

Report to the Committee on Finance, U.S. Senate

**May 2012** 

# HIGHER EDUCATION

Improved Tax Information Could Help Families Pay for College





Highlights of GAO-12-560, a report to the Committee on Finance, U.S. Senate

### Why GAO Did This Study

The federal government provides billions of dollars in assistance each year to students and families through federal student aid programs authorized under Title IV of the Higher Education Act of 1965 and through tax expenditures, such as credits and deductions. GAO was asked to (1) describe the size and distribution of Title IV student aid and tax expenditures available to assist students and families with higher education expenses; (2) assess the extent to which tax filers select higher education provisions that maximize their tax benefit; (3) summarize what is known about the effect of student aid and tax expenditures on student outcomes; and (4) describe factors that contribute to the effectiveness and efficiency of federal student assistance programs. GAO analyzed data from Education, IRS, and the Board of Governors of the Federal Reserve, and conducted a literature review for original empirical research. GAO also developed a framework for evaluating federal assistance and validated it with recognized experts of higher education finance.

#### What GAO Recommends

GAO recommends (1) that IRS and Education work together to develop a strategy to improve information provided to tax filers who appear eligible to claim a tax provision but do not and (2) that Education sponsor and conduct evaluative research into the effects of Title IV programs and tax expenditures at improving student outcomes. Education and IRS agreed with GAO's recommendations. Education noted that while it does not have access to tax data, it will work with IRS to assist in taxpayer outreach.

View GAO-12-560. For more information, contact James R. White at (202) 512-9110 or whitej@gao.gov or George A. Scott at (202) 512-7215 or scottg@gao.gov.

# HIGHER EDUCATION

# Improved Tax Information Could Help Families Pay for College

# What GAO Found

Multiple Title IV programs and tax expenditures provided substantial aid to populations across income levels. In 2009, 12.8 million students received Title IV aid, and approximately 18-million tax filers claimed a higher education tax benefit for current expenses. Recent increases in both programs from 2008 to 2009 may be because of enrollment increases and legislative actions, among other factors. Title IV grants tend to benefit students and families with incomes below the national median (about \$52,000 from 2006–2010), while loans and work-study serve these students and those with family incomes above the median. Most tax benefits from the tuition and fees deduction and the parental exemption for dependent students went to households with incomes above \$60,000, whereas the majority of benefits from the other higher education tax expenditures in GAO's review—such as the American opportunity credit—went to households with lower incomes.

Tax filers do not always select tax expenditures that maximize their potential tax benefits, possibly because filers are unaware of their eligibility for the tax credit or deduction or are confused about their use. GAO analyzed 2009 IRS data for returns with information on education expenses and found about 14 percent of filers (1.5 million of almost 11-million eligible returns) failed to claim a credit or deduction for which they appear eligible. On average, these filers lost a tax benefit of \$466. The Internal Revenue Service (IRS) and Department of Education (Education) have taken steps to provide information on these provisions, but the number of filers failing to claim a higher education tax provision suggests more could be done. Developing a coordinated, comprehensive strategy to better inform eligible students could improve take-up of these tax provisions.

Despite efforts by Education, research on the effects of federal assistance for higher education on student outcomes—such as the likelihood students will continue their education—remains limited. Researchers have examined the effects of federal assistance on a limited basis, such as only for certain states or groups of students, but these studies provide an incomplete view of the effects of federal assistance. Continuing gaps in research on the effectiveness of federal assistance may be due, in part, to data and methodological challenges that have proved difficult to overcome. Recent changes in Title IV aid and tax expenditures—such as the introduction of the American opportunity credit in 2009—may provide opportunities for evaluative research, but Education officials told GAO they have not conducted such research. In an environment of constrained budgets, evaluative research can help inform policy decisions.

GAO identified factors that contribute to effective and efficient higher education assistance programs to help policymakers allocate limited resources among multiple programs. Factors include assessing whether a program achieves its goals and contributes to demonstrable results and whether it facilitates use by program beneficiaries. GAO developed a framework of questions that can be used as a policy tool for considering improvements to current programs or designing features of new programs.

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#### Abbreviations

AOC	American opportunity credit
EFC	expected family contribution
EITC	Earned Income Tax Credit
ESA	education savings account
FAFSA	Free Application for Federal Student Aid
FSEOG	Federal Supplemental Educational Opportunity Grant
GAO	Government Accountability Office
GPRAMA	Government Performance and Results Act Modernization Act of 2010
IES	Institute of Education Sciences
IRC	Internal Revenue Code
IRS	Internal Revenue Service
LLC	lifetime learning credit
NBER	National Bureau of Economic Research
NPSAS	National Postsecondary Student Aid Study
PLUS	Parent Loans for Undergraduate Students
QTP	qualified tuition program
SCF	Survey of Consumer Finances
SOI	Statistics of Income

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United States Government Accountability Office Washington, DC 20548

May 18, 2012

The Honorable Max Baucus Chairman The Honorable Orrin Hatch Ranking Member Committee on Finance United States Senate

The federal government provides billions of dollars in assistance each year to help millions of students and families meet the costs of higher education. This assistance is provided through federal student aid programs authorized under Title IV of the Higher Education Act of 1965. as amended. (Title IV) and through tax expenditures—reductions in federal tax liabilities that result from provisions in the tax code such as tax credits, deductions, exemptions, and tax-preferred savings programs. Providing federal financial assistance in these varied ways presents students and their families with multiple tools to help them pay higher education expenses. However, as we have previously reported, it may be difficult for families to understand higher education tax expenditures and use them correctly.<sup>1</sup> Moreover, policymakers have raised questions about the effect of federal assistance on student outcomes such as graduation rates, and whether there is an appropriate return on the federal investment. In addition, the existence of multiple programs with similar goals and beneficiaries could potentially be an indicator of overlap or duplication of federal efforts.

Many meaningful results that the federal government seeks to achieve including those for higher education—require the coordinated efforts of more than one agency. The GPRA Modernization Act of 2010 (GPRAMA)<sup>2</sup> amended the Government Performance Results Act of 1993 to establish a new framework for providing a more crosscutting and integrated approach to focusing on results and improving government

<sup>&</sup>lt;sup>1</sup>GAO, Higher Education: Multiple Higher Education Tax Incentives Create Opportunities for Taxpayers to Make Costly Mistakes, GAO-08-717T (Washington, D.C.: May 1, 2008) and Student Aid and Postsecondary Tax Preferences: Limited Research Exists on Effectiveness of Tools to Assist Students and Families through Title IV Student Aid and Tax Preferences, GAO-05-684 (Washington, D.C.: July 29, 2005).

<sup>&</sup>lt;sup>2</sup>Pub. L. No. 111-352, 124 Stat. 3866 (Jan. 4, 2011).

performance. Moving forward, GPRAMA implementation can help inform tough choices in setting priorities as government policymakers address the rapidly building fiscal pressures facing our national government.

In response to your request, this report addresses the following objectives: (1) describe the size and distribution of federal grants, loans, and tax expenditures available to assist students and families with higher education expenses; (2) assess the extent to which tax filers select higher education provisions that maximize their tax benefit; (3) summarize what is known about the effect of grants, loans, and tax expenditures on student attendance, choice, persistence,<sup>3</sup> and completion; and (4) describe factors that contribute to the effectiveness and efficiency of federal higher education student assistance programs.

To describe Title IV aid and higher education tax expenditures, we analyzed the most recently available data and reviewed relevant federal laws, regulations, and guidance from the U.S. Department of Education (Education), Internal Revenue Service (IRS), and the Board of Governors of the Federal Reserve System (Federal Reserve). We selected Title IV programs that served more than 500,000 participants in school year 2007–2008. We selected tax expenditures that (1) are designed to assist students and their families save for, pay current expenses, or repay expenses for higher education; (2) have eligibility requirements that are not based on criteria other than income or higher education expenses; (3) were available in tax years 2006–2009; and (4) had more than 50,000 tax filers claim the benefit in 2009.<sup>4</sup> Our analysis of data from Education's 2007–2008 National Postsecondary Student Aid Study (NPSAS), IRS's 2006–2009 Statistics of Income (SOI) individual tax return file, and the Federal Reserve's 2007 Survey of Consumer Finances (SCF) are subject to sampling errors because these data sets are based on samples. Unless otherwise noted, all percentage estimates based on the SOI and NPSAS have 95 percent confidence intervals that are within 10 percentage points of the estimate itself, and all numerical estimates other than percentages have 95 percent confidence intervals that are within 10 percent of the estimate itself. The 95 percent confidence intervals for all

<sup>&</sup>lt;sup>3</sup>Persistence is the likelihood that students will continue their education.

<sup>&</sup>lt;sup>4</sup>See app. I for details on our research scope. In total, we examined seven Title IV programs and eight tax expenditures. Program descriptions for each are provided in app. II.

SCF estimates are provided along with the estimates in table notes or footnotes. To assess the reliability of the data we analyzed, we reviewed agency documentation and interviewed agency officials familiar with the data. We determined that these data were sufficiently reliable for our purposes.

To assess the extent to which tax filers selected higher education tax provisions that maximized their tax benefit, we combined information from the SOI individual tax file with information from Form 1098-T Tuition Statement, which provides information on students' enrollment status at an educational institution. We then calculated which tax provision would maximize filers' tax benefits based on program eligibility criteria for tax year 2009.<sup>5</sup> Our analysis only covers a portion of all returns claiming an education credit or tuition deduction. Our analysis is limited to tax filers who appeared eligible for the lifetime learning credit (LLC) or tuition and fees deduction (tuition deduction) in 2009, had a 1098-T with information on the student's education expenses, and had a tax liability after claiming other tax benefits. After eliminating returns where eligibility was not clear. we included only 29 percent of returns in our analysis of filers with a 1098-T but selecting neither the LLC nor the tuition deduction in 2009. Appendix I provides details on the percentage of returns included in our analysis. Our findings could also be influenced if institutions reported inaccurate expense information on the 1098-T. Also, our analysis did not consider whether a taxpayer who appeared to make a suboptimal choice by not claiming an LLC or tuition deduction did so to avoid being subject to alternative minimum tax liability.<sup>6</sup> To estimate the effect state tax laws may have on the optimal choices of taxpayers filing their federal income taxes, we utilized the National Bureau of Economic Research's (NBER) TAXSIM Model, a model that calculates estimated tax liabilities under U.S. federal and state income tax laws.

To summarize what is known about the effect of grants, loans, and tax expenditures on student attendance, choice, persistence, and completion, we conducted a literature review for original research published since our

<sup>&</sup>lt;sup>5</sup>See app. I for a full discussion of our methodology and its limitations.

<sup>&</sup>lt;sup>6</sup>All taxpayers subject to regular tax are also subject to the alternative minimum tax, regardless of the income tax bracket or whether they claim certain exclusions, deductions, or credits. Taxpayers may be limited in the credits they can claim based on their alternative minimum tax calculations.

previous report in 2005.<sup>7</sup> We searched literature that provides original empirical data analyses according to professional standards of econometric analysis for their methodological rigor and contains acceptably identified statistical estimates.

We identified factors that contribute to the effectiveness and efficiency of federal higher education assistance programs by reviewing criteria from prior and ongoing GAO studies. We supplemented this review and validated our framework by conducting semi-structured interviews with five academic experts in higher education and economic policy. We selected experts based on the relevance of their published work on higher education assistance, their recognition in the professional community, their demonstrated expertise in Title IV programs or tax expenditures, and others' recommendations. See appendix I for more information about our scope and methodology.

We conducted this performance audit from June 2011 to May 2012 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

# Background

Title IV aid and tax expenditures help reduce the cost of attendance for students and families. Students and families may be eligible for multiple Title IV programs and tax expenditures, depending on each program's rules. We identified seven Title IV programs and eight tax expenditures that help students and families save for, pay, and repay the costs of higher education; the seven Title IV programs we reviewed account for about 89 percent of the total aid available for higher education and training through Education in fiscal year 2011.<sup>8</sup> Two departments within

<sup>8</sup>These totals do not include all Title IV programs or higher education provisions listed in the *Publication 970 Tax Benefits for Education*. For details on which programs and tax expenditures we excluded from this review, see app. II.

<sup>&</sup>lt;sup>7</sup>GAO-05-684. These student outcomes are used in higher education research and have been the focus of congressional concern as expressed in requests for our work from Congress and a statutorily established study committee report. While researchers have studied other metrics to measure student outcomes, such as labor market outcomes, these are outside the scope of this review.

the scope of this review have responsibility for federal higher education assistance: Education, which administers Title IV programs; and the Department of the Treasury (Treasury), which administers higher education tax provisions. In fiscal year 2010, Education provided approximately \$37.5 billion in grants and made more than \$104.3 billion in loan assistance available through Title IV programs reviewed in this report.<sup>9</sup> In the same year, revenue losses from higher education tax provisions reviewed in this report—the amount of revenue the government forgoes—were an estimated \$25 billion.<sup>10</sup>

Students receive Title IV aid while they are in school and use it to pay for current education expenses. Tax expenditures, on the other hand, reach widely across students' life spans. For example, tax-preferred savings vehicles allow families to save for future expenses; tax credits help families pay for current expenses; and the student loan interest deduction helps people repay expenses after their education. Major programs are summarized below, and detailed descriptions of Title IV programs and tax expenditures are in appendix II.

Title IV Aid

Federal assistance is provided to students and families through multiple Title IV grant and loan programs. Grants such as Pell Grants reduce the cost of higher education for the student and do not need to be repaid. Federal student loans, which include subsidized and unsubsidized Direct Stafford loans and Parent Loans for Undergraduate Students (PLUS)

<sup>&</sup>lt;sup>9</sup>This total does not include consolidation loans—which allow borrowers to combine one or more of their federal education loans into a new loan—because these loans are outside the scope of this report. Throughout this report, we present the face value of Title IV loans awarded to students, rather than their economic subsidy value to the student or the credit subsidy cost—the estimated long-term cost to the government of a direct loan or loan guarantee. Although Title IV loans must be repaid, they can provide a subsidy by offering funds to students who could not otherwise find lenders and by offering lower interest rates than are available in the non-Title IV private loan market.

<sup>&</sup>lt;sup>10</sup>This is the net sum of estimates from the *Fiscal Year 2012 Analytical Perspectives, Budget of the U.S. Government* for the following tax expenditures: American opportunity credit, lifetime learning credit, tuition and fees deduction, student loan interest deduction, state prepaid tuition plans (a type of qualified tuition program), Coverdell education savings accounts, and the parental exemption for students aged 19 to 23. Sums of tax expenditure estimates must be interpreted carefully. While summing the individual tax expenditure estimates is useful for gauging the general magnitude of the federal revenue involved, it does not take into account possible interactions between the individual tax code provisions.

loans, also help students and their families finance the costs of higher education but must be repaid. Title IV also authorizes programs that are funded by the government and administered by participating higher education institutions, which are collectively known as campus-based aid.<sup>11</sup>

A substantial portion of Title IV aid is awarded based on the amount of a student's financial need, which is generally the difference between a student's cost of attendance and an estimate of the student's (and his or her family's ability in the case of a dependent student) ability to pay these costs—called the expected family contribution (EFC). To apply for Title IV aid, students or families submit a Free Application for Federal Student Aid (FAFSA), which includes information on the student's and/or family's income, assets, and federal income tax expenses. After Education processes an applicant's FAFSA, a report summarizing the EFC and the student's federal aid eligibility is sent to the applicant or made available online. After admission, colleges send applicants award letters that include the types and amounts of federal, state, and institutional aid for which the student would be eligible, should the student decide to enroll.

**Tax Expenditures** 

Federal assistance is also provided to students and families through multiple tax expenditures. For tax year 2010, IRS guidance on higher education tax expenditures, *Publication 970, Tax Benefits for Education,* describes several tax credits, deductions, and tax-preferred savings vehicles that help students and families pay for qualified higher education expenses.<sup>12</sup>

Tax credits such as the American opportunity credit (AOC) and the lifetime learning credit (LLC) reduce tax filers' income tax liability on a dollar-for-dollar basis for qualified education expenses. Tax deductions, such as the tuition and fees deduction (tuition deduction), permit tax filers to subtract qualified education expenses from income that would

<sup>&</sup>lt;sup>11</sup>Specifically, these programs are Federal Work-Study, Federal Perkins Loan programs, and Federal Supplemental Education Opportunity Grants (FSEOG). Work-study is employment in on-campus and certain off-campus jobs that pay students at least the current federal minimum wage. The college or off-campus employer pays a portion of the student's wages, while the federal government pays the remainder.

<sup>&</sup>lt;sup>12</sup>For details on each tax provision, including the tax benefits and eligibility requirements, see app. II.

	otherwise be taxable. <sup>13</sup> Therefore, deductions reduce filers' tax liability less than credits for any given amount claimed. <sup>14</sup> To benefit from a higher education tax credit or the tuition deduction, a tax filer must use tax form 1040 or 1040A and have an adjusted gross income <sup>15</sup> below the tax provisions' statutorily specified income limits, among other requirements. Tax-preferred savings vehicles, including qualified tuition programs (also known as 529 plans) and Coverdell education savings accounts (ESA)
	allow tax filers to save for education expenses (using post-tax income), and in some cases prepay tuition, without paying tax on the income from those investments. Tax penalties apply if the funds are not used for qualified education expenses.
	Parents of children attending college can also benefit from tax provisions not listed in the <i>Publication 970</i> . For example, filers can claim a parental personal exemption for a dependent who is age 19 through 23 and a full- time student at least 5 months of the year. Exemptions reduce taxable income by permitting tax filers to deduct a certain amount from their gross income for each dependent they claim. In addition, certain eligible tax filers with earned income and a qualifying child who is aged 19 through 23 and a full time student at least 5 months of the year can claim a larger Earned Income Tax Credit (EITC).
Planning, Predicting, and Applying for Assistance	To benefit from both Title IV aid and tax expenditures, students and families must navigate many uncertainties.
	<b>Planning for future college expenses</b> . Saving for a child's college education requires families to make complicated decisions about the best strategy to finance a child's future college education. For example, families have to make decisions about whether their child will go to
	<sup>13</sup> The tuition deduction expired December 31, 2011, and as of May 10, 2012, has not been extended. Tax legislation can influence this and other tax expenditures by repealing or limiting tax expenditures, enacting new ones, or extending the life of expiring tax expenditures.
	<sup>14</sup> The amount of tax relief per dollar that a taxpayer receives using a deduction depends on the taxpayer's marginal tax rate. Generally, the higher the taxpayer's marginal tax rate, the greater the tax savings from these tax expenditure types.
	<sup>15</sup> Adjusted gross income is defined as gross income minus adjustments to income

<sup>&</sup>lt;sup>15</sup>Adjusted gross income is defined as gross income minus adjustments to income.

college, the amount to save, and whether to use a tax-preferred savings vehicle (and if so, which one). In addition, parents need to make their best guesses about the price of the school the child will attend or whether the child will be a dependent at the time he or she becomes a college student.

**Predicting the amount and time frames of assistance**. A key challenge students and families face is that they must make college application decisions before knowing their eligibility for federal assistance, as illustrated in figure 1 below. For Title IV aid, students receive eligibility information after they apply for and are accepted to a school, generally in the spring of their senior year in high school, but before they need to accept an offer of admission and enroll in a school. Students applying to colleges and their families also may not know for certain if they are eligible for one of the tax provisions or what the amount of the tax benefit will be until they prepare and file their tax returns well into the student's first year in college. This makes it difficult for families to predict and plan for the true cost of college prior to enrolling.

#### Interactive graphic

# $\mathcal{P}_{\mathrm{lm}}$

#### **Directions:**

Roll over time spans in the chart below for more details.

#### Figure 1: Illustration of Planning and Payment Processes for Higher Education Expenses



Before college	During college	After college
Birth through senior year of high school	A S O N D J F M A M J J Each academic year	A S O N D J F M A M J J Monthly
Senior year of high school Fall through Spring	August	
January through March	January through March	January — January — January — January — January through April 15th —

#### Eligibility notification periods

Sources: GAO (information); Digital Vision (photo).

Notes: This graphic provides one example of the timing for financial aid, tax, and loan repayment decisions. The process may differ for nontraditional students. For example, students that attend school less than half time or at times other than the fall through spring semesters may make decisions and payments at times other than those depicted in this illustration. Also, individuals other than parents—such as legal guardians—may be involved in financial aid and tax decisions.

FAFSA deadlines vary by state, and the Department of Education Web site often directs students to contact their financial aid administrator for deadlines. Each college within a state may also have a different deadline. For 2011-2012, the federal deadline is June 30, 2012.

<sup>a</sup> Some education institutions may require a FAFSA before families have filed a tax return.



To print text version of this graphic, go to appendix III.

In response to a statutory requirement designed to provide students and families a better understanding of the net price of a college,<sup>16</sup> higher education institutions have posted net price calculators on their Web sites. The calculators use institutional data to provide estimated net price information to current and prospective students and their families based on a student's individual circumstances. However, the net price calculation includes consideration of grant aid but does not take into account tax benefits a student or family may receive.

**Applying for assistance**. While Title IV aid and tax expenditures differ in who is responsible for obtaining aid, they both provide challenges to families in understanding and applying for assistance. With Title IV aid, Education and higher education institutions are responsible for determining aid eligibility and award amounts. While families do not need to learn the eligibility rules for each Title IV program, they have to answer numerous questions when applying for aid. Many experts, both within and outside of government, have expressed concern about the length and complexity of the FAFSA, including the possibility that the application process itself may discourage some students from applying.<sup>17</sup> With tax expenditures, the responsibility for selecting among and properly using them rests with tax filers, who face many challenges in selecting the best choice from among the numerous tax expenditures available for higher education.

<sup>&</sup>lt;sup>16</sup>The Higher Education Opportunity Act required all institutions receiving Title IV funds to provide net price calculators on their Web sites. Pub. L. No. 110-315, § 111, 122 Stat. 3078, 3098 (Aug. 14, 2008), codified at 20 U.S.C. § 1015a. Schools were required to publish a net price calculator by October 29, 2011.

<sup>&</sup>lt;sup>17</sup>See also GAO, *Federal Student Aid: Highlights of a Study Group on Simplifying the Free Application for Federal Student Aid*, GAO-10-29 (Washington, D.C.: Oct. 29, 2009) and Susan Dynarski and Mark Wiederspan, *Student Aid Simplification: Looking Back and Looking Ahead*, NBER Working Paper No. 17834 (Cambridge, MA: National Bureau of Economic Research, 2012). In addition, a 2009 study found that families that received information about aid and assistance in completing the FAFSA were substantially more likely to submit the aid application and enroll in college; Eric Bettinger et. al, *The Role of Simplification and Information in College Decisions: Results from the H&R Block FAFSA Experiment*, NBER Working Paper No. 15361 (Cambridge, MA: National Bureau of Economic Research, 2009).

Multiple Title IV Programs and Tax Expenditures Provided Substantial Aid across Income Levels

Title IV Aid and Tax Expenditures Are Substantial and Have Generally Increased in Recent Years

Multiple Title IV programs and tax expenditures are available to help eligible students and families pay for higher education. Figure 2 gives an overview of the number and type of programs included in this review, along with total benefits and recipients for each program, the median amount of each award, and the median income of recipients.



Source: GAO analysis of U.S. Department of Education documents, school-year 2007-2008 NPSAS data, IRS SOI data for tax year 2009, and the 2007 Federal Reserve Survey of Consumer Finance.

Note: For estimates of tax expenditures other than QTPs and ESAs, we report the tax benefit a filer receives from claiming the tax expenditure. All figures presented are sample estimates and are subject to sampling error. We are 95 percent confident that in 2006, between 3.5 and 4.9 million households held a QTP or ESA; that the median account balance was between \$7,500 and \$12,000; and that the median gross income of households was between \$106,000 and \$138,000. Data for QTPs and ESAs are presented together because the public SCF data file does not provide separate estimates for the two accounts. Our estimates for the number of filers claiming an education tax benefit only include those filers that reduced their tax liability by claiming these expenditures. All other estimates in this figure have 95% confidence intervals that are within +/- 10 percent of the estimate itself.

Print instructions

To print text version of this graphic, go to appendix III.

Since 2006, the number of recipients and the value of benefits provided through Title IV aid and tax expenditures have generally increased, though the overall size of each program differed.<sup>18</sup> The number of students receiving Title IV aid increased by 23 percent from 2006–2009, from 10.4 million to 12.8 million. The number of tax filers benefiting from an education tax expenditure was larger, and increased by 25 percent from 2006 to 2009, from 14.4 million to 18.0 million (see fig. 3). The total number of Title IV and tax recipients should not be added together, as in some cases students and families may be eligible for benefits from both types of programs.

<sup>&</sup>lt;sup>18</sup>In this and following sections, we estimate the tax benefit that tax filers receive when claiming a higher education-related tax provision using SOI data for tax year 2009. Our estimates only include those filers that have a benefit after claiming other tax benefits. These estimates are not equivalent to revenue loss estimates presented previously in the background section of this report. For example, our SOI estimates include the tax benefit a filer receives from claiming the EITC for a student ages 19-23. Revenue loss estimates for this specific tax expenditure are not available in *Analytical Perspectives, Budget of the U.S. Government.* Also, revenue loss estimates presented in the background section are for fiscal year 2010, whereas our analysis uses SOI data for tax year 2009.





Source: GAO analysis of the Budget of the United States Government, fiscal years 2008-2011 and IRS data 2006-2009.

Note: Title IV data are presented by federal fiscal year (October–September) and IRS data are by tax year (January–December). The number of Title IV aid recipients may include students and families who also filed for tax benefits as well, and vice versa. Within Title IV and tax expenditures, separately, the number of recipients is unduplicated. For example, a family with two students claiming AOC's for both students would be counted as one tax filer. For the number of recipients, Title IV programs include grants, work-study, and loans within the scope of this review. These figures also include programs we did not review, including Academic Competitiveness Grants, National Science & Mathematics Access to Retain Student Talent Grants, and Leveraging Educational Assistance Partnership Grants. Tax expenditures include the AOC, Hope credit, LLC, tuition deduction, EITC for students ages 19–23, and the parental exemption for dependent students ages 19–23. Estimated number of recipients from IRS data have 95 percent confidence intervals that are within 10 percent of the estimate itself.

From 2006 to 2009, tax filers claimed a roughly comparable dollar amount of tax benefits as students received through Title IV grants during these years (see fig. 4). This analysis focuses on Title IV grants because they

are most comparable to tax expenditures.<sup>19</sup> The dollar value of both tax benefits and grants increased from 2006 to 2009. Tax benefits increased by about 78 percent (\$16.4 billion in 2006 to \$29.2 billion in 2009) and grants by 97 percent (\$15.5 billion in 2006 to \$30.5 billion in 2009).<sup>20</sup>

# Figure 4: Amount of Benefits from Selected Title IV Programs and Tax Expenditures That Pay for Current Expenses, 2006–2009



Source: GAO analysis of the Budget of the United States Government, fiscal years 2008-2011 and IRS data 2006-2009.

<sup>20</sup>These figures are in constant 2012 dollars.

<sup>&</sup>lt;sup>19</sup>Student loans and work-study have different terms, including repayment and employment, which require different methods of estimating costs and benefits. In contrast to Title IV grants and tax expenditures, the dollar value of student loans provided through Title IV decreased between fiscal years 2006 and 2009. The amount of loan assistance (face value) through the Title IV programs decreased by over \$40 billion from \$152.5 billion in 2006 to \$110.4 billion in 2009, although borrowing limits increased for Stafford and Perkins loans during this time.

Note: Values are reported in 2012 constant dollars. Title IV data are presented by federal fiscal year (October–September) and IRS data are by tax year (January–December). For the Title IV benefits, only Pell Grants and Federal Supplemental Educational Opportunity Grants are included. Tax expenditures include the AOC, Hope credit, LLC, tuition deduction, EITC for students ages 19–23, and the parental exemption for dependent students ages 19–23. Dollar estimates from IRS data have 95 percent confidence intervals that are within 10 percent of the estimate itself.

The sharp increase in benefits for both tax expenditures and Title IV grants from 2008 to 2009 may be due to increases in enrollment and legislative changes, among other factors. The overall number of students enrolling in college increased 11.9 percent from 2007 to 2009-from 18.2 million to 20.4 million. The most recent national recession—which lasted from December 2007 through June 2009—may have led more individuals to enroll in college. Researchers have found that as unemployment increases during a recession, unemployed individuals may return to school to obtain additional skills, certifications, or degrees.<sup>21</sup> In addition to these factors, legislative changes influenced the increase in benefits from 2008 to 2009. For example, for Title IV programs, Congress increased the maximum Pell Grant award by 13 percent, from \$4,731 in the 2008–2009 school year to \$5,350 in the 2009–2010 school year.<sup>22</sup> During this period, the total benefits provided through Pell Grants increased by approximately \$10 billion.<sup>23</sup> For tax expenditures, legislation in 2009 replaced the Hope credit with the AOC. Compared to the Hope credit, the AOC is available to a broader range of tax filers because it:

- is larger (the maximum available credit increased from \$1,800 to \$2,500);
- has higher income phase-out limits;
- adds required course materials to the definition of qualified education expenses;
- is available for the first 4 years of higher education, instead of the first 2; and

<sup>22</sup>The maximum Pell Grant has subsequently increased to \$5,550. See app. II.

<sup>23</sup>At the same time, the number of Pell recipients increased by 26 percent from 6.1 million in 2008 to 7.7 million in 2009.

<sup>&</sup>lt;sup>21</sup>See Julian R. Betts and Laurel L. McFarland, "Safe Port in a Storm: The Impact of Labor Market Conditions on Community College Enrollments," *Journal of Human Resources* 30(4), Autumn 1995, 741-765; Harris Dellas and Vally Koubi, "Business Cycles and Schooling," *European Journal of Political Economy* 19 (2003), 843-859; and Harris Dellas and Plutarchos Sakellaris, "On the Cyclicality of Schooling: Theory and Evidence," *Oxford Economic Papers* 55, January 2003, 148-172.

 is refundable up to 40 percent of the credit (up to \$1,000 a year), allowing filers without income tax liability to receive a benefit they would not get under the Hope credit, which was not refundable.

In 2008, before the legislative change, approximately 7.7 million tax filers claimed a Hope credit or LLC, receiving \$7.6 billion in benefits.<sup>24</sup> In 2009, after the change, 12.5 million tax filers claimed an AOC, LLC, or Hope credit,<sup>25</sup> receiving about \$18.7 billion in benefits. This increase more than offset a concurrent decrease in the number of tax filers' claiming the tuition deduction. From 2008 to 2009, the number of tax filers claiming the tuition deduction decreased from about 3.3 million to about 1.7 million, and the amount of benefits received decreased from about \$1.5 billion to about \$658 million (see fig. 5).

<sup>&</sup>lt;sup>24</sup>Dollar values in this paragraph are presented in 2012 constant dollars in accordance with the multiyear comparison in fig. 5.

<sup>&</sup>lt;sup>25</sup>While the AOC replaced the Hope credit for most filers in 2009, students attending an eligible institution in a Midwestern disaster area were eligible for a larger Hope credit (\$3,600 maximum) if they met eligibility requirements.





Source: GAO analysis of IRS SOI data.

Note: Values are presented in 2012 constant dollars. We are 95 percent confident that our estimate for the 2009 Hope credit is between about \$270 million and \$382 million. All other dollar estimates have 95 percent confidence intervals that are within 10 percent of the estimate itself.

# Title IV and Tax Expenditures Offer Assistance to Students across Income Levels

**Title IV Programs** 

Title IV grants tend to benefit students and families<sup>26</sup> with incomes below the national median (which was about \$52,000 from 2006–2010), while

<sup>26</sup>In the case of dependent students, we refer to family income.

loans and work-study benefit these students and families with incomes well above the national median. The income distribution of students served by the two largest Title IV programs—the Pell Grant and Stafford loan programs—differs by dependency status because independent students generally have lower incomes and less accumulated savings than dependent students and their families.<sup>27</sup> Funds from these programs were generally spread across various income levels for dependent students, but concentrated at lower income levels for independent students, as shown in figure 6. For example, nearly 90 percent of subsidized Stafford funds for independent students went to the 91 percent of independent students with incomes \$60,000 and below. In contrast, about 60 percent of subsidized Stafford funds for dependent students went to students and families with incomes \$60,000 and below. <sup>28</sup>

<sup>&</sup>lt;sup>27</sup>Overall, more independent students received Title IV aid than dependent students in the 2007-2008 school year (12.8 million and 10.5 million, respectively) and independent students received more benefits than dependent students (\$52.4 billion and \$36.5 billion, respectively). Dollar figures in this section are not adjusted for inflation.

<sup>&</sup>lt;sup>28</sup>A proportional 60 percent of dependent students receiving subsidized Stafford funds were from families with incomes \$60,000 and below.

# Interactive graphic

Figure 6: Number and Percentage of Title IV Aid Recipients and Dollars Received, by Income Category and Dependency Status, 2007-2008

**Directions:** Roll over each program for more details.

Program	Dependent students		Independent students		
	Dollars received Share of benefits		Dollars received Sha ben		
Pell grant	\$2,993,296,755		\$5,708,275,819	72% 26%	
	\$708,298,173	11%	\$220,020,619	3%	
	l \$8,350,502	0%	\$0	0%	
	\$0	0%	\$0	0%	
	\$0	0%	\$0	0%	
	\$1,576,033,411	15%	<u> </u>	50%	
	\$2,600,677,516	24%	\$5,143,430,349	27%	
Subsidized Stafford Loan	\$2,399,719,215	22%	\$2,332,929,154	12%	
	\$1,777,159,779	17%	\$1,065,865,463	6%	
	\$1,145,483,437	11%	<b>\$831,217,599</b>	4%	
	\$1,268,645,799	12%	\$0	0%	
	\$480,773,388	8%	\$9.539.027.035	5 46%	
	\$706,246,969	11%	\$4,980,847,097	24%	
Unsubsidized Stafford Loan	\$668,956,702	11%	\$2,688,876,994	13%	
Unsubsidized Stanord Loan	\$863,722,923	14%	\$1,531,454,768	7%	
	\$1,055,285,595	17%	\$1,474,347,793	7%	
	\$2,539,426,756	40%	\$702,578,936	3%	
	\$306.178.690	4%			
	\$791,392,564	9%	Figure includes PLUS loans for parents of		
	\$1,069,231,412	13%	dependent students only. Grad PLUS loans for		
PLUS Loan	\$1,332,716,460	16%	independent students are not in the scope of this		
	\$1,434,575,441	17%	review because they served under 500,000 students in 2007-2008.		
	\$3,567,182,411	42%	students in 2007-2008.		

#### Income



Source: GAO analysis of Education NPSAS 2007-2008 data.

Note: Numbers may not add due to rounding. See app. III for confidence intervals.

The distribution of the three small campus-based aid programs (FSEOG, Perkins, and Federal Work-Study) has some similarities and differences with the larger Title IV programs. While the larger Title IV programs—Pell Grants, Stafford loans, and PLUS loans—distributed more funds to independent students, more campus-based aid went to dependent students.<sup>29</sup> Like Pell Grants, and as intended, campus-based FSEOG primarily benefited students and families with incomes below the national median household income.<sup>30</sup> Like subsidized Stafford loans, the majority of all campus-based Perkins loan recipients with incomes \$40,000 and under received the majority of funds from the program. See figure 7 for additional detail.

<sup>&</sup>lt;sup>29</sup>In 2007-2008, \$4.3 billion of campus-based aid was distributed to dependent students compared with \$2.1 billion for independent students.

<sup>&</sup>lt;sup>30</sup>The 91 percent of all FSEOG recipients with incomes \$40,000 and under received nearly 90 percent of FSEOG funds.

# Interactive graphic

Figure 7: Number and Percentage of Campus-Based Aid Recipients and Dollars Received, by Income Category and Dependency Status, 2007-2008

**Directions:** Roll over each program for more details.

Campus-Based Aid Programs	Dependent students		Independent students	
	Dollars received	Share of benefits	Dollars received	Share of benefits
	<b>2</b> \$209,167,876	40%	\$287,140,334	79%
FSEOG	\$229,314,569	44%	\$64,666,358	18%
10200	\$74,901,541	14%	\$12,253,894	3%
	<b>\$</b> 5,224,562	1%	\$198,775	0%
	Cannot provide estimate due to sample size.		\$0	0%
			\$0	0%
	\$152,790,728	17%	\$433,717,269	73%
	\$259,282,922	28%	\$95,943,420	16%
Federal Perkins Loan	\$220,640,219	24%	\$38,661,997	7%
Federal Ferkins Loan	\$118,530,334	13%	\$7,690,437	1%
	\$67,018,955	7%	\$15,385,335	3%
	\$95,266,510	10%	l \$0	0%
	\$349,134,109	12%	\$707,382,578	63%
	\$605,006,564	21%	\$238,661,357	21%
Federal Work Study	\$535,082,448	19%	\$97,670,405	9%
Federal Work Study	\$434,541,331	15%	\$51,330,515	5%
	\$342,452,892	12%	\$21,051,799	2%
	\$580,623,357	20%	\$2,987,375	0%

#### Income



Greater than \$100,000

Source: GAO analysis of Education NPSAS 2007-2008 data.

Note: Numbers may not add due to rounding. See app. III for confidence intervals.

While FSEOG and Perkins provide aid in the form of grants and loans (respectively) for students with exceptional financial need, the Federal Work-Study program provides funding for the employment of students with any financial need. This difference in targeted populations is reflected in the distribution of work-study funds by income. For example, 36 percent of the funds went to the 36 percent of recipients from families with incomes over \$60,000. The share of work-study funds distributed to students from families with incomes over \$100,000 grew significantly from the 2003–2004 school year to the 2007–2008 school year, from 9 percent to 15 percent.<sup>31</sup>

Tax Expenditures Most tax benefits from the tuition and fees deduction and the parental exemption for dependent students went to households with incomes above \$60,000, whereas the majority of benefits for the other higher education tax expenditures in our review (e.g., student loan interest deduction, AOC, LLC, and EITC) went to households with incomes below \$60,000.<sup>32</sup> Figure 8 summarizes the distribution of tax benefits to filers, by income.

<sup>&</sup>lt;sup>31</sup>Similarly, the share of work-study recipients from families with incomes over \$100,000 grew from 8 percent in 2003-2004 to 15 percent in 2007-2008.

<sup>&</sup>lt;sup>32</sup>Specifically, 67 percent of tax benefits from the tuition and fees deduction (\$419.5 million) and 75 percent of the exemption for dependent students (\$4 billion) went to tax filers with incomes above \$60,000 in 2009.

# Interactive graphic

Figure 8: Number and Percentage of Tax Filers Claiming Higer Education Tax Expenditures and Total Benefits, by Income Category, 2009

**Directions:** Roll over each program for more details.

Program		Program	
Tuition and fees deduction		American opportunity credit	
Total benefits	Share of benefits	Total benefits	Share of benefits
\$23,237,000	4%	2///////// \$2,410,738,000	15%
\$60,962,000	10%	\$3,415,061,000	21%
\$125,127,000	20%	\$2,592,059,000	16%
\$78,621,000	13%	\$2,228,655,000	14%
\$55,363,000	9%	\$1,795,974,000	11%
\$285,550,000	45%	\$3,526,694,000	22%
Student loan interest deductio	n	Lifetime learning credit	
\$56,757,000	4%	☑ \$177,536,000	7%
\$271,208,000	20%	\$717,486,000	30%
\$341,352,000	26%	\$573,645,000	24%
\$204,966,000	15%	\$453,702,000	19%
\$177,270,000	13%	<b>\$375,959,000</b>	16%
\$282,212,000	21%	\$113,646,000	5%
Parental exemption for students age	s 19-23	Earned Income Tax Credit for students ag	es 19-23
849,874,000	1%	2,012,304,000	61%
\$615,251,000	12%	1,271,618,000	39%
\$669,819,000	13%	Cannot provide estimate due to sample size	0%
\$675,441,000	13%	\$0	0%
\$662,782,000	12%	\$0	0%
\$2,664,082,000	50%	\$0	0%

#### Income

	\$0-\$20,000
	\$20,001-\$40,000
	\$40,001-\$60,000
	\$60,001-\$80,000
$\left  \right  \right  \right $	\$80,001-\$100,000
	Greater than \$100,000

Source: GAO analysis of IRS SOI data.

Note: Numbers may not add due to rounding. See app. III for confidence intervals. Our estimates for the percentage of filers claiming the intuition and fees deduction and the student loan interest deduction only include those filers that reduced their tax liability by claiming these deductions.

With the introduction of the AOC, the distribution of filers claiming tax credits in the lowest and highest income categories changed. In 2008, 14 percent of tax filers claiming a Hope credit had incomes under \$20,000, and they received 6 percent of the total benefits provided. In 2009, however, 28 percent of tax filers claiming the AOC had incomes under \$20,000, receiving 15 percent of the total benefits provided. Similarly, tax filers making more than \$100,000 made up only 5 percent of the tax filers who claimed the Hope credit in 2008 (receiving 4 percent of benefits), but accounted for 16 percent of tax filers claiming the AOC in 2009 (receiving 22 percent of the total benefits). Almost half of tax filers receiving an AOC in 2009 (about 4.2 million of the 9.1 million who claimed the credit) received a refundable credit that exceeded their tax liability.

Education savings accounts are primarily used by households with incomes greater than the national median. Education savings accounts are more advantageous to families with higher incomes and tax liabilities because, among other reasons, these families have more available money to save and have a higher marginal tax rate, and thus benefit the most from these tax preferences. According to our analysis of the 2007 Survey of Consumer Finances, the most recent year which survey results are available, we found that the gross income of households with Coverdell and 529 accounts is significantly higher than households without these accounts, across all income ranges we reviewed. For example, in 2007, households with these accounts had a median income of \$122,400, whereas households without these accounts had a median income of \$43,400.<sup>33</sup> In addition, we found that 12 percent of households with incomes above \$100,000 held these accounts. In contrast, about 4 percent of households with incomes from \$50,001 to \$100,000 and about 1 percent of households with incomes below \$50,000 held these accounts.34

<sup>&</sup>lt;sup>33</sup>We are 95 percent confident that the median income of households with a 529 account or Coverdell ESA is between \$106,460 and \$138,340. For households without these accounts, the median income is between \$41,439 and \$45,361.

 $<sup>^{34}</sup>$ We are 95 percent confident the percentage of households with these accounts ranged from: 10.2 percent to 14.3 percent for households with incomes greater than \$100,000; 2.7 percent to 5.2 percent for households with incomes between \$50,001 and \$100,000; 0.37 percent to 1.1 percent for households with incomes less than \$50,000.

Taxpayers Do Not
Always Select
Provisions That
Maximize Potential
Tax Benefits

Some Filers Do Not Claim a Tax Credit or Deduction When Eligible, and Others Choose One That Does Not Give Them the Largest Available Tax Benefit

Taxpayers may not maximize their tax benefits if they 1) claim no credit or deduction when they are eligible or 2) choose a credit or deduction that yields less of a tax benefit than another provision would, also known as making a "suboptimal choice."<sup>35</sup> Our analysis only covers a portion of all returns claiming an education credit or tuition deduction. Our analysis is limited to tax filers who appeared eligible for the LLC or tuition deduction in 2009, had a 1098-T with information on the student's education expenses, and had a tax liability after claiming other tax benefits. After eliminating returns where eligibility was not clear, we included only 29 percent of returns in our analysis of filers with a 1098-T but selecting neither the LLC nor the tuition deduction in 2009. Our findings could also be influenced if institutions reported inaccurate expense information on the 1098-T. In addition, some of the students we include in our analysis have gualified tuition and related expenses reported on a 1098-T but may not be eligible to use those expenses to claim an education credit or the tuition deduction. For example, a tax filer cannot claim an AOC based on the same expenses paid for with a private scholarship, but the educational institution may not know to include this amount on box 5, "scholarships or grants" on the 1098-T. In addition, we examined whether taxpayers' choices were suboptimal when state income taxes were taken into account. See appendix I for a full description of our methodology and its limitations.

**Claiming no credit or deduction.** Since 2005, we have repeatedly found that some taxpayers fail to claim the LLC or tuition deduction for which they appear eligible.<sup>36</sup> This continues to be the case. We estimate that

<sup>36</sup>GAO-05-684 and GAO-08-717T.

<sup>&</sup>lt;sup>35</sup>We use the term "suboptimal" only to describe a filer's failure to minimize his or her federal tax liability. Because understanding tax provisions' eligibility rules and calculating the optimal choice can be complex, filers may conclude that investing the time needed to maximize their benefit is not worth the effort.

almost 11 million filers could have claimed the LLC or the tuition deduction and thereby reduced their taxes in 2009. However, about 14 percent of those filers, representing more than 1.5 million returns, failed to claim either of them.<sup>37</sup> On average, taxpayers who claimed no credit or deduction could have claimed benefits of \$466. We estimate that the total amount of tax benefits filers did not claim was approximately \$726 million in 2009. We found no cases where filers' combined state and federal tax liability would have been higher if they had claimed one of those benefits on their federal return.

Choosing a credit or deduction that yields less of a tax benefit. We found a portion of filers who appeared eligible for the LLC or the tuition deduction made suboptimal choices in 2009. For example, of the approximately 588,000 filers who claimed the tuition deduction, about 237,000 (40 percent) would have increased their tax benefit by claiming the LLC instead. On average, these filers failed to increase their tax benefit by \$284. We estimate that the total amount of tax benefit filers did not claim was approximately \$67.2 million in 2009. In some states, lowering AGI (as the deduction does) can reduce state income tax liability enough to compensate for the higher federal income tax paid. Among filers who appeared to make a suboptimal choice at the federal level by claiming the tuition deduction (i.e., they claimed the tuition deduction but would have maximized their federal tax benefit by claiming the LLC). about one third (about 79,000 of 237,000 filers) actually maximized their combined federal and state tax benefit by selecting the tuition deduction, even though their federal income tax was higher. Table 1 summarizes other suboptimal choices we found among 2009 federal filers.

<sup>&</sup>lt;sup>37</sup>For perspective, entitlement programs, which are those programs that provide benefits to all applicants who meet program eligibility criteria, have lower take-up rates than higher education tax benefits we reviewed in this study. We reported in 2005 that of the selected entitlement programs we reviewed, the proportion of those eligible for the program who were enrolled ranged from about 50 percent to more than 70 percent. While it may not be feasible for programs to serve 100 percent of those eligible for benefits, information on take-up rates and on particular recipient groups can help program managers more effectively address issues related to program access. GAO, *Means-Tested Programs: Information on Program Access Can Be an Important Management Tool,* GAO-05-221 (Washington, D.C.: Mar. 11, 2005).

#### Table 1: Estimated Suboptimal Choices on Federal Tax Returns Made by Taxpayers in 2009

Type of suboptimal choice	Number of taxpayers making suboptimal choice	Percent of eligible taxpayers making a suboptimal choice			Number of filers who appeared to make suboptimal choice at the federal level but maximized their combined federal and state tax benefit
Claiming no credit or deduction	1.5 million	14	\$466	\$726 million	0
Claimed the LLC instead of the tuition deduction	38,000	2	a	a	0
Claimed the tuition deduction instead of the LLC <sup>b</sup>	237,000	40	\$284	\$67.2 million	79,000

Source: GAO analysis of IRS SOI data.

Note: Because of data limitations, we were unable to assess whether a filer claiming the LLC or tuition deduction would have increased his or her tax benefit by claiming the AOC instead. Our estimates for the number of filers making a suboptimal choice only include those filers that had a tax liability after claiming other tax benefits. See app. I for details.

<sup>a</sup>Sample size is too small to estimate the average amount the tax filers failed to increase their tax benefit.

<sup>b</sup>In some states, lowering AGI (as the deduction does) can reduce state income tax liability enough to compensate for higher federal income tax paid. Among filers who appeared to make a suboptimal choice at the federal level by claiming the tuition deduction (i.e., they claimed the tuition deduction but would have maximized their federal tax benefit by claiming the LLC), about one-third actually maximized their combined federal and state tax benefit by selecting the tuition deduction, even though their federal income tax was higher.

Suboptimal tax choices were not limited to tax filers who prepared their own tax returns without assistance. We estimate that about 16 percent of returns prepared with software (representing about 689,000 returns) and 17 percent of returns filed by paid preparers (representing about 912,000 returns) did not select a credit or deduction that maximized higher education tax benefits in tax year 2009. However, filers preparing their tax returns without the aid of a paid preparer or software appeared more likely to make suboptimal choices. In tax year 2009, 38 percent of filers (about 206,000 of 539,000 paper returns filed) made a suboptimal choice.

# Taxpayers May Be Unaware of Tax Provisions or Confused about Their Use

It is good practice for tax systems to be transparent and understandable, giving as much certainty as possible to taxpayers and allowing them to better plan for decisions about employment, investment, and consumption.<sup>38</sup> However, as we have previously reported, the apparently suboptimal use of higher education tax expenditures may arise, in part, from the complexity of these provisions.<sup>39</sup>

**Unaware of tax provisions or misunderstanding eligibility rules.** Tax filers may fail to maximize their tax benefits because they are unaware of their eligibility for the provision. In addition, determining one's eligibility to claim a credit or deduction for qualified education expenses is a complex process. In the case of the AOC, a student (or tax filer on behalf of the student) is only eligible to claim the credit in the student's first 4 years of higher education.<sup>40</sup> Since the academic year of the student is determined by the educational institution and is not equivalent to a calendar year, determining whether a student meets the AOC's academic eligibility requirement—particularly for students who do not follow a traditional path of 4 years of college—can be challenging.

For example, a student enrolls more than half time at an eligible community college in 2005 and then takes 4 calendar years to complete 2 academic years' worth of credits. He claims a Hope credit in 2007 and 2008. In his fifth year, he enrolls full-time at a 4-year university. Although he is in his fifth calendar year of school, the student may be eligible for an AOC if the 4-year university considers him to be in his third academic year.

**Number of provisions.** The number of higher education tax provisions may make it harder for taxpayers to determine which one is best for them. For example, 12 higher education tax benefits are outlined in IRS *Publication 970*, Tax Benefits for Education: For Use in Preparing 2010 Returns. *Publication 970* does not include the parental personal exemption and the Earned Income Tax Credit, which may also be available to parents supporting dependents who are full-time students.

<sup>&</sup>lt;sup>38</sup>GAO, *Understanding the Tax Reform Debate: Background, Criteria, & Questions,* GAO-05-1009SP (Washington, D.C.: Sept. 1, 2005).

<sup>&</sup>lt;sup>39</sup>GAO-05-684 and GAO-08-717T.

<sup>&</sup>lt;sup>40</sup>26 U.S.C. § 25A(i)(2). See app. II for a description of the AOC's other eligibility requirements.

Not all of the benefits are available to all tax filers, and the number of available benefits may make it more difficult to determine eligibility.

**Similarity of provisions.** If provisions are similar, it may be difficult for taxpayers to determine which one is best for them. For example, IRS *Publication 970* includes four different tax expenditures for educational saving, each with different requirements and benefits to the taxpayer.

**Differences in key definitions.** What tax filers are allowed to claim as a qualified higher-education expense varies among some of the higher education savings and credit provisions in the tax code. For example, while Coverdell education savings accounts and qualified tuition programs under Section 529 of the Internal Revenue Code permit tax filers to include room and board as qualified expenses if the student is enrolled at least half time, the AOC and the LLC do not. Tax filers must keep track of expenses separately, applying some expenses to certain tax provisions, but not others.

Also, although IRS requires educational institutions to report on Form 1098-T information about qualifying educational expenses to taxpayers and IRS, the information reported may not be easily understood by tax filers or it may not include all eligible expenses. Institutions can report the amount billed or paid, but these amounts may not equal the expenses the filer can use to claim a credit or deduction. For example, Form 1098-T may not account for all scholarships or grants the student received. In such cases, correctly reported gualified expenses on the tax return will not match the 1098-T. Conversely, if institutions do not provide information on other eligible expenses, such as books or equipment, taxpayers may underreport educational expenses. Because many of the higher education tax benefits are based on the expenses paid, taxpayers who underreport expenses may receive less of the benefit for which they would otherwise be eligible to receive. Also, if an institution reports the amount billed on the 1098-T, but the filer pays the bill in the following tax year, the 1098-T will not reflect the amount that can be reported on the tax return because a filer can only claim a higher education tax benefit in the year the filer paid for qualified education expenses.

**Coordination with other tax provisions.** In addition to learning about, comparing, and selecting tax provisions, tax filers must also understand how the use of one tax provision affects the use of others. The use of multiple education-related tax provisions is coordinated through rules that prohibit the application of the same qualified higher education expenses for the same student to more than one education-related tax preference,
sometimes referred to as "anti-double-dipping rules." These rules are important because they prevent tax filers from underreporting their tax liability. Nonetheless, anti-double-dipping rules are potentially difficult for tax filers to understand and apply, and misunderstanding them may have consequences for a filer's tax liability.

**State tax rules may add complexity.** As discussed earlier, figuring out how to maximize tax benefits is complicated by interactions with state tax codes. Some states offer tax incentives for higher education, including benefits for qualified state tuition programs and student loan interest deductions. To maximize their combined federal and state tax benefit, tax filers may also need to take into account the state treatment of federal higher education tax expenditures. A recent study found that filers may be more aware of federal tax effects than state tax effects, since some tax filers may not be aware of the state tax implications of higher education provisions.<sup>41</sup>

IRS and Education Have Taken Steps to Inform Filers, but Additional Tax Information Could Improve Take-Up of Tax Benefits

While IRS and Education have taken steps to provide information on higher education tax benefits to students and their families, the number of filers failing to claim a higher education tax benefit suggests more could be done. *Publication 970, Tax Benefits for Education* provides information—including eligibility rules and how to coordinate tax benefits with other forms of financial aid—on the tax provisions available to save or pay for higher education expenses. IRS also developed a communication plan for the AOC and other higher education tax benefits in 2009 and took steps to implement the plan. For example, IRS reached out to tax professionals at the IRS Nationwide Tax Forum and provided information through traditional and social media, including IRS.gov. Officials also stated they coordinated with software providers to ensure that tax preparation software provided links to the relevant higher education forms, including the *Form 8863 Education Credits* and the *Form 8917 Tuition and Fees Deduction*. Education's Federal Student Aid

<sup>&</sup>lt;sup>41</sup>In a review of individual tax returns claiming the tuition deduction or LLC in 2002-2008, Turner (2011) finds that roughly one out of four returns fail to select a provision that minimizes federal and state tax liabilities. One reason for this is that taxpayers, paid preparers, and tax software are more aware of federal tax effects than state tax effects, since federal tax effects are the result of an active choice, whereas state tax effects are not explicitly selected on state tax forms. See Nicholas Turner, "Why Don't Taxpayers Maximize their Tax-Based Student Aid? Salience and Inertia in Program Selection," *The B.E. Journal of Economic Analysis & Policy*, vol. 11, no. 1 (2011).

Web site provides a link to IRS's *Publication 970, Tax Benefits for Education*. Education officials told us they are considering whether they could provide additional information to increase students' and families' awareness of these tax benefits.

IRS and Education officials have begun to coordinate their efforts to inform students and families of tax benefits. In its AOC communication plan, IRS indicates it is coordinating with the Department of Education and state education agencies to discuss communication options. Education officials told us that they have a general agreement with IRS on what tax benefit information Education will provide to students and families. Education officials told us they were willing to provide additional information to students and families, as long as it does not contradict guidance provided by IRS. Also, Education officials told us they are discussing the possibility of sharing information with IRS to help the IRS target outreach to students and families that may be eligible for higher education tax benefits.

It may be possible to reduce the number of filers who fail to claim a higher education tax benefit and improve students' and families' ability to pay for college. A possible starting point could be for IRS to identify the key characteristics of filers who appear eligible for higher education tax provisions but fail to claim them. IRS could then work with software developers and tax preparers to identify reasons why filers using these services are not claiming benefits for which they appear eligible. IRS could also provide additional assistance to students and families by developing a calculator (similar to the net price calculator) that students and families could use to estimate their tax benefits for the upcoming school year. In addition, Education officials stated that they could coordinate with IRS to provide tax benefit information before students and families need to make key financial decisions. For example, Education officials expressed interest in working with IRS to provide a link to the Publication 970 in the College Scorecard and the Model Financial Aid Offer Form, which Education is developing to assist students and families in comparing college costs and financial aid offers. Given the number of filers not claiming benefits, it should be possible for IRS and Education officials to design outreach efforts in such a way that the potential benefits outweigh the costs.

of Federal Assistance for Higher Education Remains Limited	effects of federal assistance f outcomes of attendance, choi addressed more Title IV aid p forms of assistance and outco 2). <sup>43</sup> In addition to new studie federal grants, loans, and tax examined the effects of the Fe deduction, which we previous evaluative research. We did n into these student outcomes f higher education including 52 student loan interest deductio studies we identified did not o provision on all four student o examined the effects of Title I limited basis—in particular, or groups of students. The studie assistance has varying effects involved and provide an incor assistance because of the stu-	ce, persistenc rograms and t omes remain la s that compler credits, a few ederal Work-S ly reported ha ot, however, in or a number o 9 savings plan n, or the paren over the effect utcomes. We V aid and fede hly for certain s es we reviewe s, depending of nplete view of idies' narrow fe	e, and ax expe argely u ment ex researe tudy pr d not be dentify f federa as, Cove ntal per ts of an found the eral tax states, d sugge on the s the effe ocus. A	completion h enditures, bu unstudied (se disting reseat chers have r ogram and t een the subj evaluative re al tax expendi- erdell ESAs, sonal exempt y single pro- hat research expenditure types of sch est that fede students and ects of feder a result, re	has but some ee table rch on recently the tuition recently the tuition recently the tuition rect of any esearch ditures for the ption. The gram or tax hers have es on a ools, and eral situations al
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	education. Table 2: Research We Reviewed o Cannot Be Generalized Federal assistance for higher	ctiveness of fe on the Effects of Attendance	Federal Choice	Assistance fo Assistance Is Persistence	r higher
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	education. Table 2: Research We Reviewed of Cannot Be Generalized Federal assistance for higher education Grants <sup>a</sup> Student loans	on the Effects of Attendance	Federal Choice	Assistance fo Assistance Is Persistence ✓	r higher ■ Limited and Completion

Student loan interest deduction

<sup>42</sup>See GAO-05-684.

<sup>43</sup>A bibliography of the studies we reviewed is included at the end of this report.

Federal assistance for higher education	Attendance	Choice	Persistence	Completion
Parental exemption for students 19 to 23				
American opportunity credit				
Hope credit	$\checkmark$			
Lifetime learning credit	$\checkmark$			$\checkmark$
Earned income tax credit for students 19 to 23				
Coverdell education savings account				
529 Qualified tuition program				

Source: GAO analysis.

Note: We did not find research that could be generalized. A check mark indicates that one or more Title IV aid or tax provisions in the category has been studied for certain states, types of school, or groups of students.

<sup>a</sup>Research conducted into the effects of Pell Grants but not Federal Supplemental Educational Opportunity Grants.

Although evaluative research linking federal assistance to student outcomes remains limited, a number of studies address other issues that promote or complicate the effective use of federal assistance, and researchers have also studied the effects of nonfederal student-aid programs. For example, researchers have determined that a lack of information on the costs and benefits of higher education can limit students' choice of institutions to attend. In addition, researchers have provided mixed evidence on the extent to which schools raise their tuition or decrease the institutional aid they offer in response to federal assistance. There is also a wide body of research into the effectiveness of both need- and merit-based state, regional, and institutional aid programs. Researchers we interviewed told us they have turned to the study of state-based student aid—for which there may be better data than for federal programs, and some of which are designed to allow for high guality evaluation-because these studies can yield informative lessons about the effects of assistance for higher education.

#### Data and Methodological Challenges Remain Persistent Obstacles to Research Challenges Remain Persistent Obstacles to Research Continuing gaps in research-based evidence on the effectiveness of Title IV aid and tax expenditures may be due, in part, to data and methodological challenges that have proved difficult to overcome. Data from Education necessary to conduct evaluative research on Title IV aid are fragmented and not routinely available to researchers. Education commissioned a 2011 study to report on issues associated with

Education's sources of data on federal grants, loans, and work-study.<sup>44</sup> According to the study, multiple offices within Education are responsible for tracking and compiling data and the datasets produced by these offices are often incompatible with each other. For example, Education does not have a uniform method for assigning codes to identify college and university campuses. As a result, researchers are unable to combine information from the datasets to create comprehensive, comparable, and accurate data that would allow them to estimate the effect of Title IV aid programs on student outcomes. Additionally, some of Education's data sources are subject to time lags, and others are not regularly made available for research. According to Education officials, data for individual students developed primarily for the administration of Title IV aid are also protected by privacy laws and generally unavailable to researchers.<sup>45</sup> In some cases, the data that Education does make publicly available are preliminary and subject to change with little public notice. The study recommended that Education should assess the feasibility of making its data more compatible and accessible, acknowledging that this would require additional resources and could place increased reporting burdens on higher education institutions.

Education officials reported they are addressing the study's recommendations through several recently completed and ongoing initiatives intended to make its data more accessible and useable. For example, in March 2012 Education expanded an ongoing effort to provide school districts with data on which students have submitted a FAFSA and whether their submissions were complete. Education told us these data are intended to help high school principals and guidance counselors increase FAFSA filings and attendance at institutions of higher education

<sup>&</sup>lt;sup>44</sup>Steele, P. (2011). Suggestions for Improvements to the Collection and Dissemination of Federal Financial Aid Data (NPEC 2012-834). U.S. Department of Education. Washington, D.C.: National Postsecondary Education Cooperative. Available from http://nces.ed.gov/pubsearch (accessed Dec. 19, 2011).

<sup>&</sup>lt;sup>45</sup>We have previously reported that sharing data from a student's records must be done in accordance with the Family Educational Rights and Privacy Act (FERPA), 20 U.S.C. § 1232g, which limits the disclosure of those records to third parties. See GAO-10-927, *Postsecondary Education: Many States Collect Graduates' Employment Information, but Clearer Guidance on Student Privacy Requirements Is Needed* (Washington, D.C.: Sept. 27, 2010). For more information on key constraints agencies face in using administrative data for research, see GAO, *Federal Statistical System: Agencies Can Make Greater Use of Existing Data, but Continued Progress Is Needed on Access and Quality Issues* GAO-12-54 (Washington, D.C.: Feb. 24, 2012).

by their students. Education also reported taking steps intended to facilitate higher education research by improving the accuracy of its data on the student outcome of completion and by developing a tool for possible release in 2012 that will address differences between Education's various data sources in the codes used to identify colleges and universities. Education told us these steps will allow for more precise measurement of student outcomes for Title IV recipients and may enable researchers to merge some of Education's data sources to create reports on institutions of higher education. Education is also pursuing a process for the release of additional data both to the public and to fulfill specific research requests while protecting the privacy of federal aid recipients. Education estimates that one of the steps required to do this could take between 2 and 6 months to complete while the other could take close to a year or more to complete.

Individual taxpayer data needed to evaluate federal tax expenditures are subject to privacy restrictions or are not collected by IRS. Although tax expenditures are now a well-established source of assistance for students and their families, tax information that may be useful for research is unavailable to most researchers. Section 6103 of the Internal Revenue Code protects tax returns and other tax information collected by IRS as confidential, and it prohibits disclosure of federal tax information, except as specifically authorized by statute. Also, IRS in general only collects tax information required for administering the tax code. For example, while the IRS collects data on distributions from 529 plans, it does not collect information on contribution limit.<sup>46</sup>

Methodological challenges also add to the difficulty of measuring the effect of federal assistance efforts. Opportunities are limited within the study of higher education financial aid for researchers to conduct the type of experiments that allow them to isolate the effects of a particular federal aid program or tax expenditure. This is because, in addition to sufficient data, evaluative research requires some level of variation in a Title IV program or tax expenditure that allows researchers to compare outcomes across students before and after a change. Most of the federal

<sup>&</sup>lt;sup>46</sup>Section 529(b)(6) of the Internal Revenue Code states that a program shall not be treated as a qualified tuition program unless it provides adequate safeguards to prevent contributions on behalf of a designated beneficiary in excess of those necessary to provide for the qualified higher education expenses of the beneficiary.

	government's major Title IV programs and higher education tax
	expenditures have been in place for many years and have changed incrementally over this time. Changes often affect all eligible students nationwide in the same way, which makes it hard to determine students' behavior in the absence of a change. Also, it is difficult to separate the effects of a change from larger social or economic events that can affect student outcomes. For example, using the introduction of the AOC in 2009 to measure the effects of tax credits on student outcomes might be complicated by economic changes attributable to the national recession, which lasted through June of that year. Although capitalizing on the opportunities substantive changes provide for evaluative research can be challenging, recent changes in Title IV aid and higher education tax expenditures—such as the introduction of the AOC in 2009—could provide the needed variation to conduct evaluations of these programs.
	Researchers can in some cases mitigate such challenges through the use of various statistical techniques and research designs. For example, program administrators can create experiments in which individuals are randomly divided into a treatment group that is subject to a change in benefits and a control group that is not. Short of such efforts by federal agencies to create experiments in partnership with the higher education community, substantive changes, including the introduction and expiration of federal programs and tax provisions, are among the most viable opportunities for evaluative research. For example, one researcher used the introduction of unsubsidized Stafford loans in 1992, which extended federal loans to previously ineligible families, to estimate the effects of student loans on attendance. <sup>47</sup>
Education Has Taken Steps to Address Research Limitations	Education's efforts to sponsor and undertake research into the effects of Title IV aid represent an important step, but research available at present still lacks evaluative information on the effects of federal grants, loans, and work-study. Education has taken steps to sponsor research into the effects of student aid programs. In 2006, Education's Institute of Education Sciences (IES) funded the National Center for Postsecondary
	<sup>47</sup> In addition, Education used the introduction of two new grant programs under Title IV— the Academic Competitiveness Grant and National Science and Mathematics Access to Retain Talent Grant programs—to conduct evaluative research, but Education officials told

the Academic Competitiveness Grant and National Science and Mathematics Access to Retain Talent Grant programs—to conduct evaluative research, but Education officials told us these programs expired prior to learning the results of their evaluation. Funding for these programs expired at the end of fiscal year 2011.

Research with a grant of about \$9.8 million. The center conducts research on the effectiveness of programs designed to reduce barriers to higher education and improve student outcomes such as attendance, persistence, and completion. In 2011, IES funded the Center for Analysis of Postsecondary Education and Employment with a grant of about \$10 million to conduct research on labor market outcomes for higher education students, including ongoing research into the effects of Federal Work-Study on students in Florida.<sup>48</sup> IES has also awarded a number of grants funding research into, among other things, efforts to increase access to, persistence in, and completion of higher education. Although these steps have not resulted in published research evaluating the effects of federal assistance on student outcomes, they have resulted in a number of published and ongoing studies, including experimentation with efforts to simplify the application process for Title IV aid<sup>49</sup> and encourage savings for higher education,<sup>50</sup> and research into the effects of state and local financial aid programs.<sup>51</sup>

In addition to sponsoring research, Education has also taken steps to directly undertake experimental research in partnership with the higher education community. The Secretary of Education has flexibility to grant higher education institutions waivers from federal requirements in order to test alternate methods for administering Title IV programs.<sup>52</sup> Using this flexibility, Education is soliciting participation in an Experimental Site Initiative that will allow participating institutions to set up evaluations

<sup>49</sup>See Bettinger, Long, Oreopolous, and Sanbonmatsu (2009).

<sup>50</sup>Education sponsors an ongoing experiment in the use of College 529 savings plans by families of high school students in Ohio.

<sup>51</sup>Education funds such research on the basis of a competitive peer review of research proposals by experts in the higher education research community. Proposals are selected based on the strength and feasibility of the research design and a consideration of the importance of the programs being studied. For example, Education funds ongoing studies of a state-based student aid program in Florida, a state with a large population, and a local student aid program in Michigan that may yield lessons for similar programs used around the country. In some cases, this type of research might also produce insights that can be applied to federal student aid programs.

<sup>52</sup>20 U.S.C. § 1094a(b)(3).

<sup>&</sup>lt;sup>48</sup>Both the National Center for Postsecondary Research and the Center for Postsecondary Education and Employment are research partnerships housed within Columbia University. The centers collaborate with other entities such as nonprofit organizations and academic institutions, as well as state partners.

including random experiments to test, among other things, specific aspects of the Pell Grant and Stafford Loan programs. For example, Education is inviting institutions to set up an experiment to test whether allowing low-income students who have a bachelor's degree to receive a Pell Grant in order to complete vocational training would reduce unemployment.<sup>53</sup>

Education's efforts to date have not resulted in direct evidence of Title IV aid's effect on student outcomes.<sup>54</sup> Although policymakers may in some cases be able to draw on lessons learned from studies of nonfederal aid programs, state and institutional aid programs are different from federal programs in important ways-such as the types of incentives they offer and the requirements they make of students-that make direct comparisons difficult. While Education's initiatives to conduct experimental research in conjunction with institutions of higher education may provide insights into specific aspects of Title IV programs, these initiatives are fairly narrow in scope due in part to both limitations in Education's authority to waive Title IV provisions and in the level of resources Education officials told us they devote to such experimentation. As a result, these initiatives are unlikely to yield broadly applicable lessons about the effects of Title IV aid on student attendance, choice, persistence, or completion. Recent and future substantive changes to Title IV grants and loans may represent valuable opportunities to study the effects of these programs, but Education officials told us they have not have not sponsored or conducted such research.

<sup>&</sup>lt;sup>53</sup>The Secretary's authority to waive Title IV requirements is limited. For example, the Secretary can modify eligibility provisions, but may not generally waive provisions with respect to award rules, see 20 U.S.C. § 1094a(b)(3)(B).

<sup>&</sup>lt;sup>54</sup>Congress has directed Education to provide reliable information about the effectiveness of federal programs by conducting and sponsoring evaluative research. See Education Sciences Reform Act of 2002, Pub. L. No. 107-279, 116 Stat. 1940, (Nov. 5, 2002). Standards for internal control in the federal government cite a number of roles for evaluations including control activities such as top level performance reviews to support goals, plans, and objectives, as well as reviews at the functional or activity level. Evaluations are also a component of relevant, reliable, and timely communications necessary for an agency to achieve its objectives. Evaluations conducted by program officials and external parties improve the agency's ability to assess the quality of performance over time. See GAO, *Standards for Internal Control in the Federal Government*, GAO/AIMD-00-21.3.1 (Washington, D.C.: Nov. 1, 1999).

We have long recommended greater scrutiny of tax expenditures,<sup>55</sup> as tax expenditures and their relative contributions toward achieving federal missions and goals are often less visible than spending programs, which are subject to more systematic review. To date, IRS and Treasury have not conducted studies on the effects of tax expenditures, and have no plans to do so. Also IRS officials stated that their focus is on administering programs as opposed to evaluating their effectiveness.

Factors That Contribute to the Effectiveness and Efficiency of Federal Higher Education Assistance Programs The challenges that students and families face in planning for and choosing among federal higher education benefits and that researchers face in determining the impact of federal higher education assistance on student outcomes, raise questions about the effectiveness and efficiency of federal higher education assistance programs and the potential for improving them. In this challenging fiscal climate, policymakers face difficult choices in allocating limited resources among multiple programs. In response to these issues, we identified factors that contribute to effective and efficient higher-education assistance programs and developed a framework of questions to help assess whether programs incorporate these elements in their design.<sup>56</sup>

This framework can be used as a policy tool for considering improvements to current programs, consolidating programs, eliminating programs, or designing features of new programs (table 3). It guides the user to think strategically about both program design and implementation. Some of the questions raised in the framework may be difficult to answer completely, but are important to analyze and consider. For example, determining whether the program has clearly defined purposes may yield different results as policymakers modify the program over time. A few concepts appear in multiple places within the framework, highlighting the importance of certain program characteristics. For example, the timing of the assistance, and information provided about it, may influence whether students seek out the aid at all and whether they use it to inform their decisions about attendance. Timing is also a factor in how effectively the

<sup>&</sup>lt;sup>55</sup>GAO, Government Performance and Accountability: Tax Expenditures Represent a Substantial Federal Commitment and Need to Be Reexamined, GAO-05-690 (Washington, D.C.: Sept. 23, 2005) and Tax Policy: Tax Expenditures Deserve More Scrutiny, GAO/GGD/AIMD-94-122 (Washington, D.C.: June 3, 1994).

<sup>&</sup>lt;sup>56</sup>We consulted subject-matter experts and our prior work as we identified these factors. See app. I for more information on our methodology.

program interacts with other federal assistance—Title IV programs tend to provide benefits while the student is enrolled in school and tax expenditures cover a range of timeframes. The examples below provide an illustration of how each factor is relevant to federal higher education assistance programs. The examples indicate how considering each factor could help improve a program or policy scenario, but they are not intended to be specific suggestions.

Factors	Ke	y questions	Example
Achieves program goals and produces demonstrable results <sup>a</sup>	1.	Does the program have clearly defined and measurable goals or objectives?	Considering the program's purpose may help align the structure or features of the program
		a. If so, do the program's stated goals reflect the current objectives of various policymakers and practitioners?	with intended outcomes. For example, if the purpose of a given program is to encourage students to attend school in the first place, the program could be designed to maximize benefits in the first years of school. Because education is a long-term investment, considering how the program's benefits are distributed to different groups across time cou help in assessing whether and how well the program produces benefits.
		b. If not, what should be the goals and objectives of the program?	
	2.	To what extent does the program produce benefits that are timely and sufficient to achieve its purpose, e.g., encouraging choice, attendance, persistence, and completion?	
	3.	Does the program produce long-term results for the individual, institutions, and society?	
Provides appropriate incentives for targeted	4.	Is it clear what behaviors the program is designed to incentivize?	Some programs target assistance to students and families with specific income ranges, while
populations	5.	Is it clear what population the program is designed to target?	others distribute benefits to a broader range incomes. Considering these key questions ca help clarify whether a given program is mear for example, to target low-income students a incentivize them to complete school, or whether the program is meant to help student
	6.	Does the program provide appropriate incentives to individual students who are likely to change their behavior?	
	7.	Are there disincentives associated with the program that adversely affect individuals' participation, such as the risk of debt and default for those participating in federal student loan programs?	from all income levels to complete school. This can inform decisions about the distribution of assistance and allocation of resources.
	8.	Does the program reasonably address how different populations may respond to incentives, such as the different responses that independent and dependent students may have?	
	9.	To what extent does the program minimize "windfalls," i.e., rewarding beneficiaries for activities that they would have undertaken without the aid?	

Factors	Ke	y questions	Example
Facilitates use of the program by beneficiaries	10.	Does the program provide sufficient and timely information to make students and families aware of the assistance available and manage expectations?	The administration of a program can affect the public's ability to take advantage of benefits for which they may be eligible. For example, researchers have raised questions about the length and complexity of the application
		<ul> <li>Can families obtain timely and reliable estimates of how much assistance they are eligible to receive?</li> </ul>	process for Title IV aid and whether the FAFSA could be simplified. In addition, tax filers face
		b. Does the program provide sufficient guidance so that families can make informed and appropriate decisions about college attendance and financing their postsecondary education?	challenges in selecting the best choice from among the numerous tax expenditures available for higher education. Considering whether the design and administration of these tax programs are user-friendly may help determine how to minimize confusing choices
		c. Do students and families understand whether and how the program interacts with other programs?	and provide further guidance to facilitate program use.
	11.	How do the procedures for accessing and using the program affect individuals' participation? For example, is the application process simple enough to understand and complete?	
	12.	Does the timing of the assistance facilitate participation in the program?	
Interacts effectively with other programs	13.	To what extent does the program effectively complement other programs, in terms of incentives created, populations served, reducing the cost of attendance, and the timing of the assistance?	It is important to consider how programs function together to assist students with the costs of higher education. For example, students and families generally receive Title IV benefits early in the school year, and tax benefits toward the end. Considering how programs interact could also help avoid duplication, for example, by incorporating provisions similar to current rules that prevent double dipping. Additionally, identifying whether multiple programs serve similar needs for similar populations could help in redesigning programs to reduce overlap or fragmentation.
Minimizes costs and risks	14.	Does the design of the program reasonably and appropriately address costs and risks (e.g., the compliance burden placed on individuals or the risk of fraud) to the individual, institutions, and society?	Addressing issues of cost and risk can help protect taxpayer funds and improve efficiency. Different mechanisms of providing higher education assistance may involve different costs and risks. For example, student loans
	15.	Can the program produce its benefit while minimizing administrative, compliance, budget, and tax revenue costs?	must be repaid and therefore may come at a low cost to the government and a high cost to the individual. However, the risk of loan default is borne by the government and taxpavers
	16.	Does the program incorporate safeguards to protect against fraud, waste, abuse, and mismanagement?	is borne by the government and taxpayers.

Factors	Key questions	Example
Establishes monitoring and evaluation mechanisms	<ol> <li>To what extent does the program establish mechanisms for continuous monitoring and periodic evaluations?</li> <li>How does the program's performance compare with similar programs, particularly with regard to efficiency and effectiveness?</li> <li>Is it clear which entities are responsible for collecting data and evaluating the program?</li> <li>Are the data necessary for evaluation available on a continuous or timely basis?</li> </ol>	Performance measurement and program evaluation help agencies assess the impact of their programs and learn how to improve results. Considering whether programs have sufficient mechanisms for this would help to determine the need for a new or revised performance monitoring mechanism or data collection process to analyze program performance in relation to its objectives. In the case of a new program, considering whether to establish these mechanisms at the outset would create opportunities for evaluating the program in future years.
	Source: GAO.	
	Note: Programs include federal assistance the expenditures directed at future, current, and p	rough Title IV grants, loans, and work-study, and tax past education expenses.
	program level and also underlies many of the	produces demonstrable results, can be assessed at the key questions under other factors. Generally, the other el, such as changing individuals' behavior or minimizing
	and how well it functions. The us framework are most applicable w implementation of a given progra	m. While this framework focuses on education assistance programs, it may
Conclusions	and understand how to claim the education tax expenditures availa expenses fall short of this princip they are eligible to claim tax expe eligibility requirements as well as Identifying the key characteristics education tax expenditures but fa information on why some filers ar and Education have taken steps families, developing a coordinate seeks to better inform eligible stu	milies need sufficient and timely o ensure they are aware of their eligibility

	continue to fail to maximize their tax benefit—in some cases forgoing hundreds of dollars in benefits.	
	Evaluative research on the effects of federal assistance for higher education continues to be limited. Without this kind of research, policymakers will be challenged to make fact-based decisions on the merits and value of various federal assistance efforts. While methodological and data limitations pose considerable obstacles to conducting evaluative research on these federal programs, program administrators and researchers have shown that it is possible to take advantage of changes in Title IV programs and tax expenditures to conduct evaluative research. In an environment of constrained budgets, evaluative research can help inform decisions to build on successful programs and make changes to less effective programs.	
Recommendations for Executive Action	To help ensure individuals who are eligible to claim a higher education tax expenditure are aware of their eligibility and the benefit they may receive, we recommend that the Commissioner of Internal Revenue and the Secretary of Education work together to	
	<ul> <li>identify characteristics of tax filers who are not claiming a higher education tax expenditure when they appear to be eligible for one and possible reasons for this, and</li> <li>use this information to identify strategies to improve information provided to eligible students and families.</li> </ul>	
	To provide federal policymakers information on the relative effectiveness of Title IV programs and higher education tax expenditures, we recommend the Secretary of Education take advantage of opportunities presented by recent and anticipated substantive program changes to sponsor and conduct evaluative research into the effectiveness of Title IV programs and higher education tax expenditures at improving student outcomes.	
Agency Comments and Our Evaluation	We provided a draft of this report to the Secretary of Education, Secretary of the Treasury, and the Commissioner of Internal Revenue for comment. In written comments, reproduced in appendix IV, Education agreed with our two recommendations. Education noted that it does not currently have jurisdiction over or access to tax data to determine which filers may be eligible for tax benefits but have not claimed such benefits, or their reasons for not claiming such benefits. Education said that after IRS	

identifies such individuals, Education will work with IRS to explore how Education may assist with outreach to these individuals and further disseminate information on tax expenditures to assist students and their families. Education also recognized the need for more research into the effects of federal assistance for higher education and said it will determine whether additional data can be made available to support such research.

With respect to Education's access to taxpayer data, our recommendation was not meant to imply that Education should have access to taxpayer data or that IRS could disclose taxpayer data to Education without authorization in Section 6103 of the Internal Revenue Code. Rather, the recommendation was meant to suggest other means by which Education and IRS can coordinate in their efforts to provide information on higher education tax benefits to eligible students and families.

In written comments, reproduced in appendix V, IRS agreed with our recommendation to identify characteristics of taxpayers claiming suboptimal benefits and devise strategies to improve the information available to them. IRS noted that improved clarity around higher education tax benefits can assist taxpayers in determining which provisions will yield the greatest benefit. IRS also stated that the nuances of each taxpayer's situation affecting their eligibility for education credits or deductions are not evidenced by information reported on their tax return or by information reported by educational institutions on Form 1098-T, *Tuition Statement*. For this reason, IRS considered education and outreach effective means of addressing this issue. IRS stated that it is taking steps to simplify the decision-making process faced by taxpayers by revising Form 8863, *Education Credits (American Opportunity and Lifetime Learning Credits)* to use a series of questions for the taxpayers to ascertain eligibility on a per-student basis.

Treasury and Education provided technical comments on our draft report, which we incorporated as appropriate.

As agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from the report date. At that time, we will send copies to the Secretary of Education, the Secretary of the Treasury, and the Commissioner of Internal Revenue. In addition, the report will be available at no charge on the GAO Web site at http://www.gao.gov.

If you or your staff have any questions about this report, please contact James R. White at (202) 512-9110 or George A. Scott at (202) 512-7215. You may also reach us by email at whitej@gao.gov or scottg@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix VI.

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# Appendix I: Objectives, Scope, and Methodology

Objectives and Scope	This appendix describes our methodology for addressing the following objectives: (1) describe the size and distribution of federal grants, loans, and tax expenditures available to assist students and families with higher education expenses; (2) assess the extent to which tax filers select higher education provisions that maximize their tax benefit; (3) summarize what is known about the effect of grants, loans, and tax expenditures on student attendance, choice, persistence, and completion; and (4) describe factors that contribute to the effectiveness and efficiency of federal higher education student assistance programs.
	To address these objectives, we reviewed federal student aid—including grants, loans, and work-study—authorized under Title IV of the Higher Education Act of 1965, as amended, and tax expenditures—reductions in federal tax liabilities that result from provisions in the tax code such as tax credits, deductions, exemptions, and tax-preferred savings programs. We selected Title IV programs that served more than 500,000 participants in school year 2007–2008. We excluded Academic Competitiveness Grants and the National Science & Mathematics Access to Retain Talent Grants because these programs expired at the end of fiscal year 2011. We selected tax expenditures that: (1) are designed to help students and their families save for, pay current expenses, or repay expenses for higher education; (2) have eligibility requirements that are not based on criteria other than income or higher education expenses; (3) were available in tax years 2006–2009; and (4) had more than 50,000 tax filers claim the benefit in 2009. We did not include the tax exclusion for scholarships and fellowships, which may include awards based upon scholastic achievement or promise. We selected these years because they were the most recent years data that were available. Appendix II summarizes Title IV aid and higher education-related tax expenditures, including those not reviewed in this report.
Methodology	To describe the size and distribution of Title IV aid and higher education tax expenditures, we analyzed data from the U.S. Department of Education (Education), Internal Revenue Service (IRS), and the Board of Governors of the Federal Reserve System (Federal Reserve). We also reviewed statutes, regulations, and guidance relevant to federal student aid and tax expenditures. Our analysis of data from Education's 2007– 2008 National Postsecondary Student Aid Study (NPSAS), IRS's 2006– 2009 Statistics of Income (SOI) individual tax return file, and the Federal Reserve's 2007 Survey of Consumer Finances (SCF) are subject to sampling errors because these data sets are based on samples. Because NPSAS, the SOI files, and SCF follow a probability procedure based on

random selections, they represent only one of a large number of samples that could have been drawn. Since each sample could have provided different estimates, we express our confidence in the precision of our particular sample's results as a 95 percent confidence interval (e.g., plus or minus 2.5 percentage points). This is the interval that would contain the actual population value for 95 percent of the samples we could have drawn. Unless otherwise noted, all percentage estimates based on the SOI and NPSAS have 95 percent confidence intervals that are within 10 percentage points of the estimate itself, and all numerical estimates other than percentages have 95 percent confidence intervals that are within 10 percent of the estimate itself. The 95 percent confidence intervals for all SCF estimates are provided along with the estimates in table notes or footnotes. We also reviewed studies by GAO, the Congressional Budget Office, Congressional Research Service, Education, and the Department of the Treasury.

The 2007–2008 NPSAS, 2009 SOI, and 2007 SCF were the most recent data available at the time of our engagement. NPSAS is a comprehensive study that examines how students and their families pay for higher education. It includes nationally representative samples of 113,535 undergraduates, 12,585 graduate students, and 1,581 first-professional students<sup>1</sup> enrolled during the 2007–2008 academic year. The NPSAS data are based on administrative records and student interviews, and NPSAS includes survey results from both students who received financial aid and those who did not. The SOI individual tax return file is a stratified probability sample of income returns filed with IRS. The SOI sample of 230,364 returns represented approximately 140.5-million tax returns filed for 2009. The SCF sample of 4,418 households represented approximately 116-million households in 2007.

To estimate the number of households that hold Coverdell education savings accounts (ESA) or qualified tuition programs (also known as 529 plans), we analyzed 2007 data from the Federal Reserve's SCF. This survey is conducted every 3 years to provide detailed information on the finances of U.S. households. The SCF collects detailed financial characteristics on an economically dominant single individual or couple (married or living as partners) in a household. For our analysis, we

<sup>&</sup>lt;sup>1</sup>First-professional students are students pursuing degrees in fields such as pharmacy, dentistry, medicine, or law.

aggregated the financial information of these persons to obtain household-level financial information, including whether the household possessed a Coverdell ESA or 529 account and the balances of those accounts. We were unable to analyze Coverdell ESAs or 529 accounts separately because SCF combines these into one variable. Our analysis does not incorporate possible changes in account trends due to the recession ending in June 2009, as the most recent survey data publicly available are for 2007.

To assess the extent to which tax filers selected higher education tax provisions that maximized their tax benefit, we combined information from the SOI individual tax file with information from tax filers' Form 1098-T Tuition Statement.<sup>2</sup> We then calculated which tax provision would maximize filers' tax benefit based on program eligibility criteria for tax year 2009. We calculated filers' tax benefit using the instructions on IRS Forms 1040 *U.S. Individual Income Tax Return*, 8917 *Tuition and Fees Deduction*, and 8863 *Education Credits*. Our analysis included the lifetime learning credit (LLC) and the tuition and fees deduction (tuition deduction). Details on these tax provisions' eligibility rules are included in appendix II. Our analysis did not consider whether a taxpayer who appeared to make a suboptimal choice by not claiming an LLC or tuition deduction did so to avoid being subject to alternative minimum tax liability.<sup>3</sup>

Form 1098-T includes the student's name, address, social security number, and the education institution's federal identification number. Form 1098-T also indicates if students were graduate students and if they were enrolled at least half-time. Education institutions have the option of providing information on the payments they have received or the amounts billed for qualified tuition and related expenses. By combining information on the Form 1098-T with information on the tax return, we were able to identify the higher education student population in the SOI sample and the choices that tax filers made concerning education-related tax

<sup>&</sup>lt;sup>2</sup>Eligible higher educational institutions must file Form 1098-T. An eligible educational institution that is a government unit, or an agency or instrumentality of a government unit, is subject to the reporting requirements of Form 1098-T.

<sup>&</sup>lt;sup>3</sup>All taxpayers subject to regular tax are also subject to the alternative minimum tax, regardless of the income tax bracket or whether they claim certain exclusions, deductions, or credits. Taxpayers may be limited in the credits they can claim based on their alternative minimum tax calculations.

provisions. Because of data limitations, we were unable to assess whether a tax filers who selected an LLC or tuition deduction would have increased their tax benefits by selecting the AOC. Since the AOC is available only during a student's first 4 years of higher education, a student claiming the tuition deduction or the LLC may not be eligible for the AOC. Information on whether students are in their first 4 years of higher education is not included in the Form 1098-T. Our analysis may also be limited if institutions reported inaccurate information on Form 1098-T.

We excluded tax returns where filers were ineligible to claim the tuition deduction or LLC. We excluded returns from filers that:

- were claimed as a dependent on someone else's tax return;
- filed using a married filing separately filing status;
- used a Form 1040-EZ;
- had (1) income that exceeded the program thresholds for the relevant tax year, (2) no taxable income, (3) no tax liability after claiming other tax credits, or (4) no net educational expenses after accounting for scholarships and grants as reported on the Form 1098-T;
- received an education tax credit or tuition deduction but did not receive a Form 1098-T; and
- received a Form 1098-T with no information concerning students' education expenses because we could not analyze the corresponding tax returns without these data. We only used Form 1098-Ts that reported amounts paid in the current year.

This limited our analysis of SOI data to approximately 10.3-million returns in 2009. Table 4 summarizes the percentage of returns we included in our suboptimal analyses.

Credit selected	Other option	Percent of returns included in analysis <sup>a</sup>
Lifetime learning credit	Choosing the tuition and fees deduction	57
Tuition and fees deduction	Choosing lifetime learning credit	35
Selected no higher education credit or deduction	Choosing lifetime learning credit or the tuition and fees deduction	29

## Table 4: Percentage of Returns Included in GAO's Analysis of Taxpayers'Maximizing Their Benefits in Tax Year 2009

<sup>a</sup>The denominators for the first two rows are those returns that claimed the provision. For the "selected no credit or deduction" category, the denominator includes those returns with a Form 1098-T that appear to be eligible for either the credit or deduction.

Source: GAO analysis of IRS data.

In our analysis of taxpayers who would have reduced their liability by choosing a different tax benefit, in addition to using data from the 1098-Ts, we also used data reported by the taxpayer elsewhere on their tax return. For example, for tax filers who claimed the tuition and fees deduction we used the expenses they reported on the Form 8917 to calculate their potential benefit from claiming the LLC. Using these expenses rather than expenses reported on 1098-Ts allowed us to directly compare the benefits by using the same expenses for a taxpayer. Relying on the amounts the taxpayer reported in claiming the tuition deduction or LLC should take into account expenses that cannot be used in claiming an education tax provision. These include expenses paid with tax-exempt assistance, such as the tax-exempt portion of a distribution from a Coverdell ESA or a 529 account, scholarship, grant, or employer assistance.

Of the returns that we included in our analysis of taxpayers who claimed LLC but possibly could have reduced their tax liability by choosing the tuition deduction, 46 percent of the cases had expenses reported on the Form 8863 and 1098-T that were the same. Forty percent of the cases had a 1098-T with reported expenses that were larger than those the filer reported on the Form 8863. This is consistent with the idea that these taxpayers adjusted their education expenses to account for tax-exempt aid that cannot be used to claim a higher education tax provision.

To estimate the effect state tax laws may have on the optimal choices of taxpayers filing their federal income taxes, we utilized the National Bureau of Economic Research's (NBER) TAXSIM Model, a microsimulation model of U.S. federal and state income tax systems. TAXSIM calculates estimated liabilities under U.S. federal and state income tax laws from actual tax returns prepared for public uses by the Statistics of Income Division of the Internal Revenue Service.<sup>4</sup>

To identify available academic research on the effects of Title IV aid programs and higher education tax expenditures within our research scope, we reviewed studies that examined whether the programs or tax expenditures affect college choice, attendance, persistence, and completion. We looked for these measures because they are utilized by

<sup>&</sup>lt;sup>4</sup>See Daniel Feenberg and Elisabeth Coutts, "An Introduction to the TAXSIM Model," *Journal of Policy Analysis and Management*, vol. 12, no. 1, (1993): 189-194.

academic researchers and administrators of student aid programs; they allow for comparison with past GAO literature reviews; and they have been the focus of congressional concern as expressed in requests for our work from Congress and a statutorily established study committee report. We searched literature published since 2005, when we published a similar literature review.<sup>5</sup> We searched information sources such as EconLit, the NBER Web site, JSTOR, Social SciSearch, Education Research Information Center, Nexis, and ProQuest Dissertations & Theses. These online sources are nationally recognized databases that index research results. Our search terms included phrases such as "tax relief and education," "tuition and college," "financial aid and tuition," program names such as "American opportunity credit," and the names of authors included in our 2005 literature review.

Of the over 300 studies we identified, 12 studies met the following criteria: (1) provided original empirical data analyses according to professional standards of econometric analysis for their methodological rigor, (2) contained acceptably identified statistical estimates, or (3) are cited in studies by other researchers. We used the results of the studies that we judged to contain acceptably identified statistical estimates to form the basis of the findings about the availability of information concerning the relative effectiveness of major federal financial assistance programs. Because few studies met our criteria for evaluative research, we selected examples of studies on the effects of nonfederal student-aid programs to provide context for other forms of higher education studies that have been published. These included studies on the effects of state, regional, and institutional financial aid programs. Our selection of non-federal studies is not exhaustive. We also found related research on the responses of institutions of higher education to federal assistance. A bibliography of studies we reviewed is provided at the end of this report.

For our fourth objective, we developed a framework to help identify factors that contribute to the effectiveness and efficiency of federal higher education programs. To develop the framework, we reviewed criteria from prior and ongoing GAO studies, as well as relevant work from other federal agencies. We informed and validated our framework by conducting semi-structured interviews with five academic experts in higher education and economic policy. We interviewed a small number of

<sup>&</sup>lt;sup>5</sup>GAO-05-684.

	experts since the framework was developed using previous GAO reports. We selected experts based on their recognition in the professional community, the relevance of their published work on higher education assistance, demonstrated expertise in Title IV programs or tax expenditures, and others' recommendations. We also consulted with these experts to provide context for the challenges researchers face in studying the effects of federal assistance for higher education on college choice, attendance, persistence, and completion.
Data Reliability and Audit Standards	To assess the reliability of the NPSAS, SOI, and SCF data we analyzed, we reviewed agency documentation and interviewed agency officials familiar with the data. We determined that these data were sufficiently reliable for our purposes.
	We conducted this performance audit from June 2011 to May 2012 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

## Appendix II: Descriptions of Title IV Programs and Higher Education-Related Tax Expenditures

Tables 5 and 6 below provide descriptions of Title IV programs and higher education-related tax expenditures reviewed in this report.

Title IV student aid program	Program details	Annual award amounts (school year 2010–2011)
Pell Grants	Grant amounts are based on the student's enrollment status and the difference between the expected family contribution and cost of attendance, up to the maximum Pell Grant allowed under the Higher Education Act.	For the 2010 – 2011 school years, undergraduates can receive from \$555 to \$5,550. <sup>a</sup>
Federal Supplemental Educational Opportunity Grants (FSEOG)	Schools administer grant funds, which are awarded to undergraduate students with exceptional financial need, with a priority given to students who receive Pell Grants. Schools are generally required to match at least 25 percent of the federal funds allocated.	Undergraduates can receive up to \$4,000 per year (up to \$4,400 for students participating in an approved study-abroad program). The minimum award amount is \$100.
Federal Work-Study	Schools administer federal funds and make part-time employment available to undergraduate, graduate and professional students with federally defined financial need. Participating schools or nonprofit employers generally contribute at least 25 percent of the student's earnings (50 percent in the case of for-profit employers).	No specific limits. Net earnings may not exceed the student's financial need. <sup>b</sup>
Federal Perkins Loans	Loans are made to undergraduate, graduate and professional students with priority given to those with exceptional financial need. Schools administer funds for the low-interest (5 percent) loans, comprised of federal capital contributions and school matching funds (at least one-third of federal contributions).	Undergraduates can borrow up to \$5,500 annually, up to a total of \$11,000 for undergraduates who have not completed two academic years and \$27,500 for undergraduates who have completed two academic years. Graduate or professional students can borrow up to \$8,000 annually, up to a total of \$60,000, including
Subsidized Direct Stafford	Repayment is made to the school.	loans borrowed as an undergraduate. <sup>c</sup> Undergraduate students can borrow between
Loans <sup>d</sup>	to undergraduate, graduate and professional students who are enrolled at least half-time.	\$3,500—the maximum available in their first year— and \$5,500 annually, up to a total of \$23,000.
	The federal government pays the interest costs on subsidized loans while the student is in school, for a grace period of 6 months after the student leaves school, and during subsequent periods if needed. <sup>e</sup>	Graduate or professional students can borrow up to \$8,500 per year up to a total of \$65,500.

#### Table 5: Description of Federal Student Aid Programs Authorized under Title IV of the Higher Education Act

Title IV student aid program	Program details	Annual award amounts (school year 2010–2011)
Unsubsidized Direct Stafford Loans	Loans are made to undergraduate graduate and professional students who are enrolled at least half-time. Unlike subsidized Stafford Loans, students are responsible for interest costs throughout the life of the loan. Annual and aggregate borrowing limits for unsubsidized Stafford Loans include any subsidized Stafford Loans taken by the student.	Undergraduate students and graduate or professional students can borrow between \$5,500 and \$20,500 annually, depending on their year of schooling and dependent status (including any subsidized loan amounts received for the same period). Aggregate limits are \$31,000 for dependent undergraduate students, \$57,500 for independent undergraduate students, and \$138,500 for graduate or professional students.
		Students completing coursework in certain health professions can borrow an additional amount between \$12,500 and \$26,667 annually, up to a total of \$224,000. <sup>f</sup>
Parent Loans for Undergraduate Students (PLUS) Loans	Loans are made to parents of dependent undergraduates and to graduate and professional students who are enrolled at least half-time. Borrowers are subject to a credit check for adverse credit history and may be denied a loan. Borrowers are responsible for paying all interest on the loan.	There are no fixed annual or aggregate loan limits for PLUS loans. Parents, graduate students, and professional students can borrow up to the cost of attendance minus any financial aid the student receives.
	Source: GAO analysis of applicable federal laws, regu	lations, and Education guidance.
	with the largest increase occurring in sch Award increased by over \$600. Addition	has increased over \$1,000 since school year 2007–2008, nool year 2009–2010, when the annual maximum Pell Grant ally, under the Student Aid and Fiscal Responsibility Act, part iciliation Act of 2010,(Pub. L. No. 111-152, Title II, Subtitle A) ty increased in school year 2010–2011.
	<sup>b</sup> Student's gross earnings can exceed th related expenses the student pays.	e student's financial need by the amount of taxes and job-
	<sup>c</sup> Perkins loan limits were increased by th 110-315.	e Higher Education Opportunity Act of 2008, Pub. L. No.
	<sup>d</sup> The Student Aid and Fiscal Responsibil Education Loans as of July 2010.	ity Act terminated the authority to make new Federal Family
		ayment of their loans if for example they pursue additional y service, or experience economic hardships.
	school year 2007–2008—the first such in students finance higher education amid higher limits reflected an increase of bet class level, dependency status, and whe	b. L. No. 109-171, Congress increased Stafford Ioan limits for increase since school year 1993–1994—in order to help concerns about high tuition rates. For undergraduates, the ween \$875 and \$1,000 depending on the undergraduate's ther the student was receiving a subsidized or an Stafford Ioan limits more recently in the Ensuring Continued ub. L. No. 110-227.

### Table 6: Description of Selected Higher Education Tax Expenditures (Tax Year 2010)

Tax expenditure	Eligibility	Income ranges for phasing out benefits <sup>a</sup>	Eligible expenses	Tax benefit
American opportunity credit	Tax filer on behalf of self, spouse, or dependent who: (1) for at least one academic period during the tax year, is working toward an undergraduate degree, certificate or other recognized education credential;	Single filer: \$80,000–\$90,000 Joint return: \$160,000– \$180,000	Tuition, fees and required course materials <sup>b</sup>	Maximum credit: \$2,500 per each eligible student. Credit rate is 100 percent on first \$2,000 of qualified education expenses and 25 percent on the next \$2,000.
	<ul> <li>(2) is enrolled at least half-time for at least one academic period that begins during the tax year;</li> <li>(3) has not completed the first four years of higher education (including any year(s) Hope credit was claimed); and</li> </ul>			Forty percent of credit may be refundable as long as the student is not a child whose income is subject to the "kiddie" tax. <sup>c</sup>
	<ul><li>(4) has not been convicted of a federal or state felony offense for possession or distribution of a controlled substance.</li></ul>			
Lifetime learning credit	Tax filer on behalf of self, spouse or dependent who is enrolled in a course that is part of a higher education degree program or taken by the student to acquire or improve job skills. <sup>d</sup> Credit is available for one or more courses at an eligible institution and there is no limit on the number of years the credit can	Single filer: \$50,000–\$60,000 Joint return: \$100,000– \$120,000	Tuition and fees required for enrollment	Maximum credit: \$2,000 per return (20 percent of the first \$10,000 of qualified education expenses). Nonrefundable credit limited to the amount of tax paid on taxable income.
Tuition and	be claimed. Tax filer on behalf of self, spouse or	Single filer:	Tuition and fees	Maximum deduction:
fees deduction <sup>e</sup>	dependent who is enrolled in one or more courses at an eligible educational institution.	\$65,000–\$80,000 Joint return: \$130,000– \$160,000	required for enrollment	\$4,000 per return for single filers whose modified adjusted gross income does not exceed \$65,000 (\$130,000 for joint filers); \$2000 per return for single filers whose modified adjusted gross income is more than \$65,000 but does not exceed \$80,000 (more than \$130,000, but does not exceed \$160,000 for joint filers).
Student Ioan interest deduction	Tax filer on behalf of self, spouse or dependent. Student must have been enrolled at least half-time in a program leading to a degree, certificate or other recognized educational credential. <sup>f</sup>	Single filer: \$60,000–\$75,000 Joint return: \$120,000– \$150,000	Eligible loans are those used to pay for tuition, fees, room and board, books, supplies and equipment, and other necessary expenses (e.g., transportation).	Maximum deduction: \$2,500 interest paid on eligible education loans

Tax expenditure	Eligibility	Income ranges for phasing out benefits <sup>a</sup>	Eligible expenses	Tax benefit
Section 529 qualified tuition programs (QTP)	For use by designated beneficiary. No eligibility requirements but withdrawals must be used for qualified higher education expenses at an eligible educational institution. QTPs are established and maintained by states or higher education institutions and eligibility for enrollment varies by program.	No income limits	Tuition, fees, books, supplies, and equipment if required for enrollment or attendance. Expenses paid to purchase computer technology or Internet access in 2009 or 2010. Room and board if enrolled at least half-time.	No tax is due on a distribution from an account unless the amount distributed is greater than the beneficiary's adjusted qualified education expenses. Contributions cannot be more than the amount necessary for the qualified education expenses of the beneficiary. <sup>9</sup>
Coverdell education savings accounts (ESA)	Beneficiary must be under age 18 or be a special needs beneficiary when the account is established and when any contributions are made. Account must be closed within 30 days after the earlier of the beneficiary reaching age 30, unless it's a special needs beneficiary, or the beneficiary's death.	For contributions, single filer: \$95,000– \$110,000; Joint returns: \$190,000– \$220,000.	Tuition, fees, books, supplies, and equipment if required for enrollment or attendance. Room and board if enrolled at least half-time.	No tax is due on a distribution from an account unless the amount distributed is greater than the beneficiary's adjusted qualified education expenses. <sup>h</sup> Total annual contribution limit is \$2,000 per beneficiary from all sources (through age 17 unless he or she is a special needs beneficiary).
Parental personal exemption for students ages 19–23	Tax filer can claim an exemption for a dependent who is a child ages 19 through 23 and a full-time student at least five months of the year. Other dependency tests must also be met.	No income limits	N/A	Taxpayer is allowed an exemption of \$3,650 per dependent

Tax expenditure	Eligibility	Income ranges for phasing out benefits <sup>a</sup>	Eligible expenses	Tax benefit
Earned Income	Tax filer with earned income and a	Tax filer's adjusted	N/A	Maximum credit:
Tax Credit for students agesqualify19–23month	qualifying child who is ages 19 through 23 and a full time student at least 5	gross income must be less than:		\$5,666 with 3 or more qualifying children
	months of the year can claim a larger EITC. <sup>i</sup> Other requirements must also be	Single filer:		\$5,036 with two qualifying
	-	\$43,352 (if 3 or more qualifying		children
		children);		\$3,050 with one qualifying child
		\$40,363 (if 2		Credit is refundable.
		qualifying		
		children);		
		\$35,535 (if 1 qualifying child,		
		Joint returns:		
		\$48,362 (if 3 or		
		more qualifying children);		
		\$45,373 (if 2		
		qualifying		
		children);		
		\$40,545 (if 1		
		qualifying child)		

Source: GAO analysis of the Internal Revenue Code, Treasury regulations, and applicable IRS guidance.

<sup>a</sup>Unless otherwise noted, amounts refer to modified adjusted gross income, which is the taxpayer's adjusted gross income increased by amounts which were excluded as foreign income or income from Puerto Rico or other U.S. Territories.

<sup>b</sup>Course materials mean books, supplies, and equipment needed for a course of study whether or not the materials are purchased from the educational institution as a condition of enrollment or attendance.

<sup>c</sup>You do not qualify for a refund if (1) you were (a) under 18 at the end of the tax year; or (b) 18 at the end of tax year and your earned income was less than one-half of your support, or (c) a full time student over 18 and under 24 at the end of the tax year and your earned income was less than one-half of your support; (2) at least one of your parents was alive at the end of the tax year; and (3) you are filing as a single filer, head of household, qualifying widow(er) or married filing separately for 2010. 26 U.S.C. § 25A(i)(6); 26 U.S.C. § 1(g); see also IRS *Publication 970*.

<sup>d</sup>Student does not need to be pursuing a degree or other recognized education credential.

<sup>e</sup>The tuition deduction expired December 31, 2011 and as of May 10, 2012, has not been extended.

<sup>f</sup>Includes graduate school.

<sup>g</sup>Contributors are permitted to contribute to both a Section 529 program and Coverdell ESA account in the same year for the same designated beneficiary.

<sup>h</sup>Beneficiary must pay taxes on distributions in excess of qualified education expenses for the year. Beneficiary must pay a 6 percent excise tax each year on excess contributions (more than \$2000 per year) in the account at end of the year.

<sup>1</sup>Tax filers do not need a qualifying child to claim the EITC provided other rules are met.

While the Hope credit was not available in 2010, our analysis of tax expenditures from 2006 to 2009 includes this credit. The American

opportunity credit replaced the Hope credit for most taxpayers in 2009. However, a larger Hope credit (up to \$3,600) was available for students in 2008 and 2009 who attended an eligible institution in a Midwestern disaster area and met other eligibility requirements.

We did not review the following higher education tax expenditures in this report:

**Education Savings Bond Program.** Tax filers may exclude the tax due on interest accrued on qualified U.S. savings bonds if the interest is used to pay for qualified education expenses and other eligibility criteria are met.

#### Education Exception to Additional Tax on Early IRA Distributions.

Generally, taxpayers must pay an additional 10 percent tax on distributions from IRA accounts before they reach age 59½. However, if taxpayers use these distributions for qualified higher education expenses, they may not have to pay the 10 percent additional tax.

#### Scholarships, Fellowships, Grants, and Tuition Reductions.

Scholarships and fellowships received by degree-candidate students at eligible educational institutions and used to pay for tuition, fees, books, supplies, and equipment required for enrollment are not taxed as income. Pell Grants and other Title IV need-based education grants are treated as scholarships for tax purposes. Tuition reductions, where tax filers are allowed to study tuition free or for a reduced rate, are not counted as income for tax purposes provided certain requirements are met. The rules for determining whether a tuition reduction is tax free depend on whether the education provided is below the graduate level or is graduate education.

**Employer-Provided Educational Assistance.** Tax filers who receive educational assistance benefits from their employers under an educational assistance program do not have to count a certain amount of that assistance as income for tax purposes.<sup>1</sup> Only funds used to pay for tuition, fees, books, equipment, and similar expenses are tax-free.

**Student Loan Cancellations and Repayment Assistance.** Tax filers whose student loans are cancelled or who receive repayment assistance in exchange for working for a certain period of time, in certain professions, and for any of a broad class of employers may qualify for tax-free treatment of cancelled loan or repayment assistance.

**Business Deduction for Work-Related Education.** Tax filers may deduct the cost of work-related education as business expenses if the education meets one of the following tests: 1) the education is required by the tax filer's employer or the law to maintain the tax filer's present salary, status, or job; or 2) the education maintains or improves skills needed in the tax filer's present work. Deductible expenses include tuition, books, supplies, lab fees, certain transportation and travel costs and other education expenses.

**Gift Tax Educational Exclusion**. Tuition paid directly to a qualifying education institution for another person as a gift is not a taxable gift. No exclusion is allowed for amounts paid for books, supplies, room and board, or other expenses that are not direct tuition costs.

<sup>&</sup>lt;sup>1</sup>Under the Working Condition Fringe Benefit Exclusion, employer-provided educational assistance that exceeds \$5,250 in 2010 does not have to be counted as income, provided it is used to pay for any educational expenses that are required by the employer or the law to maintain the tax filer's present salary, status, or job and maintain or improve skills needed in the tax filer's present work.

## Appendix III: Text to Accompany Interactive Figures 1, 2, 6, 7, and 8

## Table 7: Text to Accompany Interactive Figure 1: Illustration of Planning and Payment Processes for Higher Education Expenses

Before college	During college	After college
Birth through senior year of high school	Each academic year	Monthly
Parents make financial planning decisions for	(Repeats until end of college)	Student or parents repay federal
future educational expenses. For example, parents decide whether to invest in tax-preferred savings plans.	Student or parents track expenses they can use toward education-related tax provisions.	student loans.
Senior year of high school	August	January
Fall through spring	1. Student or parents begin paying tuition for	Student or parents receive a
1. Student applies to college.	fall semester.	1098-E Student Loan Interest
<ol> <li>College receives application and admits student.</li> </ol>	2. Student or parents use financial aid package (tax-preferred saving, grants, and loans) and	Statement. January through April 15th
January through March	other savings to pay for college expenses.	Student or parents claim the
1. Student or parents receive information returns	January through March	student loan interest deduction
(such as a W-2 Wage and Tax Statement) that help complete their individual tax return.	Student or parents receive information returns that help them complete their individual tax	on individual income tax return.
2. Student or parents file a tax return by April.	return. For example, student or parents receive a 1098-T <i>Tuition Statement</i> . The 1098-T may	
3. Student or parents complete a Free Application for Federal Student Aid (FAFSA) using information	not have all the information needed to claim education tax provisions.	
from their income tax return and other sources. <sup>a</sup>	January through April 15th	
4. Education processes FAFSA to calculate the	On or before April 15th	
family's expected family contribution (EFC) and reports the EFC to the student and schools.	Student or parents file an individual income tax	
March through April	return (i.e., a 1040) with supporting forms if claiming an education tax credit or tuition	
Student learns aid eligibility.	deduction.	
[Eligibility notification period.]	[Eligibility notification period.]	

Sources: GAO (information); Digital Vision (photo).

Notes: This graphic provides one example of the timing for financial aid, tax, and loan repayment decisions. The process may differ for nontraditional students. For example, students who attend school less than half time or at times other than the fall through spring semesters may make decisions and payments at times other than those depicted in this illustration. Also, individuals other than parents—such as legal guardians—may be involved in financial aid and tax decisions.

FAFSA deadlines vary by state, and the Department of Education Web site often directs students to contact their financial aid administrator for deadlines. Each college within a state may also have a different deadline. For 2011-2012, the federal deadline is June 30, 2012.

<sup>a</sup>Some education institutions may require a FAFSA before families have filed a tax return.

## Table 8: Text to Accompany Interactive Figure 2: Size and Characteristics of Title IV Aid Programs and Higher Education Tax Expenditures

Pell Grants	School Year 2007-2008:
	Total grants awarded: 5.7 million
	Total dollars awarded: \$14.6 billion
	Average grant award: \$2,559
	Median income of recipients: \$18,128
Federal Supplemental Educational	School Year 2007-2008:
Opportunity Grants (FSEOG)	Total grants awarded: 1.3 million
	Total dollars awarded: \$883.7 million
	Average grant award: \$696
	Median income of recipients: \$15,806
Federal Work-Study	School Year 2007-2008:
	Total awards: 1.6 million
	Total dollars awarded: \$4.0 billion
	Average award: \$2,461
	Median income of recipients: \$44,045
Federal Perkins Loans	School Year 2007-2008:
	Total loans made: 674,700
	Total face value of loans: \$1.5 billion
	Average loan amount: \$2,230
	Median income of recipients: \$31,939
Subsidized Direct Stafford Loans	School Year 2007-2008:
	Total loans made: 7.4 million
	Total face value of loans: \$29.6 billion
	Average loan amount: \$3,972
	Median income of recipients: \$30,286
Unsubsidized Direct Stafford	School Year 2007-2008:
Loans	Total loans made: 5.8 million
	Total face value of loans: \$27.2 billion
	Average loan amount: \$4,731
	Median income of recipients: \$33,473
PLUS Loans	School Year 2007-2008:
	Total loans made: 790,600
	Total face value of loans: \$8.5 billion
	Average loan amount: \$10,753
	Median income of recipients: \$80,396

American opportunity credit (AOC)	Tax Year 2009:
	Total filers claiming: 9.1 million
	Total amount claimed: \$16 billion
	Average tax benefit: \$1,755
	Median income of filers claiming credit: \$39,287
Lifetime learning credit	Tax Year 2009:
	Total filers claiming: 3.4 million
	Total amount claimed: \$2.4 billion
	Average tax benefit: \$714
	Median income of filers claiming credit: \$42,903
Tuition and fees deduction	Tax Year 2009:
	Total filers deducting: 1.7 million
	Total amount deducted: \$628.9 million
	Average tax benefit: \$378
	Median income of filers using deduction: \$73,277
Student loan interest deduction	Tax Year 2009:
	Total filers deducting: 9 million
	Total amount deducted: \$1.3 billion
	Average tax benefit: \$148
	Median income of filers using deduction: \$53,959
	Tax Year 2006:
	Total households holding QTPs or Coverdell ESAs: 4.2 million
	Median account balance: \$9,880
accounts (ESAs)	Median gross income of households with QTPs or Coverdell ESAs: \$122,400
	Tax Year 2009:
students ages 19-23	Total filers claiming: 7 million
	Total amount claimed: \$5.3 billion
	Average tax benefit: \$765
	Median income of filers claiming: \$77,070
Earned Income Tax Credit for	Tax Year 2009:
students ages 19-23	Total filers claiming: 1.8 million
	Total amount claimed: \$3.3 billion
	-

Source: GAO Analysis of U.S. Department of Education documents and school year 2007-2008 NPSAS data, IRS SOI data for tax year 2009, and the 2007 Federal Reserve Survey of Consumer Finance.

Note: For estimates of tax expenditures other than QTPs and ESAs, we report the tax benefit a filer receives from claiming the tax expenditure. All figures presented are sample estimates and are subject to sampling error. We are 95 percent confident that in 2006, between 3.5- and 4.9-million households held a QTP or ESA; that the median account balance was between \$7,500 and \$12,000; and that the median gross income of households was between \$106,000 and \$138,000. Data for QTPs and ESAs are presented together because the public SCF data file does not provide separate estimates for the two accounts. Our estimates for the number of filers claiming an education tax benefit only include those filers that reduced their tax liability by claiming these expenditures. All other estimates in this figure have 95 percent confidence intervals that are within +/- 10 percent of the estimate itself.

### Table 9: Text to Accompany Interactive Figure 6: Number and Percentage of Title IV Aid Recipients and Dollars Received, by Income Category and Dependency Status, 2007–2008 (Information for Base Graphic)

			Dependent		Independ	lent
			Dollars received	Share of benefits	Dollars received	Share of benefits
Pell Grant	\$0 - \$20,000	Estimate	\$2,993,296,755	45	\$5,708,275,819	72
		Lower bound	2,893,105,484	44	5,566,262,444	71
		Upper bound	3,093,488,026	46	5,850,289,195	73
	\$20,001- \$40,000	Estimate	2,962,215,274	44	2,033,734,008	26
		Lower bound	2,864,070,740	43	1,945,340,927	25
		Upper bound	3,060,359,808	46	2,122,127,088	27
	\$40,001-\$60,000	Estimate	708,298,173	11	220,020,619	3
		Lower bound	668,348,738	10	196,167,834	2
		Upper bound	748,247,608	11	243,873,403	3
	\$60,001-\$80,000	Estimate	8,350,502	0	0	0
		Lower bound	6,005,886	0	0	0
		Upper bound	10,695,117	0	0	0
	\$80,001-\$100,000	Estimate	0	0	0	0
		Lower bound	0	0	0	0
		Upper bound	0	0	0	0
	Greater than	Estimate	0	0	0	0
	\$100,000	Lower bound	0	0	0	0
		Upper bound	0	0	0	0
Subsidized Stafford Loan	\$0 - \$20,000	Estimate	1,576,033,411	15	9,421,293,323	50
		Lower bound	1,502,686,977	14	9,159,128,415	49
		Upper bound	1,649,379,845	15	9,683,458,230	51
	\$20,001- \$40,000	Estimate	2,600,677,516	24	5,143,430,349	27
		Lower bound	2,497,875,430	23	4,854,802,992	26
		Upper bound	2,703,479,602	25	5,432,057,707	29

			Depende	nt	Independ	lent
			Dollars received	Share of benefits	Dollars received	Share of benefits
	\$40,001-\$60,000	Estimate	2,399,719,215	22	2,332,929,154	12
		Lower bound	2,298,193,364	21	2,127,127,031	11
		Upper bound	2,501,245,066	23	2,538,731,277	13
	\$60,001-\$80,000	Estimate	1,777,159,779	17	1,065,865,463	6
		Lower bound	1,689,883,373	16	948,015,973	5
		Upper bound	1,864,436,185	17	1,183,714,953	6
	\$80,001-\$100,000	Estimate	1,145,483,437	11	831,217,599	4
		Lower bound	1,072,613,678	10	687,503,308	4
		Upper bound	1,218,353,195	11	974,931,890	5
	Greater than	Estimate	1,268,645,799	12	0	0
	\$100,000	Lower bound	1,193,721,012	11	0	0
		Upper bound	1,343,570,586	12	0	0
Unsubsidized Stafford Loan	\$0 - \$20,000	Estimate	480,773,388	8	9,539,027,035	46
		Lower bound	439,589,679	7	9,167,175,297	44
		Upper bound	521,957,098	8	9,910,878,773	47
	\$20,001- \$40,000	Estimate	706,246,969	11	4,980,847,097	24
		Lower bound	653,568,889	10	4,650,336,624	22
		Upper bound	758,925,049	12	5,311,357,570	25
	\$40,001-\$60,000	Estimate	668,956,702	11	2,688,876,994	13
		Lower bound	614,035,030	10	2,419,228,606	12
		Upper bound	723,878,374	11	2,958,525,381	14
	\$60,001-\$80,000	Estimate	863,722,923	14	1,531,454,768	7
		Lower bound	803,916,870	13	1,386,552,806	7
		Upper bound	923,528,976	15	1,676,356,730	8
	\$80,001-\$100,000	Estimate	1,055,285,595	17	1,474,347,793	7
		Lower bound	986,143,816	16	1,246,749,487	6
		Upper bound	1,124,427,374	18	1,701,946,098	8
	Greater than	Estimate	2,539,426,756	40	702,578,936	3
	\$100,000	Lower bound	2,435,744,774	39	571,149,930	3
		Upper bound	2,643,108,738	41	834,007,942	4
PLUS Loan	\$0 - \$20,000	Estimate	306,178,690	4	а	а
		Lower bound	248,794,084	3	а	а
		Upper bound	363,563,296	4	а	а
	\$20,001- \$40,000	Estimate	791,392,564	9	а	а
		Lower bound	642,770,660	8	а	а

		Depende	nt	Independent	
		Dollars received	Share of benefits	Dollars received	Share of benefits
	Upper bound	940,014,468	11	а	â
\$40,001-\$60,000	Estimate	1,069,231,412	13	а	ê
	Lower bound	915,551,532	11	а	â
	Upper bound	1,222,911,292	14	а	â
\$60,001-\$80,000	Estimate	1,332,716,460	16	а	â
	Lower bound	1,186,491,288	14	а	â
	Upper bound	1,478,941,632	17	а	â
\$80,001-\$100,000	Estimate	1,434,575,441	17	а	â
	Lower bound	1,272,533,699	15	а	â
	Upper bound	1,596,617,182	19	а	â
Greater than	Estimate	3,567,182,411	42	а	â
\$100,000	Lower bound	3,278,117,463	39	а	â
	Upper bound	3,856,247,358	44	а	â

Source: GAO analysis of Education NPSAS 2007-2008 data.

Note: Numbers may not add due to rounding.

<sup>a</sup>Figure includes PLUS loans for parents of dependent students only. Grad PLUS loans for independent students are not in the scope of this review because they served under 500,000 students in 2007-2008.

Table 10: Text to Accompany Interactive Figure 6: Number and Percentage of Title IV Aid Recipients and Dollars Received, by Income Category and Dependency Status, 2007–2008 (Information for *Roll-over*)

			Dependent		Independent	
			Number of Recipients	Share of Recipients	Number of Recipients	Share of Recipients
Pell Grant	\$0 - \$20,000	Estimate	877,503	36	2,218,880	67
		Lower bound	848,046	35	2,164,529	66
		Upper bound	906,959	37	2,273,231	68
	\$20,001- \$40,000	Estimate	1,079,892	45	907,156	27
		Lower bound	1,046,185	44	870,299	26
		Upper bound	1,113,599	46	944,013	28
	\$40,001-\$60,000	Estimate	434,219	18	183,458	6
		Lower bound	412,524	17	164,970	5
		Upper bound	455,915	19	201,947	6
	\$60,001-\$80,000	Estimate	18,717	1	а	а
		Lower bound	13,767	1	а	а
			Depen		-	endent
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			Number of Recipients	Share of Recipients	Number of Recipients	Share of Recipients
		Upper bound	23,668	1	а	ć
	\$80,001-\$100,000	Estimate	а	а	а	ć
		Lower bound	а	а	а	â
		Upper bound	а	а	а	а
	Greater than	Estimate	а	а	а	а
	\$100,000	Lower bound	а	а	а	â
		Upper bound	а	а	а	â
Subsidized Stafford Loan	\$0 - \$20,000	Estimate	456,220	15	2,156,910	50
		Lower bound	434,945	14	2,098,700	49
		Upper bound	477,494	15	2,215,119	51
	\$20,001- \$40,000	Estimate	729,441	23	1,236,366	29
		Lower bound	700,807	23	1,179,975	27
		Upper bound	758,074	24	1,292,757	30
	\$40,001-\$60,000	Estimate	671,967	22	516,525	12
		Lower bound	643,347	21	478,359	11
		Upper bound	700,587	22	554,692	13
	\$60,001-\$80,000	Estimate	520,841	17	246,789	6
		Lower bound	494,685	16	223,258	5
		Upper bound	546,998	18	270,321	6
	\$80,001-\$100,000	Estimate	343,004	11	179,982	4
		Lower bound	321,623	10	156,697	4
		Upper bound	364,385	12	203,266	5
	Greater than	Estimate	385,491	12	а	â
	\$100,000	Lower bound	362,872	12	а	a
		Upper bound	408,110	13	а	a
Unsubsidized Stafford Loan	\$0 - \$20,000	Estimate	156,545	8	1,771,762	46
		Lower bound	143,131	7	1,717,257	45
		Upper bound	169,960	9	1,826,267	47
	\$20,001- \$40,000	Estimate	251,950	13	1,057,347	28
		Lower bound	233,387	12	1,002,933	26
		Upper bound	270,512	14	1,111,761	29
	\$40,001-\$60,000	Estimate	240,232	12	479,163	13
		Lower bound	220,852	12	441,852	12
		Upper bound	259,611	13	516,474	13

			Depen	dent	Independent	
			Number of Recipients	Share of Recipients	Number of Recipients	Share of Recipients
	\$60,001-\$80,000	Estimate	293,565	15	260,392	7
		Lower bound	273,213	14	236,564	6
		Upper bound	313,916	16	284,220	7
	\$80,001-\$100,000	Estimate	309,798	16	194,390	5
		Lower bound	289,829	15	170,907	5
		Upper bound	329,768	17	217,874	6
	Greater than	Estimate	670,456	35	70,133	2
	\$100,000	Lower bound	643,657	34	56,753	1
		Upper bound	697,255	36	83,512	2
PLUS Loan	\$0 - \$20,000	Estimate	а	а	b	ł
		Lower bound	а	а	b	t
		Upper bound	а	а	b	t
	\$20,001- \$40,000	Estimate	а	а	b	ł
		Lower bound	а	а	b	ł
		Upper bound	а	а	b	
	\$40,001-\$60,000	Estimate	а	а	b	
		Lower bound	а	а	b	ł
		Upper bound	а	а	b	ł
	\$60,001-\$80,000	Estimate	а	а	b	ł
		Lower bound	а	а	b	t
		Upper bound	а	а	b	t
	\$80,001-\$100,000	Estimate	а	а	b	t
		Lower bound	а	а	b	t
		Upper bound	а	а	b	ł
	Greater than	Estimate	а	а	b	I
	\$100,000	Lower bound	а	а	b	
		Upper bound	а	а	b	t

Source: GAO analysis of Education NPSAS 2007-2008 data.

Note: Numbers may not add due to rounding.

<sup>a</sup>Cannot provide estimate due to sample size.

<sup>b</sup>PLUS loans for independent students are not in the scope of this review because they served under 500,000 students in 2007-2008.

### Table 11: Text to Accompany Interactive Figure 7: Number and Percentage of Campus-Based Aid Recipients and Dollars Received, by Income Category and Dependency Status, 2007–2008 (Information for Base Graphic)

			Depende	nt	Independ	ent
			Dollars Received	Share of Benefits	Dollars Received	Share of Benefits
FSEOG	\$0 - \$20,000	Estimate	\$209,167,876	40	\$287,140,334	79
		Lower bound	191,444,182	38	267,377,116	76
		Upper bound	226,891,570	43	306,903,553	81
	\$20,001- \$40,000	Estimate	229,314,569	44	64,666,358	18
		Lower bound	208,201,016	41	56,314,225	16
		Upper bound	250,428,122	47	73,018,492	20
	\$40,001-\$60,000	Estimate	74,901,541	14	12,253,894	3
		Lower bound	65,006,580	13	8,076,542	2
		Upper bound	84,796,502	16	16,431,247	4
	\$60,001-\$80,000	Estimate	5,224,562	1	198,775	0
		Lower bound	2,582,049	0	0	0
		Upper bound	7,867,076	2	477,611	0
	\$80,001-\$100,000	Estimate	а	а	0	0
		Lower bound	а	а	0	0
		Upper bound	а	а	0	0
	Greater than	Estimate	а	а	0	0
	\$100,000	Lower bound	а	а	0	0
		Upper bound	а	а	0	0
Federal Perkins	\$0 - \$20,000	Estimate	152,790,728	17	433,717,269	73
Loan		Lower bound	132,647,243	15	392,867,642	70
		Upper bound	172,934,213	19	474,566,897	77
	\$20,001- \$40,000	Estimate	259,282,922	28	95,943,420	16
		Lower bound	233,558,609	26	79,398,864	14
		Upper bound	285,007,236	31	112,487,976	19
	\$40,001-\$60,000	Estimate	220,640,219	24	38,661,997	7
		Lower bound	195,048,110	22	26,745,360	5
		Upper bound	246,232,329	27	50,578,633	8
	\$60,001-\$80,000	Estimate	118,530,334	13	7,690,437	1
		Lower bound	100,699,980	11	3,375,164	1
		Upper bound	136,360,688	15	12,005,710	2
	\$80,001-\$100,000	Estimate	67,018,955	7	15,385,335	3
		Lower bound	50,713,975	6	6,394,314	1
		Upper bound	83,323,934	9	24,376,356	4

			Depende	nt	Independ	ent
			Dollars Received	Share of Benefits	Dollars Received	Share of Benefits
	Greater than	Estimate	95,266,510	10	0	0
	\$100,000	Lower bound	74,989,999	8	0	0
		Upper bound	115,543,021	12	0	0
Federal Work-	\$0 - \$20,000	Estimate	349,134,109	12	707,382,578	63
Study		Lower bound	312,290,322	11	644,186,709	59
		Upper bound	385,977,896	14	770,578,448	67
	\$20,001- \$40,000	Estimate	605,006,564	21	238,661,357	21
		Lower bound	547,875,239	19	199,985,943	18
		Upper bound	662,137,889	23	277,336,772	24
	\$40,001-\$60,000	Estimate	535,082,448	19	97,670,405	9
		Lower bound	488,470,952	17	70,377,114	6
		Upper bound	581,693,944	20	124,963,696	11
	\$60,001-\$80,000	Estimate	434,541,331	15	51,330,515	5
		Lower bound	388,756,824	14	26,856,536	2
		Upper bound	480,325,837	17	75,804,494	7
	\$80,001-\$100,000	Estimate	342,452,892	12	21,051,799	2
		Lower bound	297,724,485	11	9,357,957	1
		Upper bound	387,181,298	13	32,745,640	3
	Greater than	Estimate	580,623,357	20	2,987,375	0
	\$100,000	Lower bound	528,212,793	19	0	0
		Upper bound	633,033,922	22	7,826,508	1

Source: GAO Analysis of Education NPSAS 2007-2008 data.

Note: Numbers may not add due to rounding.

<sup>a</sup>Cannot provide estimate because of sample size.

### Table 12: Text to Accompany Interactive Figure 7: Number and Percentage of Campus-Based Aid Recipients and Dollars Received, by Income Category and Dependency Status, 2007–2008 (Information for Roll-over)

			Depend	ent	Indepe	endent
			Number of Recipients	Share of Recipients	Number of Recipients	Share of Recipients
FSEOG	\$0 - \$20,000	Estimate	246,780	43	524,336	76
		Lower bound	231,282	41	497,380	74
		Upper bound	262,278	45	551,292	78
	\$20,001- \$40,000	Estimate	242,838	42	141,319	20
		Lower bound	226,611	40	126,762	19
		Upper bound	259,066	44	155,876	22
	\$40,001-\$60,000	Estimate	83,023	14	24,232	4
		Lower bound	74,208	13	14,826	2
		Upper bound	91,839	16	33,638	5
	\$60,001-\$80,000	Estimate	5,621	1	а	а
		Lower bound	2,656	1	а	а
		Upper bound	8,585	2	а	а
	\$80,001-\$100,000	Estimate	а	а	а	а
		Lower bound	а	а	а	а
		Upper bound	а	а	а	а
	Greater than	Estimate	а	а	а	а
	\$100,000	Lower bound	а	а	а	а
		Upper bound	а	а	а	а
Federal Perkins	\$0 - \$20,000	Estimate	77,162	17	160,257	73
Loan		Lower bound	67,682	15	147,483	69
		Upper bound	86,641	19	173,031	75
	\$20,001- \$40,000	Estimate	120,699	27	40,567	18
		Lower bound	110,196	25	34,398	16
		Upper bound	131,201	29	46,735	21
	\$40,001-\$60,000	Estimate	112,790	25	12,892	6
		Lower bound	100,080	23	9,429	4
		Upper bound	125,500	27	16,356	8
	\$60,001-\$80,000	Estimate	60,826	13	3,488	2
		Lower bound	52,679	12	1,665	1
		Upper bound	68,974	15	5,310	3
	\$80,001-\$100,000	Estimate	35,724	8	3,794	2
		Lower bound	27,727	6	1,742	1
		Upper bound	43,720	10	5,846	3

			Depend	ent	Indepe	endent
			Number of Recipients	Share of Recipients	Number of Recipients	Share of Recipients
	Greater than	Estimate	46,550	10	а	а
	\$100,000	Lower bound	38,822	9	а	а
		Upper bound	54,277	12	а	а
Federal Work-	\$0 - \$20,000	Estimate	155,404	13	262,659	68
Study		Lower bound	142,022	12	244,673	65
		Upper bound	168,786	14	280,645	70
	\$20,001- \$40,000	Estimate	268,903	22	74,287	19
		Lower bound	250,588	21	64,772	17
		Upper bound	287,218	23	83,802	21
	\$40,001-\$60,000	Estimate	231,671	19	31,134	8
		Lower bound	215,316	18	24,591	7
		Upper bound	248,026	20	37,677	10
	\$60,001-\$80,000	Estimate	180,705	15	12,062	3
		Lower bound	165,556	14	7,563	2
		Upper bound	195,855	16	16,561	4
	\$80,001-\$100,000	Estimate	141,945	12	6,493	2
		Lower bound	126,505	10	3,688	1
		Upper bound	157,384	13	9,298	3
	Greater than	Estimate	245,298	20	а	а
	\$100,000	Lower bound	227,301	19	а	а
		Upper bound	263,294	21	а	а

Source: GAO Analysis of Education NPSAS 2007-2008 data.

Note: Numbers may not add due to rounding.

<sup>a</sup>Cannot provide estimate because of sample size.

### Table 13: Text to Accompany Interactive Figure 8: Number and Percentage of Tax Filers Claiming Higher Education Tax Expenditures and Total Benefits, by Income Category, 2009 (Information for Base Graphic)

Program			Total Benefits	Share of Benefits
Tuition and fees deduction	\$0 to 20,000	Estimate	23,237,000	4
		Lower bound	17,298,000	3
		Upper bound	29,177,000	5
	\$20,001 to 40,000	Estimate	60,962,000	10
		Lower bound	50,985,000	8
		Upper bound	70,940,000	11
	\$40,001 to 60,000	Estimate	125,127,000	20
		Lower bound	107,739,000	17
		Upper bound	142,516,000	22
	\$60,001 to 80,000	Estimate	78,621,000	13
		Lower bound	66,696,000	11
		Upper bound	90,547,000	14
	\$80,001 to 100,000	Estimate	55,363,000	9
		Lower bound	43,828,000	7
		Upper bound	66,898,000	11
	Over 100,000	Estimate	285,550,000	45
		Lower bound	258,612,000	42
		Upper bound	312,489,000	48
Student loan interest deduction	\$0 to 20,000	Estimate	56,757,000	4
		Lower bound	50,479,000	4
		Upper bound	63,035,000	5
	\$20,001 to 40,000	Estimate	271,208,000	20
		Lower bound	256,154,000	19
		Upper bound	286,263,000	21
	\$40,001 to 60,000	Estimate	341,352,000	26
		Lower bound	320,833,000	24
		Upper bound	361,870,000	27
	\$60,001 to 80,000	Estimate	204,966,000	15
		Lower bound	191,187,000	14
		Upper bound	218,745,000	16
	\$80,001 to 100,000	Estimate	177,270,000	13
		Lower bound	162,802,000	12
		Upper bound	191,737,000	14
	Over 100,000	Estimate	282,212,000	21
		Lower bound	262,376,000	20

Program			Total Benefits	Share of Benefits
		Upper bound	302,047,000	22
Parental exemption for students	\$0 to 20,000	Estimate	49,874,000	1
ages 19–23		Lower bound	41,344,000	1
		Upper bound	58,404,000	1
	\$20,001 to 40,000	Estimate	615,251,000	12
		Lower bound	580,580,000	11
		Upper bound	649,922,000	12
	\$40,001 to 60,000	Estimate	669,819,000	13
		Lower bound	629,216,000	12
		Upper bound	710,422,000	13
	\$60,001 to 80,000	Estimate	675,441,000	13
		Lower bound	631,910,000	12
		Upper bound	718,972,000	13
	\$80,001 to 100,000	Estimate	662,782,000	12
		Lower bound	615,339,000	12
		Upper bound	710,224,000	13
	Over 100,000	Estimate	2,664,082,000	50
		Lower bound	2,574,733,000	49
		Upper bound	2,753,432,000	51
American opportunity credit	\$0 to 20,000	Estimate	2,410,738,000	15
		Lower bound	2,307,901,000	14
		Upper bound	2,513,574,000	16
	\$20,001 to 40,000	Estimate	3,415,061,000	21
		Lower bound	3,252,942,000	20
		Upper bound	3,577,180,000	22
	\$40,001 to 60,000	Estimate	2,592,059,000	16
		Lower bound	2,434,984,000	15
		Upper bound	2,749,134,000	17
	\$60,001 to 80,000	Estimate	2,228,655,000	14
		Lower bound	2,077,074,000	13
		Upper bound	2,380,236,000	15
	\$80,001 to 100,000	Estimate	1,795,974,000	11
		Lower bound	1,653,340,000	10
		Upper bound	1,938,607,000	12
	Over 100,000	Estimate	3,526,694,000	22
		Lower bound	3,333,288,000	21
		Upper bound	3,720,101,000	23

Program			Total Benefits	Share of Benefits
Lifetime learning credit	\$0 to 20,000	Estimate	177,536,000	7
		Lower bound	157,273,000	7
		Upper bound	197,800,000	8
	\$20,001 to 40,000	Estimate	717,486,000	30
		Lower bound	657,953,000	28
		Upper bound	777,019,000	32
	\$40,001 to 60,000	Estimate	573,645,000	24
		Lower bound	516,394,000	22
		Upper bound	630,896,000	26
	\$60,001 to 80,000	Estimate	453,702,000	19
		Lower bound	397,276,000	17
		Upper bound	510,129,000	21
	\$80,001 to 100,000	Estimate	375,959,000	16
		Lower bound	324,105,000	14
		Upper bound	427,813,000	18
	Over 100,000	Estimate	113,646,000	5
		Lower bound	88,031,000	4
		Upper bound	139,261,000	6
Earned Income Tax Credit for	\$0 to 20,000	Estimate	2,012,304,000	61
students ages 19–23		Lower bound	1,864,847,000	59
		Upper bound	2,159,760,000	64
	\$20,001 to 40,000	Estimate	1,271,618,000	39
		Lower bound	1,174,598,000	36
		Upper bound	1,368,639,000	41
	\$40,001 to 60,000	Estimate	а	0
		Lower bound	а	0
		Upper bound	а	0
	\$60,001 to 80,000	Estimate	0	0
		Lower bound	0	0
		Upper bound	0	0
	\$80,001 to 100,000	Estimate	0	0
		Lower bound	0	0
		Upper bound	0	0
	Over 100,000	Estimate	0	0
		Lower bound	0	0
		Upper bound	0	0

Source: GAO analysis of IRS SOI data.

Note: Numbers may not add due to rounding. Our estimates for the percentage of filers claiming the tuition and fees deduction and the student loan interest deduction only include those filers who reduced their tax liability by claiming these deductions

<sup>a</sup>Cannot provide estimate because of sample size.

#### Table 14: Text to Accompany Interactive Figure 8: Number and Percentage of Tax Filers Claiming Higher Education Tax Expenditures and Total Benefits, by Income Category, 2009 (Information for Roll-over)

Program			Number of Filers	Share of Recipients
Tuition and fees deduction	\$0 to 20,000	Estimate	94,000	6
		Lower bound	75,000	5
		Upper bound	113,000	7
	\$20,001 to 40,000	Estimate	233,000	14
		Lower bound	203,000	12
		Upper bound	264,000	16
	\$40,001 to 60,000	Estimate	321,000	19
		Lower bound	286,000	17
		Upper bound	356,000	21
	\$60,001 to 80,000	Estimate	250,000	15
		Lower bound	219,000	13
		Upper bound	281,000	17
	\$80,001 to 100,000	Estimate	139,000	8
		Lower bound	115,000	7
		Upper bound	162,000	10
	Over 100,000	Estimate	628,000	38
		Lower bound	580,000	35
		Upper bound	676,000	40
Student loan interest deduction	\$0 to 20,000	Estimate	692,000	8
		Lower bound	641,000	7
		Upper bound	744,000	8
	\$20,001 to 40,000	Estimate	2,335,000	26
		Lower bound	2,241,000	25
		Upper bound	2,429,000	27
	\$40,001 to 60,000	Estimate	2,059,000	23
		Lower bound	1,971,000	22
		Upper bound	2,147,000	24
	\$60,001 to 80,000	Estimate	1,524,000	17
		Lower bound	1,449,000	16
		Upper bound	1,600,000	18

Program			Number of Filers	Share of Recipients
	\$80,001 to 100,000	Estimate	1,042,000	12
		Lower bound	979,000	11
		Upper bound	1,105,000	12
	Over 100,000	Estimate	1,355,000	15
		Lower bound	1,286,000	14
		Upper bound	1,425,000	16
Parental exemption for students	s \$0 to 20,000	Estimate	135,000	2
ages 19–23		Lower bound	112,000	2
		Upper bound	158,000	2
	\$20,001 to 40,000	Estimate	1,337,000	19
		Lower bound	1,266,000	18
		Upper bound	1,409,000	20
	\$40,001 to 60,000	Estimate	1,144,000	16
		Lower bound	1,078,000	16
		Upper bound	1,210,000	17
	\$60,001 to 80,000	Estimate	1,026,000	15
		Lower bound	964,000	14
		Upper bound	1,088,000	16
	\$80,001 to 100,000	Estimate	870,000	12
		Lower bound	812,000	12
		Upper bound	927,000	13
	Over 100,000	Estimate	2,468,000	35
		Lower bound	2,389,000	34
		Upper bound	2,547,000	36
American opportunity credit	\$0 to 20,000	Estimate	2,540,000	28
		Lower bound	2,442,000	27
		Upper bound	2,637,000	29
	\$20,001 to 40,000	Estimate	2,102,000	23
		Lower bound	2,013,000	22
		Upper bound	2,192,000	24
	\$40,001 to 60,000	Estimate	1,262,000	14
		Lower bound	1,193,000	13
		Upper bound	1,332,000	15
	\$60,001 to 80,000	Estimate	978,000	11
		Lower bound	917,000	10
		Upper bound	1,038,000	11
	\$80,001 to 100,000	Estimate	764,000	8

Program			Number of Filers	Share of Recipients
		Lower bound	710,000	8
		Upper bound	818,000	9
	Over 100,000	Estimate	1,451,000	16
		Lower bound	1,381,000	15
		Upper bound	1,521,000	17
Lifetime learning credit	\$0 to 20,000	Estimate	480,000	14
		Lower bound	437,000	13
		Upper bound	523,000	15
	\$20,001 to 40,000	Estimate	1,066,000	32
		Lower bound	1,001,000	30
		Upper bound	1,130,000	33
	\$40,001 to 60,000	Estimate	727,000	22
		Lower bound	674,000	20
		Upper bound	780,000	23
	\$60,001 to 80,000	Estimate	518,000	15
		Lower bound	473,000	14
		Upper bound	563,000	17
	\$80,001 to 100,000	Estimate	437,000	13
		Lower bound	396,000	12
		Upper bound	478,000	14
	Over 100,000	Estimate	150,000	4
		Lower bound	126,000	4
		Upper bound	173,000	5
Earned Income Tax Credit for	\$0 to 20,000	Estimate	878,000	49
students ages 19–23		Lower bound	820,000	47
		Upper bound	936,000	52
	\$20,001 to 40,000	Estimate	875,000	49
		Lower bound	817,000	47
		Upper bound	933,000	51
	\$40,001 to 60,000	Estimate	27,000	2
		Lower bound	17,000	1
		Upper bound	38,000	2
	\$60,001 to 80,000	Estimate	а	a
		Lower bound	а	а
		Upper bound	а	a
	\$80,001 to 100,000	Estimate	а	а
		Lower bound	а	а

Program			Number of Filers	Share of Recipients
		Upper bound	а	а
	Over 100,000	Estimate	а	а
		Lower bound	а	а
		Upper bound	а	а

Source: GAO analysis of IRS SOI data.

Note: Numbers may not add due to rounding. Our estimates for the percentage of filers claiming the tuition and fees deduction and the student loan interest deduction only include those filers who reduced their tax liability by claiming these deductions.

<sup>a</sup>Cannot provide estimate because of sample size.

# Appendix IV: Comments from the Department of Education



and willingness to work with the Internal Revenue Service in a way the Commissioner deems appropriate and helpful in responding to the recommendation. Recommendation 2: To provide federal policy makers information on the relative effectiveness of Title IV programs and higher education tax expenditures, we recommend the Secretary of Education take advantage of opportunities presented by recent and anticipated substantive program changes to sponsor and conduct evaluative research into the effectiveness of Title IV programs and higher education tax expenditures at improving student outcomes. Response: The Department recognizes the need for additional research, and it continues to fund and conduct, with the Institute of Education Science (IES), research on the effectiveness of Title IV student aid on student success. The Department is committed to a careful examination of whether financial aid data can be made available to researchers for evaluative research, taking into consideration both the benefits of research and concerns of student privacy. We believe strongly in data-based decision making and, in turn, making data available to policy makers to better inform program policy decisions. Again, thank you for the opportunity to review this draft report. You will find enclosed some technical issues we found when reviewing the report. Sincerely, La Bergero Eduardo M. Ochoa Enclosure

## Appendix V: Comments from the Internal Revenue Service



2 If you have any questions, please contact Robin L. Canady, Director, Strategy and Finance, Wage and Investment Division, at (404) 338-8801. Sincerely, -52 Steven T. Miller Deputy Commissioner for Services and Enforcement Enclosure



## Appendix VI: GAO Contacts and Staff Acknowledgments

GAO Contacts	James R. White, Director, Tax Issues, Strategic Issues Team, (202) 512- 9110 or whitej@gao.gov.	
	George A. Scott, Director, Education, Workforce, and Income Security Issues, (202) 512-7215 or scottg@gao.gov.	
Staff Acknowledgments	In addition to the contacts named above, Michael Brostek (Director), David Lewis and Tranchau (Kris) Nguyen (Assistant Directors), Patrick Dudley, Shannon Finnegan, John Mingus, Amy Moran Lowe, Tom Moscovitch, Erika Navarro, and Mark Ramage made key contributions to this report. Also contributing to this report were JoAnna Berry, Jessica Botsford, Amy Bowser, Andrew Ching, Susannah Compton, Michele Fejfar, Donna Miller, Edward Nannenhorn, Mimi Nguyen, and Melanie Papasian.	

## Bibliography

	To identify available academic research on the effects of Title IV aid programs and higher education tax expenditures within our research scope, we reviewed studies published since 2005 that examined whether the programs or tax expenditures affect college choice, attendance, persistence, and completion. Of the over 300 studies we identified, we included in our review only 12 studies that met the following criteria: (1) provide original empirical data analyses according to professional standards of econometric analysis for methodological rigor, (2) contain acceptably identified statistical estimates, or (3) are cited in studies by other researchers. We used the results of the studies that we judged to contain acceptably identified statistical estimates to form the basis of the findings about the availability of information concerning the relative effectiveness of major federal financial assistance programs. See appendix I for a detailed description of our methodology.
Studies Meeting GAO's Search Criteria	Akers, Beth. <i>Excess Sensitivity of Labor Supply and Educational</i> <i>Attainment: Evidence from Variation in Student Loan Debt</i> . New York City, NY: Columbia University Job Market Paper, 2011. Accessed March 20, 2012. http://www.columbia.edu/~eja2105/research.html. Cellini, Stephanie R. "Financial Aid and For-Profit Colleges: Does Aid Encourage Entry?" Journal of Policy Analysis and Management, vol. 29,
	no. 3 (2010): 526-552. Curs, Bradley R., Larry D. Singell, and Glen R.Waddell. "Money for Nothing? The Impact of Changes in the Pell Grant Program on Institutional Revenues and the Placement of Needy Students." <i>Education</i> <i>Finance and Policy</i> , vol. 2, no. 3 (2007): 228-261.
	Dowd, Alicia and Tarek Coury. "The Effect of Loans on the Persistence and Attainment of Community College Students." <i>Research in Higher</i> <i>Education</i> vol. 47, no. 1 (2006): 33-62.
	Dunlop, Erin R "What do Stafford Loans Actually Buy You? - The Effect of Stafford Loan Access on Community College Students." Charlottesville, VA: University of Virginia Job Market Paper, 2011. Accessed March 12, 2012. people.virginia.edu/~erd2r/Dunlop_job_market_paper_11.9.pdf.
	Herzog, Serge. "Measuring Determinants of Student Return vs. Dropout/Stopout vs. Transfer: A First-to-Second Year Analysis of New Freshmen." <i>Research in Higher Education</i> vol. 46, no. 8, (2005): 883-928.

	Kitmitto, Sami Tayseer. <i>The Pell Grant Puzzle: An Inquiry into the Program's Effects on College Enrollment and One Explanatory Hypothesis.</i> PhD diss., University of California Davis, 2006. ProQuest Dissertation Publishing. Accessed December 8, 2011.
	LaLumia, Sara. "Tax Preferences for Higher Education and Adult College Enrollment." <i>National Tax Journal</i> , vol. 65, no. 1 (2012): 59-89.
	Long, Bridget Terry. Do Loans Increase College Access and Choice? Examining the Introduction of Universal Student Loans. Boston, MA: New England Public Policy Center at the Federal Reserve Bank of Boston, 2007 (NEPPC Working Paper 07-1).
	Mendez, Jessie P., Pilar Mendoza, and Zaria Malcolm. "The Impact of Financial Aid on Native American Students." <i>Journal of Diversity in Higher Education</i> , vol. 4, no. 1 (2011): 12-25.
	Scott-Clayton, Judith. "The Causal Effect of Federal Work-Study Participation: Quasi-Experimental Evidence from West Virginia." <i>Educational Evaluation and Policy Analysis</i> , vol. 33, no. 4 (2011): 506- 527.
	Turner, Nicholas. "The Effect of Tax-Based Federal Student Aid on College Enrollment." <i>National Tax Journal</i> vol. 64, no. 3 (2011): 839-862.
Other Relevant Studies	Although evaluative research linking federal assistance to student college choice, attendance, persistence, and completion is limited, we found examples of studies on the effects of nonfederal student-aid programs, including regional and institutional financial aid programs. Our selection of non-federal studies is not exhaustive. We also found related research, including studies on the responses of institutions of higher education to federal assistance. Examples of these studies are listed below.
	Avery, Christopher, and Sarah E. Turner. "Playing the College Application Game: Critical Moves and the Link to Socio-Economic Circumstances." Paper presented at the National Bureau of Economic Research Education Program, California, November 2009.
	Avery, Christopher, Caroline Hoxby, Clement Jackson, Kaitlin Burek, Glenn Poppe, and Mridula Raman. "Cost Should Be No Barrier: An Evaluation of the First Year of Harvard's Financial Aid Initiative." National

Bureau of Economic Research Working Paper 12029, Cambridge, MA, 2006.

Bettinger, Eric P., Bridget Terry Long, Philip Oreopoulos, and Lisa Sanbonmatsu. *The Role of Simplification and Information in College Decisions: Results from the H&R Block FAFSA Experiment*. Cambridge, MA: National Bureau of Economic Research Working Paper 15361, 2009.

Bowen, William G., Matthew M. Chingos, and Michael S. McPherson. *Crossing the Finish Line: Completing College at America's Public Universities*. Princeton, NJ: Princeton University Press, 2009.

Cellini, Stephanie R., and Claudia Goldin. "Does Federal Student Aid Raise Tuition? New Evidence on For-Profit Colleges." National Bureau of Economic Research Working Paper 17827, Cambridge, MA, 2012.

Goldrick-Rab, Sara, Douglas N. Harris, James Benson, and Robert Kelchen. "Conditional Cash Transfers and College Persistence: Evidence from a Randomized Need-Based Grant Program." Institute for Research on Poverty Discussion Paper no. 1393-11, Madison, WI, 2011.

Patel, Reshma. and Lashawn Richburg-Hayes. "Performance-Based Scholarships: Emerging Findings from a National Demonstration." New York, NY: MDRC Testimony Submitted to the Advisory Committee on Student Financial Assistance, 2011.

Roderick, Melissa, Jenny Nagaoka, Vanessa Coca, and Eliza Moeller. *From High School to the Future: Making Hard Work Pay Off.* Chicago, IL: Consortium on Chicago School Research at the University of Chicago Urban Education Institute, 2009.

Singell, Larry D. Jr. and Joe A. Stone. "For Whom the Pell Tolls: The Response of University Tuition to Federal Grants-in-Aid." *Economics of Education Review*, vol. 26, (2007): 285–295.

Scott-Clayton, Judith. "On Money and Motivation: A Quasi-Experimental Analysis of Financial Incentives for College Achievement." *The Journal of Human Resources*, vol. 46, no. 3 (2011): 614-646.

Turner, Lesley J. "The Incidence of Student Financial Aid: Evidence from the Pell Grant Program." New York, NY: Columbia University Job Market Paper, 2012. Accessed March 15, 2012. Turner, Nicholas. "Who Benefits from Student Aid? The Economic Incidence of Tax-Based Federal Student Aid." *Economics of Education Review* (forthcoming).

## **Related GAO Products**

Federal Statistical System: Agencies Can Make Greater Use of Existing Data, but Continued Progress Is Needed on Access and Quality Issues. GAO-12-54. Washington, D.C.: February 24, 2012.

*Opportunities to Reduce Potential Duplication in Government Programs, Save Tax Dollars, and Enhance Revenue.* GAO-11-318SP. Washington, D.C.: March 1, 2011.

Postsecondary Education: Many States Collect Graduates' Employment Information, but Clearer Guidance on Student Privacy Requirements Is Needed. GAO-10-927. Washington, D.C.: September 27, 2010.

*Federal Student Aid: Highlights of a Study Group on Simplifying the Free Application for Federal Student Aid.* GAO-10-29. Washington, D.C.: October 29, 2009.

Higher Education: Multiple Higher Education Tax Incentives Create Opportunities for Taxpayers to Make Costly Mistakes. GAO-08-717T. Washington, D.C.: May 1, 2008.

Postsecondary Education: Multiple Tax Preferences and Title IV Student Aid Programs Create a Complex Education Financing Environment. GAO-07-262T. Washington, D.C.: December 5, 2006.

Government Performance and Accountability: Tax Expenditures Represent a Substantial Federal Commitment and Need to Be Reexamined. GAO-05-690. Washington, D.C.: September 23, 2005.

*Understanding the Tax Reform Debate: Background, Criteria, & Questions.* GAO-05-1009SP. Washington, D.C.: September 1, 2005.

Student Aid and Postsecondary Tax Preferences: Limited Research Exists on Effectiveness of Tools to Assist Students and Families through Title IV Student Aid and Tax Preferences. GAO-05-684. Washington, D.C.: July 29, 2005.

*Means-Tested Programs: Information on Program Access Can Be an Important Management Tool.* GAO-05-221. Washington, D.C.: March 11, 2005.

Student Aid and Tax Benefits: Better Research and Guidance will Facilitate Comparison of Effectiveness and Student Use. GAO-02-751. Washington, D.C.: September 13, 2002.

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