

August 2009

# 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



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#### 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
HUD	Department of Housing and Urban Development
IPA	income protection allowance
MSA	Metropolitan Statistical Area

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United States Government Accountability Office Washington, DC 20548

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,<sup>1</sup> 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

<sup>&</sup>lt;sup>1</sup>Pub. L. No. 110-315, § 1114.

the federal aid formula and identified three possible options.<sup>2</sup> 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.

<sup>&</sup>lt;sup>2</sup>For example, see GAO, *Poverty Measurement: Adjusting for Geographic Cost-of-Living Difference*, GAO/GGD-95-64 (Washington, D.C.: Mar. 9, 1995), and Constance F. Citro and Robert T. Michaels, *Measuring Poverty: A New Approach* (Washington, D.C.: National Academy Press, 1995).

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.

Leorge A. Scott

George A. Scott Director, Education, Workforce, and Income Security Issues

## **Appendix I: Briefing Slides**

















\*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).















	Differences in Cost of Available Financial Re		d Affect	I
Cost-of-living differences could impact families' available		Example of the Impact of Cost-of-Living Differences on Available Resources		
	financial resources to pay for higher education.		<u>San Francisco</u>	Cheyenne
	inglief education.		<u>CA</u>	WY
•	Similarly situated students with	Total family income after taxes	\$35,000	\$35,000
	permanent addresses in San Francisco, CA and Cheyenne, WY would receive the same Pell	Annual rent cost based on HUD's median rent data for standard two bedroom apartment	<u>-\$20,148</u>	<u>-\$8,052</u>
	Grant award despite potential differences in the cost of living.	Available resources for other expenses including education	\$14,852	\$26,948
		Estimated Pell Grant 2007-2008 school year, family of four, one child in college	\$2,360	\$2,360

Are Not Generally Applica Population	
Criticism	Counterargument
Differences in cost of living are offset by income differences. For example, salaries are generally higher in high-cost areas.	The federal aid formula already accounts income but not cost of living.
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	Job location and family ties can make it costly for some people, particularly low- income families, to move out of a high-cos area.*







Γ

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

	Potential Cost-of-Living Adjustment Options Have Various Strengths and Limitations				
	Cost-of-Living Adjustment Options				
	Home Rental Cost	<b>Regional Price Parities</b>	Housing Expenditure		
Strengths	<ul> <li>Available for every county in the U.S.</li> <li>Widely used to calculate housing</li> </ul>	•Accounts for more than just differences in housing costs	•Currently used by son colleges to adjust for cost-of-living difference in the College Board's institutional aid formula		
Limitations	<ul> <li>expenses</li> <li>Only captures recent movers rather than the entire rental housing stock</li> <li>Only measures rental housing costs</li> </ul>	<ul> <li>Experimental methodology has not been fully vetted</li> <li>Provides same values for all non-metro areas within a state</li> </ul>	<ul> <li>Only available for a small number of metropolitan areas</li> <li>Only measures housin costs</li> <li>Cannot be used to reduce aid in low-cost areas</li> </ul>		


















COLAs Would Not Great Many Pell Recipients Alr or Do Not Live in a High-	eady Receive the Maxin	•	
<ul> <li>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</li> <li>Estimated Pell Spending under Different COLA Scenarios, 2007-2008 Grant Year (in millions of dollars)</li> </ul>			
because more students v Estimated Pell Spending under	would see a reduction in a r Different COLA Scenarios, Pell Spending	2007-2008 Grant Y Pell Spending	
because more students of Estimated Pell Spending under (in millions of dollars) COLA Option	would see a reduction in a r Different COLA Scenarios, Pell Spending (across the board)	2007-2008 Grant Y Pell Spending (hold harmless	
because more students of Estimated Pell Spending under (in millions of dollars) COLA Option	would see a reduction in a r Different COLA Scenarios, Pell Spending (across the board) \$14,685	2007-2008 Grant Y Pell Spending (hold harmless \$14,685	
because more students of Estimated Pell Spending under (in millions of dollars) COLA Option	would see a reduction in a r Different COLA Scenarios, Pell Spending (across the board)	2007-2008 Grant Y Pell Spending (hold harmless	
because more students of Estimated Pell Spending under (in millions of dollars) COLA Option	would see a reduction in a r Different COLA Scenarios, Pell Spending (across the board) \$14,685	2007-2008 Grant Y Pell Spending (hold harmless \$14,685	

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Receive the	Pell Recipients with Relatively Higher Incomes Cou Receive the Largest Grant Increases (continued)					
	ge in Pell Grant for Fa It in College with Hom d) San Francisco, CA					
\$31,000	+\$150	+\$150	-\$500			
\$41,000	+\$1850	+\$1500	-\$600			
\$51,000	+\$2200	+\$1500	\$0 <sup>a</sup>			
	H\$2200	+\$1500	φUª			

Pell increases are lower with the Housing Expenditure COLA.\*

\*See appendix V for additional examples.

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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.

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# 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.

#### **COLA** Options

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.<sup>1</sup> 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.

<sup>&</sup>lt;sup>1</sup>For example, see GAO, *Poverty Measurement: Adjusting for Geographic Cost-of-Living Difference*, GAO/GGD-95-64 (Washington, D.C.: Mar. 9, 1995); Constance F. Citro and Robert T. Michaels, *Measuring Poverty: A New Approach* (Washington, D.C.: National Academy Press, 1995); and Dean Jolliffe, *How Sensitive Is the Geographic Distribution of Poverty to Cost of Living Differences? An Analysis of the Fair Market Rents Index*, a report for the Economic Research Service, U.S. Department of Agriculture (Washington, D.C.: June 8, 2004).

	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	<ul> <li>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.<sup>2</sup> These 50th Percentile Rents are the estimated median price of a two-bedroom apartment in different areas across the United States.<sup>3</sup> 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.<sup>4</sup> HUD 50th Percentile Rent areas are often Metropolitan Statistical Areas.</li> <li>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</li> </ul>
	<sup>2</sup> 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. <sup>3</sup> 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.
	<sup>4</sup> 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.

	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. <sup>5</sup> 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. <sup>6</sup> The 58 percent is the remaining weight that is applied for the other nonhousing costs. <sup>7</sup>
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
	<sup>5</sup> 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.
	<sup>6</sup> Research done by the Bureau of Labor Statistics researchers and others estimates that housing costs are about 42 percent of the cost of living within the "market basket of goods." See Bettina H. Aten, <i>Report on Interarea Price Levels</i> , WP2005-11 (Washington, D.C.: U.S. Bureau of Economic Analysis, Nov. 30, 2005).
	<sup>7</sup> 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. <sup>8</sup> 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. <sup>9</sup> 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. <sup>10</sup>

<sup>&</sup>lt;sup>8</sup>Bettina H. Aten and Roger J. D'Souza, "Regional Price Parities: Comparing Price Level Differences Across Geographic Areas," *Survey of Current Business* (Washington, D.C.: U.S. Bureau of Economic Analysis, November 2008).

<sup>&</sup>lt;sup>9</sup>BEA 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.

<sup>&</sup>lt;sup>10</sup>Some 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.

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. <sup>11</sup> 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 reduced 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. <sup>12</sup> 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.

<sup>&</sup>lt;sup>11</sup>Pub. L. No. 110-315, § 1114.

<sup>&</sup>lt;sup>12</sup>We 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.<sup>13</sup> 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

<sup>&</sup>lt;sup>13</sup>In 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.

#### Interviews

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





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



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.





**COLA** option

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

Family income	San Francisco, CA	Boston, MA	Cheyenne, WY
\$31,000	+\$150	+\$150	-\$500
41,000	+1,850	+1,500	-600
51,000	+2,200	+1,500	0

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

Family income	San Francisco , CA	Boston, MA	Cheyenne, WY
\$31,000	+\$150	+\$150	-\$200
41,000	+1,850	+1,400	-300
51,000	+2,200	+1,400	0

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

Family income	San Francisco, CA	Boston, MA	Cheyenne, WY
\$31,000	+\$150	+\$150	\$0
41,000	+900	+300	0
51,000	+900	+300	0

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	Table 4: Change in Pe Dependents with Hon	ell Grant for a Full-Time, Ind ne Rental Cost COLA	ependent Studen	t with No
Student	Family income	San Francisco, CA	Boston, MA	Cheyenne, WY
Student	\$8,000	+\$550	+\$550	-\$300
	12,000	+1,300	+800	-300

16,000

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.

+1,300

+900

-400

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

Family income	San Francisco, CA	Boston, MA	Cheyenne, WY
\$8,000	+\$550	+\$550	-\$200
12,000	+1,200	+800	-200
16,000	+1,200	+800	-400

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

Family income	San Francisco, CA	Boston, MA	Cheyenne, WY
\$8,000	+\$550	+\$200	\$0
12,000	+500	+100	0
16,000	+500	+100	0

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

GAO Contact	George A. Scott, (202) 512-7215 or scottg@gao.gov
Staff Acknowledgments	In addition to the contact named above, the following staff made key contributions to this report: Melissa Emrey-Arras, Assistant Director; Michelle St. Pierre, Analyst-in-Charge; William Colvin; Susannah Compton; Patrick Dudley; Jean McSween; Aron Szapiro; and Monique B.Williams.

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