

medicaid  
and the uninsured

April 2004

**The Role of Medicaid in State Economies:  
A Look at the Research**

Medicaid is the nation's major public health program for low-income Americans, financing health and long-term care services for more than 50 million people — a source of health insurance for low-income children and parents and a critical source of acute and long-term care coverage for elderly and disabled individuals, including millions of low-income Medicare beneficiaries. In addition, the program supports tens of thousands of health care providers throughout the country, including hospitals, nursing facilities, group homes and community health centers, as well as managed care plans. The program's financing structure — the federal matching arrangement — and the magnitude of Medicaid spending enable the program to make significant contributions to state economies in terms of jobs, income and overall economic activity. As state policymakers grapple with closing budget shortfalls, many look to Medicaid for savings, as it is a major component of state budgets. However, it is argued that cutting Medicaid not only adversely affects the beneficiaries and providers, but also may have an impact on the larger state economy.

The Kaiser Commission on Medicaid and the Uninsured has compiled the findings from 17 studies analyzing the role Medicaid plays in state and local economies. These studies estimate the economic stimulus derived from Medicaid spending, and also analyze the adverse effects on the state economy from reducing Medicaid spending. This policy brief provides an overview of Medicaid financing, explains the methods used to assess economic impact and summarizes the main findings from the research.

**Overview of Medicaid Financing**

Authorized by Title XIX of the Social Security Act, Medicaid is a means-tested entitlement program jointly financed by the federal and state governments. According to Congressional Budget Office estimates, the federal government spent \$161 billion on Medicaid in fiscal year (FY) 2003.<sup>1</sup> In addition, the states are estimated to have spent \$121 billion, bringing total program spending to \$282 billion.<sup>2</sup> Medicaid is the second largest line item in state budgets — 16 percent of state funds are allocated to Medicaid on average — and is the largest source of federal grant support for the states.<sup>3</sup>

The federal government matches each state's Medicaid spending at an established rate that varies by state. The rate, the Federal Medical Assistance Percentage (FMAP), is determined by a set formula and tries to account for variation in incomes across the states. All states receive at least a 50 percent match and states with per capita incomes below the national average receive higher matching percentages. On average across all states, the federal government matches 57 percent of what states spend on Medicaid. The economic downturn has precipitated a significant decline in state revenues, leaving states with

<sup>1</sup> Congressional Budget Office, Fact Sheet for March 2004 Baseline – Medicaid and the State Children's Health Insurance Program.

<sup>2</sup> KCMU estimates based on Congressional Budget Office March 2004 Baseline and General Accounting Office report to the Committee on Finance, U.S. Senate, *Medicaid: Improved Federal Oversight of State Financing Schemes Is Needed*, February 2004.

<sup>3</sup> V. Wachino, A. Schneider and D. Rousseau, *Financing the Medicaid Program: The Many Roles of Federal and State Matching Funds*, KCMU policy brief, January 2004, available at <http://www.kff.org/medicaid/loader.cfm?url=/commonspot/security/getfile.cfm&PageID=30545>.

budget shortfalls in the tens of billions. In legislation enacted in May 2003, Congress temporarily increased the matching rates for FY 2004 by nearly three percent as part of a package providing states with fiscal relief. However, the fiscal relief will expire at the end of June 2004 (see Table 1 for FY 2004 and FY 2005 FMAP by state).

### **Economic Impact Modeling**

To assess economic impact, most studies utilized either the *RIMS II* (Regional Input-output Modeling System) or *IMPLAN* (Impact Analysis for Planning) input-output models, which are widely used for assessing economic impact resulting from an event or major capital input such as a military base closing or airport construction. Input-output economic models account for the relationships between industries in an economy and allow for estimating the effects of changes in expenditures on state industries and the economy as a whole. Both models are based on similar theory — a change in input (e.g., a cut or increase in Medicaid expenditures) will produce *direct* impacts that will then “ripple” through other sectors of the economy producing *indirect* and *induced* impacts. This process does not continue endlessly as with each round of spending, a portion of dollars is used for purchases made outside the state, or is taxed or saved.

The *RIMS II* model was developed by the U.S. Department of Commerce, Bureau of Economic Analysis and the *IMPLAN* model was originally developed by the U.S. Department of Agriculture Forest Service and then extended by the Minnesota IMPLAN Group, Inc. As discussed above, the models are based on similar economic theory; however, there are inherent differences in the models, primarily related to the types of multipliers each model uses and the approach used to compute multipliers. Both models make several assumptions in order to quantify impact; the assumptions and limitations of input-output economic modeling are included within the studies as appropriate.

### **Economic Impact Measures and the Multiplier Effect**

Economic impact can be defined as the net change in the economy resulting from an event such as an increase or decrease in government spending. New spending can create a larger impact than the amount of new spending alone through “multiplier effects” because of the successive rounds of spending that occur when money is injected into a state economy. For instance, state businesses and residents spend their earnings on purchases from other businesses or residents in the state, who in turn make other purchases and so on.<sup>4</sup> Conversely, multipliers can work in reverse when spending is reduced. Economic impact is generally quantified in terms of employment, income, state revenue and overall economic output (also referred to as business activity, gross state product or value added).

Both state and federal Medicaid spending have a multiplier effect. State spending alone yields multiplier effects as money is injected into the state’s economy and used to conduct business, make purchases and support salaries. However, because of the matching arrangement, the economic impact of Medicaid spending is intensified by the infusion of new dollars from the federal government that would otherwise not exist in the state — a dollar of state Medicaid spending attracts at least one federal dollar. Thus, the total impact multiplier, relative to the multiplier of the state dollar alone, is considerably larger. Not including the temporary federal fiscal relief, the FMAP ranges from 50 to 77 percent among states — meaning that for every dollar a state spends on Medicaid, the federal government contributes at least one dollar and up to roughly three and one half dollars. The higher the matching rate, the stronger the financial incentive for states. For example, if a state’s matching rate is set at 70 percent, for each \$1 the state spends on Medicaid, the federal government contributes \$2.33. Conversely, for every \$1 that the state cuts in Medicaid spending, it will forgo the \$2.33 match from the federal government. Therefore, the state is actually reducing its Medicaid spending by \$3.33 to save \$1 in state funds.<sup>5</sup>

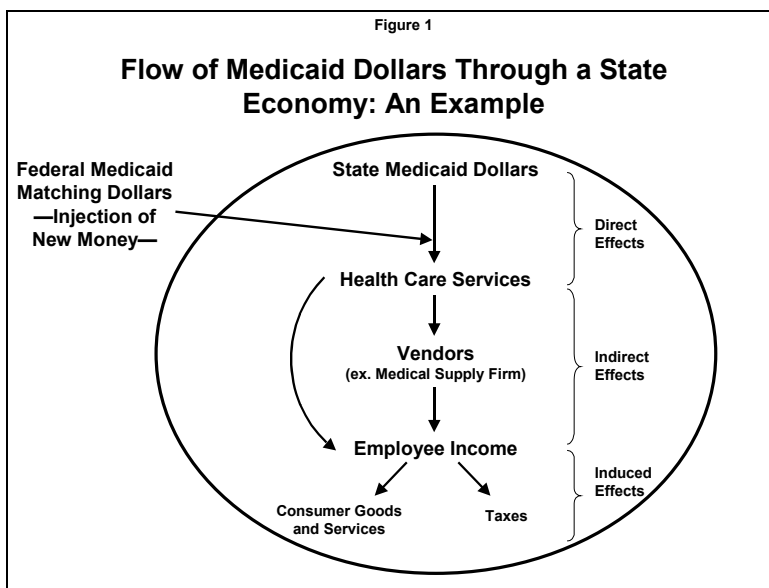
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<sup>4</sup> Within the health care sector, spending is largely internal to the state as health care is a service-based industry in which the product is generally consumed locally.

<sup>5</sup> V. Wachino et al., January 2004.

State-only funded health programs and state spending in other areas may have economic multipliers roughly in the same range as Medicaid; however, these programs may not generate the added impact, as they typically do not attract federal matching funds. It is important to note that there are state programs that receive federal support, though not matching funds, and that there are other state programs, such as highway construction, that do attract federal matching funds.

Figure 1 presents an example of how Medicaid spending flows through an economy and demonstrates how the relationships within an economy can generate impacts greater than the original spending alone. First, while Medicaid payments are made on behalf of enrollees, the direct recipients are providers, including hospitals, private physicians and nursing homes, or managed care organizations. Therefore, Medicaid funding *directly* impacts health care service providers, supporting the jobs, income, and purchases associated with carrying out health care services.



Through the multiplier effect, other businesses and industries are *indirectly* affected due to the direct impact. For example, a medical supply firm may be affected through its business dealings with Medicaid providers — fluctuations in Medicaid funding may affect a Medicaid provider’s supply order which then may affect the medical supplier’s purchases from its vendors, and so on. Lastly, both the direct and indirect effects *induce* changes in household consumption and tax collection primarily due to household income fluctuations. Employees of Medicaid health care providers that are directly impacted or the employees of businesses that are indirectly impacted may change their spending patterns according to increases or decreases in income — the change in income triggers the household to increase or decrease spending on consumer goods. Due to changes in personal income and, subsequently spending, sources of government revenue — including income and sales taxes — would be affected as well.

**Key Study Findings**

After reviewing the 17 studies, several key findings emerge. The specific findings from each study are included in the Appendix.

**Medicaid spending generates economic activity, including jobs, income and state tax revenues, at the state level.**

- Medicaid is the second largest line item in state budgets.

- Money injected into a state from outside the state is critical to generating economic activity. Medicaid’s economic impact is intensified because of the federal match — state spending pulls federal dollars into the economy.
- Medicaid is the largest source of federal funds for states. The amount of federal dollars each state receives depends on the state’s Medicaid spending and their FMAP.
- Federal Medicaid matching dollars support jobs and generate income within the health care sector and throughout other sectors of the economy due to the multiplier effect.

**The economic impact of Medicaid spending varies from state to state.**

- Regardless of the economic impact model used, all studies have similar findings — Medicaid spending has a positive impact on state economies.
- The magnitude of the impact is dependent on state Medicaid spending, a state’s matching rate from the federal government (FMAP) and the economic multipliers used in the studies, which reflect economic conditions within the state.
- The size of the health sector and the interdependence of industry sectors within a state and its regions can modify the impact.
- States and state regions and/or counties that are more reliant on public services and the health care industry may be disproportionately affected.

**Reductions in state and federal Medicaid will lead to declines in economic activity at the state level.**

- Reductions in state spending automatically reduce the infusion of federal dollars. States lose at least one dollar in federal funds for every dollar of state Medicaid spending cut.
- Decreases in funding reduce the flow of dollars to hospitals, nursing homes, home health agencies and pharmacies, and reduce the amount of money circulating through the economy, affecting employment, income, state tax revenue and economic output.

All of the studies examined provide evidence that Medicaid spending has a positive impact on state economies. It is clear from the studies conducted thus far that in addition to providing valuable health coverage for low-income people, state Medicaid spending also yields significant economic benefits for states, and that, largely as a result of Medicaid’s unique matching arrangements, these benefits may be larger than state spending alone. As states address their budget shortfalls, spending decisions will hinge on a variety of factors. However, it will be important to consider the role of Medicaid in state economies and its economic impact relative to state spending in other areas.

This issue brief was prepared by Alicia Carbaugh of the Kaiser Commission on Medicaid and the Uninsured with assistance from Barbara Lyons, Julie Hudman and Victoria Wachino of the Commission staff. KCMU would like to acknowledge the comments provided by Leighton Ku of the Center on Budget and Policy Priorities, Andy Schneider of Medicaid Policy, LLC, and Alan Weil of the Urban Institute.

## **List of State Reports**

**Alaska:** Gerald A. Doeksen, Cheryl St. Clair. "Economic Impact of the Medicaid Program on Alaska's Economy." March 2002. <http://www.hss.state.ak.us/dhcs/PDF/economicimpact2001.pdf>.

**Arizona:** Center for Business Research, L. William Seidman Research Institute, W. P. Carey School of Business, Arizona State University. "The Economic Impacts of Proposed Budget Cuts to Arizona's Health Care Safety Net." June 2, 2003. [www.azhha.org/public/uploads/EconomicImpactsOfProposedBudgetCutsByASU.pdf](http://www.azhha.org/public/uploads/EconomicImpactsOfProposedBudgetCutsByASU.pdf).

**Arkansas:** Wayne Miller and John Pickett. "Economic & Fiscal Impact of Additional \$100 Million in State Funding For Medicaid Programs." March 24, 2003. [http://www.arcommunities.org/econ\\_dev/Economic/economicimpact/medicaid.asp](http://www.arcommunities.org/econ_dev/Economic/economicimpact/medicaid.asp).

**Florida:** Priya Sampath. "Penny Wise and Pound Foolish: Why Cuts to Medicaid Hurt Florida's Economy." October 2003. <http://www.floridachain.org/pubs/MedicaidReport.pdf>.

**Idaho:** Dana Warn. "Medicaid: Someone You Know Needs It." Idaho Community Action Network and Northwest Federation of Community Organizations. January 2004. <http://www.nwfco.org/>.

**Mississippi:** Benjamin Blair and Meghan Millea. "Economic Impacts of Federal Medicaid Expenditures on the State of Mississippi in 2002." August 2003. <http://www.healthpolicy.msstate.edu/publications/economicimpactfull.pdf>.

**Montana:** Steve Seninger. "Economic Impact of Medicaid on Montana and on the Billings, Butte, and Miles City Healthcare Market Areas." January 2003. [http://www.naswmt.com/pdf/Seninger\\_Study.pdf](http://www.naswmt.com/pdf/Seninger_Study.pdf).

**North Carolina:** Kerry E. Kilpatrick et al. "The Economic Impact of Proposed Reductions in Medicaid Spending in North Carolina." April 2002. <http://www.healthlaw.org/pubs/2002.NC.econimpact.doc>.

**Ohio:** Robert Greenbaum and Anand Desai. "Uneven Burden: Economic Analysis of Medicaid Expenditure Changes in Ohio." April 2003. <http://ppm.ohio-state.edu/ppm/ohiomedicaidcuts03.pdf>.

**Oklahoma:** Oklahoma Health Care Authority. "Medicaid and the Economy: Estimated Economic Impact." Revised January 2003.

**South Carolina:** Moore School of Business, University of South Carolina. "Economic Impact of Medicaid in South Carolina." January 2002. <http://research.moore.sc.edu/Research/studies/Medicaid/medicaideconimpact.pdf>.

**Texas:** The Perryman Group. "Medicaid and the Children's Health Insurance Program (CHIP): An Assessment of Their Impacts on Business Activity and the Consequences of Potential Funding Reductions." April, 2003. <http://www.texmed.org/pmt/lel/cln/Perryman.pdf>.

**Utah:** Jan Crispin-Little. "Economic Impact of Medicaid and CHIP on the Utah Economy." January 2003. <http://www.business.utah.edu/bebr/onlinepublications/MedicaidChipEconImp.pdf>

**Virginia:** Fiscal Analytics, Ltd. "The Impact of Additional Medicaid Spending in Virginia." June 2003. <http://www.vhha.com/FAStudyFinal.pdf>.

**West Virginia:** Christiadi and Tom S. Witt. "Economic Impact of Medicaid Federal-Match on the West Virginia Economy FY 2002." January 2002. [http://www.bber.wvu.edu/specialstudies/medicaid\\_federal\\_match.html](http://www.bber.wvu.edu/specialstudies/medicaid_federal_match.html).

**Wisconsin:** Steven C. Deller. "Economic Impact of Reducing Medicaid and BadgerCare Expenditures." February 2003. <http://www.wccf.org/pdf/econimpact.pdf>.

**National Study:** Families USA. "Medicaid: Good Medicine for State Economies." January 2003. [www.familiesusa.org](http://www.familiesusa.org).

**Table 1: Federal Medical Assistance Percentages (FMAP), FY 2004 and FY 2005, and Federal Matching Funds Provided for Each Dollar of State Medicaid Spending, FY 2004**

State	FY 2004 FMAP	Federal Funds Sent to State for Each Dollar in State Medicaid Spending	
		Based on FY 2004 FMAP	FY 2005 FMAP
Alabama	73.7%	\$2.80	70.8%
Alaska	61.3%	\$1.59	57.6%
Arizona	70.2%	\$2.36	67.5%
Arkansas	77.6%	\$3.47	74.8%
California	53.0%	\$1.13	50.0%
Colorado	53.0%	\$1.13	50.0%
Connecticut	53.0%	\$1.13	50.0%
Delaware	53.0%	\$1.13	50.4%
District of Columbia	73.0%	\$2.70	70.0%
Florida	61.9%	\$1.62	58.9%
Georgia	62.6%	\$1.67	60.4%
Hawaii	61.9%	\$1.62	58.5%
Idaho	73.9%	\$2.83	70.6%
Illinois	53.0%	\$1.13	50.0%
Indiana	65.3%	\$1.88	62.8%
Iowa	66.9%	\$2.02	63.6%
Kansas	63.8%	\$1.76	61.0%
Kentucky	73.0%	\$2.71	69.6%
Louisiana	74.6%	\$2.93	71.0%
Maine	69.2%	\$2.24	64.9%
Maryland	53.0%	\$1.13	50.0%
Massachusetts	53.0%	\$1.13	50.0%
Michigan	58.8%	\$1.43	56.7%
Minnesota	53.0%	\$1.13	50.0%
Mississippi	80.0%	\$4.01	77.1%
Missouri	64.4%	\$1.81	61.2%
Montana	75.9%	\$3.15	71.9%
Nebraska	62.8%	\$1.69	59.6%
Nevada	57.9%	\$1.37	55.9%
New Hampshire	53.0%	\$1.13	50.0%
New Jersey	53.0%	\$1.13	50.0%
New Mexico	77.8%	\$3.50	74.3%
New York	53.0%	\$1.13	50.0%
North Carolina	65.8%	\$1.92	63.6%
North Dakota	71.3%	\$2.49	67.5%
Ohio	62.2%	\$1.64	59.7%
Oklahoma	73.5%	\$2.78	70.2%
Oregon	63.8%	\$1.76	61.1%
Pennsylvania	57.7%	\$1.36	53.5%
Rhode Island	59.0%	\$1.44	55.4%
South Carolina	72.8%	\$2.68	69.9%
South Dakota	68.6%	\$2.19	66.0%
Tennessee	67.5%	\$2.08	64.8%
Texas	63.2%	\$1.72	60.9%
Utah	74.7%	\$2.95	72.1%
Vermont	65.4%	\$1.89	60.1%
Virginia	53.5%	\$1.15	50.5%
Washington	53.0%	\$1.13	50.0%
West Virginia	78.1%	\$3.57	74.7%
Wisconsin	61.4%	\$1.59	58.3%
Wyoming	64.3%	\$1.80	57.9%

Sources: <http://aspe.hhs.gov/search/health/fmap.htm>; Kaiser Commission on Medicaid and the Uninsured estimates based on FFY 2004 FMAPs as published at <http://aspe.hhs.gov/search/health/FMAP03-04temporaryincrease.html>.

Notes: FY 2004 rates include 2.95% temporary increase in FMAP under Tax Equity Act that expires in June 2004. FY 2005 rates do not.

## Appendix: Overview of State Economic Impact Analyses

STATE and CITATION	METHODS	FINDINGS
<p><b>ALASKA</b> G. Doeksen and C. St. Clair <i>The Economic Impact of the Medicaid Program on Alaska's Economy</i> March 2002 Oklahoma State University</p>	<p>Study utilized IMPLAN economic input-output model to estimate the direct, indirect and induced economic effects of the Medicaid program on the Alaskan economy.</p> <p>Estimates were based on FY 2001 Medicaid expenditures and 1998 health care expenditures provided by CMS. 1998 health care expenditures were adjusted to 2000 based on U.S. per capita expenditures from 1998-2000 as reported by CMS. Employment and income data for Medicaid program employees was obtained from the Division of Medical Assistance, State of Alaska, Department of Health and Social Services. Health sector employment and income estimates were obtained from the U.S. Census Bureau and adjusted to 2000 based on U.S. health sector employment data from the Bureau of Labor Statistics.</p> <p>Assumes Medicaid supports 22 percent of health care jobs given that Medicaid expenditures account for 22 percent of total estimated health care expenditures.</p>	<p>Alaska's FY 2001 state expenditure of \$150 million for Medicaid yielded:</p> <ul style="list-style-type: none"> <li>• \$424.5 million federal match</li> <li>• Total employment impact: 9,002 jobs (includes those directly employed as a result of Medicaid expenditures and jobs created throughout other sectors of the economy as a result of the direct employment)</li> <li>• Total income impact: \$346 million</li> <li>• Total economic output impact: \$1.0 billion</li> </ul>
<p><b>ARIZONA</b> Center for Business Research L. William Seidman Research Institute W.P. Carey School of Business Arizona State University <i>Economic Impacts of Proposed Budget Cuts to Arizona's Health Care Safety Net</i> June 2, 2003</p>	<p>Study utilized IMPLAN economic input-output model to estimate the impact of proposed reductions in spending for the state's public safety net programs, including the state's Medicaid program – Arizona Health Care Cost Containment System (AHCCCS) – and KidsCare. Specifically, the study analyzed the effects of five proposed changes for FY 2004 contained in the legislative budget proposal relative to the Governor's budget. The report outlines the impacts of each proposed reduction.</p> <p>Estimates are based on the comparative analyses of the two proposed budgets contained in <i>Executive Budget Proposal Compared to the Republican Leadership Proposal for Fiscal Year 2004</i> prepared by the Office of Planning and Budget. Tax revenue impacts are based on the effective business and personal tax rates for state and local taxes in Arizona contained in a report from the Utah State Tax Commission (<i>Business and Household Initial State and Local Tax Burdens, FY2000</i>).</p> <p>The impacts are based on the assumption that reductions in health care spending are not offset by public spending on other programs or tax cuts— estimates are of the gross impacts.</p>	<p>Proposed reductions in Arizona of \$51 million in state funding would result in a reduction of \$132 million in federal matching funds.</p> <p>Based on the findings of the impact of the five proposed changes to AHCCCS and KidsCare, a \$1 million reduction in state funding would result in the following:</p> <ul style="list-style-type: none"> <li>• \$5.1 million decrease in gross state product</li> <li>• \$3.8 million decrease in labor income</li> <li>• 100 lost jobs</li> <li>• \$440,000 decrease in state and local tax revenue</li> </ul>
<p><b>ARKANSAS</b> W. Miller and J. Pickett <i>Economic &amp; Fiscal Impact of Additional \$100 Million in State Funding for Medicaid Programs</i> March 24, 2003 University of Arkansas, Division of Agriculture</p>	<p>Study utilized IMPLAN economic input-output model to estimate the economic effects of \$100 million increase in state Medicaid spending.</p> <p>Analysis assumed that the additional \$100 million of state spending would be matched at the same level as current expenditures, generating an additional \$300 million in federal assistance for a total of \$400 million. It was also assumed that the pattern of spending would remain the same. Pattern of spending data was taken from FY 2002 Medicaid expenditure data provided by the Arkansas Department of Human Services Division of Medical Services.</p>	<p>Arkansas' additional spending of \$100 million dollars will generate/contribute:</p> <ul style="list-style-type: none"> <li>• \$300 million federal match</li> <li>• \$633 million in economic activity (every \$1 in state spending generates \$6.33 in economic activity)</li> <li>• 10,268 jobs</li> <li>• \$306 million in resident income</li> <li>• \$395 million to the Gross State Product</li> <li>• \$22.3 million in revenue for state and local government (sales and use taxes, personal income tax, other direct and indirect taxes and fees)</li> </ul>



## Appendix: Overview of State Economic Impact Analyses

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<p><b>FLORIDA</b> P. Sampath <i>Penny Wise &amp; Pound Foolish: Why Cuts to Medicaid Hurt Florida's Economy</i> October 2003 Human Services Coalition of Dade County written for Community Health Action Information Network (CHAIN)</p>	<p>Study utilized IMPLAN economic input-output model to assess state- and county-level impact of 2002 Medicaid spending and recent state government policies—cuts to the program enacted in the 2003 legislative session and the proposal not to use the federal relief provided by the Jobs and Growth Tax and Relief and Reconciliation act passed in May 2003. Only the federal match was used to calculate impact—56% (1.27:1) in 2002 and 62% (1.61:1) in 2003.</p> <p>IMPLAN data was organized into county-level models and specific multipliers were calculated per county. Medicaid Service Expenditures by county and service type for the year 2001-2002, provided by the Agency for Health Care Administration, and the FMAP were used to calculate impact. The specific multipliers times the direct impact (federal match amount for each category of service by county) gave the estimated indirect and induced effects.</p>	<p>Florida's 2002 state expenditure of \$4.1 billion resulted in the following:</p> <ul style="list-style-type: none"> <li>• \$4.79 billion federal match</li> <li>• Employment impact: 120,950 jobs</li> <li>• Income impact: \$4.3 billion</li> <li>• Business activity impact: \$8.7 billion</li> </ul> <p>Medicaid cuts enacted in the 2003 legislative session of \$49.5 million estimated to have resulted in the following:</p> <ul style="list-style-type: none"> <li>• \$71.8 million lost federal match</li> <li>• 1,732 jobs impacted</li> <li>• \$59 million in lost salaries and wages</li> <li>• \$155 million in lost economic activity</li> </ul>
<p><b>IDAHO</b> D. Warn <i>Medicaid: Someone You Know Needs It Medicaid Supports Idaho's County Economies</i> January 2004 Northwest Federation of Community Organizations and Idaho Community Action Network (economic impact analysis performed by Steven Peterson, Department of Agricultural Economics and Rural Sociology, University of Idaho)</p>	<p>Study utilized IMPLAN input-output model to estimate the state- and county-level economic impact of Medicaid spending.</p> <p>All dollar figures are from year 2000, the most recent year the IMPLAN database is available. SFY 2003 Medicaid spending was deflated to 2000 using a deflator provided by Steven Peterson of the University of Idaho. The economy-wide impacts are the sum of the direct, indirect and induced economic impact of Medicaid spending, based on economic impact analysis performed by Peterson using IMPLAN. Total business activity refers to total industry sales and total income includes both labor and capital income (wages and profits).</p> <p>Medicaid leverage factors by county were also calculated (total business activity resulting from Medicaid spending for a particular county (year 2000 data) divided by state Medicaid spending in that county (deflated to 2000 data).</p>	<p>State spending on Medicaid results in total business activity approximately five times larger than the state's original investment given that state dollars are matched and because the initial spending stimulates additional economic activity.</p> <p>State spending on Medicaid of \$213.8 million resulted in the following:</p> <ul style="list-style-type: none"> <li>• \$549.8 million federal match (\$763,572,171 in total spending)</li> <li>• Total employment impact: 16,764</li> <li>• Total income impact: \$543 million</li> <li>• Total business activity: \$1.0 billion</li> </ul>
<p><b>MISSISSIPPI</b> B. Blair and M. Millea <i>Economic Impacts of Federal Medicaid Expenditures on the State of Mississippi in 2002</i> August 2003 Mississippi Health Policy Research Center, Mississippi State University</p>	<p>Study utilized IMPLAN input-output model to assess the economic impact of 2002 federal Medicaid expenditures on the state and on industries and sectors within Mississippi in terms of output, gross state product (GSP), employment, personal income and tax collections.</p> <p>An output impact estimates how much the economic stimulus increases overall economic activity in the state. GSP is defined as the value added to all final goods and services produced in the state. The tax collections estimate is derived as a percentage of personal income.</p> <p>National and state economic and demographic data collected from Bureau of Economic Analysis, Bureau of Labor Statistics and U.S. Census Bureau. Data was compiled in the 2000 Mississippi IMPLAN database and combined with federal Medicaid expenditures provided by the Mississippi Division of Medicaid.</p>	<p>Mississippi's 2002 Medicaid expenditure of approximately \$620 million resulted in the following:</p> <ul style="list-style-type: none"> <li>• \$1.98 billion federal match</li> <li>• \$2.69 billion in additional economic output</li> <li>• \$1.39 billion of the state's GSP was attributable to federal Medicaid funding</li> <li>• 39,059 jobs supported by Medicaid inflow</li> <li>• \$1.05 billion in personal income</li> <li>• Increase in personal income generated \$60.7 million in tax revenue</li> </ul>



## Appendix: Overview of State Economic Impact Analyses

STATE and CITATION	METHODS	FINDINGS
<p><b>MONTANA</b> S. Seniger <i>Economic Impact of Medicaid on Montana and on the Billings, Butte, and Miles City Healthcare Market Areas</i> January 2, 2003 School of Business Administration, University of Montana-Missoula</p>	<p>Study utilized the Montana IMPLAN model to examine the impact of 2002 Medicaid expenditures on the state as a whole, as well as the Billings, Butte and Miles City areas. The study also examined the economic impact of two budget cut scenarios—15 percent and 20 percent reductions in state Medicaid spending.</p> <p>Baseline job and income measures were established for the state as well as the Billings, Butte and Miles City areas. To calculate the estimates of statewide and market area impact, the federal match rate and 2002 Medicaid expenditures were used. Job and income data was provided by the Montana Department of Labor and Industry and Montana IMPLAN model.</p>	<p>Montana's 2002 state expenditure of \$140 million for Medicaid spending resulted in the following:</p> <ul style="list-style-type: none"> <li>• \$420 million federal match</li> <li>• Total employment impact: 13,469 (health care sector and other sectors)</li> <li>• Total income impact: \$375 million</li> </ul>
<p><b>NORTH CAROLINA</b> K. Kilpatrick, et al. <i>The Economic Impact of Proposed Reductions in Medicaid Spending in North Carolina</i> April 11, 2002 Institute for Public Health, School of Public Health, University of North Carolina, Chapel Hill</p>	<p>Study utilized IMPLAN to calculate the estimated economic impact under two scenarios—reducing SFY 2003 expenditures by a high amount (\$408,309,631) and a low amount (\$399,293,466). These figures represent total Medicaid expenditures (state + federal). Impact was calculated at the state and county level.</p> <p>The Division of Medical Assistance provided budget details and outlined the proposed budget cut scenarios. Job and output loss was calculated for a reduction in total Medicaid expenditures and for only the federal match component.</p> <p>It is argued that economic impact of Medicaid reductions is only appropriately attributable to the loss of the federal match. This supposes that foregone tax revenues that would have gone to the program would flow back into the economy and stimulate other sectors. Though the authors present their findings with this approach, they feel that only accounting for the impact of the loss of federal match understates the impact of the loss of state and local Medicaid support on job and income creation.</p>	<p><b>High reduction</b> (-\$408,309,631 federal + state)</p> <ul style="list-style-type: none"> <li>• Employment impact: 9,700 lost jobs</li> <li>• Economic output loss: \$706,257,420</li> </ul> <p>Federal reduction only under the high scenario (-\$278,593,774)</p> <ul style="list-style-type: none"> <li>• Employment impact: 6,590 lost jobs</li> <li>• Economic output loss: \$479,846,829</li> </ul> <p><b>Low reduction</b> (-\$399,292,466 federal + state)</p> <ul style="list-style-type: none"> <li>• Employment impact: 9,500 lost jobs</li> <li>• Economic output loss: \$690,432,383</li> </ul> <p>Federal reduction only under the low scenario (-\$272,467,295)</p> <ul style="list-style-type: none"> <li>• Employment impact: 6,454 lost jobs</li> <li>• Economic output loss: \$469,094,951</li> </ul>
<p><b>OHIO</b> R. Greenbaum and A. Desai <i>Uneven Burden: Economic Analysis of Medicaid Expenditure Changes in Ohio</i> School of Public Policy and Management The Ohio State University April 2003</p>	<p>Researchers conducted an economic impact analysis to estimate impact of a \$491 million cut in state Medicaid expenditures at the state and county levels. Utilized Families USA report <i>Medicaid: Good Medicine for State Economies</i> for RIMS II-based multipliers. Refer to <i>Medicaid: Good Medicine for California's Economy</i> (outlined above) for methodology.</p> <p>SFY 2001 Medicaid expenditure data was provided by the Ohio Department of Job and Family Services; job and income data was provided by the Census Bureau; 2000 County Business Patterns for Ohio and Ohio Department of Development.</p> <p>The study also examined county dependence on public assistance and health care services in an effort to further quantify local impact of Medicaid reductions.</p>	<p>Ohio's FY 2001 state expenditure of \$3.6 billion for Medicaid expenditures resulted in the following:</p> <ul style="list-style-type: none"> <li>• Employment impact: 132,028 jobs</li> <li>• Income impact: \$4.1 billion</li> <li>• New business activity: \$11.5 billion</li> </ul> <p>A reduction of \$491 million in state Medicaid expenditures would result in the following:</p> <ul style="list-style-type: none"> <li>• Reduced economic activity: \$1.5 billion over a two-year period</li> <li>• Employment impact: 16,500 jobs</li> <li>• Fiscal impact: \$22 million in tax revenue (tax revenue figure includes only state income taxes and does not estimate the effect on sales and other taxes)</li> </ul>

## Appendix: Overview of State Economic Impact Analyses

STATE and CITATION	METHODS	FINDINGS
<p><b>OKLAHOMA</b> Oklahoma Health Care Authority and Oklahoma Department of Commerce <i>Medicaid and the Economy: Estimated Economic Impact</i> January 2001 (Revised January 2003)</p>	<p>Analysis examined the economic impact of SFY 2002 expenditures and of additional incremental spending (additional \$10, \$50, \$70, \$100 and \$130 million state dollars) on the state economy. The study also examined the impact on categories of service in the health sector under each of these scenarios.</p> <p>The economic impact in terms of jobs and income was calculated based on factors utilized by the Oklahoma Department of Commerce in their economic analysis of SFY 2000 Medicaid expenditures. A federal match rate of 70.56% was used in the calculations and program expenditures under each scenario were based on the pattern of expenditures for SFY 2002. To calculate fiscal impact, an average income tax rate and consumption tax rate per dollar of income were used.</p>	<p>Oklahoma's SFY 2002 state expenditure of \$722 million for Medicaid resulted in the following:</p> <ul style="list-style-type: none"> <li>• \$1.65 billion federal match</li> <li>• Total employment supported: 90,366 jobs</li> <li>• Total income supported: \$1.98 billion</li> <li>• Total fiscal impact: \$76.5 million in state income and consumption taxes</li> </ul>
<p><b>SOUTH CAROLINA</b> Division of Research Moore School of Business University of South Carolina <i>Economic Impact of Medicaid on South Carolina</i> January 2002</p>	<p>Study utilized IMPLAN to calculate employment and income changes in the economy for different industries and regions. The economic impacts of the 2001 federal Medicaid match, proposed cuts of four and 10 percent and a \$47 million increase in the federal match were estimated.</p> <p>Federal match cuts are the only direct losses considered in this analysis; assumes that the state spending cut has no net effect on the economy. 2001 Medicaid expenditure data at the state and county levels was provided by the Department of Health and Human Services.</p>	<p>South Carolina's 2001 state expenditure for Medicaid resulted in the following:</p> <ul style="list-style-type: none"> <li>• \$2.1 billion federal matching funds</li> <li>• Support of more than 61,000 jobs</li> <li>• Generation of \$1.5 billion in income for state citizens</li> </ul>
<p><b>TEXAS</b> The Perryman Group <i>Medicaid and the Children's Health Insurance Program (CHIP): An Assessment of Their Impact on Business Activity and the Consequences of Potential Funding Reductions</i> April 2003</p>	<p>Study utilized the Texas submodel of the US Multi-Regional Impact Assessment System (USMIRIAS) developed by the Perryman Group to estimate the economic impact of current Medicaid and SCHIP spending and the effects of potential spending reductions at the state level and among Texas' regions and counties.</p> <p>The study constructed current estimates of the level of direct Medicaid funding in each county and region of the state. The Texas Health and Human Services Commission and the Texas Comptroller of Public Accounts provided 1998 expenditure data per recipient on which the estimates used in the study were based. State-level budgetary data was used to determine county spending on various types of outlays (e.g., physicians, hospitals, nursing homes, etc.). Employment and payroll data by sector were compiled by the US Department of Commerce (Bureau of the Census). Federal funding was estimated based on present cost-sharing parameters.</p> <p>Given these estimates, the overall contribution of the programs to business activities can be evaluated. Survey data, industry information and other data sources are used to create a matrix describing various goods and services (inputs) required to produce one unit of output for a given sector. Once the base information is compiled, evaluations of the magnitude of successive rounds of activity involved in the overall production process can be evaluated by using the USMIRIAS model.</p> <p><i>Refer to study for additional detail regarding methods.</i></p>	<p>Using current Medicaid expenditures, the composite impacts include:</p> <ul style="list-style-type: none"> <li>• \$56.174 billion in annual total expenditures</li> <li>• \$29.511 billion in annual Gross State Product</li> <li>• \$20.444 billion in annual personal income</li> <li>• \$7.694 billion in annual retail sales</li> <li>• 474,420 permanent jobs</li> <li>• \$1.458 billion in annual state revenue</li> </ul> <p>Using federal funding segment only, impacts include:</p> <ul style="list-style-type: none"> <li>• \$33.670 billion in annual total expenditures</li> <li>• \$17.689 billion in annual Gross State Product</li> <li>• \$12.254 billion in annual personal income</li> <li>• \$4.611 billion in annual retail sales</li> <li>• 284,368 permanent jobs</li> <li>• \$0.874 billion in annual state revenue</li> </ul>

## Appendix: Overview of State Economic Impact Analyses

STATE and CITATION	METHODS	FINDINGS
<p><b>UTAH</b> J. Crispin-Little <i>Economic Impact of MEDICAID and CHIP on the Utah Economy</i> January 2003 Bureau of Economic and Business Research, David Eccles School of Business, University of Utah</p>	<p>Study utilized RIMS II to estimate the economic impact of 2001 Medicaid and CHIP expenditures in terms of the federal match, employment, earnings and fiscal impacts (government revenue). Health care expenditures paid for with federal matching monies represent the initial inputs—federal matching dollars are the only initial inputs considered in this analysis.</p> <p>The economic activity estimates are based on expenditure data provided by the Utah Department of Health in its annual publication, <i>Annual Statistical Report of the Medicaid &amp; Utah Medical Assistance Program Fiscal Year 2007</i>. Medicaid expenditures are grouped into categories of service, which provide information on spending patterns, and are matched to industries within the RIMS II model. The corresponding earnings and employment multipliers were applied to the spending in each industry.</p> <p>The study assumes that all state and local taxes are directly tied to income. However, receipts from property tax may not be in direct proportion to an increase in earnings. Therefore, the fiscal estimates should be viewed as an "upper bound" estimate of the impact on state and local tax revenues. The authors note that jobs and earnings are supported, not created with federal dollars. Cuts in state funding would not result in immediate loss of jobs or earnings, however, if the cuts are severe and prolonged, job losses could occur within three to five years.</p>	<p>Utah's 2001 state expenditure of \$264.7 million for Medicaid and \$4.7 million in CHIP resulted in the following:</p> <ul style="list-style-type: none"> <li>• \$600,364,379 Medicaid federal match; \$18,880,000 CHIP match</li> <li>• Employment impact (Medicaid): 16,818 jobs</li> <li>• Employment impact (CHIP): 560 jobs</li> <li>• Income impact (Medicaid): \$437,413,719</li> <li>• Income impact (CHIP): \$16,146,176</li> <li>• Fiscal impact (Medicaid): \$47,371,906</li> <li>• Fiscal impact (CHIP): \$1,748,631</li> </ul> <p>Every \$1,000,000 in state spending resulted in the following:</p> <ul style="list-style-type: none"> <li>• \$2,270,000 Medicaid federal match; \$4,000,000 CHIP match</li> <li>• 64 jobs (Medicaid)</li> <li>• 120 jobs (CHIP)</li> <li>• \$1,664,576 in income (Medicaid)</li> <li>• \$3,459,900 in income (CHIP)</li> <li>• \$120,349 in tax revenue (Medicaid)</li> <li>• \$250,151 in tax revenue (CHIP)</li> </ul>
<p><b>VIRGINIA</b> Fiscal Analytics, Ltd. <i>The Impact of Additional Medicaid Spending in Virginia</i> June 2003</p>	<p>The study conducts an impact analysis on Virginia's Medicaid spending including the following elements: provides a general review of the state's Medicaid program to help determine whether Virginia is providing the appropriate level of support to its health care providers, and examines the economic impact of proposed medical expenditures, including cost-shifting to the private sector due to the current level of funding for the Medicaid program. The study analyzes the impact of Medicaid spending by expenditure program and state region.</p> <p>Specifically, the impact of a \$250 million increase in Medicaid spending is calculated using both the IMPLAN and RIMS II input-output models. The authors discuss several assumptions incorporated into input-output models and limitations of economic impact modeling. The calculations of increases in jobs and business activity using the models are only a part of the larger analysis.</p>	<p>A \$250 million increase in state Medicaid spending would result in the following:</p> <ul style="list-style-type: none"> <li>• Support of 10,000 to 15,000 jobs</li> </ul> <p>RIMS II calculations (using Virginia-specific multiplier of 2.5 from <i>Medicaid; Good Medicine for State Economies, Families USA</i>):</p> <ul style="list-style-type: none"> <li>• \$250 million federal match</li> <li>• \$626 million in new business activity</li> </ul> <p>IMPLAN calculations (using multiplier of 1.7):</p> <ul style="list-style-type: none"> <li>• \$250 million federal match</li> <li>• \$426 million in new business activity</li> </ul>
<p><b>WEST VIRGINIA</b> Christiadi and T. Witt <i>Economic Impact of Medicaid Federal-Match on the West Virginia Economy</i> FY 2002 January 2003 Bureau of Business and Economic Research, College of Business and Economics, West Virginia University</p>	<p>Study utilized IMPLAN input-output model to estimate the impact of FY 2002 Medicaid expenditures, as well as the impact of a 10 percent cut and a five percent increase in expenditures at the state and county level. Overall state impact was also broken down by industrial sector. Only the federal match was used to estimate impact.</p> <p>IMPLAN data for the state's 55 counties and the state as a whole was used to calculate multipliers. Total Medicaid expenditures by provider type and county were provided by the state's Department of Health and Human Services. Economic impacts estimated included employment, employee compensation, business volume and "value added". Value added is defined as a measure of the value created by a business, industry or impact and corresponds to the concept of gross state product.</p>	<p>West Virginia's FY 2002 state expenditure of \$371 million for Medicaid resulted in the following:</p> <ul style="list-style-type: none"> <li>• \$1,133 billion federal match</li> <li>• Total employment impact: 32,685 jobs</li> <li>• Total income impact: \$667.3 in employee compensation</li> <li>• Total business volume impact: \$1,881.0 billion</li> <li>• Generated \$955.2 million of value added</li> </ul>

## Appendix: Overview of State Economic Impact Analyses

STATE and CITATION	METHODS	FINDINGS
<p><b>WISCONSIN</b> S. Dellar, L. Hall, J. Peacock <i>Economic Impact of Reducing Medicaid and BadgerCare Expenditures</i> February 2003</p> <p>University of Wisconsin, Madison and Wisconsin Council on Children and Families</p>	<p>Study utilized IMPLAN input-output model to estimate the effects of a 10 percent cut in Medicaid and BadgerCare (Wisconsin's CHIP program) spending. The cut was based on 2002-2003 Medicaid and BadgerCare spending. The impact analysis was based on 2000 economic data, the most current data available. The model examined direct, indirect and induced effects of the cut and teased out the impact in the health sector by provider/service type and impact on other industry sectors.</p> <p>The study assumes fixed proportion (meaning that a 10 percent reduction in spending has twice the impact of a 5 percent reduction) and assumes full utilization of resources (economy is considered to be at full employment at all times and that employment and wages will go up and down proportionally within the multiplier effect). The authors note that some changes in spending might be absorbed by the health care industry and not trigger layoffs or wage reductions, yet with a 10 percent reduction in spending it is reasonable to assume that layoffs and wage reductions would begin to occur.</p>	<p>The analysis indicates that a 10 percent cut would result in the following:</p> <ul style="list-style-type: none"> <li>• \$367 million per year reduction in total expenditures (\$148 million in state funds, \$218 million in federal matching funds)</li> <li>• Total loss of 9,100 jobs with an accompanying loss of \$394 million in income (direct loss of 5,700 jobs and \$240 million in lost income)</li> <li>• Lost economic activity would result in a \$30 million decline in state and local government revenue (due to lower income, sales and other taxes)</li> </ul>
<p><b>FAMILIES USA (National Study)</b> <i>Medicaid: Good Medicine for State Economies</i> January 2003</p> <p>[State-by-state data available within the study]</p>	<p>Study utilized RIMS II economic input-output model to assess the impact of Medicaid spending in each state for two different years—estimated the economic impact of actual state Medicaid spending in FY 2001 (the most recent year for which expenditure data was available) and calculated economic impact multipliers to predict economic impact of potential state Medicaid spending increases or cuts in FY 2003.</p> <p>RIMS II calculated economic impact in terms of business activity (the increased output of goods and services); employment (the number of new jobs created); and employee earnings (wage and salary income associated with the new jobs).</p> <p>The economic impacts of state Medicaid spending in FY 2001 and the economic impact multipliers for FY 2003 are based on federal fiscal years. FY 2001 data on actual state and federal Medicaid expenditures were obtained from CMS-64 reports. Economic impacts of federal Medicaid expenditures were calculated by multiplying total federal assistance and administrative expenditures by appropriate RIMS II multipliers. FY 2001 state spending and economic impact multiplier was derived by dividing the total economic impact (including both federal matching and economic multiplier effects) by level of state spending. FY 2003, economic multipliers for each dollar of state Medicaid spending were developed (the process is outlined within the study).</p>	<p><u>Business activity</u></p> <ul style="list-style-type: none"> <li>• In FY 2001, states spent nearly \$97.7 billion on Medicaid, generating an almost three-fold return in state economic benefit—\$279.3 billion in increased state-level output of goods and services from increased business activity</li> <li>• In FY 2001, the rate of return per dollar invested in Medicaid ranged from a low of \$1.95 to \$6.34 among states</li> <li>• In FY 2001, the average value of increased business activity generated from state Medicaid spending was nearly \$6 billion per state</li> <li>• In FY 2003, every \$1 million of state Medicaid spending results in \$3.4 million in new state business activity on average (\$1 million reduction in spending results in the loss of business activity)</li> </ul> <p><u>Jobs and Wages</u></p> <ul style="list-style-type: none"> <li>• In FY 2001, total state Medicaid spending generated almost 3 million jobs and over \$100 billion in wages via employment in the health sector and other sectors</li> <li>• On average, wages increased by \$2 billion per state</li> <li>• For FY 2003, on average, \$1 million in state spending generated 37 jobs and \$1.2 million in wages (\$1 million reduction in spending results in the loss of jobs and wages)</li> </ul>

**For additional information on input-output models, IMPLAN or RIMS II, please refer to the individual studies or visit:**

**Minnesota IMPLAN Group, Inc:** <http://www.implan.com> **for information on IMPLAN.**

**U.S. Department of Commerce, Bureau of Economic Analysis:** <http://www.bea.gov/beat/regional/rims/> **for information on RIMS II.**

SOURCE: Research compiled for the Kaiser Commission on Medicaid and the Uninsured, 2003-2004.

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