

STATS IN BRIEF

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Federal Education Tax Benefits

Who Receives Them and to What Extent Do They Shape the Price of College Attendance?

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Statistics in Brief publications present descriptive data in tabular formats to provide useful information to a broad audience, including members of the general public. They address simple and topical issues and questions. They do not investigate more complex hypotheses, account for inter-relationships among variables, or support causal inferences. We encourage readers who are interested in more complex questions and in-depth analysis to explore other NCES resources, including publications, online data tools, and public- and restricted-use datasets. See nces.ed.gov and references noted in the body of this document for more information.

With the Taxpayer Relief Act

of 1997, the federal government moved beyond providing postsecondary students and their families with traditional types of student financial aid like grants and loans and created two education tax credits: the Hope tax credit and the lifetime learning tax credit. A few years later, in the Economic Growth and Tax Relief Reconciliation Act of 2001, the federal government added another education tax benefit: the tuition and fees deduction.¹

Both forms of tax benefits, credits and deductions, provide financial assistance for education expenses by reducing the tax liabilities of tax filers who pay education-related expenses. Tax *deduction* claims are subtracted from initial taxable income.² In contrast, tax *credit* claims are subtracted directly from the amount of taxes owed.³ In 2007, eligible filers could receive a Hope credit of up to \$1,650 for each

¹ The Hope tax credit, the lifetime learning tax credit, and the tuition and fees deduction are the only education tax benefits discussed in this report. The 2009 American Opportunity Tax Credit, which modified the Hope tax credit for 2009 and 2010, is not included because it was not available for the students and families studied in this report. Other Internal Revenue Service (IRS) policies related to individuals' education costs, including tax-free scholarships, fellowships, grants, and tuition reductions; student loan interest deductions; student loan cancellations and repayment assistance; Coverdell education savings accounts (ESAs); and qualified tuition programs are not part of this analysis. The ability to exclude employer-provided tuition assistance received from taxable income and the parental personal exemption for full-time students under age 24 are also not explored in this report.

² Filers can claim the tuition and fees deduction even if they do not itemize deductions on Schedule A.

³ Education tax credit claim amounts that exceed the amount owed in taxes are not refundable to the filer.

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eligible student in the household.⁴ The lifetime learning credit of up to \$2,000 and the tuition and fees deduction of up to \$4,000, however, could be applied only once per return, regardless of how many eligible students were in the household.⁵ To qualify for these tax benefits, filers had to meet income limits⁶ and incur net tuition and fee expenses for the eligible student after subtracting grant aid and veterans benefits. Eligible students had to be U.S. citizens or legal residents at a minimum; the Hope credit had several additional enrollment requirements as well.⁷

These three tax benefits have become a significant source of student aid in recent years. In 2007–08, the total value of these benefits reached \$6.85 billion (College Board 2010). Examined another way, education tax benefits represented about 6 percent of all undergraduate aid dollars, more than the proportion provided through both federal work-study programs (1 percent) and federal grant programs other than the Pell Grant program (3 percent) (College Board 2008).

The size of these tax benefits has motivated various researchers to explore their use as a policy tool,⁸ but evidence

about who receives these benefits and their relationship to traditional student aid resources has been limited. This Statistics in Brief addresses this gap in the literature by examining the percentage of 2007–08 undergraduates who received education tax benefits, the amount they received in tax benefits compared with the amounts they received in other forms of aid, and the effect tax benefits have on the net price of college attendance.⁹ These results are then explored by dependent students' family income because financial aid received and net college price paid are strongly related to income.

Conducting an analysis of education tax benefits requires a more complicated methodology than that used to estimate other types of financial aid. This is because analyses of student interviews have concluded that students are not a reliable source of information about use of these tax benefits (Berkner and Wei 2006). Also, unlike traditional types of financial aid, post-secondary institutions do not know and therefore cannot report the dollar value of any tax benefit for an individual student. And while the Internal Revenue Service (IRS) reports the number and dollar amount of education tax

benefit claims for returns within various income ranges, it cannot associate the use of tax benefits with other forms of aid affecting the net price of college because it lacks student-level data.

Since student-level data are not available from other sources, IRS rules for 2007 education tax benefits (U.S. Department of the Treasury 2007b) were applied to a nationally representative sample of undergraduate and graduate students enrolled in the 2007–08 academic year¹⁰ to determine the potential distributions and amounts of the tax benefits if they had been claimed for all eligible students. Next, because not all eligible filers claim these education tax benefits (U.S. Government Accountability Office 2008), the results were adjusted to approximate the 2007 distribution of actual education tax credits and deductions taken, by income level, as reported by the IRS.¹¹ These methods are explained in greater detail in the methodological appendix. All comparisons of estimates presented in this report were tested for statistical significance using the Student's *t*-statistic, and all differences cited are statistically significant at the $p < .05$ level.¹²

⁴ Rules from 2007 are included here because these are the rules used in this report's analysis.

⁵ Therefore, although only one tax benefit could be applied to a given eligible student, filers with several eligible students in their household potentially could receive all three types of tax benefits.

⁶ Specifically, to be eligible for either credit the tax filer's adjusted gross income had to be less than \$57,000 for single filers and less than \$114,000 for joint filers. For the deduction, the tax filer's adjusted gross income could not exceed \$80,000 for single filers and \$160,000 for joint filers.

⁷ For more detailed information on these tax benefits' eligibility requirements, see the methodological appendix of this report. The complete rules on education tax benefits for the 2007 tax year are located here: <http://www.irs.gov/pub/irs-prior/p970-2007.pdf> (U.S. Department of the Treasury 2007b).

⁸ See, for example, Jackson (2006) and Reschovsky (2008).

⁹ As an earlier NCES report explained, the 1998 National Commission on the Cost of Higher Education "formally distinguished between cost, defined as the amount it takes an institution to educate a student (i.e., the production cost per student), and price, what a student and his or her family actually pay to attend. Cost is only indirectly related to price because institutions have multiple sources of revenue, among which tuition (price) is one source" (Horn, Wei, and Berker 2002). In this report, the price of college includes tuition and fees as well as all other nontuition and living expenses such as books, supplies, and housing. Net price of college in this analysis reflects this price of college minus education tax benefits, nonfederal grants, and federal grants and veterans benefits. Nonfederal grants comprise institutional grants and tuition and fee waivers as well as state grants and grants from private sources. Federal grants do not include work-study.

¹⁰ Specifically, data come from the U.S. Department of Education, National Center for Education Statistics, 2007–08 National Postsecondary Student Aid Study (NPSAS:08).

¹¹ Although federal tax benefits use net tuition from the prior calendar year (2007), the NPSAS:08 survey collected data for the academic year (2007–08). Tax benefits were thus estimated for the 2007–08 academic year.

¹² No adjustments for multiple comparisons were made. The standard errors for the estimates can be found at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2012212>.

STUDY QUESTIONS

1 What percentage of 2007–08 undergraduates received an education tax benefit and to what extent did these benefits reduce the overall price of college attendance?

2 Among dependent undergraduates, how did receipt of education tax benefits vary by family income?

3 Among dependent undergraduate tax benefit recipients, how did the extent to which education tax benefits lowered the overall price of college attendance vary by family income?

KEY FINDINGS

- Nearly one-half of all 2007–08 undergraduates were estimated to have received an education tax benefit, reducing recipients' average college expenses for the academic year by about \$700.
- Low-middle-income and high-middle-income dependent undergraduates were estimated to have received tax benefits at higher rates than were low-income and high-income dependent undergraduates.¹³ The most common reason low-income dependent students did not receive a tax benefit was that they had no net tuition after subtracting the grant aid and veterans benefits they received.
- Low-middle- and high-middle-income dependent undergraduate tax benefit recipients received higher average amounts in tax benefits than low-income and high-income dependent undergraduate tax benefit recipients.

¹³ Family income categories were based on parents' annual income in 2006. Dollar cutoffs were based on the distribution among all dependent undergraduates: "Low-income" includes those in the lowest 25 percentiles (less than \$36,100, including those with no income); "low-middle-income" includes those in the 26th to 50th percentiles (\$36,100–\$66,599); "high-middle-income" includes those in the 51st to 75th percentiles (\$66,600–\$104,599); and "high-income" includes those in the highest 25 percentiles (\$104,600 or more).

1

What percentage of 2007–08 undergraduates received an education tax benefit and to what extent did these benefits reduce the overall price of college attendance?

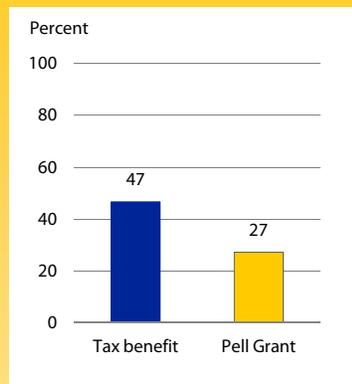
Forty-seven percent of 2007–08 undergraduates received an education tax benefit (figure 1-A).¹⁴ By comparison, only 27 percent of undergraduates received a federal Pell Grant, by far the largest federal grant program (College Board 2010).

Among undergraduate recipients of education tax benefits, the average total price of college attendance for 1 year was \$14,300 (figure 1-B). Tax benefits reduced college expenses incurred by about \$700 or 5 percent. This tax benefit amount was more than the \$400 the average tax benefit recipient received in veterans benefits and federal grant aid combined, but less than the \$1,300 the average tax benefit recipient received in nonfederal grant aid. These latter two sources of aid reduced the price of college attendance by approximately 3 percent and 9 percent, respectively.

It is also important to understand how tax benefits shape average net price for undergraduates as a whole. The pattern for all undergraduates (which includes tax benefit recipients and nonrecipients) was different. For this group the average amount received in tax benefits was smaller (\$300) than both the average amount received in nonfederal grants (\$1,800) and in other federal aid (\$900). Viewed another way, education tax benefits reduced the initial price of attendance (\$14,000) for all undergraduates by 2 percent while nonfederal grants and federal grant aid and veterans benefits lowered the price by 13 percent and 6 percent, respectively.

FIGURE 1-A.

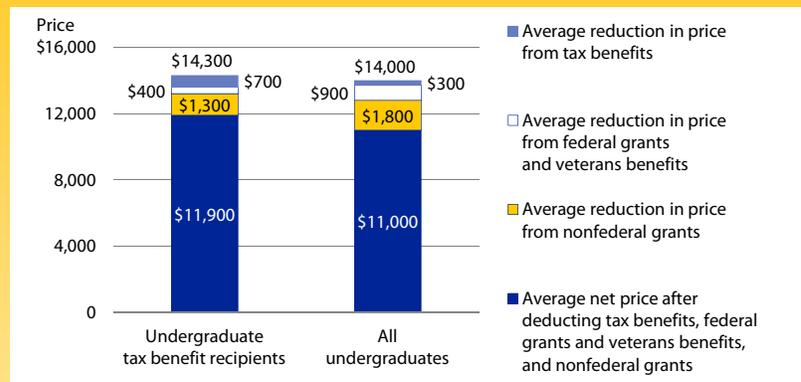
RECEIPT OF TAX BENEFITS
Percentage of undergraduates who received an education tax benefit or received a Pell Grant: 2007–08



NOTE: Estimates include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico. Tax benefit results were imputed using education tax benefit rules and data published by the Internal Revenue Service. These results are limited to students who attended one institution during the 2007–08 academic year (92 percent of all undergraduates). Standard error tables are available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2012212>.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2007–08 National Postsecondary Student Aid Study (NPSAS:08).

FIGURE 1-B.

PRICE AND NET PRICE
Undergraduate tax benefit recipients' and all undergraduates' average price of attendance and average net price of attendance after deducting education tax benefits, federal grants and veterans benefits, and nonfederal grants: 2007–08



NOTE: For both undergraduate tax benefit recipients and all undergraduates, the average reductions in price from federal grants and veterans benefits as well as from nonfederal grants are based on those who did receive these types of aid as well as those who did not receive these types of aid. For all undergraduates but not for undergraduate tax benefit recipients, the average reduction in price from tax benefits is based on those who did receive this type of aid as well as those who did not receive it. The average amounts for these forms of aid would be higher if they were based only on those who received these forms of aid because \$0 amounts would not be included in the calculation of the averages. Estimates include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico. Tax benefit results were imputed using education tax benefit rules and data published by the Internal Revenue Service. These results are limited to students who attended one institution during the 2007–08 academic year (92 percent of all undergraduates). Detail may not sum to totals because of rounding. Standard error tables are available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2012212>.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2007–08 National Postsecondary Student Aid Study (NPSAS:08).

¹⁴ Because the data used in this Statistics in Brief cannot provide net tuition information for students who attended more than one institution, results in the body of this report are limited to the 92 percent of undergraduates who attended one institution during the 2007–08 academic year (Staklis 2010).

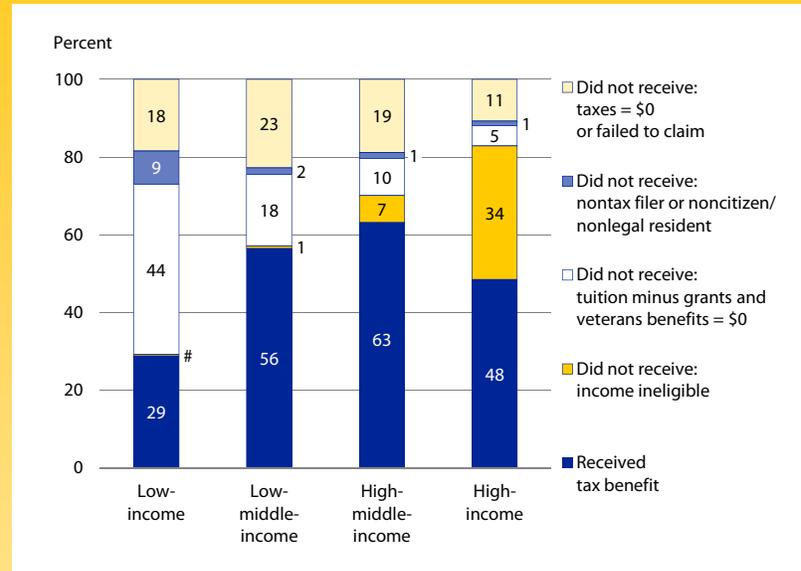
2 Among dependent undergraduates, how did receipt of education tax benefits vary by family income?

Among dependent undergraduates, 56 percent of students from low-middle-income and 63 percent of students from high-middle-income families received education tax benefits, compared with 48 percent of students from high-income and 29 percent of students from low-income families (figure 2).

As figure 2 depicts, the most common reason low-income dependent students did not receive a tax benefit was that they had no net tuition after subtracting the grant aid and veterans benefits they received. Forty-four percent of all low-income dependent students were ineligible due to this requirement. (In calculating education tax credit and deduction claims, filers can only apply the tuition and fees incurred after all grant aid and veterans benefits have been subtracted.) In contrast, the most common reason high-income dependent students did not receive a tax benefit was that they exceeded income limits. Thirty-four percent were disqualified based on this condition.¹⁵

FIGURE 2.

RECEIPT OF TAX BENEFITS, BY FAMILY INCOME
Percentage distribution of dependent undergraduates' receipt of education tax benefits, by reasons for not receiving a tax benefit and family income: 2007–08



Rounds to zero.

NOTE: If students did not receive a tax benefit for more than one reason, they were placed in a single reason category with priorities as follows: income ineligible, no net tuition and fees, and did not file taxes or not a citizen or legal resident. Family income categories were based on parents' annual income in 2006. Dollar cutoffs were based on the distribution among all dependent undergraduates in the NPSAS sample: "Low-income" includes those in the lowest 25 percentiles (less than \$36,100, including those with no income); "low-middle-income" includes those in the 26th to 50th percentiles (\$36,100–\$66,599); "high-middle-income" includes those in the 51st to 75th percentiles (\$66,600–\$104,599); and "high-income" includes those in the highest 25 percentiles (\$104,600 or more). Estimates include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico. Tax benefit results were imputed using education tax benefit rules and data published by the Internal Revenue Service. These results are limited to students who attended one institution during the 2007–08 academic year (92 percent of all undergraduates). Detail may not sum to totals because of rounding. Standard error tables are available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2012212>.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2007–08 National Postsecondary Student Aid Study (NPSAS:08).

¹⁵ For more detail on the various eligibility requirements of each education tax benefit, see the methodological appendix.

3 Among dependent undergraduate tax benefit recipients, how did the extent to which education tax benefits lowered the overall price of college attendance vary by family income?

On average, high-middle-income dependent undergraduate tax benefit recipients received the greatest amount in education tax benefits (\$1,000), followed closely by their low-middle-income counterparts (\$900) (figure 3). Low-income and high-income students received smaller average amounts (\$600 and \$700, respectively). The percentage reduction in price of college attendance as a result of these tax benefits followed a similar pattern, with high-middle-income and low-middle-income students enjoying greater average relative savings (about 6 percent each) than did low-income and high-income students (4 percent and 3 percent, respectively).

Low-income tax benefit recipients received more, on average, in both nonfederal grants (\$1,900) and federal grants and veterans benefits (\$1,400) than they did in tax benefits (\$600). Nonfederal grants reduced their average price of attendance by 12 percent and federal grants and veterans benefits lowered it by 9 percent on average. For other income groups only the average amount received in nonfederal grants (between \$1,900 and \$2,100) exceeded the average amount received in tax benefits (between \$700 and \$1,000); these three higher income groups received an average of \$200 or less in federal grants and veterans benefits. Analyzed another way, on average, nonfederal grants lowered these groups' price of attendance by between 10 and 13 percent, while federal grants and veterans benefits did not lower the price at all for high-middle-

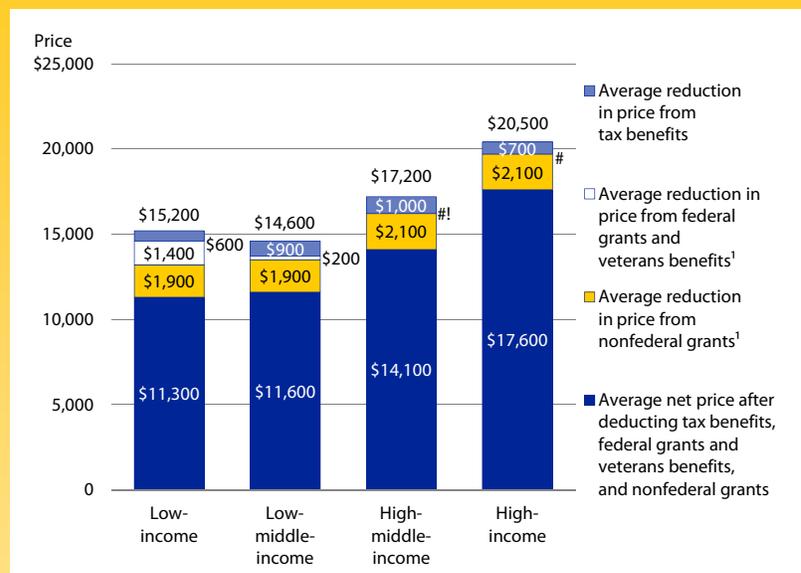
and high-income students and only reduced the price by 2 percent for low-middle-income students.

These three sources of aid combined (tax benefits, nonfederal grants, and federal grants and veterans benefits)

lowered low-income undergraduate tax benefit recipients' price of college by 26 percent. For low-middle-income, high-middle-income, and high-income undergraduate tax benefit recipients, the reduction was 21 percent, 18 percent, and 14 percent, respectively.

FIGURE 3.

PRICE AND NET PRICE, BY FAMILY INCOME
Dependent undergraduate tax benefit recipients' average price of attendance and average net price of attendance after deducting education tax benefits, federal grants and veterans benefits, and nonfederal grants, by family income: 2007–08



The amount for "Average reduction in price from federal grants and veterans benefits" rounds to zero for the high-middle- and high-income groups.

! Interpret data with caution. Estimate is unstable because the standard error represents more than 30 percent of the estimate.

¹ These averages are based on those who did receive these types of aid as well as those who did not receive these types of aid. The average amounts for these forms of aid would be higher if they were based only on those who received these forms of aid because \$0 amounts would not be included in the calculation of the averages.

NOTE: Family income categories were based on parents' annual income in 2006. Dollar cutoffs were based on the distribution among all dependent undergraduates in the NPSAS sample: "Low-income" includes those in the lowest 25 percentiles (less than \$36,100, including those with no income); "low-middle-income" includes those in the 26th to 50th percentiles (\$36,100–\$66,599); "high-middle-income" includes those in the 51st to 75th percentiles (\$66,600–\$104,599); and "high-income" includes those in the highest 25 percentiles (\$104,600 or more). Estimates include students enrolled in Title IV eligible postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico. Tax benefit results were imputed using education tax benefit rules and data published by the Internal Revenue Service. These results are limited to students who attended one institution during the 2007–08 academic year (92 percent of all undergraduates). Detail may not sum to totals because of rounding. Standard error tables are available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2012212>.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2007–08 National Postsecondary Student Aid Study (NPSAS:08).

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<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2012212>

More detailed information on 2007–08 U.S. undergraduates can be found in Web Tables produced by NCES using the NPSAS:08 data. Included are estimates of demographics, enrollment, and employment characteristics. Web Tables documenting how students pay for their undergraduate education are also available.

Web Tables—Profile of Undergraduate Students: 2007–08 (NCES 2010-205)

<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2010205>

Web Tables—Student Financing of Undergraduate Education: 2007–08 (NCES 2010-162)

<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2010162>

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

What Is the Price of College? Total, Net, and Out-of-Pocket Prices in 2007–08 (NCES 2011-175)

<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2011175>

Undergraduate Financial Aid Estimates by Type of Institution in 2007–08 (NCES 2009-201)

<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009201>

2007–08 National Postsecondary Student Aid Study (NPSAS:08): Student Financial Aid Estimates: First Look (NCES 2009-166)

<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009166>

Student Financing of Undergraduate Education: 2003–04, With a Special Analysis of the Net Price of Attendance and Federal Education Tax Benefits (NCES 2006-186)

<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2006186>

What Students Pay for College: Changes in Net Price of College Attendance Between 1992–93 and 1999–2000 (NCES 2002-174)

<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2002174>

TECHNICAL NOTES

Survey Methodology

The estimates provided in this Statistics in Brief are based on data collected through the 2007–08 National Postsecondary Student Aid Study (NPSAS:08). NPSAS covers broad topics concerning student enrollment in postsecondary education and how students and their families finance their education. In 2008, students provided data through instruments administered over the Internet or by telephone. In addition to student responses, data were collected from the institutions that sampled students attended and other relevant databases, including U.S. Department of Education records on student loan and grant programs and student financial aid applications. NPSAS:08 is the seventh administration of NPSAS, which has been conducted every 3 to 4 years since 1986–87. The NPSAS:08 target population includes students enrolled in Title IV postsecondary institutions in the United States and Puerto Rico at any time between July 1, 2007, and June 30, 2008.¹⁶ This population included about 21 million undergraduates and 3 million graduate students enrolled in more than 6,000 institutions.

The institution sampling frame for NPSAS:08 was constructed from the 2004–05 and 2005–06 Institutional Characteristics, Fall Enrollment, and Completions files of the Integrated Postsecondary Education Data System. The sampling design consisted of first selecting eligible institutions, then selecting students from these institutions. Institutions were selected with probabilities proportional to a composite measure of size based on expected 2007–08 enrollment. With approximately 1,700 institutions participating in the study, the weighted institution unit response rate was 90 percent. Eligible sampled students were defined as study respondents if at least 11 key data elements were available from any data source. Approximately 114,000 undergraduates and 14,000 graduate students were study respondents, and the weighted student unit response rates for both levels were 96 percent. Estimates were weighted to adjust for the unequal probability of selection into the sample and for nonresponse.

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:08 must be taken into account when calculating variance estimates such as standard errors. NCES's online PowerStats, which generated the estimates in this report, uses the balanced repeated replication and Jack-knife methods to adjust variance estimation for the complex sample design.

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, sampling, and imputing missing data.

For more information on NPSAS:08 methodology, see the *2007–08 National Postsecondary Student Aid Study (NPSAS:08) Full-scale Methodology Report* (<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2011188>).

¹⁶ The target population of students was limited to those enrolled in an academic program, at least one course for credit that could be applied toward an academic degree, or an occupational or vocational program requiring at least 3 months or 300 clock hours of instruction to receive a degree, certificate, or other formal award. The target population excluded students who were also enrolled in high school or a high school completion (e.g., GED preparation) program. "Title IV institutions" refers to institutions eligible to participate in federal financial aid programs under Title IV of the Higher Education Act.

Item Response Rates

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” (U.S. Department of Education 2002). In the case of NPSAS:08, this means that nonresponse bias analysis could be required at any of three levels: (a) institutions, (b) study respondents, or (c) items. Because the institutional and study respondent response rates were 90 percent and 96 percent, respectively, nonresponse bias analysis was not required at those levels.

The student interview response rate, however, was 71 percent, and therefore nonresponse bias analysis was required for those variables based in whole or in part on student interviews.

In this report, five variables required nonresponse bias analysis: PCTDEP (55 percent), NETCST33 (36 percent), TNFEDGRT (61 percent), TXELIGR (35 percent), and TXTOTBEN (43 percent). PCTDEP reflects the 2006 total income of the dependent student’s parents. The remaining variables are based on the 2007–08 academic year. NETCST33 is equal to the student’s budget minus all grants, veterans benefits, and tax benefits. TNFEDGRT is the total amount of nonfederal grants the student received. TXELIGR shows whether a student was estimated to have received a federal education tax benefit, and if not, it indicates the reason the student did not receive it. Finally,

VARIABLES USED

All estimates presented in this Statistics in Brief were produced using PowerStats, a web-based software application that allows users to generate tables for many of the postsecondary surveys conducted by NCES. See “Run Your Own Analysis With DataLab” below for more information on PowerStats. The variables used in this Brief are listed below. Visit the NCES DataLab website (<http://nces.ed.gov/datalab>) to view detailed information on how these variables were constructed and their sources. Under *Detailed Information About PowerStats Variables, NPSAS Undergraduates: 2008*, click by *subject* or by *variable name*. The program files that generated the statistics presented in this Brief can be found at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2012212>.

Label	Name
Education tax benefit	TXTOTBEN
Net price of attendance after deducting tax benefits, federal grants and veterans benefits, and nonfederal grants	NETCST33
Nonfederal grants	TNFEDGRT
Number of institutions attended	STUDMULT
Parents’ income	PCTDEP
Pell Grant	PELLAMT
Price of attendance	BUDGETAJ
Receipt of education tax benefit: reasons not received	TXELIGR
Veterans benefits and federal grants	TFEDGRT2

TXTOTBEN estimates the total amount received in federal education tax credits and tax deduction benefits.

For each of these variables, nonresponse bias analyses were conducted to determine whether respondents and nonrespondents differed on the following characteristics: institution sector, region, and total enrollment; student type, gender, and age group; whether the student had Free Application for Federal Student Aid data, was a federal aid recipient, was a Pell Grant recipient, or borrowed a Stafford Loan; and the amount, if any, of a student’s Pell Grant or Stafford Loan. Differences between respondents and nonrespon-

dents on these variables were tested for statistical significance at the 5 percent level.

Nonresponse bias analyses of the variables in this report with response rates less than 85 percent indicated that respondents differed from nonrespondents on 69 percent to 88 percent of the characteristics analyzed, indicating that there may be bias in these estimates. To the extent that there are differential responses by respondents in these groups, nonresponse bias is a concern in that respondents may not represent the intended population with regard to these estimates. That said, any bias due

to nonresponse is based on responses prior to stochastic imputation, and bias may have been reduced through imputation. Because imputation procedures are designed specifically to identify donors with similar characteristics to those with missing data, the imputation is assumed to reduce bias. While item-level bias before imputation is measurable, such bias after imputation is not, so whether the imputation affected the bias cannot be directly evaluated.

Therefore, the item estimates before and after imputation were compared to determine whether the imputation changed the biased estimate, thus suggesting a reduction in bias. For continuous variables, the difference between the mean before imputation and the mean after imputation was estimated. For categorical variables, the estimated difference was computed for each of the categories as the percentage of students in that category before imputation minus the percentage of students in that category after imputation. These estimated differences were tested for statistical significance at the 5 percent level. A significant difference in the item means after imputation implies a reduction in bias due to imputation. A nonsignificant difference suggests that imputation may not have reduced bias, that the sample size was too small to detect a significant difference, or that there was little bias to be reduced. Statistical tests of the differences between

the means before and after imputation for these five variables were significant, indicating that the nonresponse bias was reduced through imputation. Some bias may remain, however.

For more detailed information on nonresponse bias analysis and an overview of the survey methodology, see *2007–08 National Postsecondary Student Aid Study (NPSAS:08) Full-scale Methodology Report* (<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2011188>).

Statistical Procedures

Comparisons of means and proportions were tested using Student's *t* statistic. Differences between estimates were tested against the probability of a Type I error¹⁷ or significance level. The statistical significance of each comparison was determined by calculating the Student's *t* value for the difference between each pair of means or proportions and comparing the *t* value with published tables of significance levels for two-tailed hypothesis testing. Student's *t* values were computed to test differences between independent estimates using the following formula:

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

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

¹⁷ A Type I error occurs when one concludes that a difference observed in a sample reflects a true difference in the population from which the sample was drawn, when no such difference is present.

There are hazards in reporting statistical tests for each comparison. First, comparisons based on large *t* statistics may appear to merit special attention. This can be misleading because the magnitude of the *t* statistic is related not only to the observed differences in means or percentages but also to the number of respondents in the specific categories used for comparison. Hence, a small difference compared across a large number of respondents would produce a large (and thus possibly statistically significant) *t* statistic.

A second hazard in reporting statistical tests is the possibility that one can report a "false positive" or Type I error. Statistical tests are designed to limit the risk of this type of error using a value denoted by alpha. The alpha level of .05 was selected for findings in this report and ensures that a difference of a certain magnitude or larger would be produced when there was no actual difference between the quantities in the underlying population no more than 1 time out of 20.¹⁸ When analysts test hypotheses that show alpha values at the .05 level or smaller, they reject the null hypothesis that there is no difference between the two quantities. Failing to reject a null hypothesis (i.e., detect a difference), however, does not imply the values are the same or equivalent.

¹⁸ No adjustments were made for multiple comparisons.

METHODOLOGICAL APPENDIX

Since 1998, the federal government has provided postsecondary students and their families with tax benefits for postsecondary educational expenses. In 2007, the federal government offered tax filers three types of education tax benefits: a Hope credit of up to \$1,650 that could be applied to each eligible student in the household, a lifetime learning credit of up to \$2,000 that could be applied only once per return regardless of how many eligible students were in the household, and a tuition and fees deduction of up to \$4,000 per return that also could be applied only once regardless of how many eligible students were in the household. Filers could only apply one education tax benefit for a given eligible student, but if filers had multiple eligible students in their household they could potentially receive all three types of education tax benefits.¹⁹

SUMMARY OF METHODOLOGY

Data Used

As noted in the introduction, estimating these tax credits and deductions requires a more complicated methodology than that used to estimate other types of financial aid. First, unlike traditional types of financial aid, postsecondary institutions do not know and therefore cannot report the dollar value of the tax benefit for individual students. Second, those who have conducted analyses of student inter-

¹⁹ The complete rules on education tax benefits for the 2007 tax year are located here: <http://www.irs.gov/pub/irs-prior/p970--2007.pdf> (U.S. Department of the Treasury 2007b).

views have concluded that students are not a reliable source of information about use of these tax benefits (Berkner and Wei 2006). As a result, estimates of tax benefit amounts for NPSAS:08 undergraduate and graduate students were imputed using the IRS's 2007 guidelines on tax benefits for education (U.S. Department of the Treasury 2007b) and the IRS's 2007 data on the distribution of education tax credits and deductions by income (table 1.4 and table 3.3, <http://www.irs.gov/taxstats/indtaxstats/article/0,,id=134951,00.html>).

Assumptions Made

- Parents of dependent students (rather than the students themselves) claimed the tax benefits,²⁰ and if the

²⁰ Parents of dependent students rather than dependent students themselves were assumed to claim education tax benefits for several reasons. To begin, one of the eligibility criteria for receiving an education tax benefit is filing taxes. In 2007, dependent students only needed to file taxes if (1) their unearned income was more than \$850, (2) their earned income was more than \$5,350, or (3) their gross income was more than the larger of (a) \$850, or (b) their earned income (up to \$5,050) plus \$300 (U.S. Department of the Treasury 2007a). Only 35 percent of 2007–08 dependent students earned \$5,351 or more in 2006 (authors' analysis of NPSAS:08 data using PowerStats at <http://nces.ed.gov/datalab>). Yet even in families in which dependent students earned enough to file a tax return, students would be unlikely to claim the education tax benefit. This is because the dependent student and the parents of a dependent student cannot both claim the education tax benefit for the student's expenses. Of the two, parents of dependents would be more likely to claim the benefit for a couple of reasons. First, parents are likely to be paying more in education expenses. Among dependent students who had net tuition and fees after grant aid and veterans benefits were subtracted as well as earned \$5,351 or more in 2006, 58 percent received parental financial support for tuition and fees (authors' analysis of NPSAS:08 data using PowerStats at <http://nces.ed.gov/datalab>). This percentage climbs as tuition increases to 68 percent, 75 percent, and 82 percent when tuition and fees reach \$10,001–20,000, \$20,001–30,000, and \$30,001–40,000, respectively (authors' analysis of NPSAS:08 data using PowerStats at <http://nces.ed.gov/datalab>). Second, parents of dependent students almost always earn more money than dependent students. Among those dependent students who earned \$5,351 or more in 2006, 97 percent had parents with an equivalent or higher income (authors' analysis of

parents were married, they filed a joint tax return.²¹

- The 2006 adjusted gross income data available in the NPSAS:08 sample approximate the 2007 adjusted gross income data the IRS published for its sample.²²
- The number of tax returns with education tax credit or deduction claims in the IRS 2007 calendar year approximates the number of students who could have filed claims (or for whom parents filed claims) for tuition paid in the 2007–08 academic year.²³

NPSAS:08 data using PowerStats at <http://nces.ed.gov/datalab>). The average parental income of dependent students was \$79,830.47, while the average income earned by dependent students themselves was \$7,060.49 (authors' analysis of NPSAS:08 data using PowerStats at <http://nces.ed.gov/datalab>). For both of these reasons the dollar value of the education tax benefit would typically be greater for parents than it would be for their dependent child, making it more advantageous for parents than for students to claim the education tax benefit.

²¹ While married individuals can choose to file separately instead of jointly, filing separately typically results in a higher tax bill, which encourages joint filing (U.S. Department of the Treasury 2007a). An analysis of 2007 IRS data (table 1.2, <http://www.irs.gov/taxstats/indtaxstats/article/0,,id=96978,00.html>) suggests that less than 2.5 percent of all married couples' returns were filed separately.

²² A comparison of 2006 and 2007 IRS data (table 1 from 2006 and table 1 from 2007 on this site: <http://www.irs.gov/taxstats/indtaxstats/article/0,,id=133414,00.html>) reveals that the change between these 2 years in the percentage of filers in each IRS-reported income category did not exceed 0.7 percentage points.

²³ A comparison of 2007 and 2008 IRS tax benefit filing data (table 1 from 2007 and 2008 and table 2 from 2007 and 2008 on this site: <http://www.irs.gov/taxstats/indtaxstats/article/0,,id=133414,00.html>) reveals that in each IRS-reported income category the change between years in the percentage of total tuition and fees deduction claims varied by no more than 1.7 percentage points and the percentage of total education credit claims varied between years by no more than 1.0 percentage point. Other peer-reviewed work analyzing education tax benefits assumed that the academic year is representative of the tax/calendar year as well (Long 2004).

Applying Education Credit and Deduction Eligibility Requirements

Various requirements were applied in determining tax credit and deduction eligibility. To receive any of the three tax benefits the following requirements were applied:

- The recipient must file federal taxes.
- The tax filer must incur tuition and fee costs after subtracting all grant aid and veterans benefits (including Department of Defense assistance) received.
- The student for whom the benefit is being claimed must be a citizen or legal resident.

The following eligibility requirement was applied specifically for the tuition and fees deduction:

- The tax filer's adjusted gross income must not exceed \$80,000 for single filers and \$160,000 for joint filers.

The following eligibility requirement was applied specifically for the lifetime learning credit:

- The tax filer's adjusted gross income must be less than \$57,000 for single filers and less than \$114,000 for joint filers.

The following eligibility requirements were applied specifically for the Hope credit:

- The tax filer's adjusted gross income must be less than \$57,000 for single filers and less than \$114,000 for joint filers.

- The student must be in a certificate or degree program.
- The student must be in the first or second year of postsecondary education.
- For at least one academic period during the year, the student must be enrolled at least half time.²⁴

Estimating Education Tax Credit and Deduction Claims

IRS data do not distinguish between Hope and lifetime learning credit claims, but instead provide information on education tax credits in general. For comparability, a single credit claim amount had to be established for NPSAS students. First, the maximum credit amount permissible based on income, tax-filing status,²⁵ and net tuition and fees was calculated for each type of credit for which a student was eligible.²⁶ When the maximum credit amount exceeded the amount owed in federal taxes, the credit amount was set equal to federal taxes owed. Stu-

²⁴ The IRS has two additional eligibility requirements for Hope credits: tax filers can only apply the Hope credit for a given student for a maximum of 2 years, and the student cannot have a felony drug conviction. Because NPSAS data do not include information that can address these two requirements, these IRS requirements are not factored into NPSAS estimates.

²⁵ Independent students' tax-filing status was based on their marital status. Married independent students were assumed to be joint filers and all other independent students were assumed to be single filers. Dependent students' tax-filing status was based on their parents' marital status. If dependent students' parents were married to someone they were assumed to be joint filers. Otherwise dependent students' parents were assumed to be single filers.

²⁶ The IRS tax claim numbers include students who attended more than one institution (about 8 percent in NPSAS:08) and so NPSAS tax claim estimates must include these students as well. Because NPSAS students who attended more than one institution do not have actual net tuition data, their net tuition was imputed for the temporary purpose of calculating NPSAS estimates. In the results presented in the body of this Statistics in Brief, students who attended more than one institution were not included.

dents eligible for both tax credits were given a single credit amount based on whichever credit produced the greater savings.

For every student eligible for a deduction (regardless of whether they were eligible for a tax credit), the maximum deduction amount permissible based on income, tax filing status,²⁷ and net tuition and fees was calculated.

Because about one-fifth of tax filers who are eligible for education tax credits and deductions do not claim these benefits (U.S. Government Accountability Office 2008), it was not surprising that the initial weighted number of NPSAS sample students who could have claimed one of these three tax benefits, based on the eligibility requirements imposed in this analysis, was greater than the total number of IRS filers reported to claim these benefits.

As a first step in getting NPSAS numbers to reflect the number of IRS claims more accurately, NPSAS sample students eligible for a tax benefit but who did not appear to owe federal taxes²⁸ were randomly recoded as not claiming a tax benefit using the following

²⁷ See footnote 25.

²⁸ Officially, filers with no tax liability are not eligible for education tax benefits. NPSAS tax liability information, however, contains the tax amount owed after credits and deductions have been applied. Thus NPSAS cases that appeared to have a zero tax liability may have in fact owed taxes before education tax benefits were applied. Thus some NPSAS cases with no apparent net tax liability were eligible for education tax benefits and needed to be retained to better match IRS numbers.

proportion, which was calculated separately for each income category:²⁹

$$\frac{\text{(NPSAS students eligible for tax benefit} \\ \text{– IRS number of claims)}}{\text{NPSAS students eligible for a tax benefit}}$$

In the lower income categories, this recoding caused the number of NPSAS students who were estimated to have filed a tax credit or deduction claim to roughly equal the number of IRS filers who filed a tax credit or deduction claim.

In the higher income categories, where failing to owe any federal taxes is less common, an additional step was needed for NPSAS estimated claim totals to better reflect IRS claim totals. Thus, a second proportion was calculated so that some remaining higher income NPSAS students eligible for a tax benefit were randomly recoded as not claiming a tax benefit.³⁰ This proportion was computed separately for each higher income group as follows:

$$\frac{\text{(NPSAS claim total after first adjustment} \\ \text{– IRS claim total)}}{\text{NPSAS claim total after first adjustment}}$$

This recoding caused the number of higher income NPSAS individuals estimated to have filed a tax credit or deduction claim to roughly equal the total number of IRS filers who filed a tax credit or deduction claim.

Because IRS rules prohibit use of more than one type of education tax benefit for a given student, the next step was to allocate NPSAS students eligible for both a credit and a deduction to either tax credit or tax deduction categories. NPSAS students were randomly assigned to the credit or deduction category based on the proportion of IRS filers in each category.³¹

Estimating Education Tax Benefits

The tax credit benefit amount was equal to the tax credit claim amount. This occurs first because the requirement that the tax credit benefit amount not exceed the amount owed in taxes was imposed when calculating tax credit claim amounts. Second, tax credit claims are subtracted directly from the amount of taxes owed and thus the tax credit claim amount reflects the tax savings or benefit received.

Unlike tax credits, the actual tax benefit amount of a tax deduction is not the same as the tax deduction claim amount. The tax deduction claim is subtracted from initial taxable income, rather than from taxes owed. Therefore, the tax benefit is the difference between the taxes owed before and after the deduction is subtracted from income. Calculating the value of this benefit requires multiplying the deduction claim amount by the estimated marginal tax rate, which is based on adjusted gross income. Because tax benefits cannot exceed the amount of federal taxes owed, if this preliminary tax deduction benefit amount was greater than the initial tax liability, then the potential tax benefit amount of the deduction was reduced to equal the initial tax liability.³²

RESULTS

Table 1 presents tax claim results, specifically the numbers of claims and claim dollar amounts reported by the IRS and the imputed numbers of claims and dollar amounts in the NPSAS sample.

³¹ This procedure was used because an examination of actual tax returns by the U.S. Government Accountability Office (GAO) (2005, 2008) found that filers' choice of education tax benefit was often irrational (i.e., not based on what would provide the greatest savings). The GAO did not determine the characteristics of filers making suboptimal choices. That said, it found that even 50 percent of taxes prepared by professional tax preparers failed to claim the optimal benefit, suggesting that income and education data are not necessarily helpful in predicting which tax filers are likely to make the suboptimal choice (U.S. Government Accountability Office 2008). See Davis (2002) for more on the complexity families face in selecting the education tax benefit that offers the greatest savings.

³² This same requirement and procedure also was implemented for tax credits, but applied earlier, when calculating tax credit claim amounts.

²⁹ For income categories used, see table 1 of this report.
³⁰ Though U.S. Government Accountability Office (2005, 2008) reports indicate that a significant percentage of eligible tax filers fail to claim an education tax benefit, characteristics related to failing to file a claim have yet to be established.

TABLE 1.**EDUCATION TAX CLAIMS**

Comparison of 2007 Internal Revenue Service data and NPSAS 2007–08 estimates of federal education tax credit and tuition and fees deduction claims for undergraduate and graduate students, by adjusted gross income

Adjusted gross income	Education tax credit claims					
	Internal Revenue Service 2007			NPSAS 2007–08 Estimates		
	Number of returns (in thousands)	Total claims (in millions)	Average claim	Number of students (in thousands)	Total claims (in millions)	Average claim
Total	7,435	\$6,910.41	\$929	7,321	\$6,236.27	\$852
\$14,999 or less	546	167.08	306	514	212.14	412
\$15,000–29,999	1,833	1,395.13	761	1,802	1,296.78	720
\$30,000–49,999	2,051	1,998.54	975	2,010	1,851.96	922
\$50,000–99,999	2,778	3,197.80	1,151	2,767	2,775.58	1,003
\$100,000 or more	228	151.86	667	228	99.80	437
Adjusted gross income	Tuition and fees deduction claims					
	Internal Revenue Service 2007			NPSAS 2007–08 Estimates		
	Number of returns (in thousands)	Total claims (in millions)	Average claim	Number of students (in thousands)	Total claims (in millions)	Average claim
Total	4,543	\$10,578.96	\$2,328	4,522	\$10,297.88	\$2,277
\$14,999 or less	972	2,667.48	2,744	951	2,224.17	2,338
\$15,000–29,999	457	1,019.45	2,230	418	866.81	2,076
\$30,000–49,999	479	975.62	2,036	533	1,102.65	2,068
\$50,000–99,999	1,125	2,338.01	2,078	1,082	2,406.66	2,224
\$100,000 or more	1,510	3,578.41	2,370	1,538	3,697.58	2,405

NOTE: The NPSAS:08 estimates in this table include students who attended more than one institution (about 10 percent) for whom total tuition at all institutions is unknown. Net tuition was imputed for these cases in order to estimate totals that are comparable to the Internal Revenue Service numbers. The results presented in the main body of this report do not include students who attended more than one institution. Estimates include students from the 50 states, the District of Columbia, and Puerto Rico. NPSAS:08 tax benefit estimates were imputed using education tax benefit rules and data published by the Internal Revenue Service. Detail may not sum to totals because of rounding.

SOURCE: IRS data (table 1.4 and table 3.3, <http://www.irs.gov/taxstats/indtaxstats/article/0,,id=134951,00.html>); U.S. Department of Education, National Center for Education Statistics, 2007–08 National Postsecondary Student Aid Study (NPSAS:08).

Table 2 displays tax benefit results, specifically the final imputed estimates of the tax benefits for all NPSAS undergraduate and graduate students and for NPSAS undergraduates only. Because it has been assumed that tax filers are equivalent to students, the total number of students benefiting from

the education tax credits or deductions is estimated to be the same as the number of students claiming these education tax credits or deductions in table 1. The estimated dollar amounts of tax credit benefits are also equivalent to the estimated dollar amounts of tax credit claims. The dollar amounts of

the tax benefits of the tuition and fees deduction, on the other hand, are considerably lower than the tuition and fees deduction claim amounts. This occurs because the deduction claim lowers the taxable income, and the actual benefit is the deduction claimed multiplied by the marginal tax rate.

TABLE 2.

EDUCATION TAX BENEFITS
Estimated federal education tax benefits (reduction in taxes), by adjusted gross income (AGI) for postsecondary students: 2007–08

Adjusted gross income	Tax credit benefits			Tax deduction benefits			Total tax credit and deduction benefits		
	Number of students (in thousands)	Total value (in millions)	Average tax benefit	Number of students (in thousands)	Total value (in millions)	Average tax benefit	Number of students (in thousands)	Total value (in millions)	Average tax benefit
All students (undergraduate and graduate) in 2007–08									
Total	7,321	\$6,236.27	\$852	4,522	\$1,964.13	\$434	11,843	\$8,200.39	\$692
\$14,999 or less	514	212.14	412	951	117.35	123	1,466	329.49	225
\$15,000–29,999	1,802	1,296.78	720	418	127.51	305	2,220	1,424.29	642
\$30,000–49,999	2,010	1,851.96	922	533	199.27	374	2,543	2,051.23	807
\$50,000–99,999	2,767	2,775.58	1,003	1,082	564.03	521	3,849	3,339.61	868
\$100,000 or more	228	99.80	437	1,538	955.97	622	1,766	1,055.77	598
Undergraduates (only) in 2007–08									
Total	6,133	\$5,236.49	\$854	3,888	\$1,691.74	\$435	10,021	\$6,928.23	\$691
\$14,999 or less	370	142.75	386	740	82.24	111	1,110	224.99	203
\$15,000–29,999	1,504	1,025.37	682	353	101.03	286	1,857	1,126.41	607
\$30,000–49,999	1,608	1,472.66	916	423	139.93	331	2,031	1,612.59	794
\$50,000–99,999	2,440	2,501.73	1,025	942	484.12	514	3,382	2,985.85	883
\$100,000 or more	212	93.97	443	1,430	884.42	618	1,642	978.39	596

NOTE: The NPSAS:08 estimates in this table include students who attended more than one institution (about 10 percent) for whom total tuition at all institutions is unknown. Net tuition was imputed for these cases in order to estimate totals that are comparable to the Internal Revenue Service numbers. The results presented in the main body of this report do not include students who attended more than one institution. Estimates include students from the 50 states, the District of Columbia, and Puerto Rico. Tax benefit results were imputed using education tax benefit rules and data published by the Internal Revenue Service. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2007–08 National Postsecondary Student Aid Study (NPSAS:08).

COMPARISON OF NPSAS:08 AND NPSAS:04 TAX ESTIMATES

NPSAS:08 estimates of tax benefits used almost the same methodology as that used in NPSAS:04 (Berkner and Wei 2006). Minor revisions were made to take advantage of additional data and improve the specification of eligible students. For these reasons, the NPSAS:08 and NPSAS:04 estimates are not directly comparable. Differences include the following:

- In the NPSAS:08 analysis, foreign or international students (2 percent of all students) were deemed ineligible. This was not done in the NPSAS:04 analysis.
- In the NPSAS:08 analysis, a student or student's parent who had not filed taxes and could be identified were deemed ineligible. This information was not specifically incorporated in the NPSAS:04 analysis. Instead, nontax filers were included among those who had no tax liability.
- In the NPSAS:08 analysis, the requirement that credit not exceed federal tax liability was used in calculating both the credit claim amount and the credit benefit amount. Therefore, the claim and credit amount is the same. In the NPSAS:04 analysis, federal tax liability was not considered in estimating the claim amount.
- In the NPSAS:08 analysis, students eligible for both a credit and a deduction were assigned randomly to a single category based on IRS proportions. In the NPSAS:04 analysis, rationality was assumed and students were assigned the type of benefit that yielded the largest tax savings.

The STATA program used in calculating 2008 estimates is available upon request.

REFERENCES

- Berkner, L., and Wei, C.C. (2006). *Student Financing of Undergraduate Education: 2003–04, With a Special Analysis of the Net Price of Attendance and Federal Education Tax Benefits* (NCES 2006-186). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.
- The College Board. (2008). *Trends in Student Aid 2008*. New York: Author. Retrieved May 26, 2011, from <http://professionals.collegeboard.com/profdownload/trends-in-student-aid-2008.pdf>.
- The College Board. (2010). *Trends in Student Aid 2010*. New York: Author. Retrieved May 26, 2011, from http://trends.collegeboard.org/downloads/Student_Aid_2010.pdf.
- Davis, A.J. (2002). Choice Complexity in Tax Benefits for Higher Education. *National Tax Journal*, 55(3): 509–538.
- Horn, L., Wei, C.C., and Berker, A. (2002). *What Students Pay for College: Changes in the Net Price of College Between 1992–93 to 1999–2000* (NCES 2002-174). National Center for Education Statistics, U.S. Department of Education. Washington, DC.
- Jackson, P.J. (2006). Higher Education Tax Credits: An Economic Analysis. *CRS Report for Congress*, RL32507. Washington, DC: Congressional Research Service.
- Long, B.T. (2004). The Impact of Federal Tax Credits for Higher Education Expenses. In C.M. Hoxby (Ed.), *College Choices: The Economics of Which College, When College, and How to Pay for It*. Chicago: University of Chicago Press and the National Bureau of Economic Research.
- Reschovsky, A. (2008). Higher Education Tax Policy. In S. Baum, M. McPherson, and P. Steele (Eds.), *The Effectiveness of Student Aid Policies: What the Research Tells Us* (pp. 69–99). Washington, DC: The College Board.
- Staklis, S. (2010). *Web Tables—Profile of Undergraduate Students: 2007–08* (NCES 2010-205). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.
- U.S. Department of Education, National Center for Education Statistics. (2002). *NCES Statistical Standards* (NCES 2003-601). Washington, DC.
- U.S. Department of the Treasury, Internal Revenue Service. (2007a). *Exemptions, Standard Deduction, and Filing Information: For Use in Preparing 2007 Returns*. Publication 501. Retrieved July 1, 2011, from <http://www.irs.gov/pub/irs-prior/p501--2007.pdf>.
- U.S. Department of the Treasury, Internal Revenue Service. (2007b). *Tax Benefits for Education: For Use in Preparing 2007 Returns*. Publication 970. Retrieved May 12, 2010, from <http://www.irs.gov/pub/irs-prior/p970--2007.pdf>.
- U.S. Government Accountability Office. (2005). *Student Aid and Postsecondary Tax Preferences* (GAO-05-684). Washington, DC: Author. Retrieved February 5, 2010, from <http://www.gao.gov/new.items/d05684.pdf>.
- U.S. Government Accountability Office. (2008). *HIGHER EDUCATION: Multiple Higher Education Tax Incentives Create Opportunities for Taxpayers to Make Costly Mistakes* (GAO-08-717T). Washington, DC: Author. Retrieved February 1, 2010, from <http://www.gao.gov/new.items/d08717t.pdf>.

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What's New?

07/26/2011
Weight selection changed

1. For datasets that require a weight selection, you will now be asked to choose a weight immediately before running your table or regression instead of picking it when you choose a dataset.
2. NPSAS 2000 no longer requires a weight selection. PowerStats

Help

Need help? Contact: powerstats@ed.gov

Need access to restricted data? Learn more in the [Restricted-Use Data Procedures Manual](#).

Detailed Information About PowerStats Variables

Baccalaureate and Beyond Longitudinal Study, B&B: 2008/2009 <ul style="list-style-type: none">• by subject (2.1 MB, PDF)• by variable name (1.7 MB, PDF)	National Postsecondary Student Aid Study, NPSAS: 2008 <p>Undergraduates</p> <ul style="list-style-type: none">• by subject (1.5 MB, PDF)• by variable name (1.1 MB, PDF) <p>Graduate and Professional</p> <ul style="list-style-type: none">• by subject (1 MB, PDF)• by variable name (748 KB, PDF)
Baccalaureate and Beyond Longitudinal Study, B&B: 1993/2003 <ul style="list-style-type: none">• by subject (2.2 MB, PDF)• by variable name (1.8 MB, PDF)	National Postsecondary Student Aid Study, NPSAS: 2004 <p>Undergraduates</p> <ul style="list-style-type: none">• by subject (1.3 MB, PDF)• by variable name (0.98 MB, PDF) <p>Graduate and Professional</p> <ul style="list-style-type: none">• by subject (1.1 MB, PDF)• by variable name (787 KB, PDF)
Baccalaureate and Beyond Longitudinal Study, B&B: 2000/2001 <ul style="list-style-type: none">• by subject (4 MB, PDF)• by variable name (4.1 MB, PDF)	National Postsecondary Student Aid Study, NPSAS: 2000 <p>Undergraduates</p> <ul style="list-style-type: none">• by subject (2.2 MB, PDF)• by variable name (1.8 MB, PDF) <p>Graduate and Professional</p> <ul style="list-style-type: none">• by subject (1.7 MB, PDF)• by variable name (1.4 MB, PDF)
Beginning Postsecondary Students, BPS: 2004/2009 <ul style="list-style-type: none">• by subject (2.7 MB, PDF)• by variable name (2 MB, PDF)	
Beginning Postsecondary Students, BPS: 1996/2001 <ul style="list-style-type: none">• by subject (3.1 MB, PDF)• by variable name (3.1 MB PDF)	
National Study of Postsecondary Faculty, NSOPF: 2004 <p>Faculty</p> <ul style="list-style-type: none">• by subject (1.2 MB, PDF)• by variable name (926 KB, PDF) <p>Institution</p> <ul style="list-style-type: none">• by subject (543 KB, PDF)• by variable name (471 KB, PDF)	