NEW AMERICA

EDUCATION POLICY

FEDERAL EDUCATION BUDGET PROJECT

JASON DELISLE AND KIM DANCY

A NEW LOOK AT TUITION TAX BENEFITS

NATIONAL SURVEY DATA REVEAL THE SURPRISING AND NOT-SO-SURPRISING EFFECTS OF POLICY CHANGES

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#TAXCREDITS

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The New America's Education Policy Program uses original research and policy analysis to solve the nation's critical education problems, serving as a trusted source of objective analysis and innovative ideas for policymakers, educators, and the public at large. We combine a steadfast concern for low-income and historically disadvantaged people with a belief that better information about education can vastly improve both the policies that govern educational institutions and the quality of learning itself. Our work encompasses the full range of educational opportunities, from early learning to primary and secondary education, college, and the workforce. We are deeply engaged in ongoing developments in educational technology at all levels of child and adult development. We believe new organizational models have potential to achieve breakthrough levels of performance on behalf of students. And we believe that all providers of education must be held constructively accountable for the quality of their work.

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INTRODUCTION

One of Barack Obama's key campaign pledges in 2008 was to create a $4,000 tuition tax benefit called the American Opportunity Tax Credit (AOTC) that would "make college affordable for all Americans."[1] Just weeks into his first term, President Obama signed the proposal into law, but only after Congress had trimmed it down and added in a sunset provision. The AOTC continues a trend in federal policy that started in 1997, when Congress first created two tax credits for students and families who pay college tuition and fees. The Lifetime Learning and Hope Tax Credits were designed to benefit middle class families by reducing tax liability by up to $1,500. Multiple expansions in the income cutoffs and maximum benefits, as well as the addition of a tax deduction for tuition and fees, have made these benefits more generous and widely available.

Despite this growth, subsidizing higher education via tax benefits is not without controversy. Tax records from the Internal Revenue Service show that increasing shares of higher-income individuals claim the benefits as they have become more generous over time.[2] Research also raises doubts about whether these benefits encourage students to pursue further education, likely because they view tax benefits as a boost to income, rather than a price discount.[3] Additionally, the argument that the tax benefits pay for themselves through a high return on investment is largely without conclusive evidence.[4] Others have concluded that the tax benefits are complicated and should be simplified.[5]

There are other unintended consequences and surprising effects of recent changes to the tax benefits. In this paper we use nationally representative survey data from the U.S. Department of Education, the quadrennial National Postsecondary Student Aid Study (NPSAS), to estimate the tax benefits that undergraduates were eligible to claim for the academic years 1999–2000, 2003–04, 2007–08, and 2011–12. This allows us to examine how the benefits have changed over time and how eligibility is distributed among the undergraduate population. The study builds on existing research by allowing us to focus on undergraduates only. It explores the characteristics of those who cannot claim benefits, reveals how eligibility and benefit amounts differ based on the type of school a student attends, and shows how tax benefits interact with other forms of financial aid.

The results show that a large share of the undergraduate population cannot claim tax benefits, something the AOTC did little to change. The results also reveal that the AOTC is a boon to students attending for-profit schools and does little for students attending community colleges, which is likely the opposite effect its supporters intended.

To be sure, our approach has its own limitations. Estimating tax benefits using survey data cannot show what share of eligible students claim benefits, and the data do not represent actual behavior or take-up rates.[6] We do, however, take steps to ameliorate that limitation, mainly by excluding students and families who did not file federal tax returns but otherwise would be eligible for a benefit. We are careful to point out that this work reflects eligibility for tax benefits, not take-up rates. Our approach reflects eligibility for a tax filer's optimal tax benefit. Tax filers can only claim one benefit per year, per student, although they are often eligible for more than one. In reality, students and families do not always maximize their benefits. We calculate and report tax benefits for dependent undergraduates according to the parents' and student's combined income and the parents' marital status. For independent students we use the student's household income and marital status. Additional technical details are included in the data and methodology appendix.

Summary of Key Findings

- About 40 percent of undergraduate students are ineligible for any tuition tax benefit because they do not pay tuition or do not file taxes. Most of these families (63.5 percent) do not have any tuition or fee expenses net of other grants and scholarships and therefore have no expenses to offset. About 31 percent of those ineligible for a benefit did not file federal income taxes, making them ineligible to claim any credits under our methodology. There is some overlap between these two groups. Many of these students attend community colleges, and a majority of them earn less than $30,000 per year.

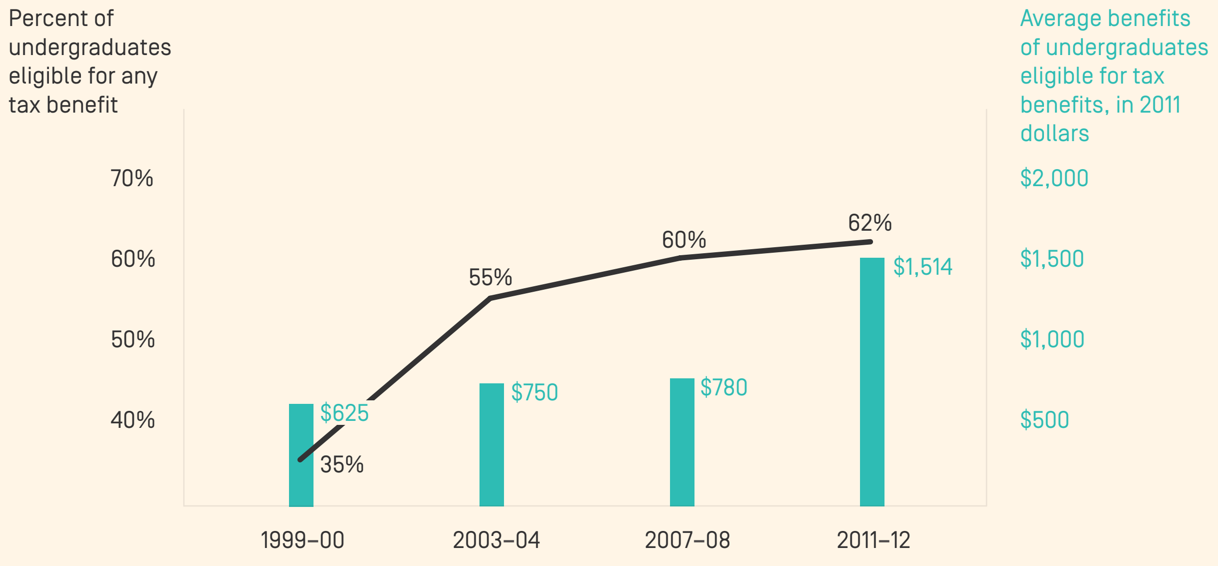
- The refundable feature of AOTC did not meaningfully add to the number of students eligible for a tax benefit. Low-income students are less likely to owe any federal taxes and more likely to receive need-based financial aid. This aid often reduces tuition to the point that students can no longer claim a credit. Put another way, there is a significant overlap between students with no federal tax liability and those who pay no tuition. This group is ineligible for a credit whether refundable or not because they have no tuition expenses to offset. The refund is moot because a lack of income tax liability is not what excludes them from a tax benefit.

- Lawmakers' efforts to make the AOTC partially refundable boosted benefits to students attending for-profit institutions most. Fifty-five percent of the dollars available through the refundable benefit are available to students attending for-profit schools, despite making up just 12.9 percent of undergraduate enrollment. Of students eligible for any tax benefit who attend for-profit schools, the average refundable portion is $542. The comparable amount among students at community colleges is just $91.

- Pell Grants offset tax benefit eligibility nearly dollar for dollar for certain families. Low-income students often receive generous aid through Pell Grants as well as other sources, which lowers the out-of-pocket tuition costs they can use to claim a tax benefit. As tax benefits have become more generous over

Figure 1

Percent of Undergraduates Eligible for Any Tax Benefit and Average Benefit of Those Eligible



Source: New America, NPSAS

time, combined tax and Pell Grant awards are now nearly even among the lowest two income groups. Relative to Pell Grants, tax benefits played a small role in federal student aid in 1999, but by 2011 grants and tax benefits had moved closer to parity.

- Students attending more expensive schools are able to claim a larger tax benefit than those in other sectors. In general, students at schools that charge higher prices, particularly for-profit and nonprofit private schools, and to a lesser extent four-year public schools, tend to qualify for larger tax benefits. This is because schools with lower prices, like community colleges, tend to have more students whose tuition expenses are largely, if not fully, covered through other aid such as grants and tuition discounts.

- AOTC nearly doubled average benefits, but did not meaningfully expand the share of the undergraduate population eligible for a tax benefit. We compare eligibility and average benefits using actual tax rules, as well as a hypothetical version in which AOTC had expired, using the same population of undergraduates. This shows that the advent of the AOTC, which made benefits refundable for the first time and increased income limits to $180,000, also dramatically increased the maximum benefit each tax filer could claim. While these changes did not meaningfully expand the share of the undergraduate population eligible for a tax benefit, they did substantially increase the average benefit.

- Those with the highest incomes are eligible for the largest average benefits. While filers earning over $106,000 were eligible for an average benefit of $1,900, families earning less than $30,000 were eligible for nearly $800 less, on average. This is in line with findings from prior research using IRS data on what students actually claim.

- Income limits exclude very few families from tax benefits. Ninety-one percent of undergraduates or their parents who incur out-of-pocket tuition and fee expenses and file taxes are eligible for a tax credit or deduction. (Out-of-pocket costs include tuition and fees financed with student loans.)

Policy Implications

Who benefits from the tax credits and deduction?

While originally designed as a middle class tax cut, the share of both low- and high-income students able to claim a tax benefit has increased over time, as has the average benefit for all groups. This has generated controversy as to whether these benefits are fair. Indeed, our research confirms that high-income families are more likely to qualify for tax benefits and their benefits are larger than average. However, the AOTC also increased the total tax benefit dollars available to families earning less than $30,000, such that they now receive a larger share of the total benefits than any of the other three income groups in our study. This suggests that the AOTC may not be as regressive as some argue. It also shows that the AOTC provides substantial benefits to the same students that the Pell Grant program targets, but through a completely different system and process. It is worth remembering that this paper examines eligibility among families who file taxes, not take-up rates, which may show that lower-income families fail to claim these benefits.

Are tax benefits redundant student aid or just too limited?

A sizeable number of undergraduates—many of whom are low-income—cannot claim a tax benefit because they do not pay tuition or fees. On the one hand, this suggests that our higher education finance system is working well. Many students already receive enough aid to fully cover their tuition and fees, and cannot gain any further resources through tax benefits. On the other hand, these students are incurring living expenses, but cannot claim a tax benefit to offset them. Some may see this as more evidence that policymakers should eliminate tax benefits altogether in favor of providing more grant aid. Alternatively, the Obama administration recently suggested that students should be aware that they might use their grant aid for living expenses, but pay tuition out-of-pocket (or with loans). That way they receive their full grant aid and are eligible for a tax benefit. However, tax rules treat any grant aid applied toward a student's cost of living

The results show that a large share of the undergraduate population cannot claim tax benefits, something the AOTC did little to change

as taxable income, creating complicated financial tradeoffs.[7] The IRS has indicated that many students fail to optimize their tax benefits and grant aid, though the exact scope of the problem is unknown.

What are the implications of a refundable benefit?

The $1,000 refundable benefit under AOTC greatly expanded the average benefit available to the lowest income families. However, 55 percent of the refundable benefits are available to students who attend for-profit schools. Some of the biggest proponents of the tax benefits are highly critical of these schools. Meanwhile, very few of the benefits are available to students attending community colleges, due to the low prices that these institutions charge. This new information may change the policy debate about the merits of tuition tax benefits.

Should tax benefits apply differently to different types of students?

The AOTC provides the most generous benefits, but is available only to students enrolled in the first four years of a degree program who are attending at least half time. Students who do not meet those criteria are still eligible for other tax benefits, but can claim a much smaller benefit. About 10 percent of undergraduates, many of whom attend community colleges, would be eligible for a much larger benefit without these restrictions.

Should policymakers let the tax benefits expire?

The AOTC is set to expire after tax year 2017. In that event, the share of undergraduates eligible for a benefit barely changes, although the average benefit would be much smaller. If policymakers extend the AOTC, they may have new impetus to let the tuition and fees deduction ("the deduction") expire.[8] Our analysis shows that if the AOTC is available, only 1.9 percent of the undergraduate population benefits from the deduction, far fewer students and families than lawmakers likely realize. Even if the AOTC did expire, the deduction still has very limited reach among undergraduates. Only 8 percent of undergraduates are able to optimize their benefits by claiming the deduction instead of the Hope Tax Credit ("Hope Credit") and the Lifetime Learning Credit ("Lifetime Credit").

The remainder of this report is presented as a set of annotated graphics organized into three sections. The first examines tax benefit eligibility in 2011–12. The second shows how tax benefit eligibility has changed over time beginning with the 1999–2000 school year. The final section compares how tax benefit eligibility would change if the AOTC had expired.

Information Box

Summary of Federal Tuition Tax Benefits

All benefits are described according to tax year 2011. Students, families, and parents of dependent students can claim the benefits for tuition and fees and sometimes other related expenses, but not housing or food. Tuition and fees financed with loans are still considered eligible expenses for claiming the benefits. Tax filers can only claim one benefit per year, per student, but they may meet the eligibility criteria for multiple benefits.

Hope Tax Credit is available to undergraduates enrolled in their first or second year of a degree program and attending at least half time. Lawmakers recognized that the majority of undergraduates were in their first two years of a degree program, and added this requirement to help limit costs when the benefit was first created. Students, or their parents if they are dependents, can claim a credit up to $1,800, or 100 percent of the first $1,200 in tuition and fees and 50 percent of the next $1,200. The credit is permanently authorized in current law, although lawmakers have suspended it while the more generous American Opportunity Tax Credit is available through tax year 2017. When that benefit expires, the Hope Credit will again be available. Had the AOTC not existed in 2011–12, those with an Adjusted Gross Income of less than $51,000 ($102,000 for married filers) could claim the full Hope Credit while those earning more, but less than $61,000 ($122,000), would have been eligible for a partial credit as the benefit is phased out.

American Opportunity Tax Credit replaced the Hope Credit in 2009, and expanded eligibility to undergraduates in their first four years of school who are enrolled in a degree program at least half time. These students may receive a credit up to $2,500, or 100 percent of the first $2,000 in tuition in fees and 25 percent of the next $2,000. Up to $1,000 of this credit is refundable, meaning the tax filer can claim it even if she has no tax liability to offset. Eligibility for the full AOTC is capped for single tax filers earning $80,000 ($160,000 for married filers). Those earning up to $90,000 ($180,000) can claim a partial benefit under a phase-out provision. The AOTC expires after the 2017 tax year.

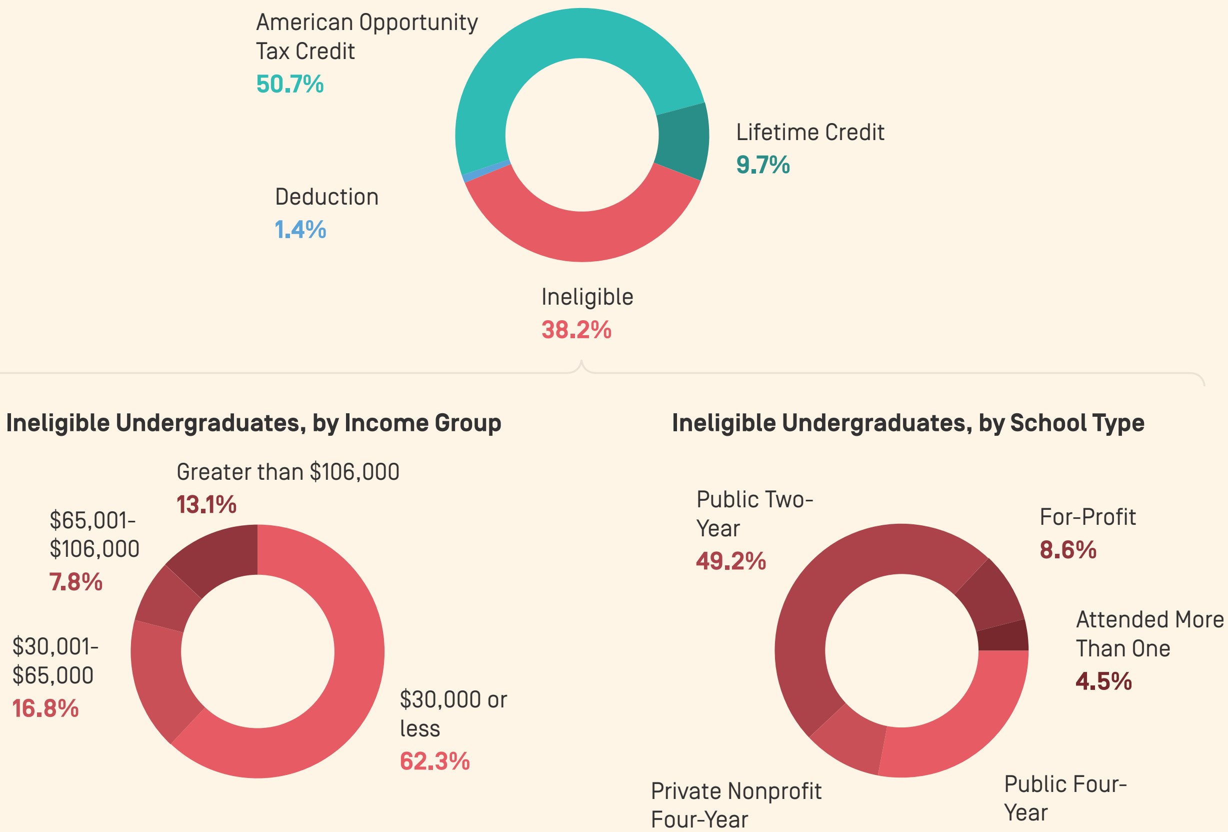
Lifetime Learning Tax Credit allows filers to reduce their federal taxes up to $2,000. The credit is equal to 20 percent of the first $10,000 in tuition and fee expenses. Income limits are indexed to inflation, and are set at $51,000 or ($102,000 for married filers) for the full benefit; those earning above those amounts but less than $61,000 ($122,000) are eligible for a partial credit as the benefit is phased out. As the name implies, it is meant to facilitate “lifetime learning” by providing tax benefits to students beyond their second year of school, complementing the Hope Credit.[9]

Tuition and Fees Deduction allows students or families to deduct up to $4,000 in tuition and fees from their incomes, reducing taxes by their marginal tax rates (e.g., 25 percent of $4,000 for those in the 25 percent tax bracket). Students and families do not need to itemize deductions to claim it. Income eligibility is capped at $65,000 ($130,000 for married filers). Above these limits a partial deduction of up to $2,000 is available for those with incomes less than $80,000 ($160,000). The benefit has been available since 2002. It has always been temporarily authorized, but extended multiple times. The last extension made the credit available through 2014; tax filers will not be able to claim the deduction in 2015 unless Congress acts to extend it.

SECTION I:
OVERVIEW OF 2011–2012 TAX BENEFITS

Figure 2

Tax Benefit Eligibility of all Undergraduates, 2011–2012



Source: New America, NPSAS 2011-2012

Who is Eligible for a Tax Benefit:

- Over half of undergraduate students were eligible to claim the AOTC in 2011–12, and a relatively small number of them benefit from the Lifetime Credit or the deduction. Nearly four in ten undergraduates were ineligible for any of the three tax benefits. (Figure 2)

- Students whose family incomes are too high to qualify are the smallest subset of those ineligible for a benefit. Only 4.6 percent of undergraduates are ineligible for a tuition tax benefit because their incomes exceed an eligibility cutoff.

- Students who did not file taxes or who did not have tuition costs—categories that are not mutually exclusive—account for the vast majority of ineligible students. Specifically, 63.5 percent of ineligible students did not have any tuition costs to offset. These students were predominantly low-income and received other forms of aid, such as grants or tuition discounts, and therefore had no out-of-pocket tuition costs to claim against the credit.[10] About 31 percent of ineligible students did not file federal income taxes and, under our methodology, are excluded from eligibility.

Table 1

Optimal Tax Benefits of Eligible Undergraduates, by Income Group, 2011–2012

	American Opportunity Tax Credit	Lifetime Credit	Deduction	Total
$30,000 or Less	78%	22%	0%	100%
Avg. Benefit	$1,375	$269	$0	$1,132
$30,001-$65,000	82%	16%	2%	100%
Avg. Benefit	$1,935	$524	$393	$1,676
$65,001-$106,000	86%	11%	3%	100%
Avg. Benefit	$2,058	$603	$313	$1,846
Greater than $106,000	90%	0%*	10%	100%
Avg. Benefit	$2,056	$0*	$434	$1,900

Source: New America, NPSAS 2011-2012

*Sample size limits the reliability of this estimate

Eligibility By Optimal Benefit and Income Group:

- Tax benefits were highest for those with the most income in 2011–12. Families earning over $106,000 who qualified for a benefit could claim an average of $1,900, compared with $1,132 for those earning $30,000 or less. (Table 1)

- The AOTC is more generous than the Lifetime Credit and the deduction. Therefore, most of the benefits students can claim are available through the AOTC.

- Since income limits under AOTC are high, and because more affluent students are likely to have higher tuition costs, those in the highest income group benefit most from the availability of the AOTC. They are more likely to incur the $4,000 in tuition expenses needed to qualify for the maximum $2,500 credit.

- Students in the lowest income group qualify for lower benefits because they incur lower out-of-pocket tuition costs and also because they have lower federal tax liability, so they are often constrained by the $1,000 limit to the refundable portion of the credit. Just over half the students qualifying for the refundable benefit could claim the maximum $1,000. The average refundable benefit for those qualifying was $771.

- The AOTC always provides the largest average benefit, but can only be claimed if students are enrolled in the first four years of a degree program and are attending at least half time. Therefore, some undergraduates can only claim the Lifetime Credit or the deduction because they do not meet these criteria.[11]

Table 2

Optimal Tax Benefits of Eligible Undergraduates, by School Type, 2011–12*

	American Opportunity Tax Credit	Lifetime Credit	Deduction	Total
Public Four-Year	88%	10%	2%	100%
Avg. Benefit	$1,882	$460	$489	$1,718
Private Four-Year	89%	10%	2%**	100%
Avg. Benefit	$2,120	$759	$749**	$1,966
Public Two-Year	67%	29%	4%	100%
Avg. Benefit	$1,209	$135	$217	$856
For-Profit	93%	7%	1%**	100%
Avg. Benefit	$1,818	$809	$628**	$1,744

Source: New America, NPSAS 2011-2012

*Totals may not sum due to rounding
**Sample size limits the reliability of this estimate

Eligibility By Optimal Benefit and School Type:

- To claim the AOTC, students must be enrolled in the first four years of a degree program and attend at least half time. That means that students attending community colleges are less likely to be eligible for the AOTC compared to those attending other types of institutions because community colleges tend to enroll more non-degree or students attending less than half time. Nearly 90 percent of students at public four-year and private nonprofit schools eligible for a tax benefit can claim the AOTC, compared to just 67 percent at public two-year community colleges. (Table 2)

- Students who cannot claim AOTC are generally eligible for the other, less-generous tax benefits, provided they have tuition costs to offset and meet stricter income requirements. For example, a student in his fifth year of undergraduate study, or one enrolled less than half time, can still claim the Lifetime Credit or the deduction but is not eligible for AOTC. The same is true for a student who is not enrolled in a degree program.

- The Lifetime Credit and the deduction provide much smaller tax reductions on average. A student needs much higher tuition costs ($10,000) to be eligible for the full Lifetime Credit benefit than the

$4,000 in tuition costs needed to claim the full AOTC. Even in the case of the maximum benefit, the benefit is smaller under the Lifetime Credit. Likewise, the maximum deduction reduces taxable income by $4,000, which translates to roughly $1,000 less in taxes paid.

- In general, students at schools that charge higher prices, particularly for-profit and nonprofit private schools, and to a lesser extent four-year public schools, tend to qualify for larger tax benefits. This is because schools with lower prices, like community colleges, tend to have more students whose tuition expenses are largely, if not fully, covered through other aid such as grants and tuition discounts. Their students are also more likely to be eligible for only the least-generous tax benefits due to the AOTC restrictions related to attendance and degree-seeking status. For example, about 59.9 percent of community college students attend at least half time for the full academic year, compared to 85.0 percent at for-profit schools.

- The highest rate of AOTC eligibility comes from for-profit schools because those students are least likely to be constrained by any of the restrictions under the AOTC. These students frequently enroll in short-term certificate programs that are considered degree-seeking under federal criteria, helping them qualify for AOTC. Compared with community college students, those at for-profit colleges also face much higher tuition costs, which means they tend to receive higher tax benefits in dollar terms regardless of which credit they claim.

Figure 3

Distribution of Tax Benefit Dollars, by School Type of Eligible Undergraduates, 2011–2012

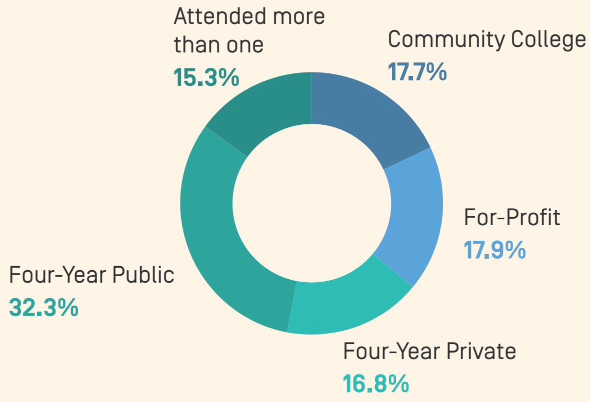


Table 3

	Share of Undergratuate Population	Share of Undergraduates Attending School Type Eligible for Tax Benefits
Four-Year Public	28.4%	62%
Four-Year Private	11.7%	68.7%
Community College	38.1%	50.7%
For-Profit	12.9%	74.6%

Source: New America, NPSAS 2011-2012

Tax Benefit Dollars by School Type:

- Relative to their share of the undergraduate population, students attending for-profit and private nonprofit schools qualify for a disproportionate share of tax benefit dollars, while those at community colleges are underrepresented. Community college students made up 38.1 percent of undergraduates in 2011–12 (Table 3), but were eligible for just 17.7 percent of tax benefit dollars. Fewer of those students qualify for any benefits and when they do, the benefits are smaller. (Figure 3)

- Students attending for-profit schools represented just 12.9 percent of all undergraduate enrollment (Table 3), but they were eligible for 17.9 percent of the tax benefits available to undergraduates (they were also eligible for 55 percent of the refundable benefits under the AOTC). (Figure 3)

Figure 4

Distribution of Tax Benefit Dollars, by Income Group of Eligible Undergraduates, 2011–2012

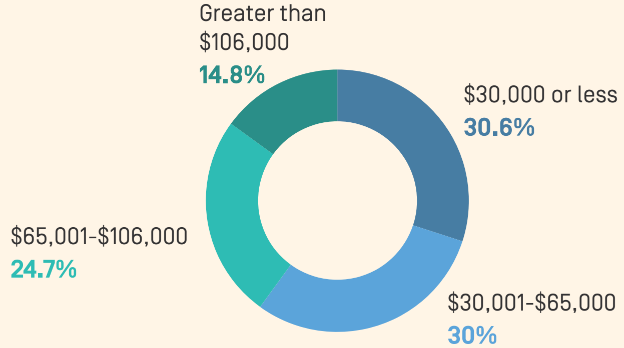


Table 4

	Share of Undergratuate Population	Share of Undergraduates in Income Group Eligible for Tax Benefits
$30,000 or less	49.1%	51.5%
$30,001-$65,000	23.2%	72.3%
$65,001-$106,000	15.5%	80.7%
Greater than $106,000	12.3%	59.1%

Source: New America, NPSAS 2011-2012

Distribution of Tax Benefit Dollars by Income Group:

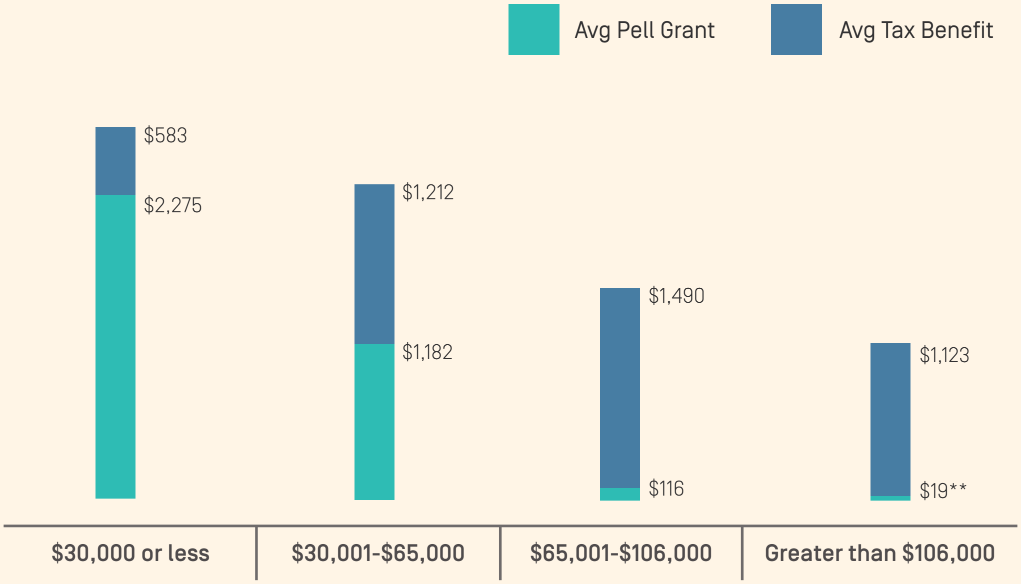
- For this analysis we constructed four income groupings based on a variety of factors, including the income quartiles of the general population, reporting bands used in other federal education databases, and income-eligibility criteria for financial aid. These groups are not income quartiles for the NPSAS survey, or for the broader population.

- In 2011, 60.6 percent of the education tax benefits for undergraduates were available to families making less than $65,000 per year, despite their making up nearly 75 percent of the undergraduate population. Those making over $106,000, a group that makes up 12.3 percent of undergraduate enrollment, were eligible to receive 14.8 percent of the dollars spent on tax credits in 2011–12. (Figure 4 & Table 4)

- Upper-income families qualify for a disproportionate share of the dollars available because they are more likely to pay out-of-pocket tuition and fees, which means the average benefit available is higher. They are also more likely to file taxes and have greater income tax liability than those earning less than $65,000.

Figure 5

Average Pell Grant Received and Tax Benefit Eligibility, by Income Group of all Undergraduates, 2011–2012*



Source: New America, NPSAS 2011-2012

*Figures include those ineligible for either benefit
**Sample size limits the reliability of this estimate

Comparing Tax Benefits with Pell Grants:

- The federal Pell Grant program provides aid to undergraduate students from low-income families that can be used to pay for both tuition and living expenses. Pell Grants can reduce the amount of tax benefits students can claim by reducing the tuition costs they incur.[12] About 47 percent of students who received a Pell Grant in 2011 incurred no out-of-pocket tuition expenses or fees, making them ineligible for a tax benefit. Nearly all of those students attend public four-year and two-year schools, (28.9 and 62.1 percent, respectively).

- For students with incomes below $30,000, the average Pell Grant was $2,275. These same students had an average tax benefit eligibility of just $583. (Figure 5)

- Policymakers phase out Pell Grant benefits as family income increases. Families are then eligible for larger tax benefits because they receive less grant aid and therefore pay more in tuition. For this reason, the combined value of Pell Grants and tax benefits for the lowest two income groups are not nearly as far apart as Pell Grant eligibility alone would suggest.

- Families earning between $30,001 and $65,000 qualify for $1,093 less in Pell Grants on average than those earning less than $30,000. When tax benefits are added in, that gap narrows to $464. (Figure 5)

Figure 6a

Distribution of Refundable Tax Benefit Dollars, by School Type of Eligible Undergraduates, 2011–2012

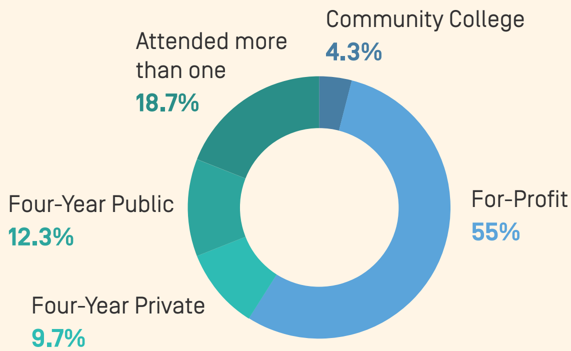


Figure 6b

Average Refundable and Non-Refundable Tax Benefit of Eligible Undergraduates, by Income Group, 2011–2012

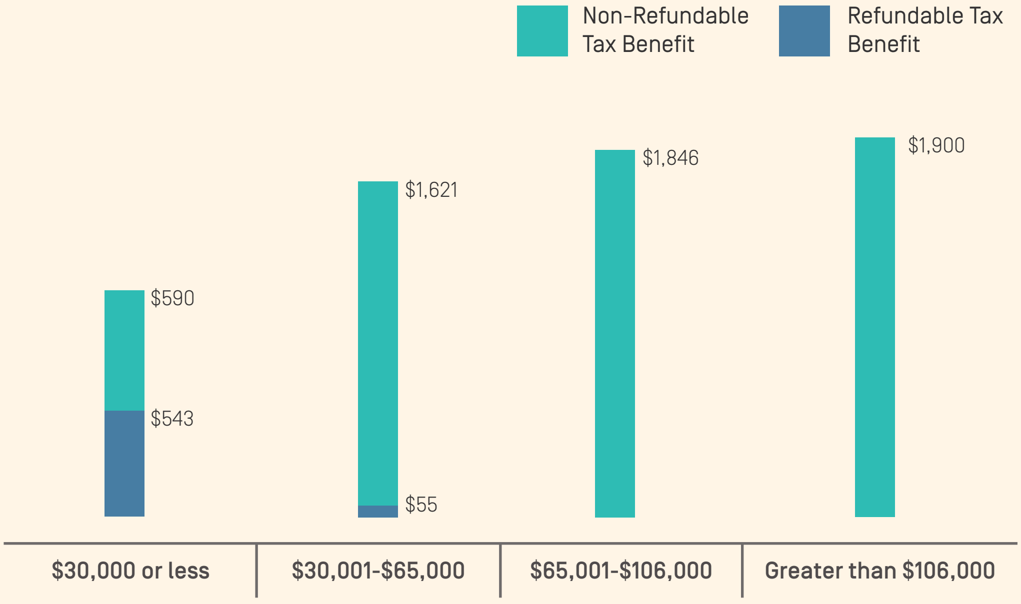
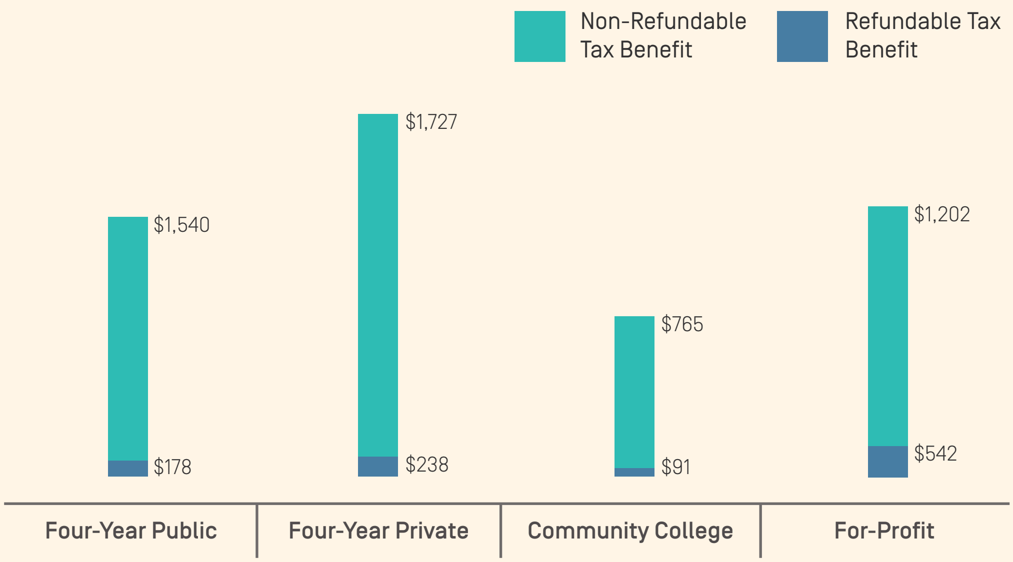


Figure 6c

Average Refundable and Non-Refundable Tax Benefit of Eligible Undergraduates, by School Type, 2011–2012



Source: New America, NPSAS 2011-2012

Refundable Benefits Under AOTC:

- Up to $1,000 of the AOTC is refundable. It is the only tax benefit to include this feature. This means that students with no federal tax liability are able to claim a credit up to $1,000. It also means that students with some federal tax liability, but not enough for the full $2,500 credit under the AOTC, can claim a larger benefit, part of which is the refundable benefit. For example, a student who is otherwise eligible for a $2,000 AOTC, but who has only $1,000 of federal income tax liability, qualifies for a $2,000 tax credit. Half of his benefit offsets all of his tax liability and an additional $1,000 is provided through the refundable benefit.

- Only one percent of the undergraduate population gains eligibility for a tax benefit through the refundable benefit. Put another way, if the AOTC did not include a refundable benefit, only one percent of the undergraduate population would become ineligible for a tax benefit. Many of those who can claim a refundable benefit have some tax liability, which would enable them to claim a benefit, albeit a smaller one, even if this feature were not in place.

- The refundable benefit does little to expand the number of students eligible because many low-income students do not incur tuition costs due to financial aid, so they cannot benefit from a tax credit, refundable or otherwise. In fact, of students not eligible for a tax benefit, 63.5 percent do not incur tuition costs, the largest portion of whom were in the lowest income category. Similarly, low-income students are less likely than other groups to file federal income taxes, making them ineligible for the tax credit regardless of whether it is refundable.

- Although few new students gain eligibility due to the refundable benefit, that feature does substantially increase benefits for those who are eligible. Of the undergraduates who qualify for a tax benefit, 29.4 percent receive some portion of their tax credit through the refundable benefit under the AOTC. Put another way, 29.4 percent of undergraduates who are eligible for a tax benefit qualify for an amount that is greater than their federal tax liability.

- Students from families earning under $30,000 who are eligible for tax benefits qualify for just under $1,200 in average benefits, nearly half of which is from the refundable benefit. Those earning between $30,001 and $65,000 who qualify for a tax benefit are much less likely to see a refundable benefit, and on average the refundable portion of their benefits is $55. (Figure 6b)

- The refundable benefits are largest and most prevalent for students attending for-profit schools because of these students' lower incomes, lower federal tax liabilities, and higher tuition expenses. For students at for-profit schools eligible for any tax benefit, benefits increase by $542 on average due to the refundable feature, compared to $91 for students at community colleges. (Figure 6c)

- Independent students are more likely to receive a refundable benefit. Just 15.1 percent of dependent students eligible for a tax benefit would receive some portion of their benefit through the refundable feature; this number jumps to 43.7 percent for independent students.

- Students attending for-profit schools account for 55 percent of the total dollars available through the refundable portion of AOTC. Those attending community colleges account for only 4.3 percent. (Figure 6a)

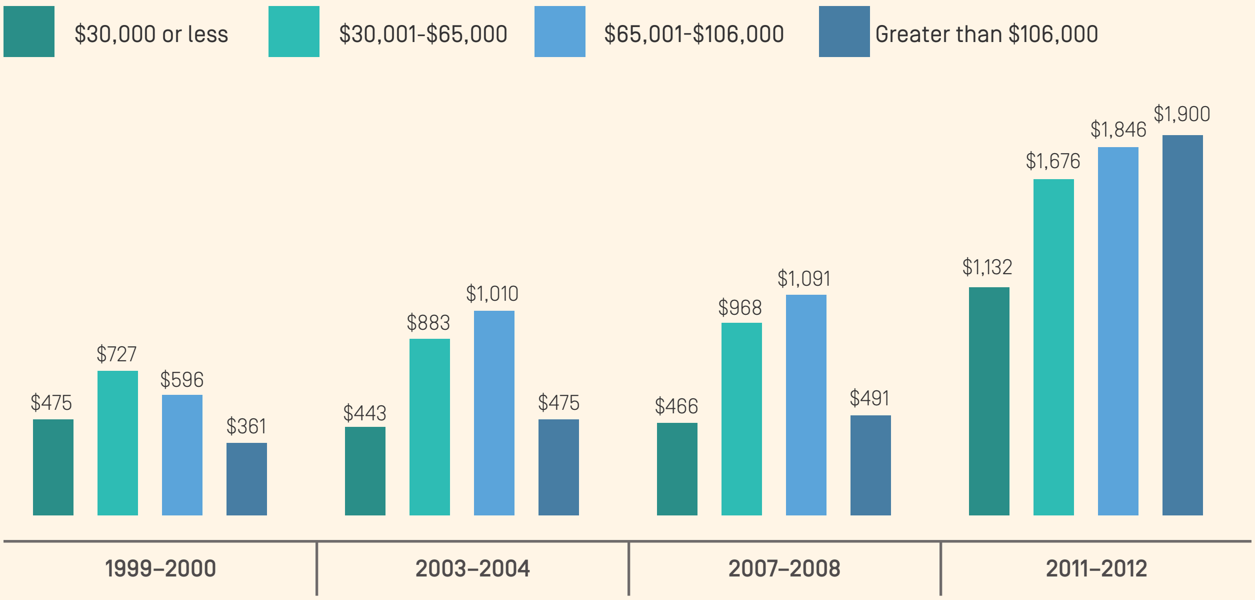
SECTION II: TAX BENEFIT ELIGIBILITY CHANGES, 1999–2000 TO 2011–2012

We compared the tax benefit eligibility of the undergraduate populations over time based on the policies that were in place during the previous tax year. We looked at the most recent NPSAS surveys, 1999–2000, 2003–04, 2007–08, and 2011–12, covering all surveys administered when at least one tax benefit was available. All dollar amounts are adjusted for inflation, including the income groups, and are shown in real 2011 dollars. We use the same income bands from earlier in this report.

This section of the paper is organized into three parts. The first focuses on how average tax benefits by income group has changed over time. The second part examines the distribution of all tax benefit dollars among income groups over time. The final part traces the evolution of Pell Grant awards and tax benefits over time.

Figure 7

Average Tax Benefits of Eligible Undergraduates, by Year and Family Income, in 2011 Dollars



Source: New America, NPSAS

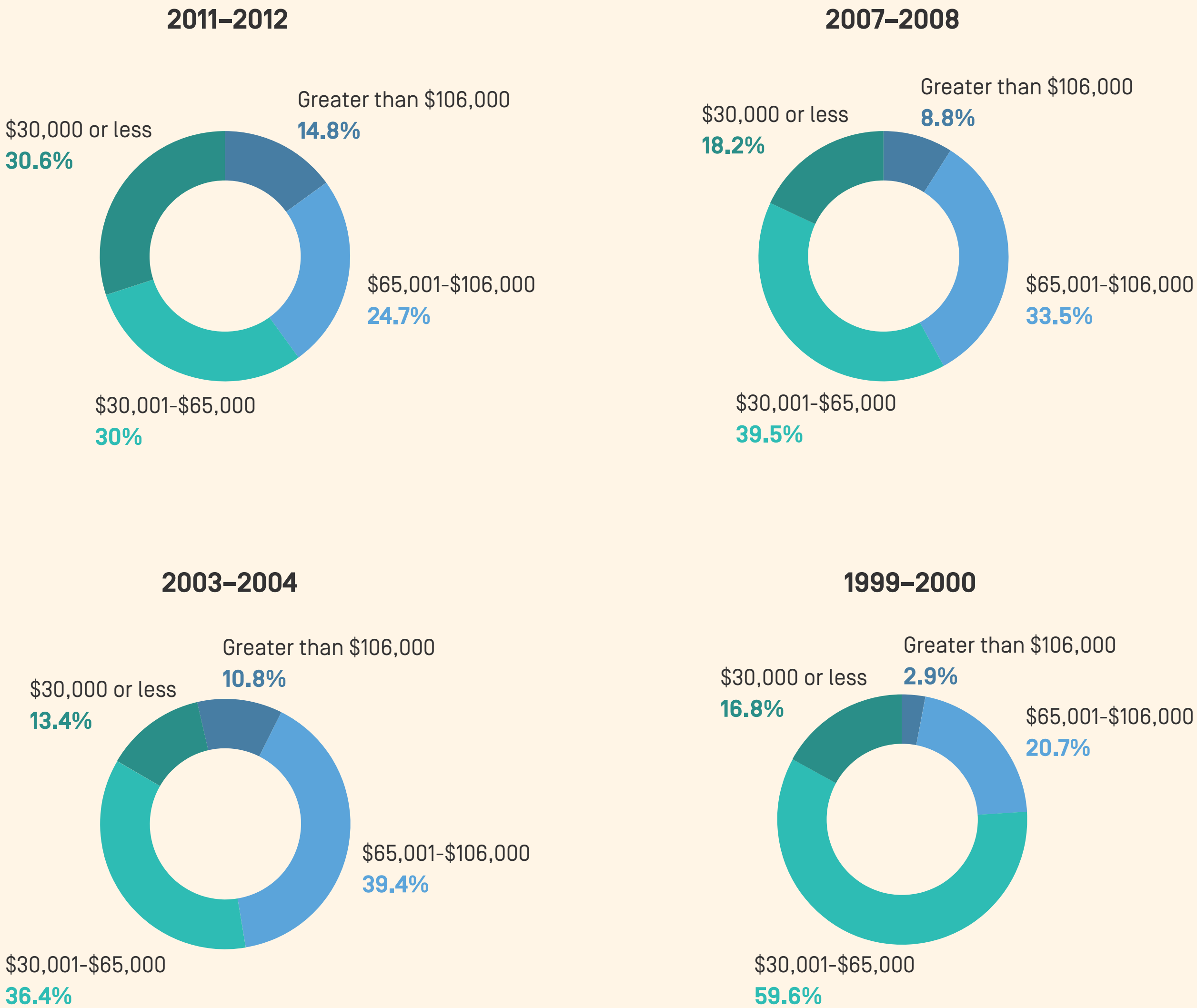
Average Benefits by Income Group Since 1999:

- Changes to the tax benefits in the early 2000s significantly increased their size and scope from those enacted in the late 1990s. Policymakers added the deduction, which had a much higher income eligibility cutoff compared with the existing benefits, in 2001. At the same time, lawmakers doubled the maximum Lifetime Credit, from $1,000 to $2,000 in 2003, making it the most valuable benefit until the AOTC became available in 2009.

- The group with earnings between $65,001 and $106,000 saw a large increase in benefits after the deduction was enacted in 2001, (Figure 7). The maximum Lifetime Credit increased from $1,000 to $2,000 in 2003, which also helped raise average benefits among the top three income groups compared to 1999–2000.

Figure 8

Distribution of Tax Benefit Dollars, by Income Group of Eligible Undergraduates, in 2011 Dollars



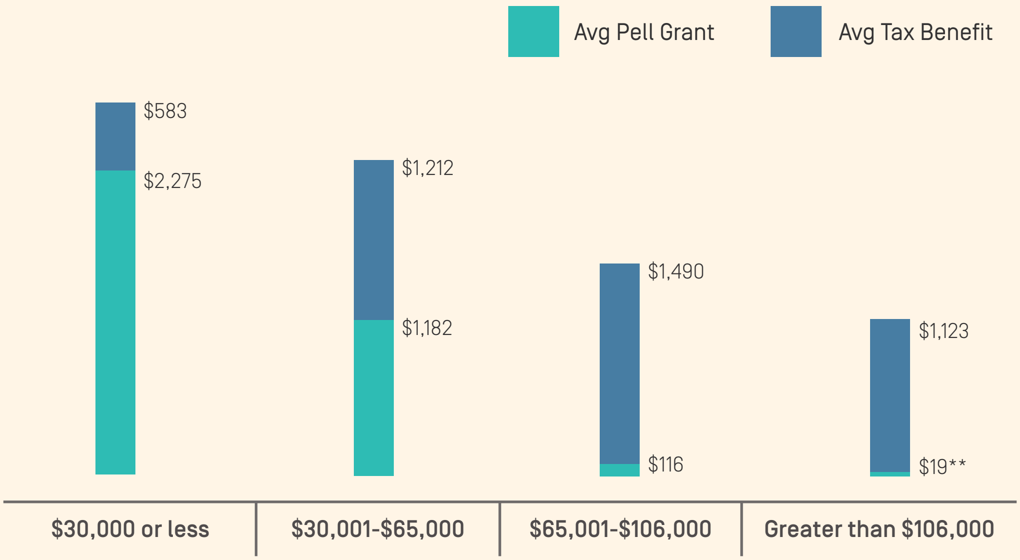
Source: New America, NPSAS

Distribution of Tax Benefits By Income Over Time:

- As they were initially designed, tax benefits targeted middle class families. As policymakers have expanded eligibility terms and maximum benefits, the share of benefits available to the highest and lowest income groups has increased.
- In the 1999–2000 school year, 59.6 percent of tax benefit dollars were available to families with incomes between $30,001 and $65,000. That proportion shrank as other income groups became eligible for benefits. By 2011–12, families earning between $30,001 and $65,000 were eligible for just 30.0 percent of the available benefits. (Figure 8) To be sure, the total dollars spent and average benefits available for all groups increased considerably over this time period.
- The share of dollars available to students in the highest two income groups increased dramatically between 1999 and 2003 after policymakers added the deduction and doubled the maximum Lifetime Credit. That is because income eligibility for the deduction was cut off at $163,000 (in 2011 dollars) for married filers when it was first available in 2002, making it more widely available than the Hope or Lifetime Credits. It is also because higher-income families tend to select more expensive schools and incur more out-of-pocket tuition costs, making them more likely to benefit from the increase in the Lifetime Credit, from $1,000 to $2,000 in 2003.
- The introduction of the AOTC in 2009, which included a refundable benefit, slightly higher income limits than the deduction at the time, and more valuable credits, caused the share of dollars available to both the highest and lowest income groups to jump between 2007 and 2011.

Figure 9a

Average Pell Grant Received and Tax Benefit Eligibility, by Income Group of all Undergraduates (2011–2012)*



**Sample size limits the reliability of this estimate

Figure 9b

Average Pell Grant Received and Tax Benefit Eligibility, by Income Group of all Undergraduates, in 2011 Dollars (2007–2008)*

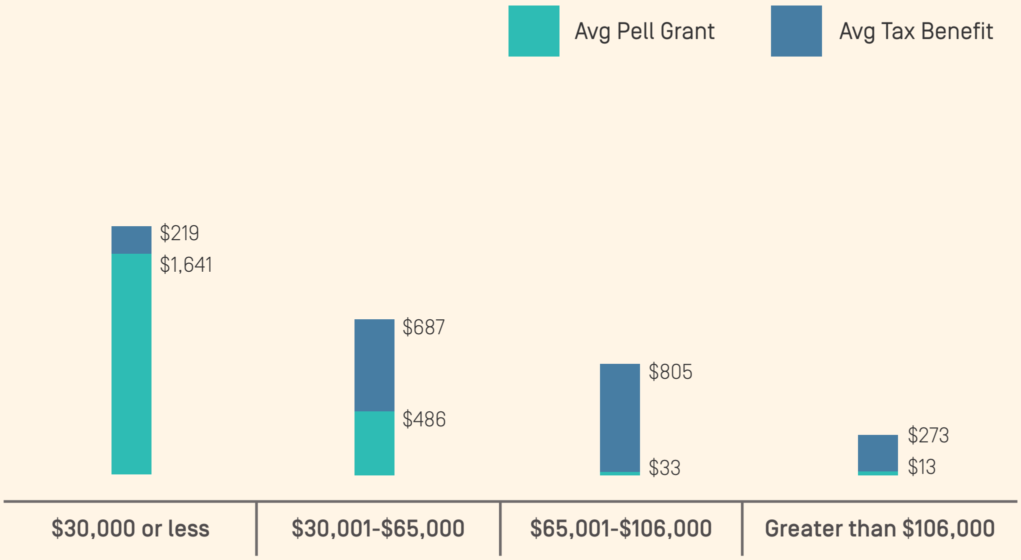


Figure 9c

Average Pell Grant Received and Tax Benefit Eligibility, by Income Group of all Undergraduates, in 2011 Dollars (2003–2004)*

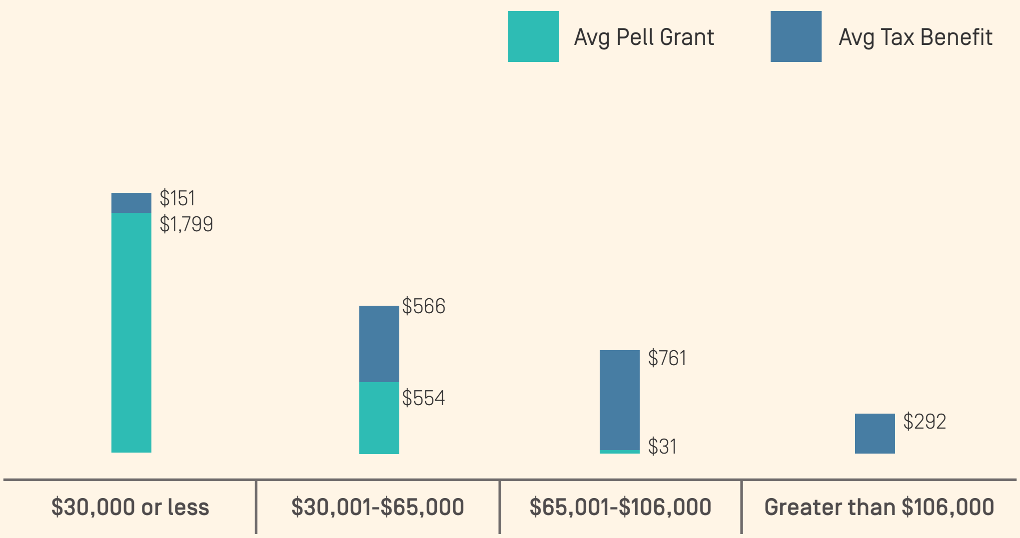
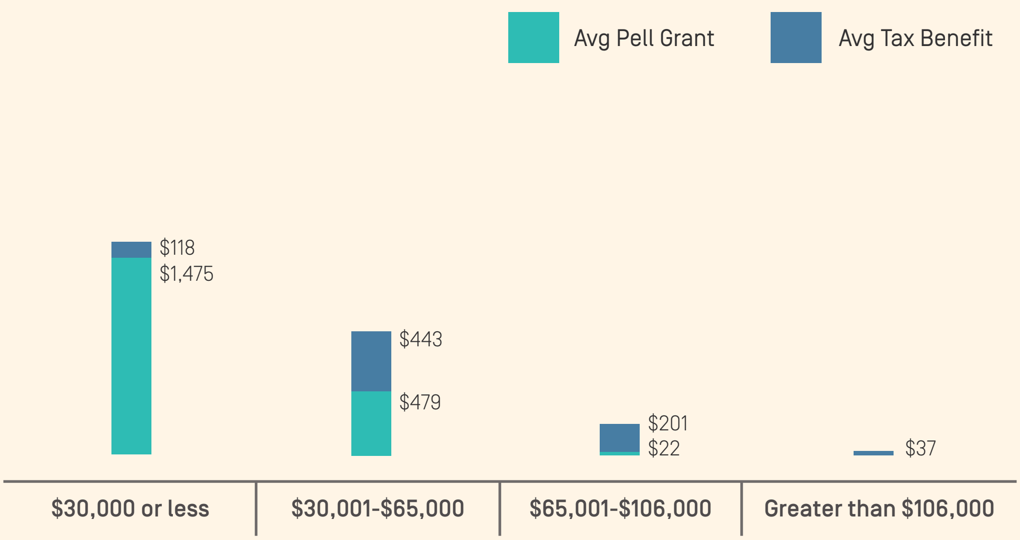


Figure 9d

Average Pell Grant Received and Tax Benefit Eligibility, by Income Group of all Undergraduates, in 2011 Dollars (1999–2000)*



Source: New America, NPSAS

*Figures include those ineligible for either benefit

Comparing Tax Benefits and Pell Grants Over Time:

- Relative to Pell Grants, tax benefits played a small role in federal student aid in 1999, but by 2011 grants and tax benefits had moved closer to parity. (Figure 9)
- Combined benefits from Pell Grants and tax benefits increased the most since 1999 for those earning between $30,001 and $65,000. Their average benefit jumped $1,472 in inflation-adjusted terms over that time.

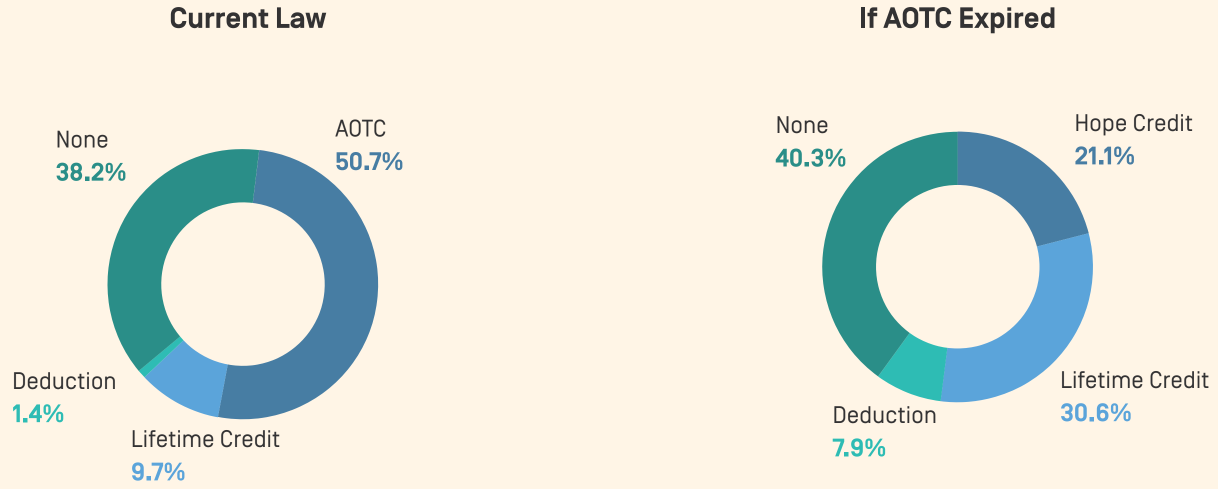
SECTION III: WHAT IF THE AOTC HAD EXPIRED BY 2011–2012?

The AOTC is a temporary benefit that was first set to expire after the 2010 tax year, but lawmakers extended it twice, most recently through the 2017 tax year. While available it supersedes the Hope Credit, but if it expires, the Hope Credit becomes available again because it is permanently authorized. We compared how tax benefit eligibility changes if the AOTC had expired. In that event, the three tax benefits available are the Hope Credit, the Lifetime Credit and the deduction. We use the 2011-12 NPSAS dataset for the analysis.

The analysis is divided into three parts. The first focuses on what share of the undergraduate population is eligible for a benefit under each scenario (AOTC in effect or AOTC expired) and which tax benefit is optimal to claim. The second part compares how benefits change by the types of schools students attend. The third part focuses on changes in benefits by income groups.

Figure 10

Tax Benefit Eligibility of Undergraduates, Current Law and if AOTC expired, 2011–2012



Source: New America, NPSAS 2011-2012

How Eligibility Changes if AOTC Expires:

- Surprisingly, the share of undergraduates eligible for a tax benefit would be almost unchanged had AOTC not existed in 2011–12. About one percent of the undergraduate population gains eligibility due to AOTC's refundable benefit, while an additional one percent gains eligibility due to the higher income limits. In total, the AOTC only expands eligibility to 2.1 percent of the undergraduate population compared to the existing three tax benefits. (Figure 10)

- One reason why few additional students become eligible for a tax benefit under AOTC is that the income limit for the existing deduction is already quite high. A very small segment of the undergraduate population earns above the income limits for the deduction. The income cutoff under the deduction is $80,000 ($160,000 for married filers) and under the AOTC it is $90,000 ($180,000).

- Despite its limited effect on expanding the number of students and families eligible for a tax benefit, the AOTC significantly increases the size of credits for those who qualify. The AOTC is more generous than all of the other benefits, as it provides a larger maximum benefit ($2,500), covers tuition expenses dollar-for-dollar up to $2,000, and includes a refundable benefit.

- The AOTC includes a $1,000 refundable benefit, a feature that the other tax benefits do not have. Many undergraduates qualify for a larger benefit due to this feature, but less than one percent of the undergraduate population becomes eligible for a tax benefit because of it. Many students with no tax liability are excluded from the tax benefits because they pay no tuition or fees after financial aid. Therefore they cannot claim a tax credit even if it is refundable.

- While the share of the undergraduate population eligible for a tax benefit is largely unchanged whether the AOTC is in effect or not, the mix of the benefits undergraduates would become eligible for changes significantly. For example, with the AOTC in effect, 50.7 percent of undergraduates receive the greatest benefit from that credit. However, if AOTC expires, 30 percent of them would optimize their return by claiming the Lifetime Credit, and just 20.1 percent would gain the largest benefit available by claiming the Hope Credit. Only 1.4 percent of undergraduates would benefit from the deduction if the AOTC is in effect, but that number jumps to 7.9 percent if the AOTC expired. (Figure 10)

Table 5a

Current Law: Optimal Tax Benefits of Eligible Undergraduates, by School Type, 2011–2012*

	American Opportunity Tax Credit	Lifetime Credit	Deduction	Total
Public Four-Year	88%	10%	2%	100%
Avg. Benefit	$1,882	$460	$489	$1,718
Private Four-Year	89%	10%	2%**	100%
Avg. Benefit	$2,120	$759	$749**	$1,966
Public Two-Year	67%	29%	4%	100%
Avg. Benefit	$1,209	$135	$217	$856
For-Profit	93%	7%	1%**	100%
Avg. Benefit	$1,818	$809	$628**	$1,744

**Sample size limits the reliability of this estimate

Table 5b

If AOTC Expired: Optimal Tax Benefits of Eligible Undergraduates, by School Type, 2011–2012*

	Hope Credit	Lifetime Credit	Deduction	Total
Public Four-Year	28%	53%	20%	100%
Avg. Benefit	$1,172	$803	$657	$878
Private Four-Year	18%	65%	17%	100%
Avg. Benefit	$1,215	$1,289	$728	$1,178
Public Two-Year	57%	33%	11%	100%
Avg. Benefit	$901	$142	$336	$592
For-Profit	44%	51%	5%	100%
Avg. Benefit	$889	$1,049	$695	$962

Source: New America, NPSAS 2011-2012

*Totals may not sum due to rounding

Optimal Benefits by School Type Change if AOTC Expires:

- Looking at how the expiration of the AOTC would affect students shows that average benefits for those eligible drops the most at public four-year schools. Students at those schools who are eligible for tax benefits would lose $840 on average. Students at nonprofit four-year schools and for-profit schools would both see approximately $780 less. (Tables 5a & 5b) Community college students would see the smallest change, at a $263 reduction, because they have the smallest average benefit under AOTC.

- The types of tax benefits that provide the largest value also changes when the AOTC expires, with the Lifetime Credit becoming the dominant benefit for all but community college students. The deduction would be used more frequently by students attending public four-year schools, when compared to those at other school types. The deduction provides larger tax reductions than the Lifetime Credit if students have tuition costs below $5,000 and pay a marginal tax rate of 25 percent (which starts at $34,501 in taxable income for single filers). Students with higher tuition costs, or who are in lower tax brackets, will benefit more from the Lifetime Credit.

Table 6a

Current Law: Optimal Tax Benefits of Eligible Undergraduates, by Income Group, 2011–2012

	American Opportunity Tax Credit	Lifetime Credit	Deduction	Total
$30,000 or Less	78%	22%	0%	100%
Avg. Benefit	$1,375	$269	$0	$1,132
$30,001-$65,000	82%	16%	2%	100%
Avg. Benefit	$1,935	$524	$393	$1,676
$65,001-$106,000	86%	11%	3%	100%
Avg. Benefit	$2,058	$603	$313	$1,846
Greater than $106,000	90%	0%*	10%	100%
Avg. Benefit	$2,056	$0*	$434	$1,900

*Sample size limits the reliability of this estimate

Table 6b

If AOTC Expired: Optimal Tax Benefits of Eligible Undergraduates, by Income Group, 2011–2012

	Hope Credit	Lifetime Credit	Deduction	Total
$30,000 or Less	40%	60%	0%	100%
Avg. Benefit	$627	$483	$0	$541
$30,001-$65,000	40%	54%	7%	100%
Avg. Benefit	$1,265	$1,178	$664	$1,178
$65,001-$106,000	35%	53%	12%	100%
Avg. Benefit	$1,385	$1,406	$430	$1,281
Greater than $106,000	7%	7%	86%	100%
Avg. Benefit	$727	$1,285	$626	$680

Source: New America, NPSAS 2011-2012

Optimal Benefits by Income Group Change if AOTC Expires:

- If the AOTC expires, those with the highest incomes would see the greatest reduction in benefits. Those eligible for a tax benefit and earning more than $106,000 would lose $1,220 on average. (Tables 6a &6b) They are mostly ineligible for the Hope Credit or the Lifetime Credit due to their high incomes (benefits are phased out for those earning between $102,000 and $122,000), and would instead claim the deduction, which provides a maximum $1,000 benefit ($4,000 deduction at a marginal tax rate of 25 percent), which is less than half the size of the maximum under AOTC.

- Those in the lowest income group also lose a large share of benefits because the refundability of AOTC generally means that members of this group can claim a larger benefit if their federal tax liability is less than $2,500. On average, those earning less than $30,000 would be eligible for $591 less without the AOTC.

- Of those eligible for a benefit in the middle two income groups, the reduction in the average benefit should AOTC expire is fairly even, ranging from a $565 reduction for those earning $65,001–$106,000 to a $498 reduction for those in the $30,001–$65,000 group. (Tables 6a &6b)

- The Lifetime Credit becomes the most-claimed benefit for the three lowest income groups should the AOTC expire.

APPENDIX: DATA AND METHODOLOGY

The National Postsecondary Student Aid Study (NPSAS) consists of student interviews, as well as matching students to administrative records, including financial data stored in the National Student Loan Data System and the Department of Education's Central Processing System. The NPSAS therefore includes detailed and precise information about each student's federal aid receipt, as well as income information generated through the student's Free Federal Financial Aid Application (FAFSA), if the student applied for federal aid. In other cases, the income information is generated through the student interview.

To estimate the tax benefits for which students and families are eligible we generate a measure of student or family income from the survey data, using adjusted gross income (as it is defined for federal income purposes). In the case of a dependent undergraduate, we use the parents' adjusted gross incomes. In the case of an independent undergraduate, we use her adjusted gross income. For some years, these data are available in the NPSAS dataset as a combined measure. For other years, we construct the values manually. We use the eligibility rules for the tax benefits that are in place for the tax year that matches the first year in the corresponding NPSAS. For example, we use the rules for the AOTC in tax year 2011 for estimating benefits for the 2011–12 school year.

Our estimates exclude students and families from tax benefit eligibility if they did not file a federal income tax return. To make that determination, in the case of the 2007–08 and 2011–12 estimates, we use the NPSAS reported variable for whether or not a student or his parents filed federal income taxes. However, the 1999–2000 and 2003–04 survey data do not include a similar variable. We therefore impute tax-filing behavior for those years using the survey respondent's tax bracket, net tuition costs, marital status, dependency status, and citizenship. We use survey responses from the 2007–08 data to generate logistic regression coefficients with which to predict whether a respondent filed a federal income tax return for these years, excluding those who do not file from receiving a benefit.

We then generate income-eligibility status for each of the tax credits and the deduction for each student or family in our database, based on a continuous income measure, marital status, and dependency status. The tax benefits have different income limits for single and married tax filers. Therefore, we gauge an independent student's tax benefits according to her marital status and according to the parents' marital status in the case of dependent students. We assume married individuals file jointly, an eligibility requirement for the tax benefits. We exclude nonresident aliens from eligibility, even though some may elect to be treated as residents for tax purposes. We also exclude students who are not in the first four years of a degree program, or are not enrolled at least half time, from eligibility for AOTC, but include them for eligibility in the case of the other tax benefits. We then estimate the value of each tax benefit, using the structure of the tax benefit in question, based on a student's reported tuition and fee expenses net of any other grant of scholarship aid he received. In the case of the deduction, we use each tax filer's marginal tax rate—or what that rate would be according to her adjusted gross income—to compute the dollar value of benefits from a reduction in her taxable income.

We then generate a single value of tax benefit eligibility for students or parents based on which of the two credits or the deduction provides the highest dollar value. Families are able to claim multiple benefits if they have multiple students enrolled, but the value we generate represents only the per-student tax benefit, not the total benefits a family could claim if it had two or more dependents attending school at the same time. This step reflects the fact that students and families must have federal income tax liability to offset in order to qualify for a credit. We then adjust those values if a student's or family's federal income tax liability is not sufficient for them to qualify for a credit. The NPSAS dataset includes the amount in federal income taxes that a student or family paid, but that measure reflects taxes after they would have taken any tax credits. Tax benefit eligibility is more accurately measured using a before-credits measure of tax liability. We therefore increase tax liability in the NPSAS dataset to better match IRS statistics on what tax filers owe before taking tax credits. In the case of AOTC, we artificially increase that liability to ensure the full amount of the refundable benefit is included in tax benefit eligibility.

At the same time we calculate this unified measure of the value of the tax benefits, we categorize each tax filer based on which benefit provides him with the largest tax reduction. In cases where two or more of the calculated benefit values are exactly equal, we assign students to a category in the following order: 1) the Hope Credit or AOTC (depending on which is in effect for a given year), 2) the Lifetime Credit, and 3) the deduction. We repeat this entire process for each year of the survey.

Finally, to compare how benefits and eligibility would change had the AOTC expired, we adjust income eligibility and benefit structures to reflect tax rules accordingly. To do this, we replace the AOTC with the Hope Credit. We set income eligibility for the Hope Credit equal to that of the Lifetime Credit in 2011 (since the income limits are always the same for the Hope Credit and the Lifetime Credit) and set the maximum benefit for the Hope Credit to what it would have been that year. We then repeat much of the above process using the 2011–12 NPSAS dataset to create a comparison of what would have happened if AOTC had expired.

Our approach is modeled after one that the U.S Department of Education's National Center on Education Statistics used to estimate the tax benefits for the 2007–08 NPSAS. The NPSAS data for 2003–04 and 2007–08 include a derived value for tax credits and deductions. We used these calculations as the starting point for our own imputations. However, the imputed values in the NPSAS include random reductions in the number of undergraduates who claim the benefits to make the data align more with actual take-up rates revealed in IRS statistics. The NPSAS figures for tax benefits therefore are not comparable to our figures because we aimed to provide a measure of eligibility and did not reduce eligibility artificially.

ENDNOTES

1 “Barack Obama: Issues: Education,” January 21, 2009. **http://web.archive.org/web/20090121085852/http://www.barackobama.com/issues/education/**

2 **Stephen Burd**, “Moving On Up: How Tuition Tax Breaks Increasingly Favor the Upper-Middle Class,” Education Sector, April 2012.

3 **Caroline M. Hoxby** and **George B. Bulman**, “The Effects of the Tax Deduction for Postsecondary Tuition: Implications for Structuring Tax-Based Aid, Working Paper No. 21554,” National Bureau of Economic Research, September 2015.

4 **George B. Bulman** and **Caroline M. Hoxby**, “The Returns to Federal Tax Credits for Higher Education, Working Paper No. 20833,” National Bureau of Economic Research, January 2015.

5 “The Reimagining Aid Design and Delivery Consortium for Higher Education Tax Reform, Higher Education Tax Reform: A Shared Agenda for Increasing College Affordability, Access, and Success,” CLASP, Young Invincibles, New America, and The Education Trust, November 2013.

6 A 2009 GAO study found that 14 percent of filers did not claim a tuition tax benefit for which they appear eligible. However, the increasing prevalence of free tax-filing software should help many families optimize their tax benefits, given that they file a return.

7 “Interaction of Pell Grants and Tax Benefits: Students May Be Foregoing Tax Benefits by Mistake, Fact Sheet,” U.S. Internal Revenue Service, **http://www.irs.gov/pub/irs-utl/Pell%20AOTC%204%20pager.pdf**

8 Congress retroactively extended the deduction through the end of 2014. Currently, it is not available for tax year 2015, but it may be extended through congressional action.

9 Early proponents of the benefit, including the Clinton administration, supported a $10,000 tuition and fees deduction instead but ultimately opted to make this benefit a tax credit.

10 Note that tuition costs financed with federal student loans can still be counted for purposes of claiming a tax benefit.

11 While not part of this study, the Lifetime Credit and the deduction are available to graduate students. Given that such a small share of the undergraduate population benefits from choosing the Lifetime Credit, or the deduction in particular, those benefits are de facto targeted to graduate education.

12 Students whose Pell Grants cover all of their tuition and fees, thereby making them ineligible for a tax benefit, can opt instead to use their Pell Grants for living expenses and pay tuition expenses out-of-pocket (or with loans). That would allow them to then claim a tax benefit because they could show that they had paid tuition expenses. However, if students elect to use Pell Grants or other scholarships for living expenses, the government considers those benefits taxable income and students must pay taxes on them. In practice, it is unclear the extent to which students are aware of and select this option. See also **Stephen Burd**, “Members of Both Parties Agree that Pell Grants Should Not be Taxed,” EdCentral (blog), New America, March 7, 2014. **http://www.edcentral.org/members-parties-agree-pell-grants-taxed/**