



# THE ECONOMIC IMPACT OF MEDICAID ON WEST VIRGINIA'S ECONOMY

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# THE ECONOMIC IMPACT OF MEDICAID ON WEST VIRGINIA'S ECONOMY

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## Executive Summary

In 2017, around 560 thousand West Virginians participated in Medicaid (around 30 percent of the total population) and the program spent nearly \$3.7 billion in the state's economy directly. Medicaid is a joint program between the federal government and state governments and, as such, funding for Medicaid is shared by both the federal and state governments. The state share of Medicaid expenditures depends on the state's per capita income. Lower income states receive a greater federal share of program expenditures. Since West Virginia ranks near the bottom of states in terms of per capita personal income, the federal share for the Medicaid program in West Virginia is among the highest in the nation. Currently, the federal share for West Virginia is around 74 percent. As such, for every dollar the State of West Virginia spends on Medicaid, the federal government provides \$2.9.

In this report we consider the broad economic impact that the Medicaid program generates in West Virginia. In particular, we consider a hypothetical scenario in which state policymakers were to reduce state Medicaid spending by \$10 million. The immediate impact of this reduction in state spending would be a loss of approximately \$29 million in federal Medicaid spending in the state.

This \$29 million in reduced federal spending would represent a direct loss in economic activity in West Virginia within the health care industry. In addition, however, this loss would generate spillover effects to other parts of the economy as supplier firms to Medicaid providers would receive less income (termed indirect effects) and employees of Medicaid providers and subsequent supplier firms would receive less income and therefore spend less (termed induced effects).

Overall, we estimate the total economic loss to the state that stems from the original \$10 million reduction in state spending. However, note that we are careful to exclude the \$10 million state spending involved in this scenario because those resources can be devoted to other spending programs in the state or to tax cuts, each of which would create a separate economic impact elsewhere in the economy; we focus only on the matching federal spending.

Our results are summarized as follows. We estimate that the reduction in \$29 million in federal Medicaid spending in West Virginia, stemming from a hypothetical reduction of \$10 million in state Medicaid spending, will result in:

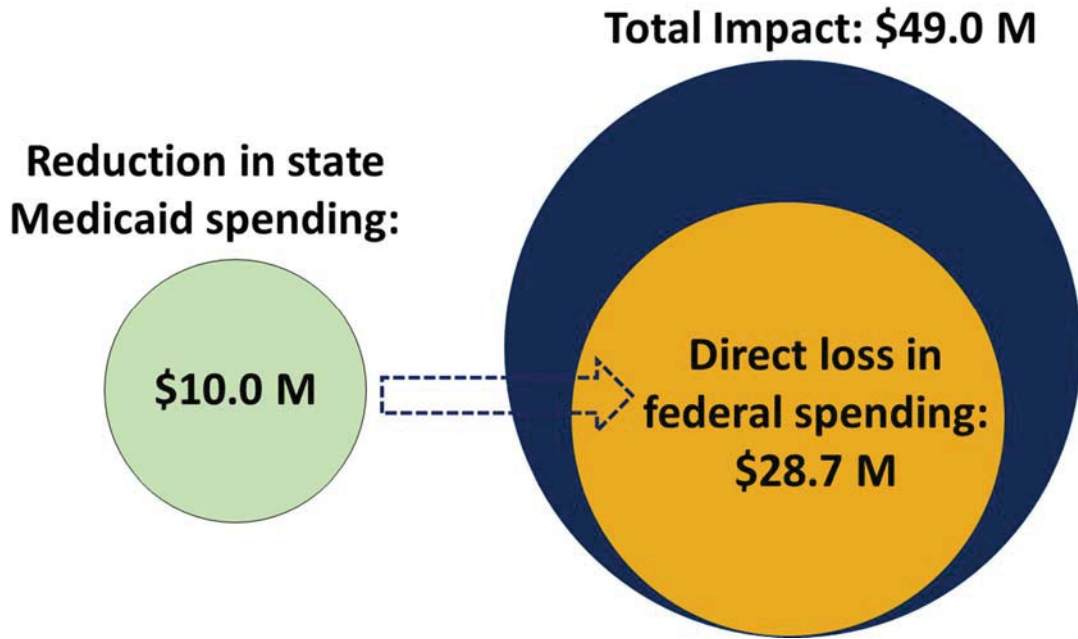
- **a reduction of \$49 million in overall annual economic output.**
- **a loss of approximately 520 jobs annually.<sup>1</sup>**
- **a loss of approximately \$1.8 million in state tax revenue annually, which will offset a portion of the original \$10 million reduction in state spending.**
- **a loss in revenue associated with the Medicaid Provider Tax, which will ignite a vicious cycle that will further erode funding for state Medicaid spending in the future.**

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<sup>1</sup> We do not consider other costs that could stem from this job loss, such as unemployment insurance compensation, Supplemental Nutrition Assistance program benefits, and other social services.



Figure ES1: Economic Impact Summary: West Virginia Economic Output



# 1 Introduction

Medicaid was signed into law in 1965, authorized by Title XIX of the Social Security Act. Medicaid is a joint program between the U.S. federal government and state governments that provides health insurance coverage for low-income individuals and families. State participation in the Medicaid program is voluntary. West Virginia has been part of the Medicaid program since 1966. All 50 states and the District of Columbia eventually joined the Medicaid program by 1982.

As a joint program, funding for the Medicaid program is shared by both the federal and state governments. The state pays Medicaid costs to service providers and performs administrative activities, and the federal government supplements the state spending. The state share of Medicaid expenditures depends on the state's per capita income. Lower income states receive a greater federal share of program expenditures. Since West Virginia ranks near the bottom of states in terms of per capita personal income, the federal share for the Medicaid program in West Virginia is among the highest in the nation. Currently, the federal share for West Virginia is around 74 percent. As such, for every dollar the State of West Virginia spends on Medicaid, the federal government provides \$2.9.

Medicaid expenditures have tended to increase over time, largely driven by periodic expansions to the program's eligibility requirements. The most recent change in eligibility requirements occurred in 2014 with the implementation of the Medicaid expansion component of the Affordable Care Act (ACA). Effective January 2014, the ACA provides participating states the authority to raise the minimum Medicaid eligibility level for all individuals under age 65 to 133 percent of the Federal Poverty Level.<sup>2</sup> Moreover, the ACA provides further incentives by offering states larger federal shares: For the Medicaid expansion above the previous program structure, the ACA offers a federal share of 100 percent through 2016. This share then declines gradually to 90 percent by 2020, and then remains at 90 percent. West Virginia adopted the Medicaid expansion in 2014; as of January 2018, 32 states and District of Columbia have adopted the program. As a result of this Medicaid expansion, currently, for every dollar the State of West Virginia spends on Medicaid, the federal government provides approximately \$2.9.

The Medicaid program in West Virginia specifically has increased substantially over time as well. Total Medicaid spending (combined state and federal), increased to nearly \$3.7 billion in fiscal year 2016 from around \$2.1 billion in the fiscal year of 2000, a 76 percent increase after accounting for inflation. This 2016 spending is equivalent to 5.6 percent of the state's GDP.<sup>3</sup> Similarly, the number of West Virginians enrolled in Medicaid jumped to 560 thousand in 2016 from around 350 thousand in 2000, a 60 percent increase.<sup>4</sup> Medicaid enrollment of 560 thousand – which amounts to around 30 percent of West

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<sup>2</sup> This minimum requirement depends on which income measure it is based on. Based on the Adjusted Gross Income (AGI), the minimum requirement is indeed 133 percent of FPL, but based on the Modified Adjusted Gross Income (MAGI) it is 138 percent of FPL.

<sup>3</sup> Spending and GDP are expressed in 2016 dollars. Data for 2000 are from the "2000 State and National Medicaid Enrollment and Spending Data," by KFF.org (<https://www.kff.org/medicaid/report/2000-state-and-national-medicaid-enrollment-and/>) and data for is from the West Virginia Bureau of Medical Services (unpublished).

<sup>4</sup> About 150 to 175 thousand enrollments were added after 2014 when the state joined the Medicaid expansion program.



Virginia's population - places the state first among U.S. states in terms of Medicaid enrollment as a share of the population.

Given the nature of Medicaid's contribution to the West Virginia economy, any major changes to the program have the potential to impact the state economy significantly. In this report we consider the hypothetical scenario in which the state, for whatever reason, were to reduce Medicaid spending. Specifically, we estimate the economic impact of a hypothetical \$10 million reduction in West Virginia's spending on Medicaid, which amounts to around a one percent reduction. The specific figure that we use is arbitrary. Further, this hypothetical \$10 million reduction in state Medicaid spending would result in a reduction of nearly \$29 million in federal spending, based on current federal policy parameters.

Our focus is on the matching federal dollars that would be lost as a direct result in the \$10 million reduction in state spending. We are careful to exclude the \$10 million funding that the state no longer spends on Medicaid from the impact estimate because this money will be spent on other areas in the state or will result in tax cuts, each of which would generate economic impacts elsewhere and are therefore not lost to the state.

The next section of this report describes the methodology used to estimate the economic impact, followed by a more in-depth discussion of various components of the Medicaid program – specifically the provider tax. In the final section we present our economic impact estimates.





## 2 Economic Impact Methodology

To estimate the total economic impact of the loss in state Medicaid spending, we first need to obtain the direct economic impact associated with the \$10 million reduction in the state’s Medicaid share. In this context, the relevant direct impact is the loss in federal Medicaid spending in the state that is associated with the \$10 million reduction in state spending. This figure is determined based on the federal Medicaid matching percentage, which is set by policy and varies by state. Since Medicaid now has two components—the traditional Medicaid program and the expanded program associated with the ACA—the overall share depends on the federal share for each of the two programs. We estimate the overall share by holding the share for the traditional Medicaid program at around 70 percent, which has been applicable to West Virginia for many years, and for the expansion program at 95 percent, which is the midpoint of the 100 to 90 percent range dictated by the ACA, as stated above. Applying these shares to total spending in the traditional and expansion programs, we obtain the overall federal share of 74.2 percent. This means, a \$10 million reduction in the state share will lead to a loss of \$28.7 million in federal spending in West Virginia. This \$28.7 million is what we consider the direct economic impact of the reduction in state Medicaid spending.<sup>5</sup>

It is important to note that we do not consider the \$10 million reduction in the state Medicaid funding as part of the direct impact. This is because these resources will be used in other areas of the economy—either through public expenditures or tax cuts—and will generate a separate economic impact elsewhere in the state economy.

The total economic impact of the loss in \$28.7 million federal dollars in the state discussed above goes beyond this direct impact. It also includes the secondary impacts accrued in the economy as the loss of direct spending makes its way through the supply chain. For example, a hospital that receives Medicaid spending will reduce its purchases in the local economy on a variety of goods and services, such as utilities, machinery, office supplies, etc. As the suppliers of these inputs reduce production, their subsequent suppliers will reduce production as well, and so on. Also, the organization may reduce its workforce, part of whose income would have been spent in the local economy, and would have in turn generated additional impacts in terms of economic output, income, and employment. These secondary impacts together with the original direct impact form what is known as the “multiplier effect.” As a result, the total loss to the economy can be substantially larger than the initial \$28.7 million in foregone federal spending.

The BBER employs a regional economic modeling system called IMPLAN that allows us to estimate these broader economic impacts for the state of West Virginia. This model is built upon extensive databases of economic and demographic statistics, combined with a refined national input-output structural matrices and regional trade flows, allowing us to estimate the indirect and induced impact of an economic event on detailed industrial sectors. This model is widely used by federal and state governments, universities, and the private sector across the nation.

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<sup>5</sup> The effect of federal spending on Medicaid in the state also depends on the distribution of the spending across specific Medicaid programs since the different programs tend to relate to different industries, which has the potential to affect the state differently. We assume that the distribution of Medicaid spending across specific programs follows the average pattern of distribution that prevailed in the state across 2014 and 2015.



### 3 The Role of Provider Tax Revenue in the State’s Medicaid Funding

Like many states, West Virginia imposes a specific tax on certain healthcare providers. This tax is often referred to as the Medicaid Provider Tax, and it is an important source of revenue for the state share of Medicaid.<sup>6</sup> Over the last four years, this revenue, on average, accounted for about 22 percent of the state’s Medicaid spending.<sup>7</sup>

Therefore, any reduction in payments to health care providers will decrease Medicaid Provider Tax revenue collected by the state and will, therefore, reduce the amount of money the state has available to match federal dollars during the next fiscal year. As such, the state will experience a cyclical reduction in Medicaid funding that will persist for many years.

Figure 1 illustrates this cyclical effect of the provider tax. In Year 0 of this hypothetical scenario, state funding of Medicaid is \$100.0 and the federal match is \$287.3. Of the \$100 in state spending, \$22.2 is derived from the Medicaid Provider Tax from the previous year. In Year 1 we assume that state Medicaid spending is reduced by \$10, bringing total state spending down to \$90 (the state still has \$22.2 million from the Medicaid Provider Tax from the previous year). However, since total spending on Medicaid in the state has declined by \$10 for Year 1, Medicaid Provider Tax revenue falls and, as such, the tax only provides \$19.9 million for Year 2. If the state does not raise funds from elsewhere to cover this loss, spending will fall further in Year 2 and in subsequent years. Given the nature of the Medicaid Provider Tax, a cut in state Medicaid spending ultimately creates a vicious cycle where spending falls in subsequent years as well, increasing any future adverse economic effects.

**Figure 1: Cyclical Effect of the Provider Tax on State Medicaid Funding**

	Year					
	0	1	2	3	4	5
State Medicaid Funding	100.0	90.0	87.8	87.3	87.2	87.2
Provider Tax Revenue	22.2	22.2	19.9	19.4	19.3	19.3
Other State Funding	77.8	67.8	67.8	67.8	67.8	67.8
Federal Match	287.3	258.6	252.2	250.8	250.5	250.4

The decision on whether the state should close the deficit in state Medicaid spending that is created by losses in Medicaid Provider Tax revenue (\$2.3 in the above scenario (\$22.2 – \$19.9)) depends on many considerations such as development priorities, the state’s general economic condition, revenue from other sources, etc. However, it is worthwhile to consider dollar flows associated with the decision of whether to close the deficit. On the one hand, if the state chooses to fill the gap associated with losses in Medicaid Provider Tax revenue, it would have to raise \$2.3 from other funding sources in Year 1 in the above scenario. In contrast, if the state chooses to not fill the deficit with funds from other sources, the

<sup>6</sup> By law, states cannot use provider tax revenues for its share of Medicaid funding unless the tax satisfies three requirements: it must be broad-based, uniformly imposed, and cannot hold providers harmless from the burden of the tax.

<sup>7</sup> Author’s calculations based on data from the West Virginia Bureau of Medical Services.



state will experience a reduction in federal matching funds of \$6.4 for the following year and a future loss of \$2.3 in the Medicaid Provider Tax for the following year. As such, the economic impacts of closing the deficit likely outweigh the costs of not closing the deficit given the nature of the federal matching funds.



## 4 Economic Impact Results

In Figure 2 we report the total economic impact of a hypothetical \$10 million reduction in state Medicaid spending in West Virginia. This reduction immediately leads to a direct loss of \$28.7 million in federal spending, which represents a direct loss in economic activity in West Virginia within the health care industry. In addition, however, this loss would generate spillover effects to other parts of the economy as supplier firms to Medicaid providers would receive less income (termed indirect effects) and employees of Medicaid providers and subsequent supplier firms would receive less income and therefore spend less (termed induced effects). In particular, as reported in the table, we estimate that the combined indirect and induced effects lead to additional losses of \$20.3 million of output as the spending losses reverberates through the economy. Ultimately, this translates into a total loss of \$49 million in state GDP.

**Figure 2: Economic Impact of a \$10 Million Reduction in State Medicaid Spending**

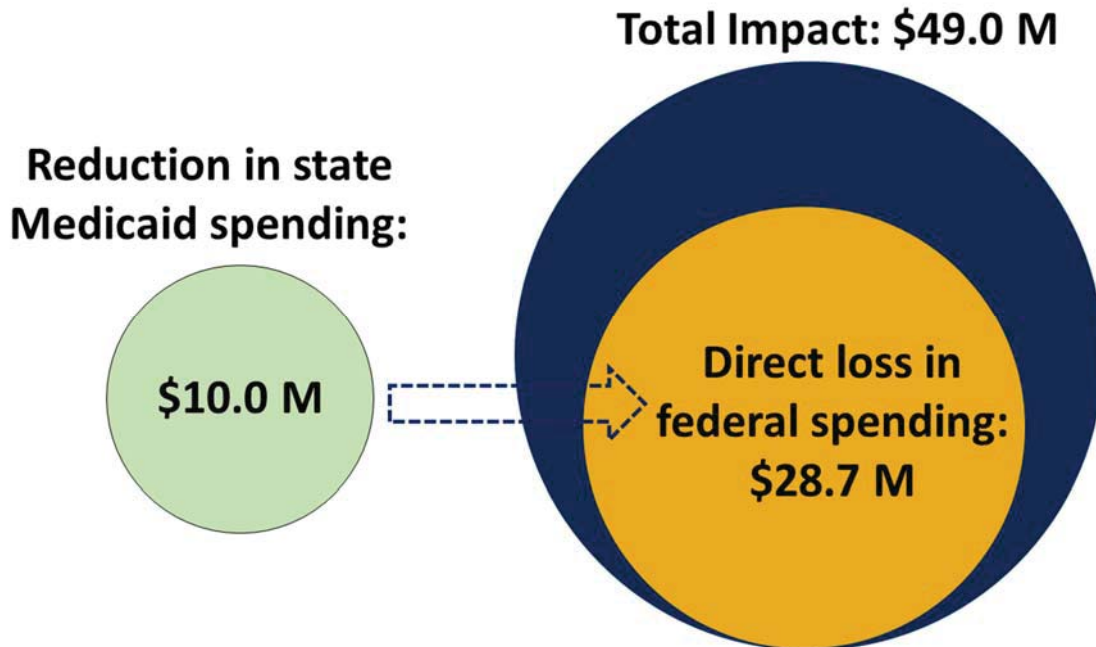
Type of Impact	Direct	Indirect and Induced	Total
Output (million \$)	28.7	20.3	49.0
Employment (jobs)	358	162	520
Employee Compensation (million \$)	16.5	5.6	22.1
Sales & PI Taxes (million \$)	--	--	1.8

Note: Output, Employment Compensation, and Tax impacts are in 2017 \$.

This process is summarized in Figure 3 where the green circle represents the reduction in state Medicaid spending, the yellow circle represents the loss in federal spending, and the larger circle represents the total economic losses after including indirect and induced impacts. To be clear, note that the light green circle representing the \$10 million reduction in the state Medicaid share is not part of the total impact.



**Figure 3: Economic Impact Summary: West Virginia GDP**



This loss in federal Medicaid spending is directly associated with an estimated loss of 358 jobs in the state. The jobs are in the health care industry. The total economic impact discussed above is associated with an estimated 520 jobs lost altogether. The additional job losses that occurs will be widely distributed across industries in the state. In terms of indirect job losses, for example, the losses could occur in manufacturing, for supplier firms, or in professional and business services, in response to the loss demand for such services. In terms of the induced job losses, these will be spread across virtually every sector that caters to local demand, such as retail or eating and drinking establishments. These 520 jobs correspond with a loss of over \$22 million in employee compensation. Lastly, we estimate that these losses in output and employment will result in a loss of \$1.8 million in state sales and personal income tax revenue, offsetting a portion of the initial \$10 million spending reduction.

It should be noted that, even with the hypothetical loss in Medicaid spending, the same patients will still ultimately need treatment. As such, they could ultimately face longer wait times and reductions in the quality of care. Impacts associated with these concerns are beyond the scope of this report.

## About the Bureau of Business and Economic Research

Since the 1940s, the BBER's mission has been to serve the people of West Virginia by providing the state's business and policymaking communities with reliable data and rigorous applied economic research and analysis that enables the state's leaders to design better business practices and public policies. BBER research is disseminated through policy reports and briefs, through large public forums, and through traditional academic outlets. BBER researchers are widely quoted for their insightful research in state and regional news media. The BBER's research and education/outreach efforts to public- and private-sector leaders are typically sponsored by various government and private-sector organizations.

The BBER has research expertise in the areas of public policy, health economics, energy economics, economic development, economic impact analysis, economic forecasting, tourism and leisure economics, and education policy, among others. The BBER has a full-time staff of three PhD economists and one master's-level economist. This staff is augmented by PhD student research assistants. The BBER also collaborates with affiliated faculty from within the College of Business and Economics as well as from other parts of WVU.

To learn more about our research, please visit our website at <http://www.be.wvu.edu/bber>.

