

CRS Report for Congress

Medicaid: The Federal Medical Assistance Percentage (FMAP)

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Medicaid: The Federal Medical Assistance Percentage (FMAP)

Summary

Medicaid is a health insurance program jointly funded by the federal government and the states. Generally, eligibility for Medicaid is limited to low-income children, pregnant women, parents of dependent children, the elderly, and people with disabilities. The federal government's share of a state's expenditures for most Medicaid services is called the federal medical assistance percentage (FMAP).

Determined annually, the FMAP is designed so that the federal government pays a larger portion of Medicaid costs in states with lower per capita income relative to the national average (and vice versa for states with higher per capita incomes). For FY2008, FMAPs range from 50.00% to 76.29%. For FY2009, FMAPs range from 50.00% to 75.84%.

In recent years, the fiscal situation of the states has focused attention on Medicaid expenditures, as well as on changes in the federal share, or FMAP. In the 108th Congress, the Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA, P.L. 108-27) provided temporary fiscal relief for states and local governments through a combination of FMAP increases and direct grants. In the 109th Congress, provisions to exclude certain Hurricane Katrina evacuees and their incomes from FMAP calculations and prevent Alaska's FY2006-FY2007 FMAPs from decreasing were included in the Deficit Reduction Act of 2005 (P.L. 109-171).

In the 110th Congress, a number of bills that would affect FMAPs have been introduced. Most recently, debate has focused on the downturn in the U.S. economy and whether FMAP increases should be included as part of an economic stimulus package.

This report will be updated periodically.

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Medicaid: The Federal Medical Assistance Percentage (FMAP)

Introduction

Medicaid is a health insurance program jointly funded by the federal government and the states. Although states have considerable flexibility to design and administer their Medicaid programs, certain groups of individuals must be covered for certain categories of services. Generally, eligibility is limited to low-income children, pregnant women, parents of dependent children, the elderly, and people with disabilities. The federal government's share of Medicaid costs for services is determined by a formula established in statute; states must contribute the remaining portion of costs in order to qualify for federal funds.¹

The Federal Medical Assistance Percentage

The federal government's share of most Medicaid service costs is determined by the federal medical assistance percentage (FMAP), which varies by state and is determined by a formula set in statute.² Certain Medicaid services, such as those provided through an Indian Health Service facility or to certain women with breast or cervical cancer, receive a higher federal match. For Medicaid administrative costs, the federal share does not vary by state, and is generally 50%.³

An enhanced FMAP — not discussed in this report — is provided for both services and administration under the State Children's Health Insurance Program (SCHIP), subject to the availability of funds from a state's SCHIP allotment.⁴

¹ This report is based on the previous work of Christine Scott.

² The FMAP is also used in determining the federal share of certain child support enforcement collections, Temporary Assistance for Needy Families (TANF) contingency funds, a portion of the Child Care and Development Fund (CCDF), and foster care and adoption assistance under Title IV-E of the Social Security Act.

³ See CRS Report RS22101, *State Medicaid Program Administration: A Brief Overview*, by April Grady.

⁴ See CRS Report RL30473, *State Children's Health Insurance Program (SCHIP): A Brief Overview*, by Elicia J. Herz, Chris L. Peterson, and Evelyne P. Baumrucker.

How FMAPs Are Calculated

The FMAP formula compares each state's per capita income relative to U.S. per capita income, and provides higher reimbursement to states with lower incomes (with a statutory maximum of 83%) and lower reimbursement to states with higher incomes (with a statutory minimum of 50%). The formula for a given state is:

$$\text{FMAP}_{\text{state}} = 1 - \left(\frac{\text{Per capita income}_{\text{state}}}{\text{Per capita income}_{\text{U.S.}}} \right)^2 \times 0.45$$

The use of the 0.45 factor in the formula is designed to ensure that a state with per capita income equal to the U.S. average receives an FMAP of 55% (i.e., state share of 45%). In addition, the formula's squaring of income provides higher FMAPs to states with below-average incomes than they would otherwise receive (and vice versa).⁵

The Department of Health and Human Services (HHS) usually publishes FMAPs for an upcoming fiscal year in the *Federal Register* in the preceding November. Thus, FMAPs for FY2008 (the federal fiscal year that began on October 1, 2007) were calculated and published in 2006, and FMAPs for FY2009 were calculated and published in 2007. This time lag between announcement and implementation provides an opportunity for states to adjust to FMAP changes, but it also means that the per capita income amounts used to calculate FMAPs for a given fiscal year are several years old by the time the FMAPs take effect.

Table 1 shows the FMAP for each state, the District of Columbia, and the territories for FY2003-FY2009. It also shows the number of states with an FMAP decrease from the previous year, which will fluctuate for reasons described in **Appendix A** at the end of this report.

⁵ For example, in state A with an above-average per capita income of \$42,000 compared to a U.S. per capita income of \$40,000, the FMAP formula produces an FMAP of 50.39%. In state B with a below-average per capita income of \$38,000 compared to a U.S. per capita income of \$40,000, the FMAP formula produces an FMAP of 59.39%. If the formula did not include a squaring of per capita income, it would instead produce FMAPs of 52.75% for state A (higher than current law) and 57.25% for state B (lower than current law).

Table 1. FY2003-FY2009 FMAPs, by State

State	FY03 first 2 quarters	FY03 last 2 quarters ^a	FY04 first 3 quarters ^a	FY04 last quarter	FY05	FY06	FY07	FY08	FY09
Alabama	70.60	73.55	73.70	70.75	70.83	69.51	68.85	67.62	67.98
Alaska ^b	58.27	61.22	61.34	58.39	57.58	57.58	57.58	52.48	50.53
Arizona	67.25	70.20	70.21	67.26	67.45	66.98	66.47	66.20	65.77
Arkansas	74.28	77.23	77.62	74.67	74.75	73.77	73.37	72.94	72.81
California	50.00	54.35	52.95	50.00	50.00	50.00	50.00	50.00	50.00
Colorado	50.00	52.95	52.95	50.00	50.00	50.00	50.00	50.00	50.00
Connecticut	50.00	52.95	52.95	50.00	50.00	50.00	50.00	50.00	50.00
Delaware	50.00	52.95	52.95	50.00	50.38	50.09	50.00	50.00	50.00
District of Columbia	70.00	72.95	72.95	70.00	70.00	70.00	70.00	70.00	70.00
Florida	58.83	61.78	61.88	58.93	58.90	58.89	58.76	56.83	55.40
Georgia	59.60	62.55	62.55	59.58	60.44	60.60	61.97	63.10	64.49
Hawaii	58.77	61.72	61.85	58.90	58.47	58.81	57.55	56.50	55.11
Idaho	70.96	73.97	73.91	70.46	70.62	69.91	70.36	69.87	69.77
Illinois	50.00	52.95	52.95	50.00	50.00	50.00	50.00	50.00	50.32
Indiana	61.97	64.99	65.27	62.32	62.78	62.98	62.61	62.69	64.26
Iowa	63.50	66.45	66.88	63.93	63.55	63.61	61.98	61.73	62.62
Kansas	60.15	63.15	63.77	60.82	61.01	60.41	60.25	59.43	60.08
Kentucky	69.89	72.89	73.04	70.09	69.60	69.26	69.58	69.78	70.13
Louisiana	71.28	74.23	74.58	71.63	71.04	69.79	69.69	72.47	71.31
Maine	66.22	69.53	69.17	66.01	64.89	62.90	63.27	63.31	64.41
Maryland	50.00	52.95	52.95	50.00	50.00	50.00	50.00	50.00	50.00
Massachusetts	50.00	52.95	52.95	50.00	50.00	50.00	50.00	50.00	50.00
Michigan	55.42	59.31	58.84	55.89	56.71	56.59	56.38	58.10	60.27
Minnesota	50.00	52.95	52.95	50.00	50.00	50.00	50.00	50.00	50.00
Mississippi	76.62	79.57	80.03	77.08	77.08	76.00	75.89	76.29	75.84
Missouri	61.23	64.18	64.42	61.47	61.15	61.93	61.60	62.42	63.19
Montana	72.96	75.91	75.91	72.85	71.90	70.54	69.11	68.53	68.04
Nebraska	59.52	62.50	62.84	59.89	59.64	59.68	57.93	58.02	59.54
Nevada	52.39	55.34	57.88	54.93	55.90	54.76	53.93	52.64	50.00
New Hampshire	50.00	52.95	52.95	50.00	50.00	50.00	50.00	50.00	50.00
New Jersey	50.00	52.95	52.95	50.00	50.00	50.00	50.00	50.00	50.00
New Mexico	74.56	77.51	77.80	74.85	74.30	71.15	71.93	71.04	70.88
New York	50.00	52.95	52.95	50.00	50.00	50.00	50.00	50.00	50.00
North Carolina	62.56	65.51	65.80	62.85	63.63	63.49	64.52	64.05	64.60
North Dakota	68.36	72.82	71.31	68.31	67.49	65.85	64.72	63.75	63.15
Ohio	58.83	61.78	62.18	59.23	59.68	59.88	59.66	60.79	62.14
Oklahoma	70.56	73.51	73.51	70.24	70.18	67.91	68.14	67.10	65.90
Oregon	60.16	63.11	63.76	60.81	61.12	61.57	61.07	60.86	62.45
Pennsylvania	54.69	57.64	57.71	54.76	53.84	55.05	54.39	54.08	54.52
Rhode Island	55.40	58.35	58.98	56.03	55.38	54.45	52.35	52.51	52.59
South Carolina	69.81	72.76	72.81	69.86	69.89	69.32	69.54	69.79	70.07
South Dakota	65.29	68.88	68.62	65.67	66.03	65.07	62.92	60.03	62.55
Tennessee	64.59	67.54	67.54	64.40	64.81	63.99	63.65	63.71	64.28
Texas	59.99	63.12	63.17	60.22	60.87	60.66	60.78	60.53 ^c	59.44
Utah	71.24	74.19	74.67	71.72	72.14	70.76	70.14	71.63	70.71

State	FY03 first 2 quarters	FY03 last 2 quarters ^a	FY04 first 3 quarters ^a	FY04 last quarter	FY05	FY06	FY07	FY08	FY09
Vermont	62.41	66.01	65.36	61.34	60.11	58.49	58.93	59.03	59.45
Virginia	50.53	54.40	53.48	50.00	50.00	50.00	50.00	50.00	50.00
Washington	50.00	53.32	52.95	50.00	50.00	50.00	50.12	51.52	50.94
West Virginia	75.04	78.22	78.14	75.19	74.65	72.99	72.82	74.25	73.73
Wisconsin	58.43	61.52	61.38	58.41	58.32	57.65	57.47	57.62	59.38
Wyoming	61.32	64.92	64.27	59.77	57.90	54.23	52.91	50.00	50.00
American Samoa	50.00	52.95	52.95	50.00	50.00	50.00	50.00	50.00	50.00
Guam	50.00	52.95	52.95	50.00	50.00	50.00	50.00	50.00	50.00
N. Mariana Islands	50.00	52.95	52.95	50.00	50.00	50.00	50.00	50.00	50.00
Puerto Rico	50.00	52.95	52.95	50.00	50.00	50.00	50.00	50.00	50.00
Virgin Islands	50.00	52.95	52.95	50.00	50.00	50.00	50.00	50.00	50.00
Number with decrease from previous year	17	—^a	—^a	11^d	19^e	28	27	20	17

Source: Department of Health and Human Services (HHS) notices published in the *Federal Register*.

- The Jobs and Growth Tax Relief Reconciliation Act of 2003 (P.L. 108-27) temporarily increased Medicaid FMAPs to provide \$10 billion in state fiscal relief. States also received an additional \$10 billion in direct grants.
- Alaska's Medicaid FMAP used an alternative formula for FY2001-FY2005 (P.L. 106-554) and did not decrease in FY2006-FY2007 because of a provision in the Deficit Reduction Act of 2005 (DRA, P.L. 109-171). Prior to DRA, Alaska had reverted to using the same FMAP calculation as other states, providing an FY2006 FMAP of 50.16% and FY2007 FMAP of 51.07%.
- A FY2008 value of 60.56% was proposed by HHS for implementation of a DRA provision related to Hurricane Katrina (see discussion under "Statutory Exceptions" in this report). Using the regular FMAP formula, the state's FY2008 value is 60.53%.
- Compared to regular FMAPs that applied in the first two quarters of FY2003.
- Compared to regular FMAPs that applied in the last quarter of FY2004.

Statutory Exceptions

Although the FMAP is generally determined by a formula set in statute, there are exceptions made for certain states and situations:

- As of FY1998, the District of Columbia's Medicaid FMAP is set at 70%.⁶
- The territories (Puerto Rico, American Samoa, the Northern Mariana Islands, Guam, and the Virgin Islands) have FMAPs set at 50% and, unlike the 50 states and the District of Columbia, are subject to federal spending caps.⁷

⁶ P.L. 105-33 (Balanced Budget Act of 1997). The 70% also applies for purposes of computing an enhanced FMAP for SCHIP.

⁷ For more information, see Government Accountability Office, *U.S. Insular Areas: Multiple* (continued...)

- Alaska’s Medicaid FMAP was set in statute for FY1998-FY2000, used an alternative formula for FY2001-FY2005, and was held at its FY2005 level for FY2006-FY2007.⁸
- The Deficit Reduction Act of 2005 (P.L. 109-171) provided that in computing Medicaid FMAPs for any year after 2006 for a state that the Secretary of HHS determines has a significant number of Hurricane Katrina evacuees as of October 1, 2005, the Secretary will disregard such evacuees and their incomes.⁹
- Under the Jobs and Growth Tax Relief Reconciliation Act of 2003 (P.L. 108-27), all states received a temporary increase. Medicaid FMAPs for the last two quarters of FY2003 and the first three quarters of FY2004 were held harmless from annual declines and were increased by an additional 2.95 percentage points.¹⁰

Data Used to Calculate State FMAPs

As specified in Section 1905(b) of the Social Security Act, the per capita income amounts used in the FMAP formula are equal to the average of the three most recent calendar years of data available from the Department of Commerce. In its most recent (FY2009) FMAP calculations, HHS used state per capita personal income data for 2004, 2005, and 2006 that became available from the Department of Commerce’s Bureau of Economic Analysis (BEA) in October 2007. The use of a three-year average helps to moderate fluctuations in a state’s FMAP over time.

⁷ (...continued)

Factors Affect Federal Health Care Funding, GAO-06-75, October 2005, available at [<http://www.gao.gov/new.items/d0675.pdf>].

⁸ P.L. 105-33 set Alaska’s Medicaid and SCHIP FMAPs for FY1998-FY2000 at 59.80%. P.L. 106-554 provided that its FMAPs for FY2001-FY2005 would be calculated using the state’s per capita income deflated by 1.05 (thereby increasing the FMAPs). P.L. 109-171 provided that its FMAPs for FY2006-FY2007 would not fall below the state’s FY2005 level.

⁹ The Alaska and Katrina DRA provisions also apply for purposes of computing enhanced FMAPs for SCHIP. Although it was described as a “hold harmless for Katrina impact” in DRA, the language of the Katrina provision requires evacuees to be disregarded even if their inclusion would *increase* a state’s FMAP. Due to lags in the availability of data used to calculate FMAPs, FY2008 is the first year for which the provision applies. In a notice published in 2007, HHS proposed a methodology for implementation of the provision that would prevent the lowering of any FY2008 FMAPs and increase the FY2008 FMAP for one state (Texas). It would do so by taking advantage of a data timing issue that will not apply after FY2008. In the notice, HHS expressed concern that some states could see lower FMAPs in later years, and requested comments on its methodology and proposals for future implementation of the provision. See *72 Federal Register* 3391 (January 25, 2007).

¹⁰ Although Medicaid disproportionate share hospital (DSH) payments (i.e., payments to hospitals that serve large numbers of low-income and Medicaid patients) are reimbursed using the FMAP, this increase did not apply to DSH.

BEA revises its most recent estimates of state per capita personal income on an annual basis to incorporate revised and newly available source data on population and income.¹¹ It also undertakes a comprehensive data revision — reflecting methodological and other changes — every few years that may result in upward and downward revisions to each of the component parts of personal income (as defined in BEA's national income and product accounts, or NIPA). These components include:

- earnings (wages and salaries, employer contributions for employee pension and insurance funds, and proprietors' income);
- dividends, interest, and rent; and
- personal current transfer receipts (e.g., government social benefits such as Social Security, Medicare, Medicaid, state unemployment insurance, etc.).¹²

As a result of these annual and comprehensive revisions, it is often the case that the value of a state's per capita personal income for a given year will change over time. For example, the 2004 state per capita personal income data published by BEA in October 2006 (used in the calculation of FY2008 FMAPs) differed from the 2004 state per capita personal income data published in October 2007 (used in the calculation of FY2009 FMAPs).

It should be noted that the NIPA definition of personal income used by BEA is not the same as the definition used for personal income tax purposes. Among other differences, NIPA personal income excludes capital gains (or losses) and includes transfer receipts (e.g., government social benefits), while income for tax purposes includes capital gains (or losses) and excludes most of these transfers.

Factors That Influence FMAPs

Several factors influence state FMAPs. The first is the nature of the state economy and its ability to respond to economic changes (i.e., downturns or upturns). The impact of a national economic downturn or upturn will be related to the structure of the state economy and the business sectors causing the upturn or downturn. For example, a national decline in automobile sales, while having an impact on automobile sales and all state economies, will have a larger impact in states that manufacture automobiles, as production is reduced and workers are laid off.

¹¹ Preliminary estimates of state per capita personal income for the latest available calendar year — as well as revised estimates for the two preceding calendar years — are released in April. Revised estimates for all three years are released in October.

¹² Employer and employee contributions for government social insurance (e.g., Social Security, Medicare, unemployment insurance, etc.) are excluded from personal income, and earnings are counted based on residency (i.e., for individuals who live in one state and work in another, their income is counted in the state where they reside).

Second, the FMAP formula relies on per capita personal income to reflect state economies and their response to economic changes *in relation to the U.S. average per capita personal income*. The national economy is basically the sum of all state economies. As a result, the national response to an economic change is the sum of the state responses to economic change. If more states (or larger states) experience an economic decline, the national economy reflects this decline to some extent. However, the national decline will be lower than the state declines because the total decline has been offset by states with increases (i.e., states with growing economies). The U.S. per capita personal income, because of this balancing of positive and negative, has only a small percentage change each year. The FMAP formula compares state changes in per capita personal income (which can have large changes each year) to the U.S. per capita personal income (which has very small changes each year). This comparison can result in significant state FMAP changes.

In addition to annual revisions of per capita personal income data, comprehensive NIPA revisions undertaken every four to five years may also influence FMAPs (for example, because of changes in the definition of personal income). The impact on state FMAPs will depend on whether the changes are broad (affecting all states) or more selective (affecting only certain states or industries).

As noted earlier, statutory changes may also affect FMAPs.

Recent Issues and Legislation

In the 108th Congress, the Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA, P.L. 108-27) provided temporary fiscal relief for states and local governments through a combination of \$10 billion in FMAP increases and \$10 billion in direct grants. Medicaid FMAPs for the last two quarters of FY2003 and the first three quarters of FY2004 were held harmless from annual declines and were increased by an additional 2.95 percentage points, so long as a state did not restrict eligibility after a specified date (none did). To accommodate the FMAP increase, caps that apply to federal Medicaid spending in the territories were raised by 5.9%. JGTRRA also provided states with an additional \$10 billion in direct grants based on population.¹³

In the 109th Congress, provisions to exclude certain Hurricane Katrina evacuees and their incomes from FMAP calculations and prevent Alaska's FY2006-FY2007 FMAPs from falling below the state's FY2005 level were included in the Deficit Reduction Act of 2005 (P.L. 109-171). Other provisions that would have temporarily increased FMAPs for states affected by Hurricane Katrina, limited FY2006 FMAP reductions for all states, and disregarded employer contributions toward pensions in the calculation of FMAPs if they exceeded a certain threshold were debated but not included in the final bill.¹⁴

¹³ See [<http://www.treas.gov/press/releases/js453.htm>].

¹⁴ See CRS Report RS22333, *Budget Reconciliation FY2006: Provisions Affecting the* (continued...)

In the 110th Congress, a number of bills that would affect Medicaid FMAPs have been introduced. Most recently, debate has focused on the downturn in the U.S. economy and whether a temporary FMAP increase should be included as part of an economic stimulus package. Such an increase would reduce the amount of state funding that is required to maintain a given level of Medicaid services. For states that are contemplating cuts to Medicaid (which can take many forms), increased federal funding could enable them to avoid those cuts.¹⁵ For others, the state savings that result from an FMAP increase could be used for a variety of purposes that are not limited to Medicaid.¹⁶ The Congressional Budget Office has indicated that providing additional federal aid to states that are facing fiscal pressures or a recession would probably stimulate the economy. However, federal aid to states whose budgets are relatively healthy might provide little stimulus if it is used to build up “rainy day” funds, rather than increase spending or reduce taxes.¹⁷

¹⁴ (...continued)

Medicaid Federal Medical Assistance Percentage (FMAP), by April Grady.

¹⁵ According to a National Governors Association survey of state budget conditions (not specific to Medicaid) conducted during the week of January 14, 18 states reported shortfalls totaling \$14 billion for FY2008 and 17 states projected shortfalls of \$31 billion for FY2009. See “Governors Adopt Economic Stimulus Policy,” January 24, 2008, available at [<http://www.nga.org>]. Information on state fiscal conditions collected by the National Association of State Budget Officers is available at [<http://www.nasbo.org/publications.php>].

¹⁶ For example, 27 states reported that they used funds provided by the FMAP increase in JGTRRA to avoid, minimize, or postpone Medicaid cuts or freezes. However, the funds also helped many states fill shortfalls in their overall general fund budgets. See Kaiser Commission on Medicaid and the Uninsured, *Financing the Medicaid Program: The Impact of Federal Fiscal Relief*, April 2004, available at [<http://kff.org/medicaid/upload/Financing-the-Medicaid-Program-The-Impact-of-Federal-Fiscal-Relief-April-2004.pdf>] and Vernon Smith et al., *States Respond to Fiscal Pressure: A 50-State Update of State Medicaid Spending Growth and Cost Containment Actions*, Kaiser Commission on Medicaid and the Uninsured, January 2004, available at [<http://www.kff.org/medicaid/7001.cfm>]. For another assessment of how Medicaid was treated in FY2004 in the budgets of ten states, see James W. Fossett and Courtney E. Burke, *Medicaid and State Budgets in FY2004: Why Medicaid Is So Hard to Cut*, Rockefeller Institute of Government, July 2004, available at [<http://www.rockinst.org/assets/A660B716-175E-4343-BFBF-C38184F69C4E.pdf>].

¹⁷ Statement of Peter R. Orszag, Director, Congressional Budget Office, before the Committee on Finance, U.S. Senate, *Options for Responding to Short-Term Economic Weakness*, January 22, 2008, available at [<http://cbo.gov/ftpdocs/89xx/doc8932/01-22-TestimonyEconStimulus.pdf>].

Appendix A. The Change in FMAPs Between FY2005 and FY2006

In most years, FMAPs will differ from the previous year for two reasons: annual revisions to per capita personal income; and the replacement of the oldest year of data for per capita personal income with the most recent year of data. For FY2006 FMAPs, there were three reasons for the change from FY2005: (1) comprehensive NIPA revisions; (2) annual revisions to per capita personal income (for years 2001 and 2002, which are in common for the calculations of FY2005 and FY2006); and (3) the replacement of the oldest year of data for per capita personal income (2000) with the most recent year (2003).

Some states found that FMAP changes between FY2005 and FY2006 were larger than expected. As a result, questions were raised about the cause(s) of the changes and about whether the changes are unusual. An analysis of the change in state FMAPs over the years shows that the range of FMAP changes between FY2005 and FY2006 is not unusual. **Figure 1** contains a graphic representation of the annual change in FMAPs since FY1990, showing the largest positive and negative changes and the average change in state FMAPs each year. While the range of change in FMAPs was not unusually large, the -0.55 average change between FY2005 and FY2006 represented the only time during the 16-year period that the average change exceeded plus or minus one-half of a percentage point. Over the period, the average change in state FMAPs was positive half of the time and negative half of the time. In addition, there were eight years when the number of states with FMAP increases exceeded the number of states with FMAP decreases, and eight years when the opposite was true. The pattern varies by state, with some states having a negative annual change between years for all years, and other states having a positive annual change for most years.

The most recent comprehensive NIPA revisions were undertaken in 1999 and 2003, and state FMAPs for the first years calculated using this revised data (FY2002 and FY2006) show a larger range of changes compared to other years. For example, state FMAP changes between FY2000 and FY2001 ranged from +2.84 to -1.13, with an average change of +0.12. State FMAP changes between FY2001 and FY2002 (the first year calculated after the 1999 comprehensive NIPA revision) ranged from +2.49 to -2.63, with an average change of -0.26. This indicates that recent comprehensive NIPA revisions may have had an impact on state FMAPs. But the range of FMAP changes associated with the latest (2003) comprehensive NIPA revision is not substantially different from the range associated with the 1999 revision.

Another way to examine FMAPs over the 16-year period is through the median. The median represents the FMAP at which half of the states have higher values and half of the states have lower values. As shown in **Figure 2**, during the FY1990-FY2006 period the median state FMAP declined only slightly (by less than 1 percentage point), and the change between FY2005 and FY2006 was very small (two-tenths of a percentage point). In **Figure 2**, the solid line connects median state FMAPs for each year. The dotted line connects median state FMAPs resulting from temporary increases granted by P.L. 108-27. The decline in the median state FMAP since FY1990 is not a result of more states being subject to the statutory minimum

FMAP of 50% over time (in FY1990, there were two more states at the statutory minimum than in FY2006). Instead, the decline in the median state FMAP reflects the decline in the number of states with FMAPs of 70% or more (in FY1990, 12 states had an FMAP of 70% or more; by FY2006 only five states had an FMAP of 70% or more).

As noted earlier, the NIPA definition of personal income includes transfer payments. This means that all other things being equal, during an economic downturn, as more people in a state receive transfer payments (e.g., unemployment or Medicaid benefits), the personal income in the state increases. At the same time, since capital gains (or losses) are not included in personal income, if a significant portion of the economic downturn is the result of declines in the equity (stock) market, the capital losses do not result in a corresponding decline in personal income.

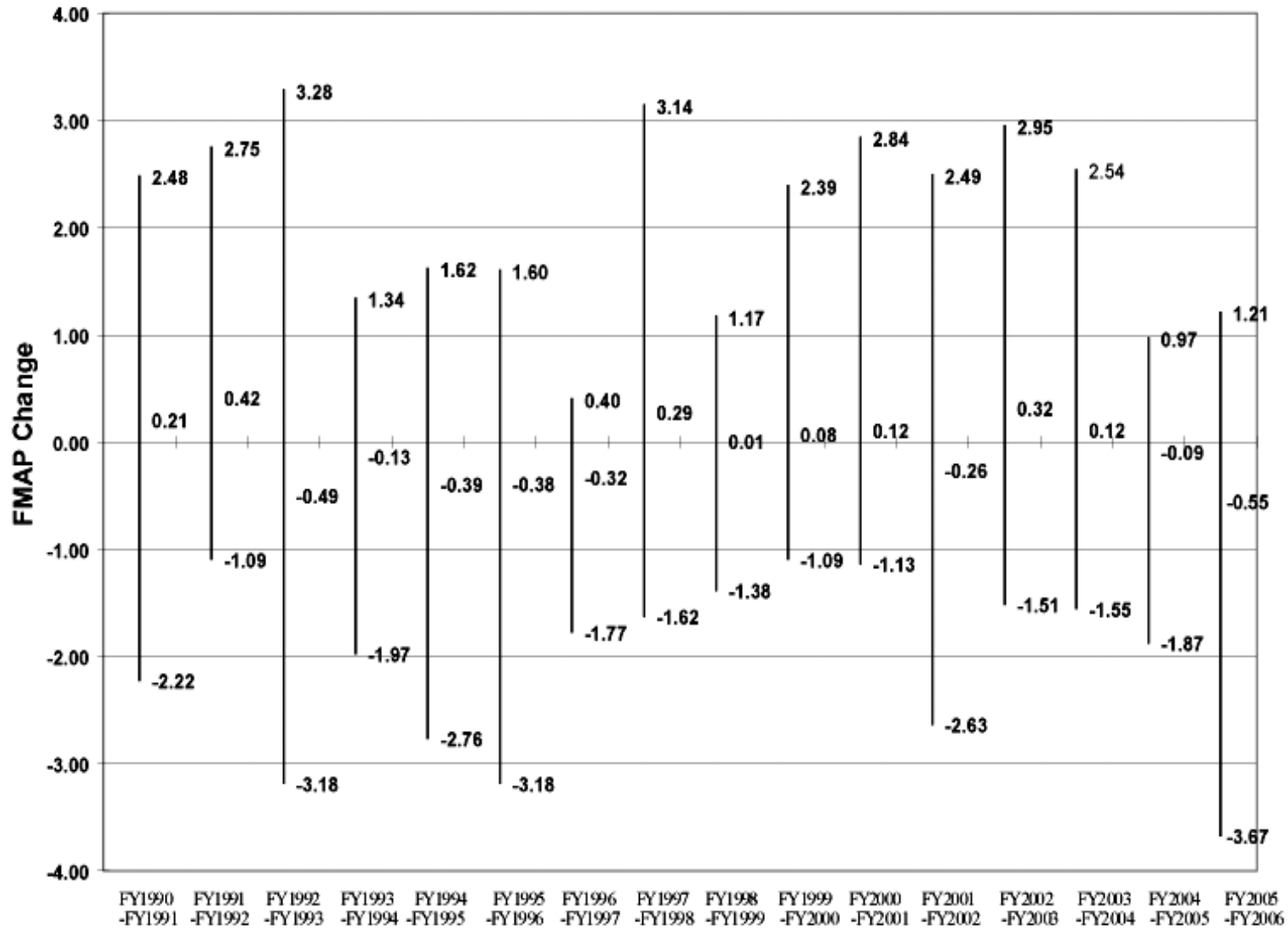
The economic downturn of 2001 has been attributed to the impact of the September 11th attacks and the decline in the equity (stock) market. As a result, states may have experienced a decline in personal income tax revenues without a corresponding reduction in per capita personal income (which is used to calculate FMAPs).

Population is also a major component in the calculation of per capita personal income. If, for example, two states have the same aggregate personal income, the state with the largest population will have the lowest per capita personal income and the highest FMAP of the two states.

According to a published BEA document on the highlights of the 2003 NIPA revision,¹⁸ measurement changes improved estimates of property-casualty insurance, services provided by banks without charge, and investment in nonresidential structures. While these changes would have an impact on personal income (for example, the changes for services provided by banks without charge and property-casualty insurance would affect personal interest income), a larger impact may be attributable to the use of updated and more comprehensive data sources. These include updated BEA input-output tables, more recent annual surveys of business, government, and the economy by the Census Bureau, tabulations of business returns for 2000 and 2001 by the Internal Revenue Service, and tabulations of wages and salaries for 2001 and 2002.

¹⁸ Available on the BEA website at [http://www.bea.gov/bea/newsrel/2003cr_fax.pdf].

Figure 1. Largest Increase, Largest Decrease, and Average Change in State FMAPs, FY1990-FY1991 to FY2005-FY2006



Source: Figure prepared by the Congressional Research Service (CRS).

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State	1990-1991	1991-1992	1992-1993	1993-1994	1994-1995	1995-1996	1996-1997	1997-1998
North Carolina	-0.86	-0.08	-0.60	-0.78	-0.43	-0.12	-0.70	-0.80
North Dakota	2.48	2.75	-0.54	-1.08	-2.40	0.33	-1.33	2.70
Ohio	-0.04	0.70	-0.38	0.58	-0.14	-0.52	-0.89	-1.14
Oklahoma	1.36	1.09	-1.07	0.72	-0.34	-0.16	0.12	0.50
Oregon	0.55	0.05	-1.16	-0.27	0.24	-1.35	-0.49	0.94
Pennsylvania	-2.22	0.20	-1.36	-0.87	-0.34	-1.34	-0.08	0.54
Rhode Island	-1.41	-0.45	0.35	0.23	1.62	-1.65	0.06	-0.73
South Carolina	-0.49	0.08	-1.38	-0.20	-0.37	0.06	-0.34	-0.20
South Dakota	0.79	0.90	-2.32	-0.77	-1.44	-1.40	-1.77	2.86
Tennessee	-1.07	-0.16	-0.84	-0.42	-0.63	-0.88	-1.06	-1.22
Texas	2.30	0.65	0.26	-0.26	-0.87	-1.01	0.26	-0.28
Utah	0.19	0.22	0.18	-0.94	-0.87	-0.27	-0.88	0.25
Vermont	-0.80	-0.60	-1.49	-0.33	1.27	0.05	0.18	1.13
Virginia	0.00	0.00	0.00	0.00	0.00	1.37	0.08	0.04
Washington	0.33	0.77	0.04	-0.78	-2.27	-1.78	0.33	1.63
West Virginia	0.39	0.68	-1.39	-0.57	-1.12	-1.34	-0.66	1.07
Wisconsin	0.34	0.76	0.04	0.05	-0.66	-0.14	-0.67	-0.16
Wyoming	2.19	0.96	-1.99	-1.48	-2.76	-3.18	0.19	3.14
Maximum increase	2.48	2.75	3.28	1.34	1.62	1.60	0.40	3.14
Maximum decrease	-2.22	-1.09	-3.18	-1.97	-2.76	-3.18	-1.77	-1.62
Average change	0.21	0.42	-0.49	-0.13	-0.39	-0.38	-0.32	0.29
Number with increase	23	29	11	16	7	10	10	20
Number with decrease	14	8	27	22	31	29	30	19

Source: Table prepared by the Congressional Research Service (CRS).

a. Statutory change (P.L. 105-33) for Alaska and the District of Columbia.

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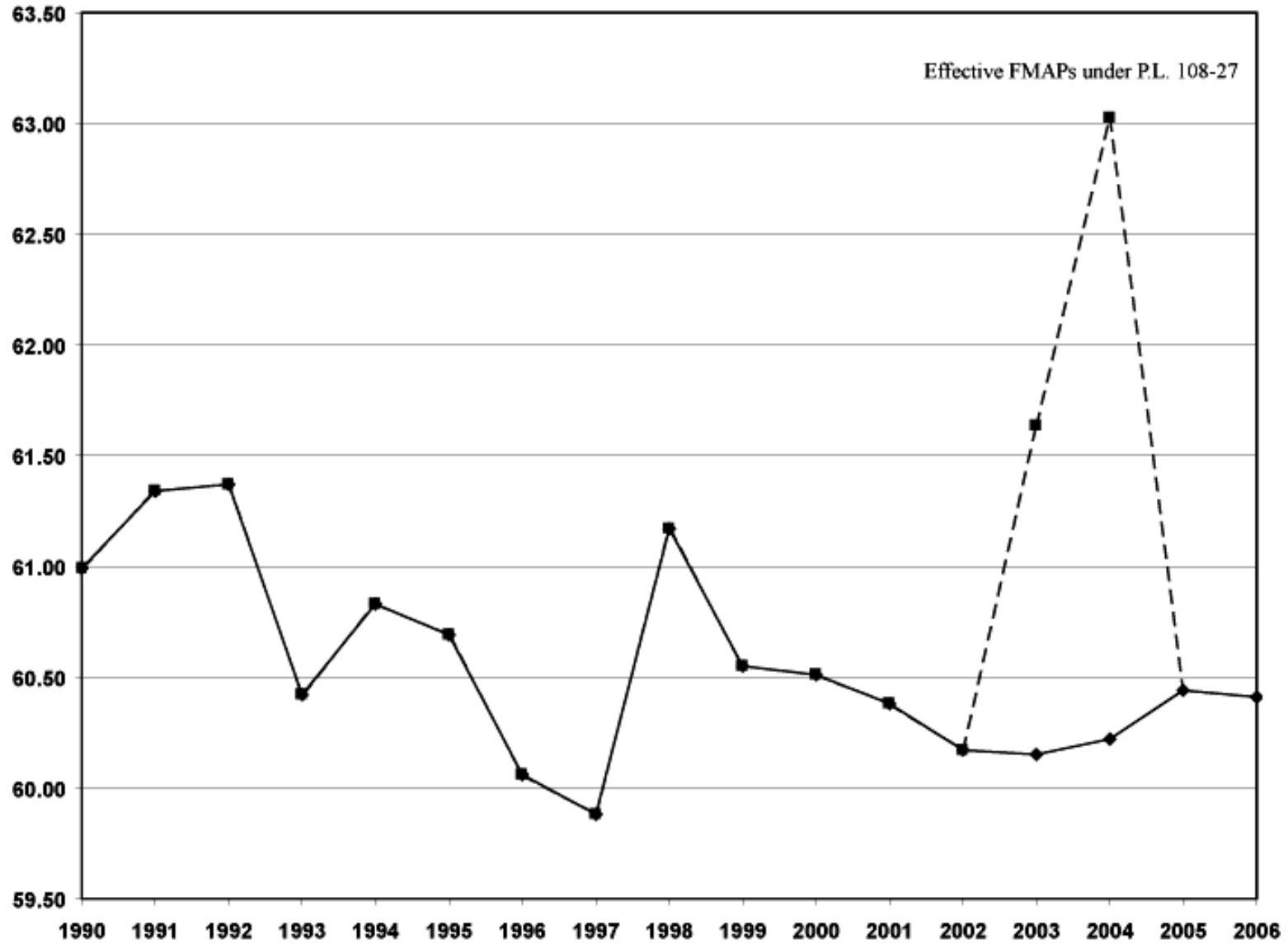
State	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006
North Carolina	-0.02	-0.58	-0.02	-1.01	1.10	0.29	0.78	-0.14
North Dakota	-0.49	0.48	-0.43	-0.12	-1.51	-0.05	-0.82	-1.64
Ohio	0.12	0.41	0.36	-0.25	0.05	0.40	0.45	0.20
Oklahoma	0.33	0.25	0.15	-0.81	0.13	-0.32	-0.06	-2.27
Oregon	-0.91	-0.59	0.04	-0.80	0.96	0.65	0.31	0.45
Pennsylvania	0.38	0.05	-0.20	1.03	0.04	0.07	-0.92	1.21
Rhode Island	0.88	-0.28	0.02	-1.34	2.95	0.63	-0.65	-0.93
South Carolina	-0.38	0.10	0.49	-1.10	0.47	0.05	0.03	-0.57
South Dakota	0.41	0.56	-0.41	-2.38	-0.64	0.38	0.36	-0.96
Tennessee	-0.27	0.01	0.69	-0.15	0.95	-0.19	0.41	-0.82
Texas	0.17	-1.09	-0.79	-0.40	-0.18	0.23	0.65	-0.21
Utah	-0.80	-0.23	-0.11	-1.44	1.24	0.48	0.42	-1.38
Vermont	-0.21	0.27	0.16	0.66	-0.65	-1.07	-1.23	-1.62
Virginia	0.11	0.07	0.18	-0.40	-0.92	-0.53	0.00	0.00
Washington	0.35	-0.67	-1.13	-0.33	-0.37	0.00	0.00	0.00
West Virginia	0.80	0.31	0.56	-0.07	-0.23	0.15	-0.54	-1.66
Wisconsin	0.01	-0.07	0.51	-0.72	-0.14	-0.02	-0.09	-0.67
Wyoming	1.06	-0.04	0.56	-2.63	-0.65	-1.55	-1.87	-3.67
Maximum increase	1.17	2.39	2.84	2.49	2.95	2.54	0.97	1.21
Maximum decrease	-1.38	-1.09	-1.13	-2.63	-1.51	-1.55	-1.87	-3.67
Average change	0.01	0.08	0.12	-0.26	0.32	0.12	-0.09	-0.55
Number with increase	23	23	23	12	23	27	18	9
Number with decrease	16	17	16	28	17	11	19	28

Source: Table prepared by the Congressional Research Service (CRS).

a. P.L. 106-554 sets an alternative formula for Alaska for FY2001-FY2005.

b. Although Alaska had reverted to using the same formula as other states when FY2006 FMAPs were published by HHS, the Deficit Reduction Act of 2005 (DRA, P.L. 109-171) later provided that Alaska's FMAP would not fall below its FY2005 level for FY2006-FY2007.

Figure 2. Median State FMAP, FY1990-FY2006



Source: Figure prepared by the Congressional Research Service (CRS).