

Monograph

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Practical Information for Student Aid Professionals

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Financing Graduate and Professional Education: 2003-2004

This monograph reviews the demographic characteristics, financial aid awards, loan indebtedness, and loan repayment debt burdens of students who enrolled in and graduated from master's, doctoral, and professional degree programs during the 2003-2004 school year. The information provides answers to several key questions about student financing of graduate/professional education, such as: What resources do students in law, medicine, business, and other graduate and professional degree programs use to pay for college? How many of these students borrow, and what is their cumulative student loan debt after completing degrees? And what effect might post-collegiate debt burdens have on students' career choices?

Introduction

Students and families trying to finance master's, doctoral, and professional school programs face a daunting challenge. Since 1996, the total annual cost of attending graduate/professional schools full-time has grown 65%, and now averages nearly \$28,900, according to the National Center for Education Statistics (NCES).

Paying for graduate/professional education is particularly difficult because many students have low incomes and because opportunities for grants are few. Students in law, medicine, and other programs have average annual incomes of less than \$25,000, according to NCES data. Further, the largest federal grant program, Federal Pell Grants, focuses exclusively on undergraduates, and less than 20% of all graduate/professional students receive scholarships, fellowships, or assistantships. Many students, understandably, have to come up with creative ways to fund their programs. One student, a doctoral candidate at Texas Tech University profiled recently by *U.S. News and World Report*, said she "lived in the ghetto and ate ramen noodles a lot" in order to get by. Other students say they work as tutors or take other jobs or rely on their parents to make ends meet. Some other students use government and private loans to help pay their expenses, and degree recipients in a number of fields typically borrow a total of more than \$50,000 to complete their programs.

Yet, our nation depends greatly on these students to make the financial sacrifice to attend graduate and professional schools. Our economy and society are



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very dependent on the training received by doctors, lawyers, engineers, teachers, and other professionals. Shortages of trained individuals in these areas could reduce our economic growth and have other severe consequences for our health and welfare. In addition, the financial barriers to graduate and professional education could have an enormous influence on the racial/ethnic composition of professionals in many fields. For these reasons, it is important to understand more about the characteristics of students who attend master's, doctoral, and professional programs; the financial aid these students receive to fund their programs; and the students' borrowing and debt burdens after they complete their degrees.

How They Look: Demographic Characteristics of Graduate/Professional Students

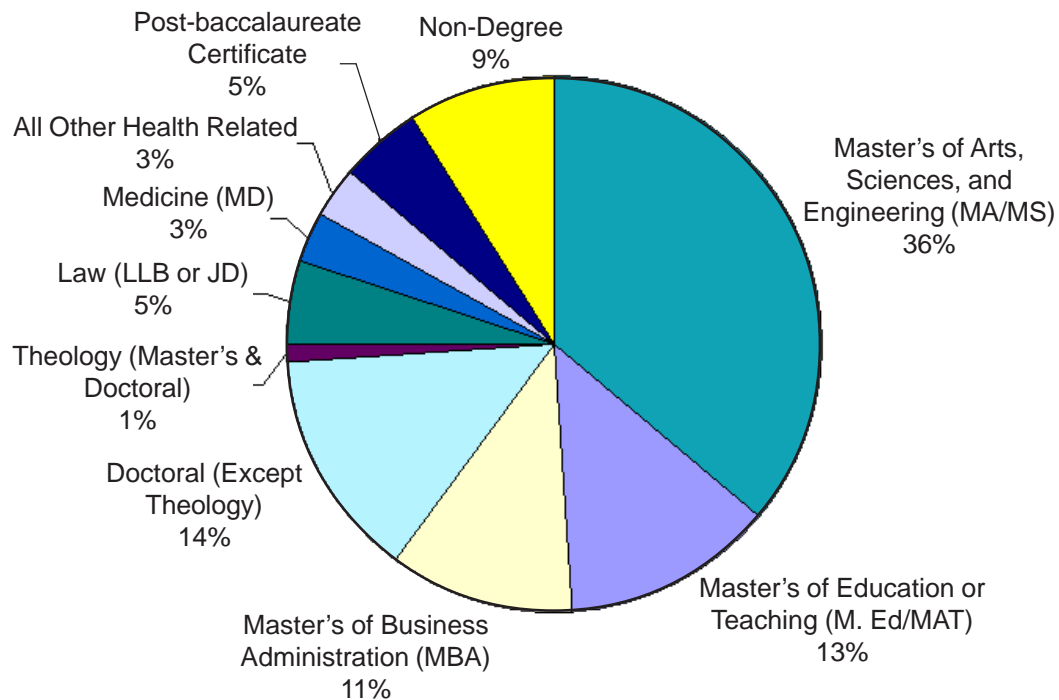
During the 2003-2004 academic year, 2.8 million students were enrolled in graduate and professional school programs, according to the National Postsecondary Student Aid Study.

During the 2003-2004 academic year, 2.8 million students were enrolled in graduate and professional school programs, according to the National Postsecondary Student Aid Study, sponsored by NCES (see the Appendix to this monograph for more information about NPSAS). "Graduate" students are those enrolled in programs that lead to post-baccalaureate certificates, master's degrees, and doctoral degrees in all fields except theology. Master's programs include degrees in arts, sciences, and engineering (hereafter referred to as MA/MS programs), education and teaching (M. Ed/MAT programs), and business administration (MBA). "Professional" students are those seeking degrees in theology (master's and doctoral), medicine (MD) and other health-care related professions (primarily dentistry and veterinary medicine), and law (JD and LLB).

About 36% of all graduate/professional students were enrolled in MA/MS programs, while 14% pursued doctorates, 13% were seeking M. Ed/MAT degrees, and 11% attended MBA programs (see Figure 1). Only 5% of all students attended law schools, and just 3% were in medical programs. Roughly 5% were in programs leading to post-baccalaureate certificates. In total, about 79% of all students were enrolled in graduate degree or certificate programs, 12% were pursuing professional degrees, and 9% were enrolled in non-degree programs. Students in non-degree programs may have been enrolled for personal enrichment or may have taken courses to fulfill job-related obligations that did not require earned degrees or certificates.

While students in post-baccalaureate programs come from various backgrounds and circumstances, they share some general characteristics. Those seeking certificates and master's degrees tend to be 33 years old or older, married or unmarried with children under 18 years old, and enrolled part-time. These students generally work at least part-time during the academic year and consider their jobs to be their primary responsibilities. They attend graduate schools to fulfill employment requirements, to advance in their current occupations, or to gain entry into new fields. Doctoral and professional students generally are 27 years old or younger, are unmarried and have no children, and tend to be enrolled in school full-time. These students consider schooling to be their primary responsibility and may work part-time to help pay their educational costs. In 2003-2004, the majority (roughly two-thirds) of graduate and professional students were White non-Hispanic and female, and most were pursuing master's degrees in education, business, and other fields. However, a somewhat higher share of racial/ethnic minority students (African Americans, Asian Americans/Pacific Islanders, Latinos, and Native Americans, and students of mixed race or ethnicity) were enrolled in doctoral programs. Tables 1, 2, and 3 provide more details about these general characteristics.

Figure 1.
2003-2004 Graduate/Professional Students by Degree Program*



*Based on total enrollment of 2.8 million students during the 2003-2004 academic year
Source: National Center for Education Statistics, 2004 National Postsecondary Student Aid Study, Graduate/Professional Data Analysis System, May 2005.

Only about one-third of all students in MA/MS and MBA programs were attending full-time during the 2003-2004 academic year, versus 57% of those in doctoral programs, 85% in law schools, and 96% in medical schools (see Table 1). On average, master's degree candidates (MA/MS, M. Ed/MAT, and MBA) were about 33 years old. By contrast medical school enrollees were just over 25 years old on average, and students in law schools and other health-related programs were also generally younger than 30 years old. In total, just 34% of all graduate students were enrolled full-time, compared with 85% of those in professional programs. On average, students in professional programs were about 5 years younger than those in graduate schools (27 years old versus 32 years old).

There were also large differences in the gender and racial composition of students in each of the post-baccalaureate programs. Women represented the vast majority students in certificate and master's of education and teaching programs. Men represented the majority of enrollees in law, theology, and MBA schools. All other programs were relatively evenly divided between men and women. In total, women represent a majority (58%) of graduate/professional enrollment. Racial/ethnic minority students collectively accounted for 32% of total enrollment. The highest shares of minority students were enrolled in other health-related (39%), doctoral (38%), and MBA (36%) programs, while lower proportions were attending M. Ed/MAT (22%), certificate (24%), and law (28%) programs.

The number of women and minority students who entered graduate/professional schools grew sharply over the past decade. From 1995-1996 to 2003-2004, total female enrollment grew from about 1.48 million to 1.64 million, while the

Table 1.
Demographic Characteristics
of 2003-2004 Graduate/Professional Students, by Degree Program

	Pct. Enrolled Full-Time	Pct. Female	Pct. Racial/ Ethnic Minority	Average Age (Years)
Master's of Arts, Sciences, and Engineering (MA/MS)	32%	58%	34%	32.3
Master's of Education or Teaching (M. Ed/MAT)	19%	79%	22%	33.1
Master's of Business Administration (MBA)	32%	41%	36%	32.3
Doctoral (Except Theology)	57%	51%	38%	32.9
Theology (Master's & Doctoral)	28%	23%	34%	34.8
Law (LLB or JD)	85%	46%	28%	27.6
Medicine (MD)	96%	51%	33%	25.6
All Other Health Related	95%	53%	39%	26.5
Post-baccalaureate Certificate	22%	70%	28%	35.2
All Graduate Programs	34%	59%	32%	32.7
All Professional Programs	85%	47%	33%	27.5
All Programs*	39%	58%	32%	32.5

*Includes students in non-degree programs.

Source: National Center for Education Statistics, 2004 National Postsecondary Student Aid Study, Graduate/Professional Data Analysis System, May 2005.

number of men fell from 1.29 million to 1.18 million. In the same time period, the racial/ethnic minority student population grew 36%, from 658,000 to 896,000, while White, non-Hispanic attendees fell 8%, from 2.1 million to 1.9 million.

Table 2 displays the distribution of post-baccalaureate students by their financial dependency status and the mean¹ incomes. Income and financial dependency status greatly influence the amount of aid students receive and their ability to pay postsecondary costs. By law, all graduate and professional students are considered to be financially independent for federal financial aid purposes.² That is, the students' parents' incomes and assets are not considered for purposes of determining the students' eligibility for federal financial aid. However, while the students are independent, they may be married and thus may be relying on a spouse to pay college costs and other expenses. Both unmarried and married students may also have minor children (those under the age of 18) whom they have to support during periods of enrollment. Graduate and professional students thus fall into three categories of financial independency: unmarried students who have no financial dependents; married students with no dependents other than a spouse; and married and unmarried students with dependent children.

In 2003-2004, nearly half of all the students are unmarried with no other dependents. These students also had the lowest mean income (just under \$21,000). About one-third of the students were married or unmarried with dependents, and their average income was about \$62,000. Only 19% of the students were married with

¹ The mean includes students who reported zero income. Income reported is for the 2002 calendar year.

² Some graduate/professional programs may consider students to be financially dependent for purposes of distributing institutionally funded financial aid.

Table 2.
Financial Dependency Status and Mean Income
for 2003-2004 Graduate/Professional Students, by Degree Program

	Pct. Unmarried With No Dependents	Mean Income	Pct. Married With No Dependents	Mean Income	Pct. Married and Unmarried With Dependents	Mean Income	Mean Income (All Dependency Levels)
MA/MS	50%	\$ 21,078	16%	\$ 61,362	34%	\$ 54,143	\$ 38,864
M. Ed/MAT	37%	\$ 24,029	24%	\$ 72,889	39%	\$ 62,488	\$ 50,932
MBA	41%	\$ 32,745	21%	\$ 78,295	38%	\$ 71,722	\$ 57,001
Doctoral	48%	\$ 18,608	23%	\$ 54,911	28%	\$ 62,143	\$ 39,404
Theology	44%	\$ 21,539	18%	\$ 57,765	37%	\$ 50,098	\$ 38,843
Law	73%	\$ 14,013	13%	\$ 54,795	14%	\$ 48,358	\$ 24,047
MD	80%	\$ 8,134	14%	\$ 29,544	5%	Low n	\$ 12,795
Other Health Related	76%	\$ 7,510	13%	\$ 37,487	11%	\$ 36,545	\$ 14,625
Certificate	34%	\$ 26,443	20%	\$ 65,737	17%	\$ 72,947	\$ 55,878
All Programs*	47%	\$ 20,738	19%	\$ 62,953	34%	\$ 61,760	\$ 42,496

*Includes students in non-degree programs.

"Low n" means that the sample size was too low to calculate a reliable estimate.

Source: National Center for Education Statistics, 2004 National Postsecondary Student Aid Study, Graduate/Professional Data Analysis System, May 2005.

no dependents (other than a spouse), and these students had an average income of nearly \$63,000.

There were a number of noticeable differences in students' income and dependency status levels by program type. More than 70% of students in law, medical, and other health-related programs were unmarried with no dependents, and they had average incomes below \$10,000. On the other hand, the plurality (39%) of those seeking M. Ed/MAT programs were either married or unmarried with dependent children, and their mean income was just over \$62,000. Law and other professional program attendees tend to be younger, so it is not surprising to find that they have substantially lower incomes and are less likely than older students in other programs to be married or have dependent children.

One other important characteristic regarding graduate/professional students is their primary roles or responsibilities during the school year (see Table 3). Because the majority (71%) of all graduate and professional students work at least part-time during the school year (not including the students who may have part-time research or teaching assistantships, described more fully in the *How They Pay for Education* section below), distinctions should be made between those whose primary responsibilities were to their employers and those whose primary responsibilities were to their schooling. "Students who work" are those who are working part- or full-time but consider their schooling to be their primary responsibility. A great majority of these students use most of their employment earnings to pay their educational costs. At the other extreme are those working students who described themselves as "primarily employees," who see their full- or part-time jobs as their primary responsibilities. These students are more likely to use much of their job earnings to support their families and non-education-related expenses while attending school.

Table 3.
Primary Student and Employment* Responsibilities
of 2003-2004 Graduate/Professional Students,
by Degree Program

	Not Working for Pay*	“Students Who Work” - Primarily a Student Working for Pay	“Primarily Employees” - Taking Classes While Working
MA/MS	26%	29%	45%
M. Ed/MAT	12%	19%	69%
MBA	17%	19%	64%
Doctoral	49%	25%	26%
Theology	36%	37%	28%
Law	56%	34%	10%
Medicine (MD)	76%	22%	2%
All Other Health Related	58%	38%	4%
Certificate	16%	29%	55%
All Programs**	29%	25%	46%

*Does not include employment as a teaching or research assistant.

**Includes students in non-degree programs.

Source: National Center for Education Statistics, 2004 National Postsecondary Student Aid Study, Graduate/Professional Data Analysis System, May 2005.

The vast majority of students seeking master’s degrees or certificates saw themselves as primarily employees who were attending school, while doctoral candidates and students in professional programs generally described themselves primarily as students who work. More than 60% of students in M. Ed/MAT and MBA programs were primarily employees, compared with less than 10% of those in law, medical, and other health programs and 26% of doctoral enrollees. In fact, more than half of those in law, medical, and other programs related to health care, and nearly half of those in doctoral programs, reported that they did not work, which suggests that they were either exclusively full-time students who earned no employment-related income at all or were using assistantships or other school-based work-study funds to earn extra income.

How They Pay for Education: College Costs and Financial Aid for Graduate/Professional Students

As described earlier, attending graduate and professional schools is quite expensive. These students often engage in very intensive (and costly) instruction from professors and other instructors. Medical, dental, and law students are also faced with the costs of clinical and laboratory instruction and other specialized training.

This intense training is reflected in the average cost of attending graduate and professional schools. On average, in 2003-2004 full-time graduate/professional students at public colleges and universities were charged \$24,000 for tuition, fees,

books, supplies, living expenses, and other education-related expenditures. Students at private institutions had average total costs of attendance of about \$35,800 (see Table 4). Costs were also high for part-time students, who in 2003-2004 were charged about \$10,500 on average to enroll at public colleges and almost \$15,000 to enter private institutions.

Student charges varied greatly by program and institution type. Total full-time student expenses ranged from about \$14,900 in certificate programs at public institutions to more than \$48,000 at private medical programs. Charges for part-time students ranged from about \$8,000 for those seeking post-baccalaureate certificates at public institutions to \$28,700 at private law programs. Among all programs and institution types, students in law, business, and health-care-related programs had considerably higher costs than those enrolled in other program types.

Table 4.
Mean 2003-2004 Cost of Attendance
for Graduate/Professional Students, by Degree Program,
Attendance Status, and Institution Type

	Public Colleges and Universities		
	Full-Time	Part-Time	All Students
MA/MS	\$ 20,249	\$ 11,071	\$ 13,799
M. Ed/MAT	\$ 16,820	\$ 9,105	\$ 10,657
MBA	\$ 22,015	\$ 10,572	\$ 13,204
Doctoral	\$ 27,250	\$ 14,608	\$ 21,462
Theology	Low n	Low n	Low n
Law	\$ 26,893	Low n	\$ 25,774
MD	\$ 34,027	Low n	\$ 33,434
Other Health	\$ 28,824	Low n	\$ 28,533
Certificate	\$ 14,867	\$ 8,004	\$ 9,415
All Programs*	\$ 23,976	\$ 10,496	\$ 15,366
	Private, Non-Profit Colleges and Universities		
	Full-Time	Part-Time	All Students
MA/MS	\$ 30,265	\$ 14,522	\$ 19,677
M. Ed/MAT	\$ 20,140	\$ 15,826	\$ 16,427
MBA	\$ 32,936	\$ 15,587	\$ 20,968
Doctoral	\$ 37,638	\$ 17,375	\$ 29,912
Theology	\$ 21,564	\$ 13,988	\$ 16,141
Law	\$ 38,207	\$ 28,710	\$ 36,538
MD	\$ 48,106	Low n	\$ 47,785
Other Health	\$ 42,588	Low n	\$ 42,482
Certificate	\$ 19,075	\$ 12,757	\$ 14,312
All Programs*	\$ 34,596	\$ 14,898	\$ 22,741

“Low n” means that the sample size was too low to calculate a reliable estimate.

*Includes students in non-degree programs.

Source: National Center for Education Statistics, 2004 National Postsecondary Student Aid Study, Graduate/Professional Data Analysis System, May 2005.

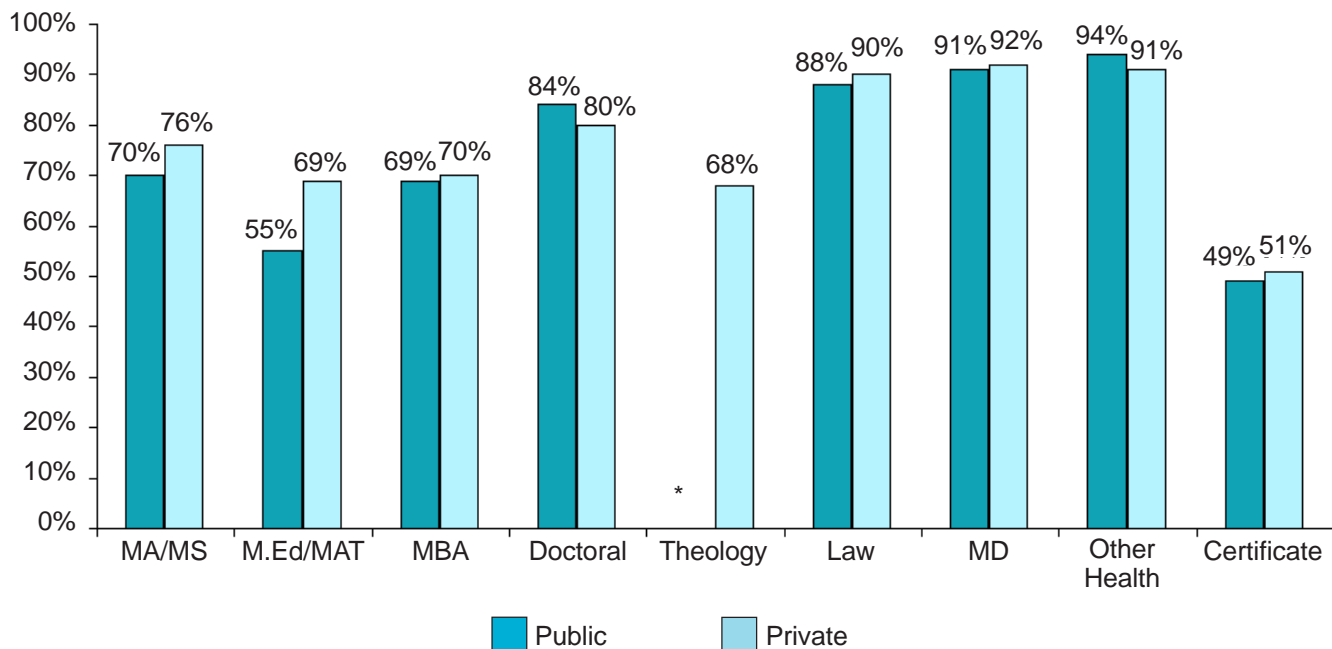
However, only one-quarter of all full-time attendees were enrolled in professional programs, so only a minority were facing costs higher than \$30,000.

Given the combination of high costs of attendance and low income levels, it should come as no surprise that most full- and part-time graduate/professional students receive some form of financial assistance. At MBA programs, for example, 69% of students at public colleges and 75% at private institutions were awarded financial aid in 2003-2004 (see Figure 2). As might be surmised, students in higher-priced programs were more likely to receive financial assistance. Eighty percent or more of students at public and private doctoral, law, medical, and other health-related programs were aid recipients, compared with about one-half of those in certificate programs. While among the other programs the proportion of students with aid varied somewhat, generally well over half of those in MA/MS, MBA, and M. Ed/MAT programs received some form of assistance to pay their postsecondary expenses.

More than 80% of full-time students and 65% of those enrolled part-time received assistance (see Table 5). Because students enrolled full-time have much higher attendance costs, their aid amounts are more than double those for part-time enrollees (\$21,711 versus \$9,623). Among full- and part-time students, aid amounts for those in doctoral, law, and health-care-related programs were substantially larger than those in education master’s and business schools.

For the most part, student loans provided the lion’s share of assistance at the majority of programs, particularly for degree candidates who were enrolled full-time. For instance, while 84% of full-time law students received loans, only 38% of these students received grants or fellowships (see Table 6). The average amount borrowed was more than twice as high as the average grant (\$23,000 versus \$9,100).

Figure 2.
Percentage of 2003-2004 Graduate/Professional Students Who Received Any Financial Aid, by Program and Institution Type



*Nearly all theology schools are at four-year private, non-profit colleges and universities.

Source: National Center for Education Statistics, 2004 National Postsecondary Student Aid Study, Graduate/Professional Data Analysis System, May 2005.

Table 5.
Percentage of 2003-2004 Graduate/Professional Students Who Received Any Financial Aid, and Average Award Amounts, by Attendance Status and Degree Program

Full-Time Students		
	Pct. of Students Who Received Aid	Avg. Aid Amount
MA/MS	81%	\$ 16,295
M. Ed/MAT	68%	\$ 14,866
MBA	76%	\$ 17,683
Doctoral	91%	\$ 23,889
Theology	71%	\$ 13,637
Law	91%	\$ 26,022
MD	92%	\$ 34,133
Other Health	93%	\$ 29,555
Certificate	45%	\$ 12,086
All Programs*	84%	\$ 21,711
Part-Time Students		
	Pct. of Students Who Received Aid	Avg. Aid Amount
MA/MS	69%	\$ 9,934
M. Ed/MAT	62%	\$ 7,714
MBA	72%	\$ 9,955
Doctoral	71%	\$ 13,874
Theology	67%	\$ 10,940
Law	78%	\$ 22,710
MD	Low n	Low n
Other Health	Low n	Low n
Certificate	51%	\$ 5,694
All Programs*	65%	\$ 9,623

“Low n” means that the sample size was too low to calculate a reliable estimate.

*Includes students in non-degree programs.

Source: National Center for Education Statistics, 2004 National Postsecondary Student Aid Study, Graduate/Professional Data Analysis System, May 2005.

Even at lower-cost MA/MS and M. Ed/MAT programs, the majority of students received loans while less than one-third got grants or fellowships, and the grant awards on average were just half the amounts borrowed.

When compared with loans, relatively smaller percentages of full-time students in most programs received assistantships and employer aid. The one exception is for full-time doctoral candidates, 49% of whom received research or teaching assistantships. In most other programs, fewer than one-quarter of the full- or part-time enrollees were awarded this aid. Relatively few full-time students in any program benefited from employer-provided aid (which generally comes in the form of tuition reimbursement or remission). About 31% of full-time MBA candidates re-

Table 6.
Percentage of 2003-2004 Graduate/Professional Students Who Received Financial Aid and Average Award Amounts, by Attendance Status, Aid Type, and Degree Program

	Full-Time Students									
	Pct. With Any Aid	Avg. Aid Amount	Pct. With Fellowships, Grants, & Tuition Waivers	Avg. Fellowships, Grants, & Tuition Waivers	Pct. With Assistantships*	Avg. Assistantships Amount*	Pct. With Student Loans	Avg. Student Loan Amount**	Pct. With Employer Aid	Avg. Amount of Employer Aid
MA/MS	81%	\$ 16,295	34%	\$ 7,562	24%	\$ 8,803	53%	\$ 14,918	8%	\$ 3,133
M. Ed/MAT	68%	\$ 14,866	15%	\$ 5,102	7%	Low n	58%	\$ 14,660	11%	Low n
MBA	76%	\$ 17,683	13%	\$ 8,327	9%	Low n	56%	\$ 18,234	31%	\$ 4,810
Doctoral	91%	\$ 23,889	57%	\$ 12,724	49%	\$ 14,236	36%	\$ 19,652	8%	\$ 3,914
Theology	71%	\$ 13,637	45%	Low n	6%	Low n	36%	Low n	10%	Low n
Law	91%	\$ 26,022	38%	\$ 9,141	8%	\$ 4,675	84%	\$ 23,202	4%	Low n
MD	92%	\$ 34,133	37%	\$ 7,564	8%	\$ 7,412	84%	\$ 32,377	3%	Low n
Other Health	93%	\$ 29,555	35%	\$ 4,669	5%	Low n	86%	\$ 28,565	5%	Low n
Certificate	45%	\$ 12,086	12%	Low n	4%	Low n	37%	\$ 10,676	5%	Low n
All Programs**	84%	\$ 21,711	35%	\$ 9,180	20%	\$ 11,143	59%	\$ 20,451	10%	\$ 3,577

"Low n" means that the survey sample size was too low to calculate a reliable estimate.

*Includes research and teaching assistantships.

**Includes loans from all sources except Federal PLUS loans.

***Includes students in non-degree programs.

Source: National Center for Education Statistics, 2004 National Postsecondary Student Aid Study, Graduate/Professional Data Analysis System, May 2005.

Table 6. (continued)
Percentage of 2003-2004 Graduate/Professional Students Who Received Financial Aid and Average Award Amounts, by Attendance Status, Aid Type, and Degree Program

	Part-Time Students									
	Pct. With Any Aid	Avg. Aid Amount	Pct. With Fellowships, Grants, & Tuition Waivers	Avg. Fellowships, Grants, & Tuition Waivers	Pct. With Assistantships*	Avg. Assistantships Amount*	Pct. With Student Loans	Avg. Student Loan Amount**	Pct. With Employer Aid	Avg. Amount of Employer Aid
MA/MS	69%	\$ 9,934	15%	\$ 4,396	14%	\$ 8,320	36%	\$ 11,737	24%	\$ 2,818
M. Ed/MAT	62%	\$ 7,714	12%	\$ 2,916	6%	\$ 6,577	31%	\$ 11,482	22%	\$ 1,435
MBA	72%	\$ 9,955	9%	\$ 3,680	4%	Low n	30%	\$ 14,403	45%	\$ 4,265
Doctoral	71%	\$ 13,874	27%	\$ 8,035	32%	\$ 11,262	23%	\$ 14,045	20%	\$ 2,801
Theology	67%	\$ 10,940	47%	\$ 6,310	7%	Low n	25%	Low n	16%	Low n
Law	78%	\$ 22,710	24%	Low n	2%	Low n	73%	\$ 21,609	11%	Low n
MD	Low n	Low n	Low n	Low n	Low n	Low n	Low n	Low n	Low n	Low n
Other Health	Low n	Low n	Low n	Low n	Low n	Low n	Low n	Low n	Low n	Low n
Certificate	51%	\$ 5,694	7%	Low n	5%	Low n	28%	\$ 7,379	18%	\$ 1,597
All Programs***	65%	\$ 9,623	14%	\$ 4,772	11%	\$ 8,743	31%	\$ 12,310	26%	\$ 2,710

“Low n” means that the survey sample size was too low to calculate a reliable estimate.

*Includes research and teaching assistantships.

**Includes loans from all sources except Federal PLUS loans.

***Includes students in non-degree programs.

Source: National Center for Education Statistics, 2004 National Postsecondary Student Aid Study, Graduate/Professional Data Analysis System, May 2005.

ceived employer aid, averaging about \$4,800; the amounts of employer aid for other programs were generally too low to produce reliable survey estimates.

Part-time students in most programs were also much more likely to have received student loans. In total, 31% of all part-time students were borrowers while just 14% received grants. One exception to this rule occurred for part-time students at theology schools, about half of whom received grants or fellowships, with an average award of \$6,310. Additionally, nearly half (45%) of part-time MBA candidates received employer aid, with an average award of \$4,265. However, while only 30% of part-time MBA candidates borrowed, their average loan amount was relatively high (about \$14,400). Once again, with the exception of doctoral programs, a very small minority of part-time students received assistantships.

In sum, both full-time and part-time students were much more likely to receive loans, and average loan amounts were about twice as large as average grants/fellowships and assistantships, and more than four times as large as average employer-provided assistance.

Sixty-three percent of graduate students and 90% of professional students had loans of some type in their aid packages.

Aid Packages

Most students receive several different types of grants, loans, work-study, assistantships, and other types of aid. These aid combinations are typically called financial aid packages, and they may include multiple awards of a single type (such as grant awards from two or more sources) or multiple types of aid (such as grants and loans from several sources).

Table 7 displays the financial aid packages received by graduate and professional students in the 2003-2004 award year. Once again, the data demonstrate the predominance of student loans. The plurality (34%) of aid recipients received “loans only” aid packages during the time period. The overall use of “loans only” aid packages is particularly preponderate at professional programs; nearly half the students in law, medical, and other health programs received loans exclusively, compared with 36% and 42%, respectively, of those seeking MA/MS and M. Ed/MAT degrees. On the other hand, 42% of MBA aid recipients were awarded “grants only” packages. These packages do include students who received employer aid, so it is likely that many of these students were part-time attendees who were awarded tuition remission or reimbursement by their employers. Another group of students who benefited greatly from scholarships and fellowships were those in theology schools, 45% of whom got grants only packages compared with just 16% who received only loans. Nearly all theology programs are at private, non-profit colleges and universities, and many are affiliated with churches, synagogues, or other religious organizations. It is possible that these religious institutions provided enough grant funding to support a number of students. At the same time, not all theology students benefited from these grants, as still more than half of the aid awardees received loans.

Overall, 67% of all graduate/professional aid packages contained student loans (this includes a summation of the “grants and loans,” “grants and other (including loans),” “loans only,” and “loans and other aid types (no grants)” aid packages). Sixty-three percent of graduate students and 90% of professional students had loans of some type in their aid packages. At medical and law schools, 93% of those with financial aid had loans in their packages, while 67% and 61% of MA/MS and M. Ed/MAT recipients, respectively, were awarded some combination of loans. These data illustrate the fact that student loans far and away outweigh any other type of financial aid available to students seeking most types of post-baccalaureate degrees or certificates.

Table 7.
**Distribution of Financial Aid Packages for Graduate/Professional Students
 Who Received Financial Aid in 2003-2004,
 by Aid Type and Degree Program**

	Grants Only*	Grants & Loans	Grants & Other (Including Loans)	Loans Only	Loans & Other Aid Types (No Grants)	All Others (No Grants)
MA/MS	27%	10%	15%	36%	6%	7%
M.Ed/MAT	34%	12%	5%	42%	2%	5%
MBA	42%	19%	6%	26%	4%	3%
Doctoral	22%	9%	34%	15%	4%	14%
Theology	45%	19%	17%	16%	#	2%
Law	5%	32%	7%	49%	5%	1%
Medicine	6%	31%	7%	47%	8%	1%
Other Health	6%	26%	8%	49%	11%	#
Certificate	32%	9%	5%	48%	1%	5%
All Graduate Programs	29%	12%	15%	32%	4%	8%
All Professional Programs	9%	29%	8%	46%	7%	1%
All Programs**	27%	15%	13%	34%	5%	6%

*Includes employer-provided tuition remission/tuition reimbursement.

**Includes students in non-degree programs.

#Less than 1%.

Source: National Center for Education Statistics, 2004 National Postsecondary Student Aid Study, Graduate/Professional Data Analysis System, May 2005.

More Information on Student Loans

While student loans are available from a number of sources, the most widely available are those authorized by the federal government. The two largest federal loan programs are the Stafford Subsidized Loans and Stafford Unsubsidized Loans. Subsidized Loans are provided to students who are financially needy, as determined when students apply for financial aid. Stafford Unsubsidized Loans are provided to students regardless of their financial need; however, before students are awarded *Unsubsidized* loans, their eligibility for *Subsidized* loans must be determined. Stafford Subsidized and Unsubsidized Loans share many similar features. For example, the interest rate charged to borrowers is the same for both programs. However, the loans do have one major difference: Subsidized Loan recipients are not required to pay any interest during periods of enrollment and for six months after enrollment ends. The interest on the loans is paid by the federal government on the borrowers' behalf. Unsubsidized borrowers, conversely, are charged interest from the time they receive their loans and may either pay it while they are in school or have it capitalized (that is, added to the principal balance of the loan) during periods of enrollment.

Undergraduate, graduate, and professional students are eligible to receive both Stafford Loan types. Graduate/professional students can receive up to \$8,500 each year in Subsidized Loans. The maximum Stafford Unsubsidized

Loan is \$10,000.³ Students with exceptionally high financial need or high attendance costs may receive both Stafford Subsidized and Unsubsidized Loans, making the total amount available for most students \$18,500.⁴ The total amount in Stafford Subsidized and Unsubsidized Loans students may borrow for all levels of education (undergraduate and graduate/professional combined) is \$138,500, of which up to \$65,500 may be Subsidized).

The third type of federal student loan available to graduate/professional students is the Federal Perkins Loan, which is often referred to as a “campus-based” program because aid administrators at participating postsecondary institutions use federal guidelines to determine which students may receive awards. These awards must be provided to students who have demonstrated financial need, with first priority normally given to undergraduates who also are eligible to receive Federal Pell Grants. Due to this condition, the availability of Perkins Loans to graduate/professional students at most programs is very limited. According to the Office of Postsecondary Education, a division of the U.S. Department of Education, in 2003-2004 graduate/professional students accounted for only 15% of all Perkins Loan borrowers and received just 24% of the funds. Graduate/professional students may borrow up to \$6,000 in Perkins Loans annually, up to a total of no more than \$40,000 for both undergraduate and graduate/professional studies.

In addition to these federal programs, students may also receive loans from their institutions, states, or private sources. There are a wide variety of these “non-federal” loans. Generally, these loans charge higher interest rates than the major federal loan programs. At the same time, they also usually have higher loan limits than the federal offerings. Some privately funded loans (sometimes referred to as “alternative loans”) allow borrowers to receive the full amount of their educational costs, which might make it easier to plan and finance the students’ education. Table 8 displays the percentages of graduate/professional students who received federal and non-federal student loans by degree program.

Unfortunately, the \$8,500 maximum Stafford Subsidized Loan limit covers only 38% of the cost of attendance for graduate students at public institutions; at private colleges and universities, this loan limit covers just 27% of total costs. For professional students, the loan limit accounts for an even smaller share of total expenses (28% and 21%, respectively, at public and private institutions). For this reason, many of the aid recipients at both graduate and professional programs in 2003-2004 received both types of Stafford Loans in their aid packages, and a number of these students also received non-federal loans.

During the 2003-2004 academic year, 27% of graduate program aid recipients and 71% of those attending professional schools received the \$8,500 maximum Stafford Subsidized Loan (see Figure 3). A fairly sizable share of these borrowers (43% at graduate programs and 82% at professional schools) *also* received the maximum Stafford Unsubsidized Loan amount for which they were eligible. Additionally, of those borrowers who received the maximum Stafford Subsidized and Unsubsidized Loans for which they were eligible, 22% of graduate students and 39% at professional programs *also* received non-federal student loans. These data suggest that more than one-fifth of all graduate student loan borrowers and four-tenths of those in professional schools received *at least three loans* (Stafford Sub-

Unfortunately, the \$8,500 maximum Stafford Subsidized Loan limit covers only 38% of the cost of attendance for graduate students at public institutions; at private colleges and universities, this loan limit covers just 27% of total costs.

³ Beginning July 1, 2007, the maximum Stafford Unsubsidized Loan amount will rise to \$12,000.

⁴ Students in nine-month health-professions programs (such as medical, dental, or other health-related schools) may borrow an additional \$20,000 in Unsubsidized Loans, making their maximum annual borrowing limit \$38,500 for both Stafford Loans (of which only \$8,500 may be Subsidized). Students in 12-month health-related professional programs may borrow \$45,167 annually in Stafford Loans, of which \$8,500 may be Subsidized.

Table 8.
Percentage of 2003-2004 Graduate/Professional Students
Who Received Student Loans, by Loan Type and Degree Program

	Pct. With Any Loans (Excluding PLUS)	Avg. Loan Amount	Pct. With Stafford Sub Loans	Avg. Stafford Sub Loan	Pct. With Stafford Unsub Loans	Avg. Stafford Unsub Loan	Pct. With Perkins Loans	Avg. Perkins Loan	Pct. With Non-federal Loans*	Avg. Non-federal Loan*
MA/MS	41%	\$ 13,051	36%	\$ 7,029	31%	\$ 7,363	3%	\$ 3,392	6%	\$ 7,325
M.Ed/MAT	37%	\$ 12,458	32%	\$ 7,013	30%	\$ 6,819	1%	Low n	4%	\$ 5,069
MBA	38%	\$ 16,208	32%	\$ 6,351	32%	\$ 10,066	1%	Low n	6%	\$ 14,490
Doctoral	31%	\$ 17,836	26%	\$ 7,168	24%	\$ 12,002	5%	\$ 3,685	6%	\$ 8,094
Theology	28%	\$ 10,775	27%	\$ 6,051	18%	Low n	2%	Low n	1%	Low n
Law	83%	\$ 22,991	75%	\$ 8,155	75%	\$ 10,464	16%	\$ 3,981	37%	\$ 11,910
MD	83%	\$ 32,035	78%	\$ 8,153	72%	\$ 23,383	32%	\$ 4,027	29%	\$ 7,496
Other Health	85%	\$ 28,379	78%	\$ 8,024	70%	\$ 19,708	27%	\$ 4,483	20%	\$ 8,871
Certificate	30%	\$ 8,279	27%	\$ 4,786	21%	\$ 5,119	2%	Low n	2%	Low n
All Programs**	42%	\$ 16,846	37%	\$ 7,122	33%	\$ 10,390	5%	\$ 3,773	8%	\$ 8,994

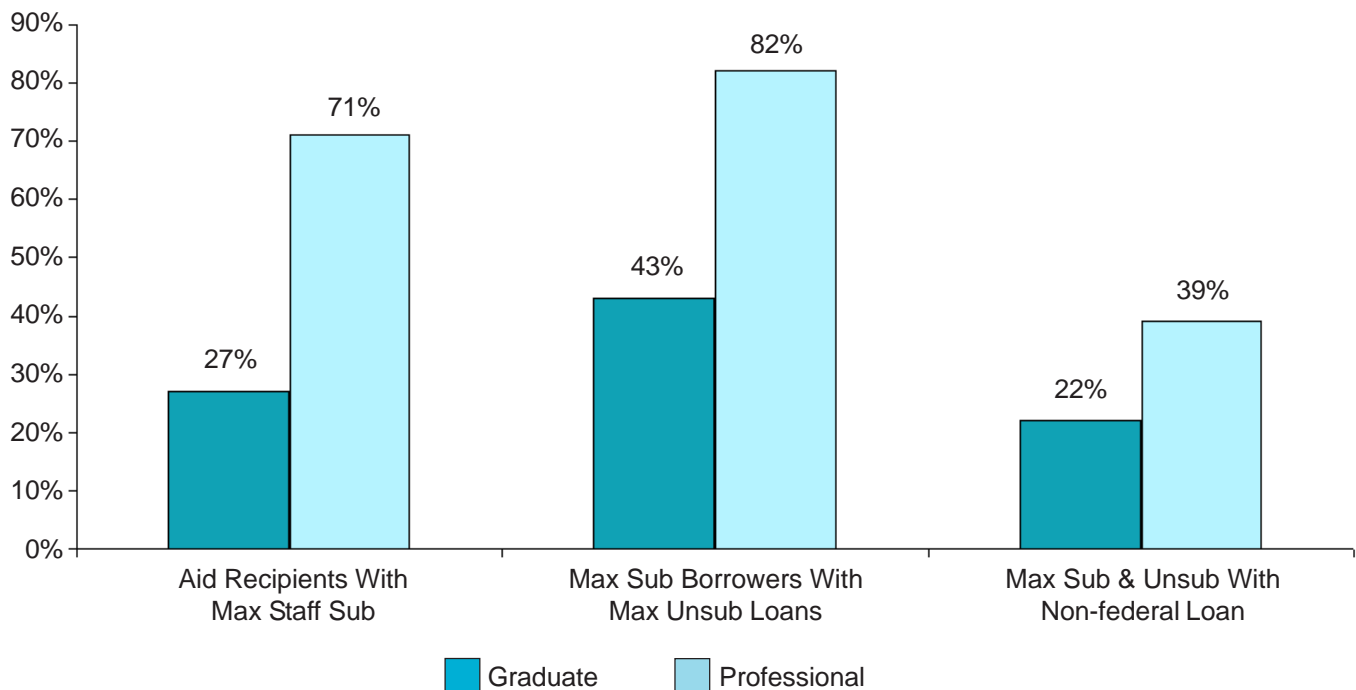
"Low n" means that the survey sample size was too low to calculate a reliable estimate.

*Includes state, institutional, and private/alternative student loans. Does not include loans from family or friends, credit cards, or home equity loans.

**Includes students in non-degree programs.

Source: National Center for Education Statistics, 2004 National Postsecondary Student Aid Study, May 2005.

Figure 3.
Percentage of 2003-2004 Maximum Stafford Loan Recipients With Stafford Unsubsidized Loans and Non-federal Loans, by Degree Level



Source: National Center for Education Statistics, 2004 National Postsecondary Student Aid Study, Graduate/Professional Data Analysis System, May 2005.

sidized and Unsubsidized Loans and a non-federal loan) to help pay *just one year* of educational expenses.

Data on how many students borrow multiple loans each year to pay their costs are not available. However, because the federal loan limits are not expected to increase substantially over the next few years, and because college costs will undoubtedly continue to rise, it is likely that the proportion of graduate/professional aid recipients who rely on federal and non-federal loans to complete their educational programs will continue to be fairly high.

Net Price of Attendance

While many graduate and professional students get loans, grants, and other aid, it should not be assumed that this aid is adequate to pay their full cost of attendance. In fact, for the majority of aid recipients, the amount of assistance is substantially lower than their total educational costs. The gap between total cost of attendance and total financial aid received is sometimes referred to as the *net price* of attendance.

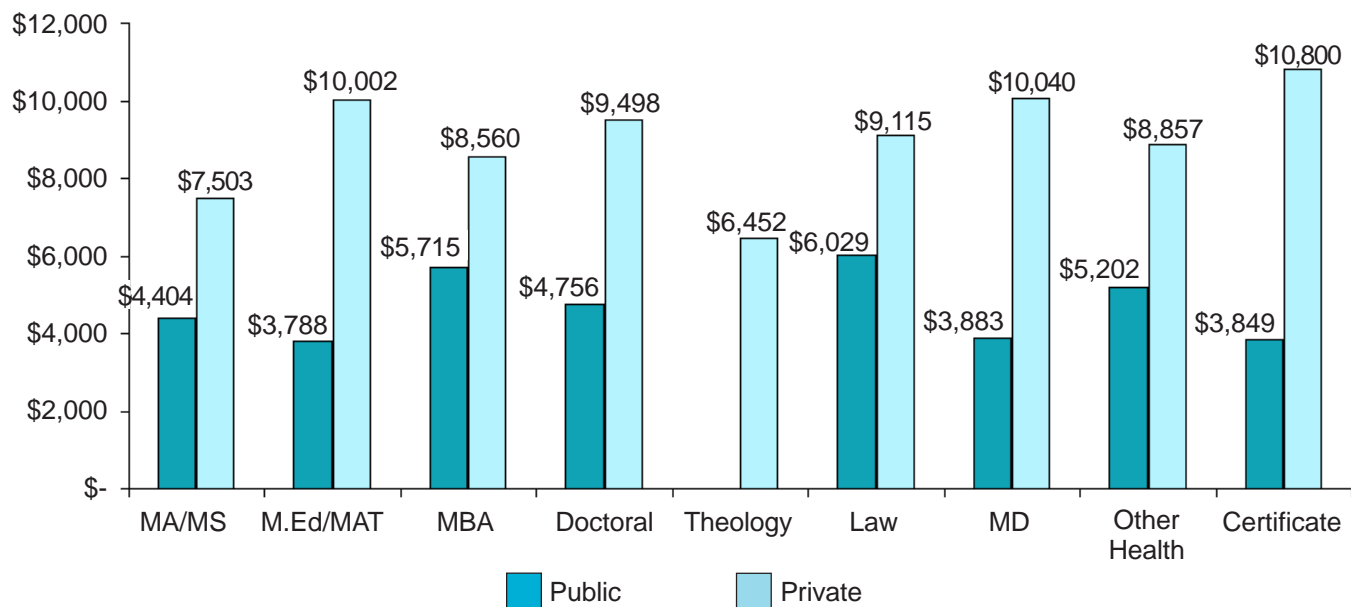
Net price represents the estimated “out-of-pocket” costs students pay to enroll at their institutions after receipt of financial aid from all types (grants and fellowships, loans, work-study, and assistantships). That is, net price represents the actual amount of money students and their families pay to enroll in their educational programs after financial aid from all types and sources are used to offset the listed total cost of attendance.

In 2003-2004, graduate/professional aid recipients at public colleges paid an average net price of about \$4,500, while those at private institutions had almost \$8,500 in out-of-pocket expenses (these net price figures are adjusted for differences in aided students' attendance status). Average net prices varied considerably by degree program, as Figure 4 illustrates. Among students in M. Ed/MAT programs, the average net price at public colleges was roughly \$3,800, which is considerably less than the \$10,000 average at private institutions. At professional programs, out-of-pocket costs for aid recipients ranged from about \$6,000 at public law schools to \$10,000 at private medical programs.

One important caveat to the net price data is that they are based on students' living costs during the academic year (such as costs of rent, food, utilities, and other similar charges). These students would have incurred at least some of these costs even if they were not enrolled in college. Another caveat is that the measures include the amounts students receive from loans, which must be repaid with interest. These figures do not account for the expense of accrued interest loan repayments over the borrowers' lifetimes. Nonetheless, the net price data demonstrate that, even with large amounts of loans and other aid types, most students had to come up with substantial additional resources to pursue graduate/professional education.

What resources did students use to pay net prices? While an exact answer to this question is not known, it is likely that many of these students used earnings from full- or part-time jobs to pay these costs. For older students who attended school part time, using part of their job earnings for this purpose may not have caused a financial hardship. But for younger, full-time enrollees who were primarily students, meeting large net price amounts may have been a greater challenge.

Figure 4.
Average 2003-2004 Net Price of Attendance* for Graduate/Professional Aid Recipients, by Degree Field and Institution Type



*Net price equals total cost of attendance minus all financial aid from all sources. Figures are adjusted for differences in aid recipients' attendance status (full-time and part-time).

Source: National Center for Education Statistics, 2004 National Postsecondary Student Aid Study, 2004 Graduate/Professional Data Analysis System. May 2005.

These students may have taken on additional full- or part-time jobs or may have used credit cards or other loans (such as borrowing money from family or friends) to support their added college expenses. These additional sacrifices may make it more difficult for students to complete their degree programs in a timely fashion. They may also influence students' career or other choices after completing degrees.

Life After College: Cumulative Debt and Post-College Debt Burdens for Degree Recipients

The heavy reliance on student loans leads to the vast majority of graduate and professional degree recipients leaving school with at least some student loan debt.

The heavy reliance on student loans leads to the vast majority of graduate and professional degree recipients leaving school with at least some student loan debt. But does this debt have any adverse effects on borrowers' lives after college? That is, does the debt affect degree recipients' career choices?

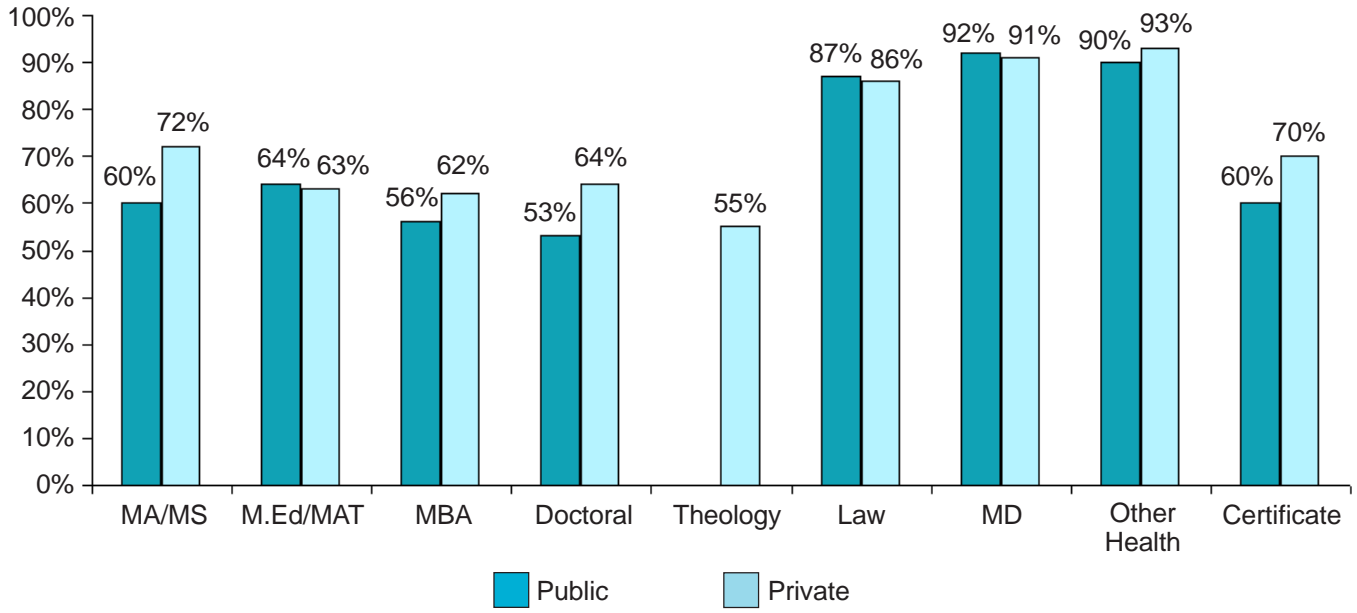
It is clear that the proportion of degree recipients who graduate with debt, and the average amounts borrowed, are quite high in most degree field. More than 80% of 2003-2004 graduates from law, medical, and health-care-related programs left their institutions with student loan debt, including loans from federal, state, institutional, or private programs (see Figure 5).⁵ Even at lower-cost master's degree programs, which have a relatively high proportion of part-time students, more than half the degree recipients were borrowers. Differences between the proportion of graduates from public and private colleges were small, suggesting that cost differences did not play a large role in determining students' chances of borrowing at some point in their college careers. Students who received graduate/professional degrees from public institutions appear to have been nearly as likely as those from private colleges and universities to have borrowed at some point during their education.

Equally clear is that graduates from many programs, particularly those at private colleges and universities, are leaving their institutions with large amounts of education-related debt. In 2003-2004, borrowers who left private law, medical, and other health programs graduated with average student loan debt of \$64,854, \$104,844, and \$102,072, respectively, (see Figure 6).⁶ At MBA programs, those who borrowed left with roughly \$38,400 in average debt, while MA/MS degree holders had average debt of about \$34,300. Generally, graduates from public institutions left their institutions with about one-third less debt than those from private schools. For both public and private college graduates, these cumulative loan amounts are based on the principal amounts of students' borrowing, and do not include any accrued and capitalized interest from Stafford Unsubsidized, private/alternative, or other loans. The amounts borrowed also do not include any debt from credit cards, home equity loans, and other types of consumer credit, nor do they include borrowing from friends or family. Thus, in some fields, Figures 5 and 6 may greatly *underestimate* the debt situation for some borrowers.

⁵ The data include the proportion of borrowers who received loans for undergraduate and graduate/professional education. Also included are borrowers who may not have taken loans as undergraduates but borrowed for graduate or professional school.

⁶ These data include the cumulative amount borrowed for undergraduate and graduate/professional education.

Figure 5.
Percentage of 2003-2004 Graduate/Professional Degree Recipients
Who Graduated With Any Student Loan Debt,*
by Degree Field and Institutional Type



*Includes borrowers who graduated with debt from federal, state, institutional, or non-federal student loans. Includes loans for undergraduate and graduate/professional education. Does not include students who may have borrowed from family or friends, credit cards, home equity loans, or other consumer loans.

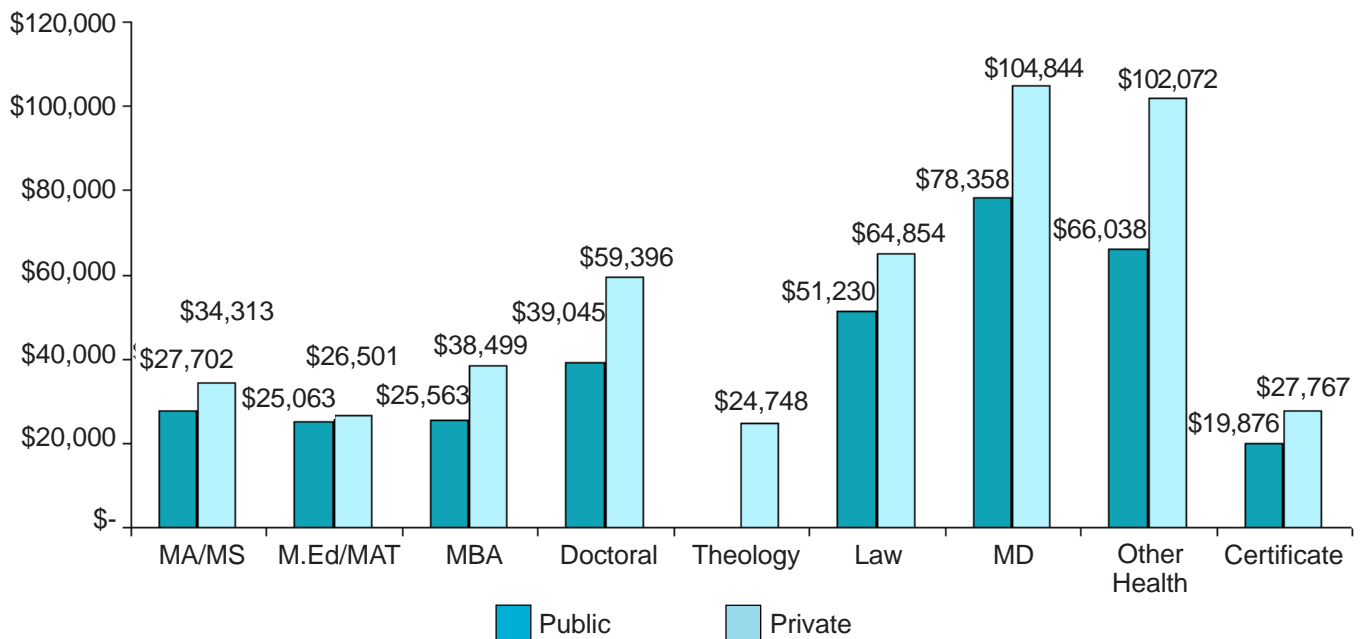
Source: National Center for Education Statistics, 2004 National Postsecondary Student Aid Study, Graduate/Professional Data Analysis System, May 2005.

Distribution of Cumulative Student Loan Debt

While average debt figures are high, they are somewhat deceiving, as they do not accurately take into account the wide differences in students’ financing and borrowing amounts. Some students are fortunate enough to receive large amounts of fellowships, assistantships, and other “free” aid, and thus their borrowing is reduced to levels well below the averages. Other students, conversely, may receive very little in fellowships or assistantship aid or may attend programs with very high costs, and they must borrow much more than the average in order to pay their costs. Average loan amounts thus do not provide a complete picture of the borrowing done by graduating students.

Table 9 accounts for this problem by presenting a distribution of the range of borrowing amounts. The lower quartile is the amount at which 25% of graduates borrowed the least; for example, at four-year public MA/MS programs, 25% of the graduates borrowed \$11,125 or less. At the other extreme is the upper quartile, the highest level of borrowing for 25% of graduates; that is, 25% of the MA/MS degree recipients from public institutions left their schools with \$40,215 or more in debt. The median is the middle-point in the distribution of borrowers—half the borrowers had loan amounts that were below the median, while half had amounts that were above.

Figure 6.
Average Cumulative Student Loan Debt* for 2003-2004 Graduate/Professional Degree Recipients, by Degree Field and Institution Type



*Includes amounts borrowed for undergraduate education. Amounts borrowed are principal balances of loans and do not include accrued interest from Stafford Unsubsidized or non-federal student loans. Also does not include borrowing from family or friends, credit cards, home equity loans, or other consumer loans.

Source: National Center for Education Statistics, 2004 National Postsecondary Student Aid Study, Graduate/Professional Data Analysis System, May 2005.

Table 9 illustrates that, for some borrowers, even those at private-college professional programs, borrowing was much less than the average, while for many others borrowing was a great deal more. For example, at private law programs, one-quarter of the graduates completed their programs with \$36,000 or less in total debt—far below the \$64,854 average reported in Figure 6. At the same time, another quarter of graduates left their institutions with \$90,088 or more in debt, about one-third higher than the average. These extremes are even greater for new MD degree holders from private colleges and universities, who had a lower-quartile debt of \$51,313 and an upper-quartile borrowing amount of \$150,000.

Loan Debt Burdens

The findings from Table 9 make it much more difficult to assess accurately the financial circumstances of degree holders once they leave college and enter the workforce. While the media often focus on the stories of new young lawyers and other professionals who sacrifice marriage, car and home purchases, and other life comforts due to the need to repay large loan debts, the reality is that at least one-half the new graduate and professional degree awardees have cumulative debt levels that are below both the average and median levels. This is not to suggest that these borrowers do not encounter any troubles repaying their loans. It is to suggest that such stories of financially struggling new lawyers, doctors, and other professionals should be placed into a broader context, as they may not reflect the reality faced by all graduates.

Table 9.
Distribution of Cumulative Student Loan Debt* for
2003-2004 Graduate/Professional Degree Recipients
Who Borrowed by Degree Program and Institution Type

Public Colleges and Universities			
	Lower Quartile	Median	Upper Quartile
MA/MS	\$ 11,125	\$ 23,000	\$ 40,215
M Ed/MAT	\$ 10,000	\$ 19,813	\$ 35,352
MBA	\$ 10,126	\$ 20,000	\$ 31,871
Doctoral	\$ 12,745	\$ 29,509	\$ 58,759
Theology	low n	low n	low n
Law	\$ 25,570	\$ 48,383	\$ 63,500
MD	\$ 46,630	\$ 75,603	\$ 106,323
Other Health	\$ 32,833	\$ 57,614	\$ 87,731
Certificate	\$ 7,917	\$ 16,000	\$ 28,069
All Programs**	\$ 11,500	\$ 24,689	\$ 44,620
Private Non-Profit Colleges and Universities			
	Lower Quartile	Median	Upper Quartile
MA/MS	\$ 17,000	\$ 30,000	\$ 45,625
M Ed/MAT	\$ 14,500	\$ 19,000	\$ 31,792
MBA	\$ 15,000	\$ 29,002	\$ 52,581
Doctoral	\$ 20,460	\$ 46,500	\$ 88,486
Theology	\$ 8,000	\$ 17,625	\$ 32,350
Law	\$ 36,000	\$ 55,635	\$ 90,088
MD	\$ 51,313	\$ 86,222	\$ 150,000
Other Health	\$ 60,300	\$ 94,932	\$ 129,450
Certificate	\$ 11,000	\$ 30,000	\$ 35,500
All Programs**	\$ 18,407	\$ 32,479	\$ 60,000

“Low n” means that the sample size was too low to calculate a reliable estimate.

*Includes amounts borrowed for both undergraduate and graduate/professional education. Amounts borrowed include principal amounts of loans but do not include accrued interest from any loans.

**Includes students in non-degree programs.

Source: National Center for Education Statistics, 2004 National Postsecondary Student Aid Study, Graduate/Professional Data Analysis System, May 2005.

One way to consider the post-college financial lives of new degree recipients is to examine their student loan debt burdens. Debt burden—the proportion of post-college pre-tax employment earnings devoted to paying off student loans—is an indicator of the borrowers’ ability to repay education-related debt. If debt burdens are relatively low, it can be assumed that borrowers are having a relatively easy time repaying and can also afford to enjoy the other comforts of life (such as buying a new car or home). Traditionally, student loan and finance experts have said that if loan payments are below 10% of borrowers’ gross pay, the borrowers are less likely to experience difficulties with loan payments. But those with very

high debt burdens—greater than 10% of salaries—are more likely to run into troubles. Loan burdens for such borrowers really could postpone their plans to purchase homes, cars, or other consumer products.

A number of factors affect debt burdens. First, obviously, is the amount students borrow. Second is the borrowers' income. Income is an important variable for new degree recipients because when they enter the job market, they usually have lower incomes due to their general lack of experience and other factors; thus, their loan burdens could be very high. Loan interest rates are a third important component that affects loan burden. Fortunately, during much of the time students were enrolled during and before the 2003-2004 academic year, interest rates were at historic lows. From 1998 to 2004, the interest rate on newly issued Federal Stafford Subsidized and Unsubsidized Loans fell from 8.25% to 3.37%, according to the U.S. Department of Education. These lower rates undoubtedly helped to reduce borrowers' monthly loan payments. Finally, many borrowers, particularly those from graduate/professional programs, choose to consolidate their federal student loans. Loan consolidation helped 2003-2004 borrowers lock in today's lower interest rates for the entire time their loans are in repayment, thus protecting them from future rate increases. The major disadvantage of loan consolidation is that it increases the loan repayment term from ten years to up to 30 years. Many borrowers assume that their incomes will rise after their first few years in repayment, and perhaps they can use the additional income to pay their loans off much sooner, thus saving even more money. The rise in borrowing, combined with the declining interest rates, led to a very healthy increase in consolidation. The U.S. Department of Education's Office of Postsecondary Education reports that loan consolidation increased from just 308,000 loans in 1998 to more than 1.7 million in 2004.⁷

Loan consolidation worked for borrowers who entered repayment in 2003-2004 because it dramatically reduced the monthly payments for those with below-average starting salaries.

Table 10 illustrates the loan debt burdens of 2003-2004 graduates by their major fields of study. These data include graduates who received master's degrees in education, religion, humanities, social sciences, engineering, business administration; doctoral degrees in some of the same fields; and law degrees. MD and other health-related graduates were not considered because many of them are required to take residencies before entering professional practice. Because of the wide variance in starting salaries by field for master's degree holders, the data are shown by exact field of study rather than combining all MA/MS degrees together as was done in the prior tables in this report. Further, due to data limitations, the starting salaries and loan debt figures for public and private college graduates are combined; thus, the cumulative debt information for Table 10 will not agree with what is shown in the prior tables and figures.

Table 10 compares the loan repayment burdens for consolidation borrowers with those who did not consolidate. It is clear that consolidation helped graduates from many fields. On average, new lawyers and master's degree recipients in the humanities and life sciences who consolidated their loans appear to have reduced their loan debt burdens by about 40%. This suggests that the loan repayment burdens for many new graduates were manageable—*as long as the borrowers consolidated their loans during the low-interest-rate environment.*

Loan consolidation worked for borrowers who entered repayment in 2003-2004 because it dramatically reduced the monthly payments for those with below-average starting salaries. For example, new master's of humanities and social sciences degree holders took jobs with starting salaries of about \$2,730 per month on average. Consolidation reduced these borrowers' monthly payment from an

⁷ These data include only the number of loans consolidated within the Federal Family Education Loan Program. The number of Direct Loan consolidations was not available.

Table 10.
Cumulative Student Loan Debt, Monthly Starting Salary,
and Estimated Loan Repayment as a Percentage of Starting Salary
for 2003-2004 Graduate/Professional Degree Recipients, by Degree Program

Degree Program	Cumulative Education Debt	Avg. Monthly Starting Salary*	Loan Payment as a Pct. of Salary (w/o Consolidation)	Loan Payment as a Pct. of Salary (w/ Consolidation)
Master's in Humanities, Religion, & Social Sciences	\$ 35,371	\$ 2,730	14.9%	9.3%
Master's in Natural & Life Sciences	\$ 28,469	\$ 4,475	7.6%	4.8%
Master's in Education (Teaching and Administration)	\$ 28,231	\$ 3,140	9.5%	5.9%
Master's in Engineering	\$ 20,558	\$ 4,795	4.5%	2.8%
Master's in Health Sciences	\$ 38,568	\$ 4,163	9.8%	6.1%
MBA	\$ 41,740	\$ 4,470	9.9%	6.1%
Doctorate in Education (Teaching and Administration)	\$ 43,063	\$ 5,815	7.9%	4.9%
Doctorate in Humanities, Religion, & Social Sciences	\$ 53,013	\$ 3,712	15.1%	9.4%
Doctorate in Natural & Life Sciences	\$ 33,417	\$ 4,511	7.8%	4.9%
Law	\$ 80,821	\$ 5,842	14.7%	9.1%

*Based on the weighted average of starting salaries of new graduates.

Sources: National Center for Education Statistics, 2004 National Postsecondary Student Aid Study, Graduate/Professional Data Analysis System, May 2005; National Association of Colleges and Employers, *Salary Survey, A Study of 2003-2004 Beginning Offers*. Vol. 43, No. 4; National Association for Legal Career Professionals, *Starting Salaries: What New Law Graduates Earn—Class of 2004*.

average of \$406 (which would be required under the standard ten-year repayment plan) to \$253—a savings of 38%. The repayment burden for these lower-salaried borrowers dropped from 14.9% to 9.3%. At the same time, extending the repayment term by ten years more than doubles the total interest these borrowers will pay (to \$22,380 from \$10,456). Despite this disadvantage, these borrowers, at least in the short term, would appear to have benefited greatly from the lower repayment obligations afforded by consolidation.

The two other groups of new graduates who would appear to have gotten the most benefit from consolidation are new doctorates in humanities and social sciences and new lawyers. Both of these borrowers would have average debt burdens of approximately 15% if they did not consolidate, compared with just under 10% if they did. In both cases, the loan burden would have been reduced by about 40%. At the same time, even with the extension of their loan repayment terms by up to 20 years, on average both of these borrowers had loan burdens of about 9%—just under the 10% standard of “comfort” that many loan repayment experts suggest. Borrowers who borrowed significantly more than the average would have had to consolidate to repayment terms of more than 20 years in order to be below the 10% threshold.

Consolidation in a low-interest-rate environment appears to have helped reduce student loan repayments for many degree recipients. But consolidation by itself cannot affect borrowers’ post-college career choices. Due in some part to low salaries and fears of high debt responsibilities, available data and anecdotal evidence suggest that the number of new graduate and professional school degree holders entering a number of fields that traditionally pay low wages has declined sharply over the past decade.

Information from the National Association of Legal Career Professionals (NALP), for example, shows that the proportion of new lawyers who entered public interest law (generally, lawyers who provide services for the indigent) has declined from 5.4% in 1975 to just 2.9% in 2002. One reason for this decline is that the average starting salary for new public interest lawyers in 2004 was only \$39,858, and many of these borrowers thus had very high debt burdens. A 2004 study sponsored by NASFAA and the Access Group found that new public interest lawyers who graduated from public institutions had average debt burdens of 19%. Even more ominous is that from 1974 to 2004 the proportion of new lawyers entering government service (such as federal and state prosecutors) declined from 18.5% to 11.9%. Several media reports have highlighted the plight of young attorneys who began their careers as state prosecutors but left after only a few years to enter the more lucrative field of private practice in order to repay their loans and make ends meet. Such trends, if they were to continue, could make it more difficult for states and the federal government to prosecute alleged criminals and enforce laws.

The health care profession has also seen chronic shortages of providers in many fields, particularly nurses and pharmacists. News stories suggest that our nation could face a shortage of at least 150,000 pharmacists due to the aging population and the increasing number of new prescription drug. Unfortunately, many prospective students in health care fields have little choice but to avoid pharmacy and other occupations that traditionally pay lower-than-average salaries that might leave them with unmanageable debt burdens. Strategies for dealing with these critical shortages (such as expanded loan forgiveness programs, in which government agencies or other employers repay the loans of new borrowers who agree to provide services in areas of greatest need) have had mixed success. This suggests that even greater incentives are needed to increase the number of graduate and professional students who are willing to enter lower-paying jobs in underserved areas.

Without question, financing graduate and professional education is a major undertaking for many students and their families. In fact, for a number of these students, it could represent a financial hardship.

Summary

Without question, financing graduate and professional education is a major undertaking for many students and their families. In fact, for a number of these students, it could represent a financial hardship. Students' incomes are low, their costs are very high and rising continually, and their odds of receiving fellowship and assistantship support are often limited. To make ends meet, some of these students must sacrifice greatly—living very frugally, taking part- or full-time jobs, and other unique strategies. Despite these sacrifices, many of these students must borrow to pay their education-related expenses.

However, while media reports of these students' plight are compelling, it is important to note the vast differences in the demographic characteristics and financing strategies undertaken by students in graduate and professional programs. "Graduate" students generally are 30 years old or older, have a spouse or young children, and consider themselves primarily employees who are attending school part-time to gain new skills for professional advancement or other opportunities. "Professional" students tend to be younger than 30, are unmarried and have no children or other financial responsibilities, are enrolled full-time, and consider their studies to be their first priority. Because of these differences, these students should be examined differently by policymakers and the media.

Even with these differences, most graduate and professional students used one main source for financing their education: loans. More than half of all master's degree candidates and more than 80% of those seeking professional degrees received at least one student loan to finance their education in 2003-2004. A vast

majority of these loan recipients took out two or more loans (Stafford Subsidized and Unsubsidized Loans primarily) at the same time. By contrast, less than one-third of the students in most programs received grants, fellowships, assistantships, or other sources of “free” money.

There were some important differences in aid received by program type and attendance status. About half of full-time doctoral and theology students received grants/fellowships, compared with less than one-third of those in law and medical schools. And nearly half of full-time doctoral candidates received assistantships, while 45% of part-time MBA students were awarded employer-based aid. But these were the exceptions to the general rule of extensive use of borrowing by most full- and part-time students.

Many of these students thus left their institutions with large cumulative loan debt. More than half the 2003-2004 degree recipients from master’s programs, and nearly 90% of those from professional schools, left their institutions with student loan debt. Average total debt (student loans from undergraduate and graduate/professional education combined) was more than \$100,000 for graduates from private college medical and other health-related programs, and was greater than \$50,000 for new lawyers. Even graduates from MBA programs left their institutions owing more than \$30,000.

While student loan debt is a great concern for recent completers of business, law, and health professions programs, these degree recipients accounted for just 10% of all graduate/professional degree holders in 2004. Further, even in high-cost professional programs, there is a very wide divergence in the total amount borrowed. At law schools, for instance, one-quarter of those who got degrees from private colleges in 2003-2004 left their institutions with \$36,000 or less in total education-related debt. These students will most likely have much different debt burdens than those in the upper-quartile of the distribution of cumulative indebtedness, who accumulated more than \$90,000 in loans. Fortunately for these high balance borrowers, loan consolidation, working in conjunction with declining interest rates, appears to have lessened the repayment burdens for many new graduates by 40% when compared with those who did not consolidate.

These findings suggest that future research and policy discussions on graduate and professional students should place these students in the contexts of their characteristics and with their post-college debt burdens, not just their total amounts borrowed. Policy research should focus on making sure those borrowers who are leaving their institutions with high debt levels are taking advantage of any loan consolidation or other repayment-relief options that might be available.

However, in order for loan repayments to remain manageable, interest rates have to stay low AND borrowers must consolidate AND borrowers must be willing to take on loan repayment terms that last 20 years or more. Unfortunately, more recent trends in interest rates are not promising, as the rates on new federal student loan consolidation recently rose to 4.7% and are likely to rise again. While the rate is still low when compared with historic averages, the recent large jump suggests that, even with consolidation, more borrowers may run into difficulties when making loan payments. Unless federal and state governments increase loan forgiveness and other incentives, new graduates who enter low-wage occupations may continue to experience difficulty with their loan repayment obligations.

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Kenneth E. Redd is NASFAA’s Director of Research and Policy Analysis. NASFAA would like to thank John Joerschke of John Joerschke & Associates and Colleen R. MacDonald from the Stanford University Graduate School of Business for reviewing early drafts of this monograph. Any errors or omissions are the responsibility of the author.

Appendix

The 2004 National Postsecondary Student Aid Study

Most of the enrollment and financial aid information used for this report comes from the National Center for Education Statistics' 2004 National Postsecondary Student Aid Study (NPSAS). NPSAS is a triennial survey of undergraduate, graduate, and professional students at all types of postsecondary institutions. Both aid recipients and non-recipients are included in the NPSAS study.

The most recent NPSAS survey is based on 80,000 undergraduates and 11,000 graduate/professional students who attended postsecondary institutions that were eligible to participate in the federal student aid programs authorized under Title IV of the Higher Education Act. The institutions selected were located in the 50 states, the District of Columbia, and Puerto Rico. The students attended their schools at some point during the 2003-2004 academic year, which ran from July 1, 2003, to June 30, 2004. Students' survey responses were weighted so that they represent the 19 million undergraduates and 3 million graduate/professional students enrolled at all Title IV eligible schools.

All figures and data in this report are based on the NPSAS Graduate/Professional Data Analysis System (DAS), produced by NCES in May 2005. The DAS is a Web-based software program that generates statistically reliable survey results, survey sampling standard errors, and weighted population sizes. In some instances, the number of responses to specific survey questions were too low to generate reliable statistics in the DAS. In these cases, a "Low n" value is given in the tables and figures of this monograph.

For more information on the 2004 NPSAS, please see the report *2003-04 National Postsecondary Student Aid Study (NPSAS:04): Student Financial Aid Estimates for 2003-04*, which is included in the reference list of this monograph.

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