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Report to Congressional Committees

November 2011

MEDICAID

Prototype Formula Would Provide Automatic, Targeted Assistance to States during Economic Downturns

GAO-12-38

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Highlights

Highlights of GAO-12-38, a report to congressional committees

Why GAO Did This Study

In response to the recession of 2007, Congress passed the American Recovery and Reinvestment Act of 2009 (Recovery Act). Recovery Act funds provided states with fiscal relief and helped to maintain state Medicaid programs through a temporary increase to the federal share of Medicaid funding–the Federal Medical Assistance Percentage (FMAP)–from October 2008 through December 2010. In March 2011, GAO reported that states' ability to fund Medicaid was hampered due to increased Medicaid enrollment and declines in states' revenues that typically occur during a national downturn. The Recovery Act mandated that GAO provide recommendations for modifying the increased FMAP formula to make it more responsive to state Medicaid program needs during future economic downturns. In this report, GAO presents a prototype formula for a temporary increased FMAP and evaluates its effects on the allocation of assistance to states. To evaluate the three components of the prototype formula—starting assistance, targeting assistance, and ending assistance—GAO uses the 2007 recession.

What GAO Recommends

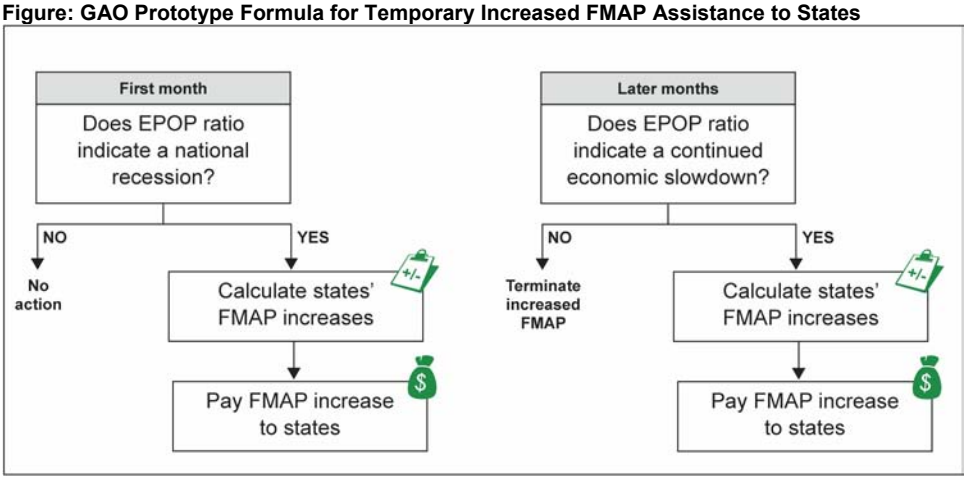
To ensure that federal funding efficiently and effectively responds to the countercyclical nature of the Medicaid program, Congress could consider enacting an increased FMAP formula that targets variable state Medicaid needs and provides automatic, timely, and temporary assistance in response to national economic downturns.

View GAO-12-38 or key components. For more information, contact Carolyn L. Yocom at (202) 512-7114 or yocomc@gao.gov; or Thomas J. McCool at (202) 512-2642 or mccoolt@gao.gov.

What GAO Found

GAO's prototype formula offers a timely and targeted option for providing states temporary Medicaid assistance during a national economic downturn. Once a threshold number of states—26 in GAO's prototype formula—show a sustained decrease in their employment-to-population (EPOP) ratio, temporary increases to states' FMAPs would be triggered automatically. The EPOP ratio compares the number of employed persons in a state to the working age population aged 16 and older. (See figure.) This assistance would end when fewer than the threshold number of states shows a decline in their EPOP ratio.

Figure: GAO Prototype Formula for Temporary Increased FMAP Assistance to States



Source: GAO.

Because the prototype formula relies on labor market data as an automatic trigger rather than legislative action, assistance would have begun earlier and extended longer than the assistance provided by the Recovery Act. The prototype formula would have triggered assistance to begin in January 2008 and end in September 2011, compared with the Recovery Act which provided an increased FMAP from October 2008 through June 2011. Once the increased FMAP is triggered, targeted state assistance would be calculated based on two components: (1) increases in unemployment, as a proxy for changes in Medicaid enrollment; and (2) reductions in total wages and salaries, as a proxy for changes in states' revenues.

GAO's prototype formula provides a baseline of funding for state Medicaid needs during an economic downturn by offering automatic, timely, and targeted assistance to states. Such assistance would facilitate state budget planning, provide states with greater fiscal stability, and better align federal assistance with the magnitude of the economic downturn's effects on individual states.

In commenting on a draft of this report, the Department of Health and Human Services (HHS) agreed with the analysis and goals of the report and emphasized the importance of aligning changes to the FMAP formula with individual state circumstances. HHS noted the complexity of the prototype formula and offered several considerations to guide policy choices regarding appropriate thresholds for timing and targeting of increased FMAP funds.

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Abbreviations

BEA	Bureau of Economic Analysis
EPOP	Employment-to-population
FMAP	Federal Medical Assistance Percentage
HHS	Department of Health and Human Services
NBER	National Bureau of Economic Research
PCI	Per capita income

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GAO
Accountability * Integrity * Reliability

United States Government Accountability Office
Washington, DC 20548

November 10, 2011

Congressional Committees

During economic downturns, states' employment and tax revenues typically fall as enrollment in the Medicaid program, a federal-state health financing program for low-income populations, tends to increase. The most recent national recession, as defined by the National Bureau of Economic Research (NBER), lasted from December 2007 through June 2009.[1] However, as of July 2011, 20 states and the District of Columbia continued to experience unemployment rates above 9 percent, and more than 13.9 million people were considered unemployed. State budget challenges—due to increased unemployment and lowered tax revenues—can persist well beyond the end of a recession.

To provide states with fiscal relief and to help maintain state Medicaid programs so beneficiaries are assured continuity of services during this most recent recession, the American Recovery and Reinvestment Act of 2009 (Recovery Act) provided states with $89 billion through an increased federal share of Medicaid funding from October 2008 through December 2010.[2] The federal funding states receive for Medicaid is determined by a statutory formula, the Federal Medical Assistance Percentage (FMAP). While the Medicaid FMAP formula was the mechanism used for delivering federal aid under the Recovery Act, the level of funding was intended to assist states with fiscal needs beyond Medicaid.[3] The Recovery Act also

[1]For this report, we use the term recession to refer to national recessions as defined by NBER. NBER identifies recessions on the basis of several indicators, including employment, sales in the manufacturing and trade sectors, and industrial production. A recession begins just after the economy reaches a peak of activity and ends as the economy reaches its lowest point.

[2]Pub. L. No. 111-5, Div. B. Tit. V, § 5001, 123 Stat. 115, 496 (2009). Increased FMAP funds were made available to states with the passage of the Recovery Act in February 2009; however, states could retroactively claim reimbursement for Medicaid expenditures that occurred as of October 1, 2008.

[3]While the increased FMAP funds available under the Recovery Act were for Medicaid services only, the receipt of these funds may reduce the funds that states would otherwise have to use for their Medicaid programs, and states have reported using these freed-up funds for a variety of purposes including support for general state budget needs. See GAO, *Recovery Act: Increased Medicaid Funds Aided Enrollment Growth, and Most States Reported Taking Steps to Sustain Their Programs*, GAO-11-58 (Washington, D.C.: Oct. 8, 2010).

mandated that we conduct an analysis of past national economic downturns, including the effects of any increased FMAP during these periods, and provide recommendations for modifying the increased FMAP formula to make it more responsive to state Medicaid program needs during future downturns.[4] The mandate specifically called for recommendations to improve the starting and ending of temporary assistance, and to account for variations in state economic conditions.

In a March 2011 report, we reviewed how past economic downturns affected states' ability to fund Medicaid, examined the responsiveness of past increased FMAP assistance to state Medicaid needs, and identified options for adjusting the increased FMAP formula for use during future economic downturns.[5] We found that past economic downturns hampered states' ability to fund increased Medicaid enrollment and maintain existing services, and that the Recovery Act assistance began during the national recession while nearly all states were experiencing Medicaid enrollment increases.[6] However, we also found that the increased FMAP funds provided through the Recovery Act did not distinguish among states with varying degrees of reduced revenue in the allocation of assistance. We outlined a prototype formula and key design decisions for modifying the FMAP that could improve its responsiveness to state Medicaid needs during an economic downturn. The formula was designed to provide assistance to states during periods of national economic downturns, not for downturns limited to an individual state or group of states.

[4]In a 2006 report, we provided options for Congress to consider when assisting states in their efforts to meet increased Medicaid expenditures resulting from national recessions. Among these options was a formula for providing a temporary increased FMAP to states during a national recession, a version of which Congress subsequently incorporated as part of the Recovery Act. See GAO, *Medicaid: Strategies to Help States Address Increased Expenditures during Economic Downturns*, GAO-07-97 (Washington, D.C.: Oct. 18, 2006).

[5]GAO, *Medicaid: Improving Responsiveness of Federal Assistance to States during Economic Downturns*, GAO-11-395 (Washington, D.C.: Mar. 31, 2011).

[6]In our March 2011 report, we reported that during and following the most recent national economic downturn, states implemented various Medicaid program cuts and other adjustments in order to balance their budgets. For example, 28 states reduced or froze provider payment rates; 22 states reported implementing or considering restrictions on optional benefits, such as eliminating dental and vision services; 38 states implemented cost-containment initiatives in the area of prescription drugs; and 18 states implemented utilization controls on long-term care services. See GAO-11-395.

In this report, we present additional detail on the prototype formula and simulations of its effects on the allocation of assistance to states. Our overall objective is to evaluate how our prototype formula would have responded during the most recent economic downturns. Our evaluation of the formula includes both the timing and targeting of funds for state Medicaid needs during a national economic downturn.[7] In keeping with the general framework provided in our past reports, we use the period of the most recent national economic downturn—from December 2007 through June 2009—to evaluate the three components of our prototype formula, including the start of assistance, the methods used to target funds based on states' Medicaid program needs, and the end of assistance. A detailed discussion of our scope and methodology is presented in appendix I.

In the development of our prototype formula we made a number of choices about specific elements of the formula design for the timing and targeting of funds. For example, in contrast to the Recovery Act, which provided funds for broad state fiscal relief in addition to supporting state Medicaid programs, our formula was calibrated to provide a baseline of funding only for state Medicaid needs during a downturn. However, this formula could be scaled up to address broader state needs or scaled down to meet only a portion of state Medicaid needs. A discussion of these and other alternative choices and considerations is presented in appendix II.

We conducted this performance audit from April 2011 to October 2011 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

[7]Timing refers to whether funds were provided when states most needed them. Targeting refers to whether the distribution of funds reflected different state needs for funding the cost of new Medicaid enrollees attributable to the recession and maintaining their existing Medicaid programs as states' revenues declined.

Background

Although every economic downturn reflects varied economic circumstances at the national level and among states, evaluations of prior federal fiscal assistance strategies have identified considerations to guide policymakers as they consider the design of future legislative responses to national economic downturns.[8] These include timing assistance so that aid begins to flow as the economy is contracting and targeting assistance based on the magnitude of the economic downturn's effects on individual states. To be effective at stabilizing state funding of Medicaid programs, assistance should be provided, or at least authorized, close to the beginning of a downturn.[9] Additionally, to be efficient, funds should be targeted to states commensurate with their level of need due to the downturn. States that experience greater stress in their Medicaid programs—due to increased enrollment or decreased revenues—should receive a larger share of aid than states less severely affected. In addition, economists at the Federal Reserve Bank of Chicago have described the ideal countercyclical assistance program as one having an automatically activated,[10] prearranged triggering mechanism that could remove some of the political considerations from the program's design and eliminate delays inherent in the legislative process.[11]

Past economic downturns hampered states' ability to fund their Medicaid programs, as Medicaid enrollment increased and tax revenues declined. Medicaid enrollment increases during and after national economic downturns, when the number of people with incomes low enough to

[8]GAO, *State and Local Governments: Knowledge of Past Recessions Can Inform Future Federal Fiscal Assistance*, GAO-11-401 (Washington, D.C.: Mar. 31, 2011).

[9]As we noted in our March 2011 report (GAO-11-395), starting assistance closer to the onset of an economic downturn could help states avoid program cuts. If states can anticipate assistance, the funds do not need to be received or "in the pipeline" in order to produce the desired effect on state fiscal behavior.

[10]Countercyclical aid, such as the Recovery Act's increased FMAP, is intended to assist states experiencing revenue declines and expenditure increases that are associated with economic downturns.

[11]R. Mattoon, V. Haleco-Meyer, and T. Foster, "Improving the impact of federal aid to the states," *Economic Perspectives*, vol. 34, no. 3 (2010).

qualify for coverage rises as state economies weaken.[12] States also experience declines in tax revenues as a result of declines in wages, salaries, and consumer spending. Most, if not all states are affected by national recessions, although the timing and duration of state economic downturns can vary. States have different industry mixes and resources, which can affect when they enter an economic downturn and when they recover. Therefore, some states may enter an economic downturn in the early stages of a national recession, while other states enter long after the recession has set in. The timing and depth of state economic downturns affects their ability to maintain their Medicaid programs.

Under the regular FMAP, the federal government pays a larger portion of Medicaid expenditures in states with low per capita income (PCI) relative to the national average, and a smaller portion for states with higher PCIs.[13] To provide states with fiscal relief and to help states meet additional Medicaid needs during the 2001 and 2007 economic downturns, Congress passed legislation temporarily increasing the FMAP for states. The FMAP is a readily available mechanism for providing temporary assistance to states because assistance can be distributed quickly, with states obtaining funds through Medicaid's existing payment system. The Recovery Act was the second time Congress temporarily increased the FMAP to provide fiscal relief to states during a national economic downturn. Following the 2001 recession, the Jobs and Growth Tax Relief Reconciliation Act of 2003 (Reconciliation Act) provided states $10 billion in assistance through an increased FMAP from April 2003

[12]States have some flexibility in the design of their Medicaid programs within broad federal parameters. For example, under federal law, states generally must enroll certain mandatory categories of individuals, which include pregnant women and children up to 6 years of age with family income at or below 133 percent of the federal poverty level (FPL), and children ages 6 to 19 with a family income at 100 percent or less of the FPL. States may choose to cover additional categories of individuals, such as pregnant women and infants between 133 and 185 percent of the FPL.

[13]In this report, we use the term regular FMAP to refer to the base FMAP, as defined under federal law, that is used to determine the percentage of federal assistance for most state Medicaid expenditures. We use the term increased FMAP to refer to temporary FMAP increases above the regular FMAP, as authorized under federal law, that provided states with additional Medicaid funding during national recessions. The regular FMAP is determined annually by a statutory formula designed to account for income variation across the states. See 42 U.S.C. § 1396d(b). For federal fiscal year 2011, the regular FMAP for states ranged from 50.00 percent to 74.73 percent. By statute, the minimum regular FMAP for a state is 50 percent and the maximum is 83 percent. The District of Columbia is not subject to this formula and instead has its FMAP set at 70 percent.

through June 2004. In August 2010, Congress extended the increased FMAP provided by the Recovery Act by providing states with an additional $16.1 billion in assistance from January through June 2011.[14]

In March 2011, we reported that overall the Recovery Act funds were better timed for state Medicaid funding needs than were funds provided following the 2001 recession;[15] assistance began during the recession while nearly all states were experiencing Medicaid enrollment increases and revenue decreases.[16] Nonetheless, 19 states implemented or proposed eligibility restrictions in response to the economic downturn prior to the passage of the Recovery Act some 15 months after the beginning of the national recession as identified by NBER.[17] In order to be eligible for Recovery Act funds, these states had to reverse the restrictions on eligibility to come into compliance with the Recovery Act's maintenance of eligibility requirements.[18]

The Recovery Act formula incorporated three components for calculating the increased FMAP: a hold-harmless provision that maintained each state's regular FMAP to at least its highest rate since fiscal year 2008; an across-the-board increase of 6.2 percentage points; and an additional increase in each state's FMAP based on a qualifying increase in the state's rate of unemployment.[19] In our March 2011 report we also reported that the unemployment-based component of the Recovery Act

[14]Pub. L. No. 111-226, Tit. II, Subtit. A, § 201, 124 Stat. 2389, 2393 (2010). In this report, we refer to this legislation as the Education, Jobs, and Medicaid Assistance Act.

[15]Reconciliation Act assistance was provided approximately six quarters after the recession ended and was not targeted based on state Medicaid needs.

[16]GAO-11-395.

[17]V.K. Smith et. al., "The Crunch Continues: Medicaid Spending, Coverage and Policy in the Midst of a Recession. Results from a 50-state Medicaid Budget Survey for State Fiscal Years 2009 and 2010," *Kaiser Commission on Medicaid and the Uninsured*, September 2009.

[18]To be eligible for the increased FMAP under the Recovery Act, states could not restrict their Medicaid eligibility standards, methodologies, or procedures more than those in place on July 1, 2008.

[19]The Education, Jobs, and Medicaid Assistance Act did not change the hold-harmless and unemployment provisions, but the across-the-board increase was reduced. Under the Recovery Act, each state's regular FMAP was increased 6.2 percentage points. Under the Education, Jobs, and Medicaid Assistance Act, the increase was 3.2 percentage points for the first quarter of 2011 and 1.2 percentage points for the second quarter of 2011.

formula targeted assistance to states with greater Medicaid enrollment growth as indicated by increases in their unemployment rate. However, the across-the-board increase and the hold-harmless components did not distinguish among states that experienced varying degrees of increased unemployment. (See app. III for more information about the Recovery Act's across-the-board and hold-harmless provisions.) Furthermore, none of the Recovery Act provisions distinguished among states with varying degrees of reduced revenue in the allocation of assistance.

The prototype formula we outlined in our March 2011 report provides a more targeted approach than the increased FMAP formula used in the Recovery Act. It also improves the responsiveness of assistance provided, in part by having an automatic trigger to begin and end assistance. In particular, we discussed mechanisms that (1) improve the timing for starting assistance, (2) better target for state needs, and (3) taper off the end of assistance. More responsive federal assistance can aid states in addressing increased Medicaid enrollment resulting from a national economic downturn, as well as addressing reductions in states' revenues. Improving targeting is essential to meet the goals of providing assistance to states in an efficient and effective manner.

Prototype FMAP Formula Offers Automatic, Timely, and Targeted Assistance

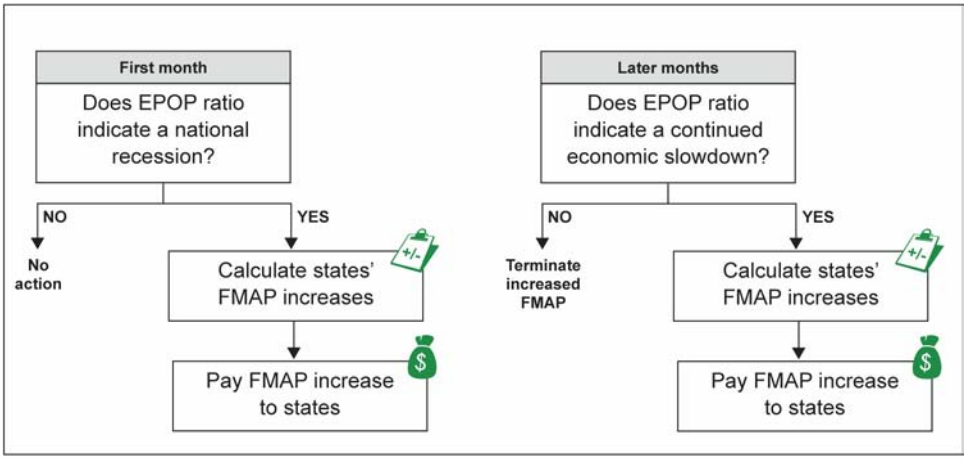
In response to the mandate, our prototype formula offers an automatic, timely, and targeted option for providing states temporary assistance during national economic downturns. Once a threshold number of states show a sustained decrease in their employment-to-population (EPOP) ratio,[20] temporary increases to states' FMAPs would be triggered automatically and targeted to each state's Medicaid program. Our prototype formula uses two targeting components: (1) unemployment, and (2) wages and salaries. The amount of Medicaid assistance states receive would be commensurate with their increases in unemployment and decreases in wages and salaries. The prototype formula would end the temporary assistance once fewer than the threshold number of states shows a decline in their EPOP ratio over 2 consecutive months.

[20]The employment-to-population ratio is the ratio of the number of jobs in a state to the working age population aged 16 and older. Our prototype formula identifies the start of a national recession and triggers assistance when 26 states show a decrease in their 3-month average EPOP ratio, compared to the same 3-month period in the previous year, over 2 consecutive months.

Prototype Formula Automatically Triggers Targeted Assistance to States

Our prototype formula uses the monthly EPOP ratio and a threshold number of states to identify the start of a national economic downturn, and to automatically trigger the start of the increased FMAP assistance. (See fig. 1.) The automatic trigger would use readily available economic data to begin assistance rather than rely on legislative action at the time of a future national economic downturn. Once the increased FMAP is triggered, targeted state assistance would be calculated based on (1) increases in state unemployment, as a proxy for increased Medicaid enrollment; and (2) reductions in total wages and salaries, as a proxy for decreased revenues for maintaining state Medicaid programs. The increased FMAP would end when the EPOP ratio indicated that less than the threshold number of states was in an economic downturn.

Figure 1: GAO Prototype Formula for Temporary Increased FMAP Assistance to States



Source: GAO.

Note: The employment-to-population (EPOP) ratio is the ratio of the number of jobs in a state to the working age population aged 16 and older. The Federal Medical Assistance Percentage (FMAP) is used to determine the percentage of federal assistance for most state Medicaid expenditures.

Under our prototype formula, states would have received increased Medicaid funding in response to each of the past three national recessions. For example, in response to the most recent national recession, states would have received up to 15 quarters of assistance that would have begun in January 2008 and extended through September

2011.[21] The total federal cost of this assistance for state Medicaid needs would have been approximately $36 billion. Table 1 provides information on when states would have received assistance in response to the past three national recessions under our prototype formula and the total cost of this assistance for state Medicaid needs.

Table 1: Estimated Prototype Formula Assistance Periods and Federal Costs during Recent National Recessions

National recession[a]	Prototype assistance period	Total quarters of increased FMAP	Total federal cost of assistance (in billions)
July 1990 – Mar. 1991	Apr. 1991 – Sep. 1992	6	$9
Mar. 2001 – Nov. 2001	July 2001 – Sep. 2004	13	17
Dec. 2007 – June 2009	Jan. 2008 – Sep. 2011	15	36

Source: GAO.

Note: The prototype formula was designed to provide support for state Medicaid needs only. Thus, the estimated cost of assistance under our formula is not directly comparable to the cost of assistance under the Recovery Act or the Reconciliation Act because the increased FMAPs provided through the acts were not limited to providing fiscal support to Medicaid.

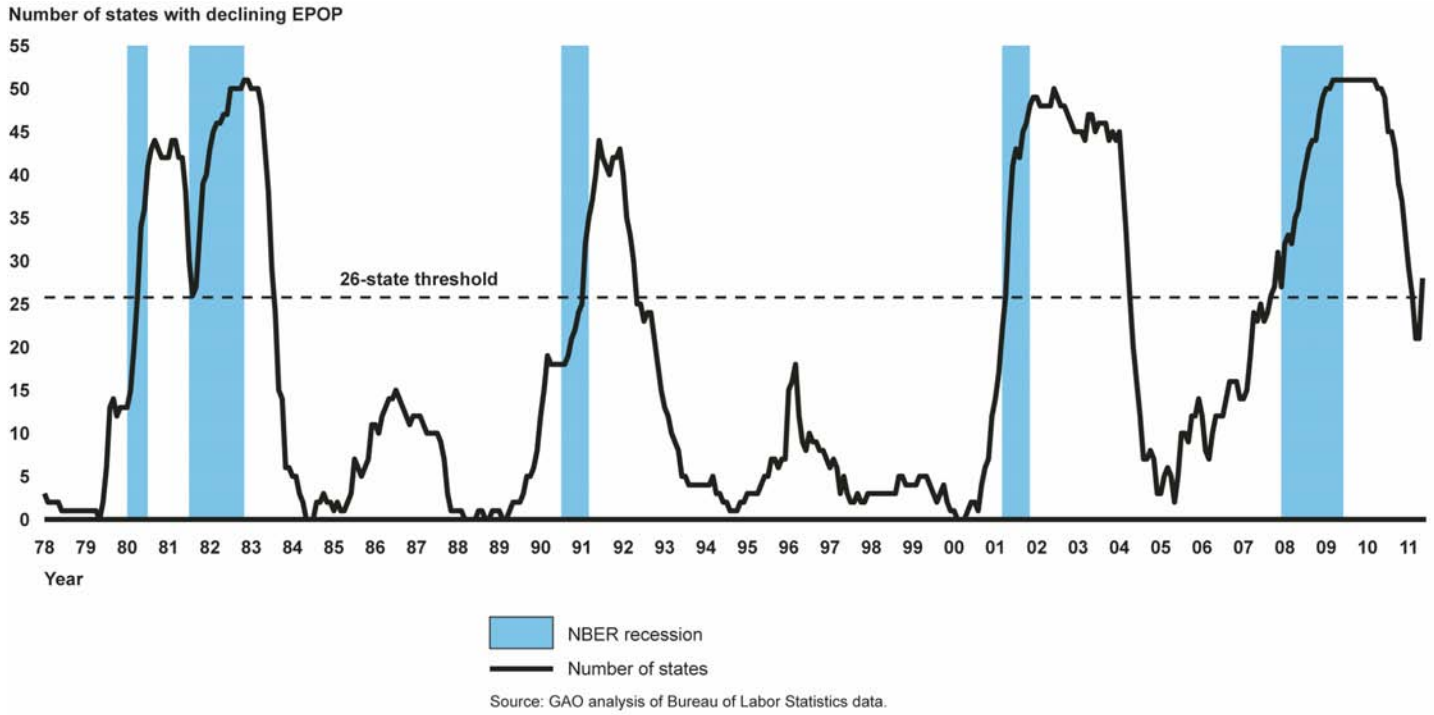
[a]National recession period as defined by the National Bureau of Economic Research.

Prototype Formula Provides Timely Notice of the Start of an Economic Downturn

Based on our simulations, the EPOP ratio is a reliable, timely indicator of the start of national economic downturns. At the start of each of the last five national recessions, as defined by NBER, we found a sharp increase in the number of states with declining EPOP ratios. A timely automatic trigger for temporary FMAP assistance would be based on a threshold number of states that show a decrease in their monthly EPOP ratio. We found the beginning of each of these recessions approximately coincided with 26 states having declining EPOP ratios. (See fig. 2.)

[21]Calculations are based on calendar year quarters. For example, the first quarter of 2008 is the 3-month period from January through March of 2008.

Figure 2: Number of States with Declining Employment-to-population Ratios (EPOP) by Year, 1978-2011



Source: GAO analysis of Bureau of Labor Statistics data.

Note: The National Bureau of Economic Research (NBER) identifies recessions on the basis of several indicators, including employment, sales in the manufacturing and trade sectors, and industrial production. A recession begins just after the economy reaches a peak of activity and ends as the economy reaches its lowest point.

Therefore, our prototype formula identifies the start of a national economic downturn when 26 states show a decrease in their 3-month average EPOP ratio, compared to the same 3-month period in the previous year, over 2 consecutive months.[22] For the most recent national recession, our prototype would have identified the beginning of the downturn in October 2007 (i.e., the fourth quarter of 2007) and triggered temporary assistance to states beginning in January 2008 (the first

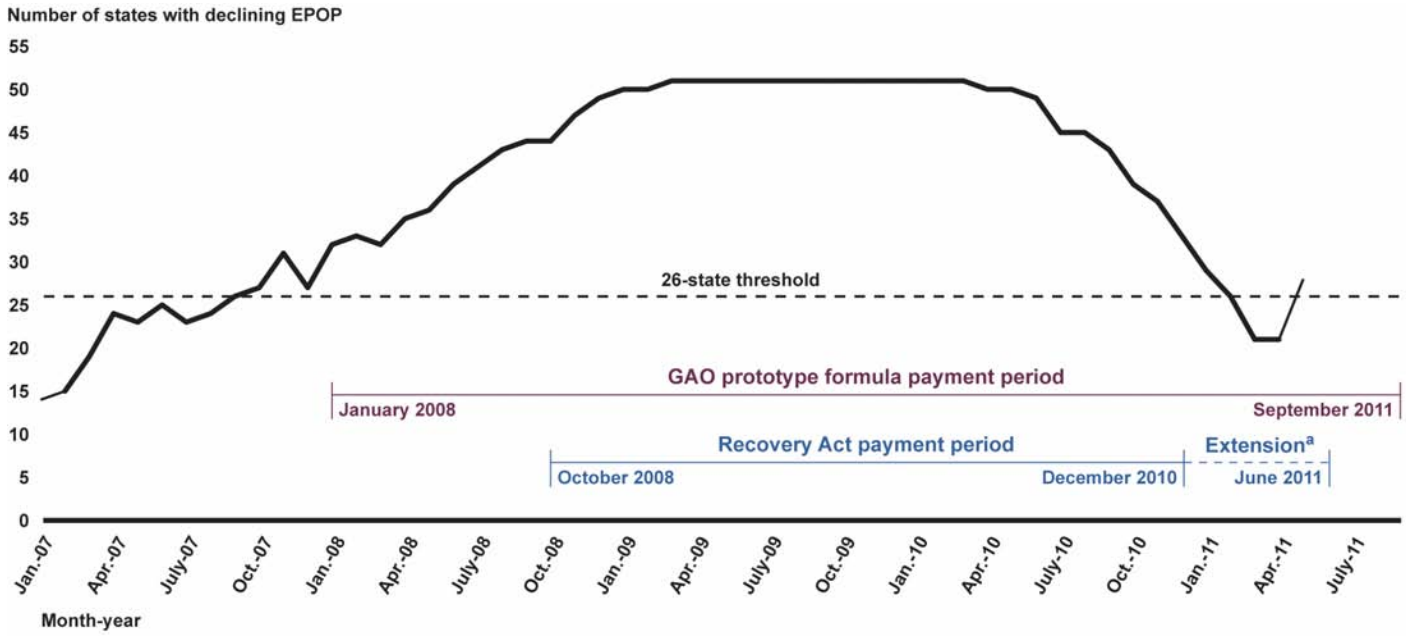
[22]For example, in our calculation the EPOP ratio for October 2007 is an average of 3 consecutive months, August to October, of the EPOP ratio. This ratio is calculated for each state. The difference in the October 2007 EPOP ratio and the corresponding ratio in the prior year, October 2006, is calculated and the number of states showing a decline in their EPOP ratio is counted. If the number of states having declining EPOP ratios exceeds 25 for 2 consecutive months, then the program would commence.

quarter of 2008).[23] (See fig. 3.) The increased FMAP payments to states would begin in the first calendar quarter following the quarter in which the EPOP measure indicated the start of an economic downturn. The period of temporary assistance would end after the 26-state threshold is no longer met. In the case of our prototype, the end would have been triggered in April 2011 and would make the third quarter of 2011 the last quarter of the assistance period. The last quarter of payment would be the first calendar quarter following the quarter in which the EPOP threshold was no longer met for 2 consecutive months. The threshold trigger may need to be adjusted periodically, however, because the EPOP ratio is projected to slowly drift downward over the next 30 years due to the aging of the population.[24]

[23]This compares with the NBER's December 2008 announcement that the recession began in December 2007. Congress subsequently passed the Recovery Act in February 2009 and provided assistance retroactive to October 2008. In September 2010, NBER announced the end of the recession as of June 2009.

[24]The employed share of the population under conditions of full employment will probably decrease as the retired share increases. This change is expected to be slow and gradual. Even so, failure to account for any such drift could cause the trigger to activate the program too quickly. We think it advisable for the EPOP trigger mechanism proposed here to be periodically adjusted to remove the impact of long-run, national demographic trends.

Figure 3: Number of States with Declining Employment-to-population Ratios (EPOP) by Month, 2007-2011



Source: GAO analysis of Bureau of Labor Statistics data.

[a]The Education, Jobs and Medicaid Assistance Act (2010) extended the Recovery Act increased FMAP providing two additional quarters of assistance from January through June 2011.

If our EPOP measure had been used to determine the beginning and end of assistance during the most recent national recession, temporary increased FMAP assistance would have been provided for a total of 15 quarters, from the first quarter of 2008 (January-March) through the third quarter of 2011 (July-September). This compares to an 11-quarter assistance period under the Recovery Act (9 quarters) and extension (2 quarters), from the fourth quarter of 2008 (October-December) through the second quarter of 2011 (April-June). Because our prototype formula relies on readily available labor market data to automatically trigger the beginning and end of the increased FMAP, assistance would have begun earlier and extended longer than that provided by the Recovery Act during the most recent national recession. As with the Recovery Act, relying on NBER to obtain sufficient data to identify the beginning of a national recession and then providing fiscal assistance through the legislative process results in a time lag before aid is available; the Recovery Act was passed in February 2009, nearly 5 quarters after the national recession began in December 2007.

Prototype Formula Targets Assistance Based on Increased Enrollment and Losses in Revenue

States' efforts to fund Medicaid during an economic downturn face two main challenges: financing increased enrollment and replacing lost revenue. To assist states in addressing both challenges, our prototype formula includes two components for targeting funding: one for a state's increase in unemployment as a proxy for increased Medicaid enrollment, and a second for a state's decrease in total wages and salaries as a proxy for the loss of revenue. The total assistance for a state would be the sum of the employment- and wage-based components.

Unemployment-based assistance

Our prototype formula provides states with a reduction in their financial contribution for Medicaid proportional to their increase in unemployment during the national economic downturn. This component is based on data showing a 1 percentage point increase in a state's unemployment rate produces approximately a 1 percent increase in state Medicaid spending due to increased enrollment.[25] The unemployment rate change used to calculate assistance for a given quarter is the unemployment rate for that quarter compared to the lowest unemployment rate in the prior 8 calendar quarters. As shown in the formula below, the unemployment-based FMAP increase (FMAP $increase_U$) for a given quarter is the product of the state share of Medicaid (100-FMAP) and the change in the unemployment rate (UR).

$$\text{FMAP increase}_U = (100\text{-FMAP}) * \Delta UR$$

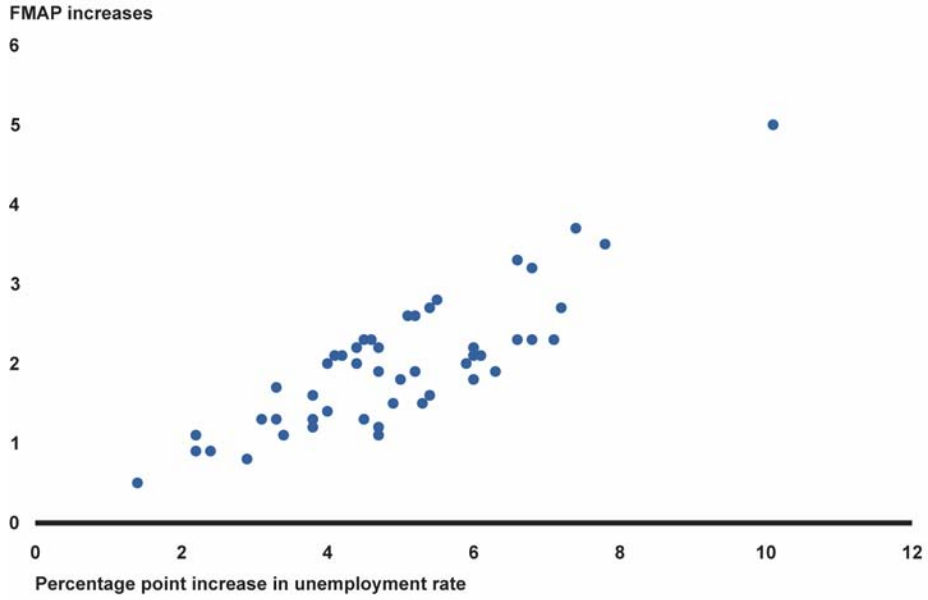
For example, under our prototype formula, a 10 percentage point increase in the unemployment rate would result in a 10 percent decrease in the state share of Medicaid. If a state had a 60 percent FMAP, and a 40 percent state share, the state share would fall by 4 percentage points (40 percent multiplied by 10 percent) to 36 percent, and commensurately its FMAP would rise to 64 percent.

Figure 4 illustrates the targeting of FMAP increases the formula would have provided to states based on their increases in unemployment during

[25] J. Holahan and A. Garrett, "Rising Unemployment, Medicaid and the Uninsured," Kaiser Commission on Medicaid and the Uninsured (Washington, D.C.: January 2009). Holahan and Garrett report that a 1 percentage point increase in the unemployment rate is associated with about a $1.5 billion increase in the state share of Medicaid spending which is about 1.0 percent increase in state spending on Medicaid.

the fourth quarter of 2009 (October-December). It indicates a strong proportional relationship between the FMAP increases and increases in unemployment. During the fourth quarter of 2009, FMAP increases due to changes in unemployment ranged from a low of 0.52 percentage points in North Dakota, which had a 1.4 point increase in the unemployment rate, to a high of 5.03 percentage points in Nevada, which experienced a 10.1 percentage point rise in unemployment. (See table 5 in app. IV for the state-by-state data on which this simulation is based, and the state-by-state results of the simulation.)

Figure 4: Increase in Unemployment Rate and Increased Federal Medical Assistance Percentages by State, GAO formula (2009, 4th quarter)



Source: GAO analysis of Bureau of Labor Statistics data.
Note: Data include 50 states and the District of Columbia.

Wage- and salary-based assistance

Our prototype formula provides states with a separate reduction in their financial contribution for Medicaid that is proportional to their decrease in wages and salaries during the economic downturn. This component is based on data showing that a 1 percent decrease in total state wages and salaries corresponds to approximately a 1 percent decrease in state tax

revenues.[26] The total state wage and salary level used to calculate assistance for a given quarter is the total wage and salary level for that quarter compared to the highest wage and salary level in the prior eight quarters, expressed as a percent change. As shown in the formula below, the wage-based FMAP increase (FMAP increase$_W$) for a given quarter is the product of the state share of Medicaid (100-FMAP) and the percent change in total state wages and salaries (%ΔW).

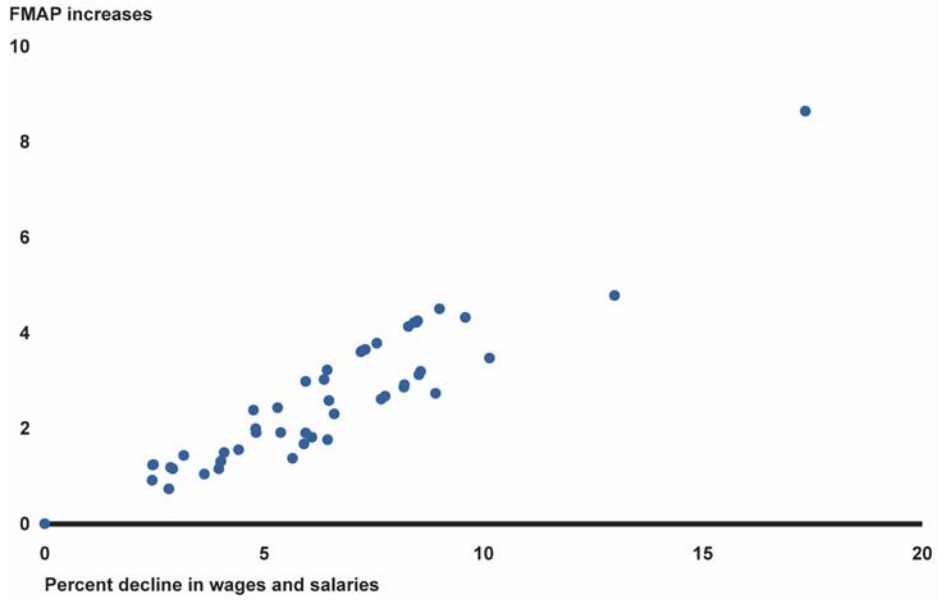
$$\text{FMAP increase}_W = (100\text{-FMAP}) * \ \%\Delta W$$

For example, under our prototype formula, a 20 percent decline in state wages and salaries would result in a 20 percent decrease in the state share of Medicaid. If a state had a 60 percent FMAP, and therefore a 40 percent state share, the state share would fall by 8 percentage points (40 percent multiplied by 20 percent) to 32 percent, and its FMAP would rise to 68 percent.

Figure 5 illustrates the FMAP increases our prototype formula would have provided to states based on their decreases in wages and salaries during the fourth quarter of 2009 (October-December). It indicates a strong proportional relationship between the FMAP increases and decreases in wages and salaries, as the formula was designed to do. During the fourth quarter of 2009, FMAP increases due to declines in state wages and salaries would have ranged from a high of 8.64 percentage points in Nevada, which experienced a 17.3 percent decline in wages and salaries, to a low of 0.0 in three states—Alaska, the District of Columbia, and North Dakota— which experienced no decline in wages and salaries during the period. (See table 5 in app. IV for the state-by-state data on which this simulation is based, and the state-by-state results of the simulation.)

[26]GAO, *State and Local Governments: Knowledge of Past Recessions Can Inform Future Federal Fiscal Assistance*, GAO-11-401 (Washington, D.C.: Mar. 31, 2011), pp. 48-49.

Figure 5: Decrease in Total State Wages and Salaries and Increased Federal Medical Assistance Percentages by State, GAO Formula (2009, 4th quarter)



Source: GAO analysis of Bureau of Economic Analysis data.
Note: Data include 50 states and the District of Columbia.

Total increased FMAP assistance

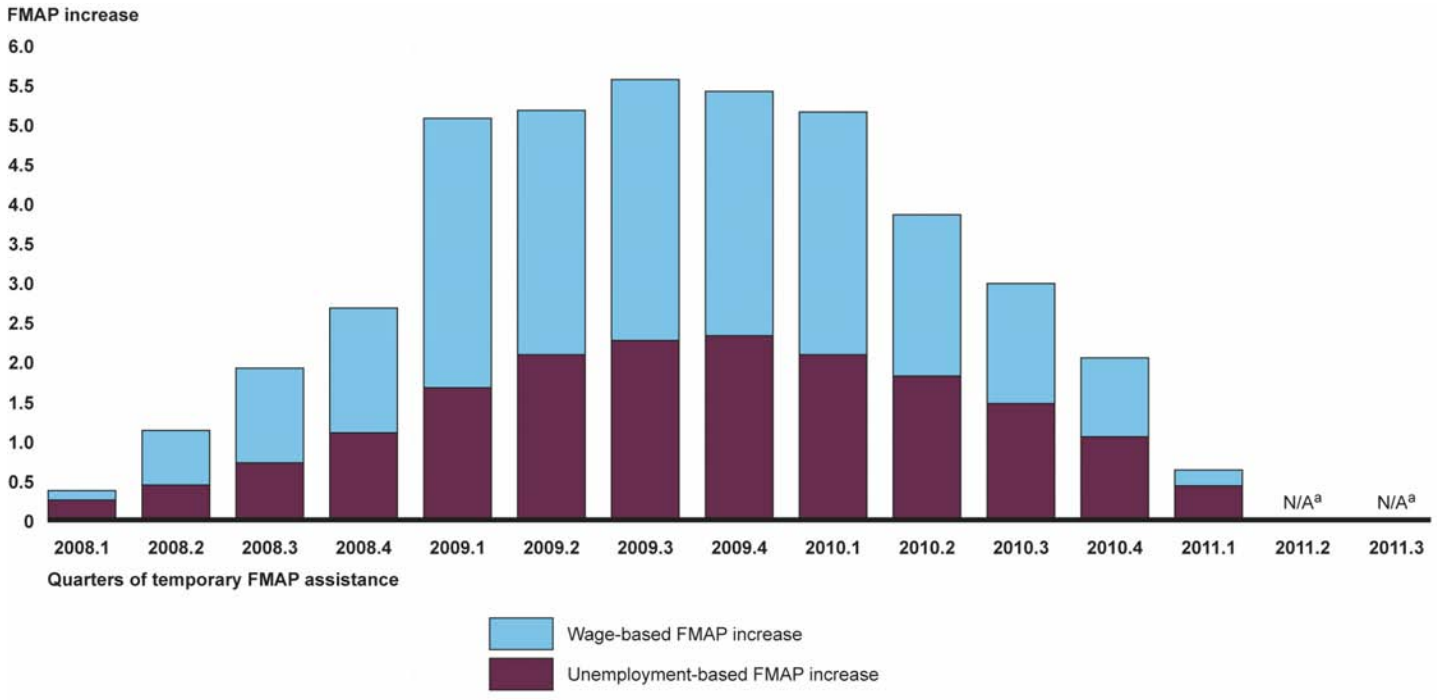
The total FMAP increase a state would receive for a given quarter would be the sum of the FMAP increases for the unemployment-based and wage-based components.

$$\text{FMAP increase}_{\text{Total}} = \text{FMAP increase}_{U} + \text{FMAP increase}_{W}$$

For example, during the fourth quarter of 2009, Nevada would have received the largest total FMAP increase of 13.68 percentage points, combining its 5.03 percentage point unemployment increase and 8.64 percentage point wage-based increase; its FMAP would have increased from 50.16 to 63.84. North Dakota would have received the smallest total increase of 0.52 percentage points, combining its 0.52 percentage point increase for unemployment and 0.00 percentage point increase for wage declines; its FMAP would have increased from 63.01 to 63.53.

As shown in figure 6, the national average increased FMAP for both the unemployment-based and wage-based components combined is less than 1 percentage point during the first quarter of the assistance period. It rises to 5.6 percentage points in the third quarter of 2009 (July-September) and begins to fall beginning in the fourth quarter of 2009 (October-December). State Medicaid needs resulting from declining revenues exceed state Medicaid needs due to increased Medicaid enrollment through most quarters of the economic downturn. Consequently, the wage-based FMAP increase exceeds the unemployment-based increase through most quarters of the assistance period. Tables 6 and 7 in appendix IV present the results of a simulation of the total temporary increased FMAP provided by our prototype formula by quarter, by state, in response to the most recent national economic downturn.

Figure 6: Total Weighted National Average FMAP Increase by Component, GAO Formula Assistance Period, by Quarter, 2008-2011



Source: GAO.

[a]Data for these quarters are not yet available.

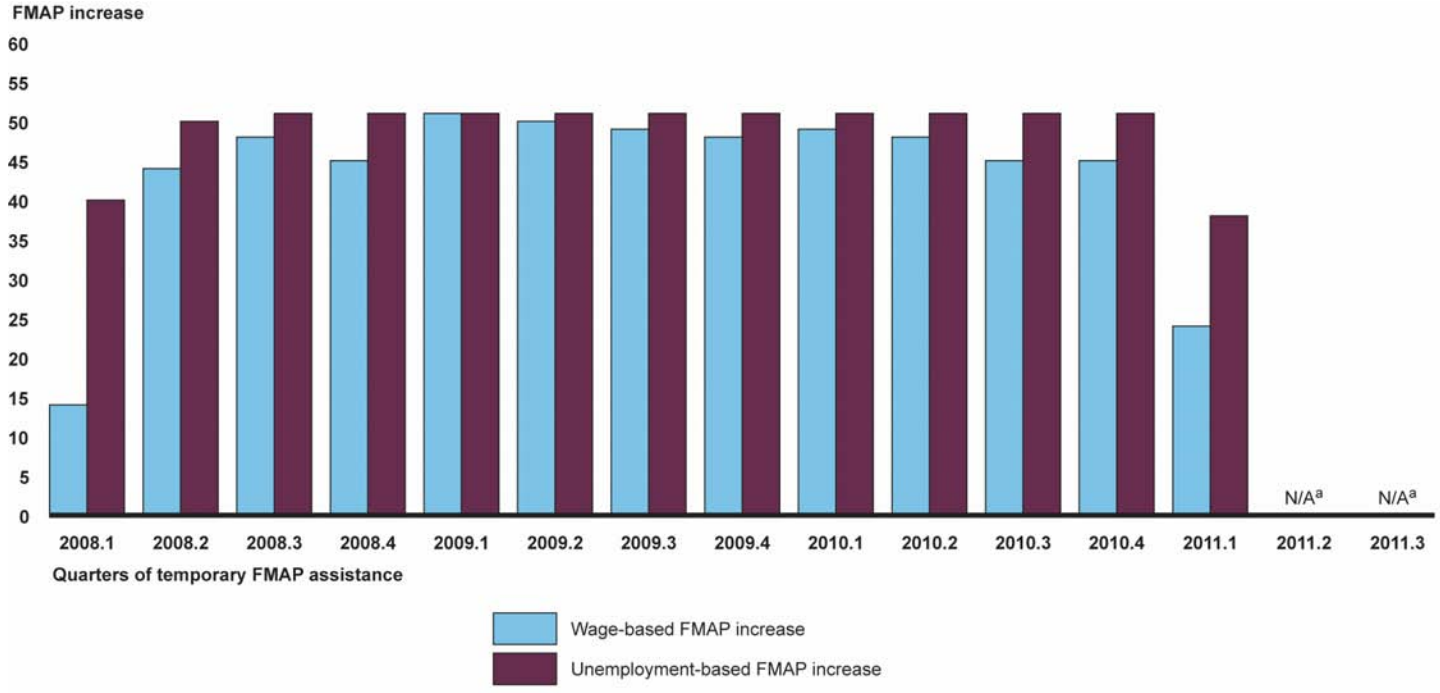
Note: Data in figure represent a weighted national average increased Federal Medical Assistance Percentage (FMAP) for all states where the weights are states' shares of Medicaid expenditures. A weighted average accounts for the wide differences in state size, and the wide differences in the amount of Medicaid expenditures among states, by giving greater weight to the FMAPs of those states with a larger share of the nation's Medicaid expenditures.

For a given quarter, a state could receive an unemployment-based increase, a wage-based increase, both, or neither, depending on its need. Therefore, not every state would receive an unemployment-based or a wage-based increase in every quarter. As shown in figure 7, for the first quarter of 2008, 40 states would have received assistance based on an increase in unemployment, and 14 states would have received assistance based on a decline in wages.[27] However, the majority of states would

[27]A total of 41states and the District of Columbia would have received some assistance in the first quarter of 2008, either a wage-based increase only (2 states), an unemployment-based increase only (27 states and the District of Columbia), or both (12 states). Nine states would have received no increase.

have received increases for both components during most quarters of the assistance period.

Figure 7: Number of States with Unemployment-based and Wage-based FMAP Increases, GAO Formula Assistance Period, by Quarter, 2008-2011



Source: GAO.

[a]Data for these quarters are not yet available.

Temporary FMAP Assistance Would End Gradually under Prototype Formula

Under our prototype formula, temporary FMAP assistance to states would be triggered off when fewer than 26 states show a decline in their monthly EPOP ratio over 2 consecutive months. Once the program is triggered off, there are a number of ways in which the decrease in FMAP could be introduced to ease states' transition back to the regular FMAP.[28]

Under our prototype formula, states would have a more gradual transition back to their regular FMAP once temporary assistance ended than under the Recovery Act or the Reconciliation Act. First, our prototype formula does not include an across-the-board or hold-harmless provision, as provided by the Recovery Act and the Reconciliation Act. Therefore, states would not be faced with an abrupt loss of a large amount of assistance under our prototype formula. Second, because of the way that our formula generates the unemployment-based and wage-based increases, the increased FMAP generally declines toward the end of the assistance period.[29] As a result, for most states, the drop in FMAP once temporary assistance ended would be modest compared to the Recovery Act. For example, under our prototype, if the first quarter of 2011 would have been the last quarter of assistance during the most recent economic downturn, the average drop in FMAP would have been 0.54 percentage points, ranging from 0.00 in seven states to 4.16 in Nevada.[30] Only seven states would have faced a drop in FMAP of greater than 1 percentage point. In contrast, under the Recovery Act and extension, the average drop in FMAP after the end of assistance in the second quarter of 2011 was 6.2 percentage points, ranging from 10.8 in Hawaii to 4.4 in

[28]For example, when the Recovery Act's increased FMAP assistance ended, many states faced a large drop in their FMAPs when returning to their regular FMAPs. Congress passed a two-quarter extension to the Recovery Act, which eased states' transition back to the regular FMAP. States continued to receive the hold-harmless component and unemployment-based increases for two additional quarters, but the across-the-board increase was reduced from 6.2 to 3.2 percentage points in the first extension quarter and to 1.2 in the final quarter.

[29]For example, the "base quarter" used to calculate the increase in unemployment would be redetermined each quarter by a retrospective assessment of the last eight quarters. Except for some states entering the downturn late, this redetermination might result in a newly designated base quarter with higher unemployment that would lessen the increase in unemployment rate used to calculate assistance in a quarter. In contrast, the Recovery Act allowed states to use any quarter after January 1, 2006, as the base quarter used to calculate the increase in unemployment.

[30]Although our formula would extend assistance through the third quarter of 2011, data were not available to calculate the actual change in FMAP at the end of the assistance period. We relied on data from the first quarter of 2011 for this illustration.

Kentucky; thus, all states experienced a drop in FMAP of over 4 percentage points.

Conclusions

Since its inception, efforts to finance the Medicaid program have been at odds with the cyclical nature of its design and operation, particularly during economic downturns. At such times, states typically experience increased Medicaid enrollment while at the same time their own revenues are declining. During the two most recent recessions, Congress acted to provide states with a temporary increase in federal funds through an increased FMAP. However, these efforts to provide states with increased FMAP assistance during national recessions were not as responsive to state Medicaid needs as they could have been. Legislative action at the time of a recession has not been as timely as an automatic response to changing economic conditions. Such a mechanism would reduce the time between the start of the economic downturn and the beginning of assistance by, in part, eliminating the lag between recognition of the economic downturn and congressional action to authorize assistance. By providing this predictability to states, an automatic trigger would facilitate budget planning and provide states with greater fiscal stability. Similarly, targeting assistance based on each state's level of need ensures that federal assistance is aligned with the magnitude of the economic downturn's effects on individual states.

The prototype formula we present offers an option for providing automatic, timely, and targeted assistance to states during a national economic downturn. As called for in the mandate, our prototype formula improves the starting and ending of assistance, accounts for variations in state economic conditions, and responds to state Medicaid needs by providing a baseline for full funding of state Medicaid needs during a downturn. However, the level of funding and other design elements—such as the choice of thresholds for starting, ending, and targeting assistance—are variables that policymakers could adjust depending on circumstances such as competing budget demands, macroeconomic conditions, and other state fiscal needs beyond Medicaid.

Matter for Congressional Consideration

To ensure that federal funding efficiently and effectively responds to the countercyclical nature of the Medicaid program, Congress could consider enacting an FMAP formula that is targeted for variable state Medicaid needs and provides automatic, timely, and temporary increased FMAP assistance in response to national economic downturns.

Agency Comments and Our Evaluation

We provided a draft of this report for review to the Department of Health and Human Services (HHS). HHS on behalf of the Centers for Medicare & Medicaid Services (CMS) and the Office of the Assistant Secretary for Planning and Evaluation (ASPE) provided written comments on the draft, which are reprinted in appendix V.

CMS officials stated that they agreed with the analysis and goals of the report, and they emphasized the importance of aligning changes to the FMAP formula as closely as possible to individual state circumstances in order to avoid unintended consequences for beneficiaries and to provide budget planning stability for states. However, they stated that the complexity of the prototype formula we present may be difficult for states and the federal government to implement, and the quarter-to-quarter variability of the increased FMAP could present challenges for state and federal budget planning. We note that the level of complexity and variability in our prototype is comparable to the increased FMAP provided under the Recovery Act. While there are inherent trade-offs between precision and complexity in any model, a certain level of complexity is necessary to achieve the goal of better targeting assistance in order to align the level of funding with individual state circumstances.

CMS officials also stated that they do not recommend using the formula to provide general fund relief to states through the Medicaid program. Our prototype formula is designed for state Medicaid needs only. However, since Congress has used the increased FMAP for general fund relief in the past, most recently under the Recovery Act, we present several modifications that would permit increased funding to states for general fund relief.

In their comments, ASPE officials noted that the prototype formula is designed for a national recession that impacts many states, but it does not deal with more regional economic declines or slower recoveries that are geographically concentrated. We agree that our prototype formula was not designed for economic downturns limited to an individual state or group of states, and we note this limitation in the report. As the mandate specifically called for recommendations to address the needs of states during periods of national economic downturn, such an analysis is beyond the scope of this report.

ASPE officials also commented that having an automatic trigger for the temporary increased FMAP was a good idea. Further, ASPE agreed that our use of the employment-to-population ratio (EPOP) is a better measure for beginning assistance than the unemployment rate because the EPOP ratio reflects both unemployed and discouraged workers. ASPE officials also suggested that the EPOP ratio may be a better measure than unemployment for assessing state need and targeting assistance. We relied in part on unemployment for targeting, however, because there is an established relationship between changes in the unemployment rate and Medicaid enrollment.

ASPE officials also noted that the relationship between unemployment and Medicaid enrollment may change in the future following full implementation of the Patient Protection and Affordable Care Act of 2010 (PPACA). We agree that the implementation of this act will have implications for the relationship between unemployment and Medicaid enrollment, particularly since an estimated 18 million additional individuals could qualify for Medicaid under PPACA. Such an analysis, however, was beyond the scope of our report, but formula elements could be adjusted to take these changes and effects into account.

In their comments, ASPE officials also offered several considerations to guide policy choices regarding appropriate thresholds for timing and targeting of funds. We would note that in the development of our prototype formula and our illustrative simulations, we made a number of choices about specific elements of the formula design, including thresholds for timing and targeting. Alternatives to those design choices—such as those we present in appendix II of our report—involve balancing the advantages of one choice against another.

We are sending copies of this report to the Secretary of HHS, the Administrator of the Centers for Medicare & Medicaid Services, and other interested parties. In addition, the report will be available at no charge on the GAO Web site at http://www.gao.gov.

If you or your staffs have questions about this report, please contact Carolyn L. Yocom at (202) 512-7114 or yocomc@gao.gov or Thomas J. McCool at (202) 512-2642 or mccoolt@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Major contributors to this report are listed in appendix VI.

Carolyn L. Yocom
Director, Health Care

Thomas J. McCool
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List of Committees

The Honorable Daniel K. Inouye
Chairman
The Honorable Thad Cochran
Vice Chairman
Committee on Appropriations
United States Senate

The Honorable Max Baucus
Chairman
The Honorable Orrin G. Hatch
Ranking Member
Committee on Finance
United States Senate

The Honorable Joseph I. Lieberman
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The Honorable Harold Rogers
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The Honorable Darrell Issa
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Committee on Oversight and Government Reform
House of Representatives

Appendix I: Scope and Methodology

To evaluate the performance of the prototype formula, we examined the timing and targeting of the formula, and we simulated its application over the period of the most recent national economic downturn. We also considered the effects of using alternative design choices, and these are discussed in appendix II.

Our prototype formula relies on changes in the employment-to-population (EPOP) ratio to identify the start of a national economic downturn, and to provide a trigger for a targeted temporary increase in states' Federal Medical Assistance Percentage (FMAP). We define the EPOP ratio as the ratio of the number of jobs to the working-age population aged 16 and older. Employment data are represented by the number of jobs by state, and come from the Bureau of Labor Statistics' Current Employment Statistics.[1]

To simulate the use of the EPOP ratio to identify the start of a national economic downturn and trigger temporary FMAP assistance, we calculated a 3-month moving average of the EPOP ratio starting in March 1977 through May 2011 for each state and the District of Columbia.[2] This time period covered the last five national recessions as defined by the National Bureau of Economic Research (NBER). To calculate the decline in EPOP, we subtracted the EPOP 3-month moving average for a given month from the average for the same month in the preceding year. For example, for each state, the EPOP ratio's 3-month moving average for May 2011 was subtracted from the average for May 2010. We identified a threshold number of states with declining EPOP ratios that was consistent with the start of each of the last five NBER recessions. Our prototype formula is designed to provide assistance during periods of national economic downturn; it is not designed for economic downturns limited to an individual state or region.

[1]Specifically, data on the number of jobs by state come from State and Metro Area Employment, Hours, & Earnings from the Bureau of Labor Statistics. Data for the working-age population by state come from the Local Area Unemployment Statistics from the Bureau of Labor Statistics. These data are available with a 2-month lag. For example, state employment and population data for July are available by the end of August.

[2]For any month, the 3-month moving average is calculated as the average of that month and the values in the 2 preceding months. A moving average (sometimes called a "rolling average") is a calculation used to smooth fluctuations in data.

To simulate the targeting of temporary increased FMAP assistance to states, we calculated increased FMAPs under our prototype formula during the most recent national economic downturn. (The period of targeted increases in FMAPs is defined by the EPOP "trigger.") As outlined in our March 2011 report, we used increases in states' unemployment rates and declines in states' wages and salaries as indicators of states' increased funding needs for Medicaid. The increased needs result from (1) increased Medicaid enrollments as people are affected by the economic downturn and become eligible for Medicaid; and (2) states' revenue losses, which affect their ability to fund their share of Medicaid. To avoid taking into account states' choices regarding Medicaid policies and procedures, we used increases in state unemployment rates as a proxy to indicate Medicaid enrollment growth attributable to the economic downturn—our unemployment component. Similarly, to avoid taking into account state policy choices (e.g., statutory tax rates), we used decreases in wages and salaries as a proxy to indicate revenue losses attributable to effects of the economic downturn—our wage and salary component.

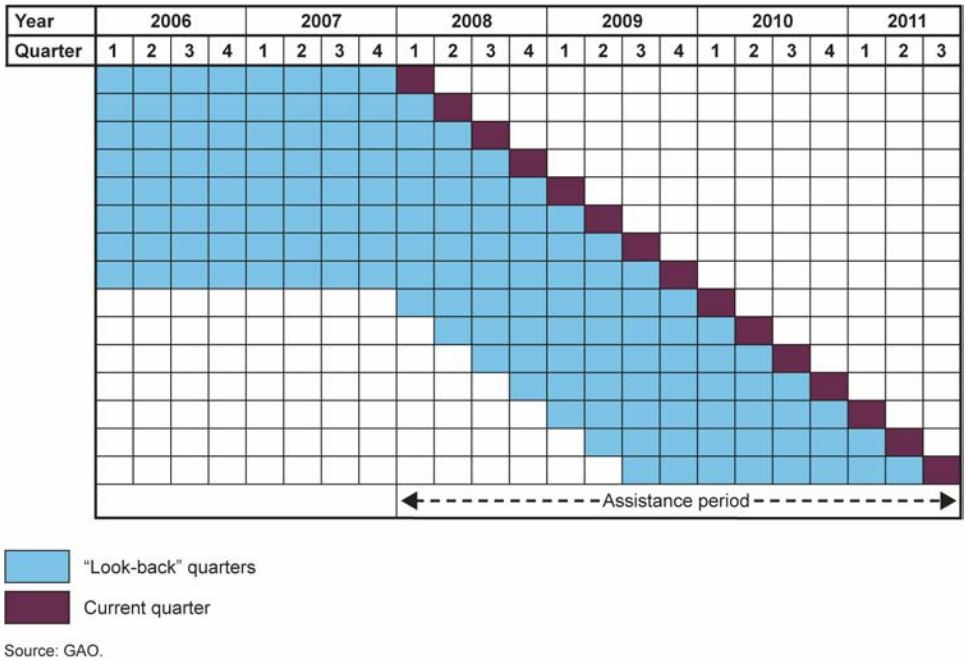
Our calculation of targeted assistance to every state is done on a quarterly basis, and the total increase in FMAP is the sum of amounts calculated separately under the unemployment component, and the wage and salary component. The overall method involves first selecting for each state a "base quarter" from which increases in unemployment and decreases in wages and salaries are calculated. While individual states may experience many factors or trends that contribute to increases or decreases in their unemployment rate or wages and salaries, such as changes over time in the mix of industries in a state, we determined that accounting for such factors for each state would make the prototype formula too complex. Thus, the formula is based on the assumption that all increases in unemployment or decreases in wages during the period of assistance are attributed to the effects of the economic downturn.

For the unemployment component, when the program is triggered on, a base quarter is identified for each state by looking back over 8 quarters from the current quarter and selecting the quarter with the lowest unemployment rate.[3] For the first 8 quarters of the program, the amount

[3]The state unemployment rates by quarter are calculated by dividing a 3-month average of the seasonally adjusted number of persons unemployed by a comparable 3-month average number in the labor force. Data are from the BLS' Local Area Unemployment Statistics.

of assistance for each quarter is calculated based on the difference between the unemployment rate in this low base quarter and the rate in the current quarter. After the first 8 quarters of assistance, the state's increase in unemployment is calculated using the unemployment rate in the current quarter minus the lowest unemployment rate in the previous 8 quarters. As shown in figure 8, the start of the look-back period remains fixed for the first 8 quarters of assistance; thereafter, the look-back period is limited to the prior 8 quarters. For example, in the fourth quarter of 2009, the look-back period extends for 15 quarters; however, beginning in the first quarter of 2010, the look-back period is limited to the prior 8 quarters.

Figure 8: Look-back period for Calculation of Unemployment-based and Wage-based Federal Medical Assistance Percentage Increases



Source: GAO.

Under the unemployment component of the prototype, the increase in unemployment provides states with a reduction in their financial contribution for Medicaid that is proportional to their increase in unemployment over the base quarter. A 1.0 percentage point increase in a state's unemployment rate corresponds to an increase in Medicaid

enrollment, which produces a 1 percent increase in state Medicaid spending.[4] As shown in the formula below, the unemployment-based FMAP increase (FMAP $increase_U$) for a given quarter is the product of the state share of Medicaid (100-FMAP) and the change in the unemployment rate (UR).

$$FMAP\ increase_U = (100\text{-}FMAP) * \Delta UR$$

For example, under our prototype formula, a 10 percentage point increase in the unemployment rate would result in a 10 percent decrease in the state share of Medicaid. If a state had a 60 percent FMAP, and a 40 percent state share, the state share would fall by 4 percentage points (40 percent multiplied by 10 percent) to 36 percent, and commensurately its FMAP would rise to 64 percent.

For the prototype formula's wages and salaries component, the base quarter is again found for each state by looking back over eight quarters when the temporary assistance begins. The base quarter selected is the quarter with the peak value in wages and salaries. For the first eight quarters of the program, the amount of assistance for each quarter is calculated based on the difference between the total state wages and salaries in the peak quarter and the total state wages and salaries in the current quarter. After the first eight quarters of assistance, the state's decrease in wages and salaries is calculated using the peak total wages and salaries in the previous eight quarters minus the wages and salaries in the current quarter. As with the unemployment component, the start of the look-back period remains fixed for the first eight quarters of assistance; thereafter, the look-back period is limited to the prior eight quarters.

Our prototype formula provides states with a separate reduction in their financial contribution for Medicaid that is proportional to their decrease in wages and salaries during the economic downturn. This component is

[4]J. Holahan and A. Garrett, "Rising Unemployment, Medicaid and the Uninsured," Kaiser Commission on Medicaid and the Uninsured (Washington, D.C.: January 2009). Holahan and Garrett report that a 1 percentage point increase in the unemployment rate is associated with about a $1.5 billion increase in the state share of Medicaid spending, which is about 1.0 percent increase in state spending on Medicaid.

based on evidence showing a 1 percent decrease in total state wages and salaries corresponds to a 1 percent decrease in state tax revenues.[5] For the purposes of our formula we assume a reduction in state tax revenues corresponds to an equal percent reduction in the funds available for funding the state share of Medicaid. The total state wage and salary amount used to calculate assistance for a given quarter is the total wage and salary amount for that quarter compared to the highest wage and salary level in the prior eight quarters, expressed as a percent change.[6] As shown in the formula below, the wage-based FMAP increase (FMAP $increase_W$) for a given quarter is the product of the state share of Medicaid (100-FMAP) and the percent change in total state wages and salaries (%ΔW).

$$\text{FMAP increase}_W = (100\text{-FMAP}) * \ \%\Delta W$$

For example, under our formula, a 20 percent decline in state wages and salaries would result in a 20 percent decrease in the state share of Medicaid. If a state had a 60 percent FMAP, and therefore a 40 percent state share, the state share would fall by 8 percentage points (40 percent multiplied by 20 percent) to 32 percent, and its FMAP would rise to 68 percent.

To simulate the use of the prototype formula to end temporary FMAP assistance, we examined the EPOP ratio to determine when program assistance would stop. If the number of states having declining ratios falls below a threshold level (26) for 2 consecutive months, the FMAP assistance would end in the following quarter. While the EPOP test employed to initiate temporary FMAP assistance is also used to end it, the ending of assistance is not comparable to the NBER dates of the end of a recession. In the five past national recessions we examined, the

[5]GAO, *State and Local Governments: Knowledge of Past Recessions Can Inform Future Federal Fiscal Assistance*, GAO-11-401 (Washington, D.C.: Mar. 31, 2011), pp. 48-49.

[6]The data for state wages and salaries by quarter are expressed in real dollars by dividing Bureau of Economic Analysis (BEA) quarterly wage and salary disbursements by the BEA implicit price deflator for gross domestic product. The wages and salaries are a component of BEA State Quarterly Personal Income and the deflator is from the National Income and Product Accounts.

EPOP test would end assistance after the NBER-designated economic recovery began. This is appropriate because, as indicated in our March 2011 report, state Medicaid needs persist into the early stages of recovery.

In the case of the automatic trigger to start and stop the temporary assistance to states, increased FMAP payments to states would begin in the first calendar quarter following the quarter in which the EPOP measure indicated the start of a economic downturn, and the last quarter of payment would be the first calendar quarter following the quarter in which the EPOP threshold was no longer met. In the case of the targeted assistance to states, for the purposes of our simulation we did not build in any delay between the availability of data and the calculation of increased FMAPs. For example, although unemployment and wage and salary data both become available with a delay of up to several months, we used state unemployment and wage data for the first quarter of 2008 to calculate the increased FMAP for the same quarter in our simulation. Given the lag time associated with the availability of unemployment and wage data, it may be advisable to calculate preliminary FMAPs based on the most recent quarterly data available, and then to calculate final FMAPs for that quarter when final data for the quarter are published.

Appendix II: Some Design Elements in the Prototype Formula and Alternatives

In the development of our prototype formula for increased Federal Medical Assistance Percentages (FMAP) during national economic downturns, we made a number of choices about specific elements of the formula design. Alternatives to those design choices involve balancing the advantages of one choice against those of another. For example, a design alternative that would lessen the quarter-to-quarter variation in FMAPs would also lessen the formula's responsiveness to quarterly changes in economic conditions. Thus, there is a trade-off between establishing an increased FMAP that has relatively greater stability and predictability and FMAPs that are reflective of states' current economic conditions.

Table 2 presents a selection of formula design features contained in our prototype formula and presents some alternatives. With each alternative, there is a discussion of key considerations involved in making that choice.

Table 2: Choices of Formula Design Elements Contained in GAO Prototype Formula and Alternatives

Formula design element	Choice contained in prototype formula	Alternative choices and some considerations involved in the choice
Choice of thresholds for starting assistance	Under our prototype formula, the assistance period begins when 26 states have declining employment-to-population ratios (EPOPs) over 2 consecutive months.	To provide greater assurance that a national recession has begun, the threshold number of states could be set higher than 26 states (e.g., 40 states), or the number of consecutive months with a declining EPOP could be increased (e.g., to 4 months). However, the higher threshold could delay the triggering of assistance. Retroactive assistance for a quarter or two could make up for the amount of funding that was delayed due to the higher threshold, but could not make up for the delay in receiving the assistance
Choice of thresholds for targeting	When the assistance period begins, our prototype formula relies on an eight-quarter look back to identify a state's minimum unemployment rate, and maximum wage and salary quarter.	The look-back period for calculating changes in unemployment and changes in wages and salaries could be shortened. A shorter look-back period (e.g., four quarters) would miss the low point of unemployment of states that enter an economic downturn relatively early, and thus would provide them with less assistance and reduce the overall cost of the program. The reverse is true of a longer look-back period; it provides more aid to states entering an economic downturn early, and it would increase the overall cost of the program.
Method of calculating quarterly increased FMAP	Unemployment-based and wage-based FMAP increases are recalculated and adjusted quarterly during the assistance period.	Quarterly wage and unemployment data can be somewhat volatile for some states. Our simulation results showed some instances of states having quarter-to-quarter changes in their FMAPs of more than 1.0 percentage point. While quarterly data provide a more timely response to changing economic conditions, they are also more prone to fluctuations. If fluctuations in quarterly FMAPs are seen as undesirable for purposes of state program planning and administration, a rule could be used to moderate those changes. For example, the formula could have a rule constraining the size of quarterly changes in FMAPs to not more than a 1 percentage point increase or decrease. Alternatively, the fluctuations could be reduced by basing the calculations on smoothed data. For example, the quarterly unemployment rates used could be 6- or 12-month rolling averages of those data. Such a rolling average provides quarterly data that are the average of the 6 or 12 most recent months, and are much more stable than data that are a 3-month average.
Level of state need	For targeting, our prototype formula provides full funding for state Medicaid needs (due to increased enrollment and decreased revenues).	Rather than base funding on estimates of Medicaid expenditure needs alone, the formulas could be scaled up or down. Congress could scale up assistance to help address broader state budgetary needs due to declining revenues and to forestall state retrenchment during a period of downturn. Alternatively, Congress could reduce the cost of the program by scaling down assistance by providing only a percentage of funding for state Medicaid needs. Proportional scaling of the assistance would still maintain targeting that is proportional to states' needs for Medicaid funding.

Formula design element	Choice contained in prototype formula	Alternative choices and some considerations involved in the choice
Choice of thresholds for ending assistance	Under our prototype formula, the temporary assistance ends when fewer than 26 states show declining EPOPs over 2 consecutive months.	A threshold of more than 26 states with a declining EPOP could be used to end assistance earlier. There are fewer quarters during a downturn when a very high number of states show declining EPOPs. Thus, raising the threshold number of states would mean that there are fewer quarters of the program of additional FMAP to states. Conversely, a lower threshold number of states would have the program run for more quarters. Also, a program that is longer in duration would provide somewhat more assistance to states that enter an economic downturn later than most other states. Further, by changing the duration of the temporary assistance, the overall budgetary cost of the program would be changed, along with changing when states would need to rely on their own resources. A second parameter that could be adjusted is the rule of 2 consecutive months. Increasing the number of consecutive months would provide somewhat greater assurance that state economies were consistently improving month by month. Because economic recovery may not show consistent improvement in every month, a premature shutdown of the program is a risk. Congress could make the decision to override the automatic shutdown on the basis of considerations not factored into the EPOP trigger, such as the depth and duration of economic downturn, the pace of recovery, federal and state government budgetary situations, and other considerations
Method of ending temporary assistance	For ending assistance with a phased reduction of increases, our prototype calculates the targeted assistance using a floating look-back period. After the first eight quarters of assistance, the look-back period is constrained to not exceed eight quarters.	While the eight-quarter floating look-back period provides some lessening of assistance in the later quarters, some states are still likely to face sizeable drops (“cliffs”) in their FMAP when the program ends. To ensure that no state experiences a sharp decline in their temporary increased FMAP at the end of the assistance period, a phase-out rule could constrain the quarterly drop in FMAP. For example, a rule could provide that a state’s quarter-to-quarter decrease in FMAP would be capped at 0.5 percentage points. Such a rule would provide a stepped phase out of assistance for all states and a longer phase out for those states facing a larger drop in their FMAP when the program ends.

Source: GAO.

Table 3 describes two additional adjustments that were not included in our prototype formula, but could be applied.

Table 3: Choices of Formula Design Elements Not Contained in GAO Prototype Formula that could be Applied

Additional adjustment	Description
Method of financing	The general characteristics of the assistance program could also be adjusted to approximate budget neutrality. While our current prototype formula automatically triggers on and off based on economic downturns, it does not make adjustments for stronger economic times. However, just as states experience increased enrollment and decreased revenues during a downturn, they can experience the opposite effect during stronger economic times—decreased Medicaid enrollment and increased revenues. Thus, the FMAP could be adjusted for targeted increases during economic downturns, and targeted decreases during a stronger economy.
Enhanced targeting	The amount of increased assistance based on increased Medicaid enrollment could be adjusted to take into account the unemployment rate instead of being based solely on the change in the unemployment rate. Currently, our prototype formula increases states' FMAPs based on the change in their unemployment rate. Under this enhanced targeting option, states with higher unemployment rates would receive more assistance than states with lower unemployment rates even if the change in the unemployment rate were the same. For example, a state with a 2 percent unemployment rate that increased to 4 percent would receive less assistance than a state whose unemployment increased from 6 to 8 percent. Another alternative would be to establish an unemployment rate floor for assistance. The unemployment rate would have to be above a specified level for the state to receive any additional assistance. This approach reflects a different policy goal than that provided under our prototype formula in that it provides assistance to states that may have consistently high unemployment.

Source: GAO.

Appendix III: The Recovery Act's Across-the-board and Hold-harmless Provisions Were Not Targeted for States' Medicaid Needs

The across-the-board and hold-harmless provisions of the American Recovery and Reinvestment Act of 2009 (Recovery Act) did not provide a needs-based method for targeting Medicaid assistance to states during an economic downturn. Because these provisions did not distinguish among states that experienced varying degrees of increased unemployment or decreased wages and salaries during an economic downturn, they are not included in our prototype formula.

The Recovery Act's Across-the-board Provision Did Not Reflect the Variation among States in the Effect of the Economic Downturn

The largest share of total assistance to states under the Recovery Act was the 6.2 percentage point across-the-board FMAP increase that each state received. However, because states are not equally affected by national economic downturns an equal FMAP increase does not address variable state Medicaid funding needs. Furthermore, as we discussed in our March report, equal percentage point changes in FMAPs do not result in equal percent reductions in state contributions for Medicaid. States with higher regular FMAPs received a disproportionately large reduction in their state contribution for Medicaid under the across-the-board provision. For example, during the fourth quarter of assistance under the Recovery Act, Nevada—a low FMAP state—had a 7.1 percentage point increase in unemployment and a 27.9 percent decline in the state share of Medicaid, while Arkansas—a high FMAP state—experienced a 2.1 percentage point increase in unemployment, but a similar 28.1 percent decline in state share.[1]

[1]For more detail on the across-the-board provision in the Recovery Act see GAO, *Medicaid: Improving Responsiveness of Federal Assistance to States during Economic Downturns*, GAO-11-395 (Washington, D.C.: Mar. 31, 2011), p. 25.

The Recovery Act's Hold-harmless Provision Was Not Targeted for Variable State Needs

Under the hold-harmless provision of the Recovery Act, each state's regular FMAP rate was held to the state's highest rate since fiscal year 2008, regardless of changes in the state's per capita income (PCI).[2] As a result, the largest FMAP increases due to the hold-harmless provision went to the states with the greatest improvements in their underlying economic condition, as measured by PCI, relative to the national average. Furthermore, states with both higher unemployment and rising unemployment tended to receive the least benefit from the hold-harmless provision. As shown in table 4, many states that benefited from the Recovery Act hold-harmless provision often had relative increases in their PCI compared to the national average, while some states that had little or no increase in PCI received little, if any, benefit from the hold-harmless provision.

[2]The regular FMAP is calculated using the following formula: $FMAP_{state}=1-((PCI_{state})^2/(PCI_{U.S.})^2*0.45)$. Under the regular FMAP formula, a state's FMAP is adjusted annually based on changes to its per capita personal income. If a state's economic condition as measured by per capita personal income in preceding years showed improvement relative to the national average, its FMAP will be reduced. For federal fiscal year 2011, the regular FMAP for states ranged from 50.00 percent to 74.73 percent. By statute, the minimum regular FMAP for a state is 50 percent and the maximum is 83 percent. The District of Columbia is not subject to this formula and instead by law has its FMAP set at 70 percent.

Table 4: Hold-harmless FMAP Increases and Economic Variables, by State in Descending Order of FMAP Increase

State	FMAP increase due to hold-harmless provision (2011, Qtr 1)	Percentage change in 3-year average per capita income (PCI) from 2003-05 to 2006-08, relative to U.S. average	Unemployment rate (3-month average ending Sept. 2010)	Increase in unemployment rate (3-month average ending Sept. 2010 compared to lowest 3-month average since Jan. 2006)
Median of all states	**0.12**	**0.0%**	**8.7**	**4.5**
Louisiana	8.86	7.7%	7.5	3.8
Hawaii	4.71	4.0%	6.4	4.1
North Dakota	3.40	3.2%	3.7	0.8
Alaska	2.48	2.1%	7.7	1.8
Oklahoma	2.16	4.0%	6.9	3.7
Nebraska	2.12	-2.1%	4.7	1.9
Montana	1.72	1.8%	7.4	4.2
New Mexico	1.57	1.6%	8.2	4.8
Arkansas	1.57	0.9%	7.5	2.7
Mississippi	1.56	0.2%	10.2	4.1
Washington	1.52	1.1%	9.0	4.6
South Dakota	1.47	-1.5%	4.4	1.7
Florida	1.38	0.3%	11.7	8.4
Kansas	1.33	1.1%	6.5	2.6
Missouri	1.22	-2.3%	9.3	4.6
Maine	1.19	-2.4%	7.9	3.4
Nevada	1.03	-0.9%	14.4	10.2
Idaho	1.02	0.0%	8.9	6.2
West Virginia	1.01	1.3%	8.8	4.9
Iowa	0.88	-0.9%	6.8	3.2
Vermont	0.74	0.2%	5.9	2.3
Utah	0.55	0.2%	7.4	4.9
North Carolina	0.42	-1.8%	9.7	5.2
Arizona	0.35	-0.5%	9.7	6.0
South Carolina	0.28	-1.2%	10.9	5.4
Illinois	0.12	-0.7%	10.1	5.7
Wisconsin	0.05	-2.5%	7.8	3.5
Texas	0.00	1.4%	8.2	3.9
Pennsylvania	0.00	-0.4%	9.1	4.9
Alabama	0.00	-0.1%	9.2	5.9

State	FMAP increase due to hold-harmless provision (2011, Qtr 1)	Percentage change in 3-year average per capita income (PCI) from 2003-05 to 2006-08, relative to U.S. average	Unemployment rate (3-month average ending Sept. 2010)	Increase in unemployment rate (3-month average ending Sept. 2010 compared to lowest 3-month average since Jan. 2006)
Rhode Island	0.00	-0.9%	11.7	6.8
Kentucky	0.00	-1.9%	10.0	4.5
Oregon	0.00	-2.4%	10.6	5.6
Tennessee	0.00	-2.4%	9.6	5.0
Delaware	0.00	-2.8%	8.4	5.0
Georgia	0.00	-3.6%	9.9	5.5
Ohio	0.00	-3.7%	10.2	4.9
Indiana	0.00	-4.2%	10.2	5.7
Michigan	0.00	-6.8%	13.1	6.4
States excluded from the hold–harmless because of unchanged FMAPS[a]				
Wyoming	0.00	10.6%	6.8	4.1
District of Columbia	0.00	6.7%	9.9	4.5
New York	0.00	5.5%	8.3	4.0
Connecticut	0.00	2.8%	9.1	4.8
New Jersey	0.00	1.9%	9.6	5.5
Massachusetts	0.00	1.9%	8.7	4.3
Virginia	0.00	0.6%	6.9	4.1
California	0.00	0.6%	12.4	7.6
Maryland	0.00	0.2%	7.3	3.8
Colorado	0.00	-0.9%	8.1	4.5
New Hampshire	0.00	-1.2%	5.7	2.3
Minnesota	0.00	-2.1%	7.0	3.1

Source: Department of Health and Human Services, Bureau of Economic Analysis, and Bureau of Labor Statistics.

[a]Eleven states and the District of Columbia did not qualify for the hold-harmless provision. These are states whose Federal Medical Assistance Percentage (FMAP) is at the 50 percent floor each year for fiscal year 2008 through fiscal year 2011, and the District of Columbia whose FMAP is fixed at 70 percent. By statute, the minimum regular FMAP for a state is 50 percent. (The District of Columbia is not subject to this formula and instead by law has its FMAP set at 70 percent.)

During the first quarter of 2011, 9 of the 10 states that received the largest FMAP increases due to the hold-harmless provision had rising PCIs relative to the national average. For example, Hawaii, which had a 4.0 percent increase in its PCI, received a FMAP increase of 4.71 percentage points. Conversely, 11 of the 12 states that received no benefit from the hold-harmless provision in the first quarter of 2011 had

declining per capita incomes relative to the national average. In addition, states with the greatest recession-related needs, such as high and rising unemployment rates tended to receive the least benefit from the hold-harmless provision. For example, Michigan received no benefit from the hold-harmless provision despite a much worse economic condition relative to other states: a 13.1 percent unemployment rate and a 6.4 percent increase in its unemployment.

Appendix IV: Temporary Increased FMAP Data by State, GAO Prototype Formula

Table 5: Temporary Increased Federal Medical Assistance Percentage (FMAP) by Component and State, GAO Prototype Formula, 2009, Fourth Quarter

States	Change in unemployment (2009, Qtr 4)	% Change in wages (2009, Qtr 4)	FY 2010 FMAP	Simulated increases in FMAP		
				Based on changes in		
				Unemployment rate	Wages	Total change
Alabama	7.1	-6.0	68.01	2.27	1.90	4.18
Alaska	2.2	0.0	51.43	1.07	0.00	1.07
Arizona	6.8	-10.1	65.75	2.33	3.47	5.80
Arkansas	2.9	-6.4	72.78	0.79	1.76	2.54
California	7.4	-8.4	50.00	3.70	4.21	7.91
Colorado	5.1	-6.0	50.00	2.55	2.98	5.53
Connecticut	4.5	-7.3	50.00	2.25	3.65	5.90
Delaware	5.2	-8.5	50.21	2.59	4.22	6.81
District of Columbia	4.9	0.0	70.00	1.47	0.00	1.47
Florida	7.8	-9.6	54.98	3.51	4.32	7.83
Georgia	6.0	-8.2	65.10	2.09	2.86	4.95
Hawaii	4.7	-5.3	54.24	2.15	2.43	4.58
Idaho	6.0	-8.9	69.40	1.84	2.73	4.56
Illinois	6.6	-8.3	50.17	3.29	4.13	7.42
Indiana	6.1	-7.7	65.93	2.08	2.61	4.69
Iowa	2.4	-4.1	63.51	0.88	1.49	2.37
Kansas	3.3	-4.8	60.38	1.31	1.91	3.22
Kentucky	5.4	-4.0	70.96	1.57	1.15	2.72
Louisiana	3.4	-4.0	67.61	1.10	1.30	2.40
Maine	3.8	-4.4	64.99	1.33	1.55	2.88
Maryland	4.1	-2.5	50.00	2.05	1.24	3.29
Massachusetts	4.4	-6.4	50.00	2.20	3.22	5.42
Michigan	7.2	-13.0	63.19	2.65	4.78	7.43
Minnesota	4.0	-7.6	50.00	2.00	3.78	5.78
Mississippi	4.7	-5.6	75.67	1.14	1.37	2.52
Missouri	5.0	-8.2	64.51	1.77	2.91	4.69
Montana	3.8	-4.0	67.42	1.24	1.31	2.55
Nebraska	2.2	-2.9	60.56	0.87	1.15	2.02
Nevada	10.1	-17.3	50.16	5.03	8.64	13.68
New Hampshire	3.3	-7.2	50.00	1.65	3.62	5.27
New Jersey	5.5	-7.2	50.00	2.75	3.60	6.35

States	Change in unemployment (2009, Qtr 4)	% Change in wages (2009, Qtr 4)	FY 2010 FMAP	Simulated increases in FMAP		
				Based on changes in		
				Unemployment rate	Wages	Total change
New Mexico	4.5	-3.6	71.35	1.29	1.04	2.33
New York	4.6	-9.0	50.00	2.30	4.50	6.80
North Carolina	6.6	-6.6	65.13	2.30	2.30	4.60
North Dakota	1.4	0.0	63.01	0.52	0.00	0.52
Ohio	5.2	-8.5	63.42	1.90	3.12	5.02
Oklahoma	4.0	-5.4	64.43	1.42	1.91	3.34
Oregon	6.0	-8.6	62.74	2.24	3.19	5.43
Pennsylvania	4.4	-3.2	54.81	1.99	1.43	3.42
Rhode Island	6.8	-6.4	52.63	3.22	3.02	6.24
South Carolina	6.3	-6.1	70.32	1.87	1.81	3.68
South Dakota	2.4	-2.5	62.72	0.89	0.91	1.81
Tennessee	5.9	-7.8	65.57	2.03	2.67	4.70
Texas	3.8	-4.8	58.73	1.57	1.99	3.55
Utah	5.3	-5.9	71.68	1.50	1.67	3.18
Vermont	3.1	-2.9	58.73	1.28	1.18	2.46
Virginia	4.2	-2.5	50.00	2.10	1.23	3.33
Washington	5.4	-4.8	50.12	2.69	2.38	5.07
West Virginia	4.7	-2.8	74.04	1.22	0.73	1.95
Wisconsin	4.7	-6.5	60.21	1.87	2.58	4.45
Wyoming	5.1	-8.5	50.00	2.55	4.25	6.80

Source: GAO.

Table 6: Temporary Increased Federal Medical Assistance Percentage (FMAP) by Quarter and State, GAO Prototype Formula, 2008 to 2009

State Postal code	FMAP FY 2008	Simulated increases in FMAPs			FMAP FY 2009	Simulated increases in FMAPs			
		2008 Qtr 1	2008 Qtr 2	2008 Qtr 3		2008 Qtr 4	2009 Qtr 1	2009 Qtr 2	2009 Qtr 3
AL	67.62	0.23	0.66	1.22	67.98	1.94	3.57	3.74	4.07
AK	52.48	0.10	0.14	0.24	50.53	0.35	0.77	0.84	1.04
AZ	66.20	0.27	1.23	2.26	65.77	3.10	4.73	5.20	5.81
AR	72.94	1.10	1.05	1.43	72.81	1.66	1.85	2.50	2.54
CA	50.00	0.90	1.52	2.65	50.00	4.20	6.31	7.11	7.96
CO	50.00	0.35	0.78	1.40	50.00	2.65	4.42	5.53	5.62
CT	50.00	0.30	1.19	1.95	50.00	2.89	5.97	5.45	6.03
DE	50.00	0.81	1.82	2.88	50.00	3.53	5.64	6.31	6.39
DC	70.00	0.09	0.76	1.17	70.00	0.90	1.71	1.27	1.56
FL	56.83	1.22	2.26	3.51	55.40	4.72	6.69	6.99	7.71
GA	63.10	0.33	1.13	1.93	64.49	2.56	4.15	4.37	4.95
HI	56.50	0.35	1.09	2.20	55.11	2.73	4.03	3.95	4.55
ID	69.87	0.64	1.13	1.99	69.77	2.60	3.56	4.12	4.33
IL	50.00	0.60	1.65	2.49	50.32	3.40	5.78	6.80	7.38
IN	62.69	0.11	0.88	1.73	64.26	2.33	4.85	5.36	5.47
IA	61.73	0.11	0.48	0.75	62.62	0.90	1.92	2.16	2.43
KS	59.43	0.00	0.13	0.70	60.08	1.07	2.93	3.14	3.47
KY	69.78	0.03	0.27	0.98	70.13	1.35	2.83	3.02	2.98
LA	72.47	0.03	0.06	0.30	71.31	0.46	1.36	1.78	1.93
ME	63.31	0.07	0.76	1.29	64.41	1.78	3.39	3.14	3.02
MD	50.00	0.05	0.60	1.58	50.00	2.02	3.42	3.11	3.23
MA	50.00	0.05	0.81	2.16	50.00	2.62	5.17	5.31	5.46
MI	58.10	1.05	1.96	3.35	60.27	3.95	7.37	7.86	8.41
MN	50.00	0.45	1.94	1.93	50.00	3.04	5.55	6.07	6.42
MS	76.29	0.00	0.24	0.82	75.84	1.05	1.86	2.01	2.33
MO	62.42	0.23	0.34	1.39	63.19	0.92	3.88	4.41	4.73
MT	68.53	0.22	0.69	1.13	68.04	1.28	2.35	2.30	2.27
NE	58.02	0.32	0.08	0.41	59.54	1.13	1.57	2.12	2.34
NV	52.64	1.27	3.31	4.85	50.00	7.33	10.23	11.36	12.90
NH	50.00	0.38	1.32	2.40	50.00	2.84	4.91	5.18	5.04
NJ	50.00	0.25	1.49	2.55	50.00	3.06	5.80	6.02	6.17

State Postal code	FMAP FY 2008	Simulated increases in FMAPs			FMAP FY 2009	Simulated increases in FMAPs			
		2008 Qtr 1	2008 Qtr 2	2008 Qtr 3		2008 Qtr 4	2009 Qtr 1	2009 Qtr 2	2009 Qtr 3
NM	71.04	0.06	0.32	0.77	70.88	0.93	1.82	2.07	2.26
NY	50.00	0.20	1.84	2.38	50.00	3.54	8.54	6.73	7.17
NC	64.05	0.14	0.67	1.50	64.60	2.33	4.50	4.57	4.66
ND	63.75	0.00	0.07	0.18	63.15	0.26	1.21	1.05	0.55
OH	60.79	0.44	1.08	1.87	62.14	2.49	4.29	4.97	5.25
OK	67.10	0.00	0.03	0.41	65.90	0.52	1.99	2.78	2.87
OR	60.86	0.17	0.78	1.87	62.45	2.95	4.97	5.45	5.69
PA	54.08	0.23	0.48	1.33	54.52	1.67	3.42	3.58	3.95
RI	52.51	1.03	2.63	4.16	52.59	3.80	6.30	6.23	6.54
SC	69.79	0.00	0.48	1.21	70.07	1.98	3.39	3.80	3.95
SD	60.03	0.00	0.73	0.94	62.55	0.99	1.99	2.03	1.79
TN	63.71	0.36	1.24	1.87	64.28	2.71	4.53	4.99	5.33
TX	60.53	0.04	0.24	0.79	59.44	0.96	2.73	3.20	3.49
UT	71.63	0.23	0.43	0.86	70.71	1.54	2.51	2.87	3.23
VT	59.03	0.20	0.87	1.24	59.45	1.21	3.56	3.21	2.91
VA	50.00	0.20	0.74	1.30	50.00	1.80	3.38	3.36	3.54
WA	51.52	0.20	0.88	1.17	50.94	2.23	4.21	4.56	4.97
WV	74.25	0.00	0.03	0.08	73.73	0.26	1.09	1.61	1.98
WI	57.62	0.00	0.34	0.97	59.38	1.50	3.90	4.32	4.59
WY	50.00	0.00	0.48	0.49	50.00	0.60	2.80	5.01	6.06

Source: GAO.

Table 7: Temporary Increased Federal Medical Assistance Percentage (FMAP) by Quarter and State, GAO Prototype Formula, 2009 to 2011

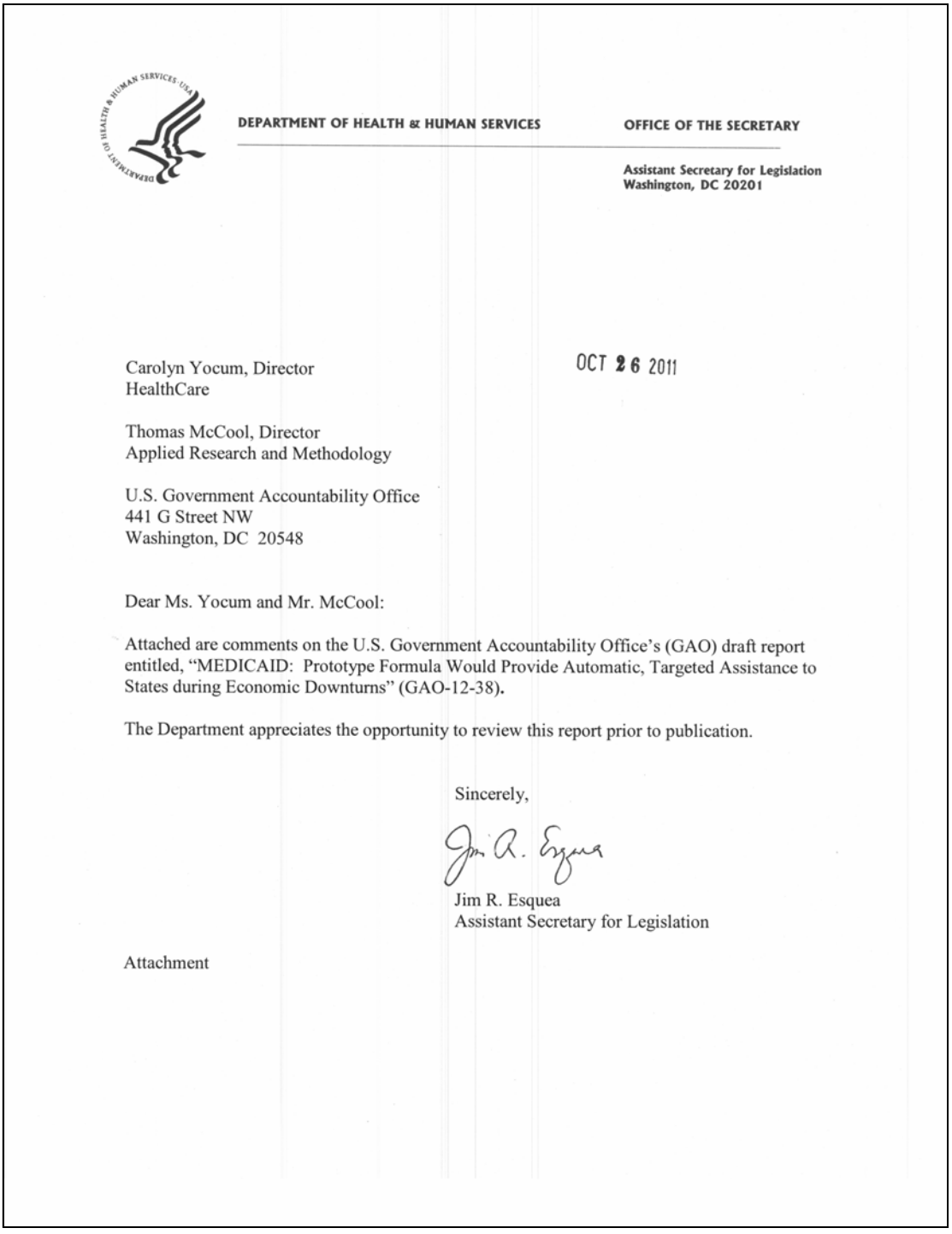
		Simulated increases in FMAPs					Simulated increases in FMAPs			
State Postal code	FMAP FY 2010	2009 Qtr 4	2010 Qtr 1	2010 Qtr 2	2010 Qtr 3	FMAP FY 2011	2010 Qtr 4	2011 Qtr 1	2011 Qtr 2[a]	2011 Qtr 3[a]
AL	68.01	4.18	3.96	3.01	2.09	68.54	1.61	0.45	N/A	N/A
AK	51.43	1.07	1.18	0.83	0.68	50.00	0.60	0.20	N/A	N/A
AZ	65.75	5.80	5.81	4.66	3.67	65.85	2.73	0.91	N/A	N/A
AR	72.78	2.54	1.75	1.21	0.67	71.37	0.93	0.59	N/A	N/A
CA	50.00	7.91	6.76	5.99	4.85	50.00	2.33	1.14	N/A	N/A
CO	50.00	5.53	5.43	4.98	3.94	50.00	2.04	0.90	N/A	N/A
CT	50.00	5.90	6.38	4.48	3.60	50.00	2.76	0.80	N/A	N/A
DE	50.21	6.81	6.50	4.94	3.08	53.15	1.77	0.56	N/A	N/A
DC	70.00	1.47	1.35	1.14	0.98	70.00	0.60	0.27	N/A	N/A
FL	54.98	7.83	7.09	5.65	4.42	55.45	3.43	1.27	N/A	N/A
GA	65.10	4.95	4.49	3.53	2.81	65.33	1.92	0.49	N/A	N/A
HI	54.24	4.58	4.46	3.52	2.03	51.79	1.36	0.21	N/A	N/A
ID	69.40	4.56	4.15	3.65	2.75	68.85	2.09	1.29	N/A	N/A
IL	50.17	7.42	7.40	5.32	3.88	50.20	2.67	0.15	N/A	N/A
IN	65.93	4.69	4.59	3.37	2.39	66.52	1.58	0.00	N/A	N/A
IA	63.51	2.37	2.29	1.58	1.30	62.63	1.07	0.34	N/A	N/A
KS	60.38	3.22	3.50	3.09	2.20	59.05	1.88	0.25	N/A	N/A
KY	70.96	2.72	2.76	2.06	1.16	71.49	0.93	0.14	N/A	N/A
LA	67.61	2.40	2.52	2.16	1.63	63.61	1.82	0.96	N/A	N/A
ME	64.99	2.88	3.07	2.13	1.34	63.80	1.26	0.36	N/A	N/A
MD	50.00	3.29	3.45	2.44	1.35	50.00	0.95	0.30	N/A	N/A
MA	50.00	5.42	5.61	3.89	1.83	50.00	1.38	0.52	N/A	N/A
MI	63.19	7.43	6.90	5.33	3.47	65.79	2.30	0.00	N/A	N/A
MN	50.00	5.78	4.91	3.30	2.51	50.00	0.83	0.30	N/A	N/A
MS	75.67	2.52	2.71	2.02	1.42	74.73	1.42	0.55	N/A	N/A
MO	64.51	4.69	4.58	4.28	3.94	63.29	3.73	0.70	N/A	N/A
MT	67.42	2.55	2.23	1.56	1.41	66.81	1.06	0.56	N/A	N/A
NE	60.56	2.02	2.26	1.61	1.34	58.44	0.63	0.00	N/A	N/A
NV	50.16	13.68	13.73	11.37	9.84	51.61	7.81	4.16	N/A	N/A
NH	50.00	5.27	5.31	3.02	2.16	50.00	1.82	0.29	N/A	N/A
NJ	50.00	6.35	6.17	4.84	3.72	50.00	3.53	1.04	N/A	N/A

State Postal code	FMAP FY 2010	Simulated increases in FMAPs: 2009 Qtr 4	2010 Qtr 1	2010 Qtr 2	2010 Qtr 3	FMAP FY 2011	Simulated increases in FMAPs: 2010 Qtr 4	2011 Qtr 1	2011 Qtr 2[a]	2011 Qtr 3[a]
NM	71.35	2.33	2.57	2.14	1.76	69.78	1.53	0.95	N/A	N/A
NY	50.00	6.80	6.68	3.67	3.77	50.00	2.80	1.12	N/A	N/A
NC	65.13	4.60	4.36	3.37	2.40	64.71	1.36	0.00	N/A	N/A
ND	63.01	0.52	0.48	0.33	0.22	60.35	0.16	0.00	N/A	N/A
OH	63.42	5.02	4.66	3.68	2.59	63.69	1.66	0.04	N/A	N/A
OK	64.43	3.34	3.28	2.65	1.92	64.94	1.47	0.32	N/A	N/A
OR	62.74	5.43	5.28	4.37	3.18	62.85	1.84	0.00	N/A	N/A
PA	54.81	3.42	3.63	2.93	1.54	55.64	1.20	0.35	N/A	N/A
RI	52.63	6.24	5.96	3.48	2.06	52.97	1.71	0.81	N/A	N/A
SC	70.32	3.68	3.83	2.82	2.04	70.04	1.35	0.03	N/A	N/A
SD	62.72	1.81	2.12	0.84	0.52	61.25	0.39	0.26	N/A	N/A
TN	65.57	4.70	4.12	2.76	2.05	65.85	1.04	0.03	N/A	N/A
TX	58.73	3.55	3.31	2.72	1.94	60.56	1.40	0.59	N/A	N/A
UT	71.68	3.18	2.96	2.80	2.04	71.13	0.98	0.40	N/A	N/A
VT	58.73	2.46	3.35	1.30	1.12	58.71	0.85	0.00	N/A	N/A
VA	50.00	3.33	3.12	2.13	1.35	50.00	0.85	0.15	N/A	N/A
WA	50.12	5.07	5.08	4.04	3.14	50.00	1.83	0.45	N/A	N/A
WV	74.04	1.95	2.03	1.73	1.30	73.24	1.42	0.93	N/A	N/A
WI	60.21	4.45	4.70	3.62	2.57	60.16	1.68	0.00	N/A	N/A
WY	50.00	6.80	6.16	5.52	4.32	50.00	4.00	1.25	N/A	N/A

Source: GAO.

[a]Data for these quarters are not yet available.

Appendix V: Comments from the Department of Health and Human Services



DEPARTMENT OF HEALTH & HUMAN SERVICES — OFFICE OF THE SECRETARY

Assistant Secretary for Legislation
Washington, DC 20201

OCT 26 2011

Carolyn Yocum, Director
HealthCare

Thomas McCool, Director
Applied Research and Methodology

U.S. Government Accountability Office
441 G Street NW
Washington, DC 20548

Dear Ms. Yocum and Mr. McCool:

Attached are comments on the U.S. Government Accountability Office's (GAO) draft report entitled, "MEDICAID: Prototype Formula Would Provide Automatic, Targeted Assistance to States during Economic Downturns" (GAO-12-38).

The Department appreciates the opportunity to review this report prior to publication.

Sincerely,

Jim R. Esquea
Assistant Secretary for Legislation

Attachment

GENERAL COMMENTS OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES (HHS) ON THE GOVERNMENT ACCOUNTABILITY OFFICE'S (GAO) DRAFT REPORT ENTITLED, "MEDICAID: PROTOTYPE FORMULA WOULD PROVIDE AUTOMATIC, TARGETED ASSISTANCE TO STATES DURING ECONOMIC DOWNTURNS" (GAO-12-38)

The Department appreciates the opportunity to review and comment on this draft report.

Centers for Medicare & Medicaid Services' (CMS) Comments

We strongly agree with the report's findings that temporary increases in FMAP established by the American Recovery and Reinvestment Act of 2009 provided critical fiscal relief to States facing economic hardship.

While we realize that any changes to the FMAP formula must be authorized by statute and are then further implemented by the HHS Assistant Secretary for Planning and Evaluation (ASPE), we agree with the analysis and goals of this report. We believe it is critical to align changes to the FMAP formula as closely as possible to individual State circumstances in order to avoid unintended consequences for beneficiaries as well as to provide budget planning stability for States.

The report proposes a prototype formula for a temporary increase to the FMAP. We believe that, in general, an effective prototype formula should be able to be easily administered and should produce predictable effects upon States. Although we agree with the concept of aligning the FMAP formula more closely with individual State circumstances, we believe that the recommended FMAP prototype formula would be difficult for the Federal government and States to implement. The complexity of the prototype formula and its quarter-to-quarter, unpredictable variability would result in very difficult budget planning for States and the Federal government. Additionally, the formula would impose a significant burden on States and the Federal government when attempting to apply FMAP rates to expenditures. We would be interested in working with GAO further on this important matter.

Additionally, the report identifies and discusses potential modifications to the prototype formula that would permit increased funding to States for general fund relief. We do not recommend that the prototype formula be used to provide general fund relief to States through the Medicaid program. If the goal is to provide general fund relief to States, we recommend that it be effected outside of the Medicaid program. To ensure efficiency while implementing the Affordable Care Act, we are interested in preserving our ability to identify data that specifically relates to the Medicaid program. We believe that providing general fund relief to States through the Medicaid program would compromise this ability.

ASPE Comments

Automatic Trigger
Having an automatic trigger for FMAP is a good idea, but we note that, depending on the design, it may not help states that are most in need. The use of the employment to

1

GENERAL COMMENTS OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES (HHS) ON THE GOVERNMENT ACCOUNTABILITY OFFICE'S (GAO) DRAFT REPORT ENTITLED, "MEDICAID: PROTOTYPE FORMULA WOULD PROVIDE AUTOMATIC, TARGETED ASSISTANCE TO STATES DURING ECONOMIC DOWNTURNS" (GAO-12-38)

population ratio from BLS is a better measure to begin assistance to states than the unemployment rate which is often used for triggers because it reflects not only the unemployed but also discouraged workers.

Additionally, the use of the employment to population ratio and the changes in wages and salary are two good measures to assess state need. The unemployment rate is less so because it ignores the growing number of discouraged workers during an extended downturn or jobless recovery.

The use of the employment to population ratio also protects states during a jobless recovery such as the one following the brief 2001 recession.

Overall Comments
The GAO prototype is focused on a national recession that impacts many states (26 needed to trigger) but doesn't deal with more regional economic declines or slower recoveries that may result in overall declines in GDP growth but are geographically concentrated or because the industries impacted may be geographically concentrated (e.g., auto industry in Midwest vs. construction on the west coast).

The proposed FMAP increase is substantial in part based on the assumed relationship between the change in the unemployment rate and the change in Medicaid enrollment (work by Holahan prior to the Affordable Care Act [ACA]). For an informed analysis, one must consider if this relationship will change following full implementation of ACA.

As with any formula with a 'look back' provision, in this case only one year, one needs to consider how it will work in an extended period of decline or stability at a low level, as in a jobless recovery. For example, there is a problem with the way the trigger condition works in the current economic climate. During 2008 and 2009, the employment to population ratio has bottomed at low levels and remained stuck there for the most part. But that means states, though still in economic difficulty, are no longer experiencing the negative changes that count toward the trigger (the decreases have ended) and the number of states with further decreases will drop below 26.

Under the prototype, FMAP is recalculated for each quarter. On the downside, Medicaid enrollment declines may lag the triggers and for states that rely on corporate and sales taxes for revenue there will be a substantial lag. Perhaps states' assistance should be extended beyond the next quarter to mitigate this lag.

Being based on a nationwide recession the assistance shuts off abruptly. If the number of states falls below 26 the enhanced rates shut down in one quarter for all states yet many states may still be experiencing trouble due to high unemployment or flat wage and salary statistics. A fuller discussion of this issue would be useful.

2

GENERAL COMMENTS OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES (HHS) ON THE GOVERNMENT ACCOUNTABILITY OFFICE'S (GAO) DRAFT REPORT ENTITLED, "MEDICAID: PROTOTYPE FORMULA WOULD PROVIDE AUTOMATIC, TARGETED ASSISTANCE TO STATES DURING ECONOMIC DOWNTURNS" (GAO-12-38)

We suggest simulating these alternative scenarios against recessions over the past two decades to better understand how they might address the concerns we have identified.

3

Appendix VI: GAO Contacts and Staff Acknowledgments

GAO Contacts

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Thomas J. McCool, (202) 512-2642 or mccoolt@gao.gov

Staff Acknowledgments

In addition to the contacts named above, major contributors included Robert Copeland, Assistant Director; Eric R. Anderson; Robert Dinkelmeyer; Greg Dybalski; Drew Long; and Max Sawicky.

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