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Higher Education Tax Credits: Targeting, Value, and Interaction with Other Federal Student Aid

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Summary

The Taxpayer Relief Act of 1997 (P.L. 105-34) authorized two new tax credits for family postsecondary education expenses. The **Hope Scholarship Credit** provides up to $1,500 in annual tax relief to defray the cost of the first 2 years of undergraduate studies. The **Lifetime Learning Credit** provides up to $1,000 in tax relief to defray the cost of any year of postsecondary study. The Hope and Lifetime Learning Credits were enacted to help preserve and enhance access to postsecondary education for students from middle-income families.

There are no national data that provide the comprehensive information needed to thoroughly analyze the distribution of the education tax credits and their interaction with traditional student aid awarded under the Higher Education Act (HEA). This report examines these issues by using two different modeling approaches to estimate the benefits potentially offered by the credits to young adults who are currently out-of-school, and the eligibility of currently enrolled aided students for the tax benefits and how much they might receive. Modeling is also used to estimate changes in the targeting of federal "obligation-free" aid (grants and tax credits), and the distributional effects of changes to the credits.

The results from this analysis are legislatively relevant because the 107th Congress is considering proposals to change the size and targeting of the education credits. Further, the interaction of the credits and HEA student aid will likely be of legislative interest during the 108th Congress when the HEA is up for reauthorization.

Briefly, the major findings from this analysis are as follows.

The Hope Credit provides a substantial benefit to recipients and spreads these benefits relatively broadly. By design, these credits target the bulk of their benefits to middle- and upper middle-income students. But, these benefits also reach down the income scale and provide assistance to some low-income students, overlapping with the major source of federal grant aid — Pell Grants.

The Lifetime Learning Credit, in contrast, provides relatively little benefit. Students attending higher priced institutions are much more likely to maximize the amount of Lifetime Learning Credit they receive.

The Hope and Lifetime Learning Credits have tended to shift the focus of federal postsecondary obligation-free aid. Such aid is no longer principally need-based aid targeted to the lowest income students, but is now available to the broad expanse of middle- and upper middle-income students.

There is current congressional interest in modifying the distribution of the tax credit benefits. The current patterns of distribution are a function of often complex interaction among the credits' award rules. For instance, to extend tax credit benefits to low-income students at lower priced institutions concurrent changes to several of the award rules may be required.

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Introduction

The Taxpayer Relief Act of 1997 (P.L. 105-34) authorized two new tax credits for family postsecondary education expenses. The **Hope Scholarship Credit** provides up to $1,500 in annual tax relief to defray the cost of the first 2 years of undergraduate studies. The **Lifetime Learning Credit** provides up to $1,000 in tax relief to defray the cost of any year of postsecondary study.[1] The Hope and Lifetime Learning Credits were enacted to help preserve and enhance access to postsecondary education for students from middle-income families.

Since being introduced, the tax credits have rapidly become major sources of assistance for postsecondary students nationwide. They have also added considerable complexity to the student aid picture largely because it has been difficult to assemble precise information about the population of students receiving each credit, and about how the credits interact with other forms of aid.

There are no national data that provide the comprehensive information needed to address the issues of the distribution of the education tax credits and their interaction with other forms of aid. The tax credits operate outside of the systems used for packaging and awarding student financial aid. Consequently, information on the receipt of tax credits is not available in the large-scale national surveys on aid received by students — which are reliant on institutional reporting of aid packages "awarded" to students. Additionally, available data from the Internal Revenue Service (IRS) have serious limitations and are not well suited for use in examining the tax credit benefits received in particular academic years, or for making comparisons between those benefits and other financial aid.

Adding to this challenge, tax credit values cannot be easily inferred. The actual value of the credits is often less than the maximum possible value, due in large part to a series of offsets and limitations built into the design of the credits.[2]

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[1]For a detailed discussion of the features of the Hope Credit and Lifetime Learning Credit, see CRS Report RL31129, *Higher Education Tax Credits and Deduction: An Overview of the Benefits and Their Relationship to Traditional Student Aid*, by Adam Stoll and James Stedman.

[2]These offsets and limitations are considered in detail below.

Despite the growing importance of tax credits, higher education analysts and policymakers have had a difficult time assessing the value of the credits for varied groups of recipients, and pinpointing how the credits interact with other forms of aid. These are important issues to resolve because there currently are a number of proposals under consideration in the 107th Congress that would affect the size and targeting of the Hope and Lifetime Learning Credits. Additionally, the interaction between tax credits and other forms of federal student aid will likely be of particular legislative interest during the 108th Congress when the Higher Education Act will next be up for reauthorization.

In an effort to add clarity to this situation, this report presents newly generated estimates of the value of the credits available to varied eligible recipients. In the absence of actual data, modeling approaches that **simulate** tax credit values offer perhaps the most promising way to examine the targeting of the education tax credits. Two different modeling approaches are applied in the analysis presented in this report. These models, described later, are used to provide the following:

- the estimated benefits potentially offered by the credits to young adults who are currently out of school;
- estimated eligibility of currently enrolled aided students for the tax benefits;
- estimates of changes in the targeting of federal obligation-free aid (discussed later in this report); and
- estimates of the effects of possible changes in the award rules of the credits on expanding the distribution of the benefits to lower income students, thereby, potentially increasing their impact on access.

The Hope and Lifetime Learning Credits are premised on the assumption that tax benefits reaching a maximum of between $1,000 and $1,500 will enhance access to postsecondary education. This analysis delineates how these benefits might be distributed to current and potential student populations for whom access is likely to be an important issue. Nevertheless, it is beyond the scope of the present report to determine whether tax benefits of these amounts will, in fact, expand access to postsecondary education for these populations.

Analytic Approaches to Examining the Value of Tax Credits

The Hope and Lifetime Learning Credits were intended to enhance or help preserve college access.[3] In keeping with the aims of the credits, this examination will focus on the level of assistance they can provide to populations for whom access may be an issue.

Populations Being Analyzed. The first group is the broad population of college-age individuals who, although they have graduated from high school, are not

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[3]The Clinton Administration first proposed the Hope Credits in 1997 in order to "provide tax relief to middle-income families struggling to pay for college" and to "help make 14 years of education the standard for all Americans." (Letter dated March 20, 1997 to Speaker of the House Newt Gingrich from Secretary of Education Richard W. Riley and Secretary of the Treasury Robert Rubin.)

currently participating in postsecondary education. It is considered to be comprised of "potential postsecondary education students." The second group is the population of postsecondary students who are currently receiving federal financial assistance to help support their studies. This group includes the preponderance of higher education students receiving need-based aid. Students enrolled in postsecondary education, but not receiving financial aid, are not being studied since access is not dependent on federal financial aid for this population.

Analytical Approach — Case Simulation Modeling.[4] The initial analysis focuses on the broad population of potential postsecondary students who are not currently enrolled in postsecondary education, and uses a case simulation model. Case simulations are used to explore how the following factors affect the tax credit levels: income, offsets, family composition, cost of education, and type of institution attended. This examination explores what the tax credits might really be worth to different kinds of prospective students.

We explore these issues by first analyzing Current Population Survey (CPS) data from the Bureau of the Census to construct a set of cases that typify characteristics of the current potential postsecondary student population. These cases were then run through the model to determine the level of tax credit assistance likely to flow to them. A sufficient number of cases were run to map thresholds, cut-off points, gaps in coverage, and to thoroughly explore issues related to offsets.

Analytical Approach — Survey Data Modeling.[5] The second approach focuses on aided enrolled postsecondary students. This analysis utilizes the National Postsecondary Student Aid Study (NPSAS) data on students' tax liability, income, attendance status, enrollment status, grant aid, and tuition and fee levels to construct estimated tax credit values for students receiving financial aid. NPSAS provides comprehensive nationally representative data on the financial aid packages received by students. Under this approach, once estimated tax credit values are computed for students, it is possible to examine the level of tax credit benefits **potentially** available to students possessing different characteristics, and how the tax credits complement other sources of aid in helping students meet tuition costs.

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[4]For additional information, see the technical appendix to this report.

[5]*Ibid*.

What Benefits Do the Credits Offer Prospective Students?

This section of the report considers the estimated distribution for 2001-2002 of the tax credit benefits, as well as Pell Grant aid, to out-of-school young adults who have at least graduated from high school but who have not attained a bachelor's degree (BA).[6] This is a population which, if it enrolled in postsecondary education, could be eligible for the tax credits and Pell Grants. The Pell Grant program is the largest federal grant program for postsecondary undergraduates, providing some $9.9 billion in grant aid for the 2001-2002 academic year and $10.7 billion for 2002-2003. As is delineated below, Pell Grant aid has a critical impact on the distribution of the education tax credits.

As noted earlier, this portion of the report utilizes a case simulation model which shows how the distribution of tax credit benefits and Pell Grant assistance changes as adjusted gross income (AGI) changes. The results generated by this case simulation model are linked to the young out-of-school population through an analysis of data gathered by the Bureau of the Census' CPS for March 2000.[7] Analysis of CPS data identified primary groups within the pool of young out-of-school prospective students. The distribution of aid to two of the primary groups of prospective students is considered throughout the remainder of this section:

- young out-of-school married individuals who are at least high school graduates but who have not earned a BA, and who are independent for need analysis purposes[8] and federal income tax purposes; and
- young single (no spouse or other dependent) out-of-school independents with the same educational attainment as the first group.[9]

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[6]These individuals may have never attended postsecondary education or may have some postsecondary enrollment without attaining a degree higher than an associate's degree.

[7]The March CPS is a survey of approximately 50,000 households, collecting detailed data on labor force participation and income. Information on current educational activity is collected for individuals aged 16 to 24. The March 2000 survey was used to estimate the characteristics of the portion of this young population who were high school graduates, not currently enrolled in college, and had not earned a BA (if they had enrolled in college previously).

[8]For federal student aid, an individual is considered independent of his or her parents (i.e., parental income and assets are not considered in determining the assistance), if the individual is at least 24 years old by December 31 of the award year, is an orphan or ward of the state (or was until age 18), is a veteran of the armed forces, is a graduate or professional student, is married, has dependents others than a spouse, or is deemed independent by a financial aid officer for "other unusual circumstances." To distinguish the financial aid dependents from independents in the CPS young out-of-school population, all of these factors were applied, except whether the individual was or had been an orphan or ward of the state, and whether a financial aid officer might make a determination that the individual was financially independent.

[9]According to CPS data, an estimated 2.0 million individuals are in the first group (young out-of-school married independents); 65% of these individuals are high school graduates

(continued...)

Quintile distributions of the AGI of the target subgroups of this young out-of-school population are mapped to the case simulation results to show what the potential benefits are for different income quintiles.[10]

Summary of Findings

Briefly, the findings presented in this section include the following:

- The distribution of assistance reflects the basic design of the credits which, by virtue of their nonrefundability and grant aid offset (these features are discussed below), are targeted to students in the middle to upper middle income quintiles. The credits will not affect access for the lowest income students because they provide no benefit to such students.
- Nevertheless, the tax benefits, particularly the Hope Credits, may be received by some low-income students who also receive Pell Grants. This may boost federal aid to a portion of the low-income population.
- Under most circumstances, the Hope Credit appears to offer a much greater benefit than does the Lifetime Learning Credit. The size of a Lifetime Learning Credit is generally insignificant relative to the absolute benefit derived from a Pell Grant or a Hope Credit, or relative to tuition and fees or the cost of attendance (for delineation of tuition and fees, and cost of attendance, see footnote17).

Award Rules

The analysis of the distribution and value of the Hope and Lifetime Learning Credits in this and the following sections of the report depends, in part, on an understanding of how the credits are calculated for an individual. This involves an explanation of the award rules for the credits. As delineated below, a key rule concerns the interaction of the credits with other grant aid an individual might receive. The primary source of federal grant aid to undergraduates is the Pell Grant program. As a consequence, information on how Pell Grant aid is determined is also important for a fuller understanding of the operation of the education credits. This

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[9](...continued)
only, 35% have some college but not a BA. An estimated 2.9 million individuals are in the second group (young out-of-school single independents); 62% are high school graduates only; 38% have some college but less than a BA. A third group, whose benefits were analyzed, but for whom results are not displayed, are dependent young individuals living with two parents. There are approximately 660,000 individuals in this group (32% are high school graduates only; 68% have some college but less than a BA). The simulated distribution of Pell Grants and education tax credits to this third subgroup parallels to a substantial degree the results for the young married independent population.

[10]The AGI quintile breaks shown in the figures in this section are point estimates based on CPS survey data and are meant to be illustrative. Given sampling and nonsampling errors, actual quintiles for the populations analyzed might differ from those shown here. The March 2000 CPS survey provides estimates of 1999 AGI. These were inflated to 2001 using the CPI-U (a 6.3% increase).

portion of the report provides an overview of the award rules for the Pell Grants and the education credits.

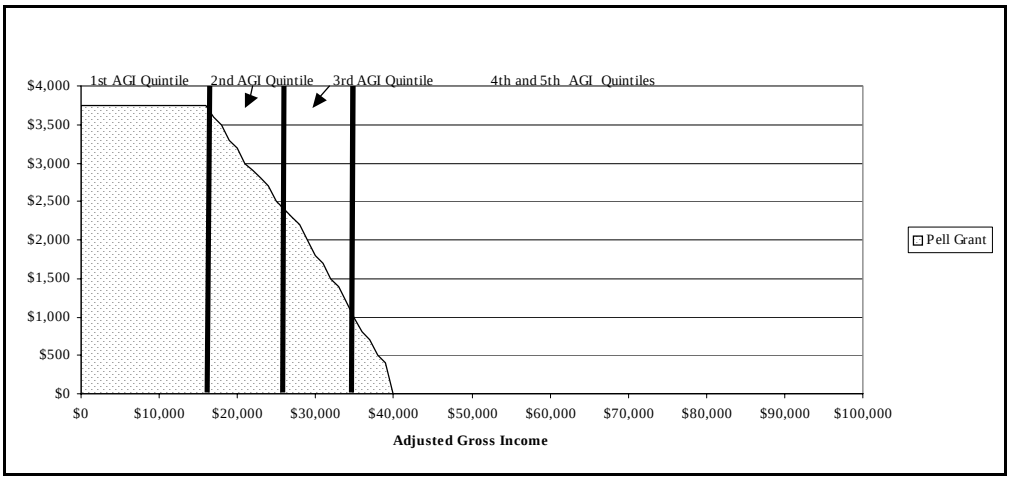
Pell Grants. In general, the amount of Pell Grant assistance an individual receives is the difference between the maximum Pell Grant being awarded in any particular year and the individual's expected family contribution (EFC).[11] For all simulated cases, this is the award rule applied. As the EFC rises (generally, as the family's AGI increases), the Pell Grant shrinks. Among the key features of the Pell Grant calculation most relevant for this analysis are that the grant is not affected by the receipt of other student financial aid, and that the poorest individuals (those with zero EFCs) receive the maximum Pell Grant ($3,750 for award year 2001-2002). Further, the Pell Grant assistance can cover all postsecondary education expenses (as noted below, the education tax credits currently can only cover qualified tuition and fee expenses).

Figure 1 below shows the estimated amount of Pell Grant assistance for award year 2001-2002 to which a married independent student with a child might be entitled based on AGI and other characteristics.[12] In this case, the student is a high school graduate who has never previously enrolled in college (a candidate for receipt of a Hope Credit). The Pell Grant aid is represented by the lightly shaded area. The thick vertical bars overlaid on the figure show the distribution of AGI by quintiles based on data for individuals with these characteristics (for this and all subsequent figures, the 4th and 5th quintiles are grouped together).

[11]A student's EFC is based on consideration of his or her income and other financial resources, as well as those of a spouse (if married) or of parents (if considered dependent for need analysis). The amount of a student's Pell Grant is the least of the following three calculations: annual maximum Pell Grant minus EFC; cost of attendance minus EFC; or the tuition sensitivity rule (applicable only when tuition is very low). As noted in the text, for most students, the first calculation determines the size of the Pell Grant.

[12]According to the March 2000 CPS data, the median family size of the young out-of-school independent with a spouse was 3. As a result, the case simulations of Pell Grant and Hope Credits were based on this family size.

Figure 1. Pell Grant for 16-24 Year Old Married Independent High School Graduate (with a Child) Enrolling Full-time at a Community College



As shown in **Figure 1**, this type of student realizes the maximum Pell Grant when AGI is between $0 and an estimated $16,000. As AGI increases above $16,000 and EFC for the student begins to rise above $0, the amount of Pell Grant aid declines, until it reaches $0 when AGI is $40,000. Across the first quintile (i.e., the students falling into the lowest 20% of this group by AGI), the Pell Grant is at its maximum. In the 2nd quintile of AGI, the Pell Grant begins to decline.

Education Tax Credits. The Hope and Lifetime Learning Credits are *nonrefundable* tax credits, meaning they are available only to the extent that the taxpayer has income tax liability. Further, they are applied against "qualified" higher education expenses. Qualified expenses are tuition and fees required as a condition for enrollment.[13] These expenses are reduced by the amount of non-taxable educational assistance received by the student, which includes Pell Grants. We call the reduction in qualified expenses the *grant aid offset*.

For individuals, both credits begin to be phased out after AGI exceeds $40,000 and are completely phased out when income reaches $50,000. For those who are married filing joint returns, these income thresholds are $80,000 and $100,000.[14]

The credits differ in several key ways. To be eligible for a Hope Credit, an individual must be enrolled on at least a half-time basis in a program leading to a

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[13]As noted below, the tuition and fees, and cost of attendance levels used for this analysis are annual averages determined by the College Board. It was assumed that the estimated average tuition and fees constituted qualified expenses for these case simulations. That is, all fees included in these estimates were assumed to be required as a condition for enrollment.

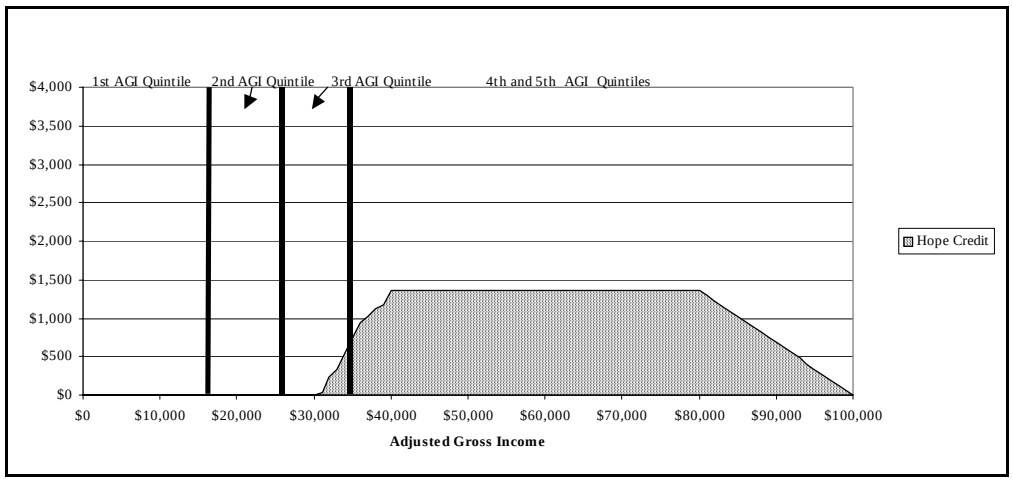
[14]The thresholds for phasing out the tax credits are based on *modified* AGI which for most taxpayers is equivalent to their AGI. No adjustment to AGI was made for these simulated cases. These various income thresholds for the phase-outs will be indexed to inflation beginning after tax year 2001.

degree, certificate, or credential; and he or she cannot have finished the first 2 years of undergraduate education. In contrast, the Lifetime Learning Credit is available for individuals enrolled in one or more courses of undergraduate or graduate instruction to acquire or improve job skills, and there is no limit on the number of years for which the credit may be claimed.

Perhaps most significantly, the *reimbursement rules* for qualified expenses differ between the two credits. For the 2001 tax year, the Hope Credit is equal to 100% of the first $1,000 in qualified expenses and 50% of the second $1,000 in qualified expenses, capped at a maximum credit of $1,500.[15] For that same year, the Lifetime Learning Credit is equal to 20% of the first $5,000 in qualified expenses, for a maximum credit of $1,000.[16]

Figure 2 shows the distribution of the Hope Credit to the same type of student as considered in **Figure 1**. Tax credit assistance is depicted by the darkly shaded area. The Hope Credit distribution has been adjusted, as necessary, by the Pell Grant assistance received (which is not shown in the figure).

Figure 2. Hope Credit for 16-24 Year Old Married Independent High School Graduate (with a Child) Enrolling Full-time at a Community College (Adjusted for Pell Grant Aid)



For this type of student, the Hope Credit can first be realized when AGI reaches approximately $31,000. The credit rises to $1,369, the maximum that this student can receive, when AGI reaches $40,000. This is not the full $1,500 ceiling for the Hope Credit because of the credit's reimbursement rules. In this case, the student is assumed to be enrolling at a community college where, on average for academic year 2001-2002, the tuition and fees are $1,738 (see footnote 17). The Hope Credit provides 100% reimbursement of the first $1,000 of this average tuition and fee level and 50% of the remainder (i.e., $738) or $369, for a maximum credit of $1,369 for

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[15]After tax year 2001, the maximum Hope Credit will be indexed for inflation.

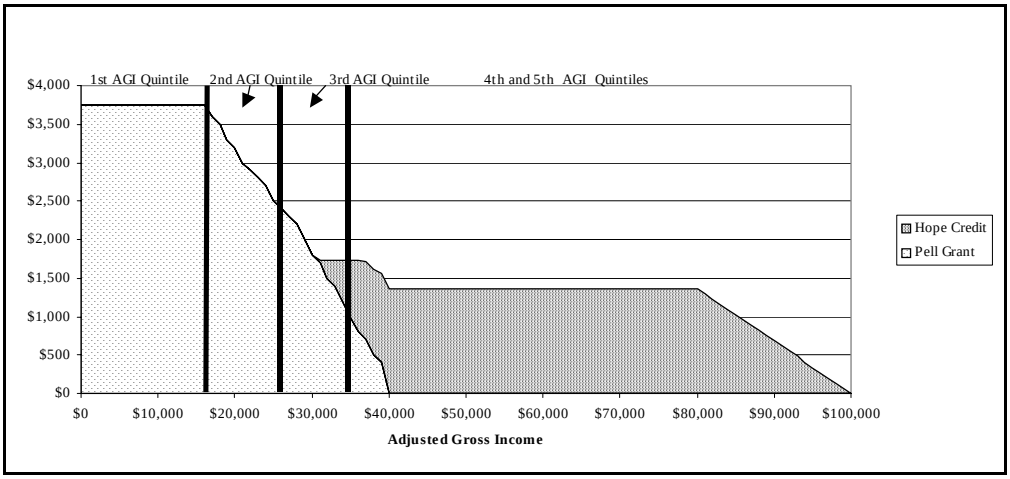
[16]For qualified expenses paid after December 31, 2002, the credit will be a maximum of $2,000, calculated as 20% of the first $10,000 in qualified expenses.

this student. This type of student can receive this maximum Hope Credit until AGI reaches $80,000 where the credit's phase-out rule applies. At $100,000, the benefit is fully phased out.

The Hope Credit provides no benefit to the lowest 2 quintiles; provides some assistance in the 3rd quintile; and provides the maximum benefit across the 4th and 5th quintiles.

The aggregate Hope Credit and Pell Grant aid received by this type of student is shown in **Figure 3**. The top line that traces areas covered by the Pell Grant and the Hope Credit is the aggregate aid being realized by this type of student as AGI changes. In the zone where the credit and the grant overlap, the Hope Credit provides some modest compensation for the decline in Pell Grant aid.

Figure 3. Hope Credit and Pell Grant for 16-24 Year Old Married Independent High School Graduate (with a Child) Enrolling Full-time at a Community College



Who in the Young Out-of-School Population is Potentially Served by Hope Credits?

The analysis considers the differences in distribution of benefits across three categories of institutions in which most students are found — community college, 4-year public college, or 4-year private college; these institutional categories differ markedly with regard to average tuition and fees, and average cost of attendance.[17]

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[17]The costs of attendance and tuition and fees for each type of institution are sample undergraduate budgets, derived from the College Board's *Trends in College Pricing 2001*. For community colleges, the average cost of attendance was $10,367 and average tuition and fees was $1,738; for 4-year public colleges, the respective averages were $11,976 and $3,754; for 4-year private colleges, the respective averages were $26,070 and $17,123. The cost of attendance includes not only estimates of the average tuition and fees, but also the average expenses for room and board, books and supplies, transportation, and other (continued...)

Married Independent Student With a Child Across Institutional Categories. **Figure 3** above depicts the distribution of Pell Grant and Hope Credit assistance for this type of student enrolled at a community college. The next two figures show the benefits if the student attended a 4-year public college or a 4-year private college.

Figure 4. Hope Credit and Pell Grant for 16-24 Year Old Married Independent High School Graduate (with a Child) Enrolling Full-time at a 4-Year Public College

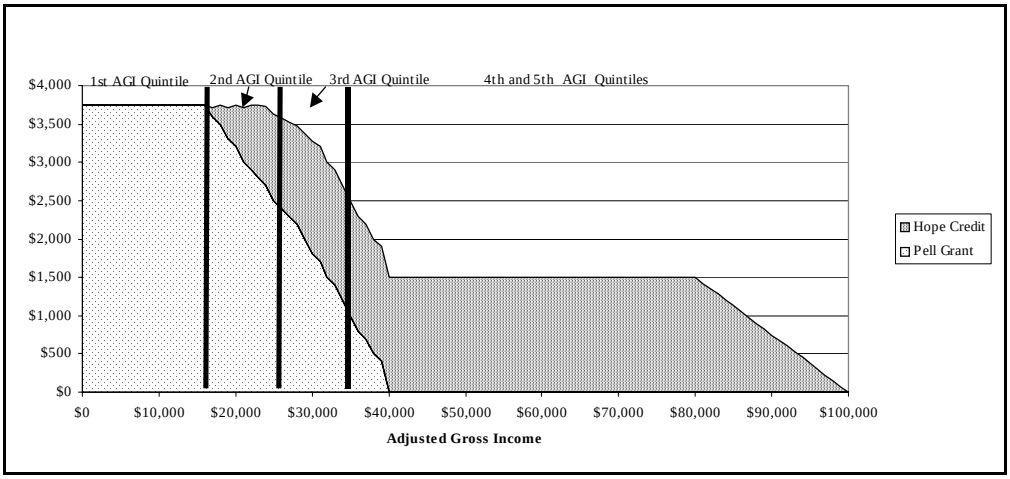
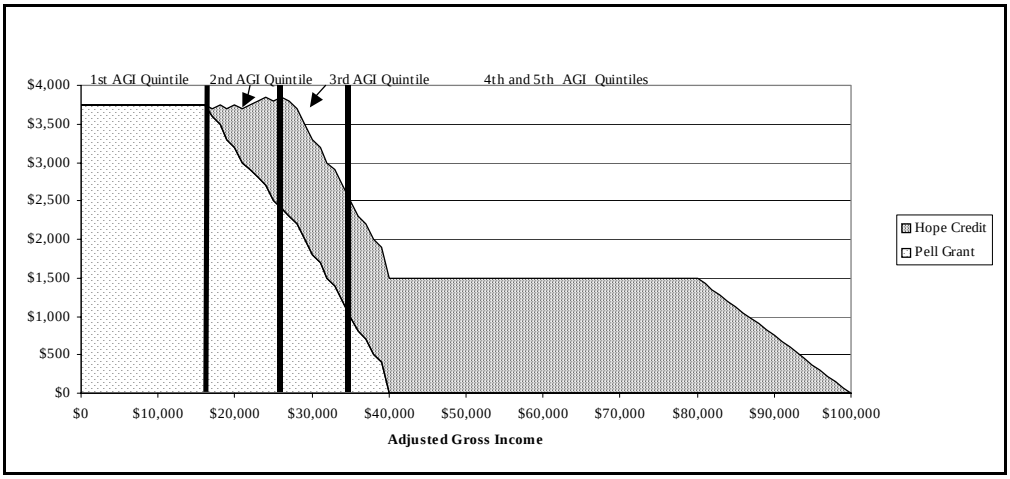


Figure 5. Hope Credit and Pell Grant for 16-24 Year Old Married Independent High School Graduate (with a Child) Enrolling Full-time at a 4-Year Private College



The key points that can be made about the distribution of benefits are the following:

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[17](...continued)
miscellaneous expenses. All tuition and fees are for in-state students.

- The higher average tuition and fee levels of 4-year institutions compared to those at community colleges allow the maximum Hope Credit of $1,500 to be claimed.
- For each institutional category, there is a range of income across which both Pell Grant aid and Hope Credit benefit may be received. This income range is relatively narrow at the community college level ($31,000 to $39,000) because of its lower average tuition and fees.[18] In contrast, the income range where the benefits overlap is significantly wider at 4-year institutions ($17,000 to $39,000), primarily a function of the higher average tuition and fees.[19] As a result of these higher charges, the Hope Credit reaches down into the 2nd AGI quintile. Indeed, for this income quintile, the Hope Credit effectively replaces Pell Grant assistance that was lost as AGI rose.[20]
- Coverage of average tuition and fees by the maximum Hope Credit that can be realized is highest at the community college level (79%) and drops precipitously at the 4-year public and 4-year private college levels (40% and 9%, respectively).[21]

Single Independent Student Across Institutional Categories. The following figures show the distribution, across institutional categories, of Pell Grant and Hope Credit benefits for a single independent individual.[22] The 4-year public college and 4-year private college categories are displayed in a single figure since the distribution of aid for this case is identical for these two categories of institution.[23]

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[18]The Pell Grant does not fall below $1,738 (the tuition and fees being paid) until AGI reaches $30,000; only at that juncture are there remaining qualified expenses that can be covered by the Hope Credit.

[19]The $17,000 starting point of this income range is where this type of student's EFC first exceeds $0. There are substantial qualified expenses remaining after the grant aid offset that can be covered by the Hope Credit at these institutions.

[20]At some points in the 2nd AGI income quintile, the combination of Hope Credit and Pell Grant exceeds the maximum Pell Grant which students in the 1st income quintile receive. This is clearer in the figure showing benefits at the 4-year private college.

[21]Each of these percentages is calculated using the maximum credit that can be realized for each simulated case and the relevant average tuition and fees delineated in footnote 17.

[22]For these figures, the X-axis (adjusted gross income) extends only from **$0 to $50,000** (not $100,000 as with the married independent student) because that is the range of income across which the Hope Credit can be claimed by this type of student who is ineligible to file a joint return.

[23]The early loss of Pell Grant assistance and the nonrefundability of the Hope Credit explain why there is no difference between the distribution for these students in a 4-year public college and in a 4-year private college. As the Pell Grant is reduced, more tuition and fees remain to be covered by the credit. But, at and beyond the lower AGI where the Pell Grant phases out, it is tax liability that dictates how much credit can be claimed. Tax liability does not differ across categories of institutions. As a result, there is no difference in the benefits realized.

Figure 6. Hope Credit and Pell Grant for 16-24 Year Old Single Independent High School Graduate Enrolling Full-time at a Community College

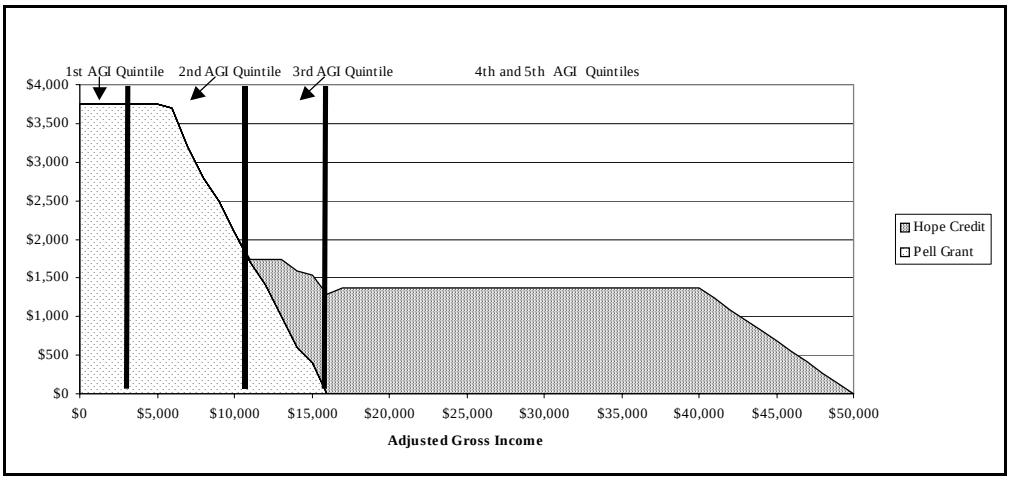
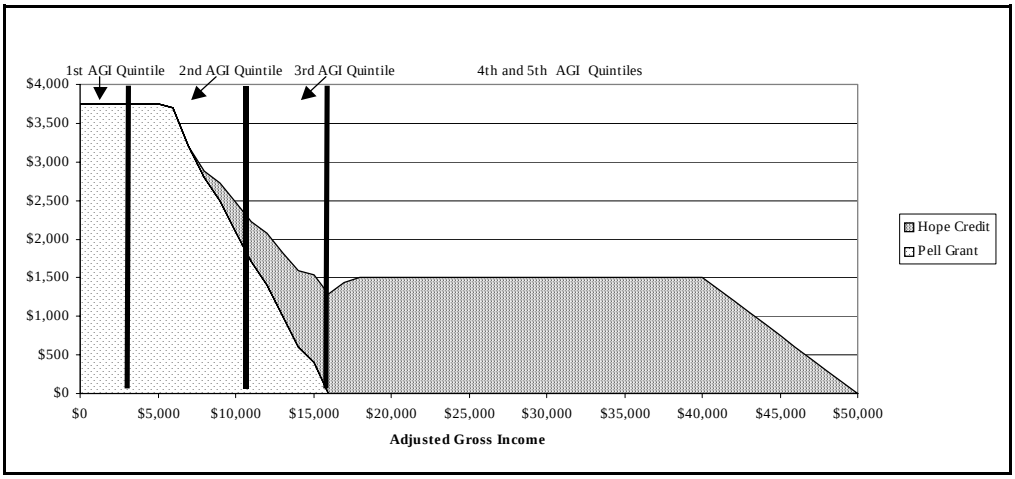


Figure 7. Hope Credit and Pell Grant for 16-24 Year Old Single Independent High School Graduate Enrolling Full-time at Either a 4-Year Public College or a 4-Year Private College



Analysis of these figures reveals that the distribution of Pell Grant and Hope Credit benefits to single independent students differs from that of married independent students. Among the important differences are the following:

- The maximum Pell Grant assistance is provided over a much narrower range of AGIs and declines to zero much sooner (at approximately $16,000 AGI versus $40,000 AGI for the married independent student case). This in turn permits the Hope Credit to be claimed lower down the income range because the rapid diminution of the Pell Grant aid frees up tuition and fees for potential coverage by the credit.[24]

[24]The dip in aggregate assistance at an income of approximately $16,000 is a function of a (continued...)

- The income quintiles are more clustered at the lower end of the income scale than they are for the married independent student, somewhat changing the relative balance of grant aid and credit benefit in the income quintiles. The Hope Credit offers less assistance in the 2nd and 3rd quintiles to the single independent student than to the married independent student.
- Coverage of average tuition and fees by the maximum Hope Credit that can be realized is the same for this type of student as for married independent students (see above).

Half-time Enrollment. When either of these student cases is enrolled on a half-time basis at a 4-year public or private college, Pell Grant assistance can be markedly reduced while the Hope Credit remains relatively unchanged. As a consequence, at these kinds of institutions, the amount of benefit provided by this tax credit may be closer to the size of the Pell Grant benefit.[25] In contrast, at community colleges, the Pell Grant and Hope Credit are both likely to be reduced, roughly proportionately.

Who in the Young Out-of-School Population is Potentially Served by Lifetime Learning Credits?

In general, the Lifetime Learning Credit delivers markedly less benefit than does the Hope Credit. This is primarily a function of the different reimbursement rules between the two credits. The maximum Hope Credit is 50% larger than the maximum Lifetime Learning Credit. Further, when tuition and fee levels that can be covered by the credits are relatively low, the Lifetime Learning Credit can be substantially less than the Hope Credit. For example, if remaining tuition and fees are $2,000, a $1,500 Hope Credit might be claimed given sufficient tax liability but the maximum Lifetime Learning Credit at that tuition and fee level is only $200.

Married Independent Students With a Child Across Institutional Categories. The analysis below focuses on the distribution of Pell Grant and Lifetime Learning Credit benefits to a married independent student with a child. This

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[24](...continued)
Pell award rule not considered previously — when a student's calculated Pell Grant falls in the $200 to $400 range, a $400 grant is awarded. This means there is a sudden decline from a $400 Pell Grant to $0 when the calculated Pell Grant is below $200. Where this occurs for these independent students, there is not sufficient tax liability for the Hope Credit to cover the marked increase in remaining tuition and fees.

[25]Under the Pell Grant program, the award for a half-time student is calculated based on a ratable reduction of the full-time award. In contrast, the Hope Credit was calculated by reducing the average tuition and fees for each category of institution by 50%. At lower priced institutions, such as community colleges, this reduces the allowable credit since initial tuition and fee levels are at or below the $2,000 tuition level at which the maximum Hope Credit can be claimed (given the credit's reimbursement rules). At higher priced institutions, tuition is sufficiently large that a 50% reduction need not affect the maximum Hope Credit benefit.

individual has *some college* but has not earned a BA. This student is assumed to be a candidate for the Lifetime Learning Credit and not eligible for the Hope Credit.[26]

Figure 8. Lifetime Learning Credit and Pell Grant for 16-24 Year Old Married Independent (with a Child) Having Some College Enrolling Full-time at a Community College

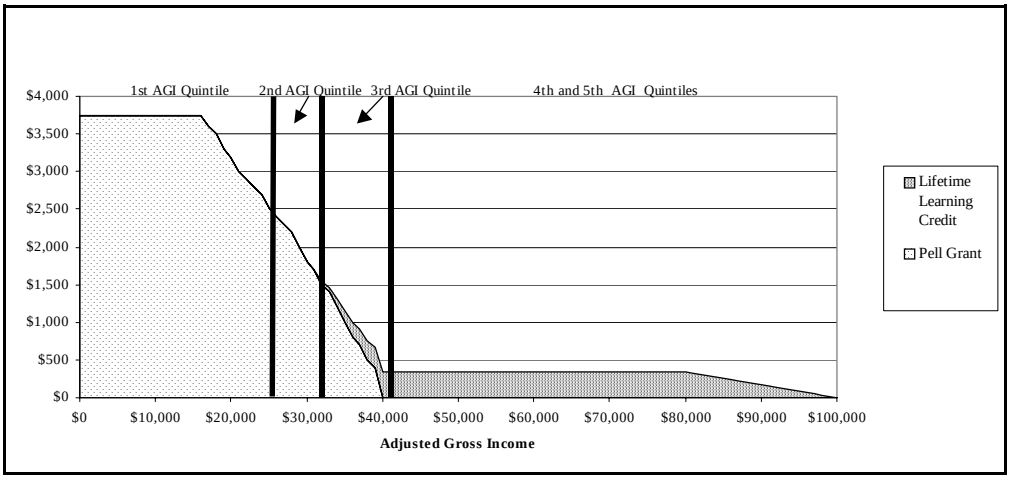
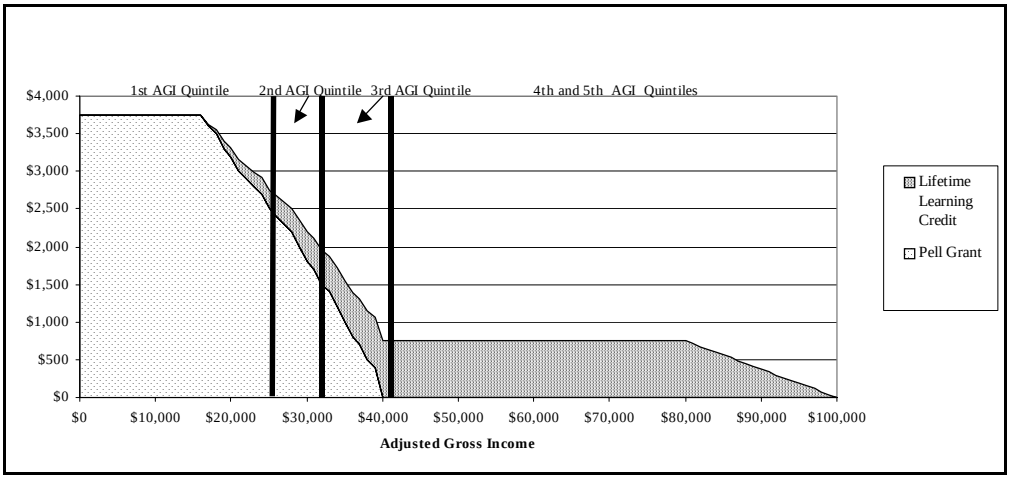
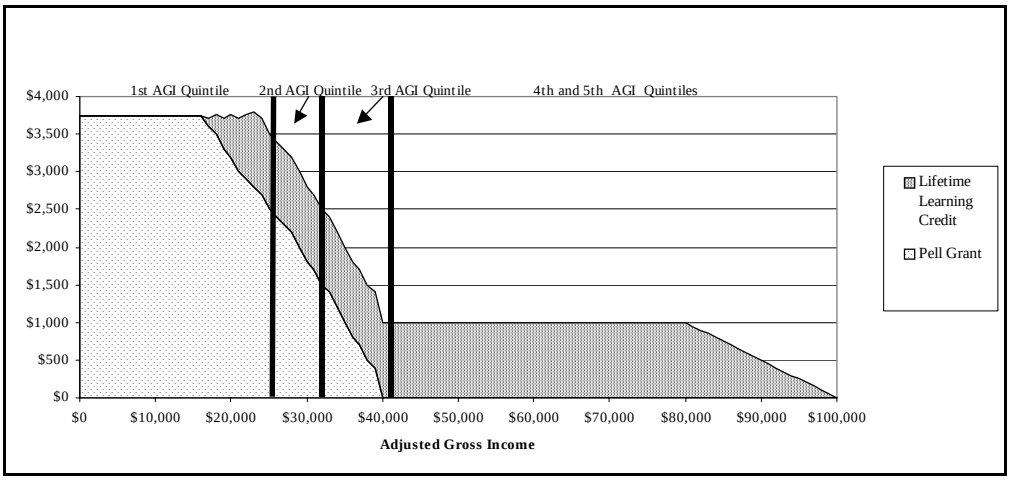


Figure 9. Lifetime Learning Credit and Pell Grant for 16-24 Year Old Married Independent (with a Child) Having Some College Enrolling Full-time at a 4-Year Public College



[26]In the March CPS, the educational attainment variable does not permit one to identify the specific number of years of attainment the out-of-school 16-24 year old might have — the undergraduate categories are *some college*, *AA (academic) degree*, *AA (vocational) degree*, and *BA*. For this analysis, the first three categories were collapsed in order to identify the **undergraduate** who might be eligible for the Lifetime Learning Credit. Limiting educational attainment in this manner was dictated by the fact that almost without exception the Pell Grant is available **only** to undergraduates (i.e., individuals without a BA degree).

Figure 10. Lifetime Learning Credit and Pell Grant for 16-24 Year Old Married Independent (with a Child) Having Some College Enrolling Full-time at a 4-Year Private College



Several key points can be made about the simulated distribution of these benefits:

- The Lifetime Learning Credit is maximized when tuition levels are highest. The credit offers little absolute assistance to a student attending the community college or even the 4-year public college. It is only at the much higher tuition and fee levels at the 4-year private college that the maximum Lifetime Learning Credit can be claimed.
- The Lifetime Learning Credit reaches down into the 1st income quintile only at relatively high tuition levels. At the 4-year private college for this student, the credit more than offsets the loss of Pell Grant aid for the upper reaches of the 1st income quintile.
- The level of estimated Lifetime Learning Credit assistance received by these students is significantly less than the Hope Credit benefits received by the other subset of married independent students (those with only a high school diploma). The coverage of average tuition and fee charges by the maximum Lifetime Learning Credit that can be realized is markedly less — 20% at the community college (compared to 79% by the Hope Credit for the other subset of students), 20% at the 4-year public college (40% by the Hope Credit for the other subset), and 6% at the 4-year private college (9% by the Hope Credit for the other subset).[27]

Single Independent Students Across Institutional Categories. The figures below show the estimated distribution of benefits for a single independent

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[27]Given that the average tuition and fees at the community college and 4-year public college are less than $5,000, the maximum coverage possible with the Lifetime Learning Credit under its reimbursement rules is 20%. At the much higher average tuition and fee levels at the 4-year private college ($17,123), the cap on the maximum Lifetime Learning Credit ($1,000) sharply reduces the percentage coverage of tuition and fees ($1,000 is 6% of $17,123).

student case where the individual has some college but less than a bachelor's degree (BA).

Figure 11. Lifetime Learning Credit and Pell Grant for 16-24 Year Old Single Independent With Some College Enrolling Full-time at a Community College

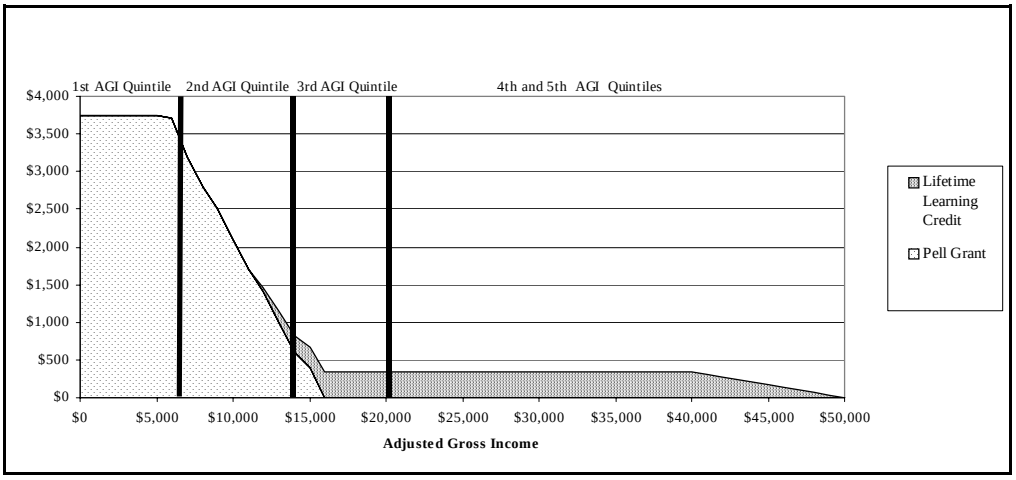


Figure 12. Lifetime Learning Credit and Pell Grant for 16-24 Year Old Single Independent With Some College Enrolling Full-time at a 4-Year Public College

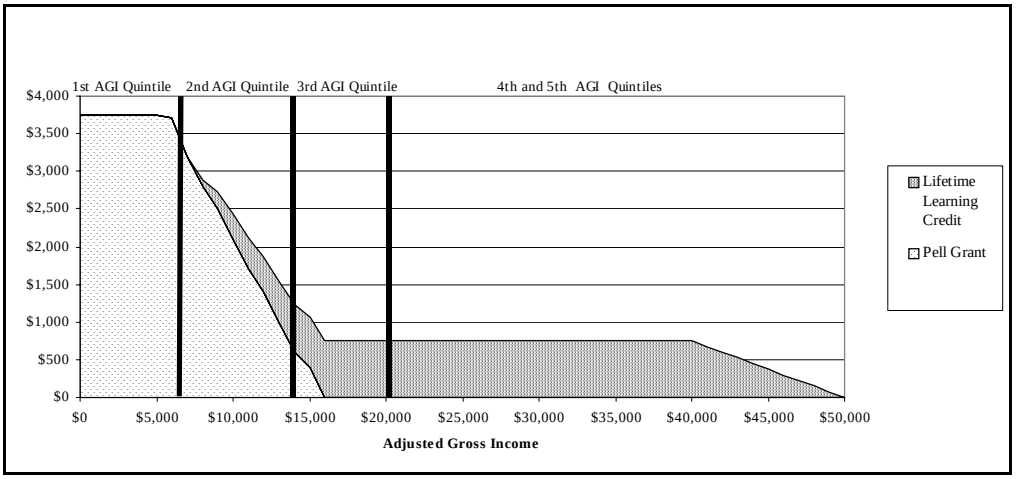
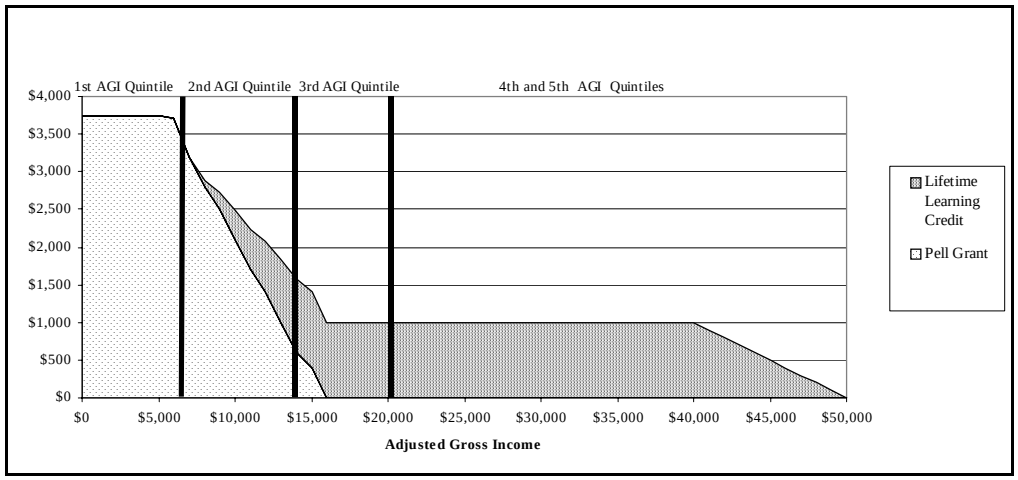


Figure 13. Lifetime Learning Credit and Pell Grant for 16-24 Year Old Single Independent With Some College Enrolling Full-time at a 4-Year Private College



The distribution of Lifetime Learning benefits at all three institutional categories are shown immediately above because, unlike the distribution of the Hope Credit, the distributions at the 4-year public college and 4-year private college are different.[28]

The key points to be made about the distribution of the Lifetime Learning Credit for this student are the following:

- The Lifetime Learning Credit once again is maximized when tuition and fees are high.
- In contrast to the distribution of Lifetime Learning aid to the married independent student, at no point does it offset the loss in Pell Grant assistance experienced by the single independent student as AGI grows.
- The coverage of average tuition and fees across types of institution is the same as described above for the married independent student.

Half-time Enrollment. When either of these student cases is enrolled on a half-time basis at a community college or 4-year public college, the Lifetime Learning Credit is reduced largely proportionately. At the 4-year private college, the credit is unaffected by half-time enrollment.

[28]This a function of the reimbursement rules for the Lifetime Learning Credit which serve to limit the size of the credit at the 4-year public college level; at the 4-year private college level, tax liability is the limiting factor. In contrast, the Hope reimbursement rules for the first $2,000 in remaining tuition and fees are more generous, as a result tax liability is the limiting factor at both the 4-year public and 4-year private college levels.

What Benefits Do the Credits Offer Aided Students?

This section of the report considers the availability of the tax credit benefits to the population of postsecondary students who are receiving federal financial aid from programs authorized by Title IV of the HEA. Title IV aid programs provide loan, grant, and work assistance to students. Title IV programs made an estimated $45.1 billion in federal financial assistance available to students and their families in academic year 1999-2000, constituting roughly two-thirds of all non-tax based direct financial assistance available to support postsecondary students. Title IV aid recipients constitute the largest population of aided students for whom comprehensive background data are available.

With the introduction of higher education tax credits in 1997 as a second major approach toward providing federal student aid, considerable interest has arisen in the complementarity between Title IV grant aid and tax credit assistance. Additionally, as has been discussed throughout this report, considerable interest exists in more accurately identifying the population of students eligible to benefit from the tax credits.

The analysis presented below sheds light on the extent to which the students who have traditionally been the focus of federal financial aid — those receiving Title IV aid — are also able to benefit from the tax credits. Additionally it explores the combined targeting of Title IV grant aid and tax credit assistance to these students.

The analysis upon which this portion of the report is based utilizes a NPSAS-based tax credit estimation model. This model utilizes comprehensive background information on Title IV recipients (e.g., information on tax liability, adjusted gross income, tuition and fee levels, enrollment and attendance status) which is available in NPSAS[29] and simulates tax credit benefits available to such students. In some instances, only partial information on a student's characteristic is available in NPSAS. Consequently, some assumptions have been built into the modeling approach. The information presented below on the value and availability of tax credits should therefore be viewed as estimates of what aided students are potentially eligible to receive in tax benefits — and not as precise reflections of actual aid amounts. Readers are encouraged to review the Technical Appendix which outlines the modeling approach and the assumptions embedded within it in greater detail.

It should be noted that tax credit values presented below are being estimated for a national sample of Title IV recipients.[30] In the analysis that follows, these estimated tax credit values are examined in relation to student characteristics and in relation to other financial aid received by students. Findings are presented in a

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[29]NPSAS data come from a nationally representative sample of approximately 50,000 undergraduate and 12,000 graduate students enrolled in postsecondary institutions in the 1999-2000 academic year.

[30]A sample of 23,450 was used for this estimation model. It is comprised of all members of the nationally representative sample of 24,489 Title IV aid recipients (attending a single postsecondary institution in 1999-2000) in NPSAS for which the information needed for tax credit estimation was available.

manner that maps estimated tax credit assistance and other available aid across the Title IV aided student population.

Summary of Findings

The analyses presented in the remainder of this section focus on Title IV recipients' access to: tax credits (in aggregate), Hope Credits, Lifetime Learning Credits, and federal obligation-free aid. The primary findings emerging from this examination of tax credit and other assistance available to Title IV recipients include the following:

- Higher education tax credit assistance is widely available to Title IV recipients — roughly 45% of Title IV recipients are eligible to receive tax credits. Students in the lowest income quintile (earning less than $8,176), who are much more likely to be affected by grant aid offsets and the credits' nonrefundability, are much less likely to qualify for tax credit assistance than are students in all other income quintiles.[31]
- The Hope Credit, available to approximately 38% of those undergraduates receiving Title IV assistance who are in their first 2 years of study, carries a median value of $1,276 — roughly 85% of the maximum potential value of a Hope Credit. Nearly half of the Title IV recipients attending 4-year public, 4-year private, and proprietary schools are eligible for Hope Credits. Median Hope Credit values are above $1,300 for eligible recipients at each of these types of institutions.
- The Lifetime Learning Credit, available to approximately one quarter of the combined pool of undergraduate and graduate Title IV recipients, carries a median value of $556 — roughly 56% of the maximum potential value of a Lifetime Learning Credit. Students attending 4-year public and 4-year private institutions are much more likely to be eligible for a Lifetime Learning Credit than are students attending other institutions. However, the median value of a Lifetime Learning Credit available to those attending 4-year private institutions ($907) is more than double the median value ($411) of the credits available to those attending 4-year public institutions (who are much more likely to have qualified expenses below the maximum allowed under the credit).
- Federal obligation-free aid has become widely available to undergraduate Title IV recipients across all income categories with the introduction of tax credits.[32] Such aid is now available to more than half of the financial aid dependent Title IV recipients in each dependent student income quintile, and more than 90% of financial aid independent Title IV recipients in each independent student income quintile. The percentage of students with at least

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[31]The income quintile distributions in this portion of the report are based on total income in 1998, not AGI as in the preceding portion of the report. Income is used here because a significant portion of Title IV recipients do not pay federal income taxes. As a result, AGI values, which are determined within the federal income tax system, are not included in the NPSAS data for those recipients.

[32]Obligation-free aid (defined in more detail below) is aid that does not have to be repaid or worked for.

10% of tuition and fees covered by available federal obligation-free aid has risen dramatically with the introduction of tax credits.

Higher Education Tax Credits In Aggregate

Figures 14 and 15 and **Table 1** present overview information on the higher education tax benefits available to Title IV aid recipients. These figures and **Table 1** illustrate, in aggregate, how the credits are targeted to serve the broad population of undergraduate and graduate Title IV aid recipients.

Figure 14. Estimated Percentage of Title IV Aid Recipients Eligible to Receive a Hope or Lifetime Tax Credit by Income Quintile, 1999-2000

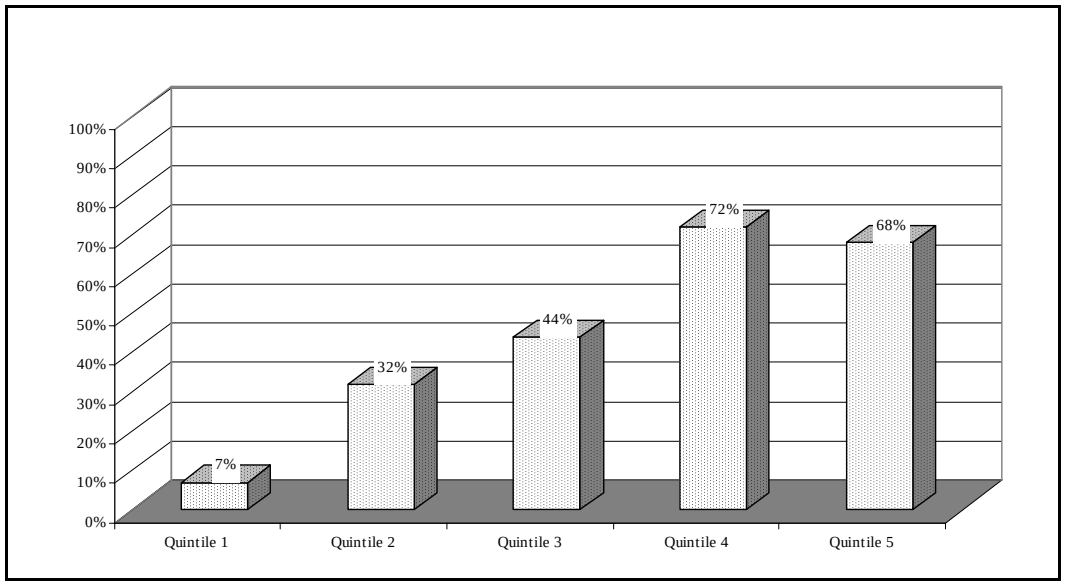
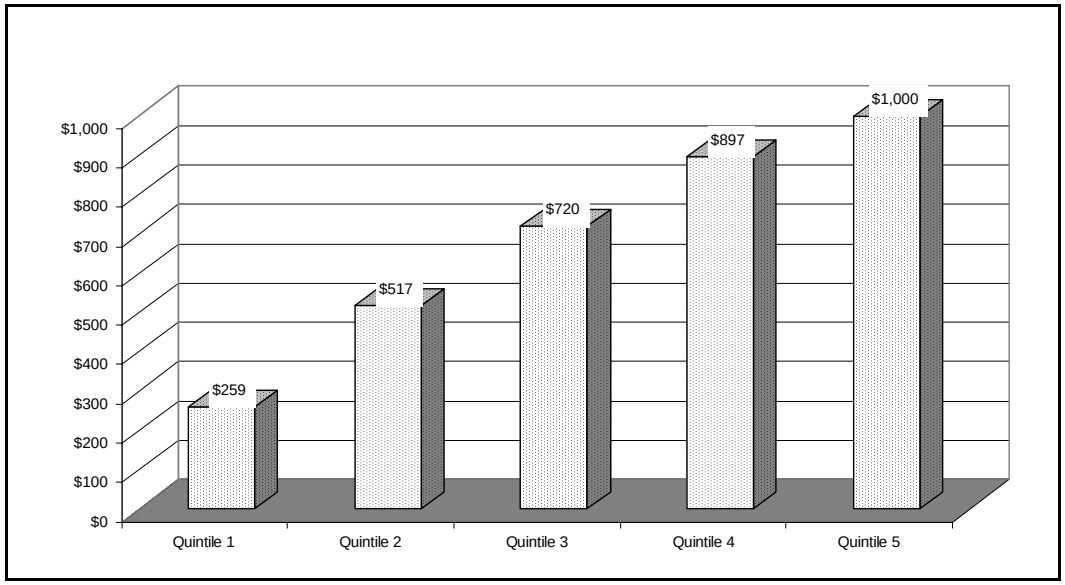


Figure 15. Estimated Median Value of Higher Education Tax Credits Available to Title IV Recipients by Income Quintile, 1999-2000



The following key points can be made about the targeting of higher education tax benefits based upon the data presented in these figures and in **Table 1** (below):

- Tax credit assistance has been made available to a large group of Title IV recipients — roughly 45 % qualify for credits which have a median value of almost $800.
- The value of available credits rises steadily across income quintiles, peaking for those in the top quintile. Student eligibility for credits also increases steadily across income quintiles before tapering off a bit for those in the highest quintile (where the benefit phase-out takes effect). It is only students in the lowest income quintile (those earning less than $8,176), who are highly unlikely to qualify for tax credit assistance. These students are much more likely to be affected by grant aid offsets and the credits' nonrefundability than are students in all other income quintiles.

Table 1. Estimated Percentage of Title IV Aid Recipients with Various Characteristics Who Were Eligible to Receive a Hope or Lifetime Learning Tax Credit, and Median Value of the Credit They Were Eligible to Receive, 1999-2000

	Characteristics of Title IV aided student population	Percent eligible for a tax credit	Median tax credit value	Median percent of tuition and fees covered
All Title IV aid recipients	100%	45%	$791	13%
Attendance status				
Full-time	72%	46%	880	12%
Part-time	28%	42%	563	19%
Age				
24 or younger	64%	47%	838	13%
25 or older	36%	41%	701	14%
Sector				
Public 2-year	22%	21%	692	53%
Public 4-year	41%	48%	553	18%
Private 4-year	25%	58%	1000	7%
Proprietary	10%	49%	1000	14%
Other	2%	37%	1227	17%
Dependency				
Dependent	48%	51%	924	13%
Independent	52%	38%	654	14%

	Characteristics of Title IV aided student population	Percent eligible for a tax credit	Median tax credit value	Median percent of tuition and fees covered
Income Quintile				
First (lowest)		7%	259	4%
Second		32%	517	11%
Third		44%	720	14%
Fourth		72%	897	16%
Fifth (highest)		68%	1000	14%

Hope Credits

The Hope Credit was introduced to help ensure students have universal access to the first 2 years of postsecondary education. It is targeted toward undergraduate students enrolled on at least a half-time basis in a higher education program leading to a degree, certificate, or credential. **Table 2** (below) provides comprehensive information on the Hope Credit assistance available to undergraduate Title IV recipients in their first 2 years of study. The following key themes emerge from the data presented in **Table 2**.

- The Hope Credit is available to a relatively large share (approximately 38%) of those undergraduates receiving Title IV assistance in their first 2 years of study.
- Many of those Title IV recipients eligible to receive Hope Credits come close to obtaining the credit's maximum potential $1,500 value. Hope Credits available to Title IV recipients carry a median value of $1,276 — roughly 85% of the maximum potential value of a Hope Credit.
- Nearly half of the Title IV recipients in 4-year public, 4-year private, and proprietary schools are eligible for the Hope Credit. Those eligible recipients attending 4-year public, 4-year private, and proprietary schools have median Hope Credit values above $1,300.

Table 2. Estimated Percentage of Undergraduate Title IV Aid Recipients in Their First 2 Years of Study Who Were Eligible to Receive a Hope Credit, and Median Value of the Credit They Were Eligible to Receive, 1999-2000

	Characteristics of undergraduate Title IV aided student population in first 2 years of study	Percent eligible for a Hope Credit	Median Hope Credit value	Median percent of tuition and fees covered
All undergraduate Title IV aid recipients in first 2 years of study	100%	38%	$1276	22%
Attendance status				
Full-time	72%	41%	1375	18%
Part-time	28%	30%	1019	42%
Age				
24 or younger	70%	41%	1338	21%
25 or older	30%	29%	1054	26%
Sector				
Public 2-year	38%	20%	828	57%
Public 4-year	28%	46%	1316	33%
Private 4-year	17%	54%	1500	9%
Proprietary	15%	47%	1500	17%
Other	2%	40%	1500	19%
Dependency				
Dependent	55%	46%	1389	20%
Independent	45%	27%	1030	25%
Income quintile dependent				
First (lowest)		7%	587	10%
Second		26%	747	15%
Third		56%	1364	23%
Fourth		79%	1500	26%
Fifth (highest)		61%	1269	16%
Income quintile independent				
First (lowest)		1%	*	*
Second		15%	388	10%
Third		25%	909	24%
Fourth		32%	1174	24%
Fifth (highest)		62%	1303	30%

*Too few cases for a reliable estimate.

Lifetime Learning Credits[33]

The Lifetime Learning Credit was designed to support traditional undergraduate students in any year of study, graduate students, and "lifetime learners" (i.e., those not necessarily pursuing degrees). Like the Hope Credit, the Lifetime Learning Credit was intended to enhance and preserve middle income students' access to higher education. **Table 3** presents comprehensive information on the Lifetime Learning Credit assistance available to Title IV recipients. Some of the central themes emerging from the data presented in **Table 3** include the following:

- The Lifetime Learning Credit, available to approximately one quarter of the combined pool of undergraduate and graduate Title IV recipients, carries a median value of $556 — roughly 56% of the maximum potential value of a Lifetime Learning Credit. Students attending public institutions, who are much more apt to have qualified expenses below the maximum allowed by the credit, have a difficult time maximizing the credit's potential $1,000 value.
- Students attending 4-year public and 4-year private institutions are much more likely to be eligible for a Lifetime Learning Credit than are students attending other institutions. Approximately 39% of Title IV recipients attending 4-year private schools are eligible to receive Lifetime Learning Credits, which have a median value of $907 for this group. Roughly one third of Title IV recipients in 4-year public institutions are eligible to receive Lifetime Learning Credits, which have a median value of $411. Lifetime Learning Credits are not very accessible to Title IV recipients attending 2-year public institutions (an estimated 3%).

Table 3. Estimated Percentage of Title IV Aid Recipients with Various Characteristics Who Were Eligible to Receive Lifetime Learning Tax Credits, and Median Value of the Credit They Were Eligible to Receive, 1999-2000

	Characteristics of Title IV aided student population	Percent eligible for a Lifetime Learning Credit	Median Lifetime Learning Credit value	Median share of tuition and fees covered
All undergraduate and graduate Title IV aid recipients	100%	25%	$556	10%
Attendance status				
Full-time	72%	25%	627	8%
Part-time	28%	27%	438	14%

[33]Students cannot receive both a Hope Credit and a Lifetime Learning Credit in any given tax year. Students who were technically eligible to receive a Hope Credit or a Lifetime Learning Credit are assumed in this analysis to pursue the more valuable Hope Credit. Thus, they are not treated as being eligible Lifetime Learning Credit recipients.

	Characteristics of Title IV aided student population	Percent eligible for a Lifetime Learning Credit	Median Lifetime Learning Credit value	Median share of tuition and fees covered
Age				
24 or younger	64%	24%	548	9%
25 or older	36%	29%	569	12%
Sector				
Public 2-year	22%	3%	145	13%
Public 4-year	41%	32%	411	14%
Private 4-year	25%	39%	907	6%
Proprietary	10%	15%	940	12%
Other	2%	6%	406	10%
Dependency				
Dependent	48%	25%	584	9%
Independent	52%	26%	527	11%
Income quintile dependent				
First (lowest)		4%	202	4%
Second		19%	450	7%
Third		32%	547	10%
Fourth		39%	781	13%
Fifth (highest)		27%	498	7%
Income quintile independent				
First (lowest)		3%	259	3%
Second		19%	301	5%
Third		28%	541	11%
Fourth		33%	614	13%
Fifth (highest)		51%	676	13%

Distribution of Federal Obligation-Free Aid

This section of the report considers federal student grant aid, such as the Pell Grant, and the federal education tax credits in tandem. The combined targeting of federal grant aid and education tax credits is of widespread interest to policymakers concerned about federal financial support for postsecondary students. Both sources of aid aim to promote postsecondary education access by covering postsecondary education expenses during periods of enrollment. Additionally, the credits and grant aid share a fundamentally important feature — they are federal "obligation-free" assistance.[34] That is, neither of these kinds of aid carries a post-award or post-receipt non-academic obligation. Unlike loans, they do not have to be repaid. Unlike work study awards, they require no work. As federal obligation-free assistance, grants and

[34]Subsequent references in this report to obligation-free assistance are references to either federal student aid grants, the postsecondary education tax credits, or both sources of aid.

education tax credits are the most desirable forms of federal aid from the recipient's perspective. As a result, it is important to consider how the advent of the education tax credits has affected the distribution of federal obligation-free assistance.

"Generally available" federal obligation-free aid is disbursed in the form of grants and tax credits.[35] Prior to the introduction of the Hope and Lifetime Learning Credits, all such aid was disbursed as need-sensitive grant aid (i.e., Pell Grants and Supplemental Educational Opportunity Grants – SEOGs). The introduction of tax credits greatly expanded the pool of individuals eligible to receive federal obligation-free aid.

Table 4 offers a depiction of the generally available obligation-free aid available to Title IV recipients and the extent to which such aid defrays the cost of tuition and fees. **Figures 16 and 17** provide information on the composition of this kind of aid; specifically, they illustrate the relative role being played by grants and tax credits in assisting students in varying income quintiles. The following key points can be made based upon the data presented below.

- Federal obligation-free aid is now widely available to Title IV recipients across income categories. This aid is being made available to more than half of the top income quintile of dependent students, and the median share of tuition and fees covered by such aid available to these students is 10%. In all other dependent and independent student income quintiles, more than 80% of students are eligible to receive federal obligation-free aid, and the median share of tuition and fees covered by such aid ranges from roughly 20% to more than 100%.
- For dependent students, grants are the dominant form of federal obligation-free aid for those in the two lower income quintiles. A fairly even balance exists between available grant and tax credit assistance for those in the middle quintile ($32,812 - $50,702), and tax credits are the dominant source of this kind of aid for those in the upper quintiles. For independent students, grants are the dominant source of this aid for each income quintile except the highest quintile (earning $27,661 and above). For students in this quintile, a balance exists between available grant aid and tax credit assistance.

[35]"Generally available" aid is available to students attending eligible institutions regardless of the specific kind of postsecondary education being pursued.

Table 4. Estimated Percentage of Undergraduate Title IV Recipients by Income Quintile Who Were Eligible to Receive Federal Obligation-Free Aid in 1999-2000

	Percent eligible to receive federal obligation-free aid	Median amount available	Median percent of tuition and fees covered
Income quintile Dependent			
First (lowest)	97%	$3075	100%
Second	97%	2174	68%
Third	90%	1224	23%
Fourth	84%	1000	19%
Fifth (highest)	54%	682	10%
Income quintile independent			
First (lowest)	95%	2975	102%
Second	98%	1700	83%
Third	95%	1563	81%
Fourth	98%	1500	84%
Fifth (highest)	94%	1000	31%

Figure 16. Estimated Composition of Aggregate Federal Obligation-Free Aid Made Available to Dependent Undergraduate Title IV Aid Recipients by Income Quintile, 1999-2000

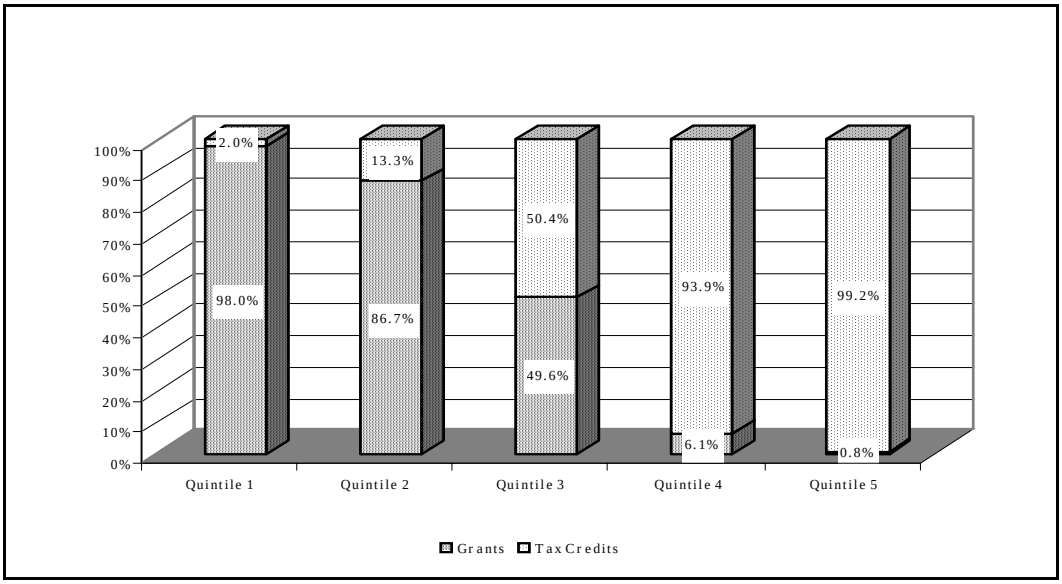
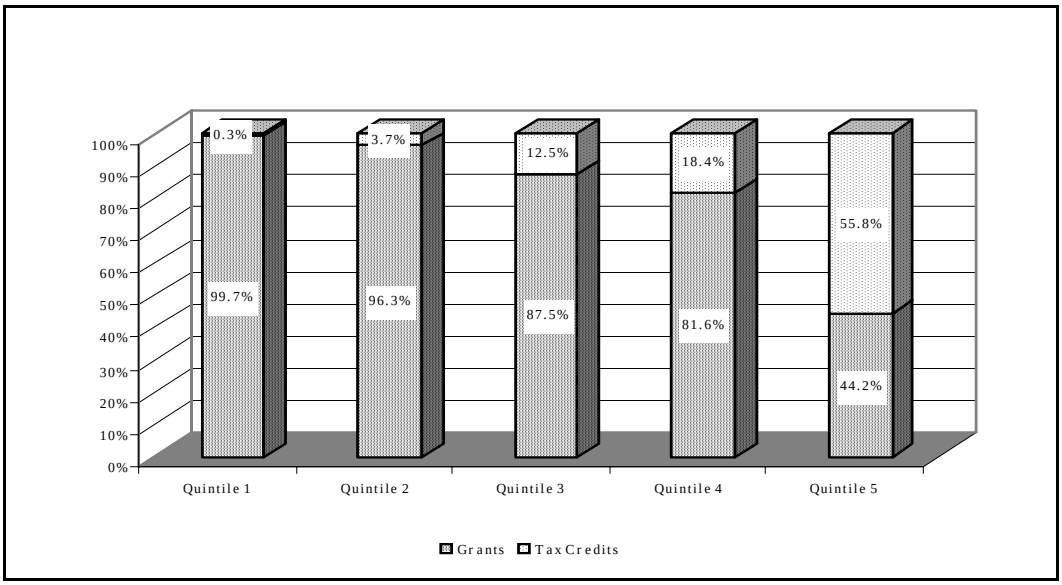


Figure 17. Estimated Composition of Aggregate Federal Obligation-Free Aid Made Available to Independent Undergraduate Title IV Aid Recipients by Income Quintile, 1999-2000



How Has the Introduction of Tax Credits Affected the Targeting of Federal Obligation-Free Aid? Prior to the introduction of tax credits, the general prevailing philosophy in the federal student aid effort, rooted in the basic tenets of the original HEA of 1965, was to first award grants to cover the higher education costs of those with high levels of need, and if necessary, supplement grants with subsidized loans. The aid approach for middle-income students centered on providing subsidized borrowing opportunities.

With the introduction of the Hope and Lifetime Learning Credits, two new sources of obligation-free aid became available that serve middle income-students. This expansion of the role played by such aid within the federal student aid effort has sparked debate about how obligation-free aid is currently targeted, how the role of such aid has changed, and about the role this aid should play within the overarching federal aid effort.

The figures below have been produced to shed some light on how the targeting of obligation-free aid across income brackets has changed. **Figures 18 to 23** illustrate the targeting of this aid in 1995-1996 and 1999-2000, a period immediately prior to the introduction of the tax credits and a period shortly after the tax credits became available (in 1998).[36] The 1995-1996 data reflect the estimated distribution of Pell and SEOG awards in the 1995-1996 academic year. The 1999-2000 data

[36]Undergraduate students are the focus of this examination because federal grant assistance (the only form of generally available federal obligation-free aid available prior to 1998) is only provided to undergraduates.

reflect the estimated distribution of federal grant aid and also include the estimated Hope and Lifetime Learning Credit assistance made available.[37]

Shifts in the targeting of obligation-free aid displayed in **Figures 18 and 19** can be thought of as largely reflecting the effects of the tax credits. This is because few changes were enacted in federal grant eligibility requirements during this time period. Shifts in the percent of tuition and fees covered by obligation-free aid depicted in **Figures 20 through 23** can be thought of as reflecting both increases in Pell awards and the introduction of tax assistance for those in lower income quintiles, and as primarily reflecting the effects of tax credits for those in higher income quintiles.

The central themes emerging from the data presented in the figures below include the following:

- When Title IV recipients are examined by income quintile in academic years 1995-1996 and 1999-2000, it becomes apparent that targeting of federal obligation-free aid has changed dramatically. Students in the upper three income quintiles had far greater access to such aid in 1999-2000 than in 1995-1996. This trend is most strongly accentuated in the 4th and 5th income quintiles for dependent students. The majority of dependent Title IV recipients in these quintiles (84% and 54%, respectively) in 1999-2000 had access to federal obligation-free aid.
- The incidence of Title IV recipients having at least 10% of their tuition and fees covered by generally available obligation-free aid has grown considerably over the period. This is most evident for dependent students in the 4th and 5th quintiles whose access to such federal aid covering one-tenth of their tuition rose to 60% (from 7%) and to 27% (from 0%), respectively.

[37]The 1995-1996 data utilized for this analysis are from the 1995-1996 NPSAS. The 1999-2000 data are from the 1999-2000 NPSAS.

Figure 18. Estimated Percentage of Undergraduate Dependent Title IV Aid Recipients by Income Quintile Eligible for Federal Obligation-Free Aid, 1995-1996 and 1999-2000

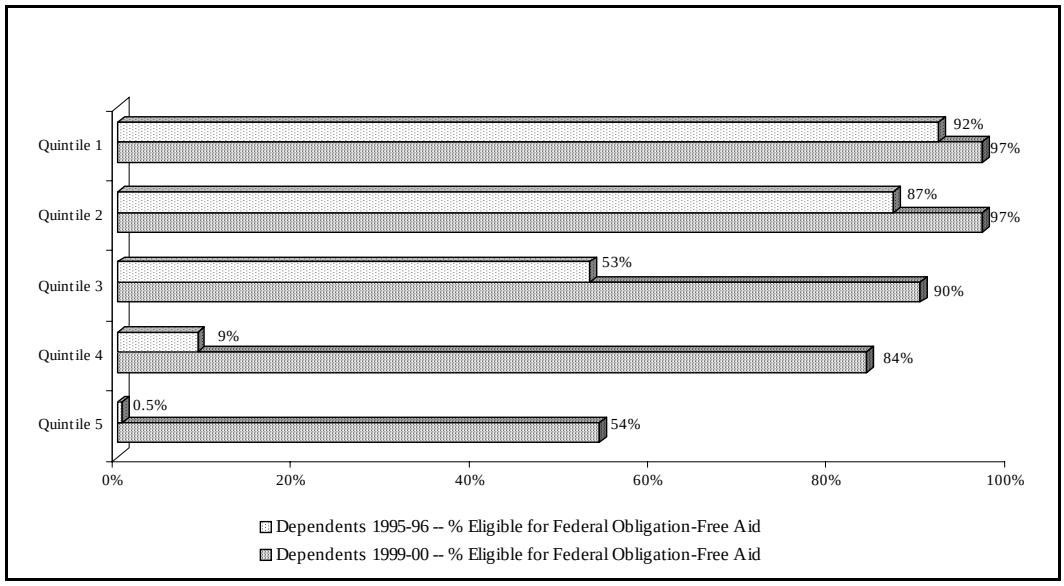


Figure 19. Estimated Percentage of Undergraduate Independent Title IV Aid Recipients by Income Quintile Eligible for Federal Obligation-Free Aid, 1995-1996 and 1999-2000

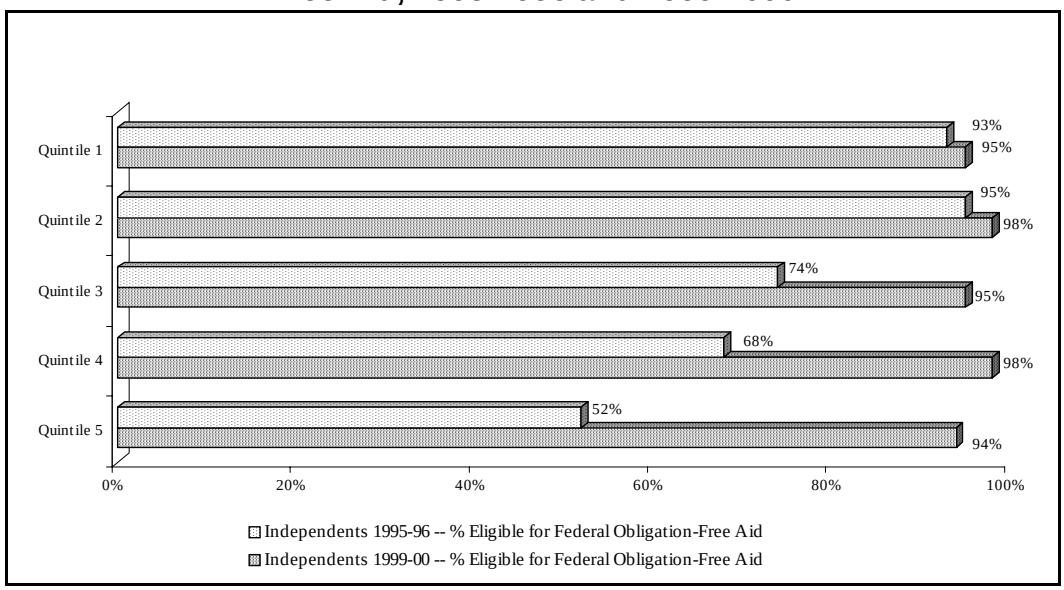


Figure 20. Estimated Percentage of Dependent Undergraduate Title IV Aid Recipients by Income Quintile Having At Least 10% of Tuition and Fees Covered by Available Federal Obligation-Free Aid, 1995-1996 and 1999-2000

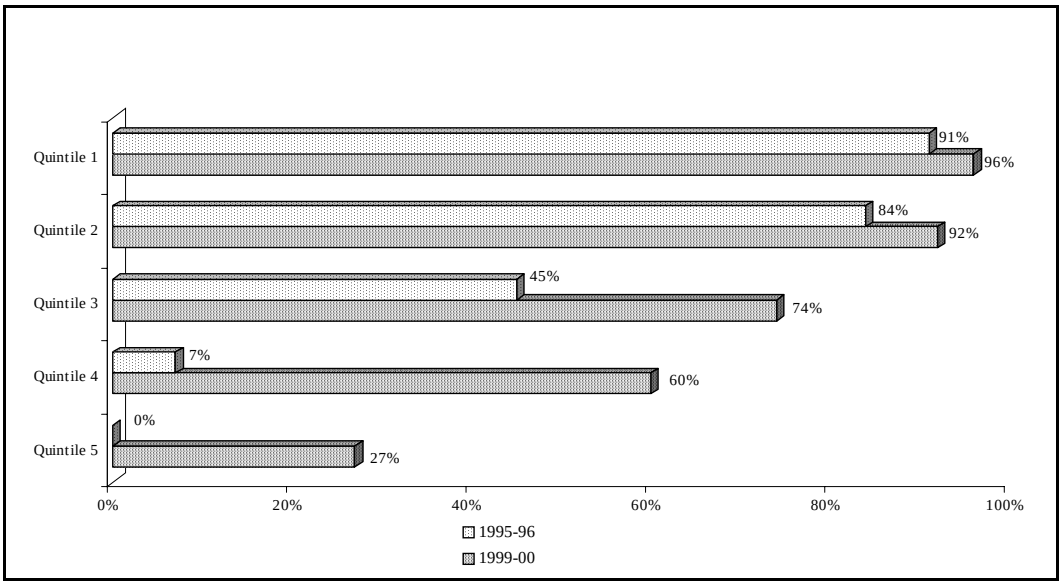


Figure 21. Estimated Percentage of Dependent Undergraduate Title IV Aid Recipients by Income Quintile Having At Least One-Fourth of Tuition and Fees Covered by Available Federal Obligation-Free Aid, 1995-1996 and 1999-2000

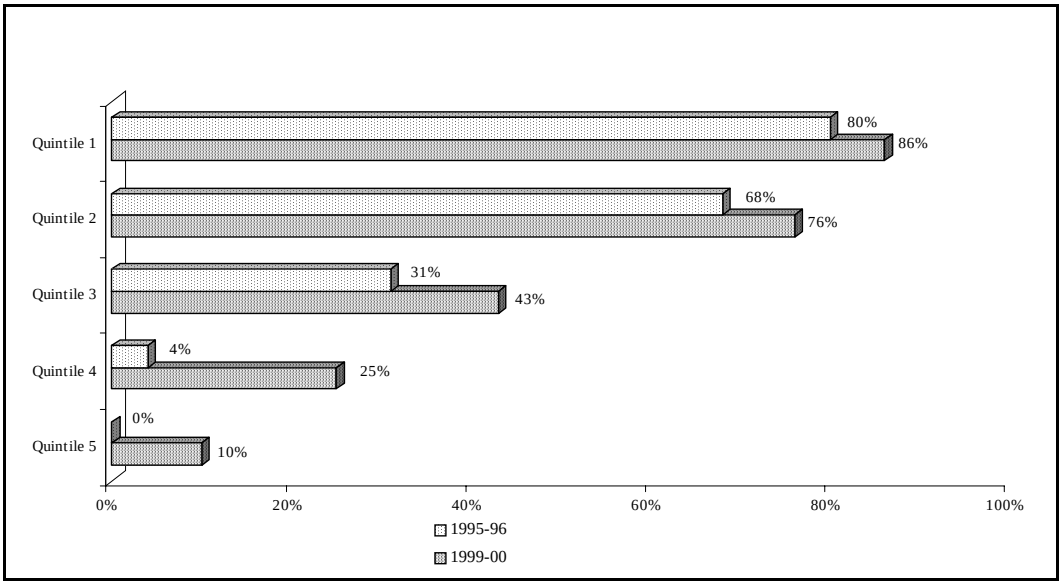


Figure 22. Estimated Percentage of Independent Undergraduate Title IV Aid Recipients by Income Quintile Having At Least 10% of Tuition and Fees Covered by Available Federal Obligation-Free Aid, 1995-1996 and 1999-2000

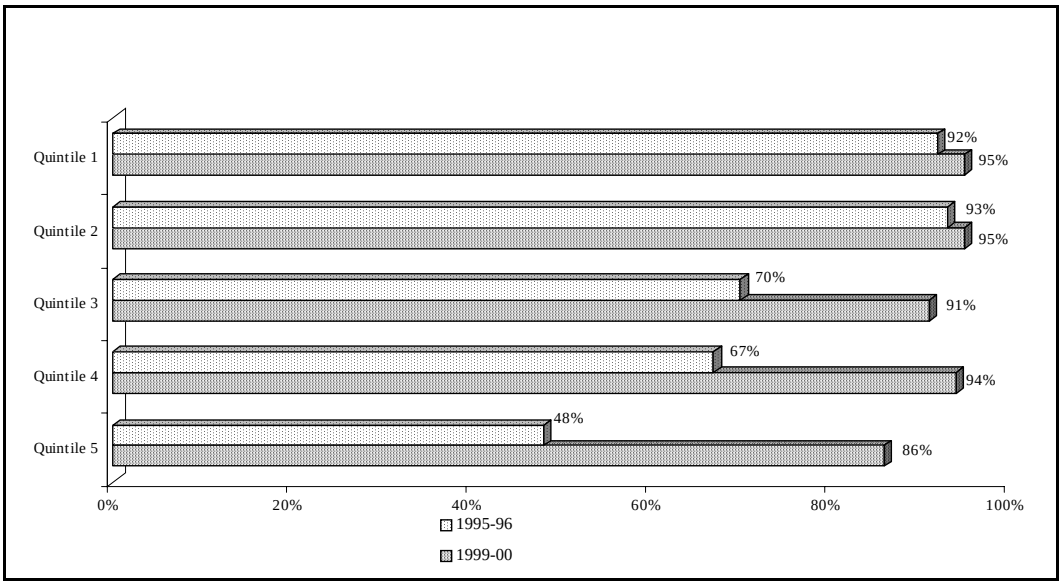
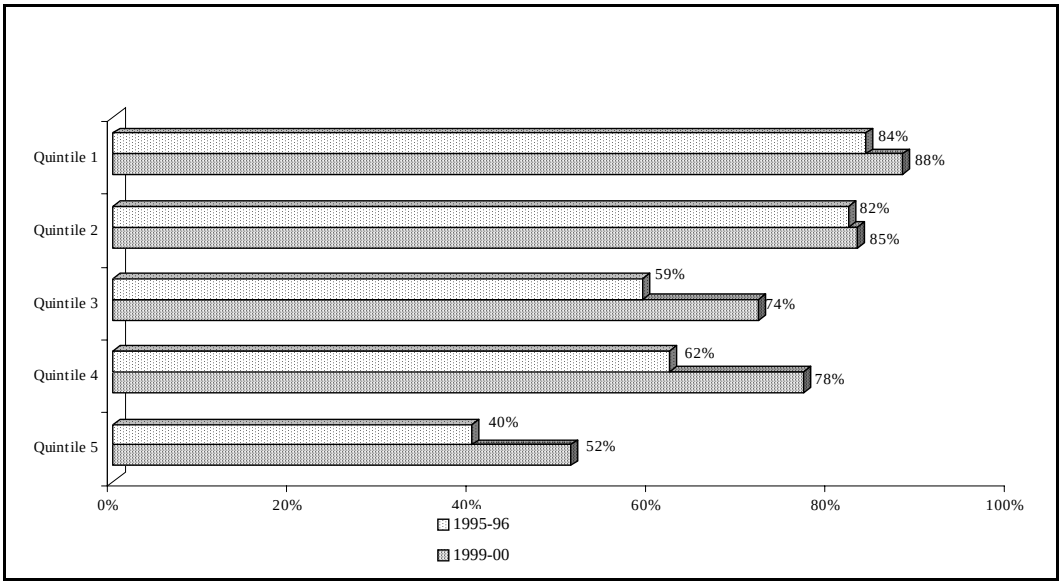


Figure 23. Estimated Percentage of Independent Undergraduate Title IV Aid Recipients by Income Quintile Having At Least One-Fourth of Tuition and Fees Covered by Available Federal Obligation-Free Aid, 1995-1996 and 1999-2000



Why Do the Credits Allot Their Benefits the Way They Do and How Would Proposed Changes Affect That Allotment?

As shown by the preceding analyses of estimated distributions of the education tax credit benefits to potential students and aided undergraduates, the credits are primarily available to middle-income students. Although under some circumstances they do reach down to lower income students, they are not available to the poorest students under any circumstances. Students maximize their benefits from the tax credits where tuition and fees are relatively high. At such institutions, this works to increase the amount of the benefit and extend the coverage of the benefit further down the income scale. Further, across some income ranges, students may receive grant aid, such as Pell Grants, **as well as** an education credit. This may boost the aggregate amount of federal obligation-free aid that these students receive above what they would otherwise receive in the absence of the credits.

Why do the credits allot their benefits in this manner? As was discussed earlier, the credits have several award rules that dictate eligibility and benefit amount. These include:

- the education costs that may be covered by the credits,
- the grant aid offset,
- the reimbursement rules (with their caps on the maximum credit),
- nonrefundability, and
- phase-out rates.

It is useful to consider the award rules to have an implicit order of application — the order in which they are listed above. Initially, one must determine which postsecondary education expenses are eligible to be covered by the credits. If grant aid, such as the Pell Grant, fully offsets the covered costs, there are no eligible costs for which a credit might be claimed. Where eligible costs exceed grant aid, there are remaining costs to be covered by the credits. At that juncture, the reimbursement rules applied to those remaining costs dictate the potential maximum credit that can be claimed. The nonrefundability rule determines what portion, if any, of that potential maximum credit can actually be claimed, barring a reduction due to the phase-out rates.

There is interest in the Congress in changing the distribution of these education tax credit benefits and bills have been introduced that would modify some of these award rules.[38] Each of these factors can exert some influence on who can claim a credit and how much they claim, but each is **not** likely to have an equal effect on different groups of potential claimants. Changes to certain of the award rules are likely to benefit middle-income and higher income students; changes to others hold out the promise of making the tax credit benefits available to more low-income

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[38]See, for example, H.R. 414, H.R. 928, H.R. 1777, H.R. 2219, H.R. 2482, S. 687, and S. 888.

students, including the poorest students.[39] Perhaps one of the most important features of the award rules for any consideration of changes in the distribution of the tax benefits is that they can interact. This is inherent in the order of application just described. The interaction among multiple award rules may particularly affect the benefits for low-income students. For those students, especially in lower priced institutions, changes to only one of the award rules without concurrent modification of others will not expand the benefits they may receive.

For ***upper middle-income and higher income*** students, nonrefundability is not an issue since these students are likely to have sufficient tax liability to claim a credit. Further, the grant aid offset may be inconsequential for the many who are unlikely to receive substantial amounts of grant aid. Expanding the credits to cover other costs, such as room and board, or books, or, indeed, the entire cost of attendance, while maintaining all other current rules, would have an impact on such students **only** if they are attending relatively low-priced institutions, particularly community colleges. For instance, the average tuition and fees in the community college sector, are not sufficiently high for the maximum Hope Credit to be claimed. Allowing the credits to cover all other expenses in addition to tuition and fees would boost the Hope Credit for such students to the maximum allowable. Raising the credit caps while making no other changes would particularly benefit students enrolled at 4-year private institutions where, as a result of higher tuition and fee levels, the caps limit the amount of tax benefit that can be claimed. For high-income students, the phase-out rates also directly limit benefits (e.g., at AGIs above $100,000 for those filing a joint tax return, no benefit is available).

The primary limiting factor for ***middle-income*** students, particularly those attending relatively high priced institutions, appears to be the reimbursement rules and their caps. As with higher income students, expanding coverage of the credits beyond tuition and fees while maintaining the current reimbursement rules will do little to increase the tax benefits. Nonrefundability and the grant aid offset may affect some students at the lower end of this income group.

Possibly more so than for any other income group, ***low-income*** students' eligibility for the credits and the level of benefit they may claim are primarily a function of an interaction among all of these award rules, save for the phase-out rates. This appears to be particularly true at lower priced institutions. This interaction is explored more fully below.

Interplay of Coverage of Costs and Nonrefundability for Low-Income Students

In an effort to illustrate the complex interaction of the award rules for low-income students, and in particular the lowest income students, the impact of the

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[39]Of the award rules delineated above, changes to the grant aid offset appear to be the most problematic from a policy perspective given that such changes could raise the possibility of a student receiving grant aid and a tax benefit for the same postsecondary education expenditures. As a consequence, although we identify where this award rule might affect a student's tax credit, we do not simulate its modification or removal.

interplay of two rules — nonrefundability and coverage of costs — on the size of the Hope Credits at the community college level is explored here. At these institutions which charge relatively low tuition, a third rule — the grant aid offset — works in tandem with the cost coverage rule to limit benefits.

This analysis provides a context for considering whether and how the credits might be modified to extend the Hope Credit further down the income range, possibly responding to concerns raised by some analysts that the Hope Credit will have a limited impact on access because it does not benefit the families for whom financial barriers are the primary impediment to postsecondary enrollment.[40] The changes addressed here are intended primarily to extend to the lowest income students at the community college level the tax benefits received by their higher income colleagues, not to increase significantly the size of the benefits across the full income spectrum.

The importance of the order in which the award rules are applied for low-income students at relatively low-priced schools is that no one change appears to be sufficient to extend the tax credit benefits down to the lowest income student. Given that at low-income levels, students and their families are unlikely to have much if any tax liability, attention is often likely to be focused on nonrefundability as **the** barrier to receipt of tax credit benefits. But, as shown below, that is not the case where the covered costs are relatively low.

The following figures based on the case simulation model show how two award rules — the coverage of cost rule and nonrefundability rule — affect the size of the Hope Credit, independently and together, for the single independent student considered earlier enrolled at a community college.[41] The first figure below depicts the distribution under current law (nonrefundable Hope Credit with the current cost coverage rule). The next figures show, respectively, the impact of expanding the coverage of costs to the full cost of attendance while maintaining all other award rules; making the credit refundable only; or making both of these changes.

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[40]Wolanin, Thomas R. *Rhetoric and Reality: Effects and Consequences of the HOPE Scholarship*. The Institution for Higher Education Policy, Working Paper, April 2001.

[41]As noted above, the precise interplay of the award rules will differ from case to case. The single independent student at a community college was chosen for this analysis because this type of student at this institution appears to realize less Hope Credit benefit than other students considered in this report. As a result, expanding tax credit assistance to such a student may be an important objective for efforts to modify the education credits. These figures have an expanded Y-axis ($0 to $5,500) compared to earlier figures ($0 to $4,000) to accommodate the increased aggregate level of assistance that may be realized.

Figure 24. Hope Credit and Pell Grant for 16-24 Year Old Single Independent High School Graduate Enrolling Full-time at a Community College

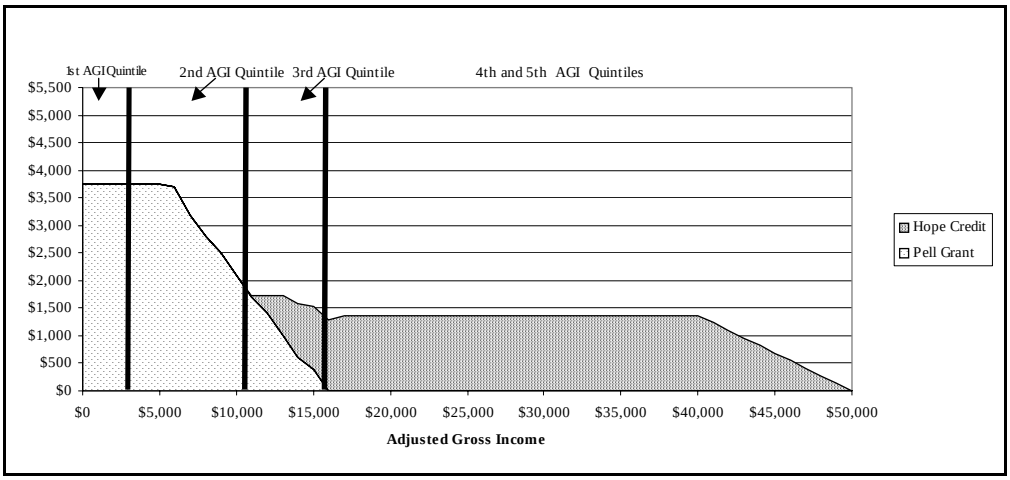


Figure 25. Hope Credit and Pell Grant for 16-24 Year Old Single Independent High School Graduate Enrolling Full-time at a Community College — Eligible Costs are the Cost of Attendance

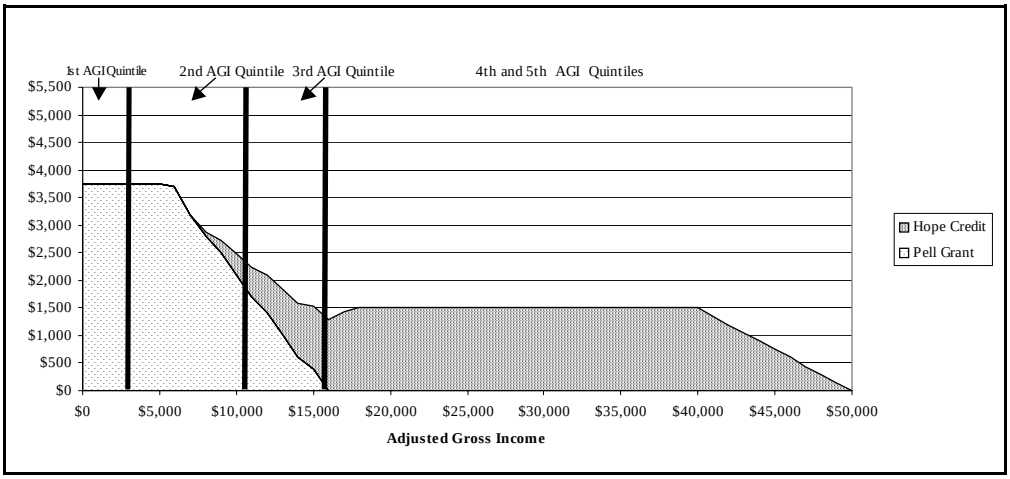


Figure 26. Hope Credit and Pell Grant for 16-24 Year Old Single Independent High School Graduate Enrolling Full-time at a Community College — Refundable Credit

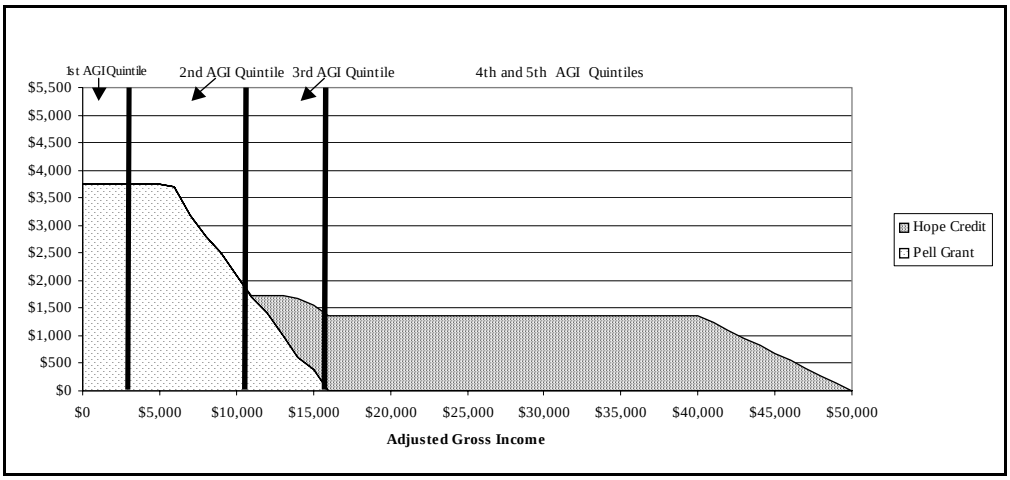
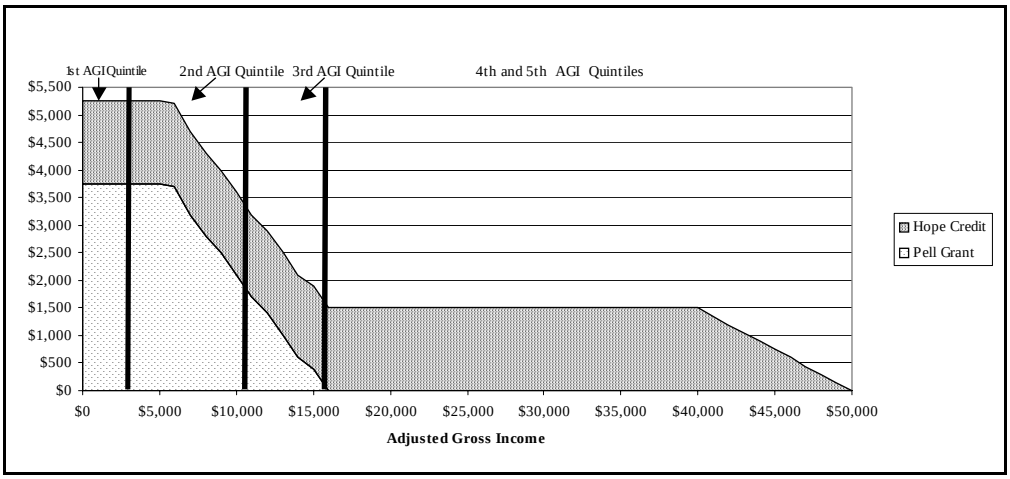


Figure 27. Hope Credit and Pell Grant for 16-24 Year Old Single Independent High School Graduate Enrolling Full-time at a Community College — Refundable Credit and Eligible Costs are the Cost of Attendance



For this student, expanding eligible costs to the full cost of attendance extends the Hope Credit further down the income scale, boosting aid for the upper end of the 2nd AGI quintile (**Figure 25**). At these income levels, there is tax liability that can be used to claim the credit. This change also boosts the maximum credit available (from $1,369 to $1,500 — previously, the reimbursement rule interacted with the low average tuition and fee level at the community college to restrict the maximum Hope Credit). But, the credit does not reach the lowest income levels, where there is no tax liability.

Alternatively, making the credit refundable, while leaving the current cost coverage rule in effect, has a barely perceptible impact on the distribution of aid

because, for the lowest income student, the Pell Grant amount more than covers tuition and fee charges (**Figure 26**). The cost coverage rule (coupled with the grant aid offset) is curbing the amount of remaining tuition and fees for the credit to reimburse.

Only when a refundable Hope Credit is available **and** eligible costs are expanded to the full cost of attendance, can the absolute maximum Hope Credit of $1,500 be claimed throughout the AGI range from $0 to $40,000 (**Figure 27**). This combination of changes extends the Hope Credit all the way down the income spectrum to the lowest-income student, and also slightly boosts the credit that higher income students are eligible to claim.[42]

Finally, we would note that expanding federal aid to low-income students to address access needs might be accomplished, alternatively, through changes to federal grant aid programs, particularly the Pell Grant program. An exploration of such changes is beyond the scope of this report, but they would include such modifications as an increase in the minimum Pell Grant which would more fully focus Pell Grant funding on the poorest students (by reducing higher income students' eligibility for grants).

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[42]The pattern in the distribution of benefits simulated in these figures is similar to what the distribution of benefits would be for this type of student at a 4-year public institution (at the average tuition and fees and costs of attendance at that kind of institution). In contrast, at a 4-year private college with substantially higher tuition and fee charges, making the Hope Credit refundable with no simultaneous change in the cost coverage rule would extend the tax credit benefit down to the lowest income student.

Conclusions

The Hope and Lifetime Learning Credits are now major components of the federal effort to promote access to postsecondary education. Several significant findings emerge from the preceding analysis of the potential distribution of these tax benefits to out-of-school young adults and to federally aided undergraduates.

The Hope Credit provides a substantial benefit to recipients and spreads these benefits relatively broadly. By design, the credit targets the bulk of its benefits to middle- and upper middle-income students. But, it also reaches down the income scale and provides assistance to some low-income students. As a result, the Hope Credit overlaps with the other major source of federal obligation-free aid, the Pell Grants.

In contrast, the Lifetime Learning Credit provides relatively little benefit even to the populations on which it is targeted. With many of the same award rules as the Hope Credit, it directs most of its benefits to middle- and upper middle-income students. But, given the Lifetime Learning Credit's reimbursement rule (20% of qualified expenses with a $1,000 benefit cap), it is worth significantly less than the Hope Credit. Its reimbursement rule also means that a student maximizes his or her Lifetime Learning Credit by attending higher priced institutions.

The advent and growth of the Hope and Lifetime Learning Credits have dramatically shifted the focus of federal obligation-free aid for postsecondary education attendance. Previously, such federal aid was principally need-based aid targeted to the lowest income students. The education tax credits provide their benefits without regard to the traditional federal need analysis system and financial aid packaging procedures on college campuses. As a consequence, federal obligation-free aid is now available, not only to low-income students, but to the broad expanse of middle- and upper middle-income students.

Efforts to change the targeting of the tax credits and their interaction with traditional federal student aid are complicated by the interaction of the various award rules of these financial resources. Single changes to the award rules may benefit only some income groups and not others. In particular, expansion of these tax benefits to the lowest income students attending lower priced institutions appears to depend upon making changes to multiple award rules.

Technical Appendix

This appendix briefly describes some of the important technical features of the estimation models used in this analysis.

Case Simulation Model

The case simulation model used for the analysis of the potential distribution of tax benefits to the out-of-school population consists of two models — a Pell Grant estimation model and a federal income tax model.

Pell Grant Estimation Model. For each case being simulated, the Pell Grant estimation model calculated the appropriate EFC and applied the Pell Grant award rules to determine the size of the Pell Grant for that case at any particular level of AGI.

Certain assumptions were made to facilitate the analysis. As noted earlier, it was assumed that the rule determining the size of the Pell Grant for every case was: maximum appropriated Pell Grant minus EFC. Further, it was assumed for each case that assets did not exceed the appropriate asset-related allowances specified for the EFC calculation. Therefore, no contribution was expected from assets for any case considered here. Assumptions about family size are delineated earlier in the text.

The EFC allowances, assessment rates, and other factors used in the Pell Grant estimation model applied to award year 2001-2002 when the maximum appropriated Pell Grant was $3,750. For that award year, the EFC calculation was based on 2000 calendar year income. The AGI levels considered by the federal income tax model were for 2001 as were the levels depicted in the various figures in this report for the out-of-school population. As a result, the AGI levels used for the EFC calculations were deflated from the 2001 levels, using the change in the annual average CPI-U from 2000 to 2001 of 2.8%.

Federal Income Tax Model. The federal income tax model utilized for this analysis applied 2001 income tax rules to the cases being simulated, maintaining all of the relevant characteristics utilized in estimating the Pell Grant. Further, based on the estimated tax liability for each case, the model determined the level of the Hope or Lifetime Learning Credits. To facilitate these estimates, it was assumed that none of the cases simulated here claimed the foreign tax credit, the credit for child and dependent care, or the credit for care of the elderly or the disabled.

The income tax model calculated the education tax credit using the appropriate qualified tuition and fee expenses. For that calculation, it was necessary to make the analysis specific to a particular academic year. To that end, it was assumed that the student paid for his or her 2001-2002 postsecondary education entirely during calendar year 2001. As a consequence, the estimated Pell Grant, which is also for 2001-2002, can be used in the application of the grant aid offset rule for the education tax credits.

Survey Data Model

Methodology. The estimated Hope and Lifetime Learning Credits available to 1999-2000 Title IV aid recipients shown in this report have been generated though a NPSAS-based tax credit estimation model. This model utilizes comprehensive background information on Title IV recipients which is available in NPSAS (e.g., information on their tax liability, adjusted gross income, tuition and fee levels, enrollment and attendance status) and simulates tax credit benefits available to such students. The estimates generated through this model are based on some assumptions. The primary operating assumptions built into this Hope and Lifetime Learning Credit estimation model are discussed below.

Time Period Assumptions (reconciling differences in benefit year and academic year). The model assumes that the tax credits claimed in the 1999 calendar year tax will be claimed against tuition and fee expenses for the entire 1999-2000 academic year. This is allowable under the benefit as long as payments are made in calender year 1999 (i.e., we are assuming tuition for courses beginning in January is paid in December).

The credits are thus treated as aid received for academic year 1999-2000 tuition expenses and analyzed in relation to the rest of the aid package received in the 1999-2000 academic year. The credits are also analyzed in relation to tuition and fees paid in the 1999-2000 academic year.

Assumptions Related to Tax Liability. Information on tax liability used in the model is taken from the 1998 return as reported by the student or parent on the Free Application for Federal Student Aid (FAFSA) for 1999-2000. These tax liability data have been inflation adjusted to 1999 dollars, and then treated as 1999 tax liability figures in the model.

Additionally, an adjustment was made to address a discrepancy in the tax liability figure provided on FAFSA and the tax liability figure needed to calculate tax credits. Basically, the figure provided on FAFSA can appropriately be thought of as a "final" tax liability figure (i.e, total tax liability after the value of **all** tax credits — even Hope and Lifetime Learning Credits — have been subtracted). Whereas, the tax liability figure needed to determine whether one has sufficient tax liability for Hope and Lifetime calculations is an "almost final" tax liability figure produced after some but not all tax credits are subtracted from one's available tax liability. The effect of using the "final" as opposed to "almost final" tax liability information in an estimation model could be to understate the value of the benefit some students are eligible to receive (i.e., those students with limited tax liability for the credit to offset).

For those cases, deemed through analyses to be adversely affected by the missing information, tax liability values have been restored using information

available elsewhere in the FAFSA. These adjustments have affected the estimated tax credit values of 3.2% of the population studied.[43]

Assumptions Related to Number of Higher Education Credits Claimed. It is possible that a family with more than one postsecondary student may claim more than one higher education tax credit. If their tax liability is sufficient to capture at least some of the value of one credit, but not sufficient to enable the filer to capture the value of multiple credits, essentially the value of each credit to the taxpayer is reduced. We estimate that roughly 2% of the population studied are at risk of having some of the value of their credit "reduced" by the presence of another credit-eligible family member. Tax credit estimates presented in this report make no adjustments for this possible occurrence.

Assumptions Related to Dependency. In this model we assume that individuals who are independent for student aid purposes are independent tax filers, and those who are dependent for student aid purposes are treated as dependents for another filer's (presumably a parent's) tax form. We have no actual information about how closely tax filing dependency status mirrors student aid filing dependency status. Thus, we cannot estimate the extent to which this assumption detracts from the precision of our modeling.

The likely effects of having made inaccurate assumptions about the tax status of some dependent students is that we have probably overestimated their tax credit eligibility (by relying on their parents' tax liability in our estimates as opposed to the students' tax liability). The effect of having made inaccurate assumptions about the tax status of some independent students is that we have probably underestimated their tax credit eligibility (by relying on their own tax liability in our estimates as opposed to their parents' tax liability).

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[43]To address this, we have added the FAFSA Worksheet B values to the FAFSA tax liability figures. FAFSA Worksheet B contains the aggregate value of education (Hope and Lifetime) credits claimed during the 1998 tax year by the tax filer, and this adjustment is done to restore the tax liability levels against which the filer claimed 1998 education credits. The median amount added through this adjustment was $1,022.

It should be noted though that Worksheet B values reported on FAFSA reflect more than just education credit values. They also reflect child support payments being made for a child living outside of one's household, taxable earnings from Federal Work Study or other need-based work-study programs, AmeriCorps awards, and grant aid in excess of tuition and fees. A composite number reflecting all of these values is reported on FAFSA. Because we add this composite value to restore tax liability values, it can be assumed that we have inflated actual liability levels for some parents and students. In such instances, we may exaggerate the tax credit benefit available. We took care in restoring values only for those with sufficient incomes to qualify for credits.