FEDERAL STUDENT AID FORMULA

Cost-of-Living Adjustment Could Increase Aid to a Small Percentage of Students in High-Cost Areas but Could Also Further Complicate Aid Process

August 2009
Contents

Letter 1

Appendix I  Briefing Slides 5

Appendix II  Scope and Methodology 42

Appendix III  Counties Where Students Could See a Change in Financial Aid under Different COLA Options 49

Appendix IV  Summary of Effects of Adding a COLA to the Federal Needs Analysis Formula on Expected Family Contribution Levels and Pell Grant Awards 51

Appendix V  Change in Pell Grant for Example Students in High-Cost and Low-Cost Areas for Each COLA 53

Appendix VI  GAO Contact and Staff Acknowledgments 55

Tables

Table 1: Change in Pell Grants for Full-Time, Dependent Student from a Family of Four with Home Rental Cost COLA 53
Table 2: Change in Pell Grants for Full-Time, Dependent Student from a Family of Four with Regional Price Parities COLA 53
Table 3: Change in Pell Grants for Full-Time, Dependent Student from a Family of Four with Housing Expenditure COLA 53
Table 4: Change in Pell Grant for a Full-Time, Independent Student with No Dependents with Home Rental Cost COLA 54
Table 5: Change in Pell Grant for a Full-Time, Independent Student with No Dependents with Regional Price Parities COLA 54
Table 6: Change in Pell Grant for a Full-Time, Independent Student with No Dependents with Housing Expenditure COLA 54
Abbreviations

BEA    Bureau of Economic Analysis
COLA   cost-of-living adjustment
CPI    Consumer Price Index
Education Department of Education
EFC    expected family contribution
HUD    Department of Housing and Urban Development
IPA    income protection allowance
MSA    Metropolitan Statistical Area

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August 14, 2009

The Honorable Edward M. Kennedy
Chairman
The Honorable Michael B. Enzi
Ranking Member
Committee on Health, Education, Labor, and Pensions
United States Senate

The Honorable George Miller
Chairman
The Honorable John Kline
Ranking Member
Committee on Education and Labor
House of Representatives

In fiscal year 2008, the Department of Education (Education) oversaw the distribution of approximately $96 billion in federal student financial aid, including $14.6 billion in Pell Grants to low- and middle-income students, to help students and their families pay for higher-education expenses. Much of this aid was distributed based on a formula specified in the Higher Education Act, as amended, that is used to identify students who need financial assistance to pay for higher education. To apply for federal financial aid, such as Pell Grants, students submit a Free Application for Federal Student Aid on which they report their own or both their own and their families' income and assets. Students who are financially dependent on their parents or other family members are required to report their own and their family’s income and assets, while those who are financially independent report only their own income and assets (and their spouse’s, if they are married). To determine if a student has financial need, the aid formula compares how much it costs a student to attend a particular college and an estimate of how much the student or student and family can afford to pay toward the cost—called the expected family contribution (EFC). How much a family can afford to contribute to college costs depends on a variety of factors, including the cost of living where a family resides. Some observers have questioned whether the federal aid formula appropriately accounts for geographic cost-of-living differences.
As required by the Higher Education Opportunity Act,¹ we are providing information on options for adjusting the federal student aid formula for geographic cost-of-living differences. Specifically, this report addresses the following questions:

1. How does the current federal financial aid formula affect students in different geographic areas?
2. What options exist for modifying this formula to reflect geographic cost-of-living differences?
3. How would adding a cost-of-living adjustment (COLA) to the formula affect the federal financial aid system, including the distribution of Pell Grants?

On July 6 and 7, 2009, we briefed cognizant congressional staff on the results of this study, and this report formally conveys the information provided during this briefing (see appendix I for the briefing slides). In general, we found that while data suggest that the cost of living is higher in some areas than in others, the current aid formula accounts for these differences in only a limited way. How these differences affect a family’s ability to pay for college is unclear, in part because no official measure of geographic cost-of-living differences exists. We identified three possible COLA options that could be used in the federal aid formula. These COLAs could increase Pell Grants and other financial aid for a small percentage of students from high-cost areas but could also further complicate the process for calculating and administering federal student aid.

We used the following methodology to develop our findings. To understand the financial aid formula, we interviewed Education officials and reviewed relevant federal laws, regulations, and program guidance. To determine how the current formula affects students in different geographic areas and to identify possible COLA options, we interviewed economists and higher education experts; representatives from seven higher education associations; and financial aid officials from 19 postsecondary institutions that represent a mix of 2-year and 4-year public, not-for-profit, and proprietary schools in different geographic areas, including both urban and rural locations. We also reviewed relevant literature and interviewed experts to identify COLAs that could be used in

the federal aid formula and identified three possible options. We applied these three COLA options to an Education dataset of a sample of students who applied for federal financial aid for the 2007-2008 school year to determine their impact on students’ expected family contribution estimates, the impact on students’ Pell Grant amounts, and the number of Pell recipients that could see a change in their Pell Grants. While we discuss generally how changes in the expected family contribution can affect other sources of financial aid, our detailed analyses focus on the distribution of Pell Grants and the impact on Pell Grant spending. To assess the reliability of Education’s dataset, we interviewed agency officials knowledgeable about the data and reviewed relevant documentation. We determined that the data were sufficiently reliable for the purposes of this report. For additional information on our scope and methodology, see appendix II.

We conducted our work from December 2008 to August 2009 in accordance with all sections of GAO’s Quality Assurance Framework that are relevant to our objectives. The framework requires that we plan and perform the engagement to obtain sufficient and appropriate evidence to meet our stated objectives and to discuss any limitations in our work. We believe that the information and data obtained, and the analysis conducted, provide a reasonable basis for any findings.

We provided a draft copy of this report to Education for review and comment. Education did not provide formal comments on this report, but did provide some technical comments that we incorporated as appropriate.

We are sending copies of this report to relevant congressional committees, the Secretary of Education, and other interested parties. In addition, this report will be available at no charge on GAO’s Web site at http://www.gao.gov.

If you or your staffs have any questions about this report, please contact me at (202) 512-7215 or scottg@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix VI.

George A. Scott
Director, Education, Workforce, and Income Security Issues
Federal Student Aid Formula:
Cost-of-Living Adjustment Could Increase Aid
to a Small Percentage of Students in High-
Cost Areas but Could Also Further Complicate
Aid Process

Briefings to Congressional Staff
July 6 & 7, 2009
Overview

- Introduction
- Research Objectives
- Scope and Methodology
- Summary of Findings
- Background
- Findings
Appendix I: Briefing Slides

Introduction

Federal Aid Formula Estimates a Family’s Financial Need but May Not Account for Geographic Cost-of-Living Differences

- In FY 2008, an estimated $96 billion in federal financial aid was distributed to almost 11 million students for postsecondary education, including $14.6 billion in Pell Grants to low- and middle-income students who need help to pay for college.

- The federal formula used to determine how much financial assistance a family needs to pay for college is based on a variety of financial factors. Some observers have questioned whether the formula appropriately accounts for geographic cost-of-living differences—that is, the amount of money needed to buy a set of goods and services for a given standard of living.

- Some federal programs factor in geographic differences in cost-of-living, such as Medicare payments to physicians and basic housing allowances for military personnel.
Research Objectives

1. How does the current federal financial aid formula affect students in different geographic areas?

2. What options exist for modifying this formula to reflect geographic cost-of-living differences?

3. How would adding a cost-of-living adjustment (COLA) to the formula affect the federal financial aid system, including the distribution of Pell Grants?
Scope and Methodology

• To address our objectives, we:
  • reviewed relevant federal laws, regulations, and program guidance;
  • reviewed relevant literature and interviewed experts to identify possible geographic COLAs that could be applied to the federal aid formula and applied three COLAs* to a sample of financial aid applications from the 2007-2008 school year to determine their impact on students’ expected family contributions, the distribution of Pell Grants, and the Pell Grant budget; and
  • interviewed Education officials; economists and higher education experts; representatives from 7 higher education associations; and financial aid officials from 19 schools. We selected these schools to represent a balance of 2-year and 4-year public, not-for-profit, and proprietary institutions in both urban and rural locations.

*We reviewed other potential adjusters but determined they were not appropriate for our purposes. See appendix II for more information.
A Cost-of-Living Adjustment Could Increase Aid to a Small Percentage of Students in High-Cost Areas but Could Add Some Complexity to Aid Process

- The federal aid formula accounts for a small degree of geographic cost-of-living differences, but it is unclear how geographic cost-of-living differences not accounted for in the formula affect a family’s ability to pay for college.

- While no official measure of overall geographic cost-of-living differences exists, we have identified 3 possible COLA options that could be used in the aid formula. These COLAs have varying geographic scopes, impacts, strengths, and limitations.

- The COLAs we identified could increase Pell Grants and other aid to a small percentage of students from high-cost areas, but could also further complicate the calculation and administration of aid.
Students Are Eligible for Federal Need Based Aid if the Cost of Attending a School Is More Than a Family’s Expected Contribution (EFC)

- EFC is a rough approximation of the financial resources a family has available to help pay for a student’s postsecondary education expenses.
- If a school costs $10,000 to attend and a student has an expected family contribution of $4,000, the student is eligible for up to $6,000 of aid.*

Determining a Student’s Financial Need

*This example applies to financial aid for which a student must demonstrate financial need according to the federal student aid formula, including certain grants and certain loans that are subsidized by the federal government while the student is in school.
### Background: Expected Family Contribution

#### Expected Family Contribution Varies by Family Size and Composition

- Students are classified as either financially dependent on their parents or independent in the financial aid process.
  - EFC for **dependent** students is based on both the student’s and the parents’ income and assets.
  - EFC for **independent** students is based on the student’s (and if married, spouse’s) income and assets.*

- EFC formula varies based on factors such as:
  - family size
  - whether the family has other members in college
  - whether an independent student has children or other dependents (other than a spouse)

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*An independent student is generally one of the following: at least 24 years old, is married, is a graduate student, has a legal dependent other than a spouse, is a veteran or in active military service, or is an orphan or ward of the court (or was a ward of the court until age 18).
Background: Expected Family Contribution

Expected Family Contribution Accounts for Certain Allowances and Expenses

- To estimate the expected family contribution:
  - a family reports its income and assets
  - certain allowances and expenses are then subtracted to account for income the family needs for other purposes, such as taxes, food, and housing.
  - a certain percentage of the remaining available income is the amount that the family is expected to contribute to college expenses.*

<table>
<thead>
<tr>
<th>Income and Assets</th>
<th>Allowances and Expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Salary</td>
<td>• Federal income tax paid</td>
</tr>
<tr>
<td>• Savings</td>
<td>• State and other tax allowances</td>
</tr>
<tr>
<td>• Investments</td>
<td>• Employment expense allowance</td>
</tr>
<tr>
<td>• Net worth of business/farm</td>
<td>• Income protection allowance (to protect the income needed to pay for a family’s basic living expenses)</td>
</tr>
</tbody>
</table>

*The percentage varies based on income level.
Appendix I: Briefing Slides

Background: Federal Aid Programs

Federal Formula Is Used to Determine Eligibility for Several Aid Programs

- **Pell Grants**: For low- and middle-income undergraduates who have financial need.* The maximum allowable Pell Grant is $5,350 for the 2009-2010 school year.

- **Stafford Loans**: For undergraduate and graduate students and subject to maximum loan limits.
  - **Subsidized**: Students with financial need are eligible and the federal government pays the interest while student is in school.
  - **Unsubsidized**: Students do not have to have financial need, but are responsible for paying all interest costs.

- **PLUS Loans**: For graduate students and parents of dependent undergraduates.

- **Campus-Based Aid**: Participating schools receive separate funds for 3 programs for students with financial need: Perkins Loans, Supplemental Educational Opportunity Grants, and the Federal Work Study Program.

*Students in certain post-baccalaureate teacher preparation programs may also qualify for a Pell Grant.*
Many Schools Use Federal Formula to Distribute Institutional Aid

- Students can receive aid from nonfederal sources, including state grants and institutional aid from schools.
- Schools must use the federal aid formula to award federal aid, but many also use the federal formula to award institutional aid.
- Some schools use alternative formulas to distribute institutional aid.
  - The College Board offers an alternative formula, which includes an optional geographic cost-of-living adjustment.
Background: Student Aid Award Totals

Students Received Over $100 Billion in Federal and Other Aid in 2007-2008

2007-2008 Selected Federal Aid Programs*

- Pell Grants: $14.6 billion
- Stafford and PLUS Loans: $74.7 billion
- Campus-Based Programs: $3.3 billion


2007-2008 Nonfederal Aid Programs

- Institutional Grants: $22.8 billion
- State Grants: $7.8 billion
- Other Grants: $7.5 billion

Source: Multiple data sources collected by the College Board, Trends in Student Aid, 2008.

*Federal law also provides several postsecondary tax credits and tax deductions to help families pay for college.

**Students included in the “any aid” and “any federal aid” columns may be receiving federal aid from more than one source.
Appendix I: Briefing Slides

Finding 1: Current Formula--Overview

It is Unclear How Geographic Cost-of-Living Differences That Are Not Accounted for in the Current Federal Aid Formula Affect Families’ Ability to Pay for College

- The federal financial aid formula accounts for a small degree of geographic cost-of-living differences.
- Differences in cost-of-living could affect available financial resources.
- Financial aid representatives had mixed views on the need for a cost-of-living adjustment.
Finding 1: Current Formula

The Federal Aid Formula Accounts for a Small Degree of Geographic Differences in Costs

- **State and Other Tax Allowance** in the formula accounts for geographic differences in state and other tax liabilities.
  - This allowance is set at a specific rate for each state and generally ranges from 1 to 9 percent of total income.*

- **Cost of Attendance** is calculated by each institution using elements set forth in federal law and includes room and board; it can therefore reflect geographic differences in students’ living expenses.
  - Students attending schools with a high cost of attendance may be eligible for additional financial aid.

- Federal aid formula does not adjust for general cost-of-living differences when estimating families’ available resources to pay for school.

Appendix I: Briefing Slides

Finding 1: Current Formula

Geographic Cost-of-Living Differences May Exist, but It Is Unclear How Much They Vary

- It is generally accepted that there are variations in the cost of living in different geographic areas. Some locations are more expensive to live in than others.
  - However, it is difficult to separate cost-of-living from other factors like local income, housing quality, and local amenities that also drive up prices.

- It is unclear how much the total cost of living varies across the country, but studies have found significant variations in housing costs.
  - For example, median rent for a standard two bedroom apartment in San Francisco, CA is 2.5 times as expensive as in Cheyenne, WY ($1,679 vs. $671 per month), according to data from the Department of Housing and Urban Development (HUD).
Appendix I: Briefing Slides

Finding 1: Current Formula

Differences in Cost of Living Could Affect Available Financial Resources

- Cost-of-living differences could impact families’ available financial resources to pay for higher education.
- Similarly situated students with permanent addresses in San Francisco, CA and Cheyenne, WY would receive the same Pell Grant award despite potential differences in the cost of living.

<table>
<thead>
<tr>
<th>Example of the Impact of Cost-of-Living Differences on Available Resources</th>
<th>San Francisco CA</th>
<th>Cheyenne WY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total family income after taxes</td>
<td>$35,000</td>
<td>$35,000</td>
</tr>
<tr>
<td>Annual rent cost based on HUD’s median rent data for standard two bedroom apartment</td>
<td>-$20,148</td>
<td>-$8,052</td>
</tr>
<tr>
<td>Available resources for other expenses including education</td>
<td>$14,852</td>
<td>$26,948</td>
</tr>
<tr>
<td>Estimated Pell Grant 2007-2008 school year, family of four, one child in college</td>
<td>$2,360</td>
<td>$2,360</td>
</tr>
</tbody>
</table>
Traditional Criticisms of Cost-of-Living Differences Are Not Generally Applicable to the Financial Aid Population

<table>
<thead>
<tr>
<th>Criticism</th>
<th>Counterargument</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differences in cost of living are offset by income differences. For example, salaries are generally higher in high-cost areas.</td>
<td>The federal aid formula already accounts for income but not cost of living.</td>
</tr>
<tr>
<td>High-cost areas are more expensive because they may have more amenities than low-cost areas, such as: • proximity to recreational activities and entertainment • larger houses</td>
<td>Job location and family ties can make it costly for some people, particularly low-income families, to move out of a high-cost area.*</td>
</tr>
</tbody>
</table>

Financial Aid Officials and Higher Education Experts Had Mixed Views on Need for a COLA

- Several officials believe the current formula disadvantages families in high-cost areas because they have fewer available financial resources than the formula suggests.

- Other officials and experts were concerned that adding a COLA might not improve the formula or might shift the focus of financial aid away from low-income families.

- However, most other officials and experts did not have strong opinions, noting that a COLA might improve the formula depending on how it was implemented.
Appendix I: Briefing Slides

Finding 2: COLA Options- Overview

Several Options Exist for Adjusting for Cost-of-Living Differences, but They Vary in Scope, Impact, Strengths, and Limitations

- Measuring cost-of-living differences is difficult.

- We identified three potential cost-of-living adjustments with different scopes and impacts on aid eligibility.

- Different strategies for implementing a COLA have implications for students from low-cost areas and for Pell spending.
Appendix I: Briefing Slides

Finding 2: COLA Options

Measuring Cost-of-Living Differences Is Difficult

- There are no official federal measures of overall geographic cost-of-living differences*
  - Existing measures track changes in prices over time rather than differences in prices across the country.
- A 1995 GAO report identified 12 methodologies that, in some part, could contribute to the development of a cost-of-living index, but identified problems with each methodology.**
- Common problems associated with measuring cost-of-living differences are:
  - Challenges developing a common market basket of goods
  - Difficulties accounting for area characteristics
  - Data limitations
  - Difficulties defining an appropriate geographic area
    - Cost of living can vary among and within regions, cities, and counties.

*Federal programs that currently adjust for cost-of-living differences use measures focusing on special populations (e.g., military personnel) or specific costs (e.g., medical practice costs).

### Finding 2: COLA Options

We Identified Three Potential Cost-of-Living Adjustment Options with Different Scopes and Impacts on Aid Eligibility

<table>
<thead>
<tr>
<th>Cost-of-Living Adjustment Options</th>
<th>Home Rental Cost</th>
<th>Regional Price Parities</th>
<th>Housing Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Source</strong></td>
<td>Department of Housing and Urban Development data</td>
<td>Multiple data sources including the Consumer Price Index and American Community Survey</td>
<td>Consumer Expenditure Survey</td>
</tr>
<tr>
<td><strong>Design</strong></td>
<td>Developed by GAO based on proposals by the National Academy of Sciences and the University of California</td>
<td>Preliminary methodology developed by the Bureau of Economic Analysis</td>
<td>Developed by the College Board and currently used by a number of colleges to calculate institutional aid</td>
</tr>
<tr>
<td><strong>Unit of measure</strong></td>
<td>Median rental costs for standard two-bedroom apartments</td>
<td>Prices for a broad basket of 211 consumer goods ranging from housing (owned and rented) to haircuts</td>
<td>Average annual expenditures on housing (owned and rented) and utilities</td>
</tr>
<tr>
<td><strong>Scope</strong></td>
<td>Every county in the U.S.</td>
<td>All 363 metropolitan areas and aggregate amounts for each state’s non-metro areas</td>
<td>28 major metropolitan areas</td>
</tr>
</tbody>
</table>

*Note: Additional information about the data sources for these COLAs can be found in appendix II.*
### Finding 2: COLA Options

**Potential Cost-of-Living Adjustment Options Have Various Strengths and Limitations**

<table>
<thead>
<tr>
<th>Cost-of-Living Adjustment Options</th>
<th>Home Rental Cost</th>
<th>Regional Price Parities</th>
<th>Housing Expenditure</th>
</tr>
</thead>
</table>
| **Strengths**                     | • Available for every county in the U.S.  
  • Widely used to calculate housing expenses | • Accounts for more than just differences in housing costs | • Currently used by some colleges to adjust for cost-of-living differences in the College Board’s institutional aid formula |
| **Limitations**                   | • Only captures recent movers rather than the entire rental housing stock  
  • Only measures rental housing costs | • Experimental methodology has not been fully vetted  
  • Provides same values for all non-metro areas within a state | • Only available for a small number of metropolitan areas  
  • Only measures housing costs  
  • Cannot be used to reduce aid in low-cost areas |
COLA Could Be Based on Students’ Permanent Residence

- Students’ ZIP codes could be matched to the COLA for their county of permanent residence
  - Dependent students would use ZIP codes where their parents live
  - Independent students would use the ZIP codes of their permanent address

## Impact of COLA on Aid Eligibility Based on Students’ Permanent Residence

<table>
<thead>
<tr>
<th>Permanent Residence</th>
<th>Expected Family Contribution (EFC)</th>
<th>Pell Grant Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>High cost-of-living county</td>
<td>Decreases or no change</td>
<td>Increases or no change</td>
</tr>
<tr>
<td>Low cost-of-living county</td>
<td>Increases or no change</td>
<td>Decreases or no change</td>
</tr>
</tbody>
</table>
Implementing a COLA for Independent Students Would Likely Not Be a Significant Problem

- According to aid officials, independent students generally change their permanent residence when moving to a new location; however, the aid formula would use the location reported on the federal aid application.
  - If an independent student moved from Wyoming to California, the COLA for the first year would be based on the Wyoming address.
  - The COLA for subsequent years, however, would be based on the new California address.

- Financial aid officials generally did not view this as a significant obstacle to implementing a COLA because:
  - Officials told us that relatively few independent students move to attend school.*
  - Aid officials can use professional judgment to adjust a student’s EFC based on special circumstances.
  - Some students will benefit from a COLA in their first year if they move from a high-cost area to a low-cost area.

*Data from the 2007-2008 National Postsecondary Student Aid Study suggest that few independent students move to attend school. For example, only 10.5 percent attended an out-of-state institution.
Finding 2: Implementing a COLA

Different Strategies for Implementing a COLA Have Implications for Students From Low-Cost Areas and for Pell Spending

- A COLA could be implemented using three different strategies:
  - **Hold harmless:** COLA is only used in high-cost areas where it will increase student aid. Students from low-cost areas are held harmless from adjustments. This option would increase Pell spending.
  - **Across the board:** COLA is used to increase aid for students in high-cost areas and decrease aid for students in low-cost areas. For Pell spending, increases in aid are offset by reductions in aid.
  - **Phased in:** Current aid recipients are held harmless from any reductions while the COLA is applied across the board to new applicants.* This approach would increase Pell spending in the short term, but the long-term costs would be lower.

*Education officials said it would be administratively challenging to operate different aid formulas for current recipients and new applicants.
Each COLA would increase aid to applicants in a small number of counties in high-cost areas.

COLAs would not greatly increase overall Pell spending because many Pell recipients already receive the maximum Pell Grant or do not live in a high-cost area.

Pell recipients with relatively higher incomes could receive the greatest benefit from adding a COLA.

Adding a COLA could be inconsistent with other efforts to simplify the financial aid process.
Each COLA Would Increase Aid to Applicants in a Small Number of Counties in High-Cost Areas

- All three COLAs largely identify similar metropolitan counties as high-cost areas.
- Each COLA would increase aid to some students who come from a small number of densely populated counties.

**Number of Counties and Population in High-Cost Areas for Each COLA**

<table>
<thead>
<tr>
<th>COLA</th>
<th>Number of High-Cost Counties</th>
<th>Population in High-Cost Counties</th>
<th>Number of Low-Cost Counties</th>
<th>Population in Low-Cost Counties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Rental Cost</td>
<td>263</td>
<td>111 million</td>
<td>2,861</td>
<td>163 million</td>
</tr>
<tr>
<td>Regional Price Parities</td>
<td>206</td>
<td>109 million</td>
<td>2,905</td>
<td>164 million</td>
</tr>
<tr>
<td>Housing Expenditure</td>
<td>208</td>
<td>106 million</td>
<td>N/A*</td>
<td>N/A*</td>
</tr>
</tbody>
</table>

*The Housing Expenditure COLA only identifies high-cost counties.

Finding 3: COLA Impact on Counties

COLAs Could Increase Aid to Students from California, the Northeast, and a Few Other Areas Around the Country

Counties Where Students’ Aid Could Increase or Decrease with Home Rental Cost COLA*

Cost of living in different U.S. counties
- Low-cost county (aid decreases)
- High-cost county (aid increase)
- Very high-cost county (greatest aid increase)

Source: GAO analysis of HUD 50th Percentile Rent data.
*Very high-cost areas are more than 15 percent more expensive than the median.

*Blank counties are neither high cost nor low cost. Low-cost counties would not lose aid if COLA were implemented “hold harmless.” Other COLAs affect similar areas (see appendix III).
Finding 3: COLA Impact on Students

Many Students Have No Expected Family Contribution under the Current Formula and Would Not Benefit From a COLA

Estimated Percentages and Total Number of Students with No Expected Family Contribution for 2007-2008 School Year

Applicants for Federal Aid
- 66% of 8.2 million students (mean EFC is about 11,500)
- 34% of 4.2 million students

Pell Recipients
- 43% of 2.4 million students (mean EFC is about 1,700)
- 57% of 3.1 million students

Source: GAO analysis of Department of Education data.

Students in this group have low incomes and assets and an expected family contribution of zero, which means that a COLA cannot reduce the EFC any further. Graduate students are included and are generally not eligible for Pell Grants.
Finding 3: COLA Impact on Aid

About 17 Percent of Federal Financial Aid Applicants Could Receive More Aid because They Are From High-Cost Areas

- The COLAs would lower the expected family contribution for students who are from high-cost areas and for whom the federal aid formula indicates an expected contribution.*

- For these students, a lower expected family contribution might result in increased Pell Grants, Stafford Loans, or increased institutional aid if their college uses the federal formula.

- For example, a student with a reduced expected family contribution might be eligible for additional amounts of subsidized and/or unsubsidized Stafford loans, unless
  - the student has already borrowed the maximum allowed
  - the student is offered sufficient additional aid from other sources to reduce his/her eligibility for a Stafford loan.

*For students with no expected family contribution, the COLA could not reduce the expected family contribution any further and the student would not be eligible for any additional aid.
Finding 3: COLA Impact on Aid

About 37 Percent of Federal Financial Aid Applicants Could Receive Less Aid because They Are from Low-Cost Areas

- The Home Rental Cost or Regional Price Parities COLAs would increase the expected family contributions and potentially decrease aid for students who are from low-cost areas—if implemented “across the board.”

- For these students, a higher expected family contribution could possibly result in decreased Pell Grants, Stafford Loans, or decreased institutional aid if their college uses the federal formula.

- However, if the COLAs were implemented with a “hold harmless” provision, then these students would see no change in their aid.
Appendix I: Briefing Slides

Finding 3: COLA Impact on Pell Spending

COLAs Would Not Greatly Increase Pell Spending because Many Pell Recipients Already Receive the Maximum Pell Grant or Do Not Live in a High-Cost Area

- The Home Rental Cost and Regional Price Parities COLAs would reduce overall Pell expenditures (if implemented across the board) because more students would see a reduction in aid than an increase.

Estimated Pell Spending under Different COLA Scenarios, 2007-2008 Grant Year (in millions of dollars)

<table>
<thead>
<tr>
<th>COLA Option</th>
<th>Pell Spending (across the board)</th>
<th>Pell Spending (hold harmless)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No COLA</td>
<td>$14,685</td>
<td>$14,685</td>
</tr>
<tr>
<td>Home Rental Cost</td>
<td>$14,465</td>
<td>$14,844</td>
</tr>
<tr>
<td>Regional Price Parities</td>
<td>$14,289</td>
<td>$14,928</td>
</tr>
<tr>
<td>Housing Expenditure</td>
<td>N/A*</td>
<td>$14,797</td>
</tr>
</tbody>
</table>

Source: GAO analysis of Department of Education data, Bureau of Economic Analysis data, HUD 50th Percentile Rent data and College Board data.

*Housing Expenditure COLA is only calculated for a small percentage of U.S. counties and can not be implemented across the board.
Appendix I: Briefing Slides

Finding 3: COLA Impact on Pell Grants

The Proposed COLAs Would Increase Pell Grants for About 10 Percent of Pell Recipients

Estimated Percentages and Total Number of Pell Recipients with Changes in Their Pell Grants for Each COLA*

<table>
<thead>
<tr>
<th>HOUSING EXPENSE</th>
<th>DECREASE</th>
<th>INCREASE</th>
<th>NO CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Rental Cost (numbers in millions)</td>
<td>3.8 (69%)</td>
<td>0.5 (9%)</td>
<td>1.2 (22%)</td>
</tr>
<tr>
<td>Regional Price Parities (numbers in millions)</td>
<td>3.7 (69%)</td>
<td>0.5 (9%)</td>
<td>1.2 (22%)</td>
</tr>
<tr>
<td>Housing Expenditure (numbers in millions)</td>
<td>5 (90%)</td>
<td>0.6 (10%)</td>
<td></td>
</tr>
</tbody>
</table>

*The percentage of students with increased grants in each figure includes about 1 to 2 percent of students newly eligible for a Pell Grant.

Source: GAO analysis of Department of Education data, Bureau of Economic Analysis data, HUD 50th Percentile Rent data and College Board data.

Notes: Figures reflect across-the-board COLA implementation. Students would see no decrease in aid if the COLA were implemented as hold harmless instead of across the board. Students with no change in Pell Grant already receive the maximum grant, do not live in a high-cost or low-cost area, or live in a United States territory.

*See appendix IV for additional information.
Finding 3: COLA Impact on Pell Grants

Pell Recipients with Relatively Higher Incomes Could Receive the Largest Grant Increases

- Lower income students already receive the maximum—or nearly the maximum—Pell Grant and would receive either no grant increase or only a small increase.
  - A family in San Francisco earning $31,000 would see their Pell Grant increase slightly from $4,160 to $4,310 with any COLA.

- Students from high-cost areas with relatively higher incomes would receive large Pell grant increases.
  - A family in San Francisco earning $51,000 could see their Pell grant increase from $860 to $3,060 with the Home Rental Cost COLA.
  - This $2,200 increase is more than 6 times the average increase of $318 (for those with an increase) with the Home Rental Cost COLA.
### Appendix I: Briefing Slides

#### Finding 3: COLA Impact on Pell Grants

**Pell Recipients with Relatively Higher Incomes Could Receive the Largest Grant Increases (continued)**

Estimated Change in Pell Grant for Family of Four with One Child and One Other Dependent in College with Home Rental Cost COLA (Implemented Across the Board)

<table>
<thead>
<tr>
<th>Family Income</th>
<th>San Francisco, CA</th>
<th>Boston, MA</th>
<th>Cheyenne, WY</th>
</tr>
</thead>
<tbody>
<tr>
<td>$31,000</td>
<td>+$150</td>
<td>+$150</td>
<td>-$500</td>
</tr>
<tr>
<td>$41,000</td>
<td>+$1850</td>
<td>+$1500</td>
<td>-$600</td>
</tr>
<tr>
<td>$51,000</td>
<td>+$2200</td>
<td>+$1500</td>
<td>$0&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

<sup>a</sup>Student would be ineligible for Pell Grant with or without a COLA.

Source: GAO analysis of Federal Needs Analysis formula, HUD 50th Percentile Rent data

- Other COLAs show similar trends, although on average for students with expected increases in grants:
  - Pell increases are greater with the Regional Price Parities COLA
  - Pell increases are lower with the Housing Expenditure COLA.<sup>*</sup>

<sup>*</sup>See appendix V for additional examples.
Appendix I: Briefing Slides

Finding 3: COLA Impact on Aid System

**COLA Could Be Inconsistent with Broader Federal Efforts to Simplify the Aid Process**

- Many financial aid professionals and economists recommend that the current aid formula and overall application process be simplified. Education has also published a proposal to simplify the aid formula and application.*

- Several aid officials and experts were concerned that a COLA would complicate the aid formula and process.
  - Formula would be more difficult to explain to families.
  - Formula would be more complex for aid professionals to administer.
  - Guidance on how to deal with address changes and verification of addresses would be needed.

- Any COLA would also have to be updated on a regular basis.

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*In addition, GAO recently convened a study group, as mandated by the Higher Education Opportunity Act, to examine options and implications in simplifying the financial aid process, with a report on the group’s results expected in October 2009.*
Some Officials Thought Other Problems with Formula Should Be Addressed before Adding a COLA

- Several financial aid officials and experts described the federal formula as imperfect and not an accurate measure of a family’s ability to pay for college expenses.
- Several aid officials commented either that
  - a COLA should be considered as part of a more comprehensive review of the formula or
  - improving other sections of the formula should be a higher priority.
- Some noted that increasing the income protection allowance in the expected family contribution formula for all families would improve the formula more than adding a COLA to this allowance.
  - Several officials and experts described the income protection allowance as unrealistic because it is based on old data that have been updated for inflation, but do not reflect changes in family spending patterns.
Appendix II: Scope and Methodology

To address our objectives, we reviewed relevant federal laws, regulations, and guidance; identified three potential cost-of-living adjustments (COLA); and analyzed Education’s sample file of 2007-2008 financial aid applicants to estimate the impact of potential COLAs. Our analyses focused mainly on the impact of COLAs on Pell Grants because they are Education’s primary need-based grants. We also interviewed financial aid experts and economists.

We conducted our work from December 2008 to August 2009 in accordance with all sections of GAO’s Quality Assurance Framework that are relevant to our objectives. The framework requires that we plan and perform the engagement to obtain sufficient and appropriate evidence to meet our stated objectives and to discuss any limitations in our work. We believe that the information and data obtained, and the analysis conducted, provide a reasonable basis for any findings.

To research possible COLAs that could be applied to the federal student aid formula, we reviewed relevant literature and interviewed several financial aid experts and economists. We found a limited number of available options that could be used in the student aid formula. For example, we considered the Basic Allowance for Housing that the Department of Defense uses, but we determined that this COLA was not appropriate for the financial aid formula because it adjusts for different income levels in addition to cost-of-living differences. We ultimately identified three possible COLA options—Home Rental Cost, Regional Price Parities, and Housing Expenditure COLAs—that could be used to adjust the federal aid formula for geographic cost-of-living differences. These three COLAs were the best options we identified during our research, although it is possible that other options could be developed. Below is a description of how we implemented these three COLAs, but we recognize that they could be implemented in alternative ways.

We standardized our COLAs on a county level, which allowed us to compare the effects of different COLAs and to simulate the effect of adding a COLA. However, each of these COLAs was originally calculated based on geographic areas of varying sizes, most often Metropolitan Statistical Areas, which often encompass multiple counties. For each county, we assigned the COLA that applied to the area in which the county is located. We did not include U.S. territories in any COLA because they were only available for the Home Rental Cost COLA.

**Home Rental Cost COLA**

The Home Rental Cost COLA was generated by GAO using data from the Department of Housing and Urban Development’s (HUD) 50th Percentile Rent database. HUD estimates 50th Percentile Rents annually for different areas in the United States. These 50th Percentile Rents are the estimated median price of a two-bedroom apartment in different areas across the United States. HUD calculates the 50th Percentile Rent by using the decennial Census to provide base-year information on rents. It then updates this baseline number each year using random-digit-dialing telephone surveys, consumer price index information in areas where available, and the American Community Surveys. HUD publishes 50th percentile rent estimates for all U.S. counties or county subareas. HUD 50th Percentile Rent areas are often Metropolitan Statistical Areas.

GAO used the following process to convert HUD 50th Percentile Rent data to a COLA. First, a housing cost index was created from the 50th

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2 HUD estimates the 50th Percentile Rent from the same dataset they use to develop Fair Market Rents. Fair Market Rents are primarily used to determine standard payment amounts for the Housing Choice Voucher program. The Fair Market Rent covers the same 530 metropolitan areas and 2,045 nonmetropolitan county areas as the 50th Percentile Rent.

3 We used the two-bedroom rent because HUD generates the two-bedroom rent first and then adjusts it to apply to housing units of other sizes. Therefore, if other apartment sizes such as three bedrooms were used, the end result would be a very similar index.

4 We used 2006 Census definitions of counties and county equivalents as the unit of analysis for the Home Rental Cost COLA, as well as the other two COLAs. However, a few situations where HUD 50th Percentile Rent Areas did not match the Census file were treated as follows: (1) HUD provides a 50th Percentile Rent for Columbia City, Md., and Sullivan City, Mo. Neither of these areas is a Census county or county equivalent, so we dropped them from the dataset and used the 50th Percentile Rent for the county in which these areas are located; and (2) HUD provides a 50th Percentile Rent for Clifton Forge City, Va., which is not a Census county or county equivalent. However, its 50th Percentile Rent is the same as Alleghany County, Va., in which the city is located, so dropping Clifton Forge City did not change the Home Rental Cost COLA.
Appendix II: Scope and Methodology

Percentile Rent data using the median cost of a two-bedroom rental unit. A weighted national average rental amount was computed based on the county population estimates from the 2000 Census. Then, the local area’s average rental amount was divided by the national average to create the housing cost index. We used a 3-year average of HUD 50th Percentile Rent data (2005 through 2007) to create the housing cost index. Using the 3-year average helps mitigate the fact that 50th Percentile Rent data reflect data only on people who have moved in the last 15 months, which can result in significant year-to-year fluctuations in some areas because such data only consider the rental market at that time.

To account for the fact that the 50th Percentile Rent data only captured housing costs, we weighted the COLA so that it applied only to the housing portion of the income protection allowance. The Home Rental Cost COLA is calculated as a sum of 42 percent of our housing cost index and a constant of 58 percent. The 42 percent weight reflects housing as a component of overall consumption. The 58 percent is the remaining weight that is applied for the other nonhousing components of consumption since this COLA only captures housing costs.

Regional Price Parities COLA

The experimental Regional Price Parities COLA was developed by the Bureau of Economic Analysis (BEA) and provides estimated differences in the cost of living for a broad market basket of goods, including housing, transportation and food. BEA analyzed data from several data sources, including the Consumer Price Index, the Census, and the American Community Survey, to estimate a COLA for 363 Metropolitan Statistical Areas and another COLA for each state that is applied to all counties in the

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5 All GAO analysis is at the county level. However, HUD divides some counties, mostly in New England, into component areas. In these cases, each county’s rent was first computed by generating a population-weighted average rent for each county, based on its components, by each year.


7 For example, if the housing index were 2.00, the Home Rental Cost COLA would be calculated as 2.00 times .42 (the housing weight) added to .58 (the remaining, unadjusted part of the COLA), which would give a COLA of 1.42.
state that are not part of a Metropolitan Statistical Area. We used the Regional Price Parities COLAs for the counties in the Metropolitan Statistical Areas (which include over 1,000 counties of the 3,141 U.S. counties and county equivalents in the U.S.) and a state level COLA for all the nonmetropolitan counties in a state. Because the other two COLAs included multiyear averages, we averaged the Regional Price Parities from 2005 and 2006—the most recent 2 years for which the Regional Price Parities have been computed. Unlike the Home Rental Cost COLA, the Regional Price Parities can be applied directly to the income protection allowance because it represents a broad market basket of goods.

### Housing Expenditure COLA

The Housing Expenditure COLA was developed by the College Board for schools that use the College Board's Institutional Methodology to award institutional student aid. According to College Board officials, about 270 schools use the Institutional Methodology and have the option to use the Housing Expenditure-based COLA to adjust aid levels for geographic differences in the cost of living. The COLA reflects a 3-year average of the differences in housing expenditures (for all renters and homeowners) collected by the Bureau of Labor Statistics for 28 Metropolitan Statistical Areas using the Consumer Expenditure Survey. Similar to GAO’s treatment of the Home Rental Cost COLA, the College Board weights the Housing Expenditure COLA to only reflect housing as one component of overall consumption. We used the COLAs provided directly by the College Board, which do not provide the option for downward adjustments to low-cost areas.

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9BEA continues to explore additional methods to estimate regional price parities for individual nonmetropolitan areas but has not published any specific measures. GAO used only Regional Price Parities that BEA has published.

10Some of the counties in the 28 Metropolitan Statistical Areas may have a cost of living below the national average. However, over 2,000 counties have no assigned cost of living. Therefore, if the COLA were designed to be implemented across the board, it would only reduce aid for students in a few lower-cost cities, while holding students from the rest of the country harmless.
Appendix II: Scope and Methodology

Estimating the Impact of Potential Cost-of-Living Adjustments

To estimate the impact of potential cost-of-living adjustments, we multiplied the COLA value for each county by the families’ income protection allowance (IPA) in the formula. We used the COLAs to adjust the parents’ IPA for dependent students and the students’ IPA for independent students. While the aid formula could be adjusted for regional variation in the cost of living in different ways, the law mandating this study specifically requested that GAO apply a COLA to the IPA. The IPA is an allowance, adjusted over time for inflation, that represents the income needed to pay for a family’s basic living expenses. The IPA varies by family size and the number of family members pursuing a higher education. When the IPA is increased, a family is expected to contribute less of their income to higher education expenses and the family’s expected family contribution could be reduced, which could result in an increase in federal student aid. The values of the COLAs we used range from 60 percent to 151 percent of the IPA’s original size. A COLA below 100 percent would decrease the IPA and could lead to a higher expected family contribution and reduced aid. A COLA above 100 percent would increase the IPA and could lead to a lower expected family contribution and increased aid.

To analyze the impact of the COLAs on students, we recalculated students’ expected family contributions and Pell Grants for specific example students and also simulated the total effects on a large sample of students. To determine the change in Pell Grants for our example students, we created a profile for a full-time, independent student and a profile for a full-time, dependent student from a family with two working parents and one other dependent. We used three different income levels for the two types of student profiles but held all other characteristics constant. We then entered the students’ characteristics in the federal aid formula, adjusting the families’ IPA for COLAs in different areas, to determine the example students’ adjusted expected family contributions and Pell Grants.


12We made the following assumptions: (1) The cost of attendance is higher than the maximum Pell Grant, which in turn maximizes a student’s potential Pell Grant; (2) the student or both the student and parents do not have sufficient assets to make a contribution from assets; and (3) because the federal aid formula has an allowance for federal taxes paid, we generated a tax estimate assuming the standard deduction (and a $1,000 child-tax credit for the dependent student’s family) but did not assume any contributions to retirement accounts or other tax deductions.
To determine the impact of geographic cost-of-living differences on the total cost of all Pell Grants, we ran a simulation on an Education-provided sample of federal financial aid applicants from the 2007-2008 school year. This sample file includes undergraduate and graduate students. Although most graduate students are not eligible for Pell Grants, they are eligible for other federal financial aid. Education collects the random sample of more than 500,000 student aid records to estimate the cost of Pell Grants. We modified Education’s Pell Grant cost-estimation model by applying the three COLAs to the families’ IPAs to estimate expected family contribution. We used students’ ZIP codes in the sample file to determine which county-level COLA would apply to each student.13 We then used the adjusted expected family contribution to determine the total estimated change in Pell Grants, as well as to generate summary statistics on the estimated number of families with a change in expected family contributions. We applied the COLAs using two methods to estimate the impact on Pell Grant spending: (1) applying the COLAs while holding students in low-cost areas harmless by keeping the original, unadjusted IPA for low-cost areas and (2) applying the COLAs across the board, where we reduced students’ IPAs in low-cost areas.

We assessed the reliability of the datasets we used for our analyses and found them sufficiently reliable for our purposes. To assess the reliability of Education’s dataset and HUD 50th Percentile Rents, we interviewed agency officials knowledgeable about the data and reviewed relevant documentation. For Education’s dataset, we also conducted electronic testing to assess missing data and other potential problems. We determined that the data were sufficiently reliable for the purposes of this report. The BEA Regional Price Parities are an experimental methodology, but we interviewed relevant agency officials who provided a general overview of their methodology and concluded that the data used to generate the Regional Price Parities COLAs were sufficiently reliable for our purposes. Similarly, we spoke to College Board officials about the Housing Expenditure COLAs and determined that the data used to generate the COLAs were sufficiently reliable for our purposes.

Our methodology and data have some limitations. In the simulation, we did not produce estimates for the impact of a COLA on the most recent federal aid formula, the 2008-2009 school year, because a sample file of

13In the small percentage of cases where the ZIP code spanned more than one county, we assigned students a county.
those students is not yet available. Therefore, our analysis does not reflect changes in the federal formula or Pell Grant schedule, including increases in the IPA amounts for inflation and increases in the maximum Pell Grant, from $4,310 in 2007-2008 to $4,731 in 2008-2009. Additionally, Education officials have cautioned that the self-reported student ZIP codes may be unreliable if applicants report their school address instead of their permanent mailing address. However, we checked the reliability of the ZIP code data by comparing the state of the parents’ residence with the state associated with the ZIP code for all dependent students and found they matched in 95 percent of cases.

We interviewed higher education experts and economists; representatives from seven higher education associations; and financial aid officials from 19 postsecondary institutions that represented a mix of 2-year and 4-year public, not-for-profit, and proprietary schools in different geographic areas.

We identified one expert mentioned in news articles on financial aid issues and we obtained recommendations from Education and other sources for additional individuals to contact. We then contacted those individuals and obtained further recommendations from them on additional individuals to contact. We also consulted with a panel of higher education experts and economists convened by GAO for a related study on simplifying the federal financial aid formula.

We also interviewed officials from the following higher education associations: the American Association of Community Colleges, the American Association of State Colleges and Universities, the American Council on Education, the Career College Association, the National Association of Student Financial Aid Administrators, the National Association of Independent Colleges and Universities, and the Association of Public and Land-grant Universities (formerly the National Association of State Universities and Land-Grant Colleges).
Appendix III: Counties Where Students Could See a Change in Financial Aid under Different COLA Options

Figure 1: Counties Where Students’ Aid Could Increase or Decrease with Regional Price Parities COLA

Cost of living in different U.S. counties

- Low-cost county (aid decreases)
- High-cost county (aid increase)
- Very high-cost county (greatest aid increase)

Source: GAO analysis of Bureau of Economic Analysis data.

Notes: Very high-cost counties are more than 15 percent more expensive than the median. Blank counties are neither high cost nor low cost. Low-cost counties would not lose aid if COLA were implemented “hold harmless.”
Figure 2: Counties Where Students’ Aid Could Increase with Housing Expenditure COLA

Cost of living in different U.S. counties

- High-cost county (aid increase)
- Very high-cost county (greatest aid increase)

Source: GAO analysis of College Board data.

Notes: Very high-cost counties are more than 15 percent more expensive than the median. Blank counties are unmeasured by the Housing Expenditure COLA.
Appendix IV: Summary of Effects of Adding a COLA to the Federal Needs Analysis Formula on Expected Family Contribution Levels and Pell Grant Awards

Figure 3: Estimated Percentages and Total Number of Financial Aid Applicants and Potential Changes in Their Expected Family Contributions for Each COLA

Sources: GAO analysis of 2007-2008 Department of Education data, Bureau of Economic Analysis data, HUD 50th Percentile Rent data, and College Board data.

Notes: Figures reflect across-the-board COLA implementation. Students with a lower EFC could see an increase in aid and students with a higher EFC could see a decrease in aid. Students would see no decrease in aid if the COLA were implemented as hold harmless instead of across the board. Percents may not add to 100 due to rounding.
Appendix IV: Summary of Effects of Adding a COLA to the Federal Needs Analysis Formula on Expected Family Contribution Levels and Pell Grant Awards

Figure 4: Estimated Average Pell Grant Increase for Students Receiving a Pell Increase for Each COLA

<table>
<thead>
<tr>
<th>COLA Option</th>
<th>Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Rental</td>
<td>318</td>
</tr>
<tr>
<td>Cater</td>
<td>456</td>
</tr>
<tr>
<td>Regional Rice</td>
<td>202</td>
</tr>
<tr>
<td>Expenses</td>
<td>202</td>
</tr>
</tbody>
</table>

Sources: GAO analysis of federal needs analysis formula, 2007-2008 Department of Education data, Bureau of Economic Analysis data, HUD 50th Percentile Rent data, and College Board data.
## Appendix V: Change in Pell Grant for Example Students in High-Cost and Low-Cost Areas for Each COLA

### Change in Pell Grants for a Dependent Student

#### Table 1: Change in Pell Grants for Full-Time, Dependent Student from a Family of Four with Home Rental Cost COLA

<table>
<thead>
<tr>
<th>Family income</th>
<th>San Francisco, CA</th>
<th>Boston, MA</th>
<th>Cheyenne, WY</th>
</tr>
</thead>
<tbody>
<tr>
<td>$31,000</td>
<td>+$150</td>
<td>+$150</td>
<td>-$500</td>
</tr>
<tr>
<td>41,000</td>
<td>+1,850</td>
<td>+1,500</td>
<td>-600</td>
</tr>
<tr>
<td>51,000</td>
<td>+2,200</td>
<td>+1,500</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: GAO analysis of federal needs analysis formula and HUD 50th Percentile Rent data.

Notes: Table shows across-the-board implementation. In a hold-harmless implementation, students in low-cost areas, such as Cheyenne, would not see a reduction in their grant. City indicates student’s permanent address.

#### Table 2: Change in Pell Grants for Full-Time, Dependent Student from a Family of Four with Regional Price Parities COLA

<table>
<thead>
<tr>
<th>Family income</th>
<th>San Francisco, CA</th>
<th>Boston, MA</th>
<th>Cheyenne, WY</th>
</tr>
</thead>
<tbody>
<tr>
<td>$31,000</td>
<td>+$150</td>
<td>+$150</td>
<td>-$200</td>
</tr>
<tr>
<td>41,000</td>
<td>+1,850</td>
<td>+1,400</td>
<td>-300</td>
</tr>
<tr>
<td>51,000</td>
<td>+2,200</td>
<td>+1,400</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: GAO analysis of federal needs analysis formula and Bureau of Economic Analysis data.

Notes: Table shows across-the-board implementation. In a hold-harmless implementation, students in low-cost areas, such as Cheyenne, would not see a reduction in their grant. City indicates student’s permanent address.

#### Table 3: Change in Pell Grants for Full-Time, Dependent Student from a Family of Four with Housing Expenditure COLA

<table>
<thead>
<tr>
<th>Family income</th>
<th>San Francisco, CA</th>
<th>Boston, MA</th>
<th>Cheyenne, WY</th>
</tr>
</thead>
<tbody>
<tr>
<td>$31,000</td>
<td>+$150</td>
<td>+$150</td>
<td>0</td>
</tr>
<tr>
<td>41,000</td>
<td>+900</td>
<td>+300</td>
<td>0</td>
</tr>
<tr>
<td>51,000</td>
<td>+900</td>
<td>+300</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: GAO analysis of federal needs analysis formula and College Board data.

Note: City indicates student’s permanent address.
## Change in Pell Grants for an Independent Student

<table>
<thead>
<tr>
<th>Family income</th>
<th>San Francisco, CA</th>
<th>Boston, MA</th>
<th>Cheyenne, WY</th>
</tr>
</thead>
<tbody>
<tr>
<td>$8,000</td>
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<td>+$550</td>
<td>-$300</td>
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<tr>
<td>12,000</td>
<td>+$1,300</td>
<td>+$800</td>
<td>-300</td>
</tr>
<tr>
<td>16,000</td>
<td>+$1,300</td>
<td>+$900</td>
<td>-400</td>
</tr>
</tbody>
</table>

Source: GAO analysis of federal needs analysis formula and HUD 50th Percentile Rent data.

Notes: Table shows across-the-board implementation. In a hold-harmless implementation, students in low-cost areas, such as Cheyenne, would not see a reduction in their grant. City indicates student’s permanent address.

### Table 5: Change in Pell Grant for a Full-Time, Independent Student with No Dependents with Regional Price Parities COLA

<table>
<thead>
<tr>
<th>Family income</th>
<th>San Francisco, CA</th>
<th>Boston, MA</th>
<th>Cheyenne, WY</th>
</tr>
</thead>
<tbody>
<tr>
<td>$8,000</td>
<td>+$550</td>
<td>+$550</td>
<td>-$200</td>
</tr>
<tr>
<td>12,000</td>
<td>+$1,200</td>
<td>+$800</td>
<td>-200</td>
</tr>
<tr>
<td>16,000</td>
<td>+$1,200</td>
<td>+$800</td>
<td>-400</td>
</tr>
</tbody>
</table>

Source: GAO analysis of federal needs analysis formula and Bureau of Economic Analysis data.

Notes: Table shows across-the-board implementation. In a hold-harmless implementation, students in low-cost areas, such as a Cheyenne, would not see a reduction in their grant. City indicates student’s permanent address.

### Table 6: Change in Pell Grant for a Full-Time, Independent Student with No Dependents with Housing Expenditure COLA

<table>
<thead>
<tr>
<th>Family income</th>
<th>San Francisco, CA</th>
<th>Boston, MA</th>
<th>Cheyenne, WY</th>
</tr>
</thead>
<tbody>
<tr>
<td>$8,000</td>
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<td>12,000</td>
<td>+$500</td>
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<td>0</td>
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<tr>
<td>16,000</td>
<td>+$500</td>
<td>+$100</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: GAO analysis of federal needs analysis formula and College Board data.

Note: City indicates student’s permanent address.
Appendix VI: GAO Contact and Staff Acknowledgments

<table>
<thead>
<tr>
<th>GAO Contact</th>
<th>George A. Scott, (202) 512-7215 or <a href="mailto:scottg@gao.gov">scottg@gao.gov</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff</td>
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