Faculty Research Fellows Program

February 2005

Poverty Measures and Their Impact on Federal Formula Grant Funding in California

Michael J. Potepan, Ph.D.

CENTER FOR CALIFORNIA STUDIES
CALIFORNIA STATE UNIVERSITY, SACRAMENTO

POVERTY MEASURES AND THEIR IMPACT ON FEDERAL FORMULA GRANT FUNDING IN CALIFORNIA

Michael J. Potepan, Ph.D.
Associate Professor of Economics
Economics Department
San Francisco State University
1600 Holloway Avenue
San Francisco, CA 94132
(415) 338-2833
Fax: (415) 338-1857
mpotepan@sfsu.edu

February 2005

This report was produced with the help of a 2003-2004 contract from the California State University Faculty Research Fellows Program for the California Senate. The opinions expressed in this report do not necessarily reflect the opinion of the California Assembly. The Coordinator of the Faculty Research Fellows Program is Jim Cox, Center for California Studies, California State University, Sacramento. For information on the Faculty Research Fellows Program and a list of all previous reports, visit www.csus.edu/calst/Government_Affairs/faculty_fellows_program.html

CALIFORNIA STATE UNIVERSITY, SACRAMENTO

THE CENTER FOR CALIFORNIA STUDIES

Dear Friend:

The Faculty Research Fellows Program was created in 1994 to give California's policy makers greater access to the applied research resources of the California State University. Since then, the Program has distributed more than $575, 000 to over 50 CSU faculty and staff from 14 different CSU campuses who have completed more than 45 research projects.

Administered by the Center for California Studies of California State University, Sacramento, the Faculty Research Fellows Program is driven by the research needs of policy makers in the executive and legislative branches. Requests for data, research, conference support and other activities are submitted to the Center by the Assembly, Senate and Governor's office. The Center then utilizes a system-wide computer network to notify CSU faculty and staff of these requests and disseminate request for proposals. The Center evaluates the responses and awards the research funding.

The Center for California Studies is a public policy, public service, and curricular support unit of California State University, Sacramento. The Center's capital location and ability to draw on the resources of the entire State University system provide it a unique capacity for making contributions to the development of public policies and the public life of the State. Center programs cover four broad areas: administration of the nationally known Assembly, Senate and Executive Fellowship Programs; university-state government liaison and applied public-affairs research, including the Faculty Research Fellows Program; civic education and community service through forums and conferences; and curricular support in the interdisciplinary field of California Studies.

Please note that the views and opinions expressed in this report are those of the author(s) and do not necessarily represent the Center for California Studies, California State University, Sacramento, or the California State University.

If you have questions about this report, the Faculty Research Fellows Program or the Center for California Studies, please feel free to contact us.

Sincerely,

Timothy A. Hodson
Executive Director
Center for California Studies

James Cox
Coordinator
Faculty Research Fellows Program

6000 J Street, Sacramento, California 95819-6081 • (916) 278-6906 • (916) 278-5199 FAX • calstudies@csus.edu

TABLE OF CONTENTS

LIST OF TABLES iii

EXECUTIVE SUMMARY iv

POLICY RECOMMENDATIONS v

INTRODUCTION 1

MEASURING POVERTY 2

The Way the Federal Government Currently Measures Poverty 3

The Origins of the Official Poverty Measure in Use Today 5

The NAS Panel on Poverty and Family Assistance 9

Poverty Measurement Research in Wake of the NAS Panel's Report 13

The Geographical Distribution of Poverty Using an Alternative Measure 17

FEDERAL FORMULA GRANT PROGRAMS 27

The Ten Largest Federal Formula Grant Programs 29

ESTIMATED FORMULA GRANT REALLOCATIONS USING THE ALTERNATIVE POVERTY MEASURE 38

Estimated Reallocations for the Title I Program 41

Estimated Reallocations for the Special Education Grants to States Program 45

Estimated Reallocations for the Head Start Program 50

Estimated Reallocations for the National School Lunch Program 56

Estimated Reallocations for the State Children's Health Insurance Program 61

Estimated Reallocations for the Community Development Block Grant Program 65

THE COST TO CALIFORNIA OF CONTINUED RELIANCE ON THE OFFICIAL POVERTY MEASURE 70

CONCLUSIONS 75

ENDNOTES 77

ACKNOWLEDGEMENTS 79

REFERENCES 80

APPENDIX I 82

LIST OF TABLES

Table 1	Estimated Number of Persons At or Below Official and Alternative Poverty Thresholds by State, Three Year Averages for 1999-2001	22
Table 2	Estimated Number of School-Aged Children (Aged 5-17) At or Below Official and Alternative Poverty Thresholds by State, Three Year Averages for 1999-2001	25
Table 3	The Ten Largest Federal Formula Grant Programs By Size of Expenditure, Fiscal Year 2002	30
Table 4	Estimated Reallocation of Title I Program Funding From Using Alternative Poverty Measure	43
Table 5	Estimated Reallocation of Special Education Grants to States Funding Using Alternative Poverty Measure	47
Table 6	Estimated Reallocation of Head Start Funding Using Alternative Poverty Measure	54
Table 7	Estimated Reallocation of National School Lunch Program (Food Portion) Funding Using Alternative Poverty Measure	58
Table 8	Estimated Reallocation of State Children's Health Insurance Program (SCHIP) Funding Using Alternative Poverty Measure	62
Table 9	Estimated Reallocation of Community Development Block Grant Program Funding From Using Alternative Poverty Measure	67
Table 10	Estimated Reallocation to California in Federal Formula Grant Funding For Six Programs From Using Alternative Poverty Measure	71

EXECUTIVE SUMMARY

The official poverty measure used by the federal government today is a remarkably crude instrument that has been in place since the early-1960s. Statisticians, social scientists, poverty experts, and public officials have argued for years that the measure gives inaccurate estimates of the incidence of poverty and should be replaced with an improved alternative measure. There are a number of problems with the official measure, but one with the widest significance is that it does not take regional or state-by-state variations in housing and other costs into account. Because of this, the official measure overestimates the number of poor persons in some states and underestimates it in others.

In the late 1990's, the Census Bureau, guided by recommendations from a National Academy of Sciences panel, developed an alternative poverty measure that effectively resolved many of the problems associated with the official measure. The Bureau released figures for state-by-state poverty estimates using the official and the alternative measure. These figures indicate that, if properly measured, the estimated number of poor persons in California would have risen from 4.45 million to 6.25 million in a three year average for 1999-2001. New York, New Jersey, Florida, and nineteen other states also would have had higher numbers of poor persons estimated using the alternative measure. Other states including Louisiana, Alabama, Arkansas, and Ohio would have seen decreases in their poverty estimates.

A number of federal formula grant programs allocate funding to the states on the basis of the number of poor persons or the number of poor children living in those states. The ten largest formula grant programs were funded at over $225 billion in fiscal year 2002. Of these ten, seven featured poverty as one of the factors in their allocation formula, and each of the seven relied on poverty figures as estimated by the flawed official measure.

The report analyzes six of the largest federal formula grant programs to determine how funding allocation under them would be affected by a switch from the official poverty measure to the alternative one. These programs were: Title I, Special Education, National School Lunch, Head Start, States Children's Health Insurance Program, and Community Development Block Grant. For each program, estimates were made for each state for the likely reallocation in funding that would have occurred as a result of using the alternative poverty measure in place of the official measure. These results indicate that in 2002, if poverty had been more accurately measured using the alternative poverty measure, California would have received the largest increase in funding of any state in five out of six of these programs. Altogether, it is estimated that California would have received nearly $600 million more in additional funding had the alternative measure been used. This would have represented more than half the total amount of funding that would have been reallocated between the states due to using the alternative measure. Finally, while projecting future changes is beyond the scope of this analysis, it is likely that the amount of funding California would receive each year would increase in the future as a result of switching to the alternative poverty measure because of certain administrative features in these programs, and because housing prices in California are likely to continue to rise relative to the national average.

POLICY RECOMMENDATIONS

Every effort should be made to encourage the Office of Management and Budget and the Bureau of the Census to officially adopt an improved alternative poverty measure to replace the outmoded official one. All reasonable persons agree that the official measure does not do an effective job in accurately estimating poverty. The Census Bureau has already developed an alternative that is vastly superior. There are some remaining methodological issues, but these are narrowly technical and can be resolved with more effort and resources. Estimating poverty correctly will require some additional resources on an ongoing basis, and the federal government should commit itself to doing more in this area.

All legislative language that authorizes federal formula grant programs using poverty as a formula factor should be changed to stipulate that the poverty be defined and measured in terms of the alternative poverty measure developed by the Census Bureau and adopted by the Office of Management and Budget.

Every effort should be made to inform the agencies implementing large federal formula grant programs that the current reliance on the official measure results in a misallocation of resources by directing too much funding to states with relatively less need and too little to states with relatively greater need. Implementing agencies have various degrees of discretionary control over funding allocations that depends on the legislative language of the authorizing bills. Many agencies appear to place a higher priority on passing along any growth in overall program funding to each state on an even basis rather than to use any funding growth to reallocate on the basis of need. To the extent that implementing agencies have discretionary control, they should be encouraged to use it for this necessary kind of reallocation.

INTRODUCTION

The federal government's official poverty measure used for statistically estimating the number of Americans living in poverty is widely acknowledged to be an inaccurate and outmoded measure. Recent efforts by the Census Bureau and others has produced a more accurate alternative has overcome many of the shortcomings of the official measure. Yet for a variety of reasons, the government continues to rely on the outmoded official measure. One major consequence of continuing to use the official measure of poverty is that it gives a distorted picture of the geographical distribution of poverty across the United States. This is because a one-size fits all poverty standard is applied throughout the country rather than adjusting that standard to reflect the very real differences in housing and other costs in different parts of the country. This has had the effect of substantially overestimating the number of poor individuals and families living in low-cost states like Alabama and Arkansas, and underestimating the number in high-cost states like California and New York.

Many federal programs aimed at ameliorating the effects of poverty at the state level use the official poverty measure as a factor in determining how much funding should be allocated to each state. Such so called federal formula grant programs as TANF, School Lunches, Head Start, Title I and a number of others, all distribute dollars to each state partially on the basis of how many poor persons are estimated to be living in each state. To the extent that the official measure overestimates the number of poor persons in low-cost states and underestimates it in high-cost states, this results in a serious misallocation of funding that works to the detriment of high-cost states like California. The purpose of this report is to show how the Federal government's continued reliance on an outmoded and

flawed measure of poverty costs states like California, New York, and New Jersey hundreds of millions of dollars each year in misallocated federal aid that today go to states like Alabama and Arkansas instead.

MEASURING POVERTY

The federal government has measured poverty in the United States in virtually the same way since the early-1960s, and the method is a remarkably crude one. That it has survived for so long probably has more to do with politics than any virtues in the measure itself. For more than thirty years, public officials and experts on poverty measurement have called for use of a more refined measure. It is almost universally acknowledged that the official measure does a poor job in identifying who is poor. Because the measure itself is so crude, it fails to take a number of important aspects into account, and as a result counts some people as poor who ought not to be, and counts other people as not poor who ought to be.

Between 1992 and 2000, a great deal of effort was applied both within and outside of the federal government to devise an alternative poverty measure. Great strides were made, and the general features of a superior measure of poverty were identified, defined, and widely agreed upon – though a few of the more narrow technical details remain unresolved. Despite all this, through inaction, the federal government has implicitly opted to continue using the flawed and outmoded official poverty measure to count the nation's poor, and today, there is probably less hope that some kind of alternative measure will be adopted than there was even a few years ago. Political factors play a large role in this. When it became clear that measuring poverty accurately would result in lower poverty counts for some groups and some areas of the country, and higher counts for some other groups and areas, the political

implications began to set in. Higher levels of measured poverty translate to higher levels of federal funding through federal formula grants. The stakes suddenly became clear and lines were drawn. A political analysis of how those who had something to lose from the adoption of a more accurate poverty measure were able to politically outmaneuver those who had something to gain is beyond the scope of this report. However, to understand how several billion dollars of potentially misallocated funding can ride on such an arcane matter as the proper way to count the number of poor people requires some attention to the basic methods and issues surrounding the measurement of poverty.

The rest of this section tells the story of how the government currently measures poverty, how that method was originally adopted, what efforts researchers have since undertaken both within and outside the government to devise an alternative poverty measure, and what the consequences would be of using such an alternative measure. One particular consequence, highlighted at the end of this section, is that states with high housing costs like California, New York, and New Jersey, would have much higher numbers of people counted as poor if poverty were properly measured. On the other hand, states with low housing costs like Alabama, Arkansas, and Texas would have many fewer persons counted as poor.

The Way the Federal Government Currently Measures Poverty

Office of Management and Budget has officially been charged with defining the nation's poverty measure. The definition it has adopted depends on the concept of poverty thresholds, which is a specific dollar amounts used as a baseline relative to actual incomes. Incomes that fall below the appropriate poverty threshold are considered too low to ensure that a person or family has a minimally acceptable standard of living. Poverty thresholds and

their closely associated poverty guidelines[1] are used for a number of purposes, including determining eligibility for a wide variety of public assistance programs at the federal, state, and local level. They are also used to statistically estimate or count the number of poor people living in the US and in smaller jurisdictions states, counties, and cities. These statistical estimates of the number of poor persons or families are used to determine the allocation of federal funding for a number of federal formula grant programs designed to provide federal and state aid to low-income persons and families.

The Office of Management and Budget last revised the official definition of poverty thresholds in 1981, although the same basic approach has been in place since the early-1960s. There are actually a whole range of poverty thresholds that vary according to family size and number of children in the family. For example, in 2003, the official poverty threshold for a family of four with two adults and two children was $18,660. A family whose income fell below this threshold would have been, for statistical as well as other purposes, counted as being poor.

The US Census Bureau is charged each year with statistically estimating the number of poor people and families in the US and issuing an annual report. The method it uses is relatively straightforward. The Bureau examines the March version of the Current Population Survey and determines the poverty status of each respondent in the survey. The Current Population Survey surveys more than 50,000 Americans monthly and is designed to be entirely representative of the entire U.S. population. In March, the survey adds an extended list of questions, some of which are used in determining poverty status. For each family in the survey, the Bureau assigns one of 48 possible poverty thresholds depending on the family's size and age of its members. Single individuals and unrelated individuals who

live together are treated in a similar manner. The Bureau compares each family's before-tax, money income to its assigned poverty threshold and categorizes it as poor when its income falls below the threshold. Money income includes such items as: wage and salary earnings, unemployment compensation, Social Security benefits, cash public assistance, alimony, child support, etc. Non-cash benefits such as food stamps or housing subsidies are not considered part of money income, and neither are any capital gains or losses.[2] Once the Bureau determines the number of individuals and families who are poor in the March survey, it extrapolates from that number to estimate the total number of poor persons for the U.S. population as a whole.

While the poverty thresholds are updated each year to reflect increases in the general cost of living by using the Consumer Price Index for All Urban Consumers (CPI-U), they are not adjusted to reflect the very real differences in cost of living found in different parts of the country. For purposes of determining the poverty status of families and individuals, the same poverty thresholds are applied to all families, regardless of whether they live in rural Kansas or New York City.

The Origins of the Official Poverty Measure in Use Today

The poverty thresholds in use today were originally developed in 1963 and early 1964 by Mollie Orshansky, a researcher at the Social Security Administration[3]. The method Orshansky used was indirect, but had the virtue of simplicity. Rather than individually attempting to estimate the cost for a large market basket of family necessities such as: food, housing, health care, transportation, etc., Orshansky settled on a much simpler and less

expensive method. Findings from a Department of Agriculture survey conducted in 1955 (the Household Food Consumption Survey) indicated that families of three or more persons spent approximately one-third of their after-tax income on food. From this finding, Orshansky reasoned that the cost of meeting a family's dietary needs could be used as a proxy for the income necessary to keep them out of poverty.

Around that time, dietitians at the Department of Agriculture were designing specific food plans that would constitute nutritionally adequate diets. There were four separate food plans, the lowest cost one being the "economy" food plan, which was "designed for temporary emergency use when funds are low." To arrive at her original poverty thresholds for families of three or more persons, Orshansky calculated the market cost in 1963 of the food items included in the economy food plan for each sized family and multiplied that cost by a factor of three. The costs of other non-food budgetary items were not directly considered in this formulation. The implicit assumption was that the other two-thirds of a family's income would be devoted to the purchase of all the other non-food items.

As Fisher points out, Orshavsky thought of her poverty measure as a "measure of income inadequacy, not of income adequacy." She viewed poverty in terms of a temporary situation, an unwanted emergency visited upon a family. As the family's income declined during the emergency, it would be necessary to cut back on all expenditures, and, by assumption, cut back proportionately on both food and non-food items. Once income had reached such a level that one-third of it was barely enough to purchase the economy food plan defined as the rock bottom minimum-cost diet sufficient under a temporary emergency, the family, by definition, would then be poor. In her 1965 article in the *Social Security*

Bulletin, Orshavsky wrote, "if it is not possible to state unequivocally 'how much is enough,' it should be possible to assert with confidence how much, on an average, is too little."[4]

Although the concept behind the original poverty thresholds was based on a family devoting one-third of *after*-tax income to food consumption, the Current Population Survey, which in the early 1960's was the only consistently reliable source for nationally representative income data, only reports on *before*-tax income. From the beginning, this reliance on before-tax money income introduced some downward bias into the measurement of poverty. To see why, consider a hypothetical family with before-tax income of $3,001, a dollar above the official poverty threshold of $3,000. According to the Orshavsky logic, one-third of the threshold, or $1,000 of before-tax income, would be necessary to spend on food to keep the family out of poverty. If the family's after-tax income, however, was $2,700, and they spent, according to the Food Consumption Survey, one-third, or $900, on food, their food purchases would fall $100 short of the $1,000 necessary to maintain the economy food plan. Thus, by using before-tax instead of after-tax income, the method would not count the family as poor, even though its food consumption was nutritionally inadequate. So, a method used to measure poverty that relies on before-tax income instead of after-tax income will systematically undercount the families and individuals that are poor according to the Orshavsky logic used to derive the thresholds in the first place. Orshavsky herself was aware of this bias, but since the Current Population Survey data was the only data available, she had little choice but to use it as a stopgap until better data became available.

Orshavsky's original thresholds distinguished between farm families and non-farm families, as well as male-headed and female-headed families. One and two-person families were accounted for by use of a scaling factor. In all, she calculated 124 separate thresholds

to account for farm/non-farm families, and male headed/female headed families of all various sizes. For a family of four with two adults and two children, Orshavsky's poverty threshold in 1963 was $3,100.

In 1965, the Office of Economic Opportunity, President Johnson's lead agency in prosecuting the War on Poverty, adopted Orshavsky's poverty thresholds as their definition of poverty, a first step in the process through which the thresholds emerged as the governments official measure of poverty. Concerns arose later in the 1960's about adjusting the poverty thresholds to reflect the rise in living standards over time. In 1968, according to Fisher, the Social Security Administration attempted to increase the thresholds to reflect rising living standards, but was prevented from doing so by the Bureau of the Budget, the precursor to the Office of Management and Budget. The Bureau formed an interagency Poverty Level Review Committee, which in 1969 concluded that the thresholds would only be adjusted for inflation, and not for rising living standards. They deemed that the thresholds would be indexed to annual changes in the Consumer Price Index and not to the per capita cost of the economy food plan. In August 1969, the Bureau of the Budget, after adopting these minor revisions, designated the poverty thresholds as the Federal government's official poverty measure.

In the early 1970's, three other interagency subcommittees made a series of recommendations for revisions to the official poverty thresholds that would have resulted in higher thresholds and increased estimates of the number of Americans officially considered poor. These recommendations, however, were not adopted. In 1976, another interagency subcommittee issued a report exploring the possibility of developing an alternative poverty measure, but no further progress was made in this direction. In 1981, the Office of

Management and Budget made several additional revisions to the poverty thresholds, and these are now still in use as the official poverty measure. The distinction between farm and non-farm families was dropped in 1981, as well as the distinction between male-headed and female-headed families. Since 1981, 48 poverty thresholds have been used that vary according to family size and the number of children within the family.

For almost forty years now, the Federal government has been measuring poverty using an indirect method based on the average food consumption of families from the mid-1950's. The measure it uses today is simply the inflation-adjusted 1963 cost of an emergency, minimal diet multiplied by a factor of three.

The NAS Panel on Poverty and Family Assistance

In 1990, the National Research Council of the National Academy of Science to was formally requested by Congress to conduct a study to evaluate the official poverty measure and to determine what steps would be necessary to develop an alternative. In 1992, the NRC's Committee on National Statistics named members to the Panel on Poverty and Family Assistance (the NAS Panel). In May 1995, this panel issued a report[5], the main conclusion of which was that the Federal government should replace the official poverty measure with an alternative designed to overcome the many distortions and inaccuracies inherent in the official poverty measure.

The NAS Panel identified six principle weaknesses with the official poverty measure. First, no allowance for childcare expenses or other work-related expenses is made despite the increasing numbers of working families with two adult income earners. Second, it does nothing to account for the vastly different medical needs and medical costs different families

have because of differences in health status and health insurance coverage. Third, the official poverty measure applies a single set of poverty thresholds to all families, regardless of where they live in the United States despite the fact that the cost of living varies dramatically between different areas of the country. Fourth, the family size adjustments made in the official measure do not accurately reflect the changing financial needs of different sized families. Fifth, the official measure makes no explicit allowance for the fact that living standards rise over time. Sixth, by using the most basic measure of before-tax, gross money income as its definition of family resources, the official measure fails to take into account such important governmental policy initiatives that either add to or subtract from family resources. These would include such items as increases in Social Security payroll taxes and increases in the Earned Income Tax Credit. Also ignored are such in-kind, non-cash resources as food stamps, rent subsidies, and benefits from a number of smaller programs.

The NAS Panel recommended that an entirely new poverty measure be adopted with specific features designed to overcome the shortcomings of the existing official measure. The Panel proposed that new thresholds be developed to accurately represent a budget for food, clothing, shelter (including utilities), and a small amount necessary to meet other household needs. It recommended that a reference threshold be established for a family with two adults and two children and that it be set in a range between the 30^{th} and 35^{th} percentiles of the food, clothing, and shelter expenditures of all two-adult/two-children families according to the most recent Consumer Expenditure Survey data. In addition, this reference threshold should be updated each year by averaging the family expenditures on these items using the last three years data from the Consumer Expenditure Survey. Updating in this way would account for the effects of the general rise in living standards over time.

The Panel recommended that the reference threshold be adjusted for family size using a more scientifically sound "equivalence scale" method than the one currently used in constructing the official poverty thresholds. The proposed equivalence scale would more accurately account for the fact that children consume less than adults, and the economies of scale gained by the sharing of common resources in larger families.

The Panel strongly recommended that the thresholds be adjusted for geographical cost-of-living differences between different regions of the country, and for different sized metropolitan areas. It acknowledged that data limitations make it difficult to precisely measure such differences, but that a methodology developed by the U.S. Department of Housing and Urban Development (HUD) to estimate rents for comparable apartments in different areas would be a useful starting place. The Panel did not recommend adjustments for cost differences in the non-shelter portions of the budget because of both data limitations and the fact that research suggested there were relatively small geographical variations in these non-shelter costs.

The Panel also made a series of recommendations regarding how to define a family's resources to compare against the appropriate threshold. It strongly felt that the official measure's reliance on before-tax, gross money income was inadequate in accurately capturing the economic resources actually available to the family. The Panel recommended that family resources be defined in terms of money and near-money disposable income. Money income from all sources should be considered as well as the value of in-kind benefits such as food stamps, rent subsidies, school lunches, and energy assistance. Additionally, a number of items should be subtracted such as: income and payroll taxes, out-of-pocket medical expenses, child-care expenses, other work-related expenses, and child support

payments made to other households. Family resources should be defined in terms of the amount available to provide for food, shelter, clothing, and minor household expenses. One of the most difficult and unsettled issues was the proper way to account for the very real differences faced by families in terms of medical needs and medical expenditures. The Panel took a neutral position on this issue by essentially taking medical expenses out of the measure, neither including them in the thresholds nor the resources. The benefits of medical insurance programs such as Medicaid would not be included in the definition of resources, and for consistency, the out-of-pocket medical expenses (including payments for premiums) would be subtracted from income.

The NAS Panel estimated poverty rates using their proposed measure and compared these to the official poverty rates to gauge the effects of the proposed measure. They used the March 1993 Current Population Survey along with some supplementary data from other sources in making these estimates. The comparisons suggested that some of the largest effects from switching to the new measure would be distributional. The alternative measure would result in higher counts for the number of persons in poverty among some demographic groups and regions of the country, and lower counts among others. In particular, the results suggested higher measured poverty rates for working families with one or more income earners and for families that lacked health insurance. There would be lower rates for families receiving public assistance. The number of poor children would decline under the alternative measure, and the number of elderly poor would increase. The Panel also reported important geographical differences in the amount of measured poverty using the proposed measure: there would be higher poverty rates in the Northeast and West, along with much lower rates

in the South. Rates in the Midwest would be only slightly lower. The Panel was not able to report the differences in poverty rates on a state-by-state basis.

Poverty Measurement Research in Wake of the NAS Panel's Report

The issuing of the NAS Panel's report and the subsequent dissemination of its recommendations set off a flurry of activity both within and outside of the Federal Government as various poverty experts attempted to spur the government to take action on the Panel's recommendations[6]. Many of the recommendations invoked a number of complex technical problems and policy issues that required being resolved before a new measure could be implemented. Whereas the official measure originally developed by Orshavsky suffered from being overly simplistic, the new measure recommended by the NAS Panel layered complexity upon complexity. For example, how exactly should out-of-pocket medical expenses or childcare expenses be measured? How should the value of housing subsidies like Section 8, or public housing be accounted for? With regard to geographical variations in housing costs, what cost index should be used to adjust the thresholds? Such were the kinds of methodological issues requiring further study and in the end, settling

Within a year, researchers at the Census Bureau and Bureau of Labor Statistics began replicating and adding to the Panel's work on the new thresholds as well as preparing a number of working papers addressing some of the remaining methodological issues. In April 1997, the Office of Management and Budget convened an Interagency Technical Working Group to Improve the Measurement of Income and Poverty. This working group formed subcommittees devoted to particular methodological issues and provided important feedback

to the Census Bureau as it began the first steps in designing its experimental poverty measures.

Outside the Federal Government, individuals at both the Brookings Institution and the Institute for Research on Poverty at the University of Wisconsin provided important support for these efforts using funding from the Annie E. Casey Foundation. This consortium sponsored a series of seminars and workshops on methodological issues. This finally resulted in a high profile conference held at the La Follete Institute of the University of Wisconsin-Madison in April 1999, which was attended, by over 75 federal agency employees, academic researchers, and State of Wisconsin officials.

Within the Census Bureau, a team of researchers led by Kathleen Short began developing an experimental poverty measure along the lines of that proposed by the NAS Panel and drawing on more recent research findings that followed from it. In 1999, the Census Bureau published *Experimental Poverty Measures: 1990-1997*[7], the first of two major reports to measure poverty using its experimental alternative to the official measure. The report received widespread attention among poverty experts. It examined the effects on measured poverty of implementing each part of the Panel's recommendations, as well as offering some reasonable alternative formulations. The official measure could be compared side-by-side to the NAS measure, as well as several other close alternatives based on slight alterations in methods used by the NAS Panel. Overall, results from the 1999 report suggested that the overall estimated level of poverty in America would be considerably higher when any of the variations were used including the original NAS Panel recommendations. These variations produced estimates for the number of Americans living

in poverty in 1997 of between 41 to 44 million compared to the 35.5 million estimated using the official measure.

In 2000, an open letter was sent to the Director the Census Bureau and the Director of the Office of Management and Budget urging the Federal Government to officially adopt an alternative poverty measure along the lines proposed by the NAS Panel five years earlier. Forty prominent academic researchers including such well-respected names as Henry Aaron, Sheldon Danziger, Alfred Kahn, Robert Reischauer, Isabel Sawhill, William Julius Wilson and Barbara Wolfe signed the letter. During the same year, several other conferences devoted to poverty measurement issues took place.

In July 2001, the Census Bureau released its second report[8], *Experimental Poverty Measures: 1999*. This report responded to research and feedback generated by its earlier report from two years before. The 2001 report presented six new experimental poverty measures, and re-calculated poverty rates under each for years between 1990 and 1999. Each experimental measure offered a different combination of methods used to account for four different elements: work-related expenses (including child care expenses), the value of in-kind housing subsidies to be added to income, the value of out-of-pocket medical expenses, and adjustments for geographical variations in housing costs. Applying these new measures resulted in poverty estimates that were lower than those in the 1999 report, and more comparable to the official estimate. For example, for the year 1999, the estimate of the number of poor people using the official measure was 32.2 million. Using the alternative measure most in line with the NAS Panel's recommendations resulted in an estimate of 40.8 million. However, using the various experimental alternatives presented in the report, estimates of the number of poor persons fell within a range between 31 to 34.8 million, much

closer to the 32.2 million estimated using the official measure. This substantial downgrading of the degree of difference between the experimental estimates and official estimates for the overall level of poverty in the U.S. as presented in its 1999 report was attributed by the Census Bureau to improved methods for accounting for work-related expenses, housing subsidies, out-of-pocket medical expenses, and geographical variations in housing costs.

The distribution of poverty within the overall population, however, continued to show marked differences when using the experimental measures as opposed to the official measure. This was a pattern first detected in the NAS Panel report and continued in the 1999 Census report. In terms of the demographic characteristics of the poverty population in 1999, there was a higher proportion of working families and elderly persons, and a lower proportion of children when the experimental measures were used compared to when the official measure was used. Racially, the proportion of whites among the poverty population increased, the proportion of African Americans decreased, and the proportion of Hispanics increased slightly. In 1999, children constituted about 26 percent of all Americans in the population and the elderly constituted about 12 percent. Using the official measure, children were estimated to constitute 37.5 percent of the poverty population and the elderly were estimated to constitute about 10 percent. Using the experimental measures, however, children are estimated to constitute only between 31 and 33 percent of the poverty population. This was still above their proportion in the overall population, but not so high as under the official measure. Similarly, under the experimental measures, the elderly were estimated to constitute around 14 to 15 percent of the poverty population, up from their 10 percent share as estimated under the official measure. African Americans declined from 25.9

percent of all poor persons using the official measure to around 22 percent using the alternative measures. Hispanics rose from 23.1 percent to around 24 percent.

Since the issuing of the 2001 Census report, there appears to have been a substantial drop off in interest in replacing the official poverty measure in various parts of the Federal Government. As seen above, between 1995 and 2001, there were a series of concerted actions both within and outside of government to resolve the remaining methodological issues and to enlist broad support for changing the measure. The years after 2001 have seen much less in the way of such actions. At the present time, the Census Bureau has no apparent plans to update the experimental measures for years beyond 1999. In its official annual poverty reports since 2003, Census has ended the practice of presenting tables with alternative estimates using its experimental measures, as it had done for several years previously. To my knowledge, there has not been a conference on poverty measurement issues since 2002. Now at the end of 2004, nearly ten years since the issuing of the NAS Panel report, efforts to have the federal government implement the Panel's recommendation and replace the official measure appear to be waning.

The Geographical Distribution of Poverty Using an Alternative Measure

One of the most striking changes seen in estimating the incidence of poverty under the alternative measures compared to the official measure is in the geographical distribution of the poverty population. Using an alternative measure that accounts for geographical differences in housing costs consistently results in higher estimates of poverty in high cost parts of the country and lower estimates of poverty in low cost parts of the country. In its original report, the NAS Panel found that using its recommended alternative measure

resulted in higher estimated poverty rates in the Northeast and West, lower rates in the South, and to a lesser extent, lower rates in the Midwest. The NAS panel only reported on these broad regional effects and did not go on provide estimates of poverty numbers or rates on a state-by-state basis. The Panel attributed these geographical effects to the adjustment they made to poverty thresholds to reflect differences in housing costs across the country. This resulted in raising the number of persons estimated to be in poverty in the higher cost regions and lowering the number in lower cost regions.

The same kind of effect was also documented in both the 1999 and 2001 Census reports. In each case, regardless of the exact methodology used to account for such things as out-of-pocket medical expenses, work-related expenses, or the implicit value of housing subsidies, whenever the Census adjusted poverty thresholds to account for geographical variations in housing costs, more poor people were estimated in the Northeast and West, and fewer poor people were estimated in the South and Midwest.

In its 2001 report, the Census reported estimates of poverty rates in each state using two alternative measures, and if anything, these estimates portrayed even more dramatic differences when compared to official estimates than was the case with the regional estimates. For example, the estimate for California's poverty rate in 1999 shot up to 20.5% using the alternative measure most in line with the NAS Panel recommendations. California's official rate that year was 13.8%. In contrast, Alabama's estimated poverty rate fell from 15.1% to 13.7% when the alternative measure was used in place of the official measure.

As was just seen, adjusting the thresholds to account for geographical differences in housing costs can result in dramatically different estimates of poverty. However, over the

course of the past ten years, there has been much study and debate over the most appropriate method for measuring geographical differences in housing costs. The NAS Panel used one method to account for geographical differences, and in its 2001 report, the Census Bureau used a different method.

The NAS Panel adjusted its poverty thresholds by use of an inter-area price index for shelter and utilities it developed as a modified version of a method first developed by the Department of Housing and Urban Development for the administration of Section 8 rental housing subsidies[9]. HUD's method used data from the American Housing Survey, the 1990 decennial census, and some additional direct surveys conducted by HUD to establish fair market rent (FMR) estimates in every county in the US. FMR's at this time were defined as the cost of housing at the 45th percentile in each area. The NAS Panel only used Census data and calculated separate indexes for the 341 metropolitan areas then in the US. They further grouped these into six different population size categories for each of the nine Census regions in the US. This resulted in a final set of 41 index values that varied by region and size of metropolitan area (non-metropolitan areas were grouped together with the metropolitan areas with under 250,000 in population). The NAS Panel stated in its report that better data and more precise valuation procedures would result in better estimates of geographical variation in housing costs, but that theirs was a first step that could likely be improved upon later.

There were several anomalies that resulted from using this approach, the most important stemming from the implicit assumption that housing costs would remain constant within each of the 41 region/size categories. This clearly was not the case in some areas, and became most problematic in New England, where the estimate of persons in poverty using

the NAS Panel adjustments increased in the low-cost state of Maine, and decreased in the high-cost state of Connecticut.

In its 2001 Report, the Census Bureau used a different method to adjust for geographical differences in housing costs. They took the most recent FMR data from HUD and developed mean indexes for both metropolitan areas and non-metropolitan areas in each state, resulting in 100 separate indexes. This reduced some of the anomalies in the earlier NAS Panel estimates of poverty by reducing the geographic span of the indexes down from Census regions to states. However, the Census method still used the underlying FMR data to construct indexes, and for a number of technical reasons, HUD analysts believed FMR data might not be entirely appropriate for adjusting the poverty thresholds. Nonetheless, the Census Bureau continued to believe it was the best available data that could be used for this purpose.

In December 2003, Charles Nelson and Kathleen Short of the Census Bureau posted a working paper "The Distributional Implications of Geographical Adjustments of Poverty Thresholds" on the Census Bureau's Poverty Measurement Research website[10]. This paper provides far more extensive estimates of state-by-state comparisons of poverty numbers and rates between the alternative and official poverty measures than those found in the 2001 Census report that was an official Census publication. In their paper, Nelson and Short go on to use these estimates to analyze how federal funding to the states under the State Children's Health Insurance Program would be affected by using the alternative poverty measure in place of the official measure. This is a subject to which this report will return in Section Four, but for now, it would be useful to consider Nelson and Short's most recent estimates of

poverty numbers and rates in each state using a method identical to that in the 2001 Census Report.

In making their estimates, Nelson and Short pooled three years of data (1999-2001) from the Current Population Survey in order to increase sample size and reduce the level of variance. In terms of which alternative experimental measure to use, Nelson and Short used an average of the three experimental measures that made geographical adjustments in the thresholds for variations in housing costs as described above. There were only slight variations in each of these three experimental measures based solely on the way out-of-pocket medical expenses were treated and the estimated poverty numbers and rates were quite close for each state.

Table 1
Estimated Number of Persons At or Below Official and Alternative Poverty Thresholds by State, Three Year Averages for 1999-2001

State	Total Poverty Population		
	Official Measure	Alternative Measure	Net Difference
California	4,449,035	6,249,371	1,800,336
New York	2,648,215	3,380,367	732,152
New Jersey	649,971	1,047,023	397,052
Florida	1,922,800	2,183,536	260,736
Massachusetts	639,113	832,858	193,745
Illinois	1,257,298	1,386,246	128,948
Maryland	379,520	490,815	111,295
Virginia	559,251	659,880	100,629
Connecticut	250,936	332,419	81,483
Hawaii	125,556	204,661	79,105
Colorado	391,242	457,262	66,020
Pennsylvania	1,102,450	1,155,750	53,300
Georgia	1,020,933	1,066,662	45,729
Washington	604,300	649,038	44,738
Nevada	186,990	226,863	39,873
Arizona	667,021	706,496	39,475
Texas	3,134,796	3,160,575	25,779
District of Columbia	88,451	113,118	24,667
Oregon	403,422	422,634	19,212
New Hampshire	77,547	91,291	13,744
Alaska	49,727	58,336	8,609
Delaware	66,216	74,719	8,503
Utah	178,083	178,390	307
Vermont	58,842	57,610	-1,232
Maine	131,158	127,219	-3,939
Michigan	957,290	952,962	-4,328
Rhode Island	103,244	96,815	-6,429
Wyoming	50,181	41,179	-9,002
South Dakota	65,242	55,244	-9,998
Montana	128,348	115,973	-12,375
Indiana	473,271	456,585	-16,686
North Dakota	77,166	57,411	-19,755
Minnesota	330,561	309,108	-21,453
New Mexico	339,498	308,331	-31,167
Nebraska	162,320	130,832	-31,488

Table 1 (Continued)
Estimated Number of Persons At or Below Official and Alternative Poverty Thresholds by State, Three Year Averages for 1999-2001

State	Total Poverty Population		
	Official Measure	Alternative Measure	Net Difference
Iowa	219,604	188,088	-31,516
Wisconsin	460,515	428,039	-32,476
Kansas	266,552	224,450	-42,102
Idaho	162,274	115,723	-46,551
South Carolina	496,160	424,563	-71,597
West Virginia	274,640	201,820	-72,820
North Carolina	1,027,100	951,909	-75,191
Kentucky	490,705	406,204	-84,501
Mississippi	467,506	356,679	-110,827
Missouri	562,858	449,434	-113,424
Tennessee	740,923	614,786	-126,137
Arkansas	430,890	301,655	-129,235
Oklahoma	478,245	344,841	-133,404
Louisiana	760,726	585,464	-175,262
Ohio	1,211,431	1,020,256	-191,175
Alabama	649,225	445,003	-204,222
United States	*32,429,348*	*34,896,493*	*2,467,145*

Source: Nelson and Short (2003), pp. 25-26.

Table 1 shows Nelson and Short's estimates for the poverty population in each state sorted by the difference in the number of poor persons estimated between the alternative and official measures. As can be seen, California leads the way in the gain in the number of poor persons estimated using the alternative measure. California's estimated poverty population increases by just over 1.8 million persons to 6.25 million persons, up by over 40 percent from the official estimate of 4.45 million. There are also sizable increases in the number of poor persons estimated for New York, New Jersey, and Florida, using the alternative measure. It should be noted that for the nation as a whole, the alternative measure increases the estimated

number of poor persons overall by over 2.5 million from 32.4 million to 34.9 million. This means that from a state-by-state comparison, there will be more increases than decreases in the estimates of poverty in the states overall. Looked at another way, there were 2.5 million more poor people estimated for the country as a whole, and 1.8 million of them resided in California.

Despite the fact that switching to the alternative measure increased the estimated number of poor persons in the US overall, there were a number of states that saw a decline in the estimated number of poor persons. The largest poverty loser in this respect was Alabama, where 200,000 fewer poor people were estimated when using the alternative measure. Mississippi, Missouri, Tennessee, Arkansas, Oklahoma, and Louisiana all were estimated to have between 100,000 and 200,000 fewer persons living in poverty as a result of using the alternative measure.

Table 2
Estimated Number of School-Aged Children (Aged 5-17) At or Below Official and Alternative Poverty Thresholds by State, Three Year Averages for 1999-2001

State	School-Age Poverty Population		
	Official Measure	Alternative Measure	Net Difference
California	1,196,791	1,422,128	225,337
New Jersey	133,331	176,820	43,489
New York	656,338	681,221	24,883
Maryland	71,403	83,325	11,922
Hawaii	25,958	31,884	5,926
Nevada	49,445	51,265	1,820
New Hampshire	13,899	13,693	-206
District of Columbia	21,056	20,625	-431
Alaska	11,836	10,516	-1,320
Vermont	10,046	8,521	-1,525
Delaware	18,294	15,609	-2,685
Connecticut	63,050	60,062	-2,988
Wyoming	9,239	5,372	-3,867
South Dakota	11,700	6,912	-4,788
Maine	27,847	23,044	-4,803
Rhode Island	22,655	17,766	-4,889
Montana	27,090	20,540	-6,550
Washington	110,989	102,253	-8,736
North Dakota	14,738	5,966	-8,772
Utah	41,437	31,866	-9,571
Colorado	92,743	82,921	-9,822
Virginia	113,446	103,308	-10,138
Massachusetts	158,637	147,511	-11,126
Indiana	93,748	81,794	-11,954
Arizona	167,226	154,976	-12,250
Oregon	87,324	73,425	-13,899
Iowa	36,081	22,137	-13,944
Nebraska	33,488	16,921	-16,567
Kansas	61,992	41,455	-20,537
Idaho	41,328	20,469	-20,859
West Virginia	53,147	30,046	-23,101
New Mexico	101,390	75,594	-25,796
Wisconsin	100,610	72,899	-27,711
Minnesota	68,720	39,281	-29,439
Pennsylvania	227,614	196,254	-31,360
South Carolina	123,564	85,017	-38,547

Table 2 (Continued)
Estimated Number of School-Aged Children (Aged 5-17) At or Below Official and Alternative Poverty Thresholds by State, Three Year Averages for 1999-2001

State	School-Age Poverty Population		
	Official Measure	Alternative Measure	Net Difference
Florida	441,237	400,356	-40,881
Illinois	325,401	283,795	-41,606
Kentucky	106,209	63,485	-42,724
Arkansas	99,277	53,400	-45,877
Georgia	276,177	229,721	-46,456
Michigan	217,494	170,569	-46,925
Mississippi	120,499	71,096	-49,403
Missouri	129,408	77,411	-51,997
Tennessee	174,749	119,737	-55,012
North Carolina	226,312	169,696	-56,616
Alabama	157,446	76,114	-81,332
Louisiana	201,218	117,921	-83,297
Oklahoma	160,405	58,026	-102,379
Ohio	273,128	167,959	-105,169
Texas	842,815	691,409	-151,406
US Total	*7,795,646*	*6,784,091*	*-1,011,555*

Source: Nelson and Short (2003), pp. 29-30.

Table 2 shows Nelson and Short's estimates of the number of school-aged children living in poverty in each state using both the official and alternative poverty measures. Again, California is shown to have the greatest increase in the estimated number of poor children that results from switching to the alternative measure of poverty. Table 2 indicates that there are actually over 225,000 more school-aged children living in California than is officially recognized. The estimated increase in the number of California's poor children from 1.20 million to 1.42 million represents a 18.8% gain. Other states that saw increases in the estimated number of poor school-aged children as a result of switching to the alternative poverty measure were New Jersey with 43,000, New York with 25,000 and Maryland with 12,000. Hawaii and Nevada also had slight gains in the estimated number of poor school-aged children. Note again that the estimated total number of poor school-aged children overall declined by over 1 million from 7.8 million to 6.8 million as a result of switching to the alternative measure of poverty. This means that on a state-by-state basis, there will be more decreases than increases in the estimates of changes in school-aged poverty in the states overall. The figures in Table 2 indicate that forty five states saw a decrease in the estimated number of low-income school-aged children as a result of switching to the alternative poverty measure. Of these, Alabama and Louisiana were estimated to have more than 80,000 fewer poor school-aged children, and Oklahoma, Ohio, and Texas were all estimated to have more than 1 million fewer poor school-aged children.

FEDERAL FORMULA GRANT PROGRAMS

In fiscal year 2002, the federal government distributed $407 billion to state and local governments through approximately 170 separate formula grant programs (also called block

grants or categorical grants) designed to help implement federal policies in a wide variety of areas. In 2002, California received about $48 billion, or 11.8 percent of these funds[11]. Unlike project grants, discretionary grants, or Congressional earmarks, formula grant programs allocate funding to states or sub-state units (counties, municipalities, school districts, etc.) according to relatively uniform, objective criteria that can be numerically measured and used as inputs, or factors, in predetermined mathematical formulas. The specific formulas and factors to be used in them, as well as additional program components that constrain the formula allocations to within certain limits, are typically spelled out in the statutory language. Often some degree of discretion for how funds should be allocated in practice, is left to the agencies charged with implementing the programs.

All formula grant programs have certain features in common, though there can be considerable variation in the specific way formula allocations are implemented. In 2000, the Panel on Formula Allocations was formed by the Committee on National Statistics of the National Academy of Sciences and co-sponsored by the National Center for Educational Statistics to study this process in some detail and make recommendations for improvements in the system in general. The Formula Panel has so far issued two reports,[12] both of which provide useful overviews of various aspects of the federal formula grant implementation process.

In its 2001 report, the Formula Panel points out that most formulas include some direct or indirect measures of *need* as formula factors, variables such as the number of poor school children, the number of vehicular miles traveled, or the number of AIDS cases. Formulas often contain a measure of the *capacity* of the state to meet the need on its own, such as state per-capita income or total taxable resources. Sometimes, a measure of *effort* is

included in the formula, such as the level of state funding already devoted to meeting the need. Formulas can also include some measure of *cost*, such as the average price of free or reduced price lunches served to school children, or the relative wages of health care workers.

In most cases, the way funds are allocated among the states or sub-state units is constrained by certain components that act to override the allocation determined by the mathematical formula. Like the formulas themselves, these components can either be spelled out in statutory language or emerge as a result of administrative decisions made by the implementing agencies. Examples of such components include: minimum thresholds, maximum thresholds, small-state minimums, phase-in periods, administrative cost set-asides, and hold-harmless provisions[13]. Such components often complicate and obscure the process by which funding is allocated. According to the NAS Formula Panel, the inclusion of such components along with the administrative decisions made by implementing agencies in practice, together act to smooth out funding distributions and reduce the size of any reallocations between states that might be caused in response to changes in the underlying formula factors themselves.

The Ten Largest Federal Formula Grant Programs

Table 3 shows estimated federal expenditures[14] in fiscal year 2002 for the ten largest federal formula grant programs. Combined expenditures on these ten programs (nearly $226 billion) amounted to more than half of total expenditures on all formula grant programs ($407 billion). As the table indicates, seven of these programs use some measure of poverty as a factor in allocating funding. For example, funding under the State Children's Health Insurance Program (SCHIPS) is partially based on the number of low-income children and

the number of uninsured low-income children in each state each year. Funding under the Community Development Block Grant program is allocated partially on the basis of the poverty population in each metropolitan area.

Table 3
The Ten Largest Federal Formula Grant Programs
By Size of Expenditure, Fiscal Year 2002

Catalog Number	Program	Fiscal Year 2002 Expenditures	Poverty Used as Factor
93.778	1. Medical Assistance Program (Medicaid)	$142,167,333	No
20.205	2. Highway Planning and Construction Program	$25,934,941	No
93.558	3. Temporary Assistance for Needy Families (TANF)	$16,556,542	Yes
84.010	4. Title I Grants to Local Educational Agencies	$9,060,721	Yes
84.027	5. Special Education - Grants to States	$7,339,685	Yes
93.600	6. Head Start	$6,324,812	Yes
10.555	7. National School Lunch Program	$6,103,277	Yes
93.658	8. Foster Care - Title IV - E	$5,055,000	No
10.557	9. Nutritional Program for Women, Infants, and Children (WIC)	$4,253,130	Yes
93.767	10. State Children's Health Insurance Program (SCHIP)	$3,115,200	Yes
	Total for Ten Largest Programs	$225,910,641	

The largest formula grant program by far is Medicaid, the program used to fund health insurance for low income Americans. Its $142 billion expenditure constituted 34.93% of all formula grant funding in 2002. Somewhat surprisingly, given the purpose of the program to provide health insurance for low-income families in each state, the formula used to allocate funding does not use poverty as a factor. Instead, allocations are based on a formula called the federal medical assistance percentage (FMAP), which determines the proportion of a state's low-income health expenditures that will be reimbursed by the federal government. FMAP, which is also used either directly or indirectly in three other large

formula grant programs: State Children Health Insurance Program (SCHIP), Temporary Assistance to Needy Families (TANF), and Foster Care – Title IV – E, is based on the ratio of a state's per-capita income to the national per-capita income. The FMAP formula is specified under the Medicaid program in such a way that no state can receive federal reimbursement of less than 50% of its own expenditures or more than 83%. Presently, no state has relative per-capita income so low as to receive the 83% upper limit on reimbursement, but thirteen, including California, have per-capita incomes high enough above the national level so as to receive only 50%.

The Formula Panel was struck by the ambiguity of using the FMAP formula for allocating funding in this the largest federal formula grant program. In its 2003 report, the Panel stated that it seems unclear whether the FMAP formula was intended to measure each state's need, or measure its fiscal capacity to meet that need. Either way, more appropriate and precise measures are available. As a measure of fiscal capacity, the Formula panel suggested using a more precise alternative, the Treasury Department's measure of state taxable resources. As far as a measure of need is concerned, numerous other studies have shown there to be an inconsistent relationship between a state's per-capita income and it's poverty rate. In particular, California has both a relatively high per-capita income, and a disproportionately high number of persons living in poverty, even as measured by the official measure. In Ransdell's 2002 report, he notes that the General Accounting Office has criticized the FMAP measure as being inequitable and that it has recommended the Department of Health and Human Services to shift from using per-capita income to poverty as the primary factor in allocating funding under Medicaid. As an indication of how reliance on the FMAP formula to allocate federal funding under Medicaid works to the particular

disadvantage of states like California with both high levels of per-capita income and poverty, in 2000 California received 10.73% of the total Medicaid allocation, when its poverty share was 13.7% using the official measure, or 17.9% using the alternative measure.

The second largest formula grant program, Highway Planning and Construction, of course does not include poverty as a formula factor, but seven of the next eight largest programs do include poverty. Temporary Assistance to Needy Families (TANF) is the third largest program, replacing Aid to Families with Dependent Children (AFDC) with passage of the 1996 welfare reform act. In fiscal year 2002, over $16.5 billion was allocated to states under TANF. Funding allocations under TANF have remained essentially frozen at pre-1996 levels, as under the formula currently in use, a state's funding is equal to the higher of three figures, all based on combined pre-1996 expenditures on three programs: AFDC, Emergency Assistance, and Job Opportunities and Basic Skills Training (JOBS). The formula awards each state a block grant equal to the highest of the following: a) its average federal funding on these programs for fiscal years 1992-1994, b) its federal funding on these programs for 1994 plus some specified additional Emergency Assistance funding, or c) its estimated funding on these programs for 1995. Since all three of these allocation factors in the formula include previous year AFDC expenditures, and since AFDC was by far the larger of the three programs used to calculate the combined funding figures, this formula continues to indirectly allocate TANF funding on the basis of the old FMAP levels from a period now almost ten years ago.

For all the reasons cited above in the case of Medicaid funding allocation, the FMAP formula used under the old AFDC program historically worked to the disadvantage of states like California that had both higher per-capita income and higher rates of poverty, allocating

too little funding to states with higher needs due to their higher poverty populations. So far as TANF is concerned, since its allocation formula depends for the most part upon on ten-year-old FMAP relationships that have very little to do with current needs in the affected states, the current allocations are likely to be even more inequitable.

Since 1999, Title I Grants to Local Educational Agencies has distributed funding directly to school districts rather than to states. In fiscal year 2002, about $9 billion was allocated to various school districts. The original purpose of the program, begun in the mid-1960s, was to encourage school districts to comply with school desegregation requirements. Funding to school districts is distributed partly on the basis of the number of low-income children of school age living in those districts. The allocation formula itself is relatively simple: a district's allocation is equal to 40% of its state's average per-pupil expenditure (restricted to within a range) times the total number of poor school age children in its district. However, the allocation is constrained by a combination of mandatory thresholds, hold-harmless provisions, and state minimums that together effectively act to limit reallocations of funding to districts where needs have been increasing more rapidly.

The Special Education – Grants to States program distributed about $7.3 billion to states in fiscal year 2002. Its allocation formula works somewhat differently from other formula grant programs in that each state automatically receives its 1999 base year funding, after which only whatever *additional* program funding beyond the 1999 level can be allocated to individual states according to the formula. The formula factors include the total number of all school age children, the total number of poor school aged children, and the state's average per pupil expenditure. The school age population factors are weighted differently within the formula, with the total number of all school age children in each state

receiving a weight of 85%, and the total number of poor school age children receiving a weight of 15%. As the NAS Formula Panel notes in its 2003 report, however, "a complex set of minimum and maximum limitations on changes from year to year and from the base year delays responses of the allocations to changes in need and effort. For example, no state may receive more than its allocation for the previous year increased by the percentage increase in the total amount appropriated plus 1.5%, and no state may receive less than its allocation for the previous year increased by the greater of the percentage increase in the total amount appropriated minus 1.5% of 90% of the percentage increase in the amount appropriated."[15]

The Head Start program[16] is one of the more politically popular federal formula grant programs, distributing more than $6.3 billion to the states in fiscal year 2002. From modest beginnings in the mid-1960s as a temporary program offering pre-school services to children from low-income families, Head Start has since grown to offer a wide array of early-childhood development services to low-income families. Instead of distributing funds directly to states as most formula grant programs do, Head Start funding is sent directly to the various public, private, and non-profit service providers. However, the total allocation to service providers within each state is still worked out according to a formula on a state-by-state basis. In terms of how funds are allocated between states, Head Start is similar to Special Education – Grants to States in that each state is guaranteed a base year (1998) level of funding, after which only *additional* incremental growth in overall funding can be used for state-by-state funding reallocations on the basis of need. However, between 1997 and 2003, Head Start funding increased by 67% overall, which potentially could have been partly used for funding reallocations between states to accommodate states with expanded needs. However, Head Start is structured such that its implementing agency, the Department of

Health and Human Services has a particularly high degree of latitude in the way funding is allocated, and in practice, HSS has opted for distributing these additional funds in equalized, across-the-board increases for each state[17].

The National School Lunch Program is designed to compensate states for a portion of their costs of providing nutritionally sound lunches to the state's school age children. The program allocated an estimated $6.1 billion for this purpose in fiscal year 2002. The amount each state receives under the program is a function of the total number of paid, reduced price, and free meals its school districts serve to school children. Children are eligible for reduced price lunches when family income falls between 130% and 185% of the poverty threshold, and are eligible for free lunches when family income falls below 130% of the poverty threshold. Unlike a number of other formula grant programs, the National School Lunch Program has no upper or lower limits, no state minimums, no thresholds, and no hold-harmless provisions. Therefore, shifts in funding among the states in response to changes in underlying needs as reflected in the formula is not be hampered by the presence of administrative restrictions that override formula based allocations.

The Special Supplemental Nutritional Program for Woman, Infants, and Children (WIC) program allocated approximately $4.25 billion to states in fiscal year 2002. The program is designed to provide at-risk, low-income women and young children under five with nutritional supplements and information to encourage families to maintain a healthy diet. In particular, the program distributes infant formula free to eligible families. As a formula grant program, WIC is somewhat unusual in that its implementing agency, the Department of Agriculture's Food Nutritional Service (FNS), has been directed to develop its own allocation formula rather than use a predetermined formula specified in the legislative

language. This provides the FNS with even greater degree of discretion in making funding allocation decisions than is true for the implementing agencies of most other programs. While the FNS has devised a formula designed to estimate each state's "fair share" based on its number of at-risk, low-income families, according to the NAS Formula Panel, "current estimates of need [have] taken a back seat to stability provisions.[18]" Recent funding increases have, for the most part, come in the form of equalized, across-the-board increases to each state. The FNS has placed a priority accounting for inflationary increases in the cost of food affecting all states more or less equally, rather than reallocation on the basis of need.

The State Children's Health Insurance Program (SCHIP) began in 1998 in an effort to provide health insurance to children from low-income families not already covered by Medicaid. The target population is families at or below 200% of the poverty threshold without health insurance. The SCHIP program reimburses states for health insurance costs using a matching rate "enhanced" FMAP formula similar to that used in Medicaid, but different numerical parameters. This results in reimbursements that vary in the range between 65% and 85% of expenditures. Allocation of funding among states is determined by a formula originally based on the number of each state's *uninsured* children at or below 200% of poverty, and a cost factor based upon each state's wages in the health services industry relative to the national average. In 1999, however, Congress changed the formula to include equal weighting for the number of uninsured low-income children, and the number of low-income children per se. This change resulted in a substantial loss in funding under the program for some states, including California, which had a higher share of uninsured low-income children than low-income children per se[19]. Reallocations among states under the new formula are somewhat constrained by a combination of upper and lower limits, a hold-

harmless provision, and a minimum funding floor. However, despite these provisions, there has been some relatively large changes in the year-to-year allocations to each state. For example, from 1998 to 2001, California's share of funding fell from 22.2% to just 16.6%.

The Community Development Block Grant (CDBG) program, allocated almost $3.1 billion in fiscal year 2002 to metropolitan central cities, other large cities within metropolitan areas, and urban counties. Cities use CDBG funding for a variety of housing and neighborhood development programs aimed at restoring economic vitality to low and moderate income communities. The allocation process completely bypasses the states, and funding levels are determined by factors measured on a community-by-community basis. The program is unique in that it uses two separate formulas to determine the funding share for each community. The first formula uses each community's total population, its poverty population, and its number of overcrowded housing units as formula factors. The second formula uses each community's poverty population, its number of housing units built before 1940, and population growth since 1960 as formula factors. Each community's proportional share is designated as the higher of the two formula values, and there is a pro rata reduction in each community's designated share to assure that the sum of shares is equal to 100%. Data used in both formulas (except for total population) are from the decennial census, so that reallocations between communities in response to changes in need would occur only slowly. On the other hand, the funding mechanism has no thresholds, minimums, or hold-harmless provisions to administratively further constrain the reallocation of funding in response to changes in need.

ESTIMATED FORMULA GRANT REALLOCATIONS USING THE ALTERNATIVE POVERTY MEASURE

This section presents the results of my attempt to estimate the size of the state-by-state funding reallocations likely to take place under six large federal formula grant programs were the Census Bureau's alternative poverty measure to be used in place of the official poverty measure now being used. The results demonstrate the likelihood of a sizable shift in funding towards high cost states like California that have larger shares of poverty as measured by the alternative poverty measure. Conversely, these results indicate there would likely be sizable reductions in funding for low cost states with relatively smaller shares of poverty using the alternative measure. Were it not for the presence of provisions in these programs that effectively limit the extent of potential reallocations – features such as hold-harmless provisions, state minimums, upper and lower limits, etc. – the estimated figures presented here would have been even larger, since in making these estimates, I attempted to carefully account for the effects of such constraints.

Before presenting reallocation estimates for each of the six formula grant programs, I will briefly describe here the general method I used in making these estimates. Then in presenting the estimates themselves in the sub-sections that follow, I will also describe any variation in the general procedure outlined here that sometimes occurred in particular cases. To begin, I obtained the most accurate and precise version of the mathematical formula available for each program, as well as any description of formula components and administrative restrictions such as hold-harmless provisions, state minimums and maximums, upper and lower limits, etc[20].

I then collected state-by-state data for each of the factors used in the formulas of each program. The most recent estimates available for the number poor persons and poor children in each state as measured using both the official and alternative poverty measures came from the Nelson and Short working paper referred to earlier[21]. The poverty estimates presented in Tables 1 and 2 were from this source where the researchers calculated averages from pooling three years of Current Population Survey data, 1999, 2000, and 2001. Given this time dimension, to be consistent, I used 2000 as the base year in making estimates under each program. Once I had obtained data for each of the other formula factors for each state for the year 2000, I estimated, as best I could, allocations for each state under the formula using the official poverty figures from the Short and Nelson paper. I made every attempt to account for administrative restrictions such as hold-harmless provisions, state minimums, etc. After this, I compared my estimates to each state's 2000 actual allocation in fiscal year 2000 as listed in the Office of Management and Budget publication, *Budget Information for States*. In some cases, my estimates of the 2000 allocation using the formula were very close to the actual fiscal year 2000 allocations. In other cases, my estimates differed somewhat from the actual 2000 allocation the state received despite my efforts to take administrative restrictions into account.

I next re-estimated the 2000 allocation for each state using the alternative poverty measure and state-by-state poverty counts from the Short and Nelson paper, again making every attempt to account for administrative restrictions on reallocations such as hold-harmless provisions. Once I had calculated estimates for each state's allocation using both the official and alternative measures, I calculated the difference in each state's share of total funding under each estimate. For example, under the Title I program, my estimate of New

Jersey's share of funding in 2000 was 2.1% using the official poverty measure, and 2.8% using the alternative measure. I attributed this 0.7% increase in New Jersey's share solely to the effect of switching to the alternative poverty measure, since that was the only factor that had changed when I calculated the two estimates.

As noted above, despite my best efforts to control for administrative restrictions and other factors, my estimates using the official measure sometimes did not match the actual allocation each state received. For example, in fiscal year 2000, New Jersey's actual share of funding under the Title I program was 2.4%, whereas I had estimated that New Jersey would have received 2.1% using the official measure. In other words, there was an estimation error (0.3% in this case) in my estimates, due perhaps to not fully incorporating all administrative restrictions, or to not working with exactly the same data as the agency. In any event, I wanted to be careful not to include this error in my estimates of the funding reallocations likely to take place from switching to the alternative measure.

A conventional way to account for such errors is to take the difference between the two estimates. Under the assumption that the estimation error was present and equal in both my official and alternative poverty estimates, taking the difference between the estimates will serve to cancel the error out. Looked at another way, had I not taken the difference between the two estimates, and simply compared the actual 2.4% share that New Jersey received to the 2.7% I estimated they would have received under the alternative measure, I would have essentially been ignoring the fact that my 2.7% estimate had a built-in 0.3% error. Therefore, in arriving at my final estimate of New Jersey's 2000 allocation under the alternative measure, I took the 0.7% increase in New Jersey's share I had originally attributed solely to the effect of switching to the alternative measure (the difference between the 2.1% under the

official versus the 2.8% under the alternative) and added this to the 2.4% New Jersey actually received in 2000. This made my estimate for New Jersey's 2000 share of funding under Title I had the alternative poverty measure been used 3.1% instead of the 2.4% the state actually received when the official measure was used.

Finally, I updated these to fiscal year 2002 estimates – the most recent year for which state-by-state data was available – following exactly the same procedure as described above for the year 2000. To continue with the example, in 2002 New Jersey's actual share of Title I funding rose from 2.4% to 2.6%. Therefore, I added the 0.7% estimated effect attributable to using the alternative poverty measure to the actual 2.6%. I therefore estimated that that New Jersey's 2002 share would have been 3.3 % rather than 2.6% had the alternative poverty measure been used in place of the official measure.

In 2003, the Office of Management and Budget decided to discontinue publication of the companion report to each year's official budget, *Budget Information for States*, which up until that point had been the sole source of state-by-state allocation figures for federal programs used in this and a number of the other reports and studies cited here. Because data is not available for program funding on a state-by-state basis for years beyond 2002, I was unable to provide estimates of more recent reallocations for years 2003 or 2004.

Estimated Reallocations for the Title I Program

As noted earlier, since 1999, the Title I Grants to Local Educational Agencies program has distributed funding directly to school districts rather than to states. This makes the estimation technique employed here somewhat imprecise, since the method relies on

using state level data rather than school district level data. The estimates presented here were made under the assumption that Title I funds were distributed by the formula to states rather than school districts using state level data in the formula instead of school district data.

Funding allocations under the Title I program are subject to three important administrative restrictions. First, to qualify for a basic grant, a school district must have at least 10 eligible (low income) children and a 2% school-age child poverty rate. I assumed that each state met this threshold, but since the proportion of districts in each state that do not meet this threshold could vary, this assumption could have introduced some unknown amount of bias into the estimates. Second, each state must receive a minimum of the smaller of: (a) 0.25% of the total grants to states, or (b) the average of: (1) 0.25% of total state grants, and (2) 150 percent of the national average grant per eligible child multiplied by the total number of eligible children in its school districts. Since this was a statewide restriction on allocations, I was able to adjust estimated allocations to meet this requirement. Finally, Title I features 100% hold-harmless provisions for school districts that remain eligible, and I accounted for this feature by adjusting the estimated allocations such that no state would receive less than its 2001 allocation. Such a statewide adjustment might have introduced some known amount of bias into the estimates, since the proportion of individual school districts within each state subject to hold-harmless could possibly vary from state to state.

Table 4
Estimated Reallocation of Title I Program Funding
From Using Alternative Poverty Measure

State	Actual Fiscal Year 2000 Allocation Using Official Poverty Measure		Estimated Fiscal Year 2000 Allocation Using Alternative Poverty Measure		Estimated Reallocation
	Amount	Share	Amount	Share	
California	$1,258,953,000	14.49%	$1,447,003,208	16.66%	$188,050,208
New York	$895,721,000	10.31%	$973,103,813	11.20%	$77,382,813
New Jersey	$223,402,000	2.57%	$262,699,036	3.02%	$39,297,036
Maryland	$135,547,000	1.56%	$143,624,501	1.65%	$8,077,501
Hawaii	$28,443,000	0.33%	$32,809,445	0.38%	$4,366,445
District of Columbia	$29,294,000	0.34%	$31,359,631	0.36%	$2,065,631
Nevada	$36,028,000	0.41%	$38,091,800	0.44%	$2,063,800
Florida	$439,886,000	5.06%	$439,977,812	5.07%	$91,812
Vermont	$18,681,000	0.22%	$18,288,301	0.21%	-$392,699
New Mexico	$73,038,000	0.84%	$72,514,000	0.83%	-$524,000
West Virginia	$75,345,000	0.87%	$74,685,000	0.86%	-$660,000
Wyoming	$18,938,000	0.22%	$17,929,000	0.21%	-$1,009,000
New Hampshire	$20,938,000	0.24%	$19,871,219	0.23%	-$1,066,781
Delaware	$21,352,000	0.25%	$20,190,443	0.23%	-$1,161,557
Mississippi	$122,766,000	1.41%	$121,374,000	1.40%	-$1,392,000
Louisiana	$196,997,000	2.27%	$195,269,000	2.25%	-$1,728,000
Alaska	$24,291,000	0.28%	$22,363,104	0.26%	-$1,927,896
Arizona	$148,171,000	1.71%	$146,113,815	1.68%	-$2,057,185
Maine	$32,507,000	0.37%	$30,290,670	0.35%	-$2,216,330
South Dakota	$22,417,000	0.26%	$20,199,000	0.23%	-$2,218,000
North Dakota	$21,930,000	0.25%	$19,573,000	0.23%	-$2,357,000
Connecticut	$91,001,000	1.05%	$88,540,326	1.02%	-$2,460,674
Nebraska	$33,665,000	0.39%	$30,689,000	0.35%	-$2,976,000
Washington	$121,810,000	1.40%	$118,697,165	1.37%	-$3,112,835
Montana	$29,618,000	0.34%	$26,094,620	0.30%	-$3,523,380
Rhode Island	$29,413,000	0.34%	$25,833,806	0.30%	-$3,579,194
Colorado	$83,484,000	0.96%	$78,900,411	0.91%	-$4,583,589
Idaho	$27,511,000	0.32%	$22,847,000	0.26%	-$4,664,000
Kentucky	$136,391,000	1.57%	$131,276,000	1.51%	-$5,115,000
Utah	$36,785,000	0.42%	$31,621,339	0.36%	-$5,163,661
Arkansas	$87,175,000	1.00%	$81,146,000	0.93%	-$6,029,000
Iowa	$55,107,000	0.63%	$48,573,000	0.56%	-$6,534,000

Table 4 (Continued)
Estimated Reallocation of Title I Program Funding From Using Alternative Poverty Measure

State	Actual Fiscal Year 2000 Allocation Using Official Poverty Measure		Estimated Fiscal Year 2000 Allocation Using Alternative Poverty Measure		Estimated
	Amount	Share	Amount	Share	Reallocation
Tennessee	$138,294,000	1.59%	$131,444,000	1.51%	-$6,850,000
Oklahoma	$106,539,000	1.23%	$99,635,000	1.15%	-$6,904,000
Indiana	$133,416,000	1.54%	$126,380,280	1.45%	-$7,035,720
Wisconsin	$133,970,000	1.54%	$126,626,000	1.46%	-$7,344,000
Virginia	$149,867,000	1.73%	$142,382,076	1.64%	-$7,484,924
Oregon	$81,040,000	0.93%	$72,644,488	0.84%	-$8,395,512
Pennsylvania	$354,683,000	4.08%	$345,748,759	3.98%	-$8,934,241
Alabama	$140,070,000	1.61%	$130,597,000	1.50%	-$9,473,000
Massachusetts	$192,058,000	2.21%	$182,525,903	2.10%	-$9,532,097
Texas	$732,475,000	8.43%	$722,191,000	8.31%	-$10,284,000
Missouri	$146,119,000	1.68%	$134,643,000	1.55%	-$11,476,000
Kansas	$67,074,000	0.77%	$55,148,000	0.63%	-$11,926,000
Ohio	$305,319,000	3.51%	$290,214,000	3.34%	-$15,105,000
South Carolina	$120,876,000	1.39%	$105,088,000	1.21%	-$15,788,000
Illinois	$384,364,000	4.42%	$368,299,326	4.24%	-$16,064,674
Minnesota	$100,094,000	1.15%	$81,472,000	0.94%	-$18,622,000
Michigan	$361,235,000	4.16%	$337,588,000	3.89%	-$23,647,000
Georgia	$273,425,000	3.15%	$247,043,903	2.84%	-$26,381,097
North Carolina	$188,902,000	2.17%	$155,205,800	1.79%	-$33,696,200
US Total	*$8,686,425,000*	*100.00%*	*$8,686,425,000*	*100.00%*	*$0*

Table 4 shows the estimated reallocation of funding to the states under the Title I program that would have resulted had the Department of Education used the number of poor children as measured by the alternative poverty measure in their allocation formula. The reallocation is not particularly surprising in light of the change in the geographical incidence of poverty among school-aged children from using the alternative measure as

shown earlier in Table 2. The size of the shift in funding towards high cost states with higher numbers of poor children when the alternative poverty measure is used is nonetheless striking. All six states that are estimated to have an increase in the number of poor school-aged children when switching to the alternative measure in Table 2 are shown to have received an estimated funding increase in Title I were the alternative measure used. These states are California, New York, New Jersey, Maryland, Hawaii, and Nevada. The largest estimated increases are for California with $188 million, New York with $77.4 million, and New Jersey with $39.3 million. Of the remaining forty-four states that had an estimated reduction in the number of poor school-aged children with switching to the alternative poverty measure, all but Florida and the District of Columbia are shown in Table 4 to have received estimated funding reductions, although because of the hold-harmless provision, none would have received less than its 2001 allocation. Michigan, Georgia, and North Carolina all were estimated to have received more than $20 million less than their actual fiscal year 2002 allotment. Overall, Table 4 indicates that an estimated $321.4 million would have been reallocated by switching to the alternative poverty measure. This represents about 3.7% of the overall Title I funding level for fiscal year 2002.

Estimated Reallocations for the Special Education Grants to States Program

The Special Education Grants to States program uses a relatively simple allocation formula that allots to each state a base year (1999) level of funding plus some portion of whatever program funding growth occurred since the base year. The portion each state receives of this additional funding depends on its proportionate share of all school-age

children and its proportionate share of low-income school-age children, though the proportionate share of low-income school-age children receives a much smaller weight of .15 in the formula compared to the weight of .85 share applied to the share of all school-age children. This relatively small weight given to the poverty component in the formula results in a relatively modest estimate of the amount of reallocation that would occur if the alternative poverty measure were used.

In addition, there are several important administrative restrictions that further limit the level of reallocation between states. First, there is an upper limit on funding increases in that no state may receive more than its allocation from the previous year increased by the percentage increase in the total program funding plus 1.5%. Second, there is a hold-harmless provision that stipulates that each state will receive 100% of its previous year's funding so long as there are available funds. Finally, there are additional administrative provisions to ensure that states will receive some minimum proportion of overall program funding growth.

Table 5
Estimated Reallocation of Special Education Grants to States
Funding Using Alternative Poverty Measure

State	Actual Fiscal Year 2002 Allocation Using Official Poverty Measure		Estimated Fiscal Year 2002 Allocation Using Alternative Poverty Measure		Estimated Reallocation
	Amount	Share	Amount	Share	
New York	$495,232,000	6.93%	$498,058,687	6.97%	$2,826,687
California	$762,300,000	10.67%	$764,289,799	10.70%	$1,989,799
New Jersey	$238,133,000	3.33%	$239,659,023	3.36%	$1,526,023
Florida	$399,909,000	5.60%	$400,655,525	5.61%	$746,525
Maryland	$128,462,000	1.80%	$129,039,293	1.81%	$577,293
Massachusetts	$187,016,000	2.62%	$187,403,281	2.62%	$387,281
Illinois	$323,675,000	4.53%	$324,011,498	4.54%	$336,498
Arizona	$108,295,000	1.52%	$108,603,429	1.52%	$308,429
Virginia	$177,368,000	2.48%	$177,642,321	2.49%	$274,321
Washington	$139,090,000	1.95%	$139,349,028	1.95%	$259,028
Pennsylvania	$276,553,000	3.87%	$276,790,651	3.88%	$237,651
Connecticut	$86,978,000	1.22%	$87,174,947	1.22%	$196,947
Indiana	$166,661,000	2.33%	$166,831,982	2.34%	$170,982
Colorado	$91,719,000	1.28%	$91,857,519	1.29%	$138,519
Nevada	$40,726,000	0.57%	$40,833,109	0.57%	$107,109
New Hampshire	$31,569,000	0.44%	$31,634,392	0.44%	$65,392
Hawaii	$25,025,000	0.35%	$25,090,351	0.35%	$65,351
Oregon	$84,135,000	1.18%	$84,164,654	1.18%	$29,654
Alaska	$21,650,000	0.30%	$21,676,205	0.30%	$26,205
District of Columbia	$9,977,000	0.14%	$10,002,513	0.14%	$25,513
Delaware	$19,842,000	0.28%	$19,855,232	0.28%	$13,232
Vermont	$15,534,000	0.22%	$15,544,829	0.22%	$10,829
Maine	$36,050,000	0.50%	$36,060,813	0.50%	$10,813
Rhode Island	$28,810,000	0.40%	$28,797,481	0.40%	-$12,519
Utah	$66,896,000	0.94%	$66,873,968	0.94%	-$22,032
Georgia	$190,381,000	2.67%	$190,346,210	2.67%	-$34,790
Wyoming	$16,297,000	0.23%	$16,256,747	0.23%	-$40,253
Montana	$22,976,000	0.32%	$22,934,652	0.32%	-$41,348
South Dakota	$19,193,000	0.27%	$19,142,892	0.27%	-$50,108

Table 5 (Continued)
Estimated Reallocation of Special Education Grants to States
Funding Using Alternative Poverty Measure

State	Actual Fiscal Year 2002 Allocation Using Official Poverty Measure		Estimated Fiscal Year 2002 Allocation Using Alternative Poverty Measure		Estimated Reallocation
	Amount	Share	Amount	Share	
Iowa	$80,430,000	1.13%	$80,314,102	1.12%	-$115,898
North Dakota	$16,111,000	0.23%	$15,981,748	0.22%	-$129,252
Michigan	$254,222,000	3.56%	$254,079,704	3.56%	-$142,296
Wisconsin	$135,860,000	1.90%	$135,685,197	1.90%	-$174,803
Kansas	$69,383,000	0.97%	$69,187,609	0.97%	-$195,391
New Mexico	$59,588,000	0.83%	$59,379,715	0.83%	-$208,285
Nebraska	$49,194,000	0.69%	$48,984,185	0.69%	-$209,815
West Virginia	$50,033,000	0.70%	$49,739,627	0.70%	-$293,373
Idaho	$33,679,000	0.47%	$33,384,296	0.47%	-$294,704
Texas	$593,039,000	8.30%	$592,740,705	8.30%	-$298,295
Minnesota	$128,471,000	1.80%	$128,164,516	1.79%	-$306,484
South Carolina	$112,253,000	1.57%	$111,888,118	1.57%	-$364,882
North Carolina	$196,922,000	2.76%	$196,541,355	2.75%	-$380,645
Kentucky	$102,264,000	1.43%	$101,752,912	1.42%	-$511,088
Tennessee	$147,236,000	2.06%	$146,697,925	2.05%	-$538,075
Missouri	$149,128,000	2.09%	$148,531,033	2.08%	-$596,967
Arkansas	$68,257,000	0.96%	$67,626,065	0.95%	-$630,935
Oklahoma	$96,040,000	1.34%	$95,403,407	1.34%	-$636,593
Mississippi	$75,287,000	1.05%	$74,646,727	1.05%	-$640,273
Louisiana	$116,420,000	1.63%	$115,324,577	1.61%	-$1,095,423
Alabama	$115,870,000	1.62%	$114,700,842	1.61%	-$1,169,158
Ohio	$281,323,000	3.94%	$280,126,603	3.92%	-$1,196,397
US Total	*$7,141,462,000*	*100.00%*	*$7,141,462,000*	*100.00%*	*$0*

Table 5 shows the estimated reallocation of funding to the states under the Special Education Grants to States program that would have resulted had the Department of Education used the proportionate share of poor school-age children as measured by the alternative poverty measure in their allocation formula. As can be seen, the estimated level of reallocation from using the alternative measure is almost negligible. Only $10.3 million was estimated to be reallocated in all, this from a program that saw $2 billion overall funding growth from 2001 to 2002. The $10.3 that would have been reallocated had the alternative poverty measure been used in the formula represents a mere 0.145% of the program's $7,141 million budget. Of states that would have received additional funding through reallocation, New York would have received the most with $2.8 million. California was second, receiving what would have been an estimated increase of $2.0 million. California's increase was constrained by hitting the upper limit. California's estimated reallocation increase would have been $8.0 million had that not exceeded the constraint that no state's yearly increase should be greater than the growth rate in funding for the Special Education program as a whole plus 1.5%. All in all, 23 states were estimated to have received a funding increase had the alternative poverty measure been used in place of the official measure, although most of these state's increase is relatively small. The remaining 28 states were estimated to have received a reduction from what they actually received in fiscal year 2002, though in most cases the reduction was less than $1.0 million. Louisiana, Alabama, and Ohio each were estimated to have lost between $1.0 and $2.0 million.

Estimated Reallocations for the Head Start Program

The legislative language authorizing the allocation of funding under the Head Start program gives the implementing agency, the Department of Health and Human Services, an unusually high degree of discretionary latitude in distributing funding to states by use of a formula and other administrative features[22]. In years when there is growth in program funding overall, the funding mechanism works to distribute funds to states through use of an elaborate array of administrative set-asides, a base year (1998) hold-harmless provision, a stipulation that each state receive an inflationary adjustment based on its previous year's allocation, and discretionary authority for HSS to allocate much of any remaining funds as it sees fit. While the relative share of preschool-age poverty in each state is ostensibly used as a formula factor, the effect this factor has on overall allocations is somewhat limited in practice. Due to these restrictions, the estimated reallocation in funding due to using the alternative measure of preschool-age poverty is estimated to be relatively modest.

In years of programmatic funding growth, Head Start's legislative language implies that HSS should allot grantees[23] cost-of-living increases to account for the effects of inflation. In addition, HSS is required to set-aside 13% of total funding which is earmarked for a variety of specified activities such as training, technical assistance, management improvement, etc.. If there are any remaining additional funds after the inflationary adjustments and mandatory set-asides, the formula requires HSS to allocate to states some portion of the remaining funds for the purpose of funding a variety of specified activities falling under the general category of quality improvement. In 2002, the specified range for quality improvement activity funding was between 35% and 100%, the exact percentage left

to HSS discretion.[24] Any funding remaining after the set-asides, inflationary adjustments, and quality improvement allocations, is available for distribution to the states. Although a state's funding is formally tied to a hold-harmless provision ensuring that it receives its 1999 allotment at a minimum, in practice all state allocations have exceeded this minimum because HSS typically begins its allocation process by awarding each state its previous year's allotment plus an inflationary adjustment. Finally, any remaining funds are distributed to states on the basis of their share of pre-school children living in poverty. Of the quality improvement funding mentioned earlier, 80% must be allocated on the basis of each state's pre-school poverty share, and the remaining 20% is allocated according to the agency's discretion.

Because of the wide degree of latitude given to HSS by Congress under the Head Start program, estimating the reallocation in funding between states from using the alternative measure of the pre-school poverty is somewhat problematic. Past administrative practice at HSS suggests an aversion towards any reallocation in general. According to Ransdell and Boloorian, "Recent funding history indicates that HSS prefers to distribute funds in a manner that maximizes uniform increases among grantees, and the authorizing statute affords the agency great authority to do so. The Head Start Act's requirement that preschool-age poverty data be used to allot funding among states is largely trumped by separate [quality improvement] language giving HSS authority to use 20 percent of program funding increases at its discretion. As a result, in 2002 and 2003, the agency allotted funds so that every grantee first received an inflationary increase, and it then allotted all remaining funds in identical proportion. In other words, after allotting funds according to the formula,

HSS used discretionary funding to award proportional increases to states that would otherwise have received a smaller growth amount."[25]

Given this apparent inclination on the part of HSS to award what are essentially across-the-board increases to all states, there seems little likelihood that HSS would, had different, more accurate preschool-age poverty data been available, actually have reallocated funds away from states with lower levels of preschool-age poverty toward states with higher levels of preschool-age poverty. Nonetheless, it is in the nature of making estimates such as the ones presented here, that we assume implementing agencies will act accordingly when one of the formula factors change.

In making the estimates presented here, I have made several critical assumptions that are probably unrealistic in terms of what HSS would have or could have actually done in practice in fiscal year 2002 had they used alternative poverty shares in their formula in place of official poverty shares. In particular, I assume they awarded no inflationary adjustment to states above their 2001 funding levels. I made this restrictive assumption because overall funding growth for Head Start from 2001 to 2002 was just over 2%, almost exactly the same as the inflation rate as measured by the Consumer Price Index that year. To assume a 2% increase for each state over its 2001 allocation would have used up nearly the entire amount of additional funding, leaving nearly nothing for reallocation on the basis of using the alternative poverty measure. I did use a hold-harmless element in making these estimates, by assuming that each state would receive at a minimum its 2001 level of funding, but without an inflationary increase. For HSS to have actually not awarded an inflationary adjustment as assumed would have in actuality required Congressional action to change the formula language. In addition, I assumed the set-asides HSS used in 2002 were the same under the

reallocation. Finally, I assumed that all quality improvement funding would be allocated according to formula on the basis of each state's share of preschool age poverty.

Table 6 shows the estimated reallocation of funding under the Head Start program resulting from use of the alternative measure of preschool-age poverty given the assumptions outlined above. As can be seen, 18 states were estimated to have received funding increases as a result of the reallocation, although for the most part, the funding gains would have been relatively modest. California again comes out on top in this regard, receiving an additional $19.1 million. New York and Texas are second and third with an additional $8.5 million, and $8.1 million respectively. Some of the states estimated to have received an increase in funding, like Texas and Georgia did so because their actual fiscal year 2002 share of program funding was less than their share of preschool-age poverty as officially measured, so that when the alternative poverty share was used to estimate the reallocation, these states' shares of funding rose. Losses were relatively modest for those states estimated to receive funding decreases. Only Pennsylvania, Michigan, Ohio, and Illinois were estimated to lose as much as $4 million. Overall, the relatively small amount of estimated reallocation was a result of two interrelated factors: program funding had increased by just 2% overall from the 2001

Table 6

Estimated Reallocation of Head Start Funding Using Alternative Poverty Measure

State	Actual Fiscal Year 2002 Allocation Using Official Poverty Measure		Estimated Fiscal Year 2002 Allocation Using Alternative Poverty Measure		Estimated Reallocation
	Amount	Share	Amount	Share	
California	$774,894,000	14.20%	$794,039,425	14.55%	$19,145,425
New York	$407,151,000	7.46%	$415,606,660	7.62%	$8,455,660
Texas	$438,438,000	8.04%	$446,520,183	8.18%	$8,082,183
Florida	$240,193,000	4.40%	$245,143,881	4.49%	$4,950,881
Georgia	$154,402,000	2.83%	$156,913,205	2.88%	$2,511,205
Arizona	$91,807,000	1.68%	$93,747,232	1.72%	$1,940,232
New Jersey	$123,405,000	2.26%	$125,246,945	2.30%	$1,841,945
North Carolina	$127,086,000	2.33%	$128,681,863	2.36%	$1,595,863
Massachusetts	$101,634,000	1.86%	$103,196,865	1.89%	$1,562,865
New Mexico	$47,009,000	0.86%	$47,910,600	0.88%	$901,600
Nevada	$19,633,000	0.36%	$20,488,513	0.38%	$855,513
Colorado	$63,992,000	1.17%	$64,734,614	1.19%	$742,614
Oregon	$55,597,000	1.02%	$56,275,903	1.03%	$678,903
Connecticut	$49,258,000	0.90%	$49,738,241	0.91%	$480,241
Hawaii	$21,569,000	0.40%	$21,914,640	0.40%	$345,640
Delaware	$12,211,000	0.22%	$12,347,230	0.23%	$136,230
Wyoming	$10,579,000	0.19%	$10,369,000	0.19%	-$210,000
Alaska	$12,114,000	0.22%	$11,873,000	0.22%	-$241,000
New Hampshire	$12,357,000	0.23%	$12,111,000	0.22%	-$246,000
Vermont	$12,921,000	0.24%	$12,664,000	0.23%	-$257,000
North Dakota	$15,293,000	0.28%	$14,989,000	0.27%	-$304,000
South Dakota	$17,922,000	0.33%	$17,566,000	0.32%	-$356,000
Montana	$19,298,000	0.35%	$18,914,000	0.35%	-$384,000
Idaho	$20,536,000	0.38%	$20,128,000	0.37%	-$408,000
Rhode Island	$21,093,000	0.39%	$20,674,000	0.38%	-$419,000
District of Columbia	$24,471,000	0.45%	$23,984,000	0.44%	-$487,000
Maine	$24,829,000	0.46%	$24,335,000	0.45%	-$494,000
Nebraska	$32,189,000	0.59%	$31,549,000	0.58%	-$640,000

Table 6 (Continued)
Estimated Reallocation of Head Start Funding Using Alternative Poverty Measure

State	Actual Fiscal Year 2002 Allocation Using Official Poverty Measure		Estimated Fiscal Year 2002 Allocation Using Alternative Poverty Measure		Estimated Reallocation
	Amount	Share	Amount	Share	
Utah	$33,703,000	0.62%	$33,033,000	0.61%	-$670,000
Kansas	$45,331,000	0.83%	$44,430,000	0.81%	-$901,000
West Virginia	$48,062,000	0.88%	$47,106,000	0.86%	-$956,000
Iowa	$48,626,000	0.89%	$47,659,000	0.87%	-$967,000
Arkansas	$58,568,000	1.07%	$57,404,000	1.05%	-$1,164,000
Minnesota	$67,739,000	1.24%	$66,392,000	1.22%	-$1,347,000
Maryland	$73,510,000	1.35%	$72,048,000	1.32%	-$1,462,000
Oklahoma	$73,995,000	1.36%	$72,524,000	1.33%	-$1,471,000
South Carolina	$76,302,000	1.40%	$74,785,000	1.37%	-$1,517,000
Wisconsin	$85,442,000	1.57%	$83,743,000	1.53%	-$1,699,000
Indiana	$87,364,000	1.60%	$85,627,000	1.57%	-$1,737,000
Virginia	$90,963,000	1.67%	$89,154,000	1.63%	-$1,809,000
Washington	$92,984,000	1.70%	$91,135,000	1.67%	-$1,849,000
Alabama	$97,923,000	1.79%	$95,976,000	1.76%	-$1,947,000
Kentucky	$101,567,000	1.86%	$99,548,000	1.82%	-$2,019,000
Tennessee	$109,263,000	2.00%	$107,091,000	1.96%	-$2,172,000
Missouri	$109,795,000	2.01%	$107,612,000	1.97%	-$2,183,000
Louisiana	$131,378,000	2.41%	$128,766,000	2.36%	-$2,612,000
Mississippi	$151,802,000	2.78%	$148,784,000	2.73%	-$3,018,000
Pennsylvania	$214,114,000	3.92%	$209,857,000	3.85%	-$4,257,000
Michigan	$220,219,000	4.04%	$215,840,000	3.96%	-$4,379,000
Ohio	$231,629,000	4.25%	$227,024,000	4.16%	-$4,605,000
Illinois	$253,470,000	4.65%	$248,430,000	4.55%	-$5,040,000
United States	*$5,455,630,000*	*100.00%*	*$5,455,630,000*	*100.00%*	*$0*

level, and since the 2001 funding levels for each state were guaranteed under the hold-harmless assumption, relatively little was left for reallocation. In all, these estimates suggest that $54.2 million would have been reallocated as a result of switching to the alternative poverty measure of preschool-age poverty, representing about 1% of total Head Start funding for fiscal year 2002, and about 44% of the increase in funding since fiscal year 2001.

Estimated Reallocations for the National School Lunch Program

The National School Lunch Program (Food Portion) allocates funding to states according to a relatively complicated formula that seeks to partially compensate states for the costs of providing nutritious meals to school children. School districts charge children from non-poor families a price per meal close to the full cost of providing that meal, but children from low-income families are charged either a reduced price, or provided with the meal for free depending on their income. The program then seeks to reimburse school districts for the costs of providing these meals at reduced prices or for free. In 2002, reimbursement rates were $0.20 per meal for children from non-poor families, $1.69 per meal for children from families with incomes falling between 130% and 185% of the poverty threshold, and $2.09 per meal for children from families with incomes below 130% of the poverty threshold. The explicit factors used in the formula are: the number of school lunches served to children within each category, the reimbursement rates for each category, a special supplement to schools serving over 60% of their meals to low income students, and a commodity payment for each meal served.

Unlike most other federal formula grant programs, the National School Lunch Program features are no important administrative constraints such as upper and lower limits, minimum thresholds, or hold-harmless provisions, etc., that might effectively limit the degree of reallocation that would result from using a different measure of poverty. Due to this lack of administrative constraints, the estimated reallocation in funding that would likely result from a switch to the alternative measure of preschool-age poverty is relatively large.

Because I had difficulty in obtaining direct information on the total number of school lunches, the number of reduced price lunches, and the number of free lunches served by each state, I was not able to estimate the School Lunch Program allocations directly according to the formula. However, since the formula is so closely tied to the number of meals served to low income students, I was able to use an indirect alternative method for estimating these allocations that proved to be quite accurate. I used an ordinary least squares simple regression model to estimate the share of each state's fiscal year 2000 allocation as a function of its share of school-aged poverty as measured by the official measure. The results from this regression exercise are shown in Appendix A. As can be seen, the estimated regression equation is a particularly good fit with the data, having an adjusted R-squared of 0.989. The coefficient estimates are highly statistically significant with t-statistics of 3.00 for the intercept and 67.42 for the poverty variable. These results suggest that school-age poverty is an particularly good predictor of School Lunch funding allocations. This is a result of the lack of administrative constraints and the fact that formula based allocations in practice vary almost exclusively on the basis of variations in the number of meals served to low income students. This indirect estimation technique would work less for other programs because of the presence of administrative constraints, and other formula factors that might vary.

Table 7
Estimated Reallocation of National School Lunch Program (Food Portion) Funding Using Alternative Poverty Measure

State	Actual Fiscal Year 2002 Allocation Using Official Poverty Measure		Estimated Fiscal Year 2002 Allocation Using Alternative Poverty Measure		Estimated Reallocation
	Amount	Share	Amount	Share	
California	$836,204,000	14.05%	$1,140,777,000	19.17%	$304,573,000
New York	$454,397,000	7.63%	$542,404,000	9.11%	$88,007,000
New Jersey	$129,408,000	2.17%	$179,221,000	3.01%	$49,813,000
Maryland	$80,993,000	1.36%	$99,060,000	1.66%	$18,067,000
Florida	$347,879,000	5.85%	$360,993,000	6.07%	$13,114,000
Hawaii	$30,749,000	0.52%	$39,360,000	0.66%	$8,611,000
Massachusetts	$88,764,000	1.49%	$97,123,000	1.63%	$8,359,000
Arizona	$112,629,000	1.89%	$120,955,000	2.03%	$8,326,000
Nevada	$28,208,000	0.47%	$35,898,000	0.60%	$7,690,000
Washington	$96,161,000	1.62%	$101,600,000	1.71%	$5,439,000
Connecticut	$49,727,000	0.84%	$54,924,000	0.92%	$5,197,000
Virginia	$116,877,000	1.96%	$121,436,000	2.04%	$4,559,000
District of Columbia	$15,869,000	0.27%	$18,857,000	0.32%	$2,988,000
Colorado	$55,936,000	0.94%	$58,644,000	0.99%	$2,708,000
New Hampshire	$12,577,000	0.21%	$15,018,000	0.25%	$2,441,000
Alaska	$17,238,000	0.29%	$18,571,000	0.31%	$1,333,000
Indiana	$94,786,000	1.59%	$95,878,000	1.61%	$1,092,000
Vermont	$8,492,000	0.14%	$9,478,000	0.16%	$986,000
Delaware	$12,978,000	0.22%	$13,868,000	0.23%	$890,000
Illinois	$240,217,000	4.04%	$240,965,000	4.05%	$748,000
Maine	$19,440,000	0.33%	$19,594,000	0.33%	$154,000
Rhode Island	$18,417,000	0.31%	$17,973,000	0.30%	-$444,000
Pennsylvania	$184,093,000	3.09%	$183,155,000	3.08%	-$938,000
Wyoming	$8,628,000	0.14%	$7,644,000	0.13%	-$984,000
Oregon	$54,028,000	0.91%	$52,898,000	0.89%	-$1,130,000
Montana	$16,055,000	0.27%	$14,723,000	0.25%	-$1,332,000
South Dakota	$17,951,000	0.30%	$16,475,000	0.28%	-$1,476,000
Utah	$43,385,000	0.73%	$41,077,000	0.69%	-$2,308,000
North Dakota	$11,884,000	0.20%	$7,505,000	0.13%	-$4,379,000
Iowa	$51,745,000	0.87%	$45,367,000	0.76%	-$6,378,000
Georgia	$227,598,000	3.82%	$219,430,000	3.69%	-$8,168,000
Nebraska	$32,216,000	0.54%	$23,460,000	0.39%	-$8,756,000

Table 7 (Continued)
Estimated Reallocation of National School Lunch Program (Food Portion) Funding Using Alternative Poverty Measure

State	Actual Fiscal Year 2002 Allocation Using Official Poverty Measure		Estimated Fiscal Year 2002 Allocation Using Alternative Poverty Measure		Estimated Reallocation
	Amount	Share	Amount	Share	
Kansas	$48,708,000	0.82%	$39,651,000	0.67%	-$9,057,000
New Mexico	$54,053,000	0.91%	$44,763,000	0.75%	-$9,290,000
Wisconsin	$77,012,000	1.29%	$66,099,000	1.11%	-$10,913,000
Idaho	$26,814,000	0.45%	$15,395,000	0.26%	-$11,419,000
West Virginia	$41,578,000	0.70%	$29,554,000	0.50%	-$12,024,000
Michigan	$156,858,000	2.64%	$142,343,000	2.39%	-$14,515,000
Minnesota	$78,312,000	1.32%	$62,762,000	1.05%	-$15,550,000
South Carolina	$111,929,000	1.88%	$94,615,000	1.59%	-$17,314,000
North Carolina	$175,439,000	2.95%	$154,009,000	2.59%	-$21,430,000
Kentucky	$104,014,000	1.75%	$81,568,000	1.37%	-$22,446,000
Tennessee	$122,378,000	2.06%	$96,996,000	1.63%	-$25,382,000
Arkansas	$67,677,000	1.14%	$41,984,000	0.71%	-$25,693,000
Mississippi	$109,431,000	1.84%	$83,054,000	1.40%	-$26,377,000
Missouri	$107,576,000	1.81%	$80,014,000	1.34%	-$27,562,000
Texas	$617,111,000	10.37%	$581,968,000	9.78%	-$35,143,000
Louisiana	$156,443,000	2.63%	$110,951,000	1.86%	-$45,492,000
Alabama	$120,964,000	2.03%	$72,605,000	1.22%	-$48,359,000
Ohio	$175,229,000	2.94%	$119,419,000	2.01%	-$55,810,000
Oklahoma	$84,461,000	1.42%	$19,435,000	0.33%	-$65,026,000
United States	*$5,951,516,000*	*100.00%*	$5,951,516,000	*100.00%*	*$0*

To obtain estimates of the reallocation that would have resulted from use of the alternative measure of poverty, I simply substituted school-aged poverty shares under the alternative measure of poverty back into the regression formula in place of the poverty shares as measured officially. Table 7 shows the estimated effects of using the alternative measure in place of the official poverty measure in allocating funding to states for the National School Lunch program. As can be seen, the level of reallocation is substantial, similar in magnitude to that estimated for the Title I program. California would have again received the largest increase with nearly $305 million in net new funding. New York and New Jersey would also have received substantial increases with $88 million and $50 million respectively. In all, 21 states would have received some additional funding according to these estimates. For the most part, these were states whose share of school-aged poverty rose poverty was measured by the alternative measure as seen in Table 2. For most of these states, however, the estimated funding increases are relatively small. Conversely, a number of states would have seen fairly sizable funding reductions under the estimated reallocation. Alabama and Louisiana would have both lost over $80 million in funding, and Oklahoma, Ohio, and Texas would have lost between $100 and $150 million. All in all, these estimates indicate that over $535 million would have been reallocated under the National School Lunch program as a result of switching to the alternative measure of poverty. To put this in perspective, this $535 million would have constituted about 9% of the program's total funding level for fiscal year 2002, and about 153% of the program's funding growth from its 2001 level.

Estimated Reallocations for the State Children's Health Insurance Program

The State Children's Health Insurance Program (SCHIP) allocates funding to states for the purpose of reimbursing them for the costs of providing health insurance to the children in low-income families who are not already insured by Medicaid or some other program. The allocation formula uses both the share of each state's low-income children and the share of each state's uninsured low-income children as formula factors, and each are equally weighted. There is also a cost factor in the formula based on each state's mean wage in the health services industry relative to the national mean wage in the health industry.

SCHIP features several administrative constraints that limit the extent of any reallocations in funding that might take place between the states under it. Unlike the administrative constraints in a number of other formula grant programs, these restrictions apply to each state's share of total funding as opposed to its dollar amount. For instance, an upper limit is placed on each states share at no more than 145% of its 1999 share of funding. There are two hold-harmless provisions. One stipulates that no state's share can fall below 70% of its 1999 share of funding, and the other stipulates that no state's share can fall below 90% of its previous year's share of funding. Because the administrative restrictions are set in shares rather than dollar amounts, and because the ranges are between 70% and 145% of previous year shares, a certain degree of reallocation in funding between the states under SCHIP is possible. In fact, as noted in the previous section, California's allocation under SCHIP fell from $805 million in 1998 to $705 million in 2001as a result of the lowering of the weight placed on the factor for uninsured low-income children from 85% to 50%.

Table 8
Estimated Reallocation of State Children's Health Insurance Program (SCHIP) Funding Using Alternative Poverty Measure

State	Estimated Fiscal Year 2002* Allocation Using Official Poverty Measure		Estimated Fiscal Year 2002* Allocation Using Alternative Poverty Measure		Estimated Reallocation
	Amount	Share	Amount	Share	
California	$717,684,389	17.07%	$750,421,772	17.85%	$32,737,383
New York	$290,916,884	6.92%	$318,532,698	7.58%	$27,615,815
New Jersey	$88,940,658	2.12%	$110,687,809	2.63%	$21,747,152
Washington	$54,782,974	1.30%	$65,856,449	1.57%	$11,073,434
Wisconsin	$44,638,179	1.06%	$54,404,722	1.29%	$9,766,510
Virginia	$71,699,991	1.71%	$80,768,117	1.92%	$9,068,112
Maryland	$48,547,132	1.15%	$56,344,334	1.34%	$7,797,202
Utah	$27,165,587	0.65%	$32,523,882	0.77%	$5,358,295
Connecticut	$37,598,608	0.89%	$42,250,717	1.00%	$4,652,109
Illinois	$162,583,365	3.87%	$165,597,431	3.94%	$3,014,066
Oregon	$51,148,383	1.22%	$52,782,386	1.26%	$1,634,003
New Hampshire	$10,739,695	0.26%	$12,344,242	0.29%	$1,604,547
Delaware	$9,521,128	0.23%	$10,582,570	0.25%	$1,061,442
Nevada	$41,884,393	1.00%	$42,914,961	1.02%	$1,030,568
Mississippi	$49,590,062	1.18%	$50,389,176	1.20%	$799,114
Rhode Island	$9,918,712	0.24%	$10,473,258	0.25%	$554,546
Alaska	$9,618,872	0.23%	$9,723,685	0.23%	$104,813
Arkansas	$48,561,277	1.16%	$48,561,277	1.16%	$0
Iowa	$29,645,986	0.71%	$29,645,986	0.71%	$0
Missouri	$58,913,972	1.40%	$58,913,972	1.40%	$0
New Mexico	$45,690,278	1.09%	$45,690,278	1.09%	$0
Oklahoma	$62,179,170	1.48%	$62,179,170	1.48%	$0
Montana	$13,661,851	0.32%	$13,652,094	0.32%	-$9,758
Vermont	$5,021,145	0.12%	$4,990,178	0.12%	-$30,967
Hawaii	$12,703,397	0.30%	$12,625,050	0.30%	-$78,347
District of Columbia	$10,576,795	0.25%	$10,463,299	0.25%	-$113,496
South Carolina	$58,269,262	1.39%	$58,131,872	1.38%	-$137,390
Wyoming	$6,655,647	0.16%	$6,474,597	0.15%	-$181,046
Tennessee	$77,895,603	1.85%	$77,667,263	1.85%	-$228,340

Table 8 (Continued)
Estimated Reallocation of State Children's Health Insurance Program (SCHIP) Funding Using Alternative Poverty Measure

State	Estimated Fiscal Year 2002* Allocation Using Official Poverty Measure		Estimated Fiscal Year 2002* Allocation Using Alternative Poverty Measure		Estimated Reallocation
	Amount	Share	Amount	Share	
Minnesota	$40,326,116	0.96%	$40,077,409	0.95%	-$248,707
Massachusetts	$60,833,050	1.45%	$60,457,868	1.44%	-$375,182
South Dakota	$7,781,965	0.19%	$7,359,296	0.18%	-$422,668
Maine	$12,733,791	0.30%	$12,203,028	0.29%	-$530,763
North Carolina	$112,912,270	2.69%	$112,139,753	2.67%	-$772,517
North Dakota	$7,158,592	0.17%	$5,918,397	0.14%	-$1,240,195
Nebraska	$18,427,978	0.44%	$17,175,592	0.41%	-$1,252,386
Colorado	$60,299,205	1.43%	$58,981,660	1.40%	-$1,317,545
Michigan	$119,801,979	2.85%	$118,124,858	2.81%	-$1,677,121
Pennsylvania	$132,717,194	3.16%	$130,956,327	3.11%	-$1,760,867
Kentucky	$52,801,437	1.26%	$50,345,976	1.20%	-$2,455,461
Idaho	$22,791,589	0.54%	$19,162,054	0.46%	-$3,629,535
Arizona	$116,959,914	2.78%	$112,067,047	2.67%	-$4,892,867
Kansas	$31,640,385	0.75%	$26,404,187	0.63%	-$5,236,197
Georgia	$139,632,286	3.32%	$132,444,370	3.15%	-$7,187,915
Indiana	$72,611,947	1.73%	$64,573,755	1.54%	-$8,038,192
Alabama	$73,489,095	1.75%	$62,379,870	1.48%	-$11,109,225
Ohio	$139,511,806	3.32%	$127,993,439	3.04%	-$11,518,366
Florida	$260,218,623	6.19%	$248,470,674	5.91%	-$11,747,949
Louisiana	$86,719,234	2.06%	$73,816,165	1.76%	-$12,903,070
West Virginia	$33,524,241	0.80%	$20,388,323	0.48%	-$13,135,921
Texas	$444,664,909	10.58%	$407,277,706	9.69%	-$37,387,203
US Total	*$4,204,313,000*	*100.00%*	*$4,204,313,000*	*100.00%*	*$0*

*Information for 2002 budget allocations to states was not available, so 2002 allocations were estimated from 2001 allocations.

Table 8 shows the estimated effects under SCHIP of using the alternative measure in place of the official poverty measure in allocating funding. Since state-by-state allocations for SCHIP were unavailable in the most recent issue of Budget Information for States, Table 8 shows estimated 2002 funding allocations derived by formula using both the official poverty measure and the alternative poverty measure. They were derived under the most conservative assumption of no growth in funding over 2001. Due to the administrative restrictions, the level of reallocation is less in magnitude than the reallocations in either the Title I or School Lunch programs. Again, the estimates show that California would have received the largest increase with nearly $32.7 million in net new funding. New York and New Jersey would also have received increases of $27.6 million and $21.7 million respectively, and Washington state would have received about $11 million in net new funding. It is interesting to note that these estimates for 2002 reallocations are, for the most part, comparable to the SCHIP reallocation estimates for fiscal year 2004 made by Charles Nelson and Kathleen Short in their paper that also estimated the results of switching to the alternative poverty measure. In Nelson and Short's estimates, California would have gained an additional $35.3 million in its 2004 allocation, New York would have gained another $25.2 million, and New Jersey would have gained $17.5 million.

The estimates in Table 8 show that another 11 states would have received additional funding somewhere in the range between $10 million and zero. Table 8 also shows five states receiving no net funding change at all, but this is merely an artifact of having used estimates in both cases, rather than actual allocations for 2002 compared to estimates under the alternative poverty measure as was shown in earlier tables. In the case of these five states, each ran up against the same hold-harmless threshold under either estimate, and so

were estimated to have received the same 2001 allotment under either estimate. On the other hand, some states saw fairly sizable funding reductions under the estimated reallocation. Alabama, Ohio, Florida, Louisiana and West Virginia all would have lost between $11 and $13 million in funding, and Texas would have lost $37.4 million. All in all, these estimates indicate that over $139 million would have been reallocated in the SCHIP program as a result of switching to the alternative measure of poverty. This $139 million would have constituted about 3.3% of the total level funding of funding for the program in fiscal year 2002.

Estimated Reallocations for the Community Development Block Grant Program

The Community Development Block Grant (CDBG) program, like the Title I program, bypasses the states entirely in the distributing its program funding. In CDBG's case, the program distributes funding directly to metropolitan cities (central cities of metropolitan areas and other cities within the metropolitan area with overall populations above 50,000), and to urban counties (counties in metropolitan areas that have populations outside the municipalities of more than 200,000). The fact that funding is allocated at the municipal and county level using formula factors measured at those levels makes the estimation technique I employed here somewhat imprecise. Nonetheless, I made the estimates presented here under the assumption that CDBG funds were distributed to states rather than municipalities and counties.

I did attempt as best I could to adjust the state level data to reflect the metropolitan portion of each state's population and other factors. For instance, if 75% of the state's population lived in metropolitan areas, I just used 75% of the amounts of the other factors in

the formula. If the metropolitan portion of the population was just half in another state, I used 50% of the amounts of the other factors in the formula for that state. This admittedly crude adjustment did to some extent account for variation in portions of the metropolitan population from state to state.

The CDBG program actually uses two separate formulas to determine the share of each municipality or county's share of funding. The higher of the two shares is used for determining the allocation, once all shares have been adjusted downward on a pro rata basis so that the total sums up to 100%. Formula A weights the local area's share of the poverty population at 50%. Formula A also uses the local area's share of total population and share of crowded housing units as formula factors receiving the remaining 50%. Formula B weighs the local area's poverty share at only 30%, the remaining 70% going to its share of older housing units and a population growth factor.

The CDBG program uses decennial census data for factors in its formula, but in making these estimates, I used the Nelson and Short estimates for the poverty population instead of Census 2000 figures. I used Census 2000 figures for all other formula factors. Actual fiscal year 2002 allocations were made using Census 1990 figures, since the 2000 figures were not yet available when the funding allocation decisions were made. This resulted in some discrepancy between the actual fiscal year 2002 allocation and my estimates for the allocation using the official poverty measure. Like the National School Lunch Program, the CDBG program has no important administrative restrictions limiting the extent of reallocation due to switching to the alternative poverty measure.

Table 9
Estimated Reallocation of Community Development Block Grant Program Funding From Using Alternative Poverty Measure

State	Actual Fiscal Year 2002 Allocation Using Official Poverty Measure		Estimated Fiscal Year 2002 Allocation Using Alternative Poverty Measure		Estimated Reallocation
	Amount	Amount	Share	Amount	
California	$492,230,000	16.40%	$542,620,756	18.08%	$50,390,756
New York	$370,164,000	12.33%	$379,976,836	12.66%	$9,812,836
New Jersey	$114,649,000	3.82%	$122,563,266	4.08%	$7,914,266
Massachusetts	$92,965,000	3.10%	$95,832,007	3.19%	$2,867,007
Maryland	$57,552,000	1.92%	$60,175,767	2.01%	$2,623,767
Hawaii	$13,432,000	0.45%	$15,318,650	0.51%	$1,886,650
Florida	$149,653,000	4.99%	$151,531,991	5.05%	$1,878,991
Virginia	$46,693,000	1.56%	$47,942,892	1.60%	$1,249,892
Connecticut	$35,238,000	1.17%	$36,476,482	1.22%	$1,238,482
Colorado	$31,653,000	1.05%	$32,421,589	1.08%	$768,589
Nevada	$13,923,000	0.46%	$14,576,670	0.49%	$653,670
District of Columbia	$24,333,000	0.81%	$24,704,022	0.82%	$371,022
New Hampshire	$4,679,000	0.16%	$4,753,297	0.16%	$74,297
Alaska	$2,344,000	0.08%	$2,396,441	0.08%	$52,441
Delaware	$6,127,000	0.20%	$6,167,807	0.21%	$40,807
Vermont	$1,099,000	0.04%	$1,047,324	0.03%	-$51,676
Wyoming	$1,194,000	0.04%	$1,088,446	0.04%	-$105,554
South Dakota	$1,692,000	0.06%	$1,545,025	0.05%	-$146,975
Maine	$5,964,000	0.20%	$5,803,026	0.19%	-$160,974
Illinois	$179,203,000	5.97%	$179,023,386	5.96%	-$179,614
Montana	$2,755,000	0.09%	$2,538,546	0.08%	-$216,454
North Dakota	$1,914,000	0.06%	$1,605,920	0.05%	-$308,080
Rhode Island	$15,069,000	0.50%	$14,665,742	0.49%	-$403,258
Utah	$16,323,000	0.54%	$15,739,307	0.52%	-$583,693
Iowa	$17,589,000	0.59%	$16,971,902	0.57%	-$617,098
Nebraska	$8,503,000	0.28%	$7,872,842	0.26%	-$630,158
Washington	$51,943,000	1.73%	$51,231,976	1.71%	-$711,024
Oregon	$24,121,000	0.80%	$23,399,434	0.78%	-$721,566
Minnesota	$47,479,000	1.58%	$46,503,450	1.55%	-$975,550
Kansas	$13,666,000	0.46%	$12,681,240	0.42%	-$984,760
Idaho	$2,529,000	0.08%	$1,514,609	0.05%	-$1,014,391

Table 9 (Continued)
Estimated Reallocation of Community Development Block Grant Program Funding From Using Alternative Poverty Measure

State	Actual Fiscal Year 2000 Allocation Using Official Poverty Measure		Estimated Fiscal Year 2000 Allocation Using Alternative Poverty Measure		Estimated Reallocation
	Amount	Share	Amount	Share	
West Virginia	$9,203,000	0.31%	$8,133,380	0.27%	-$1,069,620
Arizona	$43,480,000	1.45%	$42,320,471	1.41%	-$1,159,529
Indiana	$46,466,000	1.55%	$45,265,040	1.51%	-$1,200,960
Wisconsin	$47,892,000	1.60%	$46,545,287	1.55%	-$1,346,713
Pennsylvania	$214,622,000	7.15%	$213,223,280	7.10%	-$1,398,720
New Mexico	$7,784,000	0.26%	$6,227,085	0.21%	-$1,556,915
Kentucky	$23,078,000	0.77%	$21,429,280	0.71%	-$1,648,720
Georgia	$44,618,000	1.49%	$42,784,149	1.43%	-$1,833,851
Michigan	$121,768,000	4.06%	$119,621,104	3.99%	-$2,146,896
Mississippi	$7,356,000	0.25%	$4,984,804	0.17%	-$2,371,196
Missouri	$55,628,000	1.85%	$52,751,602	1.76%	-$2,876,398
Arkansas	$8,970,000	0.30%	$5,457,885	0.18%	-$3,512,115
South Carolina	$16,952,000	0.56%	$13,369,776	0.45%	-$3,582,224
Oklahoma	$16,470,000	0.55%	$11,843,226	0.39%	-$4,626,774
North Carolina	$28,280,000	0.94%	$23,178,119	0.77%	-$5,101,881
Tennessee	$29,891,000	1.00%	$24,236,909	0.81%	-$5,654,091
Ohio	$141,132,000	4.70%	$134,761,924	4.49%	-$6,370,076
Alabama	$27,704,000	0.92%	$19,933,653	0.66%	-$7,770,347
Louisiana	$46,371,000	1.55%	$38,385,865	1.28%	-$7,985,135
Texas	$216,911,000	7.23%	$206,110,510	6.87%	-$10,800,490
United States	*$3,001,254,000*	*100.00%*	*$3,001,254,000*	*100.00%*	*$0*

Table 9 shows the estimated effect of switching to the alternative measure of poverty in the reallocation of funding to states for the Community Development Block Grant program. As can be seen, the level of reallocation is a little larger in magnitude than that estimated for the SCHIP program. As in that program, California again comes out on top in terms of the estimated level of funding increase that would have resulted from switching to the alternative poverty measure. California's estimated increase of $50.4 million is significantly higher than that of the nest two state's increases, New York with $9.8 million and New Jersey with $7.9 million. Massachusetts and Maryland are estimated to have received an additional $2.9 million and $2.6 million respectively. In all, 16 states are estimated to receive some funding increase, although in most cases the increase is modest. Of states that would have lost funding if the alternative poverty measure had been used, North Carolina, Tennessee, Ohio, Alabama, Louisiana, and Texas were all estimated to have lost over $5 million. All in all, these estimates indicate almost $82 million would have been reallocated under the CDBG program had it switched to using the alternative measure of poverty. This $82 million would have constituted about 2.7% of CDBG's total funding level for fiscal year 2002.

THE COST TO CALIFORNIA OF CONTINUED RELIANCE ON THE OFFICIAL POVERTY MEASURE

Of all the states with something to lose from the federal government's continued reliance on the inaccurate and outmoded official poverty measure in allocating federal formula grant funding, California stands to lose most. It could well be argued that the gains in funding identified so far to states like California, New York, and New Jersey from switching to the alternative measure, are really the same thing as the losses in funding they should be receiving because poverty is actually higher in these states than is currently being estimated. Instead, this funding is misallocated – it is sent to states with fewer persons in poverty than the inaccurate official measure currently estimates.

Looked at in this light, these represent substantial costs to states like California. The preceding sub-sections have shown that California's loss from misallocated funding is greater than that of any other state in five of the six large federal formula grant programs covered. Altogether, for these six programs, the estimates presented here indicate that $1,141.9 million in 2002 was being misallocated to states where poverty is overestimated by the official measure. This is money that, by all rights, should have gone to California and states like it where poverty is currently being underestimated. Of this $1,141.9 total in misallocated funding, California's loss was estimated to be $596.9 million, or 52.3% of the total.

Table 10
Estimated Reallocation to California in Federal Formula Grant Funding
For Six Programs From Using Alternative Poverty Measure

Program	Actual Fiscal Year 2002 Allocation Using Official Poverty Measure		Estimated Fiscal Year 2002 Allocation Using Alternative Poverty Measure		Estimated Reallocation
	Amount	Share	Amount	Share	
National School Lunch	$836,204,000	14.05%	$1,140,777,000	19.17%	$304,573,000
Title I	$1,258,953,000	14.49%	$1,447,003,208	16.66%	$188,050,208
CDBG	$492,230,000	16.40%	$542,620,756	18.08%	$50,390,756
SCHIP	$717,684,389	17.07%	$750,421,772	17.85%	$32,737,383
Head Start	$774,894,000	14.20%	$794,039,425	14.55%	$19,145,425
Special Education	$762,300,000	10.67%	$764,289,799	10.70%	$1,989,799
California Total	*$4,842,265,389*		*$5,439,151,961*		*$596,886,572*

Table 10 shows the combined amounts of total additional funding the state of California, or sub-units within it, would have received in 2002 in six federal formula grant programs under the assumption that these programs used the alternative poverty measure in place of the official measure as a formula factor in determining funding allocations. These are estimates of the direct dollar cost to California of the implicit decision by the federal government to continue using the outmoded official poverty measure, and Table 10 indicates that this cost is considerable. Compared to what funding California would have received if this particular version of an alternative poverty measure were used, Table 10 indicates that continued use of the outmoded official poverty measure costs California $596.9 million in funding in just these six programs alone. Though these six are among the largest federal formula grant programs, there are also a number of smaller programs that use the outdated

official poverty measure as a formula factor, and the additional cost of these programs continuing to do so would only add to the $596.9 million identified here.

Table 10 also demonstrates the extent to which administrative constraints in many of these federal formulas – in particular the hold-harmless provisions – affect the size of any potential reallocations that might occur from switching to the alternative measure. The largest estimated reallocation to California would occur under the National School Lunch program, which has no administrative restrictions limiting reallocation. Under this program, California's share of total funding was estimated to increase by more that 5 percentage points (from 14.05% to 19.17%), and its total funding level was estimated to increase by over $300 million. The next largest estimated reallocation would take place under the Title I program, where California's share of total funding was estimated to rise by over 2 percentage points (from 14.49% to 16.66%), and its total funding was estimated to increase by $188 million. While the Title I program features a 100% hold-harmless provision, total program funding under Title I increased by more than 12% from fiscal year 2001 to 2002. This allowed for some 2002 funds to be shifted away from some states, while still allowing those states to reach or exceed their 2001 funding levels due to the sizable increase in new funding overall.

Table 10 indicates that California would have received an additional $50 million under the Community Development Block Grant program had the alternative poverty measure been used, and California's share of total funding under the program would have increased from 16.4% to 18.08%. As mentioned before, the CDBG program has no important administrative features restricting reallocation, but the formula structure itself effectively places a lower weight on the poverty factor than under either the School Lunch or Title I program, and this resulted in a relatively smaller reallocation. Under the State

Children's Health Insurance Program, California was estimated to have received an additional $32.7 million due to funding reallocation, and its share of total funding was estimated to increase from 17.07% to 17.85%. The SCHIP program has somewhat less restrictive administrative constraints on reallocation. For example, the hold-harmless provision in SCHIP ensures that each state receive no less than 90% of its previous year's share of funding. However, note that the estimated reallocation to California under SCHIP at $32.7 million was about 35% less than the estimated reallocation under CDBG, even though the total funding level under CDBG at $492 million was about 46% lower than SCHIP. The larger program had a smaller reallocation due to the presence of administrative constraints, demonstrating the importance in particular of hold-harmless provisions in limiting reallocation.

The two programs where California and other states were estimated to receive the least amount of new funding due to reallocation were the two programs with the tightest administrative constraints on funding reallocation. Under Head Start, California was estimated to receive an additional $19 million due to reallocation, but as noted in a previous sub-section, this was under the unrealistic assumption that states would not be granted an inflationary adjustment. Almost no reallocation would have been estimated at all if I had used what is essentially a "100% plus inflation rate" hold-harmless provision that is embedded in the statutory language of the program. Finally, under the Special Education program, California is estimated to receive less than $2 million in additional funding due to reallocation. Special Education not only features 100% hold-harmless, but an additional limit on any state's funding *increase* that holds it to no more than 1.5% above the overall rate of funding growth in the program.

The projection of funding reallocations that might take place into the future under an alternative poverty measure is beyond the scope of this study, but several observations can be made regarding likely future impacts. First, given the lack of any time series of state-by-state poverty counts under the alternative measure, it would be difficult to predict how California's share of the national poverty population under the alternative measure might change over time. If that share were to increase relative to the share using the official measure, the amount of federal funding reallocated to California each year would increase as well. We know that California's share of the poverty population under the official measure is somewhat volatile. For instance, that share ranged from as low as 13.5% in 1991 to as high as 15.3% in 1997. It is impossible to know whether the share under the alternative measure would be as volatile or not. Relative to the official measure, however, the key factor determining the difference in the geographical distribution of poverty, as noted before, is the difference in housing costs across the country. If housing costs in California continue to rise relative to national averages, this would have the effect of increasing California's share of the poverty population under the alternative measure relative to the official measure, and therefore increase the amount of federal funding reallocated to California as a result of switching to the alternative measure.

As noted above, one of the most important constraints limiting the amount of funding reallocation that would take place in the six programs analyzed here was the presence of hold-harmless provisions. Over time, however, the effects of hold-harmless in limiting funding reallocation would weaken. In switching to the alternative measure of poverty, funding levels would be held constant under hold-harmless (instead of being cut) for states that are presently receiving too much funding because poverty is overestimated under the

official measure. All else equal, when there would be growth in overall program funding levels, it would flow to states like California whose poverty populations have been underestimated, while funding to other states is held constant. Gradually, even programs like Head Start with strongly restrictive hold-harmless provisions would see that overall funding growth would eventually result in a greater share of funding being reallocated to previously under-funded states like California.

CONCLUSIONS

This report has argued that the federal government currently uses an inaccurate method to measure poverty, and that reliance on this measure for statistically estimating the number of Americans living in poverty results in a misallocation of federal funding under formula grant programs. Recent efforts by the Census Bureau and others to produce a more accurate alternative poverty measure were described and evidence was presented showing that when this alternative measure is used in place of the official measure, the estimated number of poor persons increases in high housing cost states like California, and decreases in states with low housing costs. Six large federal formula grant programs using poverty as a formula factor were examined to examine how funding allocations under them would be affected by a switch to using the alternative measure of poverty. This analysis suggests that use of the alternative measure would result in the reallocation of substantial amounts of formula grant funding from states with low housing costs to states with high housing costs.

This report has demonstrated that, of all the states, California suffers the most from the current system that relies on use of an inaccurate poverty measure and misallocates

funding because of it. The analysis presented here suggests that California loses more than half of all the federal dollars currently being misdirected to low cost states with less poverty away from high cost states with more poverty. The results presented here suggest that had the federal government adopted the more accurate alternative poverty measure for fiscal year 2002, California would have received an additional $597 million in funding to help pay for the increased needs of an estimated 1.8 million additional poor persons, 225,000 of whom are school-aged children.

ENDNOTES

[1] The Federal government uses two slightly different versions of a poverty measure. *Poverty thresholds* are used each year by the Census Bureau for the purpose of statistically estimating and reporting on the number of individuals and families living in poverty. *Poverty guidelines* are used by the Department of Health and Human Services in administratively determining eligibility for certain federal programs. Since poverty guidelines are simplified versions of the previous year's poverty thresholds, this report will concentrate entirely on the measurement issues associated with poverty thresholds.

[2] Details on the exact method used to estimate poverty with the official measure can be found on the Census website at http://www.gov/hhes/poverty/povdef.html

[3] See Fisher (1992) for a detailed history of the creation of the poverty thresholds during the War on Poverty era and the minor adjustments that have been made to them since.

[4] Orshavsky (1965).

[5] See Citro and Michael, *Measuring Poverty: A New Approach* (1995).

[6] See Fisher (1999) for a brief overview of research activities on an alternative poverty measure between 1995 and 1999.

[7] See Short, et al (1999).

[8] See Short, (2001a).

[9] See Short , (2001), Appendix A. Technical Appendix pp. A-4 and A-5. For additional detail, see Short, 2001b).

[10] See Nelson and Short (2003).

[11] See Ransdell (2004) and (2002) for details about federal formula grant funding in California.

[12] See Louis, Jabine, and Gerstein (2003), and Jabine, Louis, and Schrim (2001).

[13] Hold-harmless provisions stipulate that no state may receive less in any given year than some set percentage (usually 100%) of their previous year's allocation. These are designed to ensure funding continuity and protect individual states from overall allocation reductions.

[14] All figures are from *Budget Information for States*, Office of Management and Budget (2002). Programs are specified according to their Catalog of Federal Domestic Assistance (CFDA) number. The CFDA, found online at: http://12.46.245.173/cfda/cfda.html, is a numerical index used since 1970 to identify specific federal funding programs for states and sub-state governmental units.

[15] Louis, Jabine, and Gerstein (2003) p. 111.

[16] Much of this description of Head Start program and the way its allocation formula works in practice was taken from Randell and Boloorian (2003).

[17] See Randell and Boloorian (2003), pp. 10-11.

[18] Louis, Jabine, and Gerstein (2003), pp. 114-115.

[19] Ransdell (2001), pp. 24 - 25.

[20] NAS Formula Panel Chair Thomas Louis and member Thomas Jabine were kind enough to make available some of the unpublished formula worksheets they used in preparation of their report. Tim Ransdell, Director of the California Institute for Federal Policy Research made additional suggestions for where and how I might obtain information about specific formulas.

[21] Nelson, and Short (2003).

[22] See Ransdell and Boloorian (2003) for an extensive description of the formula and administrative features used in the Head Start funding allocation process. They also provide a detailed analysis of how HSS has chosen to exercise its discretionary authority in distributing funding in recent years.

[23] Funding under the program is directly distributed to grantees, typically public, non-profit, and private service providers at the local level. Funding allocation, however, is made on a state-by-state basis.

[24] This minimum percentage for quality improvement was lowered to 25% in 2003.

[25] Ransdell and Boloorian (2003), pp. 10-11.

ACKNOWLEDGEMENTS

Tim Ransdell, Executive Director of the California Institute for Federal Policy Research and author of a series of studies on federal formula grants for the Public Policy Institute of California, was particularly helpful in encouraging me to do this research and sharing with me some of his vast knowledge about federal formula grant programs. He directed me to a number of sources that vitally contributed to this analysis.

Thomas Louis, Chair of the Panel on Formula Allocations for the National Research Council of the National Academy of Sciences, and Thomas Jabine, member of the same panel were both very generous in allowing me access to some of the unpublished notes and documents from their Panel's investigation of the structure of these formulas.

Kathleen Short, Senior Researcher at the US Census Bureau was very kind in clarifying several aspects about the alternative poverty measure she was so instrumental in helping develop.

I benefited greatly from the knowledge and suggestions of these four individuals. Any mistakes and errors are entirely my own.

REFERENCES

Citro, C., and Michael, R. (eds.) (1995), *Measuring Poverty: A New Approach*, Washington D.C.: National Academy Press, 1995.

Fisher, G. (1992), "The Development and History of the U.S. Poverty Thresholds – A Brief Overview", *Social Security Bulletin*, 55 (4), pp. 3-13, Winter 1992.

Fisher, G. (1999), "An Overview of Developments since 1995 Relating to a Possible New U.S. Poverty Measure", an unpublished manuscript presented at the conference Poverty: Improving the Measure after Thirty Years, University of Wisconsin, April 1999.

Jabine, T., Louis, T., & Schrim, A. (eds.) (2001) Choosing the Right Formula: Initial Report, Panel on Formula Allocations, National Research Council, Washington D.C.: The National Academy Press, 2001.

Louis, T., Jabine, T., & Gerstein, M. (eds.) (2003), Statistical Issues in Allocating Funds by Formula, Panel on Formula Allocations, National Research Council, Washington D.C.: The National Academy Press, 2003.

Nelson, C. & Short, K. (2003) "The Distributional Implications of Geographical Adjustment of Poverty Thresholds," U.S. Census Bureau, Poverty Measurement Working Paper, December 2003.

Orshansky, M. (1965), *Social Security Bulletin*, 28 (1), January 1965.

Short, K., Garner, T., Johnson, D., & Doyle, P. (1999), *Experimental Poverty Measures: 1990 to 1997*, U.S. Census Bureau, Current Population Reports, Consumer Income, P60-205, Washington D.C.: U.S. Government Printing Office, 1999.

Short, K. (2001a), *Experimental Poverty Measures: 1999*, U.S. Census Bureau, Current Population Reports, Consumer Income, P60-216, Washington D.C.: U.S. Government Printing Office, 1999.

Short, K. (2001b), "Where we Live: Geographical Differences in Poverty Thresholds," U.S. Census Bureau, Poverty Measurement Working Paper, January 2001.

Ransdell, T. (2002), *California's Share of Federal Formula Grants: 1991-2001*. Public Policy Institute of California, San Francisco, 2002.

Ransdell, T. (2004), *Factors Determining California's Share of Federal Formula Grants*, Public Policy Institute of California, San Francisco, 2004.

Ransdell, T., & Boloorian, S. (2004), *Federal Formula Grants: TANF and Welfare Programs*,
Public Policy Institute of California, San Francisco, 2002.

Ransdell, T., & Boloorian, S. (2004), *Head Start*, Public Policy Institute of California, San Francisco, 2003.

Appendix 1: Estimated Cost to California in Lost Grant Revenue as Result of Using Flawed Official Poverty Measure in Six Large Federal Formula Grant Programs

Formula Grant	California's Actual and Projected Grant Totals for Fiscal Year 2004-2006 Using Official Poverty Measure	California's Estimated Grant Totals for Fiscal Year 2004-2006 Using Alternative Poverty Measure		Cost to California in Lost Grants from Using Official Poverty	
Program	Amount	Share	Amount	Share	Measure
School Lunches					
FY 2004	$892,272,000	13.74%	$1,224,672,255	18.85%	$332,400,255
FY 2005	$939,038,000	13.74%	$1,288,862,976	18.85%	$349,824,976
FY 2006	$985,842,000	13.74%	$1,353,094,801	18.85%	$367,252,801
Title I					
FY 2004	$1,765,538,000	15.00%	$2,020,267,104	17.17%	$254,729,104
FY 2005	$1,782,922,000	14.69%	$2,045,758,061	16.85%	$262,836,061
FY 2006	$1,865,502,000	14.72%	$2,139,775,916	16.89%	$274,273,916
CDBG					
FY 2004	$684,569,856	16.40%	$754,650,902	18.08%	$70,081,045
FY 2005	$675,221,394	16.40%	$744,345,415	18.08%	$69,124,021
FY 2006	$113,329,605	16.40%	$124,931,426	18.08%	$11,601,821
SCHIP					
FY 2004	$548,808,000	17.47%	$573,274,533	18.24%	$24,466,533
FY 2005	$667,444,000	16.52%	$698,900,982	17.30%	$31,456,982
FY 2006	$667,444,000	16.52%	$698,900,982	17.30%	$31,456,982
Head Start					
FY 2004	$823,696,000	14.13%	$844,151,674	14.48%	$20,455,674
FY 2005	$831,931,000	14.13%	$852,591,396	14.48%	$20,660,396
FY 2006	$831,931,000	14.13%	$852,591,396	14.48%	$20,660,396
Special Education					
FY 2004	$1,072,637,000	10.90%	$1,075,378,346	10.93%	$2,741,346
FY 2005	$1,132,573,000	10.94%	$1,135,458,806	10.96%	$2,885,806
FY 2006	$1,192,554,000	10.98%	$1,195,578,940	11.01%	$3,024,940
California Total	*$17,473,252,855*		*$19,623,185,910*		*$2,149,933,054*

Data Sources:
Actual and projected grant totals from *Budget of the United States of America, Fiscal Year 2006*, Office of Management and Budget.

California's estimated share of grant totals using the alternative poverty measure from *Poverty Measures and Their Impact on Federal Formula Grant Funding in California*, by Michael J. Potepan, February 2005.