# STATS IN BRIEF

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# What Is the Price of College?

Total, Net, and Out-of-Pocket Prices in 2015—16

AUTHORS
Courtney A. Moore
Albert Y. Liu
Catharine Warner-Griffin
Jackson Miller
Insight Policy Research

PROJECT OFFICER

David Richards

National Center for Education Statistics

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#### Americans are concerned

about the price of college. About threequarters of Americans believe that college is not affordable for everyone who needs it (Lumina Foundation and Gallup 2016). Such attitudes may reflect the year-overyear increase in college expenses since 1981 (Snyder, de Brey, and Dillow 2017) and the decreasing proportion of college costs that are covered by the maximum Pell Grant award, an important form of federal student financial aid (Cahalan and Perna 2015). To finance the cost of college attendance, undergraduate students are increasingly likely to take out loans, including private, Stafford, Direct PLUS Loans (Woo and Velez 2016; Horn and Paslov 2014). Scholars have raised concerns that the amount of debt borne by recent college graduates may delay the attainment of milestones associated with adulthood later in life, such as buying a house, getting married, and having children (Brown, Caldwell, and Sutherland 2014; Gallup and Purdue University 2015; Looney and Yannelis 2015).

Students can choose among colleges of various institution controls and levels and face systematically different prices as a result (Radwin and Wei 2015; Wei 2010). Control is a classification of whether the institution is publicly or privately funded and operated, and level is a classification of whether the institution offers programs that are 4 years or longer, at least 2 but fewer than 4 years, or fewer than

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2 years. In the 2011–12 school year, students attending public two-year institutions faced the lowest prices and those attending private nonprofit 4-year institutions faced the highest prices, even after accounting for financial aid (Radwin and Wei 2015).

#### **STUDY QUESTIONS**

This Statistics in Brief updates previous studies of college prices (Radwin and Wei 2015; Wei 2010) by examining multiple measures of the price of college attendance for students in the 2015–16 school year. The first measure is the total price of attendance, which is the sum of tuition and nontuition expenses. Because many students receive grants and other aid to cover the total price of attendance, this report also presents some alternative measures of the price of college attendance. The second measure is the net price after grant aid, which is the total price of attendance minus all federal, state, institutional, and private source grants. Grant aid, including scholarships and tuition waivers, generally does not need to be earned through work or repaid. The third measure is the out-of-pocket net price minus all aid, which represents the amount students and their families face at the time of attendance. This measure differs from the second measure by subtracting all other aid, such as loans, work study, job training grants, military tuition aid, and veterans' benefits that usually must be

repaid or earned. Because the rising price of attending public and private postsecondary institutions is a factor affecting student debt (Woo 2013), a fourth measure is out-of-pocket net price minus all aid except student loans, which provides an indication of the price at the time of attendance plus the principal loan amount in the survey year. The measure, which does not include interest payments associated with student loans because such costs are not definitively known until repayment is complete, was not included in prior studies but has been added to this report due to rising policy interest in the burden of student loans. Each measure provides a different perspective on the price of college attendance, and each may affect the enrollment decisions made by prospective students.

This report will examine the price of college by addressing the following research questions:

- 1. What are the average prices for fulltime undergraduates, by institution control and level?
- 2. How do the components of average total and net price of attendance experienced by students vary by institution control and level?
- 3. How do the net prices for full-time independent and dependent undergraduates vary by income and institution control and level?

#### **DATA AND METHODS**

The findings in this report are based on the 2015-16 National Postsecondary Student Aid Study (NPSAS:16). Conducted by the National Center for Education Statistics (NCES), NPSAS:16 is a comprehensive, nationally representative survey of undergraduate and graduate students enrolled in postsecondary institutions that are eligible to distribute student aid under Title IV of the Higher Education Act. The target population consists of about 20 million undergraduate students and 4 million graduate students enrolled at eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico any time between July 1, 2015, and June 30, 2016. Approximately 89,000 undergraduates and 24,000 graduate students in NPSAS:16 provided information about how they financed their postsecondary education.

The sample used in this report is limited to undergraduates who are enrolled full time for the full academic year (at least 9 months) at a single academic institution, referred to as "full time" throughout this report. Full-time students, who make up 37.7 percent of all students at Title IV schools, face higher prices relative to part-time students (Campbell and Bentz forthcoming). Because the proportion of full-time students varies by institution control and level, restricting

<sup>&</sup>lt;sup>1</sup> To learn more about the types of institutions, visit the online college search tool, College Navigator, at <a href="http://nces.ed.gov/collegenavigator">http://nces.ed.gov/collegenavigator</a>.

the sample to full-time students facilitates more valid comparisons of prices across different types of colleges. Any systematic differences in prices would not be due instead to systematic differences in attendance patterns.

Estimates are presented by institution control and level. The analysis in this report focuses on public 2-year institutions, public 4-year institutions, private for-profit institutions, and private nonprofit 4-year institutions. Public 2-year institutions enrolled 16 percent of undergraduates, while public 4-year institutions enrolled 44 percent and private nonprofit 4-year institutions enrolled 22 percent (table 1). Private for-profit institutions, which include less-than-2-year, 2-year, and 4-year colleges and universities, enrolled 6 percent of undergraduates. The remaining 13 percent of undergraduates enrolled in other types

of institutions or enrolled in more than one institution.

In some instances, estimates are also presented by the dependency status and associated income of the student. Independent students include those who are age 24 or older and those who are under 24 who are married, have dependents, are veterans or on active duty, are orphans or wards of the courts, are homeless or at risk of homelessness, or have been determined to be independent by a financial aid officer using professional judgment. Other undergraduates under age 24 are considered to be dependent. The income used for financially dependent students is family income, while the income used for financially independent students is student income, including the spouse's income if relevant. Separate estimates by dependency status allow for an examination of the price of college

by systematically different types of students.

All comparisons of estimates were tested for statistical significance using the Student's t statistic, and only differences that are statistically significant at the p < .05 level are discussed in the report. No adjustments were made for multiple comparisons, and the comparisons reported do not present an exhaustive list of all statistically significant results from the study. Readers are cautioned against drawing causal inferences based on the results presented as the study design is descriptive in nature. Appendix A contains standard errors for all estimates presented in this report.

#### TABLE 1.

#### UNDERGRADUATE ENROLLMENT, TUITION, AND TOTAL PRICE for full-time, full-year undergraduates, by institution control and level: 2015–16

Institution control and level	Percentage distribution	Average tuition <sup>1</sup>	Average total price <sup>1</sup>
Total	100.00	\$15,900	\$30,500
Public 2-year	15.7	\$3,800	\$16,100
Public 4-year	44.2	\$11,800	\$26,900
Private for-profit <sup>2</sup>	6.0	\$17,600	\$32,600
Private nonprofit 4-year	21.6	\$32,800	\$48,000
Other, or more than one institution	12.5	\$11,500	\$27,500

<sup>&</sup>lt;sup>1</sup>Tuition includes all tuition and fees. Average tuition and average total price of attendance estimates are shown for those attending only one institution.

NOTE: Full-time status for the purposes of financial aid eligibility is based on 12 credit hours, unless the awarding institution employs a different standard. Students are considered to have attended for a full year if they are enrolled for 9 or more months during the academic year. Months do not have to be contiguous and students do not have to be enrolled for a full month to be considered enrolled for that month. The estimates in this table include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico. Detail may not sum to total because of rounding. The standard errors of the estimates are shown in table A-1b.

<sup>&</sup>lt;sup>2</sup>Private for-profit institutions include less-than-2-year, 2-year, and 4-year institutions.

#### **STUDY QUESTIONS**

What are the average prices for full-time undergraduates, by institution control and level?

How do the components of average total and net price of attendance experienced by students vary by institution control and level?

How do the net prices for full-time dependent and independent undergraduates vary by income and institution control and level?

#### **KEY FINDINGS**

- Full-time students at public 2-year institutions had the lowest average price of attendance at \$16,100 in 2015-16. The average price of attendance was higher at public 4-year institutions (\$26,900), higher still at for-profit institutions (\$32,600), and highest at private nonprofit 4-year institutions (\$48,000) (figure 1). Besides having the lowest average total price of attendance, students attending public 2-year institutions also had the lowest average net price after grants at \$12,100, the lowest average out-of-pocket net price minus all aid at \$10,400, and the lowest average net price minus all aid except loans at \$11,500.
- In 2015–16, students at public
   2-year institutions also had the lowest average tuition and nontuition expenses. Compared to \$3,800 at public 2-year institutions, average tuition was higher at public
   4-year institutions (\$11,800), private for-profit institutions (\$17,600), and private nonprofit 4-year institutions

- (\$32,800) (figure 2). Average nontuition costs at public 2-year institutions were \$12,400, which was lower than that at public 4-year institutions (\$15,100), private forprofit institutions (\$15,000), and private nonprofit 4-year institutions (\$15,200).
- Most students in 2015–16 received at least one type of financial aid, a key component of the price of college, but the packages students received varied systematically by institution control and level. The most common type of aid at public 2-year institutions was grants only (51 percent), while the most common type of aid at public 4-year institutions, private for-profit, and private nonprofit 4-year schools was a combination of grants and loans (32 percent, 55 percent, and 32 percent, respectively) (figure 3). The greatest proportion of grants at public 2-year, public 4-year, and private for-profit institutions was from federal sources, while the greatest proportion of grants at private nonprofit 4-year institutions
- was from the institution (figure 4). The percentage of students with loans was greatest at private forprofit schools (74 percent) and lowest at public 2-year institutions (20 percent) (table 2).
- In 2015–16, full-time dependent students who attended public 2-year institutions had lower average net prices than otherwise similar students at other types of institutions regardless of their families' income. For example, the average net price after grants for dependent full-time students at public 2-year institutions ranged from \$9,300 for low family income (less than \$32,777) students to \$13,200 for high family income (greater than \$124,701) students (figure 5). The comparable prices were higher for dependent students at public 4-year institutions (\$14,800 to \$26,000), private for-profit institutions (\$24,400 to \$37,800), and private nonprofit 4-year institutions (\$20,100 to \$39,400).
- Similarly, full-time independent students at public 2-year

institutions also had the lowest average net price after grants compared to their peers at other institutions, regardless of their own income. For example, whereas high student income (greater than \$31,781) independent students at public 2-year institutions faced a price of \$14,700 after grants, their peers at the other institutions examined faced prices of \$21,700 or more (\$21,700 at public 4-year institutions, \$27,800 at private forprofit institutions, and \$23,800 at private nonprofit 4-year institutions) (figure 8).

 While low family income dependent students in 2015–16 tended to have lower prices to attend college than their higher family income peers, there was no consistent pattern among independent students. In all institution categories, low family income dependent students had a lower average net price after grants (\$9,300-\$24,400) compared with high-middle family income (\$71,635 to \$124,701) dependent students (\$12,900-\$31,300) and high family income (\$13,200-\$39,400) dependent students (figure 5). In addition, compared with their higher family income peers, low family income dependent students had the lowest average out-ofpocket net price minus all aid at

public 2-year (\$8,400), public 4-year (\$9,500), and private nonprofit 4-year institutions (\$10,900) (figure 6). In contrast, among independent students, aid does not seem to reduce the cost of education for lower student income students relative to higher student income students. Compared with higher student income independent students, low student income independent students had the highest average net price after grants at private nonprofit 4-year institutions (\$33,500) and the lowest at public 2-year institutions (\$13,300) (figure 8).

# 1

## What are the average prices for full-time undergraduates, by institution control and level?

This Statistics in Brief examines four measures of the price of college: total price of attendance, net price after grants, out-of-pocket net price minus all aid, and out-of-pocket net price minus all aid except student loans. Each measure provides a different perspective on the cost of college attendance. This section presents the average prices for full-time undergraduate students by institution control and level.

#### **Total Price of Attendance**

The total price of attendance consists of tuition and nontuition expenses,

with nontuition expenses defined as fees, books, supplies, transportation, and living expenses. Total price of attendance is the "sticker price" of college as it does not account for any financial aid students may receive. At some institutions, tuition varies by program characteristics, such as the field of study and type of degree or certificate (Ehrenberg 2012). Tuition at public institutions can also differ by residency status (Simone et al. 2013). The estimates provided in this report reflect the program characteristics for students selected in the nationally

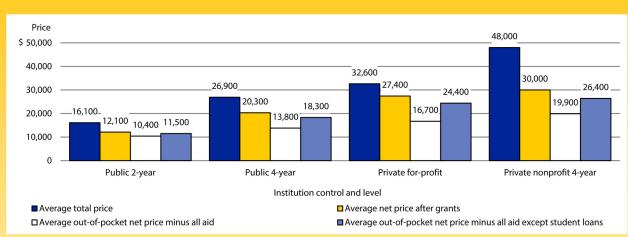
representative sample and represent averages across all students.

There were systematic differences in the total price of attendance by institution control and level. In 2015–16, the average total price of attendance was lowest among students at public 2-year institutions (\$16,100), compared to those at public 4-year institutions (\$26,900), for-profit institutions (\$32,600), and private nonprofit 4-year institutions (\$48,000) (figure 1).

#### FIGURE 1.

#### UNDERGRADUATE EDUCATION PRICES

Average total price, net price, and out-of-pocket net prices of attendance for full-time, full-year undergraduates, by institution control and level: 2015–16



NOTE: The total price of attendance includes tuition and fees, room and board, books and supplies, transportation, and other miscellaneous, or personal expenses. Institutions typically use this value as a student's budget to award federal financial aid. The net price of attendance is the total price of attendance minus all grant aid. The out-of-pocket net price of attendance is the total price of attendance minus all financial aid, including Direct PLUS Loans to parents of dependent undergraduates. In calculating the out-of-pocket net price minus all aid except student loans, all financial aid except for student loans is subtracted from the total price of attendance. Federal education tax benefits are not included in the calculation of net price or out-of-pocket net price. Averages include students who received no aid. Full-time status for the purposes of financial aid eligibility is based on 12 credit hours, unless the awarding institution employs a different standard. Students are considered to have attended for a full year if they are enrolled for 9 or more months during the academic year. Months do not have to be contiguous and students do not have to be enrolled for a full month to be considered enrolled for that month. Private for-profit institutions include less-than-2-year, 2-year, and 4-year institutions. The estimates in this figure include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico. The standard errors of the estimates are shown in table A-1b.

#### **Net Price After Grants**

Students who receive grants and other aid face a lower total price of attendance; in 2015-16, 77 percent of full-time students received grants (table 2). Net price after grants is a measure of the true price for students. It is defined as the total price of attendance minus all federal, state, institutional, and private source grants, including scholarships and tuition waivers. Such financial aid generally does not need to be repaid by students.<sup>2</sup> Federal and state grant amounts are most often based on student need, with the Pell Grant program being the largest federal grant program available to undergraduate students. Institutional

grants are given by colleges from their own resources, such as endowments, and such aid is often provided to promote access to low-income and otherwise disadvantaged students and to increase the enrollment of meritorious students (Horn and Carroll, 2003). Private-source grants can be need- or merit-based and are provided by private businesses, organizations, or foundations. For students who did not receive any grants, net price after grants equals the total price of attendance.

As with the price of college attendance, public 2-year students had the lowest average net price after grants (\$12,100) (figure 1). By contrast, the average net price was \$20,300 for

students at public 4-year institutions, \$27,400 for students at private forprofit institutions, and \$30,000 for students at private nonprofit 4-year institutions.

#### Out-of-Pocket Net Price Minus All Aid

Out-of-pocket net price minus all aid is the amount students and their families face at the time of attendance. It further adjusts the net price after federal, state, institutional, and private source grants by subtracting all other aid, such as loans, work study, job training grants, military tuition aid, and veterans' benefits. While grants are typically awarded without additional financial obligation, these other forms of aid usually must be repaid or earned. For example, loans must typically be

#### TABLE 2.

#### FINANCIAL AID for full-time, full-year undergraduates, by institution control and level: 2015–16

	Any aid <sup>1</sup>		Any grants <sup>2</sup>		Any loans <sup>3</sup>		Any work-study		Veteran's benefits	
Institution control and level	Percent received	Average amount	Percent received	Average amount	Percent received	Average amount	Percent received	Average amount	Percent received	Average amount
Total	86.5	\$18,000	76.8	\$11,200	53.9	\$8,700	10.4	\$2,400	3.1	\$21,000
Public 2-year	78.5	7,500	72.5	5,500	20.4	5,700	4.0	2,800	4.0	14,500
Public 4-year	86.6	15,300	73.7	9,000	57.3	8,000	7.9	2,500	2.5	17,900
Private for- profit <sup>4</sup>	92.4	17,700	82.5	6,200	73.9	10,500	1.9	2,900	7.7	28,900
Private nonprofit 4-year	91.7	30,700	87.3	20,600	64.5	10,200	24.4	2,300	2.1	29,000

<sup>&</sup>lt;sup>1</sup> Any aid includes all types of financial aid from any source except parents, friends, or relatives. Direct PLUS Loans to parents and other types of aid such as employer aid, veterans' benefits, and job training grants are included, but federal tax credits for education are not included.

NOTE: Full-time status for the purposes of financial aid eligibility is based on 12 credit hours, unless the awarding institution employs a different standard. Students are considered to have attended for a full year if they are enrolled for 9 or more months during the academic year. Months do not have to be contiguous and students do not have to be enrolled for a full month to be considered enrolled for that month. The estimates in this table include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico. The standard errors of the estimates are shown in table A-1b.

<sup>&</sup>lt;sup>2</sup> Any grants include grants, scholarships, or tuition waivers from federal, state, institutional, or private sources, including employers.

<sup>&</sup>lt;sup>3</sup> Loans include only loans to students and may be from federal, state, institutional, or private sources, but exclude other forms of financing such as credit cards, home equity loans, loans from individuals, and Direct PLUS Loans to parents.

<sup>&</sup>lt;sup>4</sup> Private for-profit institutions include less-than-2-year, 2-year, and 4-year institutions.

<sup>&</sup>lt;sup>2</sup> Exceptions to this rule could occur if a student withdraws from school or leaves the program for which they received the grant.

repaid, and work study aid is distributed to institutions for redistribution to students who typically work on campus for 10 to 15 hours per week (Scott-Clayton and Zhou 2017). Financial aid does not include tax deductions or credits.

The relationships between the various institution controls and levels and out-of-pocket net price minus all aid reflected a similar pattern to those of both total price of attendance and net price after grants. Full-time students at public 2-year institutions had the lowest average out-of-pocket net price minus all aid (\$10,400), followed by

students at public 4-year institutions (\$13,800), private for-profit institutions (\$16,700), and private nonprofit 4-year institutions (\$19,900) (figure 1).

#### Out-of-Pocket Net Price Minus All Aid Except Loans

Out-of-pocket net price minus all aid except loans adds the principal student loan amounts to the out-of-pocket net price minus all aid. This measure excludes Direct PLUS Loans, which are the financial obligation of parents. The measure also does not include interest payments associated with student loans. While out-of-pocket net price minus all aid represents the amount

students and their families face at the time of attendance, this price measure provides additional information about rising student debt because it includes the amount students must repay after leaving college.

As with the other three price measures, students at public 2-year institutions had the lowest average out-of-pocket net price minus all aid except loans (\$11,500) (figure 1). Students and families at private nonprofit 4-year institutions had the highest average out-of-pocket net price minus all aid except loans (\$26,400) at the time of attendance.

# 2

# How do the components of average total and net price of attendance experienced by students vary by institution control and level?

Systematic differences in the net prices of college by institution control and level may reflect variation in the components used to calculate those measures. The measures in this report depend on the total price of attendance, which itself is made up of tuition and nontuition expenses. The measures also depend on financial aid, which can vary by institution control and level due to systematic differences in aid policies and the income and dependency status of their student bodies. This section builds on the findings in Section 1 by examining variation in the components of the net price measures (i.e., tuition and nontuition expenses as well as financial aid) experienced by students across institution control and level.

**Public 2-Year Institutions** 

Students at public 2-year institutions had the lowest average total price of attendance and the lowest average tuition and nontuition expenses (figure 2). The average tuition amount for these students was \$3,800 and the average nontuition expense was \$12,400.

A smaller percentage of students at public 2-year institutions (78 percent) received at least one type of financial aid compared to students at other institution controls and levels (table 2). Public 2-year institutions had the smallest proportion of students take

out loans (20 percent). Students at these institutions also received the lowest average amounts of total aid (\$7,500), grants (\$5,500), and loans (\$5,700) compared with students attending other institution controls and levels.

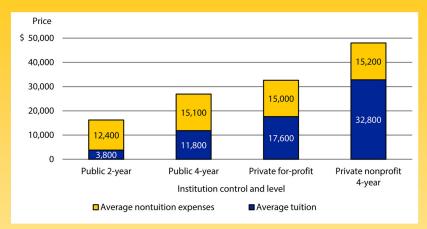
The most common aid combination for students at public 2-year institutions was that of grants alone (51 percent) followed by no aid (22 percent) and a combination of grants and loans (14 percent) (figure 3). About half of

students at these institutions received federal grants (52 percent), and about a third (35 percent) received grants from the states in which they lived (figure 4). These institutions had the lowest percentage of students receiving institutional grants (15 percent) relative to the other institution controls and levels.

#### FIGURE 2.

#### **TUITION AND NONTUITION EXPENSES**

Average tuition and nontuition expenses for full-time, full-year undergraduates, by institution control and level: 2015–16



NOTE: Tuition includes all tuition and fees. Average tuition estimates are shown for those attending only one institution. Nontuition expenses include books and supplies, housing, meals, transportation, and other miscellaneous, or personal expenses. The total price of attendance includes tuition, fees, room and board, books and supplies, transportation, and personal expenses and is estimated for students who attended only one institution during the academic year. Full-time status for the purposes of financial aid eligibility is based on 12 credit hours, unless the awarding institution employs a different standard. Students are considered to have attended for a full year if they are enrolled for 9 or more months during the academic year. Months do not have to be contiguous and students do not have to be enrolled for a full month to be considered enrolled for that month. Private for-profit institutions include less-than-2-year, 2-year, and 4-year institutions. The estimates in this figure include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico. The standard errors of the estimates are shown in table A-1b.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2015–16 National Postsecondary Student Aid Study (NPSAS:16).

#### **Public 4-Year Institutions**

The average tuition expense at public 4-year institutions was \$11,800, which was more than that at public 2-year institutions but less than that at private for-profit and private nonprofit institutions (table 2 and figure 2). Average nontuition expenses at public 4-year institutions (\$15,100) were greater than average nontuition expenses at public 2-year institutions (\$12,400) but were not statistically significantly different from expenses at private for-profit and private nonprofit 4-year institutions.

After students attending public 2-year institutions, students at public 4-year institutions had the lowest percentage of students receiving at least one form of financial aid (87 percent) (table 2). The average aid amount per student was also the second lowest for students attending public 4-year institutions (\$15,300), lower than the average aid at private for-profit (\$17,700) and private nonprofit 4-year institutions (\$30,700). About half (57 percent) of all public 4-year students took out loans for postsecondary attendance. Public 4-year institutions had the second largest percentage of students participating in work study (8 percent), behind only private nonprofit 4-year institutions (24 percent).

Students used varying combinations of financial aid to cover the price of college at public 4-year institutions. Of the different combinations of aid, 32 percent of public 4-year students

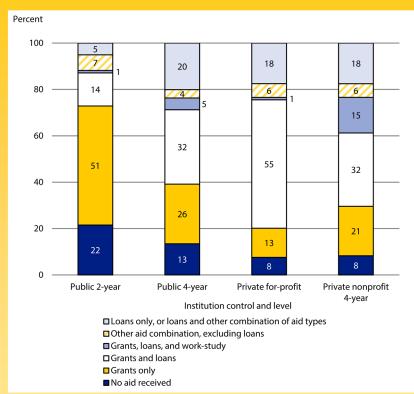
received a pairing of grants and loans, making it the most used aid combination at these institutions, followed by 26 percent of students at these institutions receiving grants alone (figure 3). Compared with other institution controls and levels, public 4-year institutions had the largest proportion of students that used loans, whether they used loans alone or

loans in addition to other aid types including grants and work-study, to finance the cost of college (20 percent). The most prevalent form of grants received was federal grants (43 percent) followed by institutional grants (40 percent) (figure 4).

#### FIGURE 3.

#### **TYPE OF AID PACKAGE**

Percentage of full-time, full-year undergraduates who received particular combinations of aid, by institution control and level: 2015–16



NOTE: Grants include grants, scholarships, or tuition waivers from federal, state, institutional, or private sources, including employers. Loans include only loans to students and may be from federal, state, institutional, or private sources, but exclude other forms of financing such as credit cards, home equity loans, loans from individuals, and Direct PLUS Loans to parents. Other aid includes job training grants, veterans' benefits, employer aid, and Direct PLUS Loans to parents of dependent undergraduates. Full-time status for the purposes of financial aid eligibility is based on 12 credit hours, unless the awarding institution employs a different standard. Students are considered to have attended for a full year if they are enrolled for 9 or more months during the academic year. Months do not have to be contiguous and students do not have to be enrolled for a full month to be considered enrolled for that month. Private for-profit institutions include less-than-2-year, 2-year, and 4-year institutions. The estimates in this figure include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico. Detail may not sum to total because of rounding. The standard errors of the estimates are shown in table A-1b.

#### **Private for-Profit Institutions**

Students attending private for-profit institutions had the second highest average total price of attendance (\$32,600) (figure 1). The average tuition expense was \$17,600, which was also the second highest amount behind that reported by students at private nonprofit institutions (\$32,800) (figure 2). The average nontuition portion of the total price of attendance was \$15,000.

The vast majority (92 percent) of students attending private for-profit institutions received at least one type of aid (table 2). The average aid amount for students at private for-profit institutions was \$17,700, higher than that of public 2-year (\$7,500) and

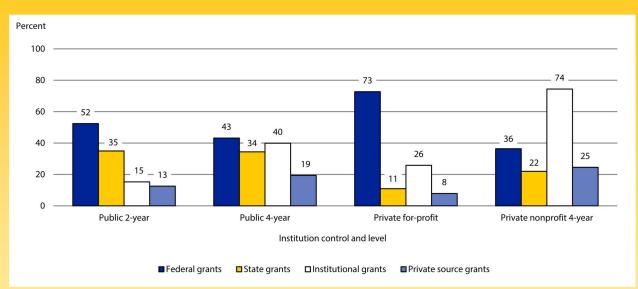
public 4-year institutions (\$15,300) but lower than that of private nonprofit 4-year institutions (\$30,700). About 8 in 10 students (82 percent) at private forprofit institutions received grants, the second highest percentage behind students attending private nonprofit 4-year institutions (87 percent). However, 13 percent of students at private for-profit institutions received grants alone, a rate lower than the other three categories of institutions (figure 3). Relative to other controls and levels, these institutions had the highest percentage of students using veterans' benefits (8 percent) and loans (74 percent) and the smallest percentage of students participating in work study (2 percent) (table 2).

The aid type with the highest percentage among students at private for-profit institutions was the combination of grants and loans (55 percent), followed by loans only or other loan combinations (18 percent) (figure 3). With regard to sources of grant aid, 73 percent of students at private for-profit institutions received federal grants, which was the highest percentage of all institution controls and levels (figure 4). Approximately 11 percent of students attending private for-profit institutions received state source grants and 8 percent received private source grants, smaller percentages relative to students at other institution controls and levels (35 percent and 13 percent at public 2-year institutions, 34 percent and

#### FIGURE 4.

#### **SOURCES OF GRANT AID**

Percentage of full-time, full-year undergraduates who received federal, state, institutional, and private grants, by institution control and level: 2015–16



NOTE: Grants include grants, scholarships, or tuition waivers from federal, state, institutional, or private sources, including employers. Full-time status for the purposes of financial aid eligibility is based on 12 credit hours, unless the awarding institution employs a different standard. Students are considered to have attended for a full year if they are enrolled for 9 or more months during the academic year. Months do not have to be contiguous and students do not have to be enrolled for a full month to be considered enrolled for that month. Private for-profit institutions include less-than-2-year, 2-year, and 4-year institutions. The estimates in this figure include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico. The standard errors of the estimates are shown in table A-1b.

19 percent at public 4-year institutions, and 22 percent and 25 percent at private nonprofit 4-year schools, respectively.

#### **Private Nonprofit 4-Year Institutions**

Students attending private nonprofit 4-year institutions experienced the largest average tuition expense at \$32,800, which was \$15,200 more than the next largest tuition amount of \$17,600 at private for-profit institutions (figure 2). Average nontuition expense at private nonprofit 4-year institutions was \$15,200.

Students at private nonprofit 4-year institutions also had the highest average total aid amount of all institution controls and levels (\$30,700)

and the largest percentage of students receiving at least one type of aid, alongside private for-profit institutions (92 percent) (table 2). Eighty-seven percent of students at private nonprofit 4-year institutions received grants. These students also received the largest average grant amount per student (\$20,600) compared with students at other institution controls and levels.

Like at public 4-year and private forprofit institutions, the aid combination of grants and loans was the most used combination among students at private nonprofit 4-year institutions (32 percent) (figure 3). Approximately 15 percent of students at private nonprofit 4-year institutions received the aid combination of grants, loans, and work study, a higher percentage than at the other four institution categories. This finding is consistent with the finding that almost onequarter (24 percent) of students at private nonprofit 4-year institutions received work study (table 2). Of all grant types, 74 percent of students at private nonprofit 4-year institutions received institutional grants, and 25 percent received private-source grants, which were the largest proportions seen at any of the included institution controls and levels for these two grant types (figure 4). These institutions also had the lowest percentage of students receiving federal grants (36 percent) relative to other institution controls and levels.



# How do the net prices for full-time dependent and independent undergraduates vary by income and institution control and level?

Aid to undergraduate students is often awarded based on financial need. For federal grants, financial need and the expected family contribution are determined by Federal Student Aid, an office of the U.S. Department of Education, using information students and families provide through the Free Application for Federal Student Aid (FAFSA) and formulas established by law. One key factor in assessing need is financial dependency, which determines whether the student's income or family income is used to determine aid eligibility. Because financial dependency plays such a crucial role in calculating need, this section describes how net prices vary by institution control and level for financially dependent and independent students separately.

In examining differences in net prices by income, this report also divides students by income separately for financially dependent and independent students. The income used for financially dependent students is family income, while the income used for financially independent students is student income, including the spouse's income if relevant. The income ranges for fulltime dependent and independent students were each divided into quarters representing 25 percent of the respective samples. This approach allows for comparisons of prices based

on earlier waves of the NPSAS (e.g. Radwin and Wei 2015). The cut-points differ by dependency status because they are based on different sources of income—the family for dependent students and the student for independent students. The cut-points for dependent students are as follows: less than \$32,777 for low family income; \$32,777 to \$71,634 for lowmiddle family income; \$71,635 to \$124,701 for high-middle family income; and greater than \$124,701 for high family income. The cut-points for independent students are as follows: less than \$3,645 for low student income; \$3,645 to \$13,876 for lowmiddle student income; \$13,877 to \$31,781 for high-middle student income; and greater than \$31,781 for high student income.

#### **Dependent Undergraduates**

#### *Net price after grants*

In comparing the net price after grants across institution controls and levels, dependent students attending public 2-year institutions had the lowest price at every family income quarter (figure 5). The average net price after grants for these students ranged from \$9,300 for low family income (less than \$32,777) students to \$13,200 for high family income (greater than \$124,701) students. Dependent students at public 4-year institutions had the next lowest average price, ranging from

\$14,800 for low family income students to \$26,000 for high family income students.

As shown in section 1, students attending private for-profit institutions had lower average prices than their peers in private nonprofit 4-year institutions; however, examining net price after grants by dependent student family income reveals a different pattern. Among low family income and low-middle family income (\$32,77 to \$71,634) dependent students, those who attended private for-profit institutions had higher average net prices after grants (\$24,400 and \$29,100, respectively) than their peers at private nonprofit 4-year institutions (\$20,100 and \$24,800, respectively) (figure 5). The average net prices after grants at private for-profit institutions and private nonprofit 4-year institutions were similar for high-middle family income (\$71,635 to \$124,701) students (\$31,300 and \$30,500, respectively) and high family income students (\$37,800 and \$39,300, respectively).

Low family income dependent students had lower prices to attend college than their higher family income peers. In all institution categories, low family income dependent students had a lower average net price after grants (\$9,300–\$24,400) compared with high-middle family income (\$12,900–

\$31,300) and high family income (\$13,200–\$39,400) dependent students (figure 5). In addition, high family income dependent students in all institution categories had a higher average net price after grants (\$13,100–\$39,300) compared with low family income (\$9,300–\$24,000) and low-middle family income students (\$11,600–29,100).

#### Out-of-pocket net price minus all aid

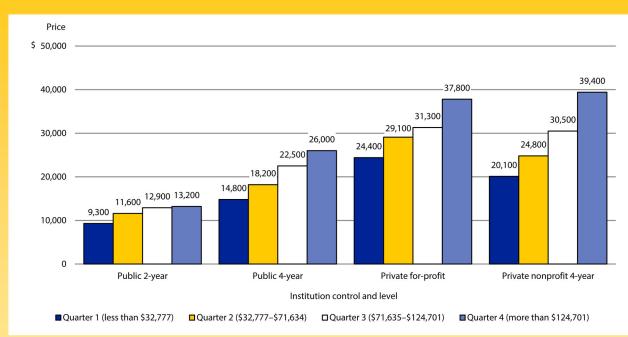
As they did with net price minus grants, dependent students attending

public 2-year institutions had the lowest out-of-pocket net price minus all aid across family income categories. For these students, out-of-pocket net price minus all aid ranged from \$8,400 to \$12,500 (figure 6). However, the highest average out-of-pocket price minus all aid varied across family income categories. Among dependent students in the low family income and low-middle family income categories, private for-profit students had the highest average out-of-pocket price minus all aid at \$15,000 and \$17,000,

respectively, relative to low family income and low-middle family income students at other institution controls and levels. Among high family income dependent students, those attending private nonprofit 4-year institutions had the highest average out-of-pocket expenses minus all aid (\$30,000), followed by students who attended private for-profit (\$23,400), public 4-year (\$19,300), and public 2-year institutions (\$12,500).

#### FIGURE 5.

DEPENDENT UNDERGRADUATE NET PRICE AFTER GRANTS, BY INSTITUTION CONTROL AND LEVEL Average net price after grants for full-time, full-year dependent undergraduates, by institution control and level and family income: 2015–16



NOTE: The net price after grants is the total price of attendance minus all grant aid. Total price of attendance includes tuition and fees, books and supplies, housing, meals, transportation, and other miscellaneous, or personal, expenses. Federal education tax benefits are not included in the calculation. Averages include students who received no grant aid. Grants include grants, scholarships, or tuition waivers from federal, state, institutional, or private sources, including employers. Independent students meet one or more of the following conditions: (1) are age 24 or over, (2) are married, (3) have dependents, (4) are veterans or on active duty, (5) are orphans or wards of the courts, (6) are homeless or at risk of homelessness, and (7) were determined to be independent by a financial aid officer using professional judgment. Other undergraduates under age 24 are considered dependent students. For dependent students, income consists of parents' income. Dollar cutoffs are based on the income distributions of dependent undergraduates. Full-time status for the purposes of financial aid eligibility is based on 12 credit hours, unless the awarding institution employs a different standard. Students are considered to have attended for a full year if they are enrolled for 9 or more months during the academic year. Months do not have to be contiguous and students do not have to be enrolled for a full month to be considered enrolled for that month. Private for-profit institutions include less-than-2-year, 2-year, and 4-year institutions. The estimates in this figure include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico. The standard errors of the estimates are shown in table A-1h.

Compared with their higher family income peers, low family income students had the lowest average out-of-pocket net price minus all aid at public 2-year (\$8,400), public 4-year (\$9,500), and private nonprofit 4-year institutions (\$10,900) (figure 6). At private for-profit institutions, low family income students had lower amounts of out-of-pocket price minus all aid (\$15,000) compared to their high-middle family income (\$18,800)

and high family income (\$23,400) peers. Additionally, at public 4-year and private nonprofit 4-year institutions, dependent students' average out-of-pocket net price minus all aid increased with each family income level (\$9,500–\$19,300 and \$10,900–\$30,000, respectively).

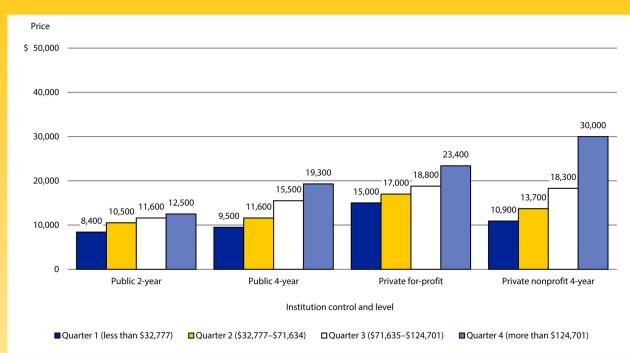
### Out-of-pocket net price minus all aid except student loans

As with the net price after grants and out-of-pocket net price minus all aid,

students at public 2-year institutions had lower average out-of-pocket net price minus all aid except student loans. Dependent students at public 2-year institutions also had the lowest average out-of-pocket net price minus all aid except student loans, ranging from \$9,000 to \$13,100 across all four family income quarters, compared to ranges of \$13,400 to \$23,200 at public 4-year institutions, \$21,300 to \$30,500 at private for-profit institutions, and

#### FIGURE 6.

DEPENDENT UNDERGRADUATE OUT-OF-POCKET NET PRICE MINUS ALL AID, BY INSTITUTION CONTROL AND LEVEL Average out-of-pocket net price minus all aid for full-time, full-year dependent undergraduates, by institution control and level and family income: 2015–16



NOTE: The out-of-pocket net price is the total price of attendance minus all financial aid received, including Direct PLUS Loans to parents. Total price of attendance includes tuition and fees, books and supplies, housing, meals, transportation, and other miscellaneous, or personal, expenses. Federal education tax benefits are not included in the calculation. Total aid includes all types of financial aid from any source except parents, friends, or relatives. Direct PLUS Loans to parents and other types of aid such as employer aid, veterans' benefits, and job training grants are included, but federal tax credits for education are not included. Averages include students who received no aid. Independent students meet one or more of the following conditions: (1) are age 24 or over, (2) are married, (3) have dependents, (4) are veterans or on active duty, (5) are orphans or wards of the courts, (6) are homeless or at risk of homelessness, and (7) were determined to be independent by a financial aid officer using professional judgment. Other undergraduates under age 24 are considered dependent students. For dependent students, income consists of parents' income. Dollar cutoffs are based on the income distributions of dependent undergraduates. Full-time status for the purposes of financial aid eligibility is based on 12 credit hours, unless the awarding institution employs a different standard. Students are considered to have attended for a full year if they are enrolled for 9 or more months during the academic year. Months do not have to be contiguous and students do not have to be enrolled for a full month to be considered enrolled for that month. Private for-profit institutions include less-than-2-year, 2-year, and 4-year institutions. The estimates in this figure include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico. The standard errors of the estimates are shown in table A-1b.

\$16,700 to \$35,800 at private nonprofit 4-year institutions (figure 7). The rank ordering of price by institution type for low-middle family income students for out-of-pocket net price minus all aid except student loans was similar to that of out-of-pocket net price minus all aid, from public 2-year institutions (\$11,300 and \$10,500), public 4-year institutions (\$16,400 and \$11,600), private nonprofit 4-year institutions (\$20,500 and \$13,700), and private forprofit institutions (\$23,800 and \$17,000).

The institutional category with the highest average out-of-pocket net price minus all aid except for student loans varied for the separate family income categories. For dependent students in the low family income and low-middle family income quarters, those attending private for-profit institutions had the highest average out-of-pocket net price minus all aid except student loans (\$21,300 and \$23,800, respectively) compared with their low family income (\$9,000-\$16,700) and low-middle family income peers (\$11,300-\$20,500) at other institutions (figure 7). Among

high family income dependent students, students attending private nonprofit 4-year institutions faced the highest average out-of-pocket net price minus all aid except student loans (\$35,800), followed by those at private for-profit institutions (\$30,500), public 4-year institutions (\$23,200), and public 2-year institutions (\$12,800).

#### **Independent Undergraduates**

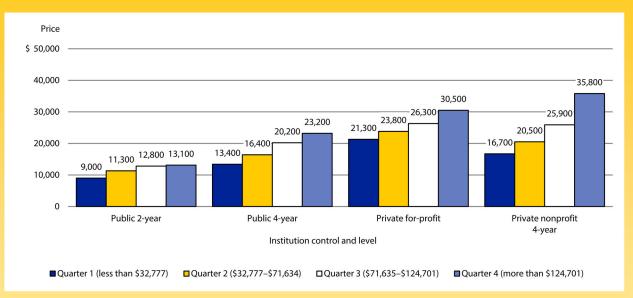
#### *Net price after grants*

Similar to dependent students, fulltime full-year independent students at public 2-year institutions had the

#### FIGURE 7.

DEPENDENT UNDERGRADUATE OUT-OF-POCKET NET PRICE MINUS ALL AID EXCEPT STUDENT LOANS, BY INSTITUTION CONTROL AND LEVEL

Average out-of-pocket net price minus all aid except student loans for full-time, full-year dependent undergraduates, by institution control and level and family income: 2015–16



NOTE: The out-of-pocket net price minus all aid except student loans is the total price of attending a postsecondary institution minus all financial aid except for student loans. Total price of attendance includes tuition and fees, books and supplies, housing, meals, transportation, and other miscellaneous, or personal, expenses. Federal education tax benefits are not included in the calculation. Financial aid includes grants, work-study, job training grants, veterans' benefits, and any other type of aid aside from student loans. Averages include students who received no aid. Independent students meet one or more of the following conditions: (1) are age 24 or over, (2) are married, (3) have dependents, (4) are veterans or on active duty, (5) are orphans or wards of the courts, (6) are homeless or at risk of homelessness, and (7) were determined to be independent by a financial aid officer using professional judgment. Other undergraduates under age 24 are considered dependent students. For dependent students, income consists of parents' income. Dollar cutoffs are based on the income distributions of dependent undergraduates. Full-time status for the purposes of financial aid eligibility is based on 12 credit hours, unless the awarding institution employs a different standard. Students are considered to have attended for a full year if they are enrolled for 9 or more months during the academic year. Months do not have to be contiguous and students do not have to be enrolled for a full month to be considered enrolled for that month. Private for-profit institutions include less-than-2-year, 2-year, and 4-year institutions. The estimates in this figure include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico. The standard errors of the estimates are shown in table A-1b.

lowest average net price after grants compared with their peers in other institutions regardless of their own income: \$13,300 for low student income (less than \$3,645) students, \$12,600 for low-middle student income (\$3,645 to \$13,876) students, \$13,700 for high-middle student income (\$13,877 to \$31,781) students, and \$14,700 for high student income (greater than \$31,871) students (figure 8). These income cut-points are based on student income rather than family income, and the highest cut-point for independent students (\$31,781) is comparable to the lowest cut-point for dependent students (\$32,777). By

contrast, for example, low student income students faced prices of \$19,500 at public 4-year institutions, \$25,700 at private for-profit institutions, and \$33,500 at private nonprofit institutions.

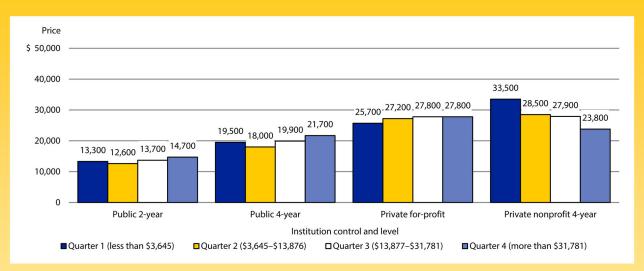
Low-middle student income and high-middle student income independent students had the highest average net price after grants at private for-profit and private nonprofit 4-year institutions, ranging from \$27,200 to \$28,500 (figure 8). Compared with their high student income peers in other institutions, high student income independent students had the greatest average net price after grants at private

for-profit institutions (\$27,800). There was no statistically significant difference between the average net price after grants for independent students in private nonprofit 4-year institutions (\$23,800) and public 4-year institutions (\$21,700). Among high student income independent students, those enrolled in public 2-year institutions had the lowest average net price after grants (\$14,700).

Across institution control and level categories, independent low student income students had the highest average net price after grants at private nonprofit 4-year institutions (\$33,500) and the lowest at public 2-year

#### FIGURE 8.

INDEPENDENT UNDERGRADUATE NET PRICE AFTER GRANTS, BY INSTITUTION CONTROL AND LEVEL Average net price after grants for full-time, full-year independent undergraduates, by institution control and level and student income: 2015–16



NOTE: The net price after grants is the total price of attendance minus all grant aid. Total price of attendance includes tuition and fees, books and supplies, housing, meals, transportation, and other miscellaneous, or personal, expenses. Federal education tax benefits are not included in the calculation. Grants include grants, scholarships, or tuition waivers from federal, state, institutional, or private sources, including employers. Averages include students who received no grant aid. Independent students meet one or more of the following conditions: (1) are age 24 or over, (2) are married, (3) have dependents, (4) are veterans or on active duty, (5) are orphans or wards of the courts, (6) are homeless or at risk of homelessness, and (7) were determined to be independent by a financial aid officer using professional judgment. Other undergraduates under age 24 are considered dependent students. For independent students, income consists of the student's income and, if married, the income of his or her spouse. Dollar cutoffs are based on the income distribution of independent undergraduates. Full-time status for the purposes of financial aid eligibility is based on 12 credit hours, unless the awarding institution employs a different standard. Students are considered to have attended for a full year if they are enrolled for 9 or more months during the academic year. Months do not have to be contiguous and students do not have to be enrolled for a full month to be considered enrolled for that month. Private for-profit institutions include less-than-2year, 2-year, and 4-year institutions. The estimates in this figure include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico. The standard errors of the estimates are shown in table A-1b.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2015—16 National Postsecondary Student Aid Study (NPSAS:16).

institutions (\$13,300) (figure 8).

Moreover, at private nonprofit 4-year institutions, low student income independent students' average net price was higher than that for their peers in all other student income groups, which ranged from \$23,800 for high student income students to \$28,500 for low-middle student income students (figure 8). Among full-time, full-year independent students at public 2-year institutions, low student income and low-middle student income students had a lower net price

after grants than did high student income students (\$13,300 and \$12,600 versus \$14,700, respectively).

#### Out-of-pocket net price minus all aid

There was not a clear relationship between the out-of-pocket net price minus all aid and student income across and within institution controls and levels. However, like net price after grants, low student income students at private nonprofit 4-year institutions had the highest average out-of-pocket net price (\$25,600) compared with all other student income levels (\$14,900–

\$20,000) (figure 9). Low student income students public 4-year institutions also had greater out-of-pocket net price minus all aid (\$14,200) compared to low-middle student income students (\$10,800) and high-middle student income students (\$11,400) and a similar amount as high student income students (\$13,600).

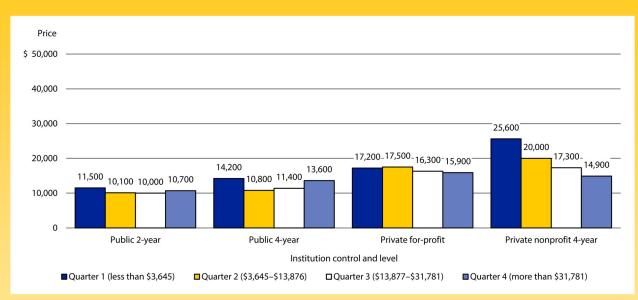
### Out-of-pocket net price minus all aid except student loans

Independent students attending public 2-year institutions had the lowest average out-of-pocket net price

#### FIGURE 9.

INDEPENDENT UNDERGRADUATE OUT-OF-POCKET NET PRICE MINUS ALL AID, BY INSTITUTION CONTROL AND LEVEL

Average out-of-pocket net price after all aid for full-time, full-year independent undergraduates, by institution control and level and student income: 2015–16



NOTE: The out-of-pocket net price is the total price of attendance minus all financial aid received, including Direct PLUS Loans to parents. Total price of attendance includes tuition and fees, books and supplies, housing, meals, transportation, and other miscellaneous, or personal, expenses. Federal education tax benefits are not included in the calculation. Total aid includes all types of financial aid from any source except parents, friends, or relatives. Direct PLUS Loans to parents and other types of aid such as employer aid, veterans' benefits and job training grants are included, but federal tax credits for education are not included. Averages include students who received no aid. Independent students meet one or more of the following conditions: (1) are age 24 or over, (2) are married, (3) have dependents, (4) are veterans or on active duty, (5) are orphans or wards of the courts, (6) are homeless or at risk of homelessness, and (7) were determined to be independent by a financial aid officer using professional judgment. Other undergraduates under age 24 are considered dependent students. For independent students, income consists of the student's income and, if married, the income of his or her spouse. Dollar cutoffs are based on the income distribution of independent undergraduates. Full-time status for the purposes of financial aid eligibility is based on 12 credit hours, unless the awarding institution employs a different standard. Students are considered to have attended for a full year if they are enrolled for 9 or more months during the academic year. Months do not have to be contiguous and students do not have to be enrolled for a full month to be considered enrolled for that month. Private for-profit institutions include less-than-2year, 2-year, and 4-year institutions are shown in table A-1b.

minus all aid except student loans (\$11,900–\$12,700) compared to independent students in all four student income categories at other institution controls and levels (\$16,800–\$31,800) (figure 10).

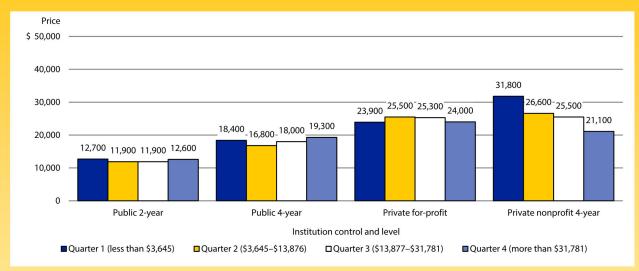
Among independent students, aid does not seem to reduce the cost of education for lower student income students relative to higher student income students. For example, low student income students attending private nonprofit 4-year institutions had an average of \$31,800 in out-of-pocket net price minus all aid except student loans. By contrast, the

corresponding prices were lower among low-middle student income students (\$26,600), high-middle student income students (\$25,500), and high student income students (\$21,100). For independent students, the out-of-pocket net price minus all aid except student loans was similar across all four student income categories for public 2-year institutions and private for-profit institutions. For public 4-year institutions, both low student income students (\$18,400) and high student income students (\$19,300) faced higher prices than lowmiddle student income students (\$16,800).

#### FIGURE 10.

INDEPENDENT UNDERGRADUATE OUT-OF-POCKET NET PRICE MINUS ALL AID EXCEPT STUDENT LOANS, BY INSTITUTION CONTROL AND LEVEL

Average out-of-pocket net price minus all aid except student loans for full-time, full-year independent undergraduates, by institution control and level and student income: 2015–16



NOTE: The out-of-pocket net price minus all aid except student loans is the total price of attendance includes tuition and fees, books and supplies, housing, meals, transportation, and other miscellaneous, or personal, expenses. Federal education tax benefits are not included in the calculation. Financial aid includes grants, work-study, job training grants, veterans' benefits, and any other type of aid aside from student loans. Averages include students who received no aid. Independent students meet one or more of the following conditions: (1) are age 24 or over, (2) are married, (3) have dependents, (4) are veterans or on active duty, (5) are orphans or wards of the courts, (6) are homeless or at risk of homelessness, and (7) were determined to be independent by a financial aid officer using professional judgment. Other undergraduates under age 24 are considered dependent students. For independent students, income consists of the student's income and, if married, the income of his or her spouse. Dollar cutoffs are based on the income distribution of independent undergraduates. Full-time status for the purposes of financial aid eligibility is based on 12 credit hours, unless the awarding institution employs a different standard. Students are considered to have attended for a full year if they are enrolled for 9 or more months during the academic year. Months do not have to be contiguous and students do not have to be enrolled for a full month to be considered enrolled for that month. Private for-profit institutions include less-than-2year, 2-year, and 4-year institutions. The estimates in this figure include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico. The standard errors of the estimates are shown in table A-1b. SOURCE: U.S. Department of Education, National Center for Education Statistics, 2015–16 National Postsecondary Student Aid Study (NPSAS:16).

#### **FIND OUT MORE**

For questions about content or to order additional copies of this Statistics in Brief or view this report online, go to:

#### https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2020470

More detailed information on 2015–16 U.S. undergraduates can be found in Web Tables produced by NCES using NPSAS:16 data. Included are estimates of demographics, enrollment, and employment characteristics. Web Tables documenting how students finance their undergraduate education are also available.

Student Financing of Undergraduate Education in 2015–16: Income, Tuition, and Total Price (NCES 2019-473) https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid= 2019473

Student Financing of Undergraduate Education in 2015–16: Financial Aid by Type and Source (NCES 2019-474) https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid= 2019474

Student Financing of Undergraduate Education in 2015–16:
Students' Net Price, Expected Family Contribution, and
Financial Need (NCES 2019-475)
<a href="https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2019475">https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2019475</a>

Readers may also be interested in the following NCES products related to topics covered in this Statistics in Brief:

2015–16 National Postsecondary Student Aid Study (NPSAS:16): Student Financial Aid Estimates for 2015– 16. (NCES 2018-466) https://nces.ed.gov/pubsearch/pubsinfo.asp?

pubid=2018466

pubid=2015601

Trends in Pell Grant Receipt and the Characteristics of Pell Grant Recipients: Selected Years, 1999–2000 to 2011–12 (NCES 2015-601) https://nces.ed.gov/pubsearch/pubsinfo.asp?

How Families of Low- and Middle-Income Undergraduates
Pay for College: Full-Time Dependent Students in 1999–
2000 (NCES 2003-162)
<a href="https://nces.ed.gov/pubsearch/pubsinfo.asp?">https://nces.ed.gov/pubsearch/pubsinfo.asp?</a>
<a href="pubid=2003162">pubid=2003162</a>

Low-Income Students: Who They Are and How They Pay for Their Education (NCES 2000-169)
<a href="https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2000169">https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2000169</a>

#### **TECHNICAL NOTES**

#### **Survey Methodology**

The estimates provided in this Statistics in Brief are based on data collected through the 2015-16 National Postsecondary Student Aid Study (NPSAS:16). Developed by the U.S. Department of Education, National Center for Education Statistics (NCES), NPSAS:16 includes a cross-sectional, nationally representative sample of undergraduate and graduate students enrolled any time between July 1, 2015, and June 30, 2016, in institutions eligible to participate in federal financial aid programs (Wine, Siegel, and Stollberg 2018). The primary purpose of NPSAS:16 is to measure how students and their families finance postsecondary education at Title IV eligible institutions. NPSAS:16 used a two-stage sampling design. The first stage involved the selection of institutions. The second stage involved the selection of students from the sampled institutions. The resulting sample consists of about 89,000 undergraduate and 24,000 graduate students attending approximately 1,800 Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico. These sample members represent approximately 20 million undergraduate and 4 million graduate students enrolled in postsecondary education at Title IV eligible institutions at any time between July 1, 2015, and June 30, 2016.

#### **VARIABLES USED**

All estimates presented in this Statistics in Brief are listed below. Visit the NCES DataLab website <a href="http://nces.ed.gov/datalab">http://nces.ed.gov/datalab</a> to view detailed information on question wording for variables coming directly from an interview and how variables were constructed, including the sources used to construct them. The program files that generated the statistics presented in this Statistics in Brief can be found at

https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2020470.

Label	Name
Attendance pattern	ATTNSTAT
Dependency status	DEPEND
Total federal grants (excludes Veterans'/DOD)	TFEDGRT
Income percentile rank for full-time, full-year students	PCTALLFTFY
NPSAS institution sector (4 with multiple)	SECTOR4
Institutional grants total	INGRTAMT
Net price minus all aid except loans (student budget minus all aid except for student loans)	NETCST43
Net price of attendance (student budget minus all grants)	NETCST3
Nontuition expense budget (attendance adjusted)	BUDNONAJ
Out-of-pocket net price of attendance (student budget minus all aid)	NETCST1
Outside grants (private & employer)	OTHGTAMT
State grants total	STGTAMT
Total aid amount	TOTAID
Total grants	TOTGRT
Total loans (excluding Parent PLUS Loans)	TOTLOAN
Non-tuition expense budget (attendance adjusted)	BUDGETAJ
Total work-study	TOTWKST
Tuition and fees paid	TUITION2
Aid package by type of aid	AIDTYPE
Federal Veterans' education benefits	VETBEN

Information for NPSAS:16 came from multiple sources. Students provided data through a self-administered web survey or a computer-assisted telephone interview. Institutions provided student information from financial aid records and other institutional sources. Data were also collected from other sources, including the U.S. Department of Education's Central Processing System and National Student Loan Data System (financial aid data), Integrated Postsecondary Education Data System

(institutional data), the College Board and ACT (postsecondary entrance exam scores), National Student Clearinghouse (enrollment and completion data), and Veterans Benefits Administration (data on veterans and military service).

For more information on NPSAS:16, see 2015–16 National Postsecondary Student Aid Study (NPSAS:16) Data File Documentation (NCES 2018-482) at <a href="http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2018482">http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2018482</a>.

#### Response Rates and Nonresponse Bias Analysis

NCES Statistical Standard 4-4-1 states that "[a]ny survey stage of data collection with a unit or item response rate less than 85 percent must be evaluated for the potential magnitude of nonresponse bias before the data or any analysis using the data may be released" (Seastrom 2014). Nonresponse causes bias in survey estimates when the outcomes of respondents and nonrespondents are different. In NPSAS, nonresponse bias analysis may be required at any of three levels: institutions, study respondents, or items. In NPSAS:16, the institution and study respondent response rates were 90 percent and 93 percent, respectively (Wine, Siegel, and Stollberg 2018). Therefore, nonresponse bias analysis was not conducted at either of these two levels.

Thirteen of the 19 variables used in this report had response rates below 85 percent and required nonresponse bias analysis (exhibit 1): NETCST1 (41 percent), NETCST43 (41 percent), NETCST3 (42 percent), AIDTYPE (52 percent), TOTAID (52 percent), TOTGRT (52 percent), OTHGTAMT (65 percent), TOTLOAN (67 percent), BUDGETAJ (70 percent), PCTALLFTFY (70 percent), BUDNONAJ (80 percent), TFEDGRT (81 percent), and STGTAMT (84 percent). For each of these variables, nonresponse bias analysis was conducted to determine whether respondents and nonrespondents differed on the following characteristics: institution control,

region, and total enrollment; whether students received federal aid, institutional aid, state aid, Pell Grants, or Stafford Loans; the total amount students received in Pell Grants, Stafford Loans, and grant and scholarship aid; the institution-level percentage of first-time/full-time (FT/FT) degree/certificate-seeking undergraduate students who received any grant aid, number of FT/FT undergraduate students with incomes up to \$30,000 who received Title IV aid, and number of FT/FT undergraduates living on campus; parents' highest education; student age, sex, race/ethnicity, marital status, family income, major field, degree program, and veteran status; whether the student had any dependent children; and whether the sampled institution considered the student a baccalaureate student at the time of sampling. Differences between respondents and nonrespondents on these variables—comparing means for continuous variables and comparing percentages in each category of categorical variables—were tested for statistical significance at the .05 level.

Across these 13 variables, respondents differed from nonrespondents on 58 percent to 73 percent of the characteristics listed above, indicating that there are biases in estimates based on these variables. Any bias due to nonresponse, however, is measured prior to stochastic imputation, in which missing data are replaced with valid data from the records of donor cases that match the recipient cases (i.e., those with missing data) on selected

demographic, enrollment, institution, and financial aid-related variables (Krotki, Black, and Creel 2005). The potential for bias in estimates may be reduced through imputation, because imputation procedures are designed to identify donor respondents whose characteristics are similar to the respondents with missing data. Although the amount of item-level bias before imputation is measurable, the same measurement cannot be made after imputation, and therefore the magnitude of any change in item-level bias due to imputation cannot be determined. Therefore, the item estimates before and after imputation were compared to determine whether imputation changed the biased preimputation estimates. If so, imputation may have reduced bias.

For continuous variables, the pre- and postimputation differences were computed by subtracting the mean after imputation from the mean before imputation. For categorical variables, the pre- and postimputation differences were computed by subtracting the percentage of students in each category after imputation from the percentage of students in that category before imputation. Statistical tests of these pre- and postimputation differences were significant for 8 of these variables (AIDTYPE, TOTAID, TOTGRT, OTHGTAMT, BUDGETAJ, PCTALLFTFY, TFEDGRT, and STGTAMT), indicating that nonresponse bias may have been reduced through imputation. For the remaining five variables (NETCST1, NETCST43,

NETCST3, TOTLOAN, and BUDGNONAJ), the differences between estimates before and after imputation were not statistically significant, suggesting that for these five variables, imputation may not have reduced bias, the sample size was too small to detect a significant difference, or there was little bias to be reduced.

The low response rates observed for the composite variables TOTAID, TOTGRT, NETCST1, NETCST43, and NETCST3 are due largely to the low response rate of some component variables (e.g., employer aid and private loans) that apply to relatively few students. For example, TOTGRT was constructed from multiple aid components (e.g., grants, scholarships, employer aid, etc.), many of which were obtained from federal databases and institutional records and have very high response rates. Some aid (e.g., employer aid [EMPLYAM3]), however, is disbursed directly to students and not through institutional financial offices. Because the primary source of information about such aid is the student interview, EMPLYAM3 was missing for interview nonrespondents and had a low response rate, 59 percent (Wine, Siegel, and Stollberg 2018). Its low response rate, in turn, contributed to the low response rate of TOTGRT, to which it contributed information; TOTAID, which depends upon TOTGRT; as well as NETCST1, NETCST43, and NETCST3, which depend upon TOTAID. EMPLYAM3's contribution to TOTGRT's nonresponse bias is limited, however, because few

students receive this aid. In 2015–16, for example, 6 percent of undergraduates received employer aid, whereas 63 percent of all undergraduates received any grants (TOTGRT). Thus, the relatively low response rates of certain components reduce the response rate of the composites considerably but have limited effects on bias.

For more detailed information on nonresponse bias analysis and an overview of the survey methodology, see the 2015–16 National Postsecondary Student Aid Study (NPSAS:16) Data File Documentation (NCES 2018-482) (https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2018482).

#### Statistical Procedures

Comparisons made in the text were tested for statistical significance at the p < .05 level to ensure that the differences were larger than might be expected due to sampling variation. Consistent with widely accepted statistical standards, only those findings that are statistically significant at the .05 level are reported. That is, there is less than a 5 percent chance that the difference occurred by chance. When comparing estimates between categorical groups (e.g., sex, race/ethnicity), t statistics were calculated.

The following formula was used to compute the *t* statistic:

$$t = \frac{E_1 - E_2}{\sqrt{se_1^2 + se_2^2}}$$

where  $E_1$  and  $E_2$  are the estimates to be compared and  $se_1$  and  $se_2$  are their corresponding standard errors.

No adjustments were made for multiple comparisons. It is important to note that many of the variables examined in this report may be related to one another and to other variables not included in the analyses. The complex interactions and relationships among the variables were not fully explored and warrant more extensive analysis. Furthermore, the variables examined in this report are just a few of those that could be examined. Readers are cautioned not to draw causal inferences based on the results presented.

The coefficient of variation (CV) represents the ratio of the standard error to the estimate. The CV is an important measure of the reliability and accuracy of an estimate. In this report, the CV was calculated for all estimates. If any standard errors were between 30 and 50 percent of the estimate, estimates were noted with a "!" symbol (interpret with caution) in tables and figures; estimates with a standard error greater than 50 percent were suppressed and noted as "reporting standards not met."

#### Sources of Error in Estimates

Two broad categories of error occur in estimates generated from surveys: sampling and nonsampling errors.

Sampling errors occur when observations are based on samples rather than on entire populations. The

standard error of a sample statistic is a measure of the variation due to sampling and indicates the precision of the statistic. The complex sampling design used in NPSAS:16 must be taken into account when calculating variance estimates such as standard errors. The standard errors for the estimates in this report were generated using the balanced repeated replication method to adjust variance estimation for the complex sample design used for NPSAS:16. Nonsampling errors can be attributed to several sources: incomplete information about all respondents

(e.g., some students or institutions refused to participate, or students participated but answered only certain items); differences among respondents in question interpretation; inability or unwillingness to give correct information; mistakes in recording or coding data; and other errors of collecting, processing, and imputing missing data. Efforts were made to prevent such errors from occurring and to compensate for them where possible. For example, data collection instruments were field tested, the survey questions included in the instruments had been tested and used

in previous surveys, interviewers were trained to administer the surveys in a standardized manner, and interviewer performance and field data quality were monitored throughout the collection period. More information on sampling and nonsampling errors is available in the NPSAS:16 data file documentation report available at <a href="http://nces.ed.gov/pubsearch/pubsinf">http://nces.ed.gov/pubsearch/pubsinf</a> o.asp?pubid=2018482.

**Exhibit 1. Bias analysis results** 

Variable name	Variable label	Response rate	Median percent relative bias across characteristics	Percent of characteristics with significant bias	Characteristic with greatest significant bias	Percent difference in means or average percent difference across all categories pre- and postimputation
NETCST1	Student budget minus all aid	41.3	12.4	64.1	Institutional aid status	2.1
NETCST43	Student budget minus all aid except loans	41.3	12.4	64.1	Institutional aid status	1.8
NETCST3	Student budget minus all grants	41.7	12.8	64.1	Institutional aid status	2.1
AIDTYPE	Aid package by type of aid	51.8	10.1	61.5	Institutional aid status	6.6*
TOTAID	Total aid amount	51.8	10.1	61.5	Institutional aid status	8.5*
TOTGRT	Total grants	52.4	10.0	63.3	Institutional aid status	10.5*
OTHGTAMT	Outside grants (private and employer)	64.7	8.5	65.6	Federal aid status	12.8*
TOTLOAN	Total loans (excluding Parent PLUS Loans)	66.9	7.4	63.9	State aid status	1.8
BUDGETAJ	Student budget (attendance adjusted)	70.3	8.0	58.3	State aid status	3.2*
PCTALLFTFY	Income percentile rank for full-time, full-year students	76.8	13.3	72.7	Federal aid status	4.2*
BUDNONAJ	Non-tuition expense budget (attendance adjusted)	80.3	8.6	72.0	Pell Grant status	0.7
TFEDGRT	Total federal grants (excludes Veterans'/DOD)	81.2	8.6	65.3	State aid status	2.3*
STGTAMT	State grants total	83.8	8.1	63.6	Institutional aid status	4.1*

<sup>\*</sup> Indicates statistically significant difference at p < .05.

NOTE: Relative bias is computed by dividing a variable's estimated bias for a given characteristic by the variable's mean. Bias is defined as significant if its difference from zero is statistically significant at *p* < .05. A complete list of variables used in this report is available in these Technical Notes. Visit the NCES DataLab website <a href="https://nces.ed.gov/datalab">https://nces.ed.gov/datalab</a> to view detailed information on question wording for variables coming directly from an interview, how variables were constructed, and their sources.

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#### **APPENDIX A. TABLES**

Table A-1a. Average total price, net price, out-of-pocket price, and aid types among full-time, full-year undergraduates, by institution control and level and selected student characteristics: 2015–16

	Public	Public	Private	Private nonprofit	A
Total price, net price, out-of-pocket price, and aid types	2-year	4-year	for-profit <sup>1</sup>	4-year	institution
Average total price	\$16,100	\$26,900	\$32,600	\$48,000	\$30,50
Average tuition	3,800	11,800	17,600	32,800	15,90
Average nontuition expenses	12,400	15,100	15,000	15,200	14,60
Average net price after grants	12,100	20,300	27,400	30,000	21,70
Average out-of-pocket net price	10,400	13,800	16,700	19,900	14,90
Average out-of-pocket price minus all aid except student loans	11,500	18,300	24,400	26,400	19,5
Type of aid					
Any aid <sup>2</sup>	7,500	15,300	17,700	30,700	18,0
Any grants <sup>3</sup>	5,500	9,000	6,200	20,600	11,2
Any loans <sup>4</sup>	5,700	8,000	10,500	10,200	8,7
Any work-study	2,800	2,500	2,900	2,300	2,4
Veteran's benefits	14,500	17,900	28,900	29,000	21,0
Net price after grants by family income, dependent students					
Low family income (less than \$32,777)	9,300	14,800	24,400	20,100	15,2
Low-middle family income (\$32,777–\$71,634)	11,600	18,200	29,100	24,800	18,7
High-middle family income (\$71,635–\$124,701)	12,900	22,500	31,300	30,500	23,2
High family income (more than \$124,701)	13,200	26,000	37,800	39,400	30,2
Out-of-pocket net price by family income, dependent students					
Low family income (less than \$32,777)	8,400	9,500	15,000	10,900	9,9
Low-middle family income (\$32,777–\$71,634)	10,500	11,600	17,000	13,700	12,0
High-middle family income (\$71,635–\$124,701)	11,600	15,500	18,800	18,300	15,7
High family income (more than \$124,701)	12,500	19,300	23,400	30,000	22,9
Net price minus all aid except student loans, by family income,	,	•	•	,	•
dependent students					
Low family income (less than \$32,777)	9,000	13,400	21,300	16,700	13,6
Low-middle family income (\$32,777-\$71,634)	11,300	16,400	23,800	20,500	16,6
High-middle family income (\$71,635–\$124,701)	12,800	20,200	26,300	25,900	20,6
High family income (more than \$124,701)	13,100	23,200	30,500	35,800	27,3
Net price after grants by student income, independent students					
Low student income (less than \$3,645)	13,300	19,500	25,700	33,500	21,7
Low-middle student income (\$3,645-\$13,876)	12,600	18,000	27,200	28,500	20,6
High-middle student income (\$13,877–\$31,781)	13,700	19,900	27,800	27,900	21,2
High student income (more than \$31,781)	14,700	21,700	27,800	23,800	21,6
Out-of-pocket net price by student income, independent students					
Low student income (less than \$3,645)	11,500	14,200	17,200	25,600	16,2
Low-middle student income (\$3,645-\$13,876)	10,100	10,800	17,500	20,000	13,7
High-middle student income (\$13,877–\$31,781)	10,000	11,400	16,300	17,300	13,1
High student income (more than \$31,781)	10,700	13,600	15,900	14,900	13,6
Net price minus all aid except student loans, by student income, independent students					
Low student income (less than \$3,645)	12,700	18,400	23,900	31,800	20,5
Low-middle student income (\$3,645-\$13,876)	11,900	16,800	25,500	26,600	19,2
High-middle student income (\$13,877–\$31,781)	11,900	18,000	25,300	25,500	19,1
High student income (more than \$31,781)	12,600	19,300	24,000	21,100	18,9

#### Table A-1a—Continued. Average total price, net price, out-of-pocket price, and aid types among full-time, full-year undergraduates, by institution control and level and selected student characteristics: 2015–16

NOTE: Full-time status for the purposes of financial aid eligibility is based on 12 credit hours, unless the awarding institution employs a different standard. Students are considered to have attended for a full year if they are enrolled for 9 or more months during the academic year. Months do not have to be contiguous and students do not have to be enrolled for a full month to be considered enrolled for that month. Total price of attendance includes tuition and fees, books and supplies, housing, meals, transportation, and other miscellaneous, or personal, expenses.

The net price of attendance is the total price of attendance minus all grant aid. The out-of-pocket net price of attendance is the total price of attendance minus all financial aid, including Direct PLUS Loans to parents of dependent undergraduates. In calculating the out-of-pocket net price minus all aid except student loans, all financial aid except for student loans is subtracted from the total price of attendance. Federal education tax benefits are not included in the calculation of net price or out-of-pocket net price. Averages include students who received no aid. Independent students meet one or more of the following conditions: (1) are age 24 or over, (2) are married, (3) have dependents, (4) are veterans or on active duty, (5) are orphans or wards of the courts, (6) are homeless or at risk of homelessness, and (7) were determined to be independent by a financial aid officer using professional judgment. Other undergraduates under age 24 are considered dependent students. For dependent students, income consists of parents' income. For independent students, income consists of the student's income and, if married, the income of his or her spouse. Dollar cutoffs for dependent and independent students are based on the income distribution among all undergraduates with the same dependency status. Estimates are not provided for students at "other" institutions or more than one institution individually but are included in the total estimate for all

<sup>&</sup>lt;sup>1</sup> Private for-profit institutions include less-than-2-year, 2-year, and 4-year institutions.

<sup>&</sup>lt;sup>2</sup> Any aid includes all types of financial aid from any source except parents, friends, or relatives. Direct PLUS Loans to parents and other types of aid such as employer aid, veterans' benefits, and job training grants are included, but federal tax credits for education are not included.

<sup>&</sup>lt;sup>3</sup> Any grants include grants, scholarships, or tuition waivers from federal, state, institutional, or private sources, including employers.

<sup>&</sup>lt;sup>4</sup> Loans include only loans to students and may be from federal, state, institutional, or private sources, but exclude other forms of financing such as credit cards, home equity loans, loans from individuals, and Direct PLUS Loans to parents.

Table A-1b. Standard errors for Table A-1a. Average total price, net price, out-of-pocket price, and aid types among full-time, full-year undergraduates, by institution control and level and selected student characteristics: 2015–16

				Private	
	Public	Public	Private	nonprofit	All
Total price, net price, out-of-pocket price, and aid types	2-year	4-year	for-profit_	4-year	institutions
Average total price	\$190	\$140	\$680	\$370	\$160
Average tuition	80	100	510	350	140
Average nontuition expenses	180	90	340	240	90
Average net price after grants	200	140	640	370	130
Average out-of-pocket net price	220	140	480	380	130
Average out-of-pocket price minus all aid except student loans	210	140	540	380	130
Type of aid					
Any aid	150	110	380	340	110
Any grants	120	90	160	290	90
Any loans	120	60	180	180	60
Any work-study	210	60	370	40	30
Veteran's benefits	660	670	1,050	1,670	470
Net price after grants by family income, dependent students					
Low family income (less than \$32,777)	280	300	1,360	760	240
Low-middle family income (\$32,777–\$71,634)	330	290	1,250	570	240
High-middle family income (\$71,635–\$124,701)	370	250	1,680	650	260
High family income (more than \$124,701)	480	260	1,880	680	330
Out-of-pocket net price by family income, dependent students					
Low family income (less than \$32,777)	300	310	820	720	230
Low-middle family income (\$32,777–\$71,634)	340	300	950	640	230
High-middle family income (\$71,635–\$124,701)	390	300	1,490	750	270
High family income (more than \$124,701)	510	310	1,960	730	340
Net price minus all aid except student loans, by family income,					
dependent students					
Low family income (less than \$32,777)	290	300	980	690	230
Low-middle family income (\$32,777–\$71,634)	340	290	990	620	240
High-middle family income (\$71,635–\$124,701)	370	260	1,580	690	260
High family income (more than \$124,701)	490	290	1,840	680	340
Net price after grants by student income, independent students					
Low student income (less than \$3,645)	510	580	1,340	1,730	530
Low-middle student income (\$3,645-\$13,876)	440	380	980	1,390	470
High-middle student income (\$13,877–\$31,781)	440	550	560	1,370	370
High student income (more than \$31,781)	350	460	720	1,060	340
Out-of-pocket net price by student income, independent students					
Low student income (less than \$3,645)	580	690	1,000	1,720	520
Low-middle student income (\$3,645-\$13,876)	570	480	890	1,590	470
High-middle student income (\$13,877–\$31,781)	500	660	440	1,570	380
High student income (more than \$31,781)	510	590	740	1,070	360
Net price minus all aid except student loans, by student income,					
independent students					
Low student income (less than \$3,645)	520	620	1,100	1,650	520
Low-middle student income (\$3,645-\$13,876)	490	420	1,060	1,440	480
High-middle student income (\$13,877–\$31,781)	430	580	550	1,460	370
High student income (more than \$31,781)	440	550	700	1,080	360
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2015–16 Nation	al Postsecondary St	udent Aid Study (	NPSAS:16).		

Table A-2a. Percentage of full-time, full-year undergraduates receiving types of aid, aid packages, and grant sources, by institution control and level: 2015–16

	Public	Public	Private	Private nonprofit	All
Types of aid, aid packages, and grant sources	2-year	4-year	for-profit1	4-year	institutions
Type of aid					
Any aid <sup>2</sup>	78.5	86.6	92.4	91.7	86.5
Any grants <sup>3</sup>	72.5	73.7	82.5	87.3	76.8
Any loans⁴	20.4	57.3	73.9	64.5	53.9
Any work-study	4.0	7.9	1.9	24.4	10.4
Veteran's benefits	4.0	2.5	7.7	2.1	3.1
Type of aid package					
No aid received	21.5	13.4	7.6	8.3	13.2
Grants only	51.3	25.7	12.6	21.3	28.3
Grants and loans	14.3	32.1	55.4	31.6	30.5
Grants, loans, and work-study	1.0	5.1	1.0	15.4	6.6
Other aid combination, excluding loans	6.7	3.6	5.9	5.9	4.9
Loans only, or loans and other combination of aid types	5.1	20.1	17.5	17.5	16.5
Sources of grant aid					
Federal grants	52.4	43.1	72.7	36.3	45.3
State grants	34.9	34.4	10.9	22.0	29.6
Institutional grants	15.3	39.9	25.8	74.4	42.8
Private source grants	12.6	19.4	7.9	24.6	18.5

<sup>&</sup>lt;sup>1</sup> Private for-profit institutions include less-than-2-year, 2-year, and 4-year institutions.

NOTE: Full-time status for the purposes of financial aid eligibility is based on 12 credit hours, unless the awarding institution employs a different standard. Students are considered to have attended for a full year if they are enrolled for 9 or more months during the academic year. Months do not have to be contiguous and students do not have to be enrolled for a full month to be considered enrolled for that month. Other aid includes job training grants, veterans' benefits, employer aid, and Direct PLUS Loans to parents of dependent undergraduates. The estimates in this table include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico. Detail may not sum to total because of rounding. The standard errors of the estimates are shown in table A-2b.

<sup>&</sup>lt;sup>2</sup> Any aid includes all types of financial aid from any source except parents, friends, or relatives. Direct PLUS Loans to parents and other types of aid such as employer aid, veterans' benefits, and job training grants are included, but federal tax credits for education are not included.

<sup>&</sup>lt;sup>3</sup> Any grants include grants, scholarships, or tuition waivers from federal, state, institutional, or private sources, including employers.

<sup>&</sup>lt;sup>4</sup> Loans include only loans to students and may be from federal, state, institutional, or private sources, but exclude other forms of financing such as credit cards, home equity loans, loans from individuals, and Direct PLUS Loans to parents.

Table A-2b. Standard errors for Table A-2a. Percentage of full-time, full-year undergraduates receiving types of aid, aid packages, and grant sources, by institution control and level: 2015–16

	Public	Public	Private	Private nonprofit	All
Types of aid, aid packages, and grant sources	2-year	4-year	for-profit	4-year	institutions
Type of aid					
Any aid	0.89	0.39	0.60	0.50	0.25
Any grants	0.92	0.48	0.85	0.62	0.31
Any loans	0.75	0.45	1.20	0.62	0.31
Any work-study	0.49	0.34	0.25	0.83	0.26
Veteran's benefits	0.35	0.16	0.64	0.20	0.11
Type of aid package					
No aid received	0.89	0.39	0.60	0.50	0.27
Grants only	1.06	0.43	1.16	0.56	0.35
Grants and loans	0.67	0.50	1.22	0.79	0.37
Grants, loans, and work-study	0.21	0.31	0.20	0.73	0.24
Other aid combination, excluding loans	0.58	0.19	0.46	0.36	0.16
Loans only, or loans and other combination of aid types	0.40	0.41	0.78	0.51	0.26
Sources of grant aid					
Federal grants	0.90	0.46	0.96	0.50	0.35
State grants	1.22	0.62	1.06	0.74	0.48
Institutional grants	1.30	0.71	1.62	0.91	0.48
Private source grants	0.77	0.54	0.60	0.77	0.38

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