Evidence Is Mounting: The Affordable Care Act Has Worsened Medicaid's Structural Problems

Brian C. Blase

MERCATUS CENTER
George Mason University

3434 Washington Blvd., 4th Floor, Arlington, Virginia 22201
www.mercatus.org

Brian C. Blase. "Evidence Is Mounting: The Affordable Care Act Has Worsened Medicaid's Structural Problems." Mercatus Research, Mercatus Center at George Mason University, Arlington, VA, September 2016.

ABSTRACT

Before the Affordable Care Act (ACA), the federal government provided states with an open-ended reimbursement of at least half of each state's Medicaid expenditures. Because of the federal reimbursement, both state Medicaid spending and federal spending (through the reimbursement) have increased significantly since the program's inception, substantially crowding out spending on other state priorities, such as education and transportation. The ACA contains an elevated reimbursement rate—equal to 100 percent from 2014 to 2016—for the population made newly eligible by the law. The elevated rate has created an incentive for states to boost expansion enrollment and to create high payment rates for expansion enrollees. Recent data suggest that states have acted on this incentive as both enrollment and per enrollee spending are much higher than expected for the expansion population. If policymakers hope to achieve value through Medicaid and put the program on a sustainable fiscal path, they should consider alternative financing approaches to the open-ended federal reimbursement.

JEL codes: H75, H77, H72, I13, I38

Keywords: Medicaid, Medicaid expansion, Affordable Care Act, crowd-out, Medicaid value, Medicaid crowd-out, Medicaid expansion effects

The Mercatus Center gratefully acknowledges the financial support of the John Templeton Foundation for research on healthcare policy in the United States.

Release: September 2016

One of the more controversial parts of the Affordable Care Act (ACA) is its expansion of Medicaid.[1] The purpose of the expansion was to cover people with income below 138 percent of the federal poverty level (FPL)—an amount equal to about $16,394 for a single person and $33,534 for a family of four in 2016.[2] Many of these people did not previously have health insurance. Before the ACA's expansion of the program, Medicaid was primarily used by seniors and the disabled to finance healthcare and long-term care expenses and also by lower-income children and their mothers as well as pregnant women to finance healthcare expenses. The Supreme Court made Medicaid expansion optional for states,[3] but the federal government's large financial inducements have led 31 states and the District of Columbia to expand thus far.[4] In general, expansion states have experienced significantly higher enrollment and spending than expected.[5] This is likely because the federal government reimburses 100 percent of the cost of expansion enrollees, which incentivizes states to boost expansion enrollment and create high payment rates for expansion enrollees.

Even before the ACA, Medicaid had been growing rapidly and raising a concern that it might already be too large to serve enrollees well. In the two decades before the ACA became law, Medicaid enrollment surged—from

1. Patient Protection and Affordable Care Act, Pub. L. No. 111-148, Title II—Role of Public Programs, Subtitle A—Improved Access to Medicaid (March 23, 2010).
2. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, "Poverty Guidelines," January 25, 2016, https://aspe.hhs.gov/poverty-guidelines.
3. In a 7–2 decision in June 2012, the Supreme Court ruled that the ACA Medicaid expansion, which threatened all existing federal Medicaid funding if states did not expand, was unconstitutional. In the opinion, Chief Justice Roberts stated, "In this case, the financial 'inducement' Congress has chosen is much more than 'relatively mild encouragement'—it is a gun to the head." National Federation of Independent Business et al. v. Sebelius, June 28, 2012.
4. Advisory Board, "Where the States Stand on Medicaid Expansion," January 13, 2016, https://www.advisory.com/daily-briefing/resources/primers/medicaidmap.
5. Christina A. Cassidy, "Medicaid Enrollment Surges under Expanded Program; States Worry about Paying for Added Care," *U.S. News & World Report*, July 19, 2015.

"Overall, . . . Medicaid enrollees tend to suffer worse outcomes from the healthcare system than do similar people without Medicaid."

22.9 million people on average in 1990 to 54.5 million on average in 2010.[6] Enrollment increased to 58.6 million people in 2013—the year before the ACA Medicaid expansion became effective—and to 68.9 million people in 2015.[7]

Medicaid expansions result in some individuals replacing their private coverage, which can significantly affect the allocation of healthcare services. Some studies have found that targeted eligibility expansions do increase healthcare utilization among the targeted group and can improve health outcomes. Overall, however, Medicaid enrollees tend to suffer worse outcomes from the healthcare system than do similar people without Medicaid. New findings from a quasi experiment in Oregon did not show that Medicaid expansion produced significant health improvements for new enrollees.[8]

The federal government provides matching funds to reimburse state Medicaid expenditures. These funds are contingent on states following several prescriptive federal rules.[9] The federal reimbursement, which historically averaged about 57 percent of state Medicaid expenditures,[10] creates an incentive for states to be more concerned about maximizing federal contributions and directing ever-increasing resources toward Medicaid rather than focusing on the value obtained from the spending. The open-ended federal reimbursement of state Medicaid expenditures is the program's key structural flaw.

Michael Greve coined the term "cartel federalism" to refer to Medicaid's design in which states compete for federal subsidies to carry out Washington's agenda.[11]

---

6. Centers for Medicare and Medicaid Services (CMS), *2015 Actuarial Report on the Financial Outlook for Medicaid* (report to Congress, 2015).
7. Ibid.
8. Katherine Baicker et al., "The Oregon Health Insurance Experiment," accessed September 12, 2016, http://www.nber.org/oregon.
9. Kaiser Commission on Medicaid and the Uninsured, "Federal Core Requirements and State Options in Medicaid: Current Policies and Key Issues," Kaiser Family Foundation, April 2011.
10. CMS, "Financing & Reimbursement," Medicaid.gov, accessed August 1, 2016.
11. Michael S. Greve, *Federalism and the Constitution: Competition versus Cartels* (Arlington, VA: Mercatus Center at George Mason University, 2015).

According to Greve, cartel federalism "promotes the growth of government at all levels, creates impenetrable intergovernmental bureaucracies and a torrent of transfer payments, and destroys political accountability."[12]

The ACA significantly expanded Medicaid eligibility to include nondisabled, working-age adults with income below 138 percent of the FPL. It also created a much higher federal reimbursement rate for this expansion population relative to the rate for traditional Medicaid populations. If states adopted the expansion, the federal government would reimburse states for 100 percent of state spending on expansion enrollees—those enrollees with income between 138 percent of the FPL and the state's previous eligibility thresholds—from 2014 through 2016. The federal share phases down to 90 percent in 2020, where it is scheduled to remain in perpetuity. According to the Congressional Budget Office (CBO), 12 million people, on net, have been added to the Medicaid program in 2015 as a result of the ACA.[13]

The elevated federal reimbursement rate provides states—almost all of which did not expand Medicaid to this population before the ACA when they generally would have received their normal reimbursement percentage to do so—with a large incentive to adopt the expansion. Only two states (Massachusetts and Vermont) had concluded that the tradeoffs—higher state taxes and reduced spending elsewhere—justified expanding Medicaid to the ACA expansion population before 2010.[14]

The elevated reimbursement rate for the expansion population worsens Medicaid's key structural problem, and results in little, if any, incentive for states to be cost conscious for the expansion population. New government data show that enrollment is much higher than expected in states that have adopted the expansion and that the cost per expansion enrollee is far more than expected. The Department of Health and Human Services (HHS) estimates that the cost per expansion enrollee will be $5,796 in fiscal year (FY) 2015—35 percent higher than the department expected the previous year.[15]

---

12. Ibid.

13. CBO estimates that about 10 million of these people are newly eligible enrollees and about 2 million were eligible under previous state eligibility criteria but would not have been enrolled in Medicaid without the ACA.

14. Brian Blase, "Is It Immoral and Stupid for States to Refuse Obamacare's Medicaid Expansion?," *Forbes*, December 21, 2015.

15. HHS reported that the estimated costs per newly eligible enrollee in FY 2015 equaled $6,366. As I discuss later in this study, HHS estimates that the federal government will receive about 9 percent back because states set managed care payment rates too high. If 9 percent of the $6,366 is returned, then the government's cost per expansion enrollee in FY 2015 would decline to $5,796. CMS, *2015 Actuarial Report on the Financial Outlook for Medicaid*.

Overall, Medicaid spending is estimated to have totaled $554 billion in FY 2015—up nearly $100 billion from FY 2013.[16] As a result of the ACA, the federal share of total spending is up sharply—rising from 57 percent to 63 percent.[17]

Government experts at CBO and HHS have significantly erred in their projections of the costs of the ACA Medicaid expansion. They generally assumed that the expansion population would cost less since they would tend to be healthier than the low-income, nondisabled adults already on the program. While some experts, such as those at HHS, expected pent-up demand to boost initial average enrollee expenditures, they generally expected newly eligible enrollees would be about 20 percent to 30 percent less expensive, on average, than previously eligible enrollees. In fact, according to this line of reasoning, the higher than expected enrollment should have pushed down per enrollee costs because lower enrollment likely would have disproportionately contained sicker people.

States' behavior—particularly in setting capitation rates, but also in their efforts to enroll people under the ACA expansion criteria—is likely different depending on whether they can disperse 50 percent of the cost to federal taxpayers or 100 percent of the cost to federal taxpayers. It should not be surprising that enrollment exceeds expectations, nor that average spending for the expansion population is much higher than for the traditional populations. Large cost overruns in federal Medicaid spending are particularly concerning, given a 2015 study from economists at MIT, Harvard, and Dartmouth. According to the study, "Across a variety of alternative specifications, we consistently find that Medicaid's value to recipients is lower than the government's costs of the program, and usually substantially below."[18] The economists estimated that the "welfare benefit to recipients from Medicaid per dollar of government spending range[s] from about $0.2 to $0.4."[19]

In the remainder of this paper, I discuss long-standing problems with the Medicaid program and examine the way the ACA has exacerbated those problems. A subsequent paper will provide a roadmap for reforming the program to improve its value to beneficiaries and reduce its cost for taxpayers.

16. Ibid.
17. Ibid.
18. Ibid.
19. Amy Finkelstein, Nathaniel Hendren, and Erzo F. P. Luttmer, abstract of "The Value of Medicaid: Interpreting Results from the Oregon Health Insurance Experiment" (working paper, Massachusetts Institute of Technology, June 2015).

LONG-STANDING CONCERNS WITH THE MEDICAID PROGRAM

Before the ACA, several problems had already beset Medicaid, many emanating from the open-ended federal reimbursement of state Medicaid expenditures. This financing structure produces substantial spending and lessens the incentive of both the states and the federal government to ensure that the spending provides adequate value.[20] That such a financing arrangement would produce this outcome should not be surprising, particularly to economists. In separate articles, James Buchanan and Barry Weingast, Kenneth Shepsle, and Christopher Johnson have demonstrated that when the costs of government expenditures are externalized to individuals outside a jurisdiction, the jurisdiction tends to consume public resources beyond the socially optimal amount.[21] Wallace Oates observed that intergovernmental grants cause voters to demand an excessive amount of spending because they create the appearance that local public expenditures are funded by nonresidents.[22] Using a panel dataset of Organisation for Economic Co-operation and Development (OECD) countries, Jonathan Rodden finds that decentralization funded by common-pool resources is directly related to the growth in government.[23]

In addition to creating fiscal incentives for governments to spend without adequate attention to the corresponding value obtained, Medicaid also creates perverse incentives for people to work less and to replace private coverage with government coverage. Perhaps most importantly—although some studies showed benefits to new enrollees resulting from targeted Medicaid expansions—a significant amount of research suggests that Medicaid enrollees receive relatively low-quality care and have relatively poor health outcomes.[24] Moreover, research that assesses Medicaid expansions, only looking at the effects on expansion enrollees without considering the

20. Detailed examples of improper state Medicaid expenditures and inadequate federal oversight can be found in a report released by the House Committee on Oversight and Government Reform, *Uncovering Waste, Fraud, and Abuse in the Medicaid Program*, April 25, 2012.
21. James Buchanan, "Why Does Government Grow?," in *Budgets and Bureaucrats*, ed. Thomas E. Borcherding (Durham, NC: Duke University Press, 1977); Barry R. Weingast, Kenneth A. Shepsle, and Christopher Johnsen, "The Political Economy of Benefits and Costs: A Neoclassical Approach to Distributive Politics," *Journal of Political Economy* 89, no. 4 (1981).
22. Wallace E. Oates, "On the Nature and Measurement of Fiscal Illusion: A Survey," in *Taxation and Fiscal Federalism: Essays in Honour of Russell Mathews*, ed. G. Brennan et al. (Sydney: Australian National University Press, 1988).
23. Jonathan Rodden, "Reviving Leviathan: Fiscal Federalism and the Growth of Government," *International Organization* 57 (Fall 2003), 695–729.
24. Brian Blase, "Medicaid Provides Poor Quality Care: What the Research Shows" (Backgrounder #2553, Heritage Foundation, Washington, DC, May 2011); Baicker et al., "Oregon Health Insurance Experiment."

broader population effects, is incomplete and potentially misleading because large coverage expansions have widespread effects on the healthcare system. For example, the large statewide expansion of Medicaid in Tennessee in the mid-1990s did not correlate to population health improvements.[25]

Rampant State Spending Crowds Out Other Priorities and Has Poor Oversight

The traditional federal financing structure makes Medicaid spending relatively cheaper than other areas of state spending, and it incentivizes states to spend additional amounts on Medicaid, as $1 of state funds brings between $1 and $3 of federal funds.[26] The exact rate—dubbed the federal medical assistance percentage (FMAP)—varies inversely with state per capita income.[27] The open-ended reimbursement also presents states with an incentive to artificially inflate Medicaid expenditures through schemes like provider taxes in order to increase federal funds received by the state.[28] As an illustration, Oregon state representative Mitch Greenlick referred to provider taxes as a "dream tax" for states, declaring, "We collect the tax from the hospitals, we put it up as a match for federal money, and then we give it back to the hospitals."[29]

Figure 1 shows how the percentage of state expenditures on Medicaid more than doubled between 1990 and 2015, while the percentage of spending on elementary and secondary education, higher education, and transportation declined.[30] Figure 2 shows that, while all areas of inflation-adjusted state

25. Brian C. Blase, "Statewide Health Impact of Tennessee's Medicaid Expansion" (PhD diss., George Mason University, Fairfax, VA, 2013).

26. A state with a 50 percent federal reimbursement rate—the lower bound for a state's federal reimbursement rate—receives $1 from the federal government for each $1 of its own spending as 50 percent of $2 is $1. A state with a 75 percent federal reimbursement rate—approximately the upper bound for a state's federal reimbursement rate—receives $3 from the federal government for each $1 of its own spending as 75 percent of $4 is $3.

27. The formula to determine a state's traditional FMAP is

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

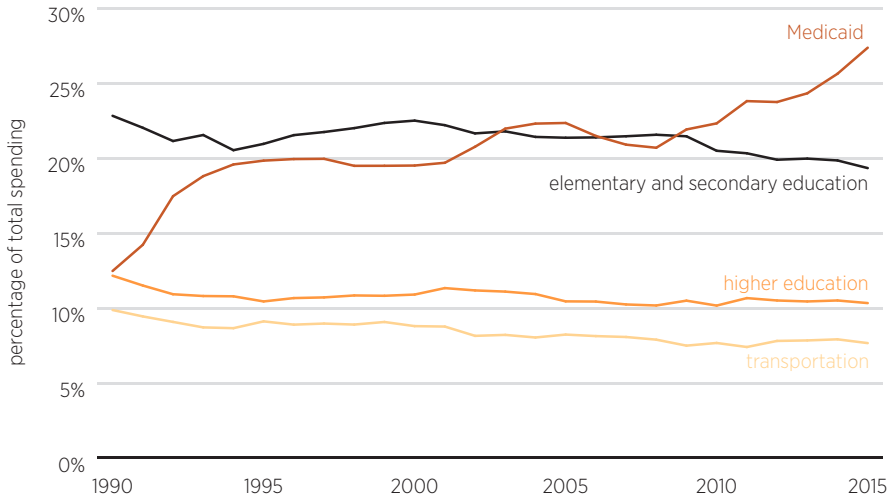
The 0.45 factor in the formula is designed to ensure that a state with a per capita income equal to the US average has an FMAP of 55 percent with a state share of 45 percent.

28. Brian C. Blase, "Medicaid Provider Taxes: The Gimmick That Exposes Flaws with Medicaid's Financing" (Mercatus Research, Mercatus Center at George Mason University, Arlington, VA, February 2016).

29. Peter Wong, "Oregon House Extends Hospital Tax," *Portland Tribune*, March 11, 2015.

30. The state share of spending on Medicaid, elementary and secondary education, higher education, and transportation equaled 12.5 percent, 22.8 percent, 12.2 percent, and 9.9 percent, respectively, in 1990. In 2015, these amounts equaled 27.4 percent, 19.3 percent, 10.3 percent, and 7.7 percent.

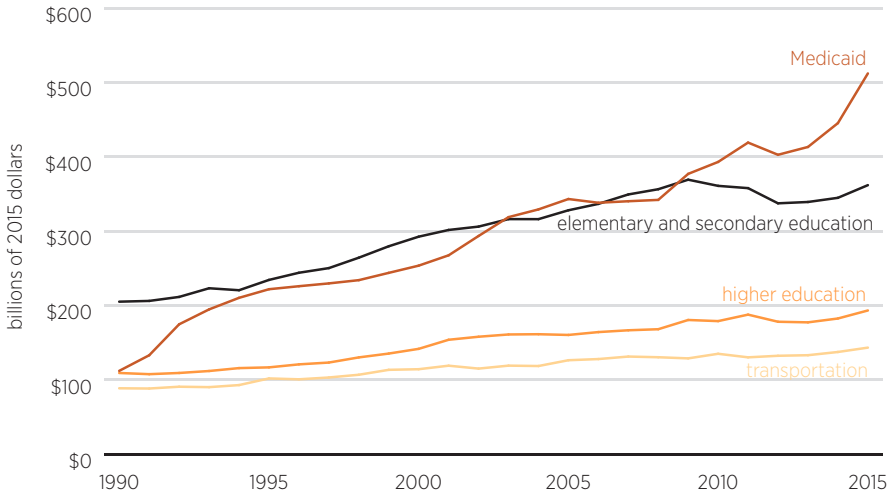
FIGURE 1. PERCENTAGE OF STATE EXPENDITURES FOR FOUR MAIN SPENDING CATEGORIES



Note: The data displayed account for the four largest categories of spending in the National Association of State Budget Officers (NASBO) reports and total roughly 60 percent of expenditures. The data include expenditures financed by the states and by the federal government. NASBO's Medicaid expenditure data exclude administrative costs, which equal about 10 percent of total program expenditures. Including Medicaid's administrative costs would slightly increase the Medicaid line and result in a very slight decrease in the lines for the other categories.

Source: NASBO, *State Expenditure Report*, 1990–2015.

FIGURE 2. TOTAL STATE EXPENDITURES



Note: The data displayed account for the four largest categories of spending in the National Association of State Budget Officers (NASBO) reports. The data include expenditures financed by the states and by the federal government. Spending figures are adjusted to a 2015 price level using the Consumer Price Index. NASBO's Medicaid expenditure data exclude administrative costs, which equal about 10 percent of total program expenditures. Including Medicaid's administrative costs would increase the Medicaid expenditure line.

Source: NASBO, *State Expenditure Report*, 1990–2015.

expenditures have increased over this period, spending on Medicaid has grown at a much higher rate. Figure 3 presents inflation-adjusted state expenditures financed with federal dollars and shows a huge increase in federal Medicaid spending, with the large uptick at the end of the period attributable to the ACA's expansion of the program. Figure 4 shows the percentage of federal funding received by states by spending category, showing that a much larger portion of this federal funding goes toward Medicaid than it did 25 years ago.

An additional unfortunate effect of Medicaid's open-ended matching grant structure is to discourage both states and the federal government from conducting effective program oversight. As an illustration of the disincentive for states, a state with a 60 percent federal match rate only receives $1 in savings for every $2.50 it identifies in wasteful spending.

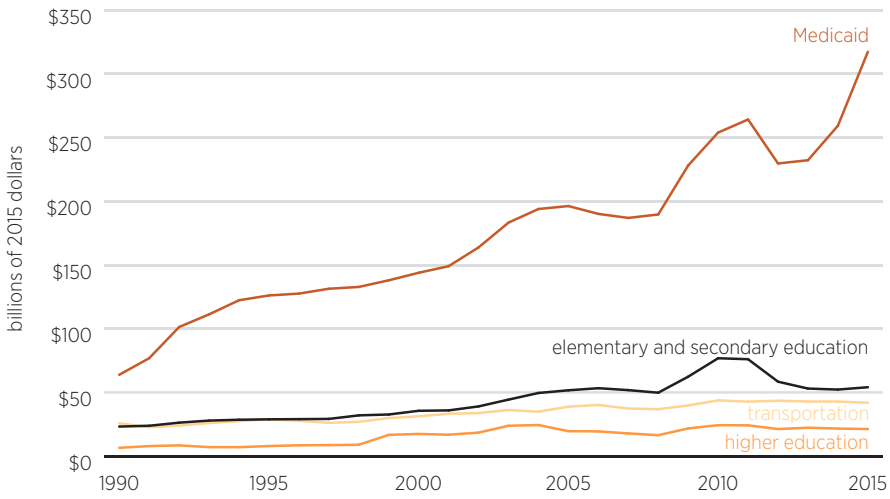
From 2011 through 2014, the House Committee on Oversight and Government Reform exercised extensive oversight of state schemes to inappropriately or unlawfully obtain federal funding through Medicaid. The committee released a bipartisan Committee report in 2013 on rampant misspending in New York State's program.[31] The report highlighted numerous state schemes to maximize federal dollars, occasionally in violation of federal law. In New York, it is commonplace for state policymakers to use Medicaid as a verb ("Medicaid it") to explain an aggressive strategy of bringing as much as possible under the Medicaid umbrella in order to maximize federal funding.[32] According to the Government Accountability Office, the resources employed by the federal government "to support and oversee states' Medicaid fraud and abuse control activities remain out of balance with the amount of federal dollars spent annually to provide Medicaid benefits."[33]

Medicaid Provides Incentives to Work Less and Replace Private Coverage

Economic theory as well as empirical studies demonstrate that Medicaid provides an incentive for people to work less and replace their private coverage with

31. House Committee on Oversight and Government Reform, *Billions of Federal Tax Dollars Misspent on New York's Medicaid Program,* March 5, 2013.
32. According to Paul Castellani, who formerly directed upstate operations for New York State, New York has taken an exceptionally aggressive approach to Medicaid financing, typified by the budget division's mantra: "If it moves, Medicaid it; if it doesn't, depreciate it." According to Castellani, "Once New York grasped the rules of the game, it set the agenda. The feds never caught up." Quoted in Nina Bernstein, "Cuomo's Medicaid Changes Are at Washington's Mercy," *New York Times*, October 23, 2012.
33. Leslie G. Aronovitz, Government Accounting Office, "Medicaid Fraud and Abuse: CMS's Commitment to Helping States Safeguard Program Dollars Is Limited" (Testimony before the Senate Committee on Finance, June 28, 2005).

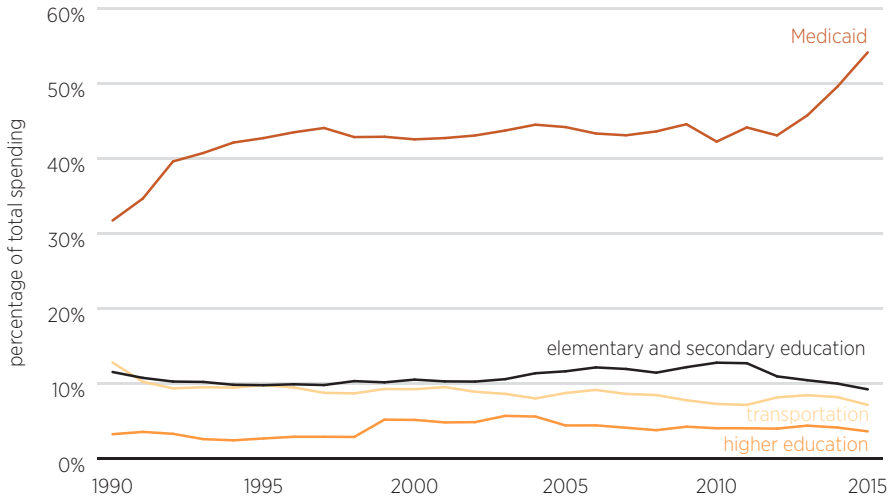
FIGURE 3. TOTAL STATE EXPENDITURES FINANCED WITH FEDERAL FUNDS



Note: The data displayed account for the four largest categories of state spending in the National Association of State Budget Officers (NASBO) reports. Spending figures are adjusted to 2015 price level using the Consumer Price Index. NASBO's Medicaid expenditure data exclude administrative costs, which equal about 10 percent of total program expenditures. Including Medicaid's administrative costs would increase the Medicaid expenditure line.

Source: NASBO, *State Expenditure Report*, 1990–2015.

FIGURE 4. PERCENTAGE OF FEDERAL FUNDS DIRECTED TOWARD STATE EXPENDITURE CATEGORIES



Note: The data displayed account for the four largest categories of spending in the National Association of State Budget Officers (NASBO) reports. NASBO's Medicaid expenditure data exclude administrative costs, which equal about 10 percent of total program expenditures. Including Medicaid's administrative costs would slightly increase the Medicaid trend line and result in a very slight decrease in the other categories.

Source: NASBO, *State Expenditure Report*, 1990–2015.

public coverage. Medicaid provides a disincentive to work, as income earned above a certain amount—which varies by state for those that have not adopted the ACA expansion—results in a loss of coverage.[34] One economic study estimated that pre-ACA Medicaid expansions led to a 1 to 2 percent reduction in labor supply from women and a 2 to 4 percent reduction in labor supply from men.[35]

While the labor supply estimates are relatively small, the crowd-out estimates are much larger. Economists Jonathan Gruber and Kosali Simon estimated Medicaid crowd-out at 60 percent for expansions between 1996 and 2002.[36] Economists Jeffrey Brown and Amy Finkelstein estimated that Medicaid crowds out the purchase of long-term care insurance for nearly 90 percent of people.[37] Steve Moses, president of the Center for Long-Term Care Financing Reform, has found that federal eligibility rules allow most individuals—often with the assistance of elder law experts—to become *cash* poor to qualify for Medicaid.[38] These eligibility rules have turned Medicaid long-term care into a more or less universal entitlement program.

Medicaid Enrollees Often Have Worse Health Outcomes

In 2011, I reviewed a multitude of observational studies on the health outcomes of Medicaid enrollees compared to people with private insurance and to uninsured people.[39] The studies, which controlled for observable factors such as age,

34. The ACA affected the work incentives for lower-income people. In states that have expanded Medicaid, income earned above 138 percent of the FPL disqualifies a person for Medicaid but that person gains eligibility for subsidies that reduce both premiums and out-of-pocket payments for a silver exchange plan (a plan with an approximate actuarial value—the average amount of health care expenses paid by the plan—of about 70 percent). In states that have not expanded, income earned above the state's eligibility threshold disqualifies a person for Medicaid, but income earned above 100 percent of the FPL qualifies that person for the aforementioned subsidies for exchange coverage. The interaction is complicated and depends on how different people value Medicaid versus a highly subsidized exchange plan. If people value exchange plans more than Medicaid, all else equal, there could be a positive work incentive for people with income around 100 percent of the FPL.
35. Cathy J. Bradley, Chun-Chieh Hu, and Lindsay M Sabik, "Medicaid Expansions and Labor Supply among Low-Income Childless Adults: Evidence from 2000–2013," American Society of Health Economists, June 13, 2016.
36. Jonathan Gruber and Kosali Simon, "Crowd-Out 10 Years Later: Have Recent Public Insurance Expansions Crowded Out Private Health Insurance?," *Journal of Health Economics* 27 (2008): 201–17.
37. Jeffrey R. Brown and Amy Finkelstein, "The Interaction of Public and Private Insurance: Medicaid and the Long-Term Care Insurance Market" (National Bureau of Economic Research, October 2006).
38. Stephen A. Moses, "Aging America's Achilles' Heel: Medicaid Long-Term Care," Cato Institute, September 1, 2005.
39. Blase, "Medicaid Provides Poor Quality Care."

weight, and smoking status, generally found that Medicaid enrollees tend to suffer relatively worse health outcomes.[40] These studies did not control for unobservable factors, such as conscientiousness, that can certainly affect health outcomes, but they often provide important insights. For example, a study of nearly 900,000 procedures from 2003 to 2007, which controlled for a multitude of patient and hospital characteristics, found that Medicaid enrollees were significantly more likely to experience complications, to spend additional time in the hospital, and to die in the hospital.[41]

Previous research found that, for at least some procedures, Medicaid enrollees receive lower-quality care, such as being assigned to less-skilled surgeons.[42] Moreover, Medicaid has historically paid relatively low rates for many services, leading many providers to refuse Medicaid enrollees and Medicaid enrollees to receive a disproportionate amount of nonemergency care in emergency rooms.[43] A 2011 study in the *New England Journal of Medicine* found that people posing as mothers of children with serious medical conditions were six times more likely to be denied an appointment if their child was on Medicaid compared to private insurance.[44]

"A study of nearly 900,000 procedures from 2003 to 2007 . . . found that Medicaid enrollees were significantly more likely to experience complications, to spend additional time in the hospital, and to die in the hospital."

40. Ibid.
41. Damien J. LaPar et al., "Primary Payer Status Affects Mortality for Major Surgical Operations," US National Library of Medicine, National Institutes of Health, April 6, 2011.
42. Lucian L. Leape et al., "The Nature of Adverse Events in Hospitalized Patients: Results of the Harvard Medical Practice Study II," *New England Journal of Medicine* 324, no. 6 (1991): 377–84; Alexander N. Ortega et al., "Use of Health Services by Insurance Status among Children with Asthma," *Medical Care* 39, no. 10 (2001): 1065–74.
43. In 2010, the Associated Press reported that less than a third of Texas doctors accept Medicaid patients. "Doctors Threaten to Pull Out of Texas Medicaid," July 12, 2010. In 2011, the *New York Times* reported on the widespread access problem facing Medicaid enrollees in Louisiana. One woman remarked, "My Medicaid card is useless for me right now. It's a useless piece of plastic. I can't find an orthopedic surgeon or a pain management doctor who will accept Medicaid." Robert Pear, "Cuts Leave Patients with Medicaid Cards, but No Specialist to See," *New York Times*, April 1, 2011.
44. Joanna Bisgaier and Karin V. Rhodes, "Auditing Access to Specialty Care for Children with Public Insurance," *New England Journal of Medicine* 364 (June 2011): 2324–33.

When Oregon expanded Medicaid to people selected through a lottery, economists were able to study the quasi experiment in order to minimize the effect of unobservable factors confounding the results. They found that Medicaid enrollment increased healthcare utilization, such as outpatient visits, hospitalizations, prescription medications, and emergency department visits, but did not produce significant improvements on blood pressure, cholesterol, or blood sugar.[45] The study did find that Medicaid substantially lowered medical debt and the prevalence of depression.[46]

Some studies have found marginal benefits resulting from targeted eligibility expansions. For example, economists Janet Currie and Jonathan Gruber found that changes in Medicaid eligibility, specific to low-income groups such as teen mothers and high school dropouts, increased the use of a variety of obstetric procedures.[47] (This is not showing a health benefit but a change in healthcare utilization.) In another study, Currie and Gruber found that Medicaid expansions were associated with small decreases in infant mortality and low birth weight.[48] They also found that, when a previously uninsured child gained Medicaid eligibility, the likelihood that the child would go a year without seeing a physician was reduced by 50 percent.[49]

Most Medicaid Health Studies Are Flawed

A major shortcoming of most studies looking at the effect of Medicaid expansions is that they only consider the effects on those who gain eligibility. Medicaid expansions, particularly larger ones, can impact healthcare utilization and health outcomes for people not directly affected by an expansion because the expansion increases demand for healthcare services, thus affecting the allocation of those services.

As part of my dissertation, I assessed the impact of TennCare—Tennessee's large expansion of Medicaid in the mid-1990s, which contains many similarities to the ACA expansion—by contrasting trends in healthcare utilization, self-reported health measures, and mortality rates between Tennessee and its

45. Baicker et al., "Oregon Health Insurance Experiment."
46. Ibid.
47. Janet Currie and Jonathan Gruber, "Public Health Insurance and Medical Treatment: The Equalizing Impact of the Medicaid Expansions," *Journal of Public Economics* 82, no. 1 (2001): 63–89.
48. Janet Currie and Jonathan Gruber, "Saving Babies: The Efficacy and Cost of Recent Changes in Medicaid Eligibility of Pregnant Women," *Journal of Political Economy* 104, no. 6 (1996): 1263–96.
49. Janet Currie and Jonathan Gruber, "Health Insurance Eligibility, Utilization of Medical Care, and Child Health," *Quarterly Journal of Economics* 111, no. 2 (1996): 431–66.

eight neighboring states before and after TennCare's implementation.[50] I found that, although TennCare produced a significant increase in the percentage of the population with insurance, there was not a discernible change in utilization and Tennesseans reported worse health than people in the neighboring states. Moreover, all Tennessee's bordering states experienced a larger reduction in mortality rates in the four years after TennCare than did Tennessee.

AFFORDABLE CARE ACT MEDICAID EXPANSION: A STEP IN THE WRONG DIRECTION

Although the Supreme Court made the Medicaid expansion optional for states, the elevated federal reimbursement rate made expansion tempting for states. Twenty-five states expanded their programs by the beginning of 2014, with six more adopting the expansion since then.[51]

The ACA worsened Medicaid's structural problem through the elevated reimbursement rate for the expansion population. The elevated rate further reduces the incentive for states to be budget conscious and instead incentivizes states to increase enrollment and to set relatively high payment rates to insurers offering Medicaid managed care and to providers for Medicaid fee-for-service. Since the expansion population generally consists of nondisabled, working-age adults, the ACA also created a major inequity with the federal government now clearly favoring this population over the traditional Medicaid populations such as lower-income children, pregnant women, and the disabled.

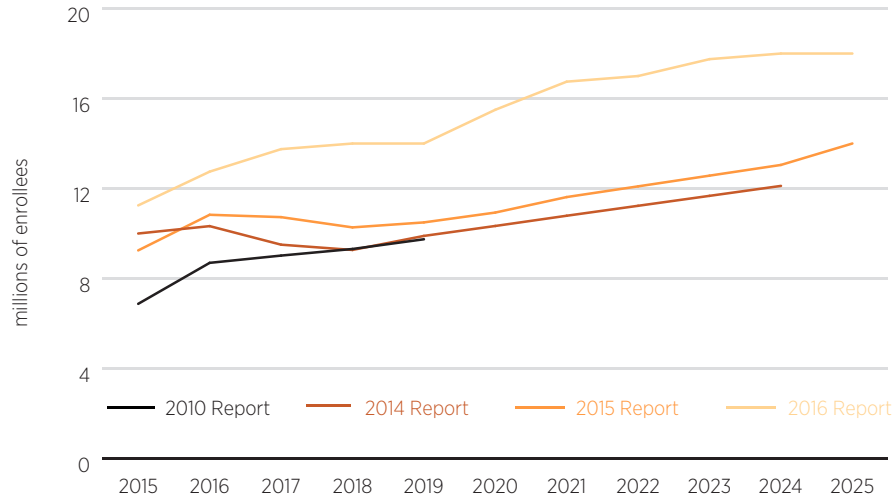
Medicaid Expansion Has Larger Enrollment and Costs per Enrollee Than Expected

After the Supreme Court decision making Medicaid expansion optional for states, CBO, which estimates the budgetary impact of government programs and legislation, had to project which states would adopt the expansion as well as the speed with which they would do so. CBO made these projections by estimating the percentage of potentially eligible enrollees who live in expanding states.

Recent data show that both ACA Medicaid expansion enrollment[52] and costs per expansion enrollee are significantly higher than expected. In March 2016, CBO reported that "the number of people estimated to have been enrolled

50. Blase, "Statewide Health Impact of Tennessee's Medicaid Expansion."
51. Advisory Board, "Where the States Stand on Medicaid Expansion."
52. Cassidy, "Medicaid Enrollment Surges."

FIGURE 5. CBO PROJECTIONS OF ACA MEDICAID EXPANSION ENROLLMENT, ADJUSTED FOR STATE ADOPTION OF EXPANSION



Note: The projections for the 2010 and 2014 reports end in 2019 and 2024, respectively. CBO's pre-2016 projections have been adjusted to reflect CBO's current assumption about the percentage of potential eligible expansion enrollees who live in states adopting the expansion. CBO's reports display enrollment by calendar year, but in order to ensure consistency across figures, the data are displayed for each fiscal year. A fiscal year's estimated enrollment is the sum of the last quarter of a calendar year's enrollment estimate and the first three quarters of the next calendar year's enrollment estimate.

Source: Congressional Budget Office, *The Budget and Economic Outlook* reports, 2010–2016.

in Medicaid in 2015 who were made eligible for the program by the ACA was significantly higher than . . . previously projected."[53] Although CBO now expects that states that have not yet expanded will adopt the expansion more slowly, CBO's 2016 baseline increased the number of ACA expansion enrollees by about two million people in 2015 and about four million people in 2025 relative to the projections contained in its 2015 baseline.[54]

Figure 5 shows how CBO's estimates of ACA expansion enrollment have changed over time after adjusting its previous baseline estimates (2010, 2014, and 2015) to reflect CBO's 2016 assumptions about the percentage of the eligible population residing in Medicaid expansion states.[55] This adjustment is

53. Congressional Budget Office, "Updated Budget Projections: 2016 to 2026," March 2016.
54. Ibid.
55. In March 2016, CBO, for the first time, disaggregated its ACA Medicaid estimates into the total population added to the Medicaid program because of the ACA, which includes both people who were previously eligible for the program but enrolled as a result of the ACA and the newly eligible population. Prior to March 2016, CBO did not produce separate estimates for just the newly eligible population. Therefore, in order to compare CBO estimates over time, I used CBO's data for all the people added to Medicaid because of the ACA.

important since the degree to which states adopt the expansion significantly impacts CBO's estimates of expansion enrollment and the expansion cost. Generally, CBO has consistently lowered its estimate of the speed at which states will adopt the expansion. Adjusting CBO's estimates from prior years based on CBO's current assumptions of state adoption of the expansion allows for a more accurate comparison of CBO's estimates over time. The appendix contains a detailed methodology for how these adjustments were made.

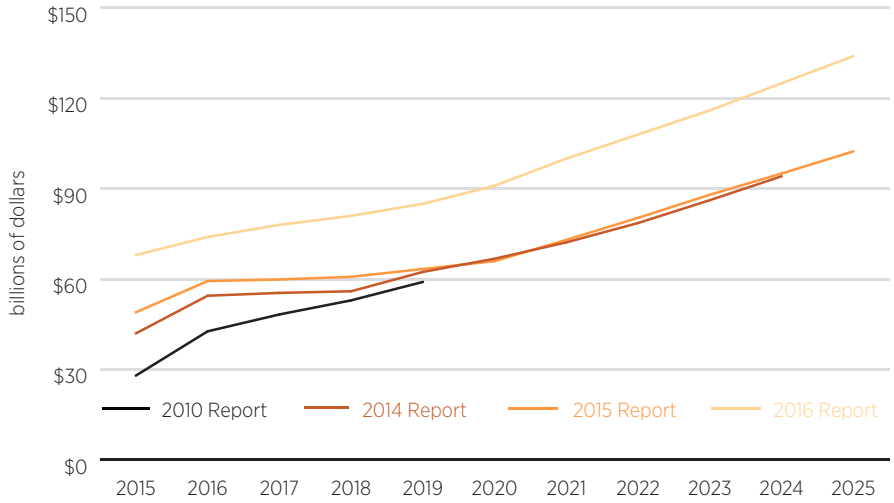
Adjusting CBO's previous estimates to its current assumptions of state adoption of the ACA Medicaid expansion shows enrollment is much higher than CBO expected when the ACA passed in 2010, and it is also significantly higher, particularly in 2017 and beyond, than estimated in both CBO's 2014 and 2015 reports. In essence, this means that far more people are enrolling in Medicaid in states that expanded—upwards of 50 percent more—than was expected by CBO when the ACA became law.

Largely as a result of higher-than-expected enrollment, CBO's 2016 projection of federal spending on the ACA Medicaid expansion increased by $108 billion over the 2016–2024 period from its 2014 baseline estimate.[56] However, CBO's 2014 estimates assumed a much faster state adoption of the Medicaid expansion. Figure 6 shows CBO's projections of the ACA Medicaid expansion cost to federal taxpayers after adjusting estimates from prior years to reflect CBO's current assumptions about the percentage of the eligible population residing in states that adopt the ACA Medicaid expansion. Figure 6 demonstrates that the adjusted cost of the expansion has significantly increased over time. Adjusting CBO's 2014 projections for its current assumptions on the take-up rate means that CBO's current expectation of federal Medicaid spending between 2016 and 2024 is more accurately $232 billion in excess of its 2014 estimates.[57]

The short-term overall estimated cost increase is largely driven by higher-than-expected spending per enrollee. HHS's *2015 Actuarial Report on the Financial Outlook for Medicaid* shows that the cost per expansion enrollee substantially exceeds expectations.[58] HHS had projected that adult Medicaid enrollees made eligible by the ACA would be 30 percent less costly than previously eligible adults.[59] According to HHS, however, in FY 2014, the per-enrollee

56. In its April 2014 estimates, CBO projected $750 billion in federal Medicaid spending from 2016 to 2024 as a result of the ACA. In its March 2016 estimates, CBO's projection increased to $858.
57. Adjusting CBO's 2014 estimates for its 2016 assumptions about the state take-up rate of the ACA Medicaid expansion would reduce CBO's projection of the expansion's 2016–2024 cost to the federal government to $626 billion.
58. CMS, *2015 Actuarial Report on the Financial Outlook of Medicaid* (report to Congress, 2015).
59. Ibid., 29.

FIGURE 6. CBO PROJECTIONS OF ACA MEDICAID EXPANSION COSTS, ADJUSTED FOR STATE ADOPTION OF EXPANSION



Note: The projections for the 2010 and 2014 reports end in 2019 and 2024, respectively. CBO's pre-2016 projections have been adjusted to reflect CBO's current assumption about state adoption of the Medicaid expansion.

Source: Congressional Budget Office, *The Budget and Economic Outlook* reports, 2010–2016.

cost of newly eligible adults ($5,488) was 12 percent greater than the cost of previously eligible adults ($4,914).[60] In HHS's *2014 Actuarial Report on the Financial Outlook for Medicaid*, the department's experts had estimated that the per-enrollee cost of newly eligible adults would decline since "the effects of pent-up demand and adverse selection" would likely lessen.[61] HHS projected that the per-enrollee cost of the newly eligible adults would decline by 22 percent in FY 2015 and would be about 11 precent less than the average cost of previously eligible adults.[62]

HHS's projections proved far off. Instead of a decline in per-enrollee costs from FY 2014 to FY 2015, the per-enrollee cost of newly elgible adults increased significantly, reaching an estimated $6,366.[63] HHS now projects that the newly eligible adult Medicaid enrollees will cost about 23 percent more than the previously eligible Medicaid enrollees in FY 2015.[64]

60. Ibid., 27.
61. CMS, *2014 Actuarial Report on the Financial Outlook of Medicaid* (report to Congress, 2014).
62. CMS, *2015 Actuarial Report on the Financial Outlook of Medicaid.*
63. Ibid, 27.
64. Ibid.

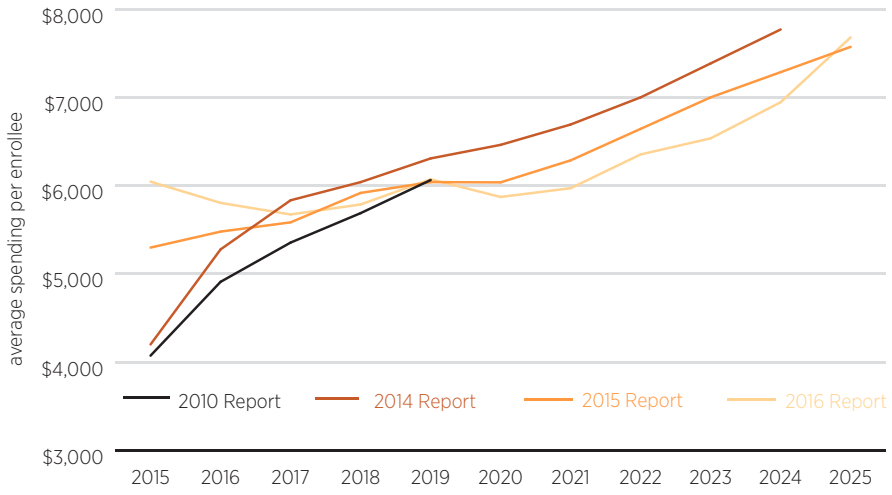
In its report, HHS explains that most states included risk-sharing arrangements in their contracts with managed care plans. As a result of its assumption that states set capitation payment rates[65] (i.e., the rates government pays insurers) too high, HHS projects that the federal government will receive an estimated $3.2 billion for FY 2014 and $5.5 billion for FY 2015 back through the risk-sharing arrangements. If this amount of money is returned, then the per-enrollee cost of newly eligible adults would decline by about 9 percent to an estimated $5,001 in FY 2014 and an estimated $5,796 in FY 2015—average spending still substantially above expectations.

Figure 7 shows the per-expansion-enrollee estimates from CBO for its 2010, 2014, 2015, and 2016 baselines. It demonstrates that CBO's 2015 baseline increased the average ACA expansion enrollee cost estimate by more than $1,000 for FY 2015 above the projected cost in its 2014 baseline. This estimate still ended up being about $700 too low as shown by the 2016 line in figure 7 for 2015. CBO expects that the cost per expansion enrollee in FY 2016 will be higher than previously projected, but that the average expansion enrollee cost by FY 2017 will essentially equal what the agency projected previously, especially if its 2010 estimate is removed.

CBO's 2015 and 2016 baseline estimates project a lower average cost for the ACA expansion population after 2017. Since CBO does not believe that the substantially higher-than-expected expansion enrollee costs witnessed in FY 2015 will continue into the future, it seems likely that either CBO assumes that states' behavior will significantly change when they shoulder a small share of the expansion population cost or that CBO has not adjusted its underlying model to account for states' lack of cost consciousness for the elevated reimbursement rate. Importantly, the larger and longer-term cost increase, however, largely results from CBO's revised projection of far more ACA Medicaid expansion enrollees. This includes the newly eligible population as well as people

65. HHS requires that states annually provide data on previous managed care encounters, anticipated changes in the structure of the state's managed care programs, and projections of benefit costs and trends. In order for Medicaid capitation rates to be considered actuarially sound, they must be "certified by an actuary that meets the standards set forth in [federal regulation], appropriate for the covered population and services for the period that the rates are effective, and have been developed in accordance with generally accepted actuarial practices and principles." Centers for Medicare and Medicaid Services, "2016 Medicaid Managed Care Rate Development Guide," September 2015. Both Congress and the Government Accountability Office have raised concerns about HHS's ability and effort to ensure actuarially appropriate rates for Medicaid managed care. House Committee on Oversight and Government Reform, "Uncovering Waste, Fraud, and Abuse in the Medicaid Program," April 25, 2012; Kathryn G. Allen, Government Accountability Office, "Medicaid: States' Efforts to Maximize Federal Reimbursements Highlight Need for Improved Federal Oversight" (Testimony before Senate Committee on Finance, June 28, 2005).

FIGURE 7. CBO'S PROJECTIONS OF AVERAGE MEDICAID SPENDING PER EXPANSION ENROLLEE



Note: The projections for the 2010 and 2014 reports end in 2019 and 2024, respectively. These estimates are not affected by state take-up rate of the ACA Medicaid expansion. The data are displayed for each fiscal year.

Source: Congressional Budget Office, *The Budget and Economic Outlook* reports, 2010–2016.

who CBO projects were eligible under previous state eligibility critieria but who enrolled because of the ACA—for example, previously eligible people who enrolled in Medicaid because they learned of the individual mandate penalty.

Medicaid Expansion Causes Incentives to Spend, Higher State Dependence, and Potentially Worse Outcomes

According to the 2015 report, HHS's actuaries and financial experts expected much lower managed care capitation rates for the ACA expansion population than occurred. Given the incentives facing states from the enhanced federal Medicaid match rate, neither higher enrollment nor higher spending per expansion enrollee is that surprising. The elevated match rate presents states with incentives to (1) boost ACA Medicaid enrollment and to categorize Medicaid enrollees as ACA expansion enrollees and (2) create high fees for services commonly used by expansion enrollees as well as high capitated payment rates for the insurers participating in the state's Medicaid managed care program. The healthcare interest groups within the states, particularly hospitals and insurers, benefit from the higher enrollment and the higher rates with the large costs overwhelmingly dispersed to federal taxpayers.

As a result of the ACA Medicaid expansion, the federal share of program spending increased to 63 percent in FY 2015—three percentage points greater than expected in HHS's *2013 Actuarial Report on the Financial Outlook for Medicaid*.[66] The mathematics of a 63 percent match mean that when a state spends $1 on Medicaid with its own resources it receives $1.70 from the federal government.[67] Of course, this is an average; the entire share of the expansion population is currently financed by federal taxpayers, which eliminates, or at least significantly reduces, state incentives to be cost conscious. Although the reimbursement rate declines after 2016, it is scheduled to remain at 90 percent or above indefinitely, and state financing gimmicks such as provider taxes or intergovernmental transfers mean that the effective federal reimbursement rate will be several percentage points higher than the statutory amount. States will likely be minimally more cost conscious when the rate declines only slightly.

Before the ACA, states were already becoming overly dependent on Medicaid funding from the federal government. In FY 2013, roughly 46 percent of all federal funding received by states was for Medicaid, up from 32 percent in FY 1990.[68] Overall, in FY 2015—two years after the ACA Medicaid expansion—nearly 57 percent of all federal funding received by states went to Medicaid.[69]

"In FY 2015—two years after the ACA Medicaid expansion—nearly 57 percent of all federal funding received by states went to Medicaid."

66. The CMS Office of the Actuary projected that federal Medicaid spending would equal $328.4 million in fiscal year 2015 with total Medicaid spending equal to $544.4 million. This amounts to an average federal share of 60 percent. CMS, *2013 Actuarial Report on the Financial Outlook for Medicaid* (report to Congress, 2013).
67. Sixty-three percent of $2.70 is $1.70.
68. National Association of State Budget Officers (NASBO), *State Expenditure Report: Examining Fiscal 2012–2014 State Spending*, 2014.
69. Ibid. According to estimated FY 2015 data from NASBO, more than 54 percent of federal funds received by states were for Medicaid. The NASBO estimate does not fully represent the amount of Medicaid spending since states tended to underestimate the number of enrollees in the ACA expansion. Cassidy, "Medicaid Enrollment Surges." According to CBO, the federal government spent $350 billion on Medicaid in FY 2015—an amount 10 percent above the amount NASBO estimated. If federal spending on Medicaid equaled $350 billion in FY 2015, then about 57 percent of federal funds delivered to states to finance programs was for Medicaid.

From 1990 to 2015, the amount of funding states received from Washington through the federal Medicaid reimbursement increased from $77 billion (in 2015 dollars) to $350 billion.[70] State finances are thus increasingly dependent on Medicaid funding from the federal government and thus more subservient to Washington dictates regarding their programs.

Since large Medicaid expansions result in a crowd-out of private-sector coverage and increased competition for healthcare services through higher demand, it is important to look at the changes across the entire population and not only at the people newly enrolled in the program. Moreover, it is well documented that many healthcare services provide little, if any, positive value and can actually be detrimental to health. This can be especially true of care delivered in emergency rooms, and there is long-standing evidence that Medicaid enrollees are disproportionately likely to use emergency rooms.

Before the ACA's Medicaid expansion, the largest state expansion of Medicaid occurred through TennCare. As I discussed earlier, my research, which contrasted healthcare utilization and health outcomes in Tennessee with those in its neighboring states, did not find a discernible difference. If anything, it appears that Tennesseans' self-reported health and their mortality rates were less favorable after TennCare. Even if large expansions of public insurance provide health benefits, the benefit must be compared with the cost of the expansion. The costs include the direct costs, such as the taxpayer money to finance the expansion, as well as the indirect costs that result from the reduced economic activity due to the higher taxes. Economist Robert Book estimates a reduction of $174 billion in economic activity over a 10-year period if all states expand Medicaid and a total job loss of more than 200,000 positions from 2014 to 2017 if all states expand their Medicaid programs.[71]

---

70. According to National Health Expenditures historical data, federal Medicaid spending equaled $42.6 billion in 1990—or $77.3 billion in 2015 dollars. NHE Historial Tables, "Table 3: National Health Expenditures; Levels and Annual Percent Change, by Source of Funds: Selected Calendar Years 1960–2014." A March 2016 report from the Congressional Budget Office estimated federal Medicaid spending at $350 billion in FY 2015. CBO, "Detail of Spending and Enrollment for Medicaid for CBO's March 2016 Baseline."

71. Robert Book, "Expanding Medicaid Will Not Stimulate the Economy or Create Jobs," American Action Forum, December 11, 2014.

CONCLUSION

While the ACA's exchanges continue to attract far fewer enrollees than projected when the law passed in 2010,[72] the ACA's Medicaid expansion has proven much more robust than expected. According to Stuart Butler of the Brookings Institution, the ACA may be more appropriately named the Medicaid Expansion Act.[73]

The results of the first two years of the ACA's changes demonstrate that government experts failed to account for how states would respond to the enhanced federal reimbursement rate. By failing to do so, they significantly underestimated the number of expansion enrollees and the corresponding cost. The ACA's Medicaid expansion is exacerbating the already unsustainable spending trajectory of the program that has led to a significant crowd-out of other priorities—such as education and infrastructure—at the state level. The enhanced reimbursement rate has also led to more calls from policymakers to view Medicaid as an engine for economic stimulus instead of as a welfare program. For example, the Obama administration has prioritized Medicaid expansion, aggressively promoting it as in states' financial interests. According to the White House,

> By expanding Medicaid, States can pull billions in additional Federal funding into their economies every year, with no State contribution over the next three years and only a modest one thereafter for coverage of newly eligible people.[74]

Other supporters of the ACA Medicaid expansion often point to estimates of the stimulative effect of the additional federal money. Arkansas Governor Asa Hutchinson remarked, "If we ended the Medicaid expansion and refused to accept those federal dollars, then that is a lot of money . . . being pulled out of our health system."[75] A study by Deloitte Consulting and the University of Louisville's Urban Studies Institute projects that the ACA's Medicaid expansion

72. Brian Blase, "Downgrading the Affordable Care Act: Unattractive Health Insurance and Lower Enrollment" (Mercatus Research, Mercatus Center at George Mason University, November 2015).
73. Stuart M. Butler, "The Future of the Affordable Care Act: Reassessment and Revision," *Journal of the American Medical Association* 316, no. 5 (2016): 495–97.
74. Council of Economic Advisors, Executive Office of the President of the United States, "Missed Opportunities: The Consequences of State Decisions Not to Expand Medicaid," July 2014.
75. Associated Press, "Arkansas Governor Proposes Changes to Medicaid Expansion," Modern Healthcare, August 19, 2015.

will add 40,000 jobs and $30 billion to Kentucky's economy through 2021.[76] The problem with this and similar studies is that they assess the decision of the state in isolation without factoring in other states' decisions regarding expansion. For example, Kentucky is worse off—as a result of higher federal taxes and increased deficit spending—when other states expand. I will explore this aspect of Medicaid in more detail in a subsequent paper.

As I demonstrated with TennCare, the large expansion of Medicaid is especially concerning given the lack of discernible population health benefits that have resulted from large state expansions of the program in the past. Moreover, the findings from the Oregon Medicaid quasi experiment "that Medicaid's value to recipients is lower than the government's costs of the program, and usually substantially below"[77] suggest that much of the new spending through the ACA expansion does not produce benefits to justify the costs.

Sensible Medicaid reform has two central goals: reducing the unsustainable trajectory of federal and state Medicaid spending and producing better outcomes for people most in need of public assistance. Since the ACA Medicaid expansion significantly adds to the unsustainable spending trajectory of the program, likely fails to produce health outcomes or value to recipients worth the corresponding cost, and creates a large federal government bias toward nondisabled, working-age adults at the expense of traditional Medicaid enrollees, part of the overall solution involves correcting problems added by the ACA. In a forthcoming paper, I will explore potential policies to improve Medicaid and put the program on a fiscally sustainable path.

76. Deloitte Consulting LLP, *Commonwealth of Kentucky: Medicaid Expansion Report, 2014*, February 2015.
77. Finkelstein, Hendren, and Luttmer, "Value of Medicaid."

APPENDIX

In order to better compare CBO's projections of enrollment and spending for the ACA Medicaid expansion, it is important to control for CBO's assumptions about the speed and degree to which states adopt the expansion. In its 2014 baseline, CBO projected that 40 percent of potentially newly eligible people—people who would be eligible if all states expanded—would live in expansion states in 2014, rising to 80 percent by 2018. CBO moved the date when 80 percent of potentially newly eligible people would live in an expansion state to 2020 in its 2015 baseline and to 2026 in its 2016 baseline. As a result of additional states expanding in 2014 and 2015, about 50 percent of newly eligible people lived in an expansion state in 2015.

Based on CBO's projections, table A1 shows estimates of the percentage of the newly eligible population who live in states that expand Medicaid. For the 2010 report, the state take-up rate is 100 percent in every year. For 2014, 2015, and 2016, I used linear interpolation to estimate the take-up rate between the two years that CBO provided estimates. I also assumed that only 80 percent of people would live in expansion states once this take-up rate was reached. Since CBO projected that the 80 percent take-up rate would occur at a later date over time, my assumption likely underestimates CBO's projection of state take-up in years after the 80 percent is reached. This means that the increases in enrollment and spending shown in figures 5 and 6 for the 2016 report do not fully demonstrate the increase because the 2014 and 2015 lines would shift down during the later period if CBO's take-up rate exceeded 80 percent.

Table A2 shows the conversion factors used to adjust the estimates in CBO's pre-2016 reports with CBO's current assumptions about state take-up rates of the expansion. The factors were obtained by dividing the yearly take-up rates in the 2016 report by CBO's assumed take-up rates—shown in table A1—from its previous yearly baseline estimates of the Medicaid expansion.

TABLE A1. TAKE-UP RATE ESTIMATES

	Year of report			
Year	2010	2014	2015	2016
2015	100.0%	50.0%	50.0%	50.0%
2016	100.0%	60.0%	56.0%	52.7%
2017	100.0%	70.0%	62.0%	55.5%
2018	100.0%	80.0%	68.0%	58.2%
2019	100.0%	80.0%	74.0%	60.9%
2020	100.0%	80.0%	80.0%	63.6%
2021	100.0%	80.0%	80.0%	66.4%
2022	100.0%	80.0%	80.0%	69.1%
2023	100.0%	80.0%	80.0%	71.8%
2024	100.0%	80.0%	80.0%	74.5%
2025	100.0%	80.0%	80.0%	77.3%

Source: Congressional Budget Office, *The Budget and Economic Outlook* reports, 2010, 2014–2016.

TABLE A2. CONVERSION FACTORS TO CONTROL FOR TAKE-UP RATES

	Year of report			
Year	2010	2014	2015	2016
2015	50.0%	100.0%	100.0%	100.0%
2016	52.7%	87.9%	94.2%	100.0%
2017	55.5%	79.2%	89.4%	100.0%
2018	58.2%	72.7%	85.6%	100.0%
2019	60.9%	76.1%	82.3%	100.0%
2020	63.6%	79.5%	79.5%	100.0%
2021	66.4%	83.0%	83.0%	100.0%
2022	69.1%	86.4%	86.4%	100.0%
2023	71.8%	89.8%	89.8%	100.0%
2024	74.5%	93.2%	93.2%	100.0%
2025	77.3%	96.6%	96.6%	100.0%

Source: Congressional Budget Office, *The Budget and Economic Outlook* reports, 2010, 2014–2016.

ABOUT THE AUTHOR

Brian C. Blase is a senior research fellow focusing on healthcare policy with the Spending and Budget Initiative at the Mercatus Center at George Mason University. Previously, Blase was with the Senate Republican Policy Committee, where he served as a healthcare policy analyst. Before that he worked as senior professional staff for the House Committee on Oversight and Government Reform. Blase received his PhD in economics from George Mason University in 2013, with a dissertation focused on Medicaid financing.

ABOUT THE MERCATUS CENTER AT GEORGE MASON UNIVERSITY

The Mercatus Center at George Mason University is the world's premier university source for market-oriented ideas—bridging the gap between academic ideas and real-world problems.

A university-based research center, Mercatus advances knowledge about how markets work to improve people's lives by training graduate students, conducting research, and applying economics to offer solutions to society's most pressing problems.

Our mission is to generate knowledge and understanding of the institutions that affect the freedom to prosper and to find sustainable solutions that overcome the barriers preventing individuals from living free, prosperous, and peaceful lives.

Founded in 1980, the Mercatus Center is located on George Mason University's Arlington and Fairfax campuses.