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The Medicaid Matching Formula: Policy Considerations and Options for Modification

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FOREWORD

The formula that determines the federal government's financial share of each state's Medicaid services expenditures is known as the Federal Medical Assistance Percentage (FMAP) formula. Although the formula has remained basically the same since the inception of the Medicaid program in 1965, over the years, federal and state policymakers, policy analysts, and state Medicaid program administrators have identified several shortcomings of the formula. The essence of the formula's limitations, taken together, is that the formula is not sufficiently responsive to state economic capacity.

This issue paper is designed to help federal and state policymakers understand how the current FMAP formula works, its shortcomings and limitations, and some of the ways in which the formula might be altered to better respond to state economic capacity and/or to take into consideration numbers of persons living in poverty within a state, which it currently does not do. In developing this paper, our goal was to demonstrate that there are different approaches to modifying the FMAP and that their state and national impacts would not necessarily be the same. Therefore, we present a variety of options, which can be used alone or in combination, in order to achieve desired policy goals.

Focusing on the FMAP formula is especially timely now because of states' fiscal problems, the pressure that Medicaid spending places on every state's budget, and renewed interest among policymakers in reforming the Medicaid program. These stresses will not end, as recent projections—generated after this paper was drafted—are that 2006 FMAPs will decline substantially for over 20 states. This paper highlights the need for policymakers to clarify the policy goals that they would like the FMAP to achieve and to change the formula, if necessary, in order to better achieve desired outcomes.

AARP's Public Policy Institute is fortunate to be able to present the work of two authors who are uniquely qualified to address the research questions presented in this paper. Vic Miller has extensive experience in federal government and intergovernmental program analysis. Mr. Miller founded and directed Federal Funds Information for States (FFIS) from 1982 to 1992. FFIS, a joint project of the National Governors' Association Center for Policy Research and the National Conference of State Legislatures, tracks the distribution of Federal government funds. Mr. Miller has provided economic advice to a range of clients which include the Southern Governors' Association; the Advisory Council on Social Security (Steelman Commission); the Pepper Commission on Medicaid and Social Services Reform; the U.S. General Accounting Office; and various state government offices.

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EXECUTIVE SUMMARY

Background

Medicaid is a federal-state program that purchases basic health and long-term care services on behalf of 51 million Americans. Because of the size of the population it covers and the cost of the services it buys, Medicaid is also the federal government's largest program of financial assistance to state governments. With projected payments of $158 billion to states in FY 2003, Medicaid dwarfs other federal grant-in-aid programs, including those for education, highways and mass transit, cash assistance, and other functions.

State participation in Medicaid is voluntary, but since 1982 every state has chosen to participate. As a condition of participation in the program, states are required to offer coverage for a defined set of services to certain low-income populations. They also have the option of covering additional services and additional populations. The costs of Medicaid services purchased by the states are matched by the federal government on an open-ended basis at percentages that vary among states from 50 percent in relatively affluent states like Connecticut to 77 percent in relatively poor states like Mississippi (FY 2003). The formula for determining state-specific federal matching rates for Medicaid services expenditures, known as the Federal Medical Assistance Percentage (FMAP) formula, is set forth in the Medicaid statute and is the subject of this paper.

The FMAP formula governs the distribution of the costs of Medicaid services between the federal government and the states in all states except Alaska (where a modified version of the formula applies through FY 2005). In addition to Alaska, the statutory FMAP formula currently does not apply to the Medicaid expenditures on Medicaid-covered services in the District of Columbia (for which the matching rate is set at 70 percent). Moreover, it does not apply in Puerto Rico, the Virgin Islands, Guam, the Northern Mariana Islands, or American Samoa, each of which is subject to an annual cap on federal Medicaid matching funds. The formula also does not apply to expenditures for certain services (e.g., family planning services and supplies), certain populations (e.g., uninsured women with breast or cervical cancer and Native Americans), or Medicaid administrative costs; federal matching percentages for these services and populations are specified separately under federal law.

The FMAP formula is 100 percent minus the state share, where the state share is the square of state per capita personal income over three years divided by the square of U.S. per capita personal income, multiplied by 0.45. The formula can be expressed as follows:

$$FMAP = 100 \text{ Percent minus State Share}$$
$$\text{State Share} = 0.45 \times [\text{State per capita income}^2 / \text{U.S. per capita income}^2]$$

The FMAP formula is designed to give states with below-average per capita personal incomes a higher FMAP; to give states with above-average per capita personal incomes a lower FMAP; and to give states with average per capita personal income a federal share of 55 percent of most covered services. The federal matching percentage is bounded by federal statute at a minimum of 50 percent and a maximum of 83 percent. Because of the use of creative financing

mechanisms by many states, *nominal* FMAPs produced by the statutory FMAP formula are sometimes lower than *effective* FMAPs.

In 1986, the publication of FMAPs was accelerated from a biennial to an annual basis, so that federal matching percentages are now published between October 1 and November 30 of each year and apply to the federal fiscal year that begins in the following calendar year. (The FMAPs for FY 2004, which begins on October 1, 2003, for example, were promulgated on November 15, 2002.) The effect of this change was that it more closely linked changes in per capita personal income to the applicable FMAP in what had been the second year of the biennium.

In addition, over time, the U.S. Department of Commerce's Bureau of Economic Analysis (BEA), which produces the per capita personal income data used in the formula, has made technical changes in how personal income is calculated which have effectively increased per capita personal income in all states, but in some more than others. Fundamentally, however, the FMAP formula itself has changed very little since the enactment of Medicaid in 1965; personal income, as defined by the BEA, remains the key variable in the FMAP formula today, just as it was in 1965.

Purpose

Although the FMAP formula has remained substantially unchanged over the years, it has not been immune to criticism. Most recently, the General Accounting Office (GAO) issued a report in July 2003 concluding that, because of the FMAP formula's structure, "two states devoting similar proportions of their own resources to Medicaid can spend very different amounts per person in poverty" (General Accounting Office, July 2003). These and other critiques, as well as the fiscal pressures under which most states are currently operating, have increased the interest of both federal and state policymakers in the FMAP formula. The purpose of this issue paper is to inform this policy debate by analyzing the FMAP formula, identifying its weaknesses, and examining three illustrative sets of options for modifying it. *The purpose of the paper is not to advocate any particular option, and the paper does not do so.*

Methods

The primary sources of information used to develop this report were federal legislation, policy papers, and information generated over the past three decades for Federal Funds Information for States (FFIS) is a joint subscription service of the National Governors Association (NGA) and the National Conference of State Legislatures (NCSL), which tracks and reports on the fiscal impact of federal budget policy decisions and on the fiscal impact of data released by various federal agencies on state budgets and programs.[1] Work on this report was conducted during calendar year 2003; accordingly, the report only reflects developments through that time.

[1] These include the Census Bureau at the U.S. Department of Commerce (personal income and census data); the Bureau of Labor Statistics at the U.S. Department of Labor (unemployment rate); the U.S. Department of Treasury; the Centers for Medicare & Medicaid Services (Medicaid spending); and the Office of the Assistant Secretary for Planning and Evaluation at the U.S. Department of Health and Human Services (historical FMAP records).

Findings

Three interrelated federal policy objectives have been raised in connection with the FMAP formula: (1) enabling states with differing fiscal capacities to provide roughly equivalent health care benefits to their low-income populations; (2) increasing (or decreasing) federal payments to states as their economic circumstances change; and (3) targeting federal funds to states with higher concentrations of individuals in poverty. Operational experience with the formula over nearly four decades has demonstrated that these policy objectives have not been fully realized.

The key variable in the FMAP formula—personal income as defined by the BEA—was initially viewed as the most effective available proxy for state fiscal capacity. Now, however, there is wide agreement among analysts that the FMAP formula does not adequately reflect the different fiscal capacities of states; does not adequately respond to changes in individual state economic circumstances; and does not adequately take into account the fiscal circumstances of states with high concentrations of poor citizens. Currently, for example, states with high concentrations of persons living in poverty may nonetheless receive the minimum FMAP of 50 percent because they have relatively high per capita incomes (e.g., New York). On the other hand, states that receive a high FMAP of 70 percent or more due to relatively low per capita incomes (e.g., Arkansas) may still not have the fiscal capacity to generate the state funds necessary to provide basic health and long-term care coverage for their large numbers of poor and low-income elderly, particularly during an economic downturn.

The recent state fiscal crisis has highlighted some of the FMAP formula's shortcomings. State-specific FMAP percentages in effect for FY 2003 were determined on the basis of state per capita personal income over the three-year period of 1998 through 2000, when state economies were growing at substantially different rates from 2003 rates. The recent economic downturn demonstrates that the FMAP formula is unresponsive to short-term economic downturns (or upswings) because of the time lag inherent in the collection and calculation of personal income data.

In the recent economic climate, the FMAP formula's lack of responsiveness has contributed to the fiscal pressure on many states to cut back on Medicaid benefits, eligibility, and provider payments. California, for example, the state that had perhaps the most severe recent fiscal situation, experienced a decrease in its FMAP between FY 2002 and FY 2003. In recognition of the strain that the economic downturn was having on state budgets, Congress enacted tax legislation in 2003 which contained provisions for a temporary increase in the FMAP for all states for the last two quarters of FY 2003 and the first three quarters of FY 2004 (Jobs and Growth Tax Relief Reconciliation Act of 2003). While this action partially eased the states' fiscal difficulties, it left the program exposed to similar stresses during future economic downturns.

This paper presents three sets of options to help policymakers understand the implications of different modifications to the existing FMAP formula. ***These options should not be viewed as the recommendations of the authors or AARP.*** The options presented are a small subset of a limitless number of possible alternatives, and combinations of alternatives, to the existing FMAP formula.

- **Options for making the formula better reflect state fiscal capacity**. The first set of options for modifying the FMAP involve adjustments that could make the FMAP formula more reflective of state fiscal capacity, in both good and bad economic times. The options discussed are (1) replacing personal income with another variable, total taxable resources (TTR); and (2) expanding the numerical range of FMAPs beyond the current 50 to 77 percent by increasing the power to which the personal income variable is raised.

- **Options for improving the responsiveness of the formula to changing national and state-specific fiscal capacities**. The second set of options has to do with improving the responsiveness of the FMAP formula to changes in state-specific fiscal capacity during the economic cycle. The options discussed are (1) shortening the time period on which average per capita income is based; (2) applying FMAPs in the same fiscal year in which they are published; (3) increasing by 1 percentage point the FMAP of each state with high unemployment (relative to the national average); and (4) holding states with high unemployment rates (relative to the national average) harmless against declines in FMAPs.

- **Options for modifying the formula to address concentrations of poverty within states**. The third set of options involves adjustments that could make the FMAP formula take into account the additional needs faced by states with larger concentrations of persons in poverty. The option discussed is the use of personal income per person in poverty rather than personal income per capita.

Modifying the formula produces FMAPs that may, in the case of any particular state, differ from its current FMAP. A series of tables is presented at the end of the paper to enable the reader to compare state-specific outcomes for the options presented, generally in the context of FY 2003.

Implications

Ultimately, improving the FMAP formula is not a technical problem. Rather it is, in the broadest sense, a task that involves addressing a set of political questions. Should the federal government increase the share of Medicaid costs that it finances? Is the current distribution of fiscal burden among the states appropriate, or should it change? Should Medicaid take on the role of an "automatic stabilizer" like unemployment insurance programs which automatically adjust to economic upswings and downturns at the national and state level? Because of the sheer scale of the Medicaid program—both in terms of the number of Americans covered and the amount of federal and state funds at issue—the resolution of these questions will have profound implications for the system of fiscal federalism in America. And because of the growth in the program, in the number of uninsured low-income individuals, and in the need for long-term care services, these questions will take on increasing urgency in the years to come.

I. INTRODUCTION

The Medicaid Program

Medicaid is a federal-state program that purchases basic health and long-term care services on behalf of 51 million Americans. It is the federal government's third largest domestic program: only Social Security and Medicare are larger.[2] Medicaid is far and away the nation's largest federal-state financing program, dwarfing federal programs for education, highways and mass transit, cash assistance, housing, and other functions.[3] In FY 2003, Medicaid was projected to provide basic health and long-term care services to an estimated 51.5 million low-income children, parents, individuals with disabilities, and elderly (CBO, March 2003).[4] The cost of Medicaid to the federal and state governments in FY 2003 is estimated to be in the neighborhood of $277 billion, with the federal government paying $158 billion and the states as much as $119 billion (CBO, March 2003).

State participation in Medicaid is voluntary, but since 1982 every state has chosen to participate. Medicaid is now the largest state-run health care program in every state. As a condition of participation, states are required to extend coverage for a defined minimum package of benefits to certain low-income populations. States have the option of extending coverage to populations and services beyond the minimum required; the costs of this "optional" coverage also qualify for federal matching payments on the same open-ended basis. About 65 percent of all Medicaid spending is for these "optional" services or populations (Holahan & Bruen, 2001). Low-income individuals eligible for Medicaid are legally entitled to have payment made on their behalf for covered services. States are legally entitled to matching funds from the federal government for the costs of those services. The federal government matches the costs of this coverage on an open-ended basis at a rate that currently varies from 50 to 77 percent and from state to state, as specified by the formula that is the focus of this paper.

The highest cost and fastest growing "optional" service is prescription drugs. Medicaid spending on prescription drugs was $23.4 billion in FY 2002, accounting for 9.6 percent of all program spending on services that year. Over the previous decade, Medicaid prescription drug spending had grown an average of 14.2 percent per year (Centers for Medicare and Medicaid Services, undated).[5] Not surprisingly, the highest utilization of prescription drugs occurs among elderly Medicaid beneficiaries; even though almost all of these individuals are also eligible for Medicare, Medicare does not currently cover outpatient prescription drugs.[6] Both the rapidly increasing cost of purchasing prescription drugs for elderly and disabled Medicaid beneficiaries and the higher

[2] For an overview of Medicaid eligibility, benefits, financing, and administration, see Kaiser Commission on Medicaid and the Uninsured, The Medicaid Resource Book, Washington, DC (July 2002) (www.kff.org).
[3] In 1999, Medicaid accounted for 41 percent of all federal grants-in-aid to states; the next largest categories were education (14 percent), transportation (11 percent), and cash assistance (8 percent). Ibid. Figure 3-2, p. 88.
[4] The CBO estimate of Medicaid enrollees includes individuals enrolled at any point in time during the year.
[5] Unpublished administrative tables.
[6] The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (Public Law 108-173) (signed December 8, 2003) added coverage for outpatient prescription drugs to Medicare effective January 1, 2006.

utilization of covered drugs have been important contributors to the fiscal stress that many states are experiencing.

Medicaid is the single largest purchaser of long-term care services in the nation, accounting for 42 percent of all long-term care spending. Although Medicaid purchases a range of institutional and non-institutional long-term care services for its elderly and disabled beneficiaries, Medicaid's single largest long-term care expense is nursing home care. About 19 percent of all Medicaid spending (FY 2002) goes toward nursing home care; as a result, Medicaid accounted for 47 percent of all nursing home spending nationally in 2001 (Centers for Medicare & Medicaid Services, 2003). The increasing need for long-term care services, coupled with demographic trends that indicate that the need will continue to grow over the next decades, are likely to place substantial fiscal pressure on both state and federal Medicaid budgets, particularly in states with high concentrations of low-income elderly residents.

The Medicaid Matching Formula

The formula that determines how much of each state's spending on Medicaid benefits will be matched by the federal government is known as the Federal Medical Assistance Percentage (FMAP) formula. Under federal law, the term "medical assistance" is used to describe payment to providers for the costs of the 27 different categories of health and long-term care services that states are able to cover (with federal matching funds) under their Medicaid programs. Thus, the FMAP formula applies to the costs of almost all Medicaid-covered services for almost all Medicaid-eligible populations. (See Section II for a fuller discussion, including exceptions).

The federal share of "medical assistance" costs in each state, or the FMAP, varies inversely with state per capita income: the poorer the state in terms of per capita income, the higher the state's FMAP. As shown in Table 1, FY 2003 FMAPs originally ranged from 50 percent in more affluent states like Connecticut to nearly 77 percent in Mississippi. With the temporary increases in FMAPs that Congress enacted for the last two quarters of FY 2003, enhanced FY 2003 FMAPs ranged from nearly 53 percent in more affluent states to nearly 80 percent in Mississippi (see Table 2).

Of course, the FMAP formula is more than just a formula. It is a fundamental policy statement regarding the distribution between federal and state governments of the costs of financing health and long-term care services needed by low-income Americans. Currently, for example, the lowest FMAP is 50 percent. This floor is a policy statement that no state choosing to participate in Medicaid will have to pay more than half of the cost of any Medicaid service furnished to any Medicaid enrollee. This policy statement could be altered to guarantee participating states a minimum of, say, three-fifths of their costs. Mechanically, this would be straightforward: simply increase the current floor by 10 percentage points to 60 percent. From the standpoint of federal-state fiscal relations, however, this would be anything but straightforward. The short- and long-term fiscal impact on the federal treasury would be quite substantial, and states with FMAPs already at 60 percent or higher would not secure any additional benefit.

Because the costs of health and long-term care services for low-income Americans are so large, and because the resulting flow of federal funds used for sharing in those costs is so great, state-specific FMAPs have enormous implications for state budgets, for Medicaid beneficiaries, for health care providers, and for state economies as a whole. Seemingly minor shifts in the FMAP of one quarter or one half of a percentage point from year to year can mean the gain or loss of tens or hundreds of millions of federal matching dollars, depending upon the size of a state's Medicaid program. For example, between FY 2002 and FY 2003, California's FMAP shifted from 51.40 percent to the 50.00 percent minimum. This 1.40 percentage point shift is estimated to have cost the state over $400 million in federal Medicaid payments.[7]

The FMAP Formula and State Fiscal Crises

Most states faced severe fiscal crises in FY 2003. State revenues fell due to the downturn in the national economy and a series of federal policy actions.[8] State spending, meanwhile, increased. Some state spending increases are discretionary, some respond to increased demands during the economic slowdown, and some reflect unfunded federal mandates in such areas as homeland security and special education. In the context of this increased state spending, Medicaid remains one of the largest items in state budgets, accounting for an average of 16 percent of state-only spending and 19.5 percent of total state budgets (which include federal funds) in 2001. By way of comparison, elementary and secondary education accounted for 21.6 percent of total state spending (including federal funds) in 2001, while higher education accounted for 10.7 percent (National Association of State Budget Officers, 2002).

According to the National Conference of State Legislatures, most states faced deficits in their FY 2003 and FY 2004 budgets. Because of state balanced budget requirements, these deficits had to be addressed by reducing spending, increasing revenues, or some combination of the two. A 50-state survey conducted for the Kaiser Commission on Medicaid and the Uninsured in December 2002 found that all but 1 state—Alabama—had already taken action in FY 2003 to reduce Medicaid spending growth. The states' Medicaid cost-containment measures included restricting eligibility (14 states), narrowing benefits (16 states), increasing beneficiary copayments (4 states), and freezing or reducing payments to providers (25 states) (Kaiser Commission on Medicaid and the Uninsured, 2003). State budget shortfalls for FY 2004, which for most states began on July 1, 2003, are projected to be even larger than those for FY 2003, and additional state actions to contain Medicaid costs are expected.

Because the federal government shares in the cost of state Medicaid programs, states that need to reduce their own spending must cut Medicaid program spending by more than what they want to save in their own-source contributions. For example, to save $1 of its

[7] California's losses also include federal matching payments for Foster Care and Adoption Assistance, which are programs in Title IV of the Social Security Act that also use the Medicaid FMAP formula on an open-ended basis.

[8] These federal policy actions include inheritance tax changes, limitations on sales taxation of phone and internet transactions, and federal corporate and personal income tax reductions automatically reflected in related state tax structures.

own funds, a state with a 50 percent FMAP must reduce Medicaid spending by $2. The providers that would have received the $2 in Medicaid payments that are no longer spent for services to beneficiaries will experience a loss of $2; the state will save $1; and the federal government will save $1. This effect is magnified in high-match states. To save $1 of its own funds, a state with a 70 percent FMAP must reduce Medicaid spending by $3.33. Providers will lose the full amount in Medicaid payments, and the federal government will save $2.33. The loss of federal revenues has an impact not just on affected Medicaid providers in a state, but also on the state's economy as a whole. The withdrawal of federal Medicaid funds is more likely to weaken the state's economy than to revive it.[9]

As explained more fully below, the FMAP formula does not adjust quickly to changes in economic conditions of the kind that have produced the recent state fiscal crisis. The base FMAP percentages in effect for FY 2003 were determined by state per capita personal income over the three year period of 1998-2000, when state economies were growing at substantially different rates from 2003 rates.[10] To the extent economic conditions result in reductions or increases in personal income in 2002, these changes will not begin to be reflected in the FMAP percentages until FY 2005, by which time the national and some state economies may be recovering. The time lag inherent in the collection and calculation of personal income data makes the FMAP formula unresponsive to short-term economic downturns. This lack of responsiveness, in turn, has contributed to the fiscal pressure on many states in the current economic climate to cut back on Medicaid benefits, eligibility, and provider payments.

Through much of 2002 and 2003, there was debate at the federal level about whether the federal government should provide fiscal relief to states and, if so, in what form. The Administration, in its FY 2004 budget, proposed to provide additional federal matching payments on a budget-neutral basis to states that elect to limit the aggregate amount of federal Medicaid (and State Children's Health Insurance Program) payments they are entitled to receive over a 10-year period.[11] Shortly thereafter, members of Congress introduced legislation to temporarily increase each state's FMAP.[12] In the end, tax

[9] A number of economists have modeled the impact of Medicaid on state economies. See, for example, Jan Crispin-Little, Economic Impact of Medicaid and CHIP on the Utah Economy, David Eccles School of Business, University of Utah, Salt Lake City, Utah (January 2003), (www.utahissues.org) (using the Bureau of Economic Analysis's RIMS II model); and Steven Deller, Economic Impact of Reducing Medicaid and BadgerCare Expenditures, University of Wisconsin-Madison (February 11, 2003), (www.wccf.org/pdf/econimpact.pdf) (using IMPLAN model).

[10] For example, Michigan, a state with among the most significant economic problems in 2003, experienced a substantial decline in its FMAP between FY 2002 and FY 2003. California, with perhaps the most severe fiscal situation in 2003, also experienced a decrease in its FMAP in FY 2003 (see Table 1). The temporary FMAP increase enacted by Congress in May 2003 partially ameliorated the impact of these declines in FY 2003.

[11] The additional federal payments, totaling $12.7 billion over 7 years, would have to be "repaid" over the final three years of the 10-year period. Department of Health and Human Services, FY2004 Budget in Brief, Washington, DC (February 2003) pp. 53-54.

[12] For example, Senators Rockefeller (D-WV), Collins (R-ME), and Nelson (R-NE) introduced legislation (S. 138) to raise each state's FMAP by 2.45 percentage points for the 18-month period of April 2003 through September 2004. In the case of states that would have experienced an FMAP reduction under current law in either FY 2003 or FY 2004, the previous year's higher FMAP would apply prior to the addition of the 2.45 percentage point increase. This increase would have applied to all Medicaid program costs other than payments to disproportionate share hospitals. Under the bill, states that reduced Medicaid eligibility after September 2, 2003, and did not reinstate any such cutback prior to enactment of the bill would have been disqualified from receiving the 2.45 percent increase.

legislation enacted by Congress in May 2003 provided $10 billion in the form of a temporary increase in FMAPs for the 15-month period of April 1, 2003 through June 30, 2004, and another $10 billion in general purpose aid to states distributed through the Treasury Department (Jobs and Growth Tax Relief Reconciliation Act of 2003). In short, the issue of the FMAP and the formula used to calculate it is squarely on the national agenda.

The FMAP Formula and the Current Policy Debate

The most immediate question about the FMAP formula is whether the formula should be modified to respond to the recent state government fiscal crisis, as well as to similar crises that may occur in the future. Although Congress recently enacted a temporary FMAP enhancement for the last two quarters of FY 2003 and the first three quarters of FY 2004, it did not change the formula itself. For FY 2005 and beyond, the question about whether the matching formula should be modified remains to be answered.

Avoiding excessive state government fiscal stress is not the only policy objective of the FMAP formula. Another policy objective is achieving fiscal equity among states. The key question here is: can the FMAP formula be structured so that, during good economic times as well as bad, states that participate in Medicaid are similarly able to meet the health and long-term care needs of their low-income populations despite differing fiscal capacities?

Medicaid's fundamental mission is to provide basic health and long-term care coverage for low-income Americans, but poor people are not equally distributed among the states. Does the FMAP adequately take into account, in both good and bad economic times, the circumstances of states with high concentrations of poor citizens, so that low-income Americans have reasonably equal access to coverage for health services regardless of the state in which they live? If not, how can the FMAP formula be adjusted to more effectively assist these states? Similarly, low-income elderly and individuals with disabilities in need of long-term care are not equally distributed among states. How might the fiscal burden of long-term care costs be more equitably distributed between the federal government and the states facing the greatest demands?

Purpose and Methodology

The purposes of this paper are to explain the FMAP formula and its operation, to identify the limitations of the formula in achieving different federal policy objectives, and to present three sets of options (using the most recent data available at the time of drafting) for modifying the formula and the FMAP publication process:

Representatives King (R-NY) and Brown (D-OH) introduced legislation (H.R. 816) that would have raised each state's FMAP by 2.0 percentage points for the 12-month period of April 2003 through March 2004 and would have raised the FMAPs of states with unemployment rates above the national average by an additional 2.5 percentage points. States that restricted eligibility for Medicaid after September 30, 2003 would have been disqualified from receiving either FMAP increase.

- The first set of options involves adjustments to the FMAP formula so that it better reflects state tax capacity.
- The second set of options would make the FMAP formula more responsive to changing national and state-specific fiscal capacities during the economic cycle.
- The third set of options would adjust the FMAP formula to take into account concentrations of low-income populations within states.

These options should not be viewed as recommendations of the authors or AARP. The options presented are a small subset of a limitless number of possible alternatives, and combinations of alternatives, to the current FMAP formula. They are presented only for illustrative purposes and to help policymakers understand the implications of different modifications to the current formula. Modifying the formula produces FMAPs that may, in the case of any particular state, differ from its current FMAP. Several tables are presented at the end of this paper to allow readers to compare state-specific and national outcomes for the options presented, generally in the context of FY 2003.

Another approach to changing the FMAP formula is discussed by the General Accounting Office (GAO) in a July 2003 report (General Accounting Office, July 2003). In the report, the GAO concluded that, because of the current FMAP formula's structure, "two states devoting similar proportions of their own resources to Medicaid can spend very different amounts per person in poverty."[13] GAO suggested the use of a variable other than per capita income to better measure state fiscal capacity. GAO also examined lowering the 50 percent floor under the current FMAP formula. Lowering the floor below 50 percent would reverse an almost 40-year old precedent of the federal government sharing at least half of the cost of basic health and long-term care services for low-income Americans, regardless of the state in which they live.

The primary sources of information used to develop this report were federal legislation, policy papers, and information generated over the past three decades for Federal Funds Information for States (FFIS). FFIS is a joint subscription service of the National Governors Association (NGA) and the National Conference of State Legislatures (NCSL), which tracks and reports on the fiscal impact of federal budget policy decisions and on the fiscal impacts of data released by various federal agencies on state budgets and programs.[14]

FFIS tracks personal income data published by the BEA and population data from the U.S. Census Bureau to project future FMAPs and to inform states of what to expect when the official FMAPs are published. In addition, FFIS tracks legislation affecting the FMAP, such as the recently enacted Jobs and Growth Tax Relief Reconciliation Act of

[13] In FY 2000, for example, GAO calculates that California and Wisconsin both applied about $8 of every $1,000 of their own state resources to Medicaid, but the FMAP formula enabled Wisconsin to spend $7,532 per person in poverty while California, despite an equivalent state effort, was able to spend only $3,731. GAO, Medicaid Formula: Differences in Funding Ability Among States Often Are Widened, GAO-03-620, Washington, DC (July 2003) (www.gao.gov).

[14] These include the Census Bureau at the U.S. Department of Commerce (personal income and census data); the Bureau of Labor Statistics at the U.S. Department of Labor (unemployment rate); the U.S. Department of Treasury; the Centers for Medicare & Medicaid Services (Medicaid spending); and the Office of the Assistant Secretary for Planning and Evaluation at the U.S. Department of Health and Human Services (historical FMAP records).

2003 (P.L. 108-27), which provides for a temporary increase in all state FMAPs. Finally, FFIS maintains close relationships with the Centers for Medicare and Medicaid Services (CMS) and other relevant federal agencies in an ongoing exchange of Medicaid data that permit states to better understand changes in the program and potential impacts on state finances.

Work on this report was conducted during calendar year 2003; accordingly, the report only reflects developments through that time.

II. THE MEDICAID MATCHING FORMULA AND ITS OPERATION

The FMAP Formula

The Federal Medical Assistance Percentage (FMAP) formula determines the federal share of the cost of providing "medical assistance" in each state. Under federal law, the term "medical assistance" is used to describe payment to providers for the costs of the 27 different categories of health and long-term care services that states are able to cover under their Medicaid programs. The formula does not apply to Medicaid administrative costs; the distribution of these costs between the federal and state governments is described in Appendix A. It also does not apply to certain services (e.g., family planning services and supplies[15]), certain populations (e.g., uninsured women with breast and cervical cancer[16] and Native Americans[17]), and certain jurisdictions (e.g., the District of Columbia, the U.S. Territories, and, until FY 2006, Alaska).

The FMAP formula is set forth in the federal Medicaid statute.[18] The formula is used to calculate each state's FMAP based on the relationship between the state's per capita personal income and the national average per capita personal income over three calendar years. More specifically, the FMAP is 100 percent minus the state share, where the state share is the square of state per capita income divided by the square of U.S. per capita income, multiplied by 0.45. The formula can be expressed as follows:[19]

FMAP = 100 Percent minus State Share
State Share = 0.45 x [State per capita income^2 /U.S. per capita income^2]

The formula is designed to give states with below-average per capita personal incomes a higher FMAP; to give states with above-average per capita personal incomes a lower FMAP; and to give a state with average per capita personal income a federal share of 55 percent. Left to its own operation, this formula would produce FMAPs higher or lower than those actually applied in some cases. The federal Medicaid statute bounds the formula's mathematical results by specifying a minimum FMAP of 50 percent and a

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[15] The matching rate for family planning services and supplies is 90 percent in every state and the District of Columbia.

[16] The matching rate for treatment services for these women is the enhanced FMAP under the State Children's Health Insurance Program (SCHIP); see Table 4 for SCHIP-enhanced FMAPs from FY 1998 to FY 2004.

[17] The matching rate for services furnished to Medicaid-eligible American Indians and Alaska Natives by Indian Health Service or tribally run facilities is 100 percent in all states.

[18] Section 1905(b) of the Social Security Act, 42 U.S.C. §1396d(b) states: "…the term 'Federal medical assistance percentage' for any State shall be 100 per centum less the State percentage; and the State percentage shall be that percentage which bears the same ratio to 45 per centum as the square of the per capita income of such State bears to the square of the per capita income of the continental United States (including Alaska) and Hawaii; except that (1) the Federal medical assistance percentage shall in no case be less than 50 per centum or more than 83 per centum, (2) the Federal medical assistance percentage for Puerto Rico, the Virgin Islands, Guam, the Northern Mariana Islands, and American Samoa shall be 50 per centum. The Federal medical assistance percentage for any State shall be determined and promulgated in accordance with the provisions of section 1101(a)(8)(B)."

[19] The mathematical expression of this formula is:

$$FMAP_i = 1-(.45 \times \sum(Yn_i+Y(n+1)_i+Y(n+2)_i)^2/\sum(Yn_{US}+Y(n+1)_{US}+Y(n+2)_{US})^2)$$

Where $\mathbf{FMAP_i}$ = the FMAP of state I, $\mathbf{Yn_i}$ = the per capita income of state i in year n, and $\mathbf{Yn_{US}}$ = the average U.S. per capita income in year n.

maximum of 83 percent. As a practical matter, the maximum has not operated as a constraint; in the past 30 years, only one state (Mississippi) has exceeded 80 percent, and it did so in only one recent year (1990) (Table 3). The 50 percent floor, however, does have real consequences. In FY 2004, the application of the standard FMAP formula would have left 13 states and the District of Columbia with FMAPs lower than 50 percent, and would have left four states—Connecticut, Massachusetts, New Jersey, New York—and the District of Columbia with FMAPs below 40 percent (Table 1).

The federal Medicaid statute also overrides the results of the FMAP formula for Alaska and the District of Columbia. Under the statutory FMAP formula, Alaska's FY 2004 FMAP would have been 54.13 percent; under a modified version of the formula applied to Alaska, Alaska's FY 2004 FMAP is 58.39 percent. In the case of the District of Columbia, Congress permanently raised the FMAP to 70 percent, effective in FY 1998. Under the statutory FMAP formula, the District's FY 2004 FMAP would have been only 23.49 percent (were it not for the 50 percent floor). The rationales for these enhanced FMAPs are discussed below.

Note that, under the FMAP formula, a state's matching rate reflects the state's per capita income in relation to that of other states. If the per capita incomes fall (or increase) in every state by the same relative amount from one year to the next, no individual state's matching rate will increase (or fall). If a state's per capita income declines, but the decline is relatively small when compared with the change in U.S. average per capita personal income, that state will experience a decrease in its FMAP. In order to receive an increase in its FMAP, a state must experience a decline in per capita personal income that is greater than the decline in the U.S. average per capita income.

The FMAP Publication Process

Medicaid FMAPs for states are updated annually. By federal statute, the Secretary of the U.S. Department of Health and Human Services is required to promulgate FMAPs for a federal fiscal year between October 1 and November 30 of the previous calendar year.[20] Accordingly, the FMAPs for FY 2004, which began on October 1, 2003, were promulgated on November 15, 2002.[21] In some years, the statutorily required publication schedule has not been met. For example, the FMAPs for FY 1997 were published in March 1996, several months late.

For the first two decades of the Medicaid program, FMAPs were published every two years. Because FMAPs are calculated on the basis of the average per capita personal income for the three most recent calendar years for which satisfactory data are available

[20] Section 1101(a)(8)(B) of the Social Security Act, 42 U.S.C. 1301(a)(8)(B) provides: "The Federal percentage for each State (other than Puerto Rico, the Virgin Islands, and Guam) shall be promulgated by the Secretary between October 1 and November 30 of each year, on the basis of the average per capita income of each State and of the United States for the three most recent calendar years for which satisfactory data are available from the Department of Commerce. Such promulgation shall be conclusive for each of the four quarters in the period beginning October 1 next succeeding such promulgation."

[21] The FY 2004 FMAPs were published in the Federal Register, 67 *Fed. Reg*. 69223 (Nov. 15, 2002), and posted on the Department of Health and Human Services' Web site: http://aspe.hhs.gov/health/fmap04.htm.

from the U.S. Department of Commerce, the effect of the original publication policy was to lock in state FMAPs for a two-year period based on personal income data from as much as six years earlier. Thus, state FMAPs for FY1985 and 1986 were based on state and national per capita income for calendar years 1980 – 1982.

In the spring of 1986, in an effort to make the FMAP more sensitive to changes in state economic conditions, Congress changed the FMAP publication from biennial to annual, effective for FY 1987.[22] The effect of annualizing the publication of FMAPs is to more closely link changes in per capita personal income to the FMAP in effect in the second year of what had been a two-year period. Thus, the FY 2004 FMAPs, which took effect October 1, 2003, are based on per capita income two to four calendar years earlier (1999-2001).

As Medicaid expenditures grow, the importance of the FMAP to state budgets increases. The requirement that FMAPs be published in the fall of the calendar year preceding the year in which the FMAP begins to apply is designed to give states as much time as possible to make budgetary adjustments to changes in the FMAP. Most state legislatures meet and make budgetary decisions early in the calendar year; their decisions are reflected in budgets that are implemented beginning in the second half of the calendar year. By knowing their state-specific FMAP for the fiscal year for which they are budgeting, states are better able to make decisions about their Medicaid programs. Thus, most states were making budget decisions in the spring of 2003 that were implemented beginning July 1, 2003. These states had known their FMAPs for the period from July through September 2003 since the fall of 2001. They learned the FMAPs that would apply for the rest of this particular budget year (e.g., October 2003 through June 2004) on November 15, 2002.[23]

FMAPs for States

State-specific FMAPs in FY 2002, FY 2003, and FY 2004—not taking into account the recently enacted temporary increase for portions of FY 2003 and FY 2004—are shown in Table 1. In FY 2003, as can be seen, 10 states— Alabama, Arkansas, Idaho, Louisiana, Mississippi, Montana, New Mexico, Oklahoma, Utah, and West Virginia—and the District of Columbia at the high end of the range had FMAPs of 70 percent or above. In these states and D.C., each $1.00 the state spends on Medicaid entitles the state to between $2.33 and $3.28 in matching payments from the federal government. At the other end of the range, 12 states were at the 50 percent statutory minimum in FY 2003: California, Colorado, Connecticut, Delaware, Illinois, Maryland, Massachusetts,

[22] Section 9528 of the Consolidated Omnibus Budget Reconciliation Act of 1985, P.L. 99-272. As a result of the change, some states were projected to experience a reduction in their FY 1987 FMAPs below those previously published, effective as of October 1986. In the fall of 1986, Congress held those states harmless from the change by exempting them from its operation for FY 1987. Section 9421 of the Omnibus Budget Reconciliation Act of 1986 (P.L. 99-509).

[23] Note that states with biennial budgets (e.g., Texas and North Dakota) only know one of the two FMAPs that will apply to their two-year budget period. These states make projections for their second budget year in a manner similar to how they make tax projections for the same period, often using private forecasts.

Minnesota, New Hampshire, New Jersey, New York, and Washington. In these states, each $1.00 the state spends on Medicaid brings in $1.00 in federal matching funds.

FMAPs tend to shift from year to year (Table 3). Annual shifts in FMAPs are not always a zero-sum game. In any given year, twice as many states can experience FMAP increases as receive FMAP decreases, and vice versa. Consider what has happened to state FMAPs during the last few years, which have been shaped by the deep recession experienced by the West Coast states in the late 1990s. Initially, the regional recession lowered national average personal income faster than that of most states; this had the effect of lowering the FMAPs of most states not already at the 50 percent statutory floor. Between FY 2001 and FY 2002, for example, FMAPs dropped for 29 states and increased for only 11 states. However, as 1997 and 1998 personal income data were no longer reflected in the three-year period on which the FMAP calculation was based, most state FMAPs increased toward previous levels. Thus, between FY 2002 and FY 2003, 23 states experienced FMAP increases, while 17 states experienced declines. In FY 2004, FMAPs increased in 27 states and declined in 11 states.

FMAP shifts from year to year can also be a function of changes in population estimates. For example, the population estimates used in calculating the FY 2003 FMAPs differed significantly from those population estimates used in calculating the FY 2002 FMAPs. FY 2002 FMAPs were based on population estimates for 1997-1999 that were derived from the annual Current Population Survey (CPS) and consistent with the 1990 decennial census. FY 2003 FMAPs were based on population estimates for 2000 derived from the 2000 decennial census. However, because the Census Bureau did not issue the necessary revisions of the 1998 and 1999 state population estimates in time for the FY 2003 FMAP calculation, the Commerce Department's Bureau of Economic Analysis found it necessary to calculate its own population estimates in order to be able to publish the per capita income estimates used to calculate the FMAPs.

The population estimates derived from the 2000 decennial census differed substantially from the population estimates that were based on the annual CPS and were consistent with the 1990 decennial census. The entire country's population growth was underestimated by the 1990 decennial estimates, but the underestimates were considerably larger in some states than in others. In isolation, an underestimate of population would yield an overestimate of state per capita income. However, in the context of the FMAP formula, the impact depends on the change in population for each state relative to the change for the nation as a whole. As a result, the use of population estimates for 1999–2000 based on the new 2000 decennial census data had the effect of lowering the FMAPs for states with below-average underestimates by as much as 1.68 percentage points (in the case of Michigan) and raising the FMAPs for states with above-average underestimates by as much as 2.39 percentage points (Nevada) (General Accounting Office, February 2003).

The above changes are examples of the kind of variation in FMAPs that has occurred since the inception of the Medicaid program. Appendix B provides a fuller description of some of the historical shifts in FMAP.

FMAPs for Puerto Rico and U.S. Territories

The Medicaid FMAP formula does not apply in the Commonwealth of Puerto Rico, the Virgin Islands, Guam, the Northern Mariana Islands, or American Samoa. Puerto Rico and U.S. territories are allowed to participate in Medicaid, but under different terms from the states and the District of Columbia. In Puerto Rico and U.S. territories, the FMAP is 50 percent, regardless of the jurisdiction's per capita income. Furthermore, the amount of federal Medicaid matching funds that any of these jurisdictions can claim in a fiscal year is capped by law at a specific dollar amount, which is adjusted annually by the Consumer Price Index.[24] For FY 2003, for example, the adjustment was 4.61 percent, increasing Puerto Rico's ceiling from $184.4 million to $192.9 million. The current low levels of inflation are expected to produce, at best, nominal increases in these ceilings in the coming years. Because the ceilings are low in comparison to actual Medicaid expenditures in each jurisdiction, the effective federal matching rate is far below these jurisdictions' 50 percent FMAP.

This policy with respect to Puerto Rico and U.S. territories is one of long standing. It can be traced back to 1958, when Congress first enacted the federal matching formula tied to per capita income upon which the current FMAP formula is structured.[25] The cap on federal Medicaid matching funds is one example of the number of ways in which the relationship between the federal government and the U.S. commonwealths and territories differs substantially from the relationship between the federal government and the states.[26]

Puerto Rico and U.S. territories have been treated much more generously under the State Children's Health Insurance Program (SCHIP) matching formula than under Medicaid's FMAP. SCHIP is not an open-ended federal matching program like the Medicaid program, which finances an individual entitlement to a defined set of benefits. Under SCHIP, each state and territorial jurisdiction receives a specific allocation of SCHIP funds for each fiscal year; unspent funds are eventually redistributed to other states or jurisdictions; and no individual child is legally entitled to coverage. Compared with Medicaid, the SCHIP program requires fewer territorial own-source funds to draw down the allocated federal funds. Whereas the Medicaid FMAP is 50 percent, the federal SCHIP matching rate for each territorial jurisdiction is 65 percent. Because of the 65 percent SCHIP matching rate, the jurisdictional allocations, and the redistribution of unspent funds, SCHIP programs are much more important financially to Puerto Rico and U.S. territories than they are to states. SCHIP grants to states total on average about 2 percent of the value of their Medicaid grants, whereas SCHIP grants to Puerto Rico and

[24] Section 1108(g) the Social Security Act.

[25] Section 505 of the Social Security Amendments of 1958, Public Law 85-840.

[26] Another example has to do with taxes. Many of the territories receive tax advantages that are not received by states that make up the contiguous U.S. Examples include the following: In FY 2004, Puerto Rico is expected to receive $355 million in revenues from excise taxes imposed by federal law on articles produced in Puerto Rico. Similarly, it is estimated that the federal government will return to Guam $52 million in U.S. income tax collections from residents of Guam and $70 million to the Virgin Islands in excise tax collections. Office of Management and Budget, *FY 2004 Budget: Appendix* (February 2004), pp. 787-788.

U.S. territories approach one-third the value of their Medicaid grants. As the level of SCHIP funds available for redistribution declines, however, SCHIP funding available to these jurisdictions will decline substantially.

Enhanced FMAPs That Apply in Specific Circumstances

Federal Medicaid matching rates for the costs of covered services are higher than those produced by the FMAP formula in specified circumstances. The most significant of these are (1) the special federal matching rates established by Congress for Alaska and the District of Columbia, and (2) the use of an enhanced FMAP formula to match states' expenditures on uninsured women with breast or cervical cancer. These enhanced FMAPs are briefly reviewed below.

FMAPs for Alaska and the District of Columbia

In the 1997 Balanced Budget Act, Congress suspended the application of the FMAP formula to Alaska and to the District of Columbia.[27] In the case of Alaska, Congress raised the state's FMAP from 50 percent to 59.8 percent for the two fiscal years of 1999 and 2000. (A higher than usual FMAP also applied to Alaska's SCHIP program during the same period). In explaining this decision, the House and Senate conferees expressed their dissatisfaction with the current FMAP formula:

> The conferees note the importance of establishing equitable matching rates across the states. The current methodology for calculating match rates, per capita income, is a poor and inadequate measure of the states' needs and abilities to participate in the Medicaid program. The conferees note that the poverty guidelines for Alaska and Hawaii, for example, are different than those for the rest of the nation but there is no variation from the national calculation in the FMAP. The increase in Alaska's FMAP demonstrates a recognition that a more accurate measurement is needed in the program. Conferees also note that comparable adjustments are generally made for Alaska and Hawaii. [28]

(The conferees did not explain why Alaska's FMAP was sufficiently inaccurate to justify an increase but Hawaii's FMAP was not.)

Congress did not extend Alaska's special FMAP rate of 59.8 percent beyond FY 2000. Instead, in the Benefits Improvement and Protection Act of 2000, Congress required that a modified version of the FMAP formula be applied to Alaska for FY 2001 through FY 2005.[29] The modified formula altered the calculation of Alaska's average per capita income by requiring that its three-year average per capita personal income be divided by 1.05. The effect was to raise Alaska's FMAP to 60.13 percent in FY 2001, 57.38 percent in FY 2002, 58.27 percent in FY 2003, and 58.39 percent in FY 2004. In the absence of

[27] Section 4725 of the Balanced Budget Act of 1997 (Public Law 105-33).
[28] H. Rept. 105-217 at p. 879.
[29] Section 706 of the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000, H.R. 5661, as enacted in the Consolidated Appropriations Act of 2000 (Public Law 106-554).

this adjustment, as shown in Table 1, Alaska's FMAP in FY 2004 would be 54.13 percent, more than 4 percentage points lower.

In the case of the District of Columbia, Congress raised the FMAP permanently to 70 percent, effective in FY 1998. In the absence of this change, the District's FMAP in FY 2004 would have been 50 percent or 20 percentage points lower. (As shown in Table 1, without the 50 percent floor, the District's FMAP in FY 2004 would be 23.49 percent.) The change in the District's FMAP was one of a number of policy changes enacted in 1997 that realigned the fiscal relationship between the District and the federal government. In exchange for the elimination of the annual federal payment to the District, and in recognition of the District's limited tax base, the federal government assumed not only a greater share of its Medicaid costs but also its pension liabilities and correctional facility costs.[30]

SCHIP-enhanced FMAPs

The enhanced FMAP under the State Children's Health Insurance Program (SCHIP) is used to determine the federal matching rate for the cost of providing Medicaid-covered services to uninsured women with breast and cervical cancer.[31] A state's SCHIP-enhanced FMAP is calculated by taking the state's Medicaid FMAP and adding to that 30 percent of the difference between the state's FMAP and 100 percent. The SCHIP-enhanced FMAP is subject to a ceiling of 85 percent. In FY 2003, state-specific SCHIP-enhanced FMAPs ranged from a minimum of 65 percent to a maximum of 83.63 percent (Table 4). The SCHIP matching rate effectively reduces a state's share of the cost of covered services by 30 percent relative to its share under the Medicaid FMAP formula.

Temporary Increase in FMAPs (FY 2003–FY 2004)

The Jobs and Growth Tax Relief Reconciliation Act of 2003[32] contained a total of $20 billion in state fiscal relief, half of which came in the form of additional federal Medicaid matching funds flowing through a temporary enhancement of the FMAP for five calendar quarters in FY 2003 and FY 2004. Section 401(a) of the Act increased the FMAP of each state by 2.95 percentage points for the final two quarters of FY 2003 and the first three quarters of FY 2004. In addition, section 401(a) held states harmless during the third and fourth quarters of FY 2003 for any reduction in their FMAP between FY 2002 and FY 2003, and during the first three quarters of FY 2004 for any reduction in their FMAP between FY 2003 and FY 2004. The 2.95 percentage point increase is applied after the hold harmless protections have been applied. The impact of these changes is shown in Table 2.

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[30] Title XI, District of Columbia Revitalization, Balanced Budget Act of 1997 (Public Law 105-33). Much of the potentially taxable property in the District is owned by the federal government or foreign governments. In addition, the District is prohibited by federal law from taxing commuters from Virginia and Maryland, who make up a significant percentage of its workforce. For a discussion of these and other structural fiscal problems, see GAO, *District of Columbia: Structural Imbalance and Management Issues*, GAO-03-666, Washington, DC (May 2003)(www.gao.gov).

[31] Section 1905(b)(4) of the Social Security Act, 42 USC 1396d(b)(4).

[32] Public Law 108-27.

The 2.95 percentage point increase in states' FMAPs did not apply to expenditures for Disproportionate Share Hospital (DSH) adjustments or to expenditures that are matched by the federal government at the higher SCHIP-enhanced rate, such as those for the treatment of women with breast or cervical cancer.[33] In addition, the increase did not apply to any state that restricted eligibility under its Medicaid program after September 2, 2003; states that restricted eligibility after that date had the option to reinstate eligibility in order to obtain the 2.95 percent increase during FY 2004.[34] States that required their localities to contribute toward the state share of Medicaid expenditures could not require those localities to pay a greater percentage of the state share than they paid as of April 1, 2003.[35]

The Act also temporarily increased by 5.90 percent the amounts of federal Medicaid payments under the ceilings applicable to Puerto Rico, the Virgin Island, Guam, the Northern Mariana Islands, and American Samoa. This increase applies during the same five quarters as the temporary FMAP increase to the states and is subject to the same limitation relating to eligibility restrictions after September 2, 2003.[36]

Difference Between Nominal and Effective Federal Matching Rates

The *nominal* federal matching rate for Medicaid service expenditures produced by the statutory FMAP formula is not necessarily the same as the *effective* matching rate for a given state. Effective matching rates are sometimes higher than the nominal rates. For FY 2000, for example, Urban Institute researchers have estimated that the effective FMAP in 23 states responding to a 1998 survey was, on average, 3 percentage points higher than the nominal (calculated) FMAPs for those states: 59.33 percent (estimated effective FMAP) versus 56.25 percent (nominal FMAP).[37] The difference between nominal and effective matching rates is due to the use of "creative financing" mechanisms by some states. These mechanisms, which enable states to draw down federal Medicaid matching funds without spending their own funds, are varied and complex. They have been explained elsewhere and will not be discussed here (General Accounting Office, January 2003). It should be noted that FMAPs set forth in the tables at the end of this paper—particularly for years after 1990—are nominal rates calculated using the statutory FMAP formula. In many instances, the effective federal share is higher than the nominal matching rate presented in the tables.[38]

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[33] Section 401(a)(5) of Public Law 108-27.
[34] Section 401(a)(6) of Public Law 108-27.
[35] Section 401(a)(7) of Public Law 108-27.
[36] Section 401(a)(4) of Public Law 108-27.
[37] Coughlin, T., and Zuckerman, S., "States' Strategies for Tapping Federal Revenues: Implications and Consequences of Medicaid Maximization," in Holahan, J., Weil A., and Wiener, J. (eds), Federalism and Health Policy, Urban Institute Press, Washington, DC (2003), Table 5-3. Although many of the remaining 27 states also used creative financing mechanisms in FY 2000, the researchers did not have the necessary data to estimate the resulting effective federal matching rates in these states.
[38] In 1996, the Congress codified the higher, effective FMAP for a certain "heavily impacted high-DSH State"—e.g., Louisiana—for FY 1996 and FY 1997. Section 509 of the Omnibus Consolidated Recissions and Appropriations Act of 1996 (Public Law 104-134), provided for a federal matching rate for Louisiana of 84.3 percent in FY 1996 (compared with the 71.89 percent calculated under the FMAP formula) and 81.6 percent in FY 1997 (compared with 71.36 percent calculated under the FMAP formula).

III. THE MEDICAID MATCHING FORMULA AND FEDERAL POLICY OBJECTIVES

Medicaid's Federal Medical Assistance Percentage (FMAP) formula, not unlike other mechanisms for allocating federal funds, has prompted basic questions since it was enacted in 1965. In the current state fiscal crisis, many questions about the formula have been renewed. What are the policy purposes of the FMAP formula, and is it effectively achieving those purposes? This section reviews three federal policy objectives that have been raised in connection with the formula: (1) enabling states with differing fiscal capacities to provide roughly equivalent benefits to their Medicaid populations; (2) increasing and decreasing federal matching payments to states to reflect changed economic circumstances; and (3) targeting funds to states with higher concentrations of individuals in poverty. It discusses the effectiveness of the formula in meeting each of these policy objectives, focusing on the use of personal income as defined by the Bureau of Economic Analysis as the key variable in the formula.

Federal Policy Objectives for the FMAP Formula

Medicaid's FMAP formula was designed to direct more federal matching funds to states with lower per capita incomes. Part of the reason for this was old-fashioned, pork-barrel politics. The Senators and Representatives who enacted the formula in 1965 happened to represent states with lower per capita incomes: Congressman Wilbur Mills, Chairman of the Ways and Means Committee, was from Arkansas; Senator Harry Byrd, Chairman of the Senate Finance Committee, was from Virginia; and Senator Russell Long, the ranking Democrat on the Committee who assumed the Chairmanship the following January upon Senator Byrd's retirement, was from Louisiana. The FMAPs for these states for the 1966–1967 period were 79.24 percent (Arkansas), 74.16 percent (Louisiana), and 65.11 percent (Virginia). Fourteen other states had FMAPs of 65 percent or above for that period: Alabama, Georgia, Idaho, Kentucky, Maine, Mississippi, New Mexico, North Carolina, North Dakota, Oklahoma, South Carolina, South Dakota, Tennessee, and West Virginia (Table 3).

But apart from practical political considerations, there was also a policy justification for the design of the FMAP formula. The key variable—per capita income—was a figure that the federal government already produced on a state-by-state basis, and it was thought at the time to bear a "reasonable relevance" to the capacity of a state to pay for medical and long-term care services for its low-income population.[39] Giving more federal assistance to those states with lower per capita incomes would, it was thought, roughly equalize the

[39] "First, relying on a formula for Federal matching percentages would mean that states could not easily manipulate it for their own gains. Second, the formula relied on data that was periodically published and could be estimated with reasonable accuracy. Finally, with respect to the use of per capita income as a proxy for tax capacity, it was thought that the income measure bore a 'reasonable relevance' to the underlying concept of a State's capacity to pay for these medical services." Wilber Cohen, who in 1965 was the Undersecretary of the Department of Health, Education, and Welfare, cited in Congressional Research Service, Medicaid Source Book, Washington, DC (1993 Update) pp. 480-481.

ability of states to finance comparable Medicaid coverage for their low-income populations.

Unfortunately, this policy objective was not fully realized. The FMAP formula, most analysts agree, does not adequately reflect the different fiscal capacities of the states and does not take into account the circumstances of states with high concentrations of poor citizens.[40] As a result, low-income Americans do not have reasonably equal access to coverage for basic health services regardless of the state in which they live (Holahan, Weil and Weiner 2003). In order to understand these shortcomings, it is first necessary to understand the use and limitations of the formula's key variable: per capita personal income.

The Key Variable in the FMAP Formula: Per Capita Personal Income

The calculation of Medicaid FMAPs depends upon the calculation of state and national per capita personal income for a given set of years. Personal income is calculated by the BEA for the purpose of the National Income and Product Accounts (NIPAs). The NIPAs are the official federal government accounts that track the level and composition of the Gross National Product (GNP) and how the costs of production are distributed as income. NIPA estimates, first presented in 1947, are available for each year beginning in 1929 (Bureau of Economic Analysis, 1999).

The calculation of personal income for NIPAs is not designed for use in the Medicaid FMAP formula (or other formulas) as a surrogate for tax capacity or need. For the purpose of the NIPAs, the BEA defines personal income as the income received by all persons (a) from participation in production, (b) from government and business transfer payments, and (c) from government interest. Personal income is the sum of net earnings by place of residence, rental income of persons, personal dividend income, personal interest income, and transfer payments. It is measured before the deduction of income and other personal taxes.[41]

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[40] See, for example, J. Holahan and D. Liska, Expenditure Caps and the Distribution of Federal Medicaid Payments, Kaiser Commission on the Future of Medicaid, Washington, DC (September 1995); D. Boyd, "Medicaid Devolution: A Fiscal Perspective," in F.J. Thompson and J.J. DiIulio, Medicaid and Devolution: A View from the States, Brookings Institution, Washington, DC (1998); and R. Tannewald, "Interstate Fiscal Disparity in Fiscal 1997," State Tax Notes, Federal Funds Information Service, Washington, DC (Nov. 11, 2002). There are other criticisms of the formula. A recent analysis by researchers at Mathematica Policy Research found that states vary by as much as 300 percent in their Medicaid spending per person at risk of being uninsured (i.e., nonelderly individuals with incomes below 200 percent of the federal poverty level who report no source of private or federal insurance coverage). C. Trenholm and S. Kung, Disparities in State Health Coverage: A Matter of Policy or Fortune? Mathematica Policy Research, Washington, DC (December 2000), Table 3, p. 9, www.statecoverage.net. The Mathematica researchers concluded that the FMAP formula produces winners and losers among the states: "The clearest winners are states such as Utah, which receive a proportionately large federal matching rate that, in turn, can be distributed intensively over a small pool of at-risk individuals. At the other extreme are states such as California, which receive a relatively modest matching rate that must be spread thinly over a large, at-risk population. The states that fall in the middle are a heterogeneous group, some of which have far greater need for this subsidy than others." (*Ibid*. pp. 23-24).

[41] The BEA's construct of personal income is a much broader measure of income than the Census Bureau's measure of money income. The latter is useful for certain purposes, such as determining the number of individuals or families living in poverty. However, because the Census Bureau's measure does not capture all income received by individuals, including in-kind income, it is not a useful measure of comparative fiscal capacity among the states.

For purposes of the FMAP formula, per capita personal income is simply personal income as calculated by the BEA divided by the Census Bureau's population estimates for June of each year. In most years, the population estimates are those produced by the June Current Population Survey. In decennial census years, the April census counts are "aged" to produce comparable June estimates. If for any reason, three years of appropriate population data are not available from the Census Bureau (as happened for FY 2003),[42] the BEA has calculated its own estimates to produce the population denominators necessary for publication.

Economists at the BEA continuously evaluate and update NIPA definitions and data sources. Because of the importance of personal income to the Medicaid FMAP formula, changes in the definition of personal income for the purpose of NIPAs can have substantial incidental impacts on Medicaid. One of the most important changes involved the treatment of Medicaid itself. For the first 20 years of Medicaid, the BEA had classified Medicaid spending as a government purchase, not as personal income for consumption. (In contrast, the Bureau has classified Medicare spending as personal income since 1986.)[43]

In 1986, the BEA began to treat Medicaid spending as personal income.[44] This reclassification of Medicaid spending as personal income raised the personal income levels in all states. It also meant that the size of a state's Medicaid program—that is, the amount of its Medicaid expenditures—affected its matching rate. In 1985, for example, Medicaid vendor payments ranged from 0.48 percent of personal income in the lowest spending states to 2.07 percent in Rhode Island and 2.88 percent in New York. These personal income data, which included Medicaid spending, were first used in calculating the FMAPs for FY 1988. As a result, Florida, Virginia, and Wyoming each received more than a 1 percentage point increase in their Medicaid reimbursements in 1988,while Minnesota and Rhode Island received more than a 1 percentage point reduction (New York and other states at the 50 percent minimum were not affected).

Table 5 shows Medicaid spending as a share of personal income in 1990 and 2001. Nationally, Medicaid spending grew at almost triple the rate of personal income over the

[42] See Federal Funds Information for States (FFIS) Issue Briefs 01-53 (2003 FMAPs: A trail of broken premises, Sept. 25, 2003) and 01-56 (2003 FMAPs: bureaus meet their match, Oct. 16, 2001) for a fuller explication of the unusual processes followed in publishing per capita income estimates using the 2000 decennial census counts (http://www.ffis.org/exec_sum/issue.htm).

[43] The original difference in NIPA classification of Medicare and Medicaid spending was predicated on perceived federal intent and beneficiary discretion. Under both Medicare and Medicaid, governments act as insurers, not procurers. This is in contrast to direct government activities such as those provided through military or veterans' hospitals, where governments purchase goods and services to operate a medical facility. The BEA apparently concluded at the program's inception in 1965 that Medicaid was more prescriptive in dictating the choice of service providers. More choice within the Medicare program was interpreted by BEA economists as making Medicare more of a transfer to beneficiaries that increased their incomes and less the provision of a government service.

[44] This reclassification also extended to CHAMPUS (the Civilian Health and Medical Program of the Uniformed Services), the Low Income Home Energy Assistance Program, and compensation payments from the Crime Victims Fund. It occurred because, in the judgment of BEA economists, the Medicaid program had, over time, become less prescriptive in dictating the choice of service providers, giving it more the character of personal income. See V. Miller, Federal Funds Information for States (FFIS), Issue Brief 86-16 (Further Information on Personal Income and Medicaid Shifts, Oct. 2, 1986).

period from 1990 to 2001, with the fastest growth in Arizona (412 percent), New Mexico (403 percent), Missouri (393 percent), Oregon (368 percent), Idaho (340 percent), Delaware (339 percent), Nevada (328 percent), and North Carolina (318 percent). The jurisdictions with the slowest Medicaid spending growth during that period were North Dakota (103 percent), Massachusetts (113 percent) and the District of Columbia (118 percent).

As a result of the growth in Medicaid spending in the states, Medicaid became more important as a share of personal income nationally, growing from 1.5 percent of personal income in 1990 to 2.6 percent in 2001. The states in which Medicaid accounted for the highest share of personal income in 2001, i.e., more than 4 percent, were New York, Louisiana, Mississippi, Rhode Island, and the District of Columbia. States in which Medicaid accounted for the lowest share of personal income, i.e., less than 2 percent, were Nevada, Colorado, Virginia, Utah, Wyoming, Maryland, Hawaii, Illinois, and Florida (Table 5).

Table 6 illustrates the impact on FY 2004 FMAPs and vendor payments of the BEA's 1986 reclassification of Medicaid spending as personal income. The overall impact is muted, since many of the states with the largest Medicaid programs are already at the 50 percent FMAP minimum and so the FMAP could not be further reduced. Overall, federal Medicaid costs in FY 2004 would be reduced by about $55 million if Medicaid spending were excluded from personal income. The biggest percentage point reductions in the FMAP would be for Nevada (-1.32), Virginia (-1.30), Washington (-0.82) and Wyoming (-0.67); the largest increases would be for Rhode Island (1.25), Maine (0.92), Louisiana (0.69) and Vermont (0.65). These shifts underscore the potential problems of using a variable (personal income) designed for one purpose (use in NIPAs) for another purpose (allocating federal Medicaid funds among states).

Effectiveness of Medicaid FMAP Formula in Meeting Federal Policy Objectives

As previously discussed, the definition of personal income for use in the NIPAs was not created for the purpose of measuring state fiscal capacity, whether in periods of economic growth or downturn. It is also clear from the definition that personal income does not take into account concentrations of persons living in poverty. One question that arises, therefore, is: Given the Medicaid FMAP formula's reliance on per capita personal income, how well does the formula achieve the potential federal policy objectives of ensuring equal fiscal effort among the states, providing state fiscal relief in periods of economic downturn, and targeting resources at states with high concentrations of poor people?

Ensuring fiscal equity among states

A long-standing criticism of the Medicaid FMAP formula is that the formula does not adequately achieve fiscal equity among the states. In 1981, Congress directed the

General Accounting Office (GAO) to examine "the feasibility and consequences" of revising the FMAP formula. Congress specified a number of factors that GAO should take into account: (1) the relative economic positions and needs of the different states; (2) the different amounts of support and income payments made by different states under the Social Security Act; (3) the relative cost of living and the unemployment rates in the different states; (4) the relative taxable wealth and amount of taxes raised per capita by the different states; and (5) "other relevant factors bearing on an equitable distribution of Federal funds to states under the Social Security Act." [45]

In a report on the FMAP formula issued in March 1983, GAO concluded the following (GAO, 1983):

> "the [Medicaid] formula is not as equitable to States as it could be. This is because per capita income—a key formula factor—does not adequately reflect the greater tax burden of States with a high proportion of needy and because it is not the best available measure of States' ability to finance Medicaid from State revenue sources." [46]

Subsequent analyses by GAO, by the Department of Treasury, and by policy analysts have confirmed this basic critique (e.g., U.S. Treasury Office of State and Local Finance, 1985; Moon & Liska, 1995; Boyd, 1998).

According to the GAO, the problem with personal income is that it reflects only the income received by state residents. As defined by the BEA, personal income does not reflect the income that is received by non-residents (e.g., wages to commuters); that income is reflected in the personal income data for the non-resident's state. Thus, to the extent that a state provides employment for large numbers of non-residents, the exclusion of this non-resident income from personal income will understate the fiscal capacity of that state. Further, the concept does not measure the ability of a state to export its tax burden through taxation of consumption by citizens of other jurisdictions (e.g., imposition of a sales tax on hotel accommodations).

Providing state fiscal relief in periods of economic downturn

One could logically assume that the use of personal income as a key variable would make the Medicaid FMAP formula responsive to state economic downturns. After all, when state economic activity declines, personal income, as measured by the Bureau of Economic Analysis, falls. One problem, however, is that the personal income data used to calculate the FMAP are substantially out of date by the time that the FMAPs based on those data are effective. The reason is that FMAPs for a fiscal year are based on personal income data over a three-calendar-year period that ends two years before the FMAP takes

[45] Section 2165(a) of the Omnibus Budget Reconciliation Act of 1981, Public Law 97-35.
[46] GAO, *Changing Medicaid Formula Can Improve Distribution of Funds to States*, GAO/GGD-83-27 (March 9, 1983).

effect (e.g., the FY 2004 FMAPs that took effect October 1, 2003 are based on 1999-2001 personal income data).

As a result of this time lag, states may experience a change in their FMAP that is not aligned with the point at which states find themselves in the economic cycle: increases in good times and decreases in bad times. Table 7 examines this dynamic by comparing state-specific FMAPs for FY 2000 and FY 2003. In that table, states are ranked according to their recent performance on the December 2002 Index of State Economic Momentum, with negative numbers indicating below average economic momentum and positive numbers indicating above average economic momentum.[47] Many shifts in states' FMAPs from FY 2000 to FY 2003 appear to be going in the wrong direction given their economic situation (Table 7). One would expect that states with weak economies would receive FMAP increases, thereby reducing the amount of state funds that would have to be spent in order to bring federal Medicaid matching funds into their economies. Yet of the 18 states measured as having below-average economic momentum in December 2002, only five received FMAP increases, and three of these were minimal. Seven of the remaining 13 states with below-average momentum were at the 50 percent minimum, and the rest received FMAP decreases, reducing the amount of federal Medicaid funds they could bring into the state for each state dollar spent.

At the high end of the continuum, 32 states were measured as having above-average economic momentum in December 2002; of these, over half (18) received an FMAP increase in FY 2003 rather than a decrease as one might expect. Among the five states with the highest economic momentum, only one received an FMAP decrease. Conversely, among the five states with the lowest economic momentum, not one received an FMAP increase. In short, at least for the FY 2000 to FY 2003 period, FMAP shifts often appear to have gone in directions other than what economic circumstances might suggest.

Ensuring equity among states with high numbers of persons living in poverty

Since the fundamental purpose of Medicaid is to purchase basic health and long-term care services for people with limited income, it would follow that the program's federal-state matching formula should promote this goal. As discussed above, the use of per capita personal income as a key factor in the formula was intended to reflect state need as well as state fiscal capacity to meet that need. But as Boyd and other analysts have convincingly demonstrated, the FMAP formula does not distribute federal Medicaid funds in a manner that matches all that well with the distribution of people in poverty (Boyd, 1998).

[47] The Index of State Economic Momentum was developed in the early 1990s by the late economist Hal Hovey and is updated every quarter. The index ranks states based on their most recent performance in three key areas of economic development: population growth, personal income growth, and employment growth. Measures of the three components are averaged, and these three calculations are set into an index. A negative index number is an indication of an economic momentum below the national average; the higher the negative number, the more a state is lagging. The Index is currently published by Federal Funds Information for States (FFIS) in State Policy Reports, Washington, DC (www.ffis.org).

There are several reasons for this. First, personal income was designed for use in estimating the NIPA accounts, not as a measure of poverty. Second, state per capita income does not correlate well with state poverty rates. For example, New York is a high-income state but also has a high poverty rate. New Mexico is a low-income state that also has a high rate of poverty. Connecticut is a high-income state that has a low rate of poverty. Utah is a low-income state with a low rate of poverty.

Because of the imperfect relationship between per capita income and poverty rates, the Medicaid FMAPs based on personal income do not correlate well with poverty rates. For example, between 1999 and 2001, the percentage of people in poverty in New York (14.1%) was similar to that in Montana (14.4%), but the two states' FMAPs in FY 2003 differed substantially (50% for New York and 72.96% for Montana) (Table 14). Further, New York's neighboring states of Connecticut and New Jersey had poverty rates approximately half that of New York (7.4% and 7.7%, respectively). Yet all three states had a 50 percent FMAP in FY 2003, such that all three contributed the same 50 cents toward each dollar in total spent purchasing services for their Medicaid beneficiaries.

If the current FMAP formula has so many conceptual defects, why hasn't it been changed? One obvious reason is the political difficulty of enacting any legislation with the potential for substantial redistribution among states of large amounts of federal grant-in-aid funds. The recent Congressional debate over state fiscal relief, which culminated in the enactment of a temporary increase in each state's Medicaid FMAP, illustrates this point.

In rough terms, the political context for this debate was as follows. On the one hand, opponents of state fiscal relief were against any additional federal Medicaid spending in FY 2003 and would only support $3.2 billion in new federal Medicaid spending for FY 2004 in the context of the administration's Medicaid restructuring proposal; this posture was reflected in the FY 2004 Budget Resolution, which governed the debate.[48]

On the other hand, proponents of state fiscal relief favored an increase in the FMAP that would help all states as quickly as possible but did not reach a consensus on altering the FMAP formula itself, particularly a modification that would result in significant redistribution among the states. The ultimate outcome—a straightforward across-the-board increase in every state's FMAP combined with a hold harmless provision for states that would otherwise experience an FMAP decline—achieved the immediate policy goal without disturbing the formula itself (Calmes, 2003).

[48] H. Con. Res. 95, section 402.

IV. OPTIONS FOR MODIFYING THE MEDICAID MATCHING FORMULA

This paper has raised a number of questions about the current Federal Medical Assistance Percentage (FMAP) formula and its impact on the allocation of federal Medicaid funds among the states. In particular, the formula does not well equalize the states' fiscal efforts, its timing does not respond well to the economic cycle, and it does not direct funds in a way that enables similarly situated individuals living in different states to have comparable levels of health care access.

The number of possible alternatives and combinations of alternatives to the current FMAP formula is virtually unlimited.[49] To assist policymakers in understanding their choices, this section describes three illustrative sets of options in this universe:

- The first set of options involves adjustments to the FMAP formula to better reflect state tax capacity.
- The second set of options would make the FMAP formula more responsive to changing national and state-specific fiscal capacities during the economic cycle.
- The third set of options would adjust the FMAP formula to take into account concentrations of persons living in poverty within states.

The options presented here should not be viewed as the recommendations of the authors or AARP.

As will become clear, different options result in different outcomes for different states, for the federal government, and ultimately for program beneficiaries. Some of the options presented would shift a portion of the costs of Medicaid from the states to the federal government. Others would maintain the current federal-state distribution of costs but change the distribution of state share of costs among the states. One such set of options would establish FMAPs that better track year-to-year changes in state fiscal capacity. These options may be of particular interest to policymakers in the current fiscal climate, but other options presented may also have merit. Policymakers need to understand the outcomes associated with particular options and assess whether or not they are desirable.

[49] For example, some analysts have suggested that states with higher medical costs should have higher FMAPs to help compensate for the higher costs they incur in purchasing medical care for the poor. This analysis does not present options that adjust the FMAP formula to take medical costs into account for a number of reasons. First, Medicaid is an open-ended grant program under which states receive a share of their costs; thus, states with higher costs receive higher federal grant payments. Second, medical care costs are not entirely beyond the control of states, and it is not clear that public policy is best served by providing additional payments to those states with higher medical costs. Finally, few federal grant-in-aid programs currently direct funds to states or localities based on medical care costs. One example is the State Children's Health Insurance Program (SCHIP), which makes a fixed amount of federal block grant dollars available to match state spending. The allocation of SCHIP funds among the states includes an adjustment for geographic variations in health care costs (Section 2104(b)(3) of the Social Security Act); however, the SCHIP matching formula, like the Medicaid FMAP, does not adjust for such cost differences.

A series of tables is presented at the end of this paper to allow readers to compare the outcomes associated with the options discussed below, generally in the context of FY 2003. As noted earlier in this paper, the FMAPs set forth in these tables—particularly for years after 1990—are nominal rates calculated using the FMAP formula. In many instances, the effective federal matching rate is higher than the nominal matching rate presented in the tables.

1. Options to Make the FMAP Formula Better Reflect State Fiscal Capacity

The key variable in the Medicaid FMAP formula is personal income. As discussed in the previous section of this paper, personal income has demonstrable weaknesses as a measure of state fiscal capacity. For example, personal income does not take into consideration a state's ability to tax commuter income or to shift the burden of its taxes to other states' residents (e.g., through the imposition of mineral severance taxes). Further, changes in the definition of personal income by the BEA for purposes of the NIPAs have changed the distribution of income among states in ways that have little to do with tax capacity.

Two options for adjusting the FMAP formula to address these weaknesses are discussed below: (1) replacing personal income in the formula with a different variable developed by the Treasury Department, i.e., total taxable resources (TTR); and (2) increasing the range of FMAPs beyond the 50 to 77 percent range under the current formula by increasing the power to which the personal income variable in the formula is raised.

Replace personal income with total taxable resources (TTR)

Several General Accounting Office (GAO) studies have pointed out the limitations of personal income as a variable for determining state share of Medicaid spending and have suggested using TTR as an alternate measure of state fiscal capacity.[50] This measure, which is produced annually by the Treasury Department,[51] attempts to capture the full measure of resources available to a given state or local government. TTR is already used as a variable in the formula for calculating allotments to states under the Community Mental Health Services Block Grant[52] and under the Prevention and Treatment of Substance Abuse Block Grant.[53]

The TTR measure was developed because it was recognized several years ago that no variable developed for NIPAs or similar economic analyses adequately measures state

[50] GAO has produced an ongoing series of reports and testimony on the issue: GAO, Changing Medicaid Formula Can Improve Distribution of Funds to States, GAO/GGD-83-27 (March 9, 1983); GAO, Medicaid Matching Formula's Performance and Potential Modifications, GAO/T-HEHS-95-226 (July 27, 1995); GAO, Medicaid Formula: Effects of Proposed Formula on Federal Shares of State Spending, memo to Senator Daniel Patrick Moynihan, GAO-HEHS-99-29R (February 19, 1999); and GAO, Medicaid Formula: Differences in Funding Ability among States Often Are Widened, GAO-03-620 (July 2003).

[51] Information on the TTR concept can be found at www.ustreas.gov/offices/economic-policy/resources/estimates/html.

[52] Section 1918(a)(6) of the Public Health Service Act, 42 U.S.C. §300x-7(a)(6).

[53] Section 1933(a)(1) of the Public Health Service Act, 42 U.S.C. §300x-33(a)(1).

fiscal capacity.[54] TTR attempts to measure state fiscal capacity by combining unduplicated data on state product *and* state income and then subtracting data for economic activity that is not taxable and therefore not available to a state for purposes of financing Medicaid spending. More specifically, it begins with gross state product (GSP) and then accounts for cross-border income flows that are not otherwise reflected in GSP. The measure then adjusts for economic activity that is not taxable, such as the economic activity of federal enterprises such as the Tennessee Valley Authority.[55]

Table 8 compares state-specific FMAPs for FY 2004 resulting from the application of the existing FMAP formula, in which personal income is the key variable, with FMAPs resulting from the application of a modified FMAP formula, in which TTR is the key variable. (The special calculations applied to Alaska and the District of Columbia under the current formula are disregarded for this illustration). As can be seen, there is a wide variance between the two calculations. In general, states that can export their tax burdens to residents of other states tend to do better when the key variable in the formula is personal income. These include states with large corporate presences relative to the size of their economies (e.g., Delaware, Connecticut) and energy states that generate substantial revenues from severance taxes borne by other states' consumers and industries (e.g., Wyoming, New Mexico, Alaska). States with larger shares of their economies accounted for by manufacturing (e.g., Michigan, Ohio) tend to do better under TTR.[56] States with substantial federal enterprise activity that is exempt from taxation (e.g., Tennessee) also tend to do better when TTR is the key variable.

[54] As developed and refined by the Treasury Department over the past decade, TTR is generally recognized as a more valid measure of state fiscal capacity than personal income. Personal income is developed and maintained for purposes of constructing the NIPAs. As discussed in this paper, personal income incorporates data that have no relevance to tax capacity (e.g., Medicaid spending) or that affect the tax capacity of other states. TTR, in contrast, has been developed for the specific purpose of measuring tax capacity more appropriately than personal income or other measures. While TTR has been criticized for its own shortcomings, the Treasury Department has worked to minimize identified problems. One problem that remains is that the production of TTR lags that of personal income by a year because the production of Gross State Product (GSP) data, an important element of TTR, lags. As a result, calculation of an FMAP based on TTR would suffer from even greater lags than the current FMAP calculations based on personal income (2000 was the most recent year for which TTR was available as of March 2003). However, the lag in TTR data could be at least partially reduced if more resources were committed by the Department of Commerce to expedite the production of GSP data. Discussions with BEA staff suggest that plans to accelerate publication of GSP data are under consideration.

[55] Another alternative (not discussed in this paper) to TTR that has been presented as an option to replace personal income in the FMAP formula as a measure of state fiscal capacity is the Representative Tax System (RTS). The RTS attempts to calculate potential state revenue yields using a single, analytically constructed state and local tax structure that is seen as representative of state and local tax measure generally. The RTS system produces substantially different results from those of TTR or personal income. This is not unexpected, since its calculation is premised not on a global tax base (economic activity) but rather on a set of artificial constructs that purport to model what is actually a highly diverse set of tax structures. RTS is quite a useful analytic tool, but it is of limited utility for allocating funds with the U.S. system of federalism with its state-to-state variations in taxation of wealth, income, consumption, and production.

[56] The tax capacity—i.e., the revenue potential—of manufacturing-intensive states is better measured under TTR because personal income only captures corporate profits when they are distributed to shareholders. Thus, profits retained by manufacturers are not captured in personal income. Further, personal income allocates tax capacity entirely to the state of the stockholder. TTR, in contrast, captures the tax capacity of manufacturing enterprises in the state where the business is located.

Expand the range of the current FMAPs

As discussed above, the original drafters of the Medicaid program envisioned a much greater range of federal matching rates than the range that the FMAP formula produces today. FMAPs initially ranged from the statutory minimum of 50 percent to the statutory maximum of 83 percent. In FY 2003, FMAPs ranged from a low of 50 percent in relatively affluent states like Connecticut to 76.62 percent in relatively poor states like Mississippi.

This contraction in the range of FMAPs reflects not only a decreased variance among states with respect to fiscal capacities, but also the ongoing restructuring of the NIPAs by economists at the BEA for reasons that have nothing to do with the measurement of fiscal capacity.[57] The smaller range of FMAPs does not affect the wealthier states, which remain at the 50 percent minimum. It does, however, reduce the relative federal Medicaid subsidy provided to the less wealthy states. For example, a state with an FMAP of 83 percent receives $5.88 in federal matching funds for every $1 of its own funds that it spends on Medicaid. A state with an FMAP of 77 percent receives $3.35 in federal matching funds for every $1 of its own funds that it spends.

Recreating the original range of FMAPs could be accomplished while retaining personal income as the key variable in the FMAP formula by increasing the power to which the personal income data are raised. For example, the current power to which per capita income is raised (i.e., the current squaring) could be increased to a power of 2.5. Table 9 illustrates how increasing the top range of FMAPs—by increasing to 2.5 the power to which personal income data are raised—affects FY 2003 FMAPs. Most states above the 50 percent minimum would receive higher FMAPs. Only those states with FMAPs above the minimum and with above-average incomes would receive lower FMAPs. The net result of these changes is that federal Medicaid spending in FY 2003 would increase an estimated $2 billion.

2. Options to Make the FMAP Formula More Responsive to Changing National and State-specific Fiscal Capacities

During an economic downturn, state revenues decline and unemployment increases. Both adversely affect states' ability to finance their Medicaid programs. Holahan and Garrett have estimated that a 1 percentage point increase in the national unemployment rate—from 4.5 to 5.5 percent—would increase Medicaid enrollment by over 1.5 million (1,000,000 children, 400,000 non-disabled adults, and 130,000 individuals with disabilities) (Holahan & Garrett, 2001). At the same time, the state sources of revenues available to pay for the costs of services to these new enrollees do not increase and may in fact decline. Finally, as discussed in Section II, the time lag inherent in the calculation

[57] Contrast the difficulty that Members of Congress have encountered in attempting to modify the statutory FMAP formula with the ability of economists at BEA to affect shifts in FMAPs by changing the definition of personal income (e.g., reclassification of Medicaid spending as personal income).

and publication of the Medicaid FMAPs means that the federal share does not necessarily increase during times of state fiscal distress.

Congress has in the past recognized this countercyclical weakness. In the temporary changes enacted in the Omnibus Budget Reconciliation Act of 1981, Congress reduced the amount of federal matching funds withheld from states with high unemployment rates.[58] And, as discussed in Section II, the recently enacted Jobs and Growth Tax Relief Reconciliation Act of 2003 holds each state harmless against any FMAP decrease and raises each state's FMAP (after applying the hold harmless provision) by 2.95 percentage points for a five-quarter period during FY 2003 and FY 2004.

Four options for changing the current FMAP formula itself to make it more responsive to the economic cycle are discussed below: (1) shortening the time period on which average per capita income is based; (2) applying FMAPs in the same fiscal year in which they are published; (3) increasing by 1 percentage point the FMAP of each state with high unemployment; and (4) holding states with high unemployment rates harmless against year-to-year declines in FMAPs.

These are just some of the many options available for modifying the current FMAP formula. Some policymakers may be interested in other options such as using levels of state unemployment as a measure of the need for federal economic assistance. But the unemployment rate is clearly less valuable than other data as a surrogate for tax capacity or poverty. The primary value of unemployment data appears to be their currency—that is, these data are reported on a monthly basis. Thus, the options discussed below that rely upon unemployment data use these data as an indicator of states with increased need. These options would target additional federal Medicaid matching funds to selected states but would not change the FMAP formula itself.

Shorten the time period on which average per capita income is based

In the existing FMAP formula, per capita personal income is calculated by averaging per capita personal income data for the three most recent calendar years for which data are available from the Department of Commerce. Thus, FY 2003 FMAPs, which are published in the fall of calendar year 2001, are based on personal income data for 1998, 1999, and 2000. An alternative approach—basing the calculation on two calendar years of data rather than three years of data—would offer the advantage of dropping the most out-of-date year in the three-year calculation (e.g., dropping 1998 data in the calculation of FY 2003 FMAPs).

[58] Under these statutory provisions, which have now expired , a "state has a high unemployment rate with respect to a quarter if the average of the monthly unemployment rates (as determined by the Bureau of Labor Statistics) for the State for the three months immediately before such quarter is equal to or greater than the 150 percent of the average of such rates for the United States for such months." Section 2161 of the Omnibus Budget Reconciliation Act of 1981 (Public Law 97-35), adding section 1903(s) (4) to the Social Security Act, and repealing section 1903(s) effective October 1, 1984.

Table 10 illustrates the impact on FY 2003 FMAPs of changing to a two-year personal income average. Most of the states at the bottom of the Index of State Economic Momentum would benefit. On the other hand, FMAPs in nine states would decline. Net federal spending for FY 2003 is estimated to increase $511 million. An inevitable downside to this option is that, by reducing the number of years on which the average is calculated, the FMAPs would be more volatile, i.e., a state's FMAP would fluctuate somewhat more from year to year.

Apply FMAPs in the same fiscal year in which they are published

Currently, state-specific FMAPs are to be promulgated between October 1 and November 30 of the calendar year prior to the fiscal year (FY) to which they apply. Thus, the FMAPs for FY 2003 (which began October 1, 2002) were published on November 30, 2001. One option would be to retain the current three-year average but to publish the FMAPs at the beginning of the fiscal year to which they apply. Under this option, FY 2003 FMAPs would be published in October of 2002, the month in which they start. This approach would increase the currency of the personal income data on which the FY 2003 FMAPs were based (1998-2000 data) by one year. Table 11 displays the impact on FY 2003 of having FMAPs apply in the same fiscal year in which they are published. Once again, most of the states at the bottom of the Index of State Economic Momentum would benefit from this change in FY 2003. In contrast, 11 states would experience declines in their FMAPs. Net federal spending would increase an estimated $275 million.

By compressing the time between FMAP publication and application, this option would create a problem that the current formula was designed to avoid: it would announce declines in FMAPs and expose states to substantial losses of federal Medicaid revenues only when they are well into their own fiscal years (most of which begin July 1). This problem is not insubstantial, given that Medicaid and other programs financed through the FMAP formula (e.g., Title IV-E foster care and adoption assistance programs) are approaching 50 percent of all federal grant-in-aid funds flowing to the states. The problem would be greater in states with declining or stagnant tax revenues, since they would have less of an ability to offset the loss of federal Medicaid revenues with other funds.

Increase by 1 percentage point the FMAP of each state with high unemployment

Another option for making the current FMAP formula more responsive to economic downturns would be to provide a percentage point increase to a state's FMAP for each quarter in which the state is measured as being in some form of economic distress. Following the model used in the high unemployment offset in the Omnibus Budget Reconciliation Act of 1981 discussed above, a state could be defined as having a high unemployment rate with respect to a quarter if "the average of the monthly unemployment rates (as determined by the Bureau of Labor Statistics) for the State for

the three months immediately before such quarter is equal to or greater than 150 percent of the average of such rates for the United States for such months."

An alternative approach would be to have a specified unemployment rate, e.g., 6 percent, trigger an increase in the FMAP. Obviously, the effect of this adjustment would vary depending upon how economic distress is defined and on the size of the percentage point adjustment made. Table 12 illustrates the dollar impact in FY 2003 of an increase of a 1 percentage point increase for states with unemployment rates in the 4th quarter of FY 2002 greater than 150 percent of the national average unemployment rate. It also illustrates the impact of such an increase for states with unemployment rates above 140 percent of the national average.

Hold states with high unemployment rates harmless against declines in FMAPs

Another option for making the current FMAP formula more responsive to economic downturns would be to hold states with high unemployment rates harmless against declines in FMAPs that they would otherwise experience until their unemployment rate dropped to a healthy level. An illustration of the effects of this option in FY 2003 is found in Table 13. The cost of this option to the federal government might be reduced through the use of a following year adjustment: high-unemployment states would draw down federal funds at a "preliminary" rate published in advance. Once a state's actual unemployment rate was known, the state's FMAP could be adjusted (upward or downward) in the following year.[59] For example, a state with a high unemployment rate at the beginning of a fiscal year would be held harmless for any FMAP drop during that year, but could be assessed a higher rate for the next year if its economy improved during the period of time during which it was being held harmless. An advantage of this approach is that it would automatically provide additional federal funds to hard-pressed state budgets while simultaneously reducing the need for procylical spending cuts and tax increases.

3. Options to Make the FMAP Formula More Reflective of Poverty Populations

While the use of per capita personal income has demonstrable weaknesses in measuring tax capacity, it has even greater weaknesses in measuring need. As discussed in Section III, states with identical per capita incomes can have vastly different low-income populations, requiring substantially different fiscal efforts to serve these populations equitably.

[59] A similar adjustment was used in the General Revenue Sharing (GRS) program in effect from 1972 to 1986. Under the GRS program, which as administered by the Office of Revenue Sharing in the Treasury Department, the federal government provided funds to state and local governments based on a complex set of formulas. Allocations of federal funds were distributed based on preliminary calculations published by Treasury before the beginning of the federal fiscal year. Final allocations were published later in the same fiscal year. The difference between the preliminary calculations and the final allocations was the amount by which the following year's allocation was increased or reduced.

To make the FMAP formula more reflective of state variation in the size of poverty populations, one alternative that has been presented is to calculate the FMAP using personal income per person in need rather than per capita (Moon & Liska, 1995; Holahan & Liska 1995; Boyd, 1998). Table 14 displays the impact of using the estimated size of a state's poverty population as the denominator in the calculation of FMAPs for FY 2003. Of course, the number of persons in poverty does not correspond precisely to the number of persons eligible for Medicaid; in most states, childless adults under 65 who are not disabled are not eligible for Medicaid. Nonetheless, numbers in poverty better reflects the need for Medicaid than does total population.

As Table 14 shows, using the variable of personal income per person in poverty rather than personal income per capita would substantially shift FMAPs. Eight states would receive FMAPs above 80 percent, similar to the distribution at the start of the program in 1965. Relatively wealthy states with large poverty populations (e.g., California, New York, Texas) would receive substantially higher FMAPs. States with small poverty populations and not currently at the minimum 50 percent (e.g., Iowa, Utah) would experience substantial reductions in their FMAPs.

The increases in FMAPs for the large states with large poverty populations would have a substantial impact on the federal budget. In FY 2003, this impact is estimated to total $8.3 billion. One alternative for reducing this federal budgetary impact would be to decrease the FMAP for a state with average income per person in poverty from 55 to 50 percent. As shown in Table 14 , this alternative would reduce the estimated additional federal cost of using personal income per person in poverty to $2.5 billion.

The July 2003 GAO analysis of the FMAP formula offers a further elaboration of the concept of measuring need by poverty population (General Accounting Office, July 2003). The GAO report considers the very different costs of serving poverty populations of different ages. GAO points out that, in FY 2000, the elderly represented 27 percent of Medicaid beneficiaries but accounted for 66 percent of Medicaid expenditures, in part because of their need for long-term care services. GAO also found wide variations among the states in the proportion of low-income elderly among the population in poverty, ranging from highs in Rhode Island (17 percent), Arkansas, Maine, Maryland and West Virginia (each 14 percent), and Nebraska, New Jersey and South Dakota (each 13 percent) to lows in Alaska (3 percent), Utah (5 percent), California and Colorado (each 6 percent), and Arizona, Idaho Oregon and Washington (each 7 percent). The GAO report suggests that, for purposes of an alternative FMAP formula that uses population in poverty as a measure of need, the poverty populations be weighted by age.[60]

[60] Specifically, GAO suggests weighting factors of 3.5 for the elderly, 1.0 for non-elderly adults, and 0.5 for children under 21. GAO, Medicaid Formula: Differences in Funding Ability Among States Often Are Widened, GAO-03-620, Washington, DC (July 2003), pp. 32-38 (www.gao.gov).

V. CONCLUDING OBSERVATIONS

For nearly 40 years, the Medicaid FMAP formula has distributed the cost of financing basic health and long-term care services for the nation's poor between the federal government and the states. The formula has limitations because its key variable—per capita personal income—does not sufficiently reflect variations in state fiscal capacity or in the need for services by the poor. And, as the recent state fiscal crisis has highlighted, the formula does not respond promptly to declines in state economic health.

This paper has discussed some modifications to the current formula that could address these limitations. Not surprisingly, different modifications produce different results for different states. Ultimately, improving the FMAP formula is not a technical problem. Rather, it is, in the broadest sense, a set of political questions. Should the federal government increase the share of Medicaid costs it finances? Is the current distribution of the fiscal burden among states appropriate, or should it change? Should Medicaid take on the role of an "automatic stabilizer" like unemployment compensation, a program that automatically adjusts to economic upswings and downturns at the national and state level? These are clearly difficult questions. But as the Medicaid program grows in importance, they take on increasing urgency.

APPENDIX A

FEDERAL MATCHING RATES FOR MEDICAID ADMINISTRATIVE COSTS

The state-specific federal matching percentages produced annually by the Medicaid Federal Medical Assistance Percentage (FMAP) formula apply only to the costs states incur in paying for covered Medicaid services on behalf of eligible individuals. FMAPs do not apply to costs states incur in administering their Medicaid programs. State administrative costs—i.e., expenditures "found necessary by the Secretary [of Health and Human Services] for the proper and efficient administration" of the state Medicaid program—are generally matched at 50 percent, regardless of a state's per capita income. As in the case of federal matching payments for services, federal matching payments for states' allowable administrative costs are open-ended.[61]

The federal-state distribution of responsibility for Medicaid administrative costs has been largely unchanged since enactment of the program in 1965. This approach appears to have stemmed from a combination of two policy considerations: (1) the federal assumption of financial responsibility for at least half of Medicaid program costs, and (2) federal concern about the incentives for increased state administrative spending that would be created by FMAPs higher than 50 percent.

Originally, there was only one exception to the 50 percent matching principle for administrative costs. Since 1965, federal Medicaid law has provided a 75 percent matching rate to all states for the costs of compensating or training "skilled medical personnel" and supporting staff employed by the state Medicaid agency. The logic of this exception appears to have been that states needed assistance with the higher costs of hiring physicians, nurses, and other medical professionals who were needed to carry out the utilization review and quality assurance activities required of state Medicaid programs under federal law.

Over time, additional administrative functions were identified by federal policymakers as being of high importance to the effective operation of the Medicaid program, and states were given financial incentives in the form of an enhanced matching rate, i.e., a rate above 50 percent, to fund these activities. Currently, the following eight administrative functions qualify for enhanced matching rates:

- **Skilled medical personnel**. As noted above, the federal matching rate for the costs of compensating and training medical professionals (and staff in direct support) who are employees of the state Medicaid agency always has been 75 percent.

[61] While the territories get matched for administrative costs at a 50 percent FMAP, federal matching payments for administrative costs are subject to the same statutory cap that applies to federal matching payments for services.

- **Medicaid management information systems (MMIS).** The federal matching rate for the costs of operating computer systems that maintain eligibility data and process provider claims for payment is 75 percent; the costs of acquisition and installation of such systems are matched at 90 percent.

- **State Medicaid Fraud Control Units (MFCUs).** The federal matching rate for the costs of state fraud control units (usually in the state Attorney General's office) that prosecute fraud against the program and patient neglect and abuse is 75 percent.

- **Survey and certification of nursing facilities.** The federal matching rate for the costs of inspecting nursing homes and other institutional providers to determine whether they meet the quality requirements for serving Medicaid beneficiaries is 75 percent.

- **Preadmission screening and resident review (PASRR)**. The federal matching rate for the costs of evaluating individuals with mental illness or mental retardation to determine their need for admission to, or continued stay in, a nursing facility is 75 percent.

- **Quality Improvement Organizations (QIOs)**. The federal matching rate for the costs of contracting with a qualified organization to conduct utilization review and quality assurance activities is 75 percent.

- **External Quality Review Organizations (EQROs).** The federal matching rate for the costs of contracting with a qualified organization to perform independent external reviews of Medicaid managed care organizations is 75 percent.

- **Verifying immigration status**. The federal matching rate for the costs of verifying with the Immigration and Naturalization Service the immigration status of all applicants for Medicaid is 100 percent.

States vary in how they administer their Medicaid programs, in what percentage of overall Medicaid spending they apply to administration, and in how much they spend on different administrative functions, such as MMIS. In addition, state administrative spending can vary substantially over time; the purchase of a new MMIS system, for example, will temporarily increase a state's administrative outlays significantly. These spending differences, combined with the variation in federal matching rates for different administrative functions, produce an overall effective matching rate for administrative costs that varies from state to state and from year to year.

In FY 2002, the overall effective federal matching rate for Medicaid administrative costs was 55.6 percent (Table 15). The matching rate for administrative costs ranged from a low of 52.9 percent in Washington, where 8 percent of Medicaid spending went to administration, to a high of 68.5 percent in Delaware, where administrative costs accounted for 7.5 percent of total program spending. In general, states with small

populations (e.g., North Dakota, South Dakota, and Rhode Island) had both higher federal matching rates for administrative costs and higher administrative costs as a percentage of their total Medicaid budgets (Table 15).

APPENDIX B

FMAPS FOR STATES AND THE DISTRICT OF COLUMBIA SINCE MEDICAID'S INCEPTION

Table 3 presents the Federal Medical Assistance Percentages (FMAPs) for each state and the District of Columbia since the first two years of the Medicaid program in FY 1966-67. FMAPs were revised every other year for the first 20 years of the Medicaid program, but since FY 1987, they have been revised annually (see Section II).

A number of observations may be made about FMAPs since the beginning of the Medicaid program. First, the number of states with minimum FMAPs has decreased over time. In 1966, 21 states had FMAPs of 50 percent; by FY 2003, this number had declined to 12. Of the original 21, 10 had 50 percent FMAPs in FY 2003.[62] Two of the states with 50 percent FMAPs in FY 2003— Minnesota and New Hampshire—had higher FMAPs in FY 1966-67. Eight of the states with FMAPs of 50 percent in FY 1966-67 have higher FMAPs in FY 2003 as a result of operation of the FMAP formula.[63] As discussed above, Alaska and the District of Columbia, which had FMAPs of 50 percent in FY 1966-67, have higher FMAPs in FY 2003 as a result of statutory exceptions to the FMAP formula (see Section II).

Second, the highest FMAP has fallen since Medicaid's inception from 83.00 percent in FY 1968-69 to 77.08 percent in FY 2003. As discussed above, the FMAP formula was originally capped at 80 percent, but this ceiling was increased to 83 percent after the first biennium. Mississippi and South Carolina are the only two states ever to have FMAPs at or above 80 percent: Mississippi from FY 1968 through FY 1975 and in FY 1990, and South Carolina for the FY 1968-69 biennium. Mississippi has had the highest FMAP of any state in every year since 1966.

Third, at the same end of the FMAP range, the number of states with FMAPs of 70 percent or more has declined. In the 1965-66 biennium, 10 states, all from the South, had FMAPs of 70 percent or more.[64] In FY 2003, the District of Columbia had joined 10 states at 70 percent FMAP or above, and only half of the 10 states were from the South: Alabama, Arkansas, Louisiana, Mississippi, and West Virginia.[65]

Finally, with the exception of some of the states with minimum 50 percent FMAPs, all states experienced fluctuations in their FMAPs over time. The state with the largest FMAP swings is North Dakota. Between 1968-69 and 1978-79, its FMAP dropped nearly 20 percentage points, from 70.74 percent to 50.71 percent. From that low point, North Dakota's FMAP grew by nearly 23 percentage points to 72.75 percent in 1992.

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[62] California, Colorado, Connecticut, Delaware, Illinois, Maryland, Massachusetts, New Jersey, New York, and Washington. In some cases, the state's FMAP rose above 50 percent during one or more intervening years.

[63] Hawaii, Michigan, Missouri, Nevada, Oregon, Pennsylvania, Rhode Island, and Wyoming.

[64] Alabama, Arkansas, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, and West Virginia.

[65] The remaining five states are Idaho, Montana, New Mexico, Oklahoma, and Utah.

This volatility is in part attributable to North Dakota's relatively small population and the large swings in farm income from year to year.

The 1970s were a decade in which personal income differentials among states narrowed, apparently permanently. Since FMAPs are a function of variance from the arithmetic mean of personal income, many of the highest FMAPs declined substantially in that decade (most states at the minimum 50 percent did not experience a change). Many states showed their most substantial historical FMAP changes between FY 1970-71 and FY 1976-77. Every southern state experienced reductions, as did many farm states, where personal incomes were buoyed by large federal farm payments. Thirteen states suffered declines of over 3 percentage points, led by North Dakota (-12.89), Florida (-6.76), Virginia (-6.70), Arizona (-5.94), Georgia (-5.38), Arkansas (-5.16) and South Carolina (-5.10). In general, northeast and northwest states experienced increases, led by Vermont (+4.86), Wisconsin (+4.70), Indiana (+4.62) and Washington (+3.72).

The overall variance in FMAPs in the 1980s remained lower than the variance at the program's inception, but there were shifts caused by a variety of factors. First, the delayed availability of decennial 1980 census data had a substantial initial impact. Second, states like New Hampshire and Colorado experienced an ongoing in-migration of higher income residents, reducing their FMAPs. Third, the energy boom of the early 1980s continued to reduce FMAPs for energy states like Texas, Oklahoma, and Wyoming throughout the decade even though the boom evaporated after 1983. Fourth, increased farm incomes and federal farm payments in the mid-1980s resulted in substantially higher personal incomes in farm states and, later, in higher FMAPs. Finally, the definitional change by the federal Bureau of Economic Analysis in 1986 to include Medicaid spending as personal income (discussed in Section III) had a substantial impact on states not at the 50 percent minimum.

FMAPs for the balance of the 1980s and 1990s continued to show substantial variance among farm and energy states. Major FMAP increases between FYs 1987-2000 included North Dakota (+14.01 percentage points), Oklahoma (+11.23), Wyoming (+9.84), Kansas (+8.64) and Texas (+6.20). Two other increases reflected special provisions in the Balanced Budget Act of 1997. Alaska's FMAP was boosted by a provision reducing its per capita income for the purpose of the FMAP formula; the District of Columbia was given a permanent 70.00 percent FMAP as part of a package eliminating the annual federal payment to the city. The most substantial declines over this period were experienced by southern states, including Tennessee (-7.16 percentage points), North Carolina (-6.69) and Georgia (-6.17), and those New England states not at the minimum.

Looking at FMAPs that have been promulgated through FY 2004, changes in FY 2003 were heavily influenced by the introduction of new 2000 decennial census data. This had the most substantial impact in Nevada, whose population growth had been substantially underestimated in the annual estimates. States with substantial FMAP growth over the FY 2000—FY 2004 period include Hawaii (+7.89 percentage points), reflecting the multi-year impact of slow population growth throughout the Pacific, Nevada (+4.93) and Florida (+2.41). States with the most substantial reductions include Wyoming (-4.27)

and South Dakota (-3.05). Finally, the enactment of the temporary FMAP increases in the 2003 tax legislation (Public Law 108-27) raised the FMAPs of all states by 2.95 percentage points for five calendar quarters in FY 2003 and FY 2004 and held states harmless against FMAP declines during this period.

Table 1. Medicaid FMAPs From FY 2002 to FY 2004 (federal fiscal years)

State	2002	2003	2004	Change in FMAP 2002-03	Change in FMAP 2003-04	2004 FMAP Without Floor
Alabama	70.45	70.60	70.75	0.15	0.15	70.75
Alaska	57.38	58.27	58.39	0.89	0.12	54.13
Arizona	64.98	67.25	67.26	2.27	0.01	67.26
Arkansas	72.64	74.28	74.67	1.64	0.39	74.67
California	51.40	50.00	50.00	-1.40	0.00	47.99
Colorado	50.00	50.00	50.00	0.00	0.00	45.68
Connecticut	50.00	50.00	50.00	0.00	0.00	13.12
Delaware	50.00	50.00	50.00	0.00	0.00	49.53
District of Columbia	70.00	70.00	70.00	0.00	0.00	23.49
Florida	56.43	58.83	58.93	2.40	0.10	58.93
Georgia	59.00	59.60	59.58	0.60	-0.02	59.58
Hawaii	56.34	58.77	58.90	2.43	0.13	58.90
Idaho	71.02	70.96	70.46	-0.06	-0.50	70.46
Illinois	50.00	50.00	50.00	0.00	0.00	47.15
Indiana	62.04	61.97	62.32	-0.07	0.35	62.32
Iowa	62.86	63.50	63.93	0.64	0.43	63.93
Kansas	60.20	60.15	60.82	-0.05	0.67	60.82
Kentucky	69.94	69.89	70.09	-0.05	0.20	70.09
Louisiana	70.30	71.28	71.63	0.98	0.35	71.63
Maine	66.58	66.22	66.01	-0.36	-0.21	66.01
Maryland	50.00	50.00	50.00	0.00	0.00	40.91
Massachusetts	50.00	50.00	50.00	0.00	0.00	28.36
Michigan	56.36	55.42	55.89	-0.94	0.47	55.89
Minnesota	50.00	50.00	50.00	0.00	0.00	47.21
Mississippi	76.09	76.62	77.08	0.53	0.46	77.08
Missouri	61.06	61.23	61.47	0.17	0.24	61.47
Montana	72.83	72.96	72.85	0.13	-0.11	72.85
Nebraska	59.55	59.52	59.89	-0.03	0.37	59.89
Nevada	50.00	52.39	54.93	2.39	2.54	54.93
New Hampshire	50.00	50.00	50.00	0.00	0.00	44.12
New Jersey	50.00	50.00	50.00	0.00	0.00	28.98
New Mexico	73.04	74.56	74.85	1.52	0.29	74.85
New York	50.00	50.00	50.00	0.00	0.00	37.74
North Carolina	61.46	62.56	62.85	1.10	0.29	62.85
North Dakota	69.87	68.36	68.31	-1.51	-0.05	68.31
Ohio	58.78	58.83	59.23	0.05	0.40	59.23
Oklahoma	70.43	70.56	70.24	0.13	-0.32	70.24
Oregon	59.20	60.16	60.81	0.96	0.65	60.81
Pennsylvania	54.65	54.69	54.76	0.04	0.07	54.76
Rhode Island	52.45	55.40	56.03	2.95	0.63	56.03
South Carolina	69.34	69.81	69.86	0.47	0.05	69.86
South Dakota	65.93	65.29	65.67	-0.64	0.38	65.67
Tennessee	63.64	64.59	64.40	0.95	-0.19	64.40
Texas	60.17	59.99	60.22	-0.18	0.23	60.22
Utah	70.00	71.24	71.72	1.24	0.48	71.72
Vermont	63.06	62.41	61.34	-0.65	-1.07	61.34
Virginia	51.45	50.53	50.00	-0.92	-0.53	49.85
Washington	50.37	50.00	50.00	-0.37	0.00	49.35
West Virginia	75.27	75.04	75.19	-0.23	0.15	75.19
Wisconsin	58.57	58.43	58.41	-0.14	-0.02	58.41
Wyoming	61.97	61.32	59.77	-0.65	-1.55	59.77

Source: Miller, Vic, *Issue Brief 03-18* , Federal Funds Information for States (April 2003).

Table 2. Temporary Increase in Medicaid FMAPs, FY 2003 and FY 2004 (federal fiscal years)

	Original FMAPs			2003 Enhancements		2004 Enhancements	
State	**2002**	**2003**	**2004**	**Increase**	**Level**	**Increase**	**Level**
Alabama	70.45	70.60	70.75	2.95	73.55	2.95	73.70
Alaska	57.38	58.27	58.39	2.95	61.22	2.95	61.34
Arizona	64.98	67.25	67.26	2.95	70.20	2.95	70.21
Arkansas	72.64	74.28	74.67	2.95	77.23	2.95	77.62
California	51.40	50.00	50.00	4.35	54.35	2.95	52.95
Colorado	50.00	50.00	50.00	2.95	52.95	2.95	52.95
Connecticut	50.00	50.00	50.00	2.95	52.95	2.95	52.95
Delaware	50.00	50.00	50.00	2.95	52.95	2.95	52.95
District of Columbia	70.00	70.00	70.00	2.95	72.95	2.95	72.95
Florida	56.43	58.83	58.93	2.95	61.78	2.95	61.88
Georgia	59.00	59.60	59.58	2.95	62.55	2.97	62.55
Hawaii	56.34	58.77	58.90	2.95	61.72	2.95	61.85
Idaho	71.02	70.96	70.46	3.01	73.97	3.45	73.91
Illinois	50.00	50.00	50.00	2.95	52.95	2.95	52.95
Indiana	62.04	61.97	62.32	3.02	64.99	2.95	65.27
Iowa	62.86	63.50	63.93	2.95	66.45	2.95	66.88
Kansas	60.20	60.15	60.82	3.00	63.15	2.95	63.77
Kentucky	69.94	69.89	70.09	3.00	72.89	2.95	73.04
Louisiana	70.30	71.28	71.63	2.95	74.23	2.95	74.58
Maine	66.58	66.22	66.01	3.31	69.53	3.16	69.17
Maryland	50.00	50.00	50.00	2.95	52.95	2.95	52.95
Massachusetts	50.00	50.00	50.00	2.95	52.95	2.95	52.95
Michigan	56.36	55.42	55.89	3.89	59.31	2.95	58.84
Minnesota	50.00	50.00	50.00	2.95	52.95	2.95	52.95
Mississippi	76.09	76.62	77.08	2.95	79.57	2.95	80.03
Missouri	61.06	61.23	61.47	2.95	64.18	2.95	64.42
Montana	72.83	72.96	72.85	2.95	75.91	3.06	75.91
Nebraska	59.55	59.52	59.89	2.98	62.50	2.95	62.84
Nevada	50.00	52.39	54.93	2.95	55.34	2.95	57.88
New Hampshire	50.00	50.00	50.00	2.95	52.95	2.95	52.95
New Jersey	50.00	50.00	50.00	2.95	52.95	2.95	52.95
New Mexico	73.04	74.56	74.85	2.95	77.51	2.95	77.80
New York	50.00	50.00	50.00	2.95	52.95	2.95	52.95
North Carolina	61.46	62.56	62.85	2.95	65.51	2.95	65.80
North Dakota	69.87	68.36	68.31	4.46	72.82	3.00	71.31
Ohio	58.78	58.83	59.23	2.95	61.78	2.95	62.18
Oklahoma	70.43	70.56	70.24	2.95	73.51	3.27	73.51
Oregon	59.20	60.16	60.81	2.95	63.11	2.95	63.76
Pennsylvania	54.65	54.69	54.76	2.95	57.64	2.95	57.71
Rhode Island	52.45	55.40	56.03	2.95	58.35	2.95	58.98
South Carolina	69.34	69.81	69.86	2.95	72.76	2.95	72.81
South Dakota	65.93	65.29	65.67	3.59	68.88	2.95	68.62
Tennessee	63.64	64.59	64.40	2.95	67.54	3.14	67.54
Texas	60.17	59.99	60.22	3.13	63.12	2.95	63.17
Utah	70.00	71.24	71.72	2.95	74.19	2.95	74.67
Vermont	63.06	62.41	61.34	3.60	66.01	4.02	65.36
Virginia	51.45	50.53	50.00	3.87	54.40	3.48	53.48
Washington	50.37	50.00	50.00	3.32	53.32	2.95	52.95
West Virginia	75.27	75.04	75.19	3.18	78.22	2.95	78.14
Wisconsin	58.57	58.43	58.41	3.09	61.52	2.97	61.38
Wyoming	61.97	61.32	59.77	3.60	64.92	4.50	64.27

Note: FY 2003 increases apply to the third and fourth quarters of FY 2003. FY 2004 increases apply to the first three quarters of FY 2004.

Table 3. FMAPs by State, FY 1966/67-FY 2004 (p. 1 of 2)
(federal fiscal years)

													1987		Change	
	1966/67	1968/69	Change	1970/71	1972/73	1974/75	1976/77	1978/79	1980/81	1982/83	1984/85	1986/87	original	revised	1970/71-76/77	1976/77-87
Alabama	78.02	78.60	0.58	78.54	78.43	75.93	73.79	72.58	71.32	71.13	72.14	72.30	72.41	72.41	-4.75	-1.38
Alaska	50.00	50.00	0.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0.00	0.00
Arizona	60.10	64.99	4.89	66.42	64.15	61.92	60.48	60.81	61.47	59.87	61.21	62.28	62.13	62.28	-5.94	1.80
Arkansas	79.24	79.81	0.57	79.76	79.42	76.31	74.60	72.06	72.87	72.16	73.65	73.83	74.02	74.02	-5.16	-0.58
California	50.00	50.00	0.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0.00	0.00
Colorado	50.00	55.31	5.31	56.24	57.61	57.22	54.69	53.71	53.16	52.28	50.00	50.00	50.00	50.00	-1.55	-4.69
Connecticut	50.00	50.00	0.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0.00	0.00
Delaware	50.00	50.00	0.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0.00	0.00
District of Columbia	50.00	50.00	0.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0.00	0.00
Florida	62.41	65.09	2.68	64.10	60.67	60.95	57.34	56.55	58.94	57.92	58.41	56.16	55.54	56.16	-6.76	-1.18
Georgia	72.49	72.85	0.36	71.48	69.67	66.96	66.10	65.82	66.76	66.28	67.43	66.05	64.54	66.05	-5.38	-0.05
Hawaii	50.00	50.00	0.00	50.75	50.83	50.00	50.00	50.00	50.00	50.00	50.00	51.00	51.29	51.29	-0.75	1.29
Idaho	68.16	67.87	-0.29	68.91	71.56	69.50	68.18	63.58	65.70	65.43	67.28	69.36	71.08	71.08	-0.73	2.90
Illinois	50.00	50.00	0.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0.00	0.00
Indiana	50.13	53.39	3.26	52.85	55.05	57.01	57.47	57.86	57.28	56.73	59.93	62.82	62.92	62.92	4.62	5.45
Iowa	56.90	59.60	2.70	55.27	58.07	59.72	57.13	51.96	56.57	55.35	55.24	58.90	60.39	60.39	1.86	3.26
Kansas	56.43	57.90	1.47	57.78	59.06	55.37	54.02	52.35	53.52	52.50	50.67	50.00	51.39	51.39	-3.76	-2.63
Kentucky	73.70	75.25	1.55	74.30	73.49	72.12	71.37	69.71	68.07	67.95	70.72	70.23	70.75	70.75	-2.93	-0.62
Louisiana	74.16	74.58	0.42	73.57	73.49	72.80	72.41	70.45	68.82	66.85	64.45	63.81	65.77	65.77	-1.16	-6.64
Maine	66.10	69.92	3.82	68.33	69.43	70.03	70.60	69.74	69.53	70.63	70.63	68.86	68.07	68.86	2.27	-1.74
Maryland	50.00	50.00	0.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0.00	0.00
Massachusetts	50.00	50.00	0.00	50.00	50.00	50.00	50.00	51.62	51.75	53.56	50.13	50.00	50.00	50.00	0.00	0.00
Michigan	50.00	50.00	0.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.70	56.79	56.88	56.88	0.00	6.88
Minnesota	55.15	58.40	3.25	56.95	56.82	57.37	56.84	55.26	55.64	54.39	52.67	53.41	52.98	53.41	-0.11	-3.43
Mississippi	80.00	83.00	3.00	83.00	83.00	80.55	78.28	78.09	77.55	77.36	77.63	78.42	78.50	78.50	-4.72	0.22
Missouri	50.00	58.40	8.40	59.29	59.53	59.94	58.98	60.66	60.36	60.38	61.40	60.62	59.85	60.62	-0.31	1.64
Montana	59.76	64.01	4.25	64.72	67.16	66.08	63.21	61.10	64.28	65.34	64.41	66.38	67.44	67.44	-1.51	4.23
Nebraska	54.39	60.48	6.09	57.25	58.48	57.86	55.59	53.46	57.62	58.12	57.13	57.11	58.06	58.06	-1.66	2.47
Nevada	50.00	50.00	0.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0.00	0.00
New Hampshire	55.11	60.12	5.01	59.18	59.36	62.05	60.28	62.85	61.11	59.41	59.45	54.92	53.28	54.92	1.10	-5.36
New Jersey	50.00	50.00	0.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0.00	0.00
New Mexico	68.43	70.15	1.72	71.48	72.63	72.01	73.29	71.84	69.03	67.19	69.39	68.94	69.68	69.68	1.81	-3.61
New York	50.00	50.00	0.00	50.00	50.00	50.00	50.00	50.00	50.00	50.88	50.00	50.00	50.00	50.00	0.00	0.00
North Carolina	73.27	75.30	2.03	73.96	72.84	70.01	68.03	67.81	67.64	67.81	69.54	69.18	68.40	69.18	-5.93	1.15
North Dakota	66.37	70.74	4.37	70.48	71.28	70.12	57.59	50.71	61.44	62.11	61.32	55.12	56.41	56.41	-12.89	-1.18
Ohio	50.00	52.60	2.60	52.42	53.65	53.59	54.39	55.46	55.10	55.10	55.44	58.30	58.27	58.30	1.97	3.91
Oklahoma	67.13	69.61	2.48	68.84	69.02	0.00	67.42	65.42	63.64	59.91	58.47	57.60	59.86	59.86	-1.42	-7.56
Oregon	50.00	54.37	4.37	56.35	57.39	59.40	59.04	57.29	55.66	52.81	57.12	61.54	62.47	62.47	2.69	3.43
Pennsylvania	50.00	55.03	5.03	54.60	55.45	55.14	55.39	55.11	55.14	56.78	56.04	56.72	57.28	57.28	0.79	1.89
Rhode Island	50.30	52.61	2.31	51.70	50.26	55.37	56.55	57.00	57.81	57.77	58.17	56.33	55.38	56.33	4.85	-0.22
South Carolina	79.32	80.50	1.18	78.68	78.00	75.00	73.58	71.93	70.97	70.77	73.51	72.70	72.23	72.70	-5.10	-0.88
South Dakota	67.24	73.26	6.02	69.91	69.69	70.25	67.23	63.80	68.78	68.19	68.31	67.82	67.45	67.82	-2.68	0.59
Tennessee	74.13	76.14	2.01	74.62	74.35	72.28	70.43	68.88	69.43	68.53	70.66	70.20	70.26	70.26	-4.19	-0.17
Texas	63.43	67.10	3.67	66.66	65.18	63.53	63.59	60.66	58.35	55.75	54.37	53.56	55.16	55.16	-3.07	-8.43
Utah	62.19	65.24	3.05	68.23	69.88	69.95	70.04	68.98	68.07	68.64	70.84	72.62	73.21	73.21	1.81	3.17
Vermont	62.70	69.00	6.30	64.96	64.71	65.38	69.82	68.02	68.40	68.59	69.37	67.06	67.37	67.37	4.86	-2.45
Virginia	65.11	65.85	0.74	65.04	64.03	61.58	58.34	57.01	56.54	56.74	56.53	53.14	51.86	53.14	-6.70	-5.20
Washington	50.00	50.00	0.00	50.00	50.00	53.13	53.72	51.64	50.00	50.00	50.00	50.06	52.52	52.52	3.72	-1.20
West Virginia	70.90	75.84	4.94	75.73	76.97	73.52	71.90	70.16	67.35	67.95	70.57	71.53	72.59	72.59	-3.83	0.69
Wisconsin	52.55	56.68	4.13	55.21	56.28	60.02	59.91	58.53	57.95	58.02	56.87	57.54	57.58	57.58	4.70	-2.33
Wyoming	50.00	59.20	9.20	60.38	62.73	60.99	60.94	53.44	50.00	50.00	50.00	50.00	54.20	54.20	0.56	-6.74

Source: U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation; historical records restructured and upgraded by Vic Miller.

Table 3. FMAPs by State, FY 1966/67-FY 2004 (p. 2 of 2)
(federal fiscal years)

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	Change 1987-00	Change 2000-04
Alabama	73.29	73.10	73.21	72.73	72.93	71.45	71.22	70.45	69.85	69.54	69.32	69.27	69.57	69.99	70.45	70.60	70.75	-2.84	1.18
Alaska	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	59.80	59.80	60.13	57.38	58.27	58.39	9.80	-1.41
Arizona	62.12	62.04	60.99	61.72	62.61	65.89	65.90	66.40	65.85	65.53	65.33	65.50	65.92	65.77	64.98	67.25	67.26	3.64	1.34
Arkansas	74.21	74.14	74.58	75.12	75.66	74.41	74.46	73.75	73.61	73.29	72.84	72.96	72.85	73.02	72.64	74.28	74.67	-1.17	1.82
California	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.23	51.23	51.55	51.67	51.25	51.40	50.00	50.00	1.67	-1.67
Colorado	50.00	50.00	52.11	53.59	54.79	54.42	54.30	53.10	52.44	52.32	51.97	50.59	50.00	50.00	50.00	50.00	50.00	0.00	0.00
Connecticut	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0.00	0.00
Delaware	51.90	52.60	50.00	50.00	50.12	50.00	50.00	50.00	50.33	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0.00	0.00
District of Columbia	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	70.00	70.00	70.00	70.00	70.00	70.00	70.00	20.00	0.00
Florida	55.39	55.18	54.70	54.46	54.69	55.03	54.78	56.28	55.76	55.79	55.65	55.82	56.52	56.62	56.43	58.83	58.93	0.36	2.41
Georgia	63.84	62.78	62.09	61.34	61.78	62.08	62.47	62.23	61.90	61.52	60.84	60.47	59.88	59.67	59.00	59.60	59.58	-6.17	-0.30
Hawaii	53.71	53.99	54.50	54.14	52.57	50.00	50.00	50.00	50.00	50.00	50.00	50.00	51.01	53.85	56.34	58.77	58.90	-0.28	7.89
Idaho	70.47	72.71	73.32	73.65	73.24	71.20	70.92	70.14	68.78	67.97	69.59	69.85	70.15	70.76	71.02	70.96	70.46	-0.93	0.31
Illinois	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0.00	0.00
Indiana	63.71	63.71	63.76	63.24	63.85	63.21	63.49	63.03	62.57	61.58	61.41	61.01	61.74	62.04	62.04	61.97	62.32	-1.18	0.58
Iowa	62.75	62.95	62.52	63.41	65.04	62.74	63.33	62.62	64.22	62.94	63.75	63.32	63.06	62.67	62.86	63.50	63.93	2.67	0.87
Kansas	55.20	54.93	56.07	57.35	59.23	58.18	59.52	58.90	59.04	58.87	59.71	60.05	60.03	59.85	60.20	60.15	60.82	8.64	0.79
Kentucky	72.27	72.89	72.95	72.96	72.82	71.69	70.91	69.58	70.30	70.09	70.37	70.53	70.55	70.39	69.94	69.89	70.09	-0.20	-0.46
Louisiana	68.26	71.07	73.12	74.48	75.44	73.71	73.49	72.65	71.89	71.36	70.03	70.37	70.32	70.53	70.30	71.28	71.63	4.55	1.31
Maine	67.08	66.68	65.20	63.49	62.40	61.81	61.96	63.30	63.32	63.72	66.04	66.40	66.22	66.12	66.58	66.22	66.01	-2.64	-0.21
Maryland	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0.00	0.00
Massachusetts	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0.00	0.00
Michigan	56.48	54.75	54.54	54.17	55.41	55.84	56.37	56.84	56.77	55.20	53.58	52.72	55.11	56.18	56.36	55.42	55.89	-1.77	0.78
Minnesota	53.98	53.07	52.74	53.43	54.43	54.93	54.65	54.27	53.93	53.60	52.14	51.50	51.48	51.11	50.00	50.00	50.00	-1.93	-1.48
Mississippi	79.65	79.80	80.18	79.93	79.99	79.01	78.85	78.58	78.07	77.22	77.09	76.78	76.80	76.82	76.09	76.62	77.08	-1.70	0.28
Missouri	59.27	59.96	59.18	59.82	60.84	60.26	60.64	59.85	60.06	60.04	60.68	60.24	60.51	61.03	61.06	61.23	61.47	-0.11	0.96
Montana	69.40	70.62	71.35	71.73	71.70	70.92	71.05	70.81	69.38	69.01	70.56	71.73	72.30	73.04	72.83	72.96	72.85	4.86	0.55
Nebraska	59.73	60.37	61.12	62.71	64.50	61.32	61.98	60.40	59.49	59.13	61.17	61.46	60.88	60.38	59.55	59.52	59.89	2.82	-0.99
Nevada	50.25	50.00	50.00	50.00	50.00	52.28	50.31	50.00	50.00	50.00	50.00	50.00	50.00	50.36	50.00	52.39	54.93	0.00	4.93
New Hampshire	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	-4.92	0.00
New Jersey	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0.00	0.00
New Mexico	71.52	71.54	72.25	73.38	74.33	73.85	74.17	73.31	72.87	72.66	72.61	72.98	73.32	73.80	73.04	74.56	74.85	3.64	1.53
New York	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	0.00	0.00
North Carolina	68.68	68.01	67.46	66.60	66.52	65.92	65.14	64.71	64.59	63.89	63.09	63.07	62.49	62.47	61.46	62.56	62.85	-6.69	0.36
North Dakota	64.87	66.53	67.52	70.00	72.75	72.21	71.13	68.73	69.06	67.73	70.43	69.94	70.42	69.99	69.87	68.36	68.31	14.01	-2.11
Ohio	59.10	58.98	59.57	59.93	60.63	60.25	60.83	60.69	60.17	59.28	58.14	58.26	58.67	59.03	58.78	58.83	59.23	0.37	0.56
Oklahoma	63.33	66.06	68.29	69.65	70.74	69.67	70.39	70.05	69.89	70.01	70.51	70.84	71.09	71.24	70.43	70.56	70.24	11.23	-0.85
Oregon	62.11	62.44	62.95	63.50	63.55	62.39	62.12	62.36	61.01	60.52	61.46	60.55	59.96	60.00	59.20	60.16	60.81	-2.51	0.85
Pennsylvania	57.35	57.42	56.86	56.64	56.84	55.48	54.61	54.27	52.93	52.85	53.39	53.77	53.82	53.62	54.65	54.69	54.76	-3.46	0.94
Rhode Island	54.85	55.88	55.15	53.74	53.29	53.64	53.87	55.49	53.84	53.90	53.17	54.05	53.77	53.79	52.45	55.40	56.03	-2.56	2.26
South Carolina	73.49	73.08	73.07	72.58	72.66	71.28	71.08	70.71	70.77	70.43	70.23	69.85	69.95	70.44	69.34	69.81	69.86	-2.75	-0.09
South Dakota	70.43	71.02	70.90	71.69	72.59	70.27	69.50	68.06	66.66	64.89	67.75	68.16	68.72	68.31	65.93	65.29	65.67	0.90	-3.05
Tennessee	70.64	70.17	69.64	68.57	68.41	67.57	67.15	66.52	65.64	64.58	63.36	63.09	63.10	63.79	63.64	64.59	64.40	-7.16	1.30
Texas	56.91	59.04	61.23	63.53	64.18	64.44	64.18	63.31	62.30	62.56	62.28	62.45	61.36	60.57	60.17	59.99	60.22	6.20	-1.14
Utah	73.73	73.86	74.70	74.89	75.11	75.29	74.35	73.48	73.21	72.33	72.58	71.78	71.55	71.44	70.00	71.24	71.72	-1.66	0.17
Vermont	66.23	63.92	62.77	61.97	61.37	59.88	59.55	60.82	60.87	61.05	62.18	61.97	62.24	62.40	63.06	62.41	61.34	-5.13	-0.90
Virginia	51.34	51.20	50.00	50.00	50.00	50.00	50.00	50.00	51.37	51.45	51.49	51.60	51.67	51.85	51.45	50.53	50.00	-1.47	-1.67
Washington	53.21	53.06	53.88	54.21	54.98	55.02	54.24	51.97	50.19	50.52	52.15	52.50	51.83	50.70	50.37	50.00	50.00	-0.69	-1.83
West Virginia	74.84	76.14	76.61	77.00	77.68	76.29	75.72	74.60	73.26	72.60	73.67	74.47	74.78	75.34	75.27	75.04	75.19	2.19	0.41
Wisconsin	58.98	59.31	59.28	59.62	60.38	60.42	60.47	59.81	59.67	59.00	58.84	58.85	58.78	59.29	58.57	58.43	58.41	1.20	-0.37
Wyoming	57.96	62.61	65.95	68.14	69.10	67.11	65.63	62.87	59.69	59.88	63.02	64.08	64.04	64.60	61.97	61.32	59.77	9.84	-4.27

Source: U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation; historical records restructured and upgraded by Vic Miller.

Table 4. SCHIP Enhanced FMAPs, FY 1998 to FY 2004
(federal fiscal years)

								Percentage Point Change		
State	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**1998-02**	**2002-03**	**2003-04**
Alabama	78.52	78.49	78.70	78.99	79.32	79.42	79.53	0.80	0.10	0.11
Alaska	71.86	71.86	71.86	72.09	70.17	70.79	70.87	-1.69	0.62	0.08
Arizona	75.73	75.85	76.14	76.04	75.49	77.08	77.08	-0.24	1.59	0.00
Arkansas	80.99	81.07	80.99	81.11	80.85	82.00	82.27	-0.14	1.15	0.27
California	65.86	66.09	66.17	65.88	65.98	65.00	65.00	0.12	-0.98	0.00
Colorado	66.38	65.42	65.00	65.00	65.00	65.00	65.00	-1.38	0.00	0.00
Connecticut	65.00	65.00	65.00	65.00	65.00	65.00	65.00	0.00	0.00	0.00
Delaware	65.00	65.00	65.00	65.00	65.00	65.00	65.00	0.00	0.00	0.00
District of Columbia	79.00	79.00	79.00	79.00	79.00	79.00	79.00	0.00	0.00	0.00
Florida	68.96	69.07	69.57	69.63	69.50	71.18	71.25	0.54	1.68	0.07
Georgia	72.59	72.33	71.91	71.77	71.30	71.72	71.71	-1.29	0.42	-0.01
Hawaii	65.00	65.00	65.71	67.70	69.44	71.14	71.23	4.44	1.70	0.09
Idaho	78.71	78.89	79.11	79.53	79.71	79.67	79.32	1.00	-0.04	-0.35
Illinois	65.00	65.00	65.00	65.00	65.00	65.00	65.00	0.00	0.00	0.00
Indiana	72.99	72.71	73.22	73.43	73.43	73.38	73.62	0.44	-0.05	0.24
Iowa	74.63	74.32	74.14	73.87	74.00	74.45	74.75	-0.63	0.45	0.30
Kansas	71.80	72.03	72.02	71.90	72.14	72.11	72.57	0.34	-0.03	0.46
Kentucky	79.26	79.37	79.38	79.27	78.96	78.92	79.06	-0.30	-0.04	0.14
Louisiana	79.02	79.26	79.22	79.37	79.21	79.90	80.14	0.19	0.69	0.24
Maine	76.23	76.48	76.36	76.28	76.61	76.35	76.21	0.38	-0.26	-0.14
Maryland	65.00	65.00	65.00	65.00	65.00	65.00	65.00	0.00	0.00	0.00
Massachusetts	65.00	65.00	65.00	65.00	65.00	65.00	65.00	0.00	0.00	0.00
Michigan	67.51	66.91	68.58	69.33	69.45	68.79	69.12	1.94	-0.66	0.33
Minnesota	66.50	66.05	66.04	65.78	65.00	65.00	65.00	-1.50	0.00	0.00
Mississippi	83.96	83.75	83.76	83.77	83.26	83.63	83.96	-0.70	0.37	0.33
Missouri	72.48	72.17	72.36	72.72	72.74	72.86	73.03	0.26	0.12	0.17
Montana	79.39	80.21	80.61	81.13	80.98	81.07	81.00	1.59	0.09	-0.07
Nebraska	72.82	73.02	72.62	72.27	71.69	71.66	71.92	-1.13	-0.03	0.26
Nevada	65.00	65.00	65.00	65.25	65.00	66.67	68.45	0.00	1.67	1.78
New Hampshire	65.00	65.00	65.00	65.00	65.00	65.00	65.00	0.00	0.00	0.00
New Jersey	65.00	65.00	65.00	65.00	65.00	65.00	65.00	0.00	0.00	0.00
New Mexico	80.83	81.09	81.32	81.66	81.13	82.19	82.40	0.30	1.06	0.21
New York	65.00	65.00	65.00	65.00	65.00	65.00	65.00	0.00	0.00	0.00
North Carolina	74.16	74.15	73.74	73.73	73.02	73.79	74.00	-1.14	0.77	0.21
North Dakota	79.30	78.96	79.29	78.99	78.91	77.85	77.82	-0.39	-1.06	-0.03
Ohio	70.70	70.78	71.07	71.32	71.15	71.18	71.46	0.45	0.03	0.28
Oklahoma	79.36	79.59	79.76	79.87	79.30	79.39	79.17	-0.06	0.09	-0.22
Oregon	73.02	72.38	71.97	72.00	71.44	72.11	72.57	-1.58	0.67	0.46
Pennsylvania	67.37	67.64	67.67	67.53	68.26	68.28	68.33	0.89	0.02	0.05
Rhode Island	67.22	67.83	67.64	67.65	66.72	68.78	69.22	-0.50	2.06	0.44
South Carolina	79.16	78.89	78.96	79.31	78.54	78.87	78.90	-0.62	0.33	0.03
South Dakota	77.43	77.71	78.11	77.82	76.15	75.70	75.97	-1.28	-0.45	0.27
Tennessee	74.35	74.16	74.17	74.65	74.55	75.21	75.08	0.20	0.66	-0.13
Texas	73.60	73.72	72.95	72.40	72.12	71.99	72.15	-1.48	-0.13	0.16
Utah	80.81	80.25	80.08	80.01	79.00	79.87	80.20	-1.81	0.87	0.33
Vermont	73.53	73.38	73.57	73.68	74.14	73.69	72.94	0.61	-0.45	-0.75
Virginia	66.04	66.12	66.17	66.30	66.02	65.37	65.00	-0.02	-0.65	-0.37
Washington	66.51	66.75	66.28	65.49	65.26	65.00	65.00	-1.25	-0.26	0.00
West Virginia	81.57	82.13	82.35	82.74	82.69	82.53	82.63	1.12	-0.16	0.10
Wisconsin	71.19	71.20	71.15	71.50	71.00	70.90	70.89	-0.19	-0.10	-0.01
Wyoming	74.11	74.86	74.83	75.22	73.38	72.92	71.84	-0.73	-0.46	-1.08

Source: Miller, Vic, *Issue Brief 03-18* , Federal Funds Information for States (April 2003).

Table 5. Medicaid Spending as a Share of Personal Income, 1990 and 2001 (calendar years; dollars in millions)

	1990		2001		Percent Change 1990-01		Medicaid as Share of Personal Income		
	Personal Income	Medicaid	Personal Income	Medicaid	Personal Income	Medicaid	1990	2001	% Change
Alabama	$64,094,949	$957,851	$109,773,054	$2,947,257	71%	208%	1.5%	2.7%	80%
Alaska	12,566,353	162,485	19,641,252	630,135	56%	288%	1.3%	3.2%	148%
Arizona	63,319,165	569,649	137,313,561	2,914,802	117%	412%	0.9%	2.1%	136%
Arkansas	34,159,183	640,316	61,612,669	1,983,622	80%	210%	1.9%	3.2%	72%
California	655,567,167	7,222,046	1,128,256,352	26,244,686	72%	263%	1.1%	2.3%	111%
Colorado	65,094,513	587,372	147,860,094	2,183,176	127%	272%	0.9%	1.5%	64%
Connecticut	87,935,181	1,325,520	145,341,415	3,186,588	65%	140%	1.5%	2.2%	45%
Delaware	14,475,729	136,437	25,853,206	598,998	79%	339%	0.9%	2.3%	146%
District of Columbia	16,077,826	426,983	22,958,688	931,001	43%	118%	2.7%	4.1%	53%
Florida	258,479,049	2,728,554	474,625,595	8,812,648	84%	223%	1.1%	1.9%	76%
Georgia	115,414,190	1,668,008	240,895,710	4,967,855	109%	198%	1.4%	2.1%	43%
Hawaii	24,914,831	215,327	35,509,586	654,735	43%	204%	0.9%	1.8%	113%
Idaho	16,054,421	167,546	32,524,914	737,572	103%	340%	1.0%	2.3%	117%
Illinois	237,593,012	2,462,398	412,199,759	7,830,030	73%	218%	1.0%	1.9%	83%
Indiana	97,907,437	1,564,296	169,885,402	4,208,332	74%	169%	1.6%	2.5%	55%
Iowa	48,312,550	680,063	79,893,017	1,803,792	65%	165%	1.4%	2.3%	60%
Kansas	45,103,583	515,191	76,972,623	1,692,786	71%	229%	1.1%	2.2%	93%
Kentucky	57,175,333	1,076,484	101,326,275	3,493,284	77%	225%	1.9%	3.4%	83%
Louisiana	64,229,063	1,503,373	109,560,182	4,785,731	71%	218%	2.3%	4.4%	87%
Maine	21,521,461	468,090	34,384,068	1,343,996	60%	187%	2.2%	3.9%	80%
Maryland	110,449,942	1,254,153	189,141,723	3,465,466	71%	176%	1.1%	1.8%	61%
Massachusetts	139,772,372	3,375,294	248,202,140	7,197,599	78%	113%	2.4%	2.9%	20%
Michigan	177,103,451	2,651,283	297,609,334	7,986,483	68%	201%	1.5%	2.7%	79%
Minnesota	87,795,485	1,563,633	164,588,791	4,124,180	87%	164%	1.8%	2.5%	41%
Mississippi	33,928,257	665,053	62,163,207	2,582,514	83%	288%	2.0%	4.2%	112%
Missouri	90,999,724	1,003,524	158,905,914	4,943,144	75%	393%	1.1%	3.1%	182%
Montana	12,416,204	205,794	21,673,131	530,526	75%	158%	1.7%	2.4%	48%
Nebraska	28,591,103	344,062	49,489,022	1,261,352	73%	267%	1.2%	2.5%	112%
Nevada	25,193,918	166,414	62,966,282	712,546	150%	328%	0.7%	1.1%	71%
New Hampshire	23,029,403	240,865	42,985,971	905,400	87%	276%	1.0%	2.1%	101%
New Jersey	192,117,132	2,442,134	326,723,335	7,248,792	70%	197%	1.3%	2.2%	75%
New Mexico	22,738,521	310,634	42,353,504	1,562,212	86%	403%	1.4%	3.7%	170%
New York	419,742,661	12,769,945	684,773,804	32,164,963	63%	152%	3.0%	4.7%	54%
North Carolina	115,608,646	1,568,512	225,233,835	6,558,624	95%	318%	1.4%	2.9%	115%
North Dakota	10,121,249	206,074	16,433,657	418,402	62%	103%	2.0%	2.5%	25%
Ohio	204,114,312	3,401,386	327,744,899	8,939,957	61%	163%	1.7%	2.7%	64%
Oklahoma	51,026,777	754,715	86,749,508	2,165,577	70%	187%	1.5%	2.5%	69%
Oregon	52,177,756	569,761	97,813,547	2,663,681	87%	368%	1.1%	2.7%	149%
Pennsylvania	235,802,317	3,121,938	377,461,496	11,440,263	60%	266%	1.3%	3.0%	129%
Rhode Island	20,287,488	453,296	31,995,433	1,353,085	58%	198%	2.2%	4.2%	89%
South Carolina	56,158,327	988,400	101,110,225	3,169,982	80%	221%	1.8%	3.1%	78%
South Dakota	11,312,137	175,517	20,173,940	474,718	78%	170%	1.6%	2.4%	52%
Tennessee	82,267,328	1,539,299	154,910,561	5,597,935	88%	264%	1.9%	3.6%	93%
Texas	297,569,445	3,365,380	609,489,206	12,083,384	105%	259%	1.1%	2.0%	75%
Utah	25,938,559	296,365	54,883,681	872,083	112%	194%	1.1%	1.6%	39%
Vermont	10,192,738	163,895	17,530,931	610,611	72%	273%	1.6%	3.5%	117%
Virginia	127,614,144	1,104,585	233,106,915	3,595,811	83%	226%	0.9%	1.5%	78%
Washington	98,143,118	1,305,103	191,763,140	4,933,085	95%	278%	1.3%	2.6%	93%
West Virginia	26,132,850	429,291	41,230,293	1,527,439	58%	256%	1.6%	3.7%	126%
Wisconsin	89,025,202	1,551,072	158,116,069	4,022,325	78%	159%	1.7%	2.5%	46%
Wyoming	8,159,438	78,634	14,544,084	251,835	78%	220%	1.0%	1.7%	80%
United States	**$4,885,525,000**	**$73,144,000**	**$8,678,255,000**	**$227,315,000**	**78%**	**211%**	**1.5%**	**2.6%**	**75%**

Source: Bureau of Economic Analysis, U.S. Department of Commerce, Back-up Tables, National Income and Produce Accounts (NIPAs).

Table 6. Impact on FMAPs and Vendor Payments of Removing Medicaid from Personal Income, FY 2004
(federal fiscal years; dollars in thousands)

	2004 FMAPs			2003 Medicaid Vendor Payments		Illustrative Impact on 2004
	Actual	Alternative	Impact	Total	Federal Share	Federal Share
Alabama	70.75	70.83	0.08	$3,121,966	$2,207,201	$2,364
Alaska	58.39	58.69	0.30	765,549	499,060	2,525
Arizona	67.26	66.86	-0.40	4,130,701	2,829,531	-16,790
Arkansas	74.67	74.89	0.22	2,348,191	1,746,683	5,092
California	50.00	50.00	0.00	28,695,658	14,465,731	0
Colorado	50.00	50.00	0.00	2,486,096	1,245,105	0
Connecticut	50.00	50.00	0.00	3,704,788	1,854,343	0
Delaware	50.00	50.00	0.00	684,877	343,546	0
District of Columbia	70.00	70.00	0.00	1,149,009	845,405	0
Florida	58.93	58.32	-0.61	11,370,311	6,701,757	-68,915
Georgia	59.58	59.14	-0.44	6,567,376	3,918,189	-29,189
Hawaii	58.90	58.39	-0.51	821,808	482,998	-4,185
Idaho	70.46	70.19	-0.27	831,539	590,893	-2,266
Illinois	50.00	50.00	0.00	9,078,648	4,556,505	0
Indiana	62.32	62.15	-0.17	4,665,498	2,894,473	-8,017
Iowa	63.93	63.69	-0.24	2,297,061	1,460,242	-5,479
Kansas	60.82	60.44	-0.38	1,773,048	1,068,082	-6,707
Kentucky	70.09	70.61	0.52	3,821,433	2,666,164	19,696
Louisiana	71.63	72.32	0.69	5,043,393	3,594,031	34,787
Maine	66.01	66.93	0.92	1,529,878	1,013,085	14,046
Maryland	50.00	50.00	0.00	3,971,981	1,992,953	0
Massachusetts	50.00	50.00	0.00	9,580,607	4,797,463	0
Michigan	55.89	55.92	0.03	8,112,353	4,496,713	2,438
Minnesota	50.00	50.00	0.00	4,935,941	2,467,976	0
Mississippi	77.08	77.63	0.55	3,159,463	2,421,118	17,216
Missouri	61.47	61.75	0.28	5,435,500	3,336,220	15,306
Montana	72.85	72.71	-0.14	689,373	501,934	-990
Nebraska	59.89	59.80	-0.09	1,392,640	853,648	-1,230
Nevada	54.93	53.61	-1.32	897,679	455,619	-10,930
New Hampshire	50.00	50.00	0.00	1,110,675	555,337	0
New Jersey	50.00	50.00	0.00	8,358,093	4,183,871	0
New Mexico	74.85	75.28	0.43	1,876,786	1,404,032	8,024
New York	50.00	50.00	0.00	41,015,940	20,533,370	0
North Carolina	62.85	62.99	0.14	7,626,524	4,793,479	10,447
North Dakota	68.31	68.35	0.04	463,348	324,721	183
Ohio	59.23	59.26	0.03	10,653,509	6,267,496	3,083
Oklahoma	70.24	70.08	-0.16	2,596,493	1,832,087	-4,121
Oregon	60.81	60.80	-0.01	2,921,833	1,762,608	-330
Pennsylvania	54.76	55.21	0.45	13,343,434	7,304,678	60,145
Rhode Island	56.03	57.28	1.25	1,451,508	804,137	17,970
South Carolina	69.86	70.15	0.29	3,642,673	2,550,700	10,442
South Dakota	65.67	65.51	-0.16	518,358	352,150	-879
Tennessee	64.40	65.07	0.67	6,114,362	3,906,922	40,420
Texas	60.22	59.78	-0.44	14,882,212	8,945,698	-65,293
Utah	71.72	71.20	-0.52	1,128,920	804,242	-5,876
Vermont	61.34	61.99	0.65	702,280	439,519	4,622
Virginia	50.00	48.70	-1.30	3,732,170	1,885,863	-48,928
Washington	50.00	49.18	-0.82	5,175,760	2,604,619	-42,872
West Virginia	75.19	75.78	0.59	1,569,591	1,175,328	9,196
Wisconsin	58.41	58.24	-0.17	4,487,942	2,622,777	-7,706
Wyoming	59.77	59.10	-0.67	295,898	181,445	-2,045
United States				**$266,730,674**	**$151,541,747**	**-$54,745**

Source: Calculation by Vic Miller from BEA backup tables using 1999-2001 personal income data minus state Medicaid expenditures.

Table 7. Index of State Economic Momentum and FMAPs, FY 2000 and FY 2003

	2002 Index of Economic Momentum		FMAPs		
State	**State Rank**	**Index Value**	**2000**	**2003**	**% Change**
Nevada	1	2.36	50.00	52.39	4.8%
Alaska	2	1.51	57.38	58.27	1.6%
New Mexico	3	1.27	73.04	74.56	2.1%
Rhode Island	3	1.27	52.45	55.40	5.6%
Wyoming	5	1.15	61.97	61.32	-1.0%
Hawaii	6	1.05	56.34	58.77	4.3%
Florida	7	1.02	56.43	58.83	4.3%
Arizona	8	1.00	64.98	67.25	3.5%
Nebraska	9	0.87	59.55	59.52	0.0%
Maine	10	0.75	66.58	66.22	-0.5%
Montana	11	0.68	72.83	72.96	0.2%
Maryland	12	0.67	50.00	50.00	0.0%
Kansas	13	0.65	60.20	60.15	-0.1%
Oklahoma	14	0.63	70.43	70.56	0.2%
Kentucky	15	0.54	69.94	69.89	-0.1%
Arkansas	16	0.50	72.64	74.28	2.3%
South Dakota	17	0.49	65.93	65.29	-1.0%
Delaware	18	0.47	50.00	50.00	0.0%
Mississippi	19	0.44	76.09	76.62	0.7%
Wisconsin	19	0.44	58.57	58.43	-0.2%
Louisiana	21	0.42	70.30	71.28	1.4%
Oregon	21	0.42	59.20	60.16	1.6%
New Jersey	23	0.39	50.00	50.00	0.0%
South Carolina	24	0.33	69.34	69.81	0.7%
Vermont	25	0.27	63.06	62.41	-1.0%
Texas	26	0.24	60.17	59.99	-0.3%
Georgia	27	0.22	59.00	59.60	1.0%
California	28	0.18	51.40	50.00	-2.7%
North Carolina	28	0.18	61.46	62.56	1.8%
Pennsylvania	30	0.14	54.65	54.69	0.1%
Tennessee	31	0.11	63.64	64.59	1.5%
Idaho	32	0.09	71.02	70.96	-0.1%
North Dakota	33	-0.13	69.87	68.36	-2.2%
New Hampshire	34	-0.16	50.00	50.00	0.0%
Minnesota	35	-0.17	50.00	50.00	0.0%
Virginia	35	-0.17	51.45	50.53	-1.8%
Utah	37	-0.30	70.00	71.24	1.8%
Indiana	38	-0.39	62.04	61.97	-0.1%
Alabama	39	-0.40	70.45	70.60	0.2%
Iowa	40	-0.42	62.86	63.50	1.0%
Ohio	41	-0.49	58.78	58.83	0.1%
Connecticut	42	-0.52	50.00	50.00	0.0%
Michigan	43	-0.60	56.36	55.42	-1.7%
Colorado	44	-0.61	50.00	50.00	0.0%
Missouri	45	-0.62	61.06	61.23	0.3%
Washington	46	-0.63	50.37	50.00	-0.7%
West Virginia	47	-0.64	75.27	75.04	-0.3%
Illinois	48	-0.74	50.00	50.00	0.0%
Massachusetts	49	-1.02	50.00	50.00	0.0%
New York	50	-1.07	50.00	50.00	0.0%

Source: State Policy Reports, Volume 20, Issue 23/24; December 2002. State Policy Reports does not calculate an index for the District of Columbia.

Table 8. Comparative Impact on FMAPs of Using 1997 Total Taxable Resources Data (indices; average equals 100)

State	Index of Personal Income	Index of Total Taxable Resources	Percent Difference	Illustrative FY 2003 FMAP (1997 data only)		
				Personal Income	Total Taxable Resources	Difference
Alabama	82	78	-6	69.56	72.85	3.29
Alaska	106	122	15	49.58	33.30	-16.29
Arizona	86	89	3	66.60	64.64	-1.96
Arkansas	77	76	-2	73.15	74.05	0.89
California	104	104	-1	50.99	51.66	0.68
Colorado	107	105	-1	48.95	49.95	1.01
Connecticut	137	145	6	15.81	05.40	-10.41
Delaware	105	144	36	49.92	06.90	-43.02
District of Columbia*	157	159	1	-10.70	-13.86	3.16
Florida	98	94	-4	56.90	60.28	3.38
Georgia	94	97	3	60.16	58.03	-2.12
Hawaii	101	101	0	53.74	53.65	-0.09
Idaho	81	80	0	70.62	70.85	0.23
Illinois	110	109	-1	45.56	46.28	0.72
Indiana	92	90	-2	61.78	63.23	1.45
Iowa	92	93	1	61.52	60.71	-0.81
Kansas	95	95	0	59.25	59.27	0.02
Kentucky	83	83	0	69.33	69.04	-0.30
Louisiana	82	91	11	69.64	62.35	-7.29
Maine	87	82	-5	65.86	69.44	3.58
Maryland	114	110	-3	41.97	45.24	3.27
Massachusetts	121	121	0	34.01	34.24	0.23
Michigan	100	91	-9	54.66	62.80	8.15
Minnesota	107	102	-4	48.88	53.14	4.26
Mississippi	73	70	-4	75.94	77.84	1.90
Missouri	94	93	-1	60.11	60.97	0.86
Montana	78	74	-5	72.35	75.08	2.73
Nebraska	95	95	0	59.37	58.99	-0.38
Nevada	105	114	8	49.99	41.19	-8.80
New Hampshire	107	120	12	48.30	35.19	-13.11
New Jersey	125	129	4	29.89	24.59	-5.30
New Mexico	77	85	10	73.12	67.66	-5.46
New York	117	120	3	38.66	35.28	-3.37
North Carolina	92	93	1	61.62	61.05	-0.57
North Dakota	81	81	0	70.66	70.77	0.11
Ohio	97	94	-4	57.24	60.42	3.18
Oklahoma	82	76	-7	70.03	73.90	3.87
Oregon	96	100	5	58.56	54.58	-3.99
Pennsylvania	101	96	-4	54.21	58.23	4.03
Rhode Island	101	100	-1	54.18	55.02	0.84
South Carolina	83	81	-2	69.28	70.39	1.12
South Dakota	86	90	5	66.62	63.41	-3.21
Tennessee	90	88	-2	63.73	65.03	1.30
Texas	93	98	5	60.67	56.67	-4.00
Utah	81	85	5	70.39	67.34	-3.05
Vermont	91	89	-2	63.05	64.68	1.62
Virginia	104	106	2	51.49	49.52	-1.97
Washington	104	102	-2	51.18	53.15	1.97
West Virginia	76	73	-4	73.91	76.01	2.11
Wisconsin	96	94	-2	58.24	59.87	1.63
Wyoming	92	123	33	61.97	32.34	-29.63

* No minima or special calculations are used to produce the FMAPs based on these 1997 data. The District of Columbia is precluded by federal law from accessing much of its tax base. As such, this comparison is misleading for D.C.

Sources: U.S. Bureau of Economic Analysis (1997 personal income data); U.S. Treasury Department (1997 TTR data). Note that personal income and TTR are normalized so that the national average equals 100.

Table 9. Impact on FMAPs of Increasing the Top Range of FMAPs, FY 2003 (dollars in thousands)

		Increasing Per Capita Income to 2.5 Power		
State	2003 FMAP	Alternative FMAP	Change	Impact on Federal Funding
Alabama	70.60	73.56	2.96	$93,623
Alaska	58.27	59.05	0.78	5,639
Arizona	67.25	69.75	2.50	109,084
Arkansas	74.28	77.64	3.36	76,956
California	50.00	50.00	0.00	0
Colorado	50.00	50.00	0.00	0
Connecticut	50.00	50.00	0.00	0
Delaware	50.00	50.00	0.00	0
District of Columbia	70.00	70.00	0.00	0
Florida	58.83	59.73	0.90	99,178
Georgia	59.60	60.68	1.08	70,275
Hawaii	58.77	59.66	0.89	7,047
Idaho	70.96	73.98	3.02	25,355
Illinois	50.00	50.00	0.00	0
Indiana	61.97	63.53	1.56	74,439
Iowa	63.50	65.36	1.86	43,230
Kansas	60.15	61.34	1.19	20,692
Kentucky	69.89	72.77	2.88	112,354
Louisiana	71.28	74.32	3.04	151,211
Maine	66.22	68.55	2.33	36,631
Maryland	50.00	50.00	0.00	0
Massachusetts	50.00	50.00	0.00	0
Michigan	55.42	55.52	0.10	7,991
Minnesota	50.00	50.00	0.00	0
Mississippi	76.62	80.15	3.53	111,521
Missouri	61.23	62.64	1.41	76,727
Montana	72.96	76.19	3.23	19,959
Nebraska	59.52	60.58	1.06	14,177
Nevada	52.39	51.72	-0.67	-6,408
New Hampshire	50.00	50.00	0.00	0
New Jersey	50.00	50.00	0.00	0
New Mexico	74.56	77.94	3.38	64,185
New York	50.00	50.00	0.00	0
North Carolina	62.56	64.24	1.68	125,960
North Dakota	68.36	71.03	2.67	12,371
Ohio	58.83	59.73	0.90	96,070
Oklahoma	70.56	73.52	2.96	77,531
Oregon	60.16	61.35	1.19	34,434
Pennsylvania	54.69	54.61	-0.08	-10,463
Rhode Island	55.40	55.50	0.10	1,458
South Carolina	69.81	72.68	2.87	104,482
South Dakota	65.29	67.47	2.18	11,575
Tennessee	64.59	66.65	2.06	123,184
Texas	59.99	61.15	1.16	174,799
Utah	71.24	74.29	3.05	31,832
Vermont	62.41	64.06	1.65	11,693
Virginia	50.53	50.00	-0.53	-20,238
Washington	50.00	50.00	0.00	0
West Virginia	75.04	78.46	3.42	58,555
Wisconsin	58.43	59.25	0.82	36,801
Wyoming	61.32	62.75	1.43	4,204
United States	-----	-----	-----	**$2,088,112**

Source: Calculations performed by Vic Miller identical to current FMAP calculations except raising calculation to the 2.5 power in lieu of squaring.

Table 10. Impact on FMAPs of Change to a Two-Year Personal Income Average, FY 2003 (dollars in thousands)

State	Index of State Economic Momentum	2003 FMAP	Using Two Years of Incomes: Alternative FMAP	Change	Impact on Federal Funding
Alabama	-0.40	70.60	70.98	0.38	$11,876
Alaska	1.51	58.27	58.19	-0.08	-607
Arizona	1.00	67.25	67.39	0.14	6,252
Arkansas	0.50	74.28	74.87	0.59	13,558
California	0.18	50.00	50.00	0.00	0
Colorado	-0.61	50.00	50.00	0.00	0
Connecticut	-0.52	50.00	50.00	0.00	0
Delaware	0.47	50.00	50.00	0.00	0
District of Columbia	N/A	70.00	70.00	0.00	0
Florida	1.02	58.83	59.23	0.40	43,908
Georgia	0.22	59.60	59.83	0.23	14,911
Hawaii	1.05	58.77	59.30	0.53	4,164
Idaho	0.09	70.96	70.50	-0.46	-3,860
Illinois	-0.74	50.00	50.00	0.00	0
Indiana	-0.39	61.97	62.48	0.51	24,326
Iowa	-0.42	63.50	64.02	0.52	12,011
Kansas	0.65	60.15	61.01	0.86	14,905
Kentucky	0.54	69.89	69.99	0.10	4,034
Louisiana	0.42	71.28	71.68	0.40	19,969
Maine	0.75	66.22	65.82	-0.40	-6,270
Maryland	0.67	50.00	50.00	0.00	0
Massachusetts	-1.02	50.00	50.00	0.00	0
Michigan	-0.60	55.42	56.38	0.96	76,639
Minnesota	-0.17	50.00	50.00	0.00	0
Mississippi	0.44	76.62	77.28	0.66	20,890
Missouri	-0.62	61.23	61.54	0.31	16,724
Montana	0.68	72.96	72.75	-0.21	-1,293
Nebraska	0.87	59.52	60.31	0.79	10,545
Nevada	2.36	52.39	55.69	3.30	31,583
New Hampshire	-0.16	50.00	50.00	0.00	0
New Jersey	0.39	50.00	50.00	0.00	0
New Mexico	1.27	74.56	74.88	0.32	5,993
New York	-1.07	50.00	50.00	0.00	0
North Carolina	0.18	62.56	63.11	0.55	40,992
North Dakota	-0.13	68.36	67.91	-0.45	-2,084
Ohio	-0.49	58.83	59.67	0.84	89,481
Oklahoma	0.63	70.56	70.11	-0.45	-11,707
Oregon	0.42	60.16	61.08	0.92	26,480
Pennsylvania	0.14	54.69	54.69	0.00	-473
Rhode Island	1.27	55.40	56.09	0.69	10,121
South Carolina	0.33	69.81	69.96	0.15	5,634
South Dakota	0.49	65.29	65.86	0.57	3,006
Tennessee	0.11	64.59	64.69	0.10	5,920
Texas	0.24	59.99	60.27	0.28	42,129
Utah	-0.30	71.24	71.91	0.67	7,010
Vermont	0.27	62.41	61.08	-1.33	-9,440
Virginia	-0.17	50.53	50.00	-0.53	-20,238
Washington	-0.63	50.00	50.00	0.00	0
West Virginia	-0.64	75.04	75.11	0.07	1,225
Wisconsin	0.44	58.43	58.61	0.18	8,277
Wyoming	1.15	61.32	59.31	-2.01	-5,896
United States		-----	-----	-----	**$510,697**

Source: Calculations performed by Vic Miller identical to current FMAP calculations except using a two-year average of personal income instead of the current three-year average.

Table 11. Impact on FMAPs of Changing the FMAP Publication Date, FY 2003 (dollars in thousands)

			Publishing One Year Later		
State	Index of State Economic Momentum	2003 FMAP	Alternative FMAP	Change	Impact on Federal Funding
Alabama	-0.40	70.60	70.75	0.15	$4,744
Alaska	1.51	58.27	58.39	0.12	867
Arizona	1.00	67.25	67.26	0.01	436
Arkansas	0.50	74.28	74.67	0.39	8,932
California	0.18	50.00	50.00	0.00	0
Colorado	-0.61	50.00	50.00	0.00	0
Connecticut	-0.52	50.00	50.00	0.00	0
Delaware	0.47	50.00	50.00	0.00	0
District of Columbia	N/A	70.00	70.00	0.00	0
Florida	1.02	58.83	58.93	0.10	11,020
Georgia	0.22	59.60	59.58	-0.02	-1,301
Hawaii	1.05	58.77	58.90	0.13	1,029
Idaho	0.09	70.96	70.46	-0.50	-4,198
Illinois	-0.74	50.00	50.00	0.00	0
Indiana	-0.39	61.97	62.32	0.35	16,701
Iowa	-0.42	63.50	63.93	0.43	9,994
Kansas	0.65	60.15	60.82	0.67	11,650
Kentucky	0.54	69.89	70.09	0.20	7,802
Louisiana	0.42	71.28	71.63	0.35	17,409
Maine	0.75	66.22	66.01	-0.21	-3,302
Maryland	0.67	50.00	50.00	0.00	0
Massachusetts	-1.02	50.00	50.00	0.00	0
Michigan	-0.60	55.42	55.89	0.47	37,558
Minnesota	-0.17	50.00	50.00	0.00	0
Mississippi	0.44	76.62	77.08	0.46	14,533
Missouri	-0.62	61.23	61.47	0.24	13,060
Montana	0.68	72.96	72.85	-0.11	-680
Nebraska	0.87	59.52	59.89	0.37	4,949
Nevada	2.36	52.39	54.93	2.54	24,293
New Hampshire	-0.16	50.00	50.00	0.00	0
New Jersey	0.39	50.00	50.00	0.00	0
New Mexico	1.27	74.56	74.85	0.29	5,507
New York	-1.07	50.00	50.00	0.00	0
North Carolina	0.18	62.56	62.85	0.29	21,743
North Dakota	-0.13	68.36	68.31	-0.05	-232
Ohio	-0.49	58.83	59.23	0.40	42,698
Oklahoma	0.63	70.56	70.24	-0.32	-8,382
Oregon	0.42	60.16	60.81	0.65	18,808
Pennsylvania	0.14	54.69	54.76	0.07	9,155
Rhode Island	1.27	55.40	56.03	0.63	9,183
South Carolina	0.33	69.81	69.86	0.05	1,820
South Dakota	0.49	65.29	65.67	0.38	2,018
Tennessee	0.11	64.59	64.40	-0.19	-11,362
Texas	0.24	59.99	60.22	0.23	34,658
Utah	-0.30	71.24	71.72	0.48	5,010
Vermont	0.27	62.41	61.34	-1.07	-7,583
Virginia	-0.17	50.53	50.00	-0.53	-20,238
Washington	-0.63	50.00	50.00	0.00	0
West Virginia	-0.64	75.04	75.19	0.15	2,568
Wisconsin	0.44	58.43	58.41	-0.02	-898
Wyoming	1.15	61.32	59.77	-1.55	-4,557
United States		-----	-----	-----	**$275,417**

Source: Calculations performed by Vic Miller identical to current calculations for the FY 2003 FMAP except using calendar year 1999-2001 data published in Fall 2002 instead of calendar year 1998-2000 data published in Fall 2001.

Table 12. Impact of an FMAP Increase of One Percentage Point for States with High Unemployment, FY 2003
(dollars in thousands)

State	Percent Unemployed 4th Quarter 2002	Quarterly Impact on Federal Funding at Alternative Percents Above National Average > 150%	> 140%
Alabama	5.8	$0	$0
Alaska	7.0	1,807	1,807
Arizona	5.7	0	0
Arkansas	5.1	0	0
California	6.5	74,246	74,246
Colorado	5.3	0	0
Connecticut	4.4	0	0
Delaware	4.0	0	0
District of Columbia	6.3	0	2,898
Florida	5.2	0	0
Georgia	4.7	0	0
Hawaii	4.0	0	0
Idaho	5.6	0	0
Illinois	6.6	22,470	22,470
Indiana	4.9	0	0
Iowa	4.0	0	0
Kansas	4.6	0	0
Kentucky	5.1	0	0
Louisiana	6.1	0	12,435
Maine	4.4	0	0
Maryland	4.0	0	0
Massachusetts	5.2	0	0
Michigan	5.7	0	0
Minnesota	3.9	0	0
Mississippi	6.7	7,898	7,898
Missouri	5.0	0	0
Montana	4.3	0	0
Nebraska	3.3	0	0
Nevada	4.7	0	0
New Hampshire	4.7	0	0
New Jersey	5.6	0	0
New Mexico	5.9	0	4,747
New York	6.0	0	102,583
North Carolina	6.2	0	18,744
North Dakota	3.3	0	0
Ohio	5.5	0	0
Oklahoma	4.4	0	0
Oregon	7.1	7,234	7,234
Pennsylvania	5.7	0	0
Rhode Island	5.2	0	0
South Carolina	6.0	0	9,101
South Dakota	2.8	0	0
Tennessee	4.5	0	0
Texas	6.3	0	37,672
Utah	5.4	0	0
Vermont	4.0	0	0
Wyoming	4.2	0	0
United States	**4.2%**	**$127,625**	**$320,086**

Source: U.S. Department of Labor, Bureau of Labor Statistics regional data (unemployment rate); Centers for Medicare & Medicaid Services CMS-37 data (Medicaid spending).

Table 13. Impact of Holding High Unemployment Harmless for Declining FMAPS, FY 2003 (dollars in thousands)

State	2003 Loss in FMAP	Quarterly Impact on Federal Funding at Alternative Percents Above National Average > 150%	> 140%
Alabama	N/A	$0	$0
Alaska	N/A	0	0
Arizona	N/A	0	0
Arkansas	N/A	0	0
California	-1.40	199,369	199,369
Colorado	N/A	0	0
Connecticut	N/A	0	0
Delaware	N/A	0	0
District of Columbia	N/A	0	0
Florida	N/A	0	0
Georgia	N/A	0	0
Hawaii	N/A	0	0
Idaho	-0.06	0	0
Illinois	N/A	0	0
Indiana	-0.07	0	0
Iowa	N/A	0	0
Kansas	-0.05	0	0
Kentucky	-0.05	0	0
Louisiana	N/A	0	0
Maine	-0.36	0	0
Maryland	0.00	0	0
Massachusetts	N/A	0	0
Michigan	-0.94	0	0
Minnesota	N/A	0	0
Mississippi	N/A	0	0
Missouri	N/A	0	0
Montana	N/A	0	0
Nebraska	-0.03	0	0
Nevada	N/A	0	0
New Hampshire	N/A	0	0
New Jersey	N/A	0	0
New Mexico	N/A	0	0
New York	N/A	0	0
North Carolina	N/A	0	0
North Dakota	-1.51	0	0
Ohio	N/A	0	0
Oklahoma	N/A	0	0
Oregon	N/A	0	0
Pennsylvania	N/A	0	0
Rhode Island	N/A	0	0
South Carolina	N/A	0	0
South Dakota	-0.64	0	0
Tennessee	N/A	0	0
Texas	-0.18	0	12,617
Utah	0.00	0	0
Vermont	-0.65	0	0
Virginia	-0.92	0	0
Washington	-0.37	9,010	9,010
West Virginia	-0.23	0	1,874
Wisconsin	-0.14	0	0
Wyoming	-0.65	0	0
United States		**$208,379**	**$222,870**

Source: U.S. Department of Labor, Bureau of Labor Statistics regional data (unemployment rate); Centers for Medicare & Medicaid Services CMS-37 data (Medicaid spending). Note that pursuant to the Jobs and Growth Tax Relief Reconciliation Act of 2003 (Public Law 108-27), all states have been held harmless for 2 quarters of FY 2003; the impact of a high-unemployment shift for the current year could only affect reimbursements for 2 quarters.

Table 14. Impact of Using Per Capita Income Per Person in Poverty, Two Alternatives, FY 2003 (dollars in thousands)

State	% Poverty 1999-2001	Current Law 2003 FMAP	Alternative 1 FMAP	Alternative 1 Change	Alternative 1 Impact	Alternative 2 FMAP	Alternative 2 Change	Alternative 2 Impact
Alabama	14.8	70.60	81.92	11.32	$358,045	79.92	9.32	$294,786
Alaska	7.9	58.27	50.00	-8.27	-59,784	50.00	-8.27	-59,784
Arizona	12.9	67.25	73.31	6.06	264,419	70.34	3.09	134,827
Arkansas	16.3	74.28	83.00	8.72	199,718	83.00	8.72	199,718
California	13.1	50.00	59.77	9.77	2,901,520	55.30	5.30	1,574,008
Colorado	9.0	50.00	50.00	0.00	0	50.00	0.00	0
Connecticut	7.4	50.00	50.00	0.00	0	50.00	0.00	0
Delaware	8.5	50.00	50.00	0.00	0	50.00	0.00	0
District of Columbia	16.1	70.00	70.00	0.00	0	55.59	-14.41	-167,057
Florida	12.0	58.83	61.02	2.19	241,332	56.69	-2.14	-235,823
Georgia	12.6	59.60	65.65	6.05	393,669	61.84	2.24	145,755
Hawaii	10.4	58.77	50.00	-8.77	-69,443	50.00	-8.77	-69,443
Idaho	12.7	70.96	75.43	4.47	37,529	72.70	1.74	14,609
Illinois	10.2	50.00	50.00	0.00	0	50.00	0.00	0
Indiana	7.9	61.97	50.00	-11.97	-571,179	50.00	-11.97	-571,179
Iowa	7.7	63.50	50.00	-13.50	-313,763	50.00	-13.50	-313,763
Kansas	10.1	60.15	50.00	-10.15	-176,494	50.00	-10.15	-176,494
Kentucky	12.4	69.89	73.74	3.85	150,196	70.83	0.94	36,671
Louisiana	17.5	71.28	83.00	11.72	582,957	86.05	14.77	734,665
Maine	10.3	66.22	57.13	-9.09	-142,908	52.36	-13.86	-217,900
Maryland	7.3	50.00	50.00	0.00	0	50.00	0.00	0
Massachusetts	10.2	50.00	50.00	0.00	0	50.00	0.00	0
Michigan	9.7	55.42	50.00	-5.42	-433,110	50.00	-5.42	-433,110
Minnesota	6.8	50.00	50.00	0.00	0	50.00	0.00	0
Mississippi	16.8	76.62	83.00	6.38	201,560	83.00	6.38	201,560
Missouri	10.2	61.23	50.00	-11.23	-611,092	50.00	-11.23	-611,092
Montana	14.4	72.96	82.36	9.40	58,084	80.40	7.44	45,973
Nebraska	9.7	59.52	50.00	-9.52	-127,329	50.00	-9.52	-127,329
Nevada	9.0	52.39	50.00	-2.39	-22,859	50.00	-2.39	-22,859
New Hampshire	6.2	50.00	50.00	0.00	0	50.00	0.00	0
New Jersey	7.7	50.00	50.00	0.00	0	50.00	0.00	0
New Mexico	18.8	74.56	83.00	8.44	160,272	83.00	8.44	160,272
New York	14.1	50.00	58.14	8.14	3,340,089	53.49	3.49	1,432,053
North Carolina	12.9	62.56	69.64	7.08	530,832	66.27	3.71	278,162
North Dakota	12.4	68.36	72.41	4.05	18,766	69.34	0.98	4,541
Ohio	10.8	58.83	52.36	-6.47	-690,633	50.00	-8.83	-942,549
Oklahoma	14.3	70.56	80.55	9.99	261,668	78.39	7.83	205,091
Oregon	11.8	60.16	61.53	1.37	39,642	57.26	-2.90	-83,914
Pennsylvania	9.2	54.69	50.00	-4.69	-613,390	50.00	-4.69	-613,390
Rhode Island	10.0	55.40	50.00	-5.40	-78,712	50.00	-5.40	-78,712
South Carolina	12.7	69.81	74.74	4.93	179,477	71.94	2.13	77,543
South Dakota	9.0	65.29	50.00	-15.29	-81,183	50.00	-15.29	-81,183
Tennessee	13.2	64.59	72.29	7.70	460,445	69.21	4.62	276,267
Texas	15.2	59.99	76.73	16.74	2,522,524	74.14	14.15	2,132,241
Utah	8.0	71.24	50.00	-21.24	-221,674	50.00	-21.24	-221,674
Vermont	9.8	62.41	50.00	-12.41	-87,944	50.00	-12.41	-87,944
Virginia	8.0	50.53	50.00	-0.53	-20,238	50.00	-0.53	-20,238
Washington	10.4	50.00	50.00	0.00	0	50.00	0.00	0
West Virginia	15.6	75.04	83.00	7.96	136,286	83.00	7.96	136,286
Wisconsin	8.6	58.43	50.00	-8.43	-378,334	50.00	-8.43	-378,334
Wyoming	10.3	61.32	50.64	-10.68	-31,396	50.00	-11.32	-33,277
United States	**11.6**				**$8,307,564**			**$2,537,980**

Source: U.S. Bureau of the Census, Current Population Survey, 2000, 2001 and 2002 Annual Demographic Supplements. Alternative one employs the current FMAP formula, but changes the data by using total state personal income data divided by estimated number of persons in poverty (population multiplied by poverty share). Alternative two uses the same data and formula as Alternative one except replacing the 0.55 (the federal share for a state with average personal income per poor person) with 0.50. Impact refers to impact on federal funding.

Table 15. State Medicaid Administration Costs, FY 2002
(federal fiscal year 2002; dollars in thousands)

	Medical Assistance Payments		Administration		Admin Share of Medicaid Costs		Federal Share
State	**Total**	**Federal Share**	**Total**	**Federal Share**	**Total**	**Federal Share**	**of Admin Costs**
Alabama	$3,108,390	$2,195,433	$118,925	$70,516	3.7%	3.1%	59.3%
Alaska	698,189	452,738	52,771	33,014	7.0%	6.8%	62.6%
Arizona	3,580,789	2,394,863	207,722	111,315	5.5%	4.4%	53.6%
Arkansas	2,273,013	1,653,064	157,113	93,094	6.5%	5.3%	59.3%
California	27,127,944	14,047,051	2,319,743	1,272,105	7.9%	8.3%	54.8%
Colorado	2,302,775	1,155,251	90,606	51,853	3.8%	4.3%	57.2%
Connecticut	3,473,846	1,750,605	148,885	81,030	4.1%	4.4%	54.4%
Delaware	651,013	326,660	52,725	36,115	7.5%	10.0%	68.5%
District of Columbia	1,073,826	751,680	59,332	38,358	5.2%	4.9%	64.6%
Florida	9,838,332	5,569,992	533,623	290,130	5.1%	5.0%	54.4%
Georgia	6,415,659	3,795,097	336,140	197,959	5.0%	5.0%	58.9%
Hawaii	725,368	408,991	58,827	34,271	7.5%	7.7%	58.3%
Idaho	753,294	535,901	61,798	38,250	7.6%	6.7%	61.9%
Illinois	8,788,749	4,414,344	717,636	385,322	7.5%	8.0%	53.7%
Indiana	4,332,923	2,693,150	176,777	101,963	3.9%	3.6%	57.7%
Iowa	2,591,728	1,631,039	83,064	48,886	3.1%	2.9%	58.9%
Kansas	1,847,916	1,113,380	126,689	73,508	6.4%	6.2%	58.0%
Kentucky	3,773,007	2,632,296	121,327	77,575	3.1%	2.9%	63.9%
Louisiana	4,879,474	3,430,269	121,452	66,591	2.4%	1.9%	54.8%
Maine	1,421,316	946,312	74,507	46,297	5.0%	4.7%	62.1%
Maryland	3,660,868	1,835,520	297,462	157,764	7.5%	7.9%	53.0%
Massachusetts	8,155,534	4,092,519	336,217	188,064	4.0%	4.4%	55.9%
Michigan 1/	7,837,356	4,419,235	510,900	282,372	6.1%	6.0%	55.3%
Minnesota	4,510,677	2,255,344	238,809	129,481	5.0%	5.4%	54.2%
Mississippi	2,840,164	2,164,084	94,062	57,848	3.2%	2.6%	61.5%
Missouri	5,445,829	3,332,660	229,117	122,645	4.0%	3.5%	53.5%
Montana	581,794	429,153	28,304	17,189	4.6%	3.9%	60.7%
Nebraska	1,284,368	789,575	85,492	51,130	6.2%	6.1%	59.8%
Nevada	802,870	388,411	53,064	30,798	6.2%	7.3%	58.0%
New Hampshire	1,024,471	512,235	59,039	35,328	5.4%	6.5%	59.8%
New Jersey	7,878,284	3,943,963	353,339	199,037	4.3%	4.8%	56.3%
New Mexico	1,759,165	1,291,072	74,038	43,887	4.0%	3.3%	59.3%
New York	36,017,505	18,038,127	1,232,410	679,171	3.3%	3.6%	55.1%
North Carolina	6,744,551	4,226,312	350,212	194,090	4.9%	4.4%	55.4%
North Dakota	467,247	329,361	26,191	16,374	5.3%	4.7%	62.5%
Ohio	9,597,846	5,646,923	329,555	181,265	3.3%	3.1%	55.0%
Oklahoma	2,324,491	1,646,927	179,409	103,314	7.2%	5.9%	57.6%
Oregon	2,575,331	1,533,970	217,602	126,748	7.8%	7.6%	58.2%
Pennsylvania	12,353,607	6,766,802	561,247	307,206	4.3%	4.3%	54.7%
Rhode Island	1,431,913	751,040	74,066	40,894	4.9%	5.2%	55.2%
South Carolina	3,393,856	2,362,535	123,628	71,791	3.5%	2.9%	58.1%
South Dakota	548,979	373,584	16,340	9,713	2.9%	2.5%	59.4%
Tennessee	6,227,561	3,970,316	247,721	131,706	3.8%	3.2%	53.2%
Texas	13,814,841	8,335,535	708,117	386,152	4.9%	4.4%	54.5%
Utah	996,320	697,424	77,757	45,367	7.2%	6.1%	58.3%
Vermont	672,628	425,312	55,773	34,340	7.7%	7.5%	61.6%
Virginia	3,897,645	2,011,711	218,911	120,464	5.3%	5.6%	55.0%
Washington	5,785,250	2,931,811	500,785	264,968	8.0%	8.3%	52.9%
West Virginia	1,703,314	1,276,715	67,166	37,863	3.8%	2.9%	56.4%
Wisconsin	4,207,073	2,464,542	182,430	98,510	4.2%	3.8%	54.0%
Wyoming	280,134	173,601	24,960	16,793	8.2%	8.8%	67.3%
Puerto Rico	321,800	160,900	64,000	32,000	16.6%	16.6%	50.0%
Amer. Samoa	6,940	3,470	-	-	0.0%	N/A	N/A
Guam	11,194	5,597	528	283	4.5%	4.8%	53.6%
N. Mariana Islands	4,008	2,004	192	96	4.6%	4.6%	50.0%
Virgin Islands	10,717	5,358	1,444	722	11.9%	11.9%	50.0%
TOTAL	**$248,833,682**	**$141,491,764**	**$13,239,949**	**$7,363,525**	**5.1%**	**4.9%**	**55.6%**

Note: Centers for Medicare and Medicaid Services, Form CMS-37 submitted by states in August 2002.

1/ Michigan's adminstration and training costs for FY 2002 included a large prior period adjustment that distorted comparison. For purposes of this analysis, Michigan's 2003 administration and training costs are displayed; no corresponding adjustment, however, has been made to national totals.

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