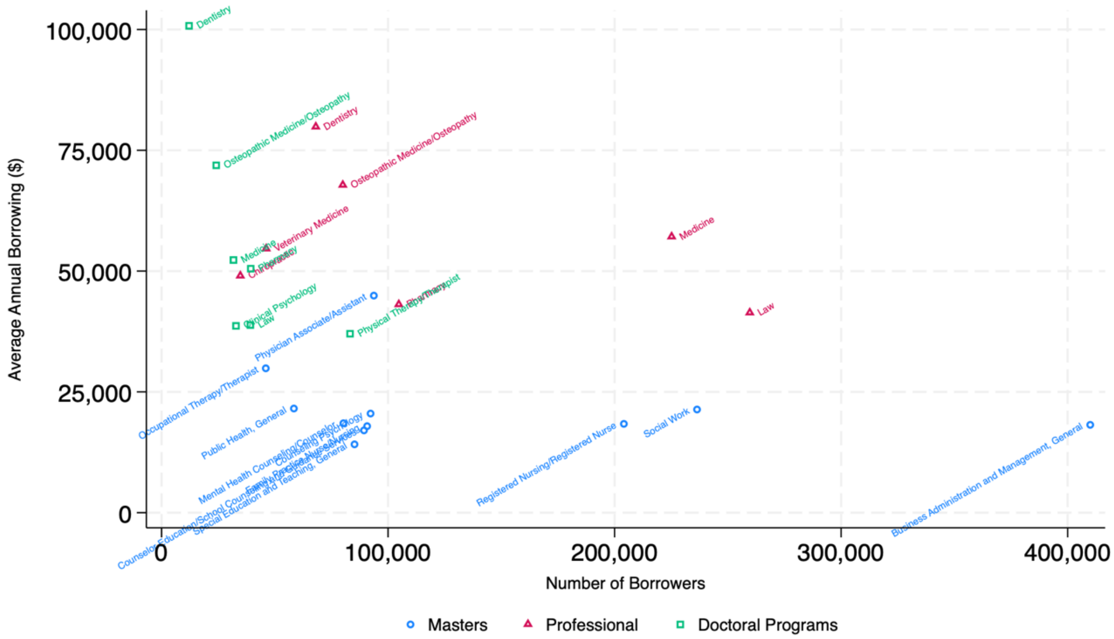
Table 1 below shows the top 25 fields of study ranked by annual graduate loan volume (we use 'field of study' to refer to combinations of credential level (graduate certificates, master's, professional, and doctoral degrees) and 'major', measured at the 6-digit CIP code level).[4] These top 25 programs account for about 47 percent of all graduate student loan borrowers, and 60 percent of all annual graduate borrowing. After health professions, graduate programs in law, business, education, social work and public administration, and psychology programs are the next largest fields in terms of total annual graduate loans disbursed.

### Table 1. Annual Total and Grad PLUS Loan Disbursements, Number and Share of Borrowers, and Share of Total Graduate Loan Volume for the Top 25 Programs by Annual Loan Volume, 2020–2023

| Field | Credential Level | Annual Number of Borrowers | Share of All Borrowers | Avg. Annual Disbursements | 90th Percentile Ann. Disbursements | Share of Annual Disbursements |
|---|---|---|---|---|---|---|
| Medicine | Professional | 56,293 | 4.1% | 57,137 | 91,662 | 8.9% |
| Law | Professional | 64,917 | 4.7% | 41,406 | 73,246 | 7.4% |
| Business Administration and Management | Master's | 102,459 | 7.5% | 18,234 | 32,028 | 5.1% |
| Dentistry | Professional | 17,020 | 1.2% | 79,887 | 126,602 | 3.7% |
| Osteopathy | Professional | 20,001 | 1.5% | 67,831 | 94,342 | 3.7% |
| Social Work | Master's | 59,065 | 4.3% | 21,415 | 38,876 | 3.5% |
| Pharmacy | Professional | 26,177 | 1.9% | 43,118 | 69,457 | 3.1% |
| Physician Associate/Assistant | Master's | 23,392 | 1.7% | 44,981 | 78,948 | 2.9% |
| Registered Nursing | Master's | 50,990 | 3.7% | 18,434 | 33,632 | 2.6% |
| Physical Therapy | Doctoral | 20,770 | 1.5% | 37,095 | 69,090 | 2.1% |
| Veterinary Medicine | Professional | 11,543 | 0.8% | 54,649 | 84,077 | 1.7% |
| Pharmacy | Doctoral | 9,810 | 0.7% | 50,561 | 80,600 | 1.4% |
| Counseling Psychology | Master's | 23,033 | 1.7% | 20,575 | 39,148 | 1.3% |
| Osteopathy | Doctoral | 5,997 | 0.4% | 71,948 | 108,571 | 1.2% |
| Chiropractic | Professional | 8,690 | 0.6% | 49,042 | 78,615 | 1.2% |
| Medicine | Doctoral | 7,907 | 0.6% | 52,353 | 83,743 | 1.1% |
| Family Practice Nurse/Nursing | Master's | 22,651 | 1.7% | 17,962 | 30,750 | 1.1% |
| Counselor Education | Master's | 22,308 | 1.6% | 17,091 | 26,500 | 1.0% |
| Law | Doctoral | 9,764 | 0.7% | 38,891 | 68,981 | 1.0% |
| Mental Health Counseling | Master's | 20,036 | 1.5% | 18,565 | 30,500 | 1.0% |
| Occupational Therapy | Master's | 11,470 | 0.8% | 29,937 | 59,109 | 0.9% |
| Clinical Psychology | Doctoral | 8,178 | 0.6% | 38,709 | 71,238 | 0.9% |
| Public Health, General | Master's | 14,574 | 1.1% | 21,612 | 40,500 | 0.9% |
| Dentistry | Doctoral | 3,002 | 0.2% | 100,826 | 139,516 | 0.8% |
| Special Education and Teaching | Master's | 21,262 | 1.6% | 14,200 | 20,500 | 0.8% |

As Table 1 shows, there are enormous differences in average borrowing levels across fields of study. As a result, the fields with the most overall loan volume aren't necessarily the fields that account for the most borrowers or the highest borrowing levels. Figure 1 below illustrates this among the 25 graduate programs with the largest total annual graduate loan disbursements. Master's in Business Administration (MBA) programs account for nearly as much of the overall graduate loan volume as the professional and doctoral dentistry programs (which account for 5.1 and 4.6 percent of volume, respectively) do. But MBA programs have relatively low annual average borrowing levels—close to $18,200, below the graduate loan limit where borrowers would need to tap into Grad PLUS loans. This is roughly one-fifth the typical annual loan amount of dentistry programs, which have one of the highest borrowing rates of all programs at over $100,000 per year for doctoral programs and about $80,000 a year for professional programs. Still, MBA and dentistry programs account for similar shares of overall graduate loan volume, because there are more than five times as many borrowers pursuing MBAs as advanced dentistry degrees.

**Figure 1. Average Annual Borrowing and the Number of Annual Borrowers for the 25 Largest Fields of Study by Annual Loan Volume (by Credential Type and Field)**




These patterns are important for thinking about how loan limits might impact borrowers in different fields, especially when linked to one further fact about graduate borrowing: There is incredible variation in annual borrowing levels not only across fields, but also among borrowers within the same field of study. Table 1 shows that in most fields, there are a substantial number of borrowers with loans that far exceed the median in the field. For example, in MBA programs the 90th percentile of borrowing is just over $32,000—or about double the median amount of $16,200. Similarly, in professional medicine programs, 10 percent of borrowers have annual loans over $91,662—74 percent higher than the median amount—and for registered nursing master's programs, borrowers in the highest 10 percent of disbursements have annual loans more than twice the level of the median. As discussed further below, this heterogeneity means loan caps could 'bite' for very different types of fields, cutting off current borrowing levels in fields with relatively few borrowers but where typical borrowing amounts are very high (the top left of Figure 1), and also in fields with low typical borrowing amounts but large numbers of borrowers in the tails of the borrowing distribution for that field.

## FROM WHERE DO HIGH-BALANCE (TOTAL GRADUATE DEBT OVER $100,000) BORROWERS GRADUATE?

From 2020 to 2023, a lower bound estimate is that 60,000 completers per year—more than one in five of all graduate program completers—finished a graduate program with over $100,000 in graduate debt (even excluding any loans from their undergraduate studies). Table 2 below shows the 50 fields of study that each account for at least 100 high-debt completers per year. As expected, many of these 'high-debt borrowers' obtained degrees where typical borrowing levels are very high: For example, about nine in 10 graduates of professional programs in medicine, dentistry, and osteopathy have six-figure graduate debts, with the typical completer left with well above $200,000 in debt (and 10 percent of borrowers with over $350,000) in each program. Professional law school programs produce the most high-debt borrowers per year even though their median debt is only slightly above $100,000, since so many students earn the credential each year.

Perhaps surprisingly, though, many high-debt borrowers come from programs of study where typical borrowing levels are low. For example, most MBA graduates borrow less than the unsubsidized graduate loan limit of $41,000. But since so many students pursue that degree, there are many borrowers in the extreme tail of the borrowing distribution: Over 1,700 M.B.A. completers have debt over $100,000. Similarly, Master's in Social Work (MSW) graduates have median borrowing levels of $41,000, but more than 1,400 graduates each year leave their programs with over $100,000 in graduate debt.

### Table 2: Cumulative Graduate Borrowing for the 50 Fields of Study Producing the Most Completers with Over $100,000 in Graduate Debt

| Field | Credential Level | Ann. # Graduates w/Debt Over $100k | Ann. # of Graduates | Median Cumulative Debt | 90th Percentile Cumulative Debt | Median Unsubsidized Graduate Debt | 90th Percentile Unsubsidized Graduate Debt | Median PLUS Debt | 90th Percentile PLUS Debt |
|---|---|---|---|---|---|---|---|---|---|
| Law | Professional | 10,555 | 18,193 | 115,780 | 211,341 | 61,500 | 71,750 | 54,990 | 147,959 |
| Medicine | Professional | 8,656 | 9,916 | 205,749 | 368,910 | 162,000 | 182,000 | 38,427 | 223,986 |
| Pharmacy | Professional | 4,174 | 5,766 | 136,320 | 245,320 | 112,500 | 140,334 | 21,220 | 116,861 |
| Dentistry | Professional | 3,235 | 3,425 | 280,394 | 455,171 | 175,334 | 188,527 | 110,900 | 279,131 |
| Osteopathy | Professional | 2,591 | 2,779 | 279,693 | 353,290 | 175,332 | 188,668 | 104,448 | 177,607 |
| Physician Associate | Master's | 2,518 | 3,972 | 122,879 | 179,625 | 61,500 | 72,895 | 62,822 | 116,102 |
| Physical Therapy | Doctoral | 2,172 | 4,348 | 99,993 | 189,500 | 61,500 | 82,000 | 34,477 | 121,096 |
| Business Administration and Management | Master's | 1,729 | 23,258 | 39,741 | 87,406 | 36,620 | 61,500 | 0 | 33,598 |
| Veterinary Medicine | Professional | 1,666 | 1,965 | 177,984 | 329,462 | 132,621 | 170,388 | 24,049 | 221,747 |
| Pharmacy | Doctoral | 1,501 | 1,867 | 171,118 | 263,854 | 121,953 | 152,938 | 46,300 | 130,015 |
| Chiropractic | Professional | 1,415 | 1,492 | 204,107 | 269,352 | 154,000 | 187,000 | 44,175 | 102,724 |
| Social Work | Master's | 1,399 | 16,577 | 41,000 | 94,006 | 41,000 | 61,500 | 0 | 42,196 |
| Law | Doctoral | 1,315 | 2,513 | 104,343 | 195,610 | 61,500 | 61,500 | 46,288 | 133,622 |
| Medicine | Doctoral | 801 | 985 | 183,538 | 306,864 | 162,232 | 179,778 | 28,276 | 138,922 |
| Physical Therapy/Therapist | Professional | 789 | 1,424 | 109,976 | 187,192 | 61,500 | 81,728 | 45,934 | 119,281 |
| Registered Nursing | Master's | 706 | 8,255 | 48,211 | 92,174 | 44,805 | 68,421 | 0 | 34,498 |
| Occupational Therapy | Master's | 606 | 2,553 | 61,500 | 135,096 | 51,000 | 71,750 | 7,544 | 74,250 |
| Optometry | Professional | 577 | 634 | 189,534 | 274,324 | 171,041 | 178,501 | 24,564 | 99,218 |
| Counseling Psychology | Master's | 537 | 3,208 | 56,644 | 125,695 | 51,602 | 75,710 | 0 | 63,031 |
| Management Science | Master's | 510 | 2,113 | 46,000 | 156,516 | 35,160 | 51,250 | 11,196 | 111,590 |
| Osteopathy | Doctoral | 497 | 588 | 253,358 | 380,851 | 173,111 | 188,668 | 99,170 | 195,071 |
| Occupational Therapy | Doctoral | 407 | 728 | 108,421 | 183,897 | 61,500 | 82,000 | 37,774 | 109,500 |
| Dentistry | Doctoral | 345 | 361 | 409,274 | 510,003 | 177,554 | 212,751 | 229,976 | 332,447 |
| Nursing Practice | Doctoral | 332 | 1,169 | 65,541 | 166,968 | 56,200 | 85,417 | 0 | 91,780 |
| Counselor Education | Master's | 268 | 4,304 | 46,523 | 85,516 | 41,000 | 68,000 | 0 | 23,218 |
| Clinical Psychology | Master's | 262 | 800 | 71,356 | 170,796 | 54,666 | 122,074 | 955 | 84,747 |
| Public Health, General | Master's | 250 | 3,224 | 45,100 | 93,790 | 41,000 | 70,167 | 0 | 31,801 |
| Speech-Language Pathology | Master's | 242 | 1,915 | 51,250 | 106,790 | 41,000 | 57,971 | 5,448 | 58,000 |
| Nurse Anesthetist | Master's | 241 | 417 | 112,626 | 181,761 | 61,500 | 80,828 | 51,126 | 105,442 |
| Veterinary Medicine | Doctoral | 237 | 279 | 169,510 | 283,782 | 158,402 | 175,240 | 8,963 | 121,249 |
| Mental Health Counseling | Master's | 213 | 2,361 | 55,000 | 96,800 | 51,250 | 81,020 | 0 | 28,839 |
| Biomedical Sciences, General | Master's | 212 | 1,505 | 51,559 | 119,876 | 23,000 | 53,500 | 23,345 | 62,196 |
| Family Practice Nurse | Master's | 207 | 4,140 | 51,250 | 82,750 | 49,073 | 73,750 | 0 | 16,328 |
| Nurse Anesthetist | Doctoral | 204 | 296 | 142,676 | 219,250 | 71,060 | 82,000 | 73,633 | 147,000 |
| International Relations and Affairs | Master's | 202 | 1,061 | 51,250 | 123,675 | 41,000 | 55,250 | 6,996 | 80,000 |
| Clinical Psychology | Doctoral | 190 | 268 | 159,289 | 332,274 | 123,889 | 195,619 | 23,000 | 166,479 |
| Business/Commerce | Master's | 180 | 1,786 | 41,000 | 100,373 | 40,251 | 61,500 | 0 | 51,009 |
| Optometry | Doctoral | 176 | 208 | 189,580 | 278,225 | 175,334 | 204,675 | 15,000 | 91,968 |
| Marriage and Family Therapy | Master's | 172 | 897 | 61,500 | 129,896 | 51,250 | 82,000 | 0 | 67,746 |

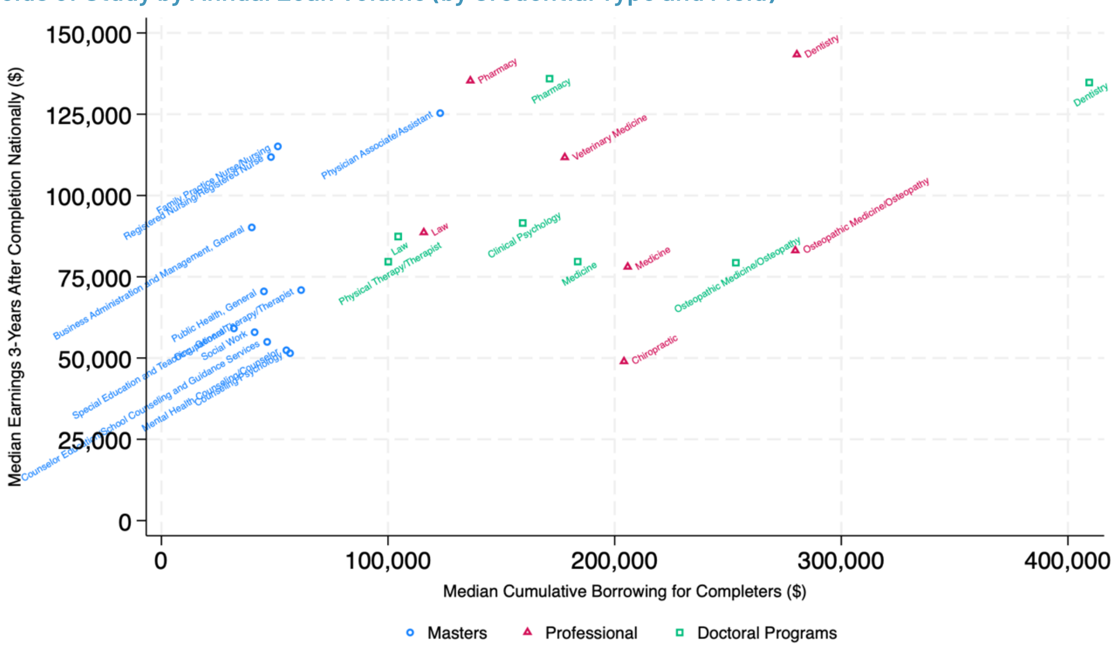
**Table 2: Cumulative Graduate Borrowing for the 50 Fields of Study Producing the Most Completers with Over $100,000 in Graduate Debt** (Continued)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Health Care Administration/ Management | Master's | 170 | 3,629 | 41,000 | 78,700 | 39,528 | 66,000 | 0 | 17,388 |
| Public Administration | Master's | 163 | 3,418 | 41,000 | 79,369 | 38,794 | 61,500 | 0 | 24,024 |
| Audiology and Speech-Language Pathology | Master's | 158 | 1,175 | 44,000 | 111,440 | 41,000 | 61,500 | 0 | 62,080 |
| Architectural and Building Sciences/Technology | Master's | 148 | 844 | 45,500 | 125,015 | 41,000 | 61,500 | 733 | 70,410 |
| Management Sciences and Quantitative Methods | Master's | 128 | 1,148 | 40,002 | 106,689 | 20,500 | 41,000 | 3,848 | 71,743 |
| Cinematography and Film/ Video Production | Master's | 123 | 239 | 102,210 | 207,669 | 60,224 | 82,000 | 46,408 | 135,349 |
| Acupuncture and Oriental Medicine | Master's | 119 | 253 | 93,507 | 216,590 | 78,714 | 121,953 | 0 | 116,198 |
| Nursing Science | Master's | 118 | 476 | 61,500 | 132,873 | 49,239 | 61,500 | 2,500 | 76,342 |
| Psychology | Master's | 114 | 2,149 | 40,772 | 80,355 | 37,857 | 61,500 | 0 | 23,213 |
| Biological and Biomedical Sciences | Master's | 107 | 580 | 51,250 | 134,526 | 31,640 | 66,178 | 15,000 | 70,027 |
| Educational Leadership and Administration | Doctoral | 107 | 565 | 61,500 | 128,721 | 55,658 | 90,462 | 0 | 55,715 |

## DO THE FIELDS WITH HIGH DEBTS LEAD TO HIGH EARNINGS?

Whether high borrowing is concerning depends in part on borrowers' subsequent earnings—do borrowers get a return on the loan dollars invested in their education, and can they afford to repay their loans? In most fields with the highest borrowing levels—dentistry, pharmacy, veterinary medicine—graduates have very high median earnings, at least over longer time horizons. Figure 2 below shows the relationship between median cumulative borrowing (on the x-axis) and median earnings 3 years after completion (on the y-axis), among graduates in various fields (regardless of the institution they attended) for the top 25 programs ranked by annual loan volume. It is worth noting here that, for some graduate fields, earnings measured 3 years after graduation can be a poor proxy for longer-term earnings. That is most especially true for professional and doctoral programs in medicine and osteopathy, where median earnings 10 years after graduation are typically more than double the level measured at 3 years, when many graduates are likely to be in residency programs.[5]

**Figure 2. Field of Study-Level Median Earnings and Cumulative Borrowing Among Completers for the 25 Largest Fields of Study by Annual Loan Volume (by Credential Type and Field)**



With that in mind, the high debt levels that are typical in the largest professional and doctoral fields of study do for the most part seem supported by higher earnings levels—with chiropractic programs being a potential outlier.

> Across the largest master's fields there are large differences in earnings outcomes but relatively little variation in typical borrowing levels.

At the same time, Figure 2 shows that across the largest master's fields there are large differences in earnings outcomes but relatively little variation in typical borrowing levels: Median cumulative borrowing across all programs shown is close to or a bit over $41,000—what a student borrowing the graduate direct loan maximum of $20,500 would accumulate over two years. Among these same fields, median earnings range from just over $50,000 in some counseling fields to more than double for some nursing fields, with pay over $110,000.

## HOW MUCH VARIATION IS THERE ACROSS PROGRAMS AT DIFFERENT INSTITUTIONS WITHIN A FIELD?

Typical borrowing levels can vary dramatically across the same programs offered by different schools. Take law (J.D.) programs as an example. As Table 2 above shows, among all graduates in the field, the median borrower finished with about $115,000 in debt. Among the 197 law programs in the data, however, 20 programs had median debt at least $50,000 less than the overall median (i.e., under $65,000). At the other end of the distribution, 17 programs had median debt levels that were at least $50,000 higher (i.e., over $165,000).

Across fields, Figure 2 shows there is a positive correlation between borrowing levels and the earnings of degree completers. Within fields, however, the differences in borrowing levels across completers from different schools are often only weakly related to the earnings outcomes of graduates. Figures 3a. and 3b. show examples of these relationships for law (J.D.) and social work (MSW) programs. In the Figures, the top 10 ranked programs (based on *U.S. News and World Report*) are shown in blue (solid) circles, and other programs are color coded by the control of the institution. As shown by the regression line through the markers in each figure (which excludes the top 10 programs), there is a very weak correlation between cumulative borrowing levels and median earnings in either field.[6]

### Figure 3a. Median Debt and Median Earnings Three Years Post-Completion for Law School Programs

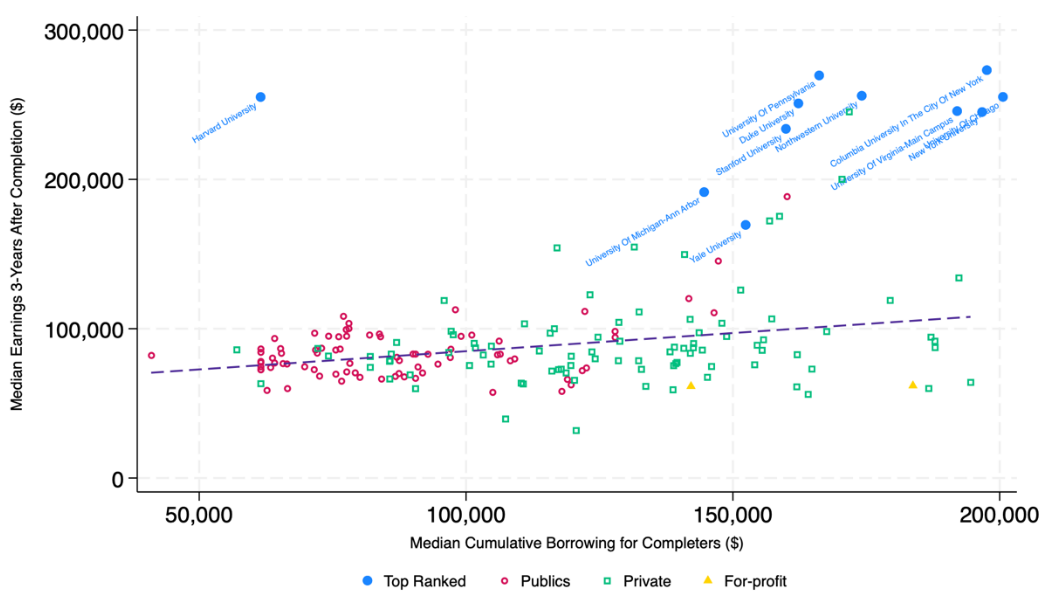
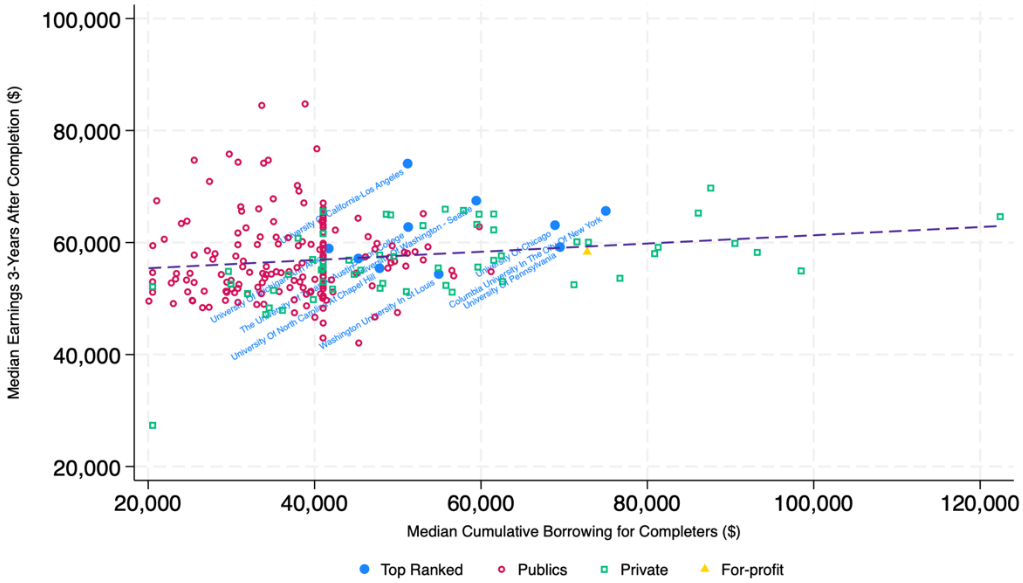


**Figure 3b. Median Debt and Median Earnings Three Years Post-Completion for Social Work Programs**




Note that in Figures 3a and 3b, most of the public-college programs (in red circles) are to the left of most of the programs offered by private nonprofit and for-profit programs—i.e., their debt levels are generally lower. This is not limited to these two examples. In most fields, graduates from public programs have significantly less debt than those in private nonprofit programs. On average, among master's programs, graduates of programs from private nonprofit institutions have about 45 percent more graduate debt ($17,760 more) than those from public institutions. For professional programs, private nonprofit institution graduates have an average of 18 percent more debt ($27,150) than those from public universities.[7] Private for-profit-run master's programs have slightly higher, at 9 percent, debt levels compared to public programs, but differences in cumulative borrowing among other graduate credential levels are not statistically significant.

On average, graduates of master's degree programs from private nonprofit institutions have about 45 percent more graduate debt than those from public institutions.

## HOW MUCH VARIATION IS THERE IN DEBT LEVELS ACROSS STUDENTS WITHIN THE SAME PROGRAMS?

The median borrowing figures published for individual programs, e.g. in the College Scorecard, often mask a great deal of heterogeneity in borrowing amounts across graduates of that program. Take, for instance, MBA and law school programs at specific institutions, shown in Figures 4a and 4b, respectively. Across all MBA programs, the top 10 percent of borrowers take on an average of 75 percent higher debt levels than the median borrower at their same law program, and in some places (e.g., the University of Michigan or the University of Virginia) as much as double or more of the typical debt load. For law schools, the top 10 percent of borrowers take on an average of 60 percent more debt than the median borrower. This underscores again that even in schools where borrowing is reasonable for the typical borrower, some students might have very high levels of debt.

**Figure 4a. Median and 90th Percentile of Borrowing at the 25 Largest MBA Programs by Federal Graduate Loan Volume**

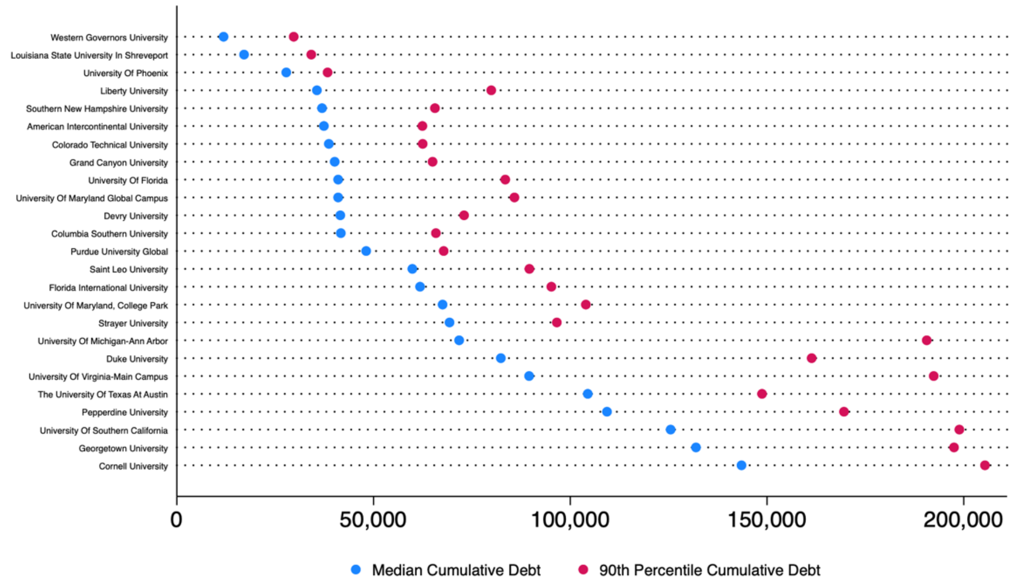
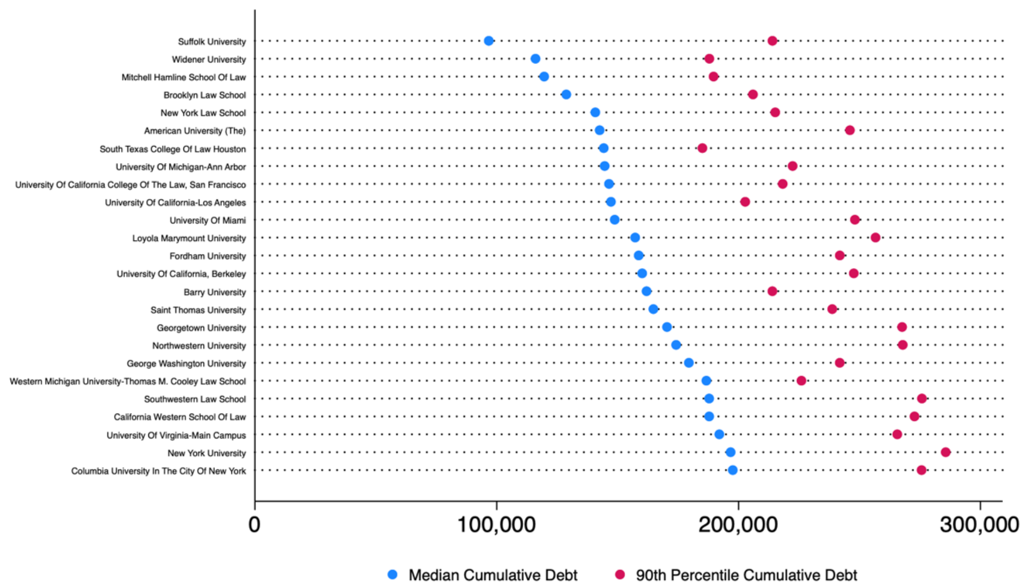



**Figure 4b. Median and 90th Percentile of Borrowing at the 25 Largest Law Schools by Federal Graduate Loan Volume**




## IMPLICATIONS FOR EFFORTS TO REIN IN HIGH DEBTS

In a forthcoming companion report, we will dive more deeply into how policymakers could consider alternative limits to graduate borrowing. In that report, we will discuss both how different rationales or goals for setting borrowing limits may lead lawmakers to different policies, and present estimates of the impact of such policy options.

The data presented above hint at how complicated an endeavor designing graduate loan limits could be. In particular, they show that debt varies tremendously across fields, but also within fields across programs from different schools, and even across borrowers from the same program. These facts have important implications for the likely impact of recent proposals to set graduate borrowing limits.

- **Uniform loan limits, or limits varying only by credential type, would have very different impacts on different fields.**

  The *Lowering Education Costs and Debt Act* introduced by Sen. Cassidy (R-LA) and others would set annual borrowing limits of at $40,500 for professional degree students and $20,500 for all other students, and set aggregate graduate loan limits of $130,000 for professional degree students and $65,000 for all other graduate students.

  These limits would have dramatic impacts on federal loan availability for graduate students. The data used throughout this report allow us to estimate the share of borrowers with aggregate debt over $125,000 for professional students and over $65,000 for all other graduates. Using this approximation, which will slightly underestimate the bite of this proposed limit for professional programs, from 2020 to 2023, about 56 percent of graduate degree earners borrowed more than these limits.

  But there are also large differences in the impact of the limits across fields. About 31 percent of MBA graduates borrow in excess of $65,000, while 67 percent of Master's in Clinical Psychology graduates do. For professional or doctoral programs in pharmacy and medicine, 72 percent and 83 percent of graduates, respectively, would see their access to federal loans curtailed by these limits. As these examples illustrate, uniform loan limits may prevent some students from pursuing very high-earning fields where they are likely to be able to repay their debts. In addition, uniform loan limits may also allow programs in low-earning fields to maintain prices and typical debt loads that are relatively high compared to their graduates' typical earnings, provided they stay under those loan limits.

- **Limits that are field-specific will target high borrowing programs at schools within each field, likely impacting programs at private and for-profit schools more than those at public schools.**

  As an example, the *College Cost Reduction Act* introduced by Rep. Foxx (R-NC) would set annual loan limits equal to the median cost of attendance (COA) for all students in a particular field of study, in addition to setting aggregate limits of $150,000 for professional students and $100,000 for all other graduate students. Unfortunately, program-level cost of attendance data does not currently exist to be able to accurately assess the impact of such a loan limit policy for most programs. Using data on full-time students from the 2020 National Postsecondary Student Aid Study give a sense of the annual caps. Those data show the median cost of attendance is about $28,000 for students in master's programs, $41,000 for students in doctoral programs, and $64,000 for students in professional programs.

  Compared to the Cassidy bill, the Foxx bill sets higher aggregate limits, and the NPSAS figures suggest higher annual loan limits as well, meaning it would have less "bite," on average. Still, within each field, the median cost of attendance (and thus the loan limits) is likely to be dictated by the lower COA of public colleges, where the majority of graduate students are enrolled. That will tend to reduce access to federal loans more in programs offered by private institutions. A recent analysis by Kristen Blagg also highlights that such limits will bind more in states with higher levels of borrowing. Since the correlation between earnings levels and borrowing tends to be modest within fields of study, field-specific loan limits will not systematically restrict credit at programs with high earnings, but nor will it target restrictions to programs where borrowers are likely to struggle to repay their student loans.

- **Finally, any type of loan limit may have different impacts on different groups of students.** Even at programs where typical borrowing levels fall below newly introduced loan limits, the data in this report shows many students will face reduced access to credit. Some borrowers who lose access to credit may find it difficult to obtain credit in the private market and, in the absence of other steps to improve affordability, may see their access to graduate programs reduced. Unfortunately, we lack data on borrowing by race/ethnicity, family income, or other demographics within graduate programs to enable a deeper understanding of which borrowers would be most affected by loan limits.

## ENDNOTES

1 Looney and Yannelis (2019) show that the prevalence of high debt levels among borrowers entering repayment started to increase just as Graduate PLUS was created in 2005.

2 The author served as Chief Economist through February of 2024 and was involved in the production of these data and an OCE working paper summarizing the data. This short report reflects the personal views of the authors and not necessarily those of the U.S. Department of Education.

3 Overall loan volume for DL Unsubsidized Graduate Loans and Graduate PLUS are from the Federal Student Aid Data Center Loan Volume reports (https://studentaid.gov/data-center/student/title-iv).

4 For more details about the Classification of Instructional Programs (CIP) system, see https://nces.ed.gov/IPEDS/CIPCODE/resources.aspx?y=56.

5 For example, the Post-Secondary Employment Outcomes (PSEO) data from the U.S. Census Bureau allows a comparison of earnings measured 1, 5, and 10 years post-completion for many graduate programs (although the data are not as comprehensive as those used here, and generally limited to public institutions in participating states).

6 Including the top 10 programs for law leads to a much higher estimated relationship between earnings and debt since these programs are generally outliers in both dimensions, as shown in the Figure. The relationship shown in the Figure is estimated using the remaining 187 programs in the data. For social work, as can be seen in Figure 3b, omitting the top programs has little impact on the estimated (lack of) relationship. Note that in some fields—MBA programs are an example—there is a stronger correlation between debt and earnings levels, but that such fields are relatively rare among the largest programs by overall loan volume.

7 These differences are slightly influenced by differences in the composition of programs offered by public and private institutions. Averaging over differences within CIP codes suggests a slightly lower difference for master's programs (about 34 percent higher debt at privates) and a higher difference among professional programs (40 percent higher debt at private institutions).