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RESEARCH REPORT

# The Economic Impact of Medicaid Expansion on Pennsylvania

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*Carter C. Price • Julie M. Donohue • Evan Saltzman*

*Dulani Woods • Christine Eibner*





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Sponsored by The Hospital & Healthsystem Association of Pennsylvania

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## Preface

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The Affordable Care Act is a substantial reform of the health care insurance system in the United States. Its effects will have a significant impact on state and local economies that require detailed analysis. This document assesses the economic effects of the Affordable Care Act on the state of Pennsylvania.

This was sponsored by The Hospital & Healthsystem Association of Pennsylvania (HAP). However, the views, opinions, and findings presented here are those of the authors and should not be construed as the positions of HAP unless so designated by other documents.

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# Table of Contents

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Preface .....	iii
Figures .....	vii
Tables.....	vii
Summary.....	ix
Key Findings .....	ix
Acknowledgments .....	xi
Abbreviations.....	xiii
Introduction .....	1
Methods .....	3
Model Scope and Assumptions .....	3
Economic Impact.....	4
Inflows .....	5
Outflows .....	6
State Transfers .....	7
Results .....	11
Level and Sources of Insurance Coverage .....	11
Changes in Federal Spending .....	13
Economic Effects of Federal Spending .....	17
State Budgetary Effects .....	17
Effects on Providers .....	18
Regional Effects .....	19
Conclusions .....	23
Appendix: COMPARE Model.....	25
References .....	29



## Figures

---

Figure 1. Uninsured Percentage of Nonelderly in Pennsylvania in 2016.....	11
Figure 2. Estimated Annual Federal Inflows to Pennsylvania, 2014–2020 .....	14
Figure 3. Cumulative Federal Inflows in Pennsylvania, 2014–2020 .....	15
Figure 4. Cumulative Pennsylvania State Budgetary Effects, 2014–2020.....	18
Figure 5. Hospital Uncompensated Care Costs in Pennsylvania in 2016 .....	19

## Tables

---

Table 1. Health Insurance Coverage for Nonelderly in Pennsylvania, 2014–2020 (in millions)..	12
Table 2. Inflows and Outflows from the Federal Government.....	16
Table 3. Pennsylvania State Budgetary Effects (in \$millions).....	18
Table 4. Nonelderly Coverage by Region in Pennsylvania in 2016.....	20
Table 5. Economic Impact by Region in Pennsylvania in 2016.....	21

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## Summary

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The Affordable Care Act (ACA) includes two provisions that will transfer federal dollars to state economies: an expansion of Medicaid to cover those earning less than 138 percent of the federal poverty level (FPL) and health insurance subsidies for people with incomes between 100 percent and 400 percent of the FPL. These coverage expansions are financed by changes to Medicare payment policy, reductions in Disproportionate Share Hospital (DSH) payments, and new taxes and fees, which transfer money from state economies to the federal government.

The June 2012 U.S. Supreme Court decision regarding the ACA gave state governments discretion over whether to expand Medicaid, but most of the other provisions in the ACA—including reductions to Medicare and DSH payments—will occur regardless of how states handle the Medicaid provision. In determining whether to expand Medicaid, Pennsylvania's stakeholders may wish to consider the ACA's overall economic effects on the state, both with and without the Medicaid expansion. To inform this policy debate, we estimated the effects of the ACA's implementation in Pennsylvania (with and without the Medicaid expansion) on rates of insurance coverage (by source), net flows of federal spending, change in gross domestic product (GDP), state employment, state government spending and tax revenues, and uncompensated care costs.

To estimate the ACA's coverage and federal spending impacts, we used the RAND COMPARE microsimulation model. We then applied the Regional Input-Output Modeling System multipliers from the Bureau of Economic Analysis to determine the ACA's broader economic effects. We estimate these policy effects at the state level and within Pennsylvania's regions.

### Key Findings

- With the Medicaid expansion, the model estimates that in 2016 5 percent of Pennsylvanians under the age of 65 (about 500,000 people) will have no insurance coverage, compared with 13 percent (about 1,330,000 people) who would be uninsured under pre-ACA policies and 8 percent (about 850,000) with the ACA but without the expansion of Medicaid.
- In 2016, federal inflows (subsidies to individuals or small businesses and Medicaid matching funds) are estimated at \$4.7 billion without Medicaid expansion and \$7.2 billion with expansion. Therefore, Medicaid expansion would result in \$2.5 billion more in federal funds to Pennsylvania. Because outflows to the federal government will be nearly \$6.7 billion in either case (due to reductions in Medicare payments, other taxes, and fees), the net benefit is positive in 2016 only with expansion. From 2014-2020, the

cumulative inflow of federal dollars will be \$16.5 billion higher if the state expands Medicaid.

- An increase of \$2.5 billion in annual federal spending due to the Medicaid expansion is estimated to lead to \$3 billion in the state's GDP growth and sustain more than 35,000 jobs in Pennsylvania.
- Between 2014 and 2016, new state Medicaid spending will be the same regardless of whether the state expands Medicaid, because the federal government will take on 100 percent of the costs for the expansion population. For example, in 2016, state Medicaid spending is estimated at \$91 million in either case. Beginning in 2017, Pennsylvania's cost to expand Medicaid will grow as the state gradually takes on 10 percent of the costs. By the year 2020, we estimate that new state Medicaid spending would be \$611 million with the expansion vs. \$118 million without the expansion. The Medicaid expansion would increase state spending by approximately 10 percent over current levels. These costs will be partially offset by tax revenue generated from Medicaid MCO taxes, which would be greater under expansion (\$254 million vs. \$13 million, respectively).
- Under either scenario, we estimate substantial differences between Pennsylvania's regions in the net flow of funds, as well as in the number of those insured due to regional differences in socioeconomic status, demographic characteristics, and existing sources of coverage.

## Acknowledgments

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## Abbreviations

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ACA	Affordable Care Act
BEA	Bureau of Economic Analysis
CBO	Congressional Budget Office
DSH	Disproportionate Share Hospital
ESI	employer-sponsored insurance
FMAP	Federal Medical Assistance Percentage
FPL	federal poverty level
GDP	gross domestic product
HRET	Health Research and Educational Trust
MCO	managed care organization
MEPS	Medical Expenditure Panel Survey
RIMS II	Regional Input-Output Modeling System
SHOP	Small-Business Health Options Program
SIPP	Survey of Income and Plan Participation



## Introduction

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The Affordable Care Act (ACA) includes two provisions that will transfer billions of federal dollars into state economies: the expansion of Medicaid to cover the poorest segment of the population—those under 138 percent of the federal poverty level (FPL)—and subsidies for low- and medium-income people to buy health insurance—those between 100 percent and 400 percent of the FPL. The cost for these provisions is offset by increased revenue and decreased spending from a combination of reductions in Medicare payment increases to certain types of providers, including hospitals, reductions in payments to Medicare advantage plans, reductions in Disproportionate Share Hospital (DSH) payments, and new taxes and fees. The revenue and spending cut provisions will transfer money from state economies to the federal government, partially or fully offsetting the inflows of federal Medicaid and subsidy spending into state economies.

Under the ACA, the federal government would pay a much larger share of costs for the Medicaid expansion population than it does for current Medicaid enrollees, covering 100 percent for 2014–2016 and then gradually decreasing to 90 percent of the costs beginning in 2020.<sup>1</sup> Several states' attorneys general argued that the law's Medicaid provisions were excessively costly for states facing fiscal shortfalls. In its June 2012 ruling, the U.S. Supreme Court agreed with this argument. The Court's decision effectively gave state governments discretion over implementing the Medicaid expansion by removing the federal government's ability to levy financial penalties against states that did not comply. Many states are concerned about these new costs and considering not expanding Medicaid in response. The program already accounts for roughly one-fifth of Pennsylvania's general fund spending and costs have been growing.

While states do have discretion over expanding Medicaid, most of the other provisions in the ACA, including changes to Medicare and reductions to DSH payments, will occur regardless of whether they decide to expand Medicaid or not. In addition, regardless of state policy regarding expansion, some individuals previously eligible for Medicaid may newly enroll due to higher awareness of eligibility, or to comply with the ACA's individual mandate requiring insurance coverage (the so-called "woodwork effect"). There are also provisions to simplify enrollment that will affect Medicaid take-up. To fully assess the implications of the Medicaid expansion, stakeholders need to consider how all the policy changes in the ACA might affect Pennsylvania's economy, and how opting out of just one (the Medicaid expansion) will alter outcomes. This assessment should consider the unique characteristics of the state's population. As one of the

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<sup>1</sup> States will not be required to contribute to the costs to cover the newly eligible in 2014, 2015, or 2016. In 2017, states will be required to contribute 5 percent, then 7 percent in 2018, and 9 percent in 2019. From 2020 onward, the states will be required to contribute 10 percent of the costs for the newly eligible.

states with the highest fractions of the populations over 65 years of age, Pennsylvania may disproportionately be affected by the reductions in Medicare spending. Thus, in the absence of a Medicaid expansion, hospitals may be particularly hard hit because the cuts to Medicare and DSH payments will not be replaced by higher revenue from Medicaid. Hospitals may respond by transferring these costs to those with private insurance, or by reducing access for some services. Therefore, when weighing the advantages and disadvantages of expanding the Medicaid program, it is important to consider not just the consequences for Medicaid spending on the state budget but also the consequences for citizens and the broader Pennsylvania economy.

The objective of this report is to explore the implications of the ACA on the state of Pennsylvania with a particular focus on the implications of the state's decision to expand Medicaid. To that end, we use the COMPARE model to analyze the enrollment effects of the decision to expand Medicaid as well as the implications for federal and state costs. The changes in federal spending will also have an impact on the broader state economy and employment. We also include an analysis of the regional impacts within Pennsylvania.

## Methods

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We used the RAND COMPARE microsimulation to model the coverage and spending impact of the ACA on Pennsylvania. We then applied the Regional Input-Output Modeling System (RIMS II) multipliers from the U.S. Bureau of Economic Analysis (BEA) to determine the broader economic effects of the changes in spending. We also calculated other implications of the ACA using relevant studies from the academic literature. All of these measures have been scaled to the regional level to provide additional visibility to the local effects of the ACA.

### Model Scope and Assumptions

COMPARE is a microsimulation model that uses nationally representative data and economic theory to predict how individuals and firms will respond to the Affordable Care Act. Individuals and firms in the model make decisions by weighing the advantages and disadvantages of available options, and choosing the health insurance option that yields the best value. The COMPARE model accounts for the major components of the ACA, such as the new insurance exchange markets, the individual mandate to obtain health insurance, insurance regulatory reforms including guaranteed issue and rate-banding, penalties for firms with more than 50 workers who do not offer coverage and have employees that receive federal subsidies, and advance premium tax credits, which are federal health insurance subsidies offered to individuals with incomes between 100 and 400 percent of the FPL who do not have access to an alternative source of insurance. In addition to these major provisions, the model accounts for many additional nuances of the law, such as reinsurance payments that transfer funds from the group to the nongroup market in the implementation years (2014 through 2016). By running the model with and without Medicaid expansion, we can assess how this single policy decision will affect health insurance enrollment in Pennsylvania. We can then use these changes in enrollment to estimate how expansion affects the state economy, for example, by assessing how additional spending on health care might affect economic activity in the state. Additional details on the model can be found in the Appendix and in Eibner et al.<sup>2</sup>

The model does not include provisions of the ACA that affect Medicare spending, changes in Medicare, and DSH payments because these do not directly affect enrollment. Likewise, the model does not include several other provisions that affect revenue without

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<sup>2</sup> Christine Eibner, Federico Girosi, Carter Price, Amado Cordova, Peter Hussey, Alice Beckman, and Elizabeth McGlynn, *Establishing State Health Insurance Exchanges: Implications for Health Insurance Enrollment, Spending, and Small Businesses*, Santa Monica, Calif.: RAND Corporation, TR-825-DOL, 2010.

directly affecting health insurance enrollment, such as increases in Medicare hospital insurance taxes for individuals with incomes above \$200,000 for a single filer (\$250,000 for couples) and new taxes on medical devices. To account for these factors, we use the calculations from the Congressional Budget Office's (CBO) assessment of the ACA.<sup>3</sup> We used the itemized CBO projections to account for ACA components not related to the coverage because that is outside of the COMPARE model's scope. The CBO used budget and population data as well as their own microsimulation model to derive these estimates.<sup>4</sup>

This analysis relies on several key assumptions. First, it assumes that people react immediately to the changes from the ACA as they take effect in 2014. While it is possible that some people may not be fully aware of the new health insurance options available to them and may not take them up immediately, we have limited data on these effects and so we do not include them in the model. That said, the model does account for inflation and population growth over time. Second, we assume perfect enforcement of the penalties on individuals and employers, an effect that may cause us to overestimate individuals' propensity to enroll in health insurance as a result of the ACA. However, unlike the CBO, we do not assume there is an inherent taste for compliance with the law (the notion that some people will get insurance because the penalty exists regardless of its magnitude), an approach that may cause us to underestimate the effects of the law on health insurance enrollment. Because there are limited data to model either the taste for compliance or the effectiveness of IRS penalty enforcement, and because these two effects go in opposite directions, we have not attempted to adjust the model to address these issues. In addition, we do not account for macroeconomic changes that may occur as a result of the law, such as firms reducing the size of their workforces to avoid penalties.

## Economic Impact

The economic impact of the ACA and an expansion of Medicaid will depend upon the changes in the flow of money into and out of the state's economy. The inflows from the ACA will be in the form of subsidies for individuals and small business and, if the state chooses to expand Medicaid, the new Medicaid spending.<sup>5</sup> The outflows include the reductions in Medicare and DSH payments, as well as the various taxes and fees in the ACA. The outflows are largely independent of the decision to expand Medicaid eligibility.

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<sup>3</sup> Congressional Budget Office, letter to House of Representatives Speaker John Boehner, R-Ohio, providing an estimate for H.R. 6079, repeal of the ACA, July 24, 2012.

<sup>4</sup> We use the CBO's 2012 analysis instead of the more recent reports because the latter do not include sufficient cost detail to be used for our analysis.

<sup>5</sup> The ACA contains other inflows such as grants for electronic medical records and changes in service delivery programs that are not included in these inflows. We do not believe these will substantively alter the analysis because they are orders of magnitude smaller than the listed inflows, they will occur regardless of whether the expansion occurs, and many of them phase out rapidly.

In addition to presenting data on the changes in inflows and outflows under the ACA with and without Medicaid expansion, we estimate the impact of changes in federal spending on the state's gross domestic product (GDP). The specific inflows and outflows addressed in our analyses include the following:

### *Inflows*

- ***Federal Spending on Medicaid Expansion:*** The ACA authorizes states to expand Medicaid to all individuals with incomes below 138 percent of the federal poverty level. Because children and pregnant women are covered at higher levels under current policy, the expansion primarily affects adults. The federal government will pay for 100 percent of the costs of covering the expansion population from 2014 through 2016. After 2016, federal matching for the expansion population will gradually decline from 100 percent of costs to 90 percent.
- ***Federal Spending on Medicaid “Woodwork” Effects:*** Some currently eligible but unenrolled individuals may opt to enroll in Medicaid post-2014—for example, due to the individual mandate. The cost of enrolling individuals currently eligible but not enrolled in Medicaid under the pre-ACA eligibility rules is set to the current Federal Medical Assistance Percentage (FMAP). Thus, for Pennsylvania, the federal government's share of the costs will be 54 percent and the state's share will be 46 percent.
- ***Federal Spending on Advance Premium Tax Credits:*** The federal government will provide health insurance subsidies, in the form of a tax credit, to individuals with incomes between 100 percent and 400 percent of the FPL who have no alternative, affordable source of insurance. The subsidies are offered on a sliding-scale basis (i.e., larger for lower-income individuals), and must be used to purchase health insurance coverage on the exchanges.<sup>6</sup> If the state expands Medicaid, the subsidies only apply to those with incomes between 138 percent and 400 percent of FPL. If the state does not expand Medicaid, some subsidies may go to those with incomes above 100 percent of the FPL.
- ***Federal Spending on Cost-Sharing Subsidies:*** In addition to the premium credits, individuals with incomes between 100 percent and 200 percent of the FPL (138 percent and 200 percent if the state expands Medicaid) will receive cost-sharing subsidies to cover a portion of the out-of-pocket cost associated with health care utilization.
- ***Small-Business Tax Credits:*** The ACA provides a temporary, two-year tax credit to employers with 25 or fewer workers earning salaries that average less than \$50,000. The credit reimburses firms for up to 50 percent of health insurance premium expenditures. Although firms are eligible for only two years, they have flexibility

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<sup>6</sup> It is important to note that, if a state chooses not to expand Medicaid, individuals making between 100 percent and 138 percent of the FPL will be eligible for subsidies, but those making less than the FPL will be eligible for neither subsidies nor expanded Medicaid eligibility. Thus, without the expansion, the majority of individuals earning less than the FPL will not have affordable health insurance unless they are eligible for employer-sponsored insurance (ESI).

regarding when they take the tax credit. We assume that all firms opting for the credit will take it in 2014 and 2015.

## Outflows

- **Increased Medicare Hospital Insurance Taxes for High-Income Households:** The ACA increases the tax that individuals earning more than \$200,000 per year (\$250,000 for couples) must pay to fund Medicare hospital insurance coverage (also known as Medicare Part A). Effective on January 1, 2013, the hospital insurance tax for high-income households increased from 1.45 percent to 2.35 percent on wages above \$200,000 (\$250,000 for married couples).
- **Reductions in Payments for Medicare Advantage Plans:** Medicare Advantage plans are private health plans offered by health insurers who contract with the federal government to provide coverage for Medicare Parts A and B. Historically, Medicare Advantage plans have cost roughly 14 percent more than traditional Medicare, despite attracting a healthier pool of enrollees.<sup>7</sup> The ACA reduces the payment amounts that Medicare Advantage plans are eligible to receive, to bring the payment amounts in line with traditional, fee-for-service Medicare.
- **Reductions in Payment Increases for Hospitals, Home Health Providers, and Skilled Nursing Facilities:** Medicare payment amounts for providers are increased annually, to keep up with inflation. The ACA limits the magnitude of these payment increases for several types of providers, including hospitals, skilled nursing facilities, and home health agencies.
- **Reductions in Medicare and Medicaid Disproportionate Share Hospital Payments:** The federal government provides DSH payments to compensate hospitals for serving low-income populations. Between DSH and other reimbursements, the federal government covers around \$600 million for uncompensated care costs in Pennsylvania.<sup>8</sup> Under the ACA these payments are reduced. Although the argument for reducing DSH payments was related to the fact that the ACA is expected to expand access to insurance, the reductions will take effect in full regardless of whether the state chooses to expand Medicaid.
- **Individual Mandate Penalties:** Individuals who do not obtain health insurance coverage, and who are not exempt from the mandate for reasons such as economic hardship, will be required to pay a tax penalty to the federal government equal to 2.5 percent of their income but not to exceed \$695 annually for an individual in 2016. The exact level of the penalty will vary by year.
- **Employer Penalties for Firms that Do Not Offer Coverage:** Firms with 50 or more workers that do not offer health insurance, and that have at least one employee taking subsidized coverage in the exchanges, will incur a tax penalty based on the

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<sup>7</sup> Brian Biles, Jonah Pozen, and Stuart Guterman, *The Continuing Cost of Privatization: Extra Payments to Medicare Advantage Plans Jump to \$11.4 Billion in 2009*, The Commonwealth Fund, May 4, 2009; Joseph Newhouse, Mary Price, Jie Huang, Michael McWilliams, and John Hsu, "Steps to Reduce Favorable Risk Selection in Medicare Advantage Largely Succeed, Boding Well for Health Insurance Exchanges," *Health Affairs*, Vol. 31, No. 12, December 2012.

<sup>8</sup> Kaiser Family Foundation, "State Health Facts: Federal Medicaid Disproportionate Share Hospital Allotments," web page, undated.



size of the firm. Firms can also be penalized if employees are required to pay more than 9.5 percent of income toward health insurance premium contributions.

The decision to expand Medicaid will affect some of the inflows, but will not substantially alter any of the outflows. Specifically, if a state does not expand Medicaid, there will be no federal spending on the Medicaid expansions. In this case, people with incomes between 100 percent and 138 percent of the FPL will be eligible for the subsidies if they do not have an affordable employer offer for insurance. Thus, the federal spending on advance premium tax credits and cost-sharing subsidies will be higher if these people get insurance coverage through the exchanges.

The magnitude of the outflows in the ACA is largely independent of the decision of the state to expand Medicaid. However, if Pennsylvania expands Medicaid, the federal government will be spending more money on Medicaid coverage than it would have otherwise. An inflow of federal funds under the Medicaid expansion provides income to health care providers that will be spent in the broader economy. Thus, for every dollar spent by the government, there is a multiplier effect that will have a broader impact on the state GDP. The BEA has compiled estimates of these multipliers for a variety of different industries, including health care. The data also include estimates for the employment impact of this additional spending. We apply Pennsylvania's RIMS II multipliers from the BEA for ambulatory health care services and hospitals to the COMPARE model's output to determine the economic effect of the increased spending associated with the Medicaid expansion on total gross output and employment.

## State Transfers

In addition to the changes discussed above, we calculated the effects of other transfer payments within the state. The primary effect of these transfer payments is to redistribute money across individuals and institutions within the state. It is theoretically possible that these transfers could lead to changes in economic productivity. For example, a transfer from taxpayers to Medicaid enrollees could cause taxpayers to reduce their hours worked, leading to a net negative effect on the overall economy. We do not model these secondary effects for several reasons. First, if the state were to expand Medicaid, it is unclear whether this new funding would come from new taxes, which may lead to efficiency losses, or from reductions in other state programs, which may have little effect on economic incentives. Second, it is unclear whether savings from reduced state uncompensated care payments would be passed back to taxpayers, or used to fund other state programs. The economic implications of reductions in private uncompensated care spending are even less certain because little is known about the activities to which these savings would be redirected. The reduction in private uncompensated care costs by hospitals may lead to lower costs for paid care or it may be absorbed by the hospitals.

The transfer payments modeled include:

- ***New State Spending on Medicaid:*** New state spending on Medicaid transfers funds from the state government (ultimately state taxpayers) to Medicaid enrollees. We assume that this additional spending has no net effect on the state economy, although it will result in redistribution of resources across individuals.
- ***Tax Revenue from Medicaid Expansion:*** Pennsylvania levies a 5.9 percent gross receipts tax on Medicaid managed care organizations (MCOs).<sup>9</sup> Thus, a portion of the Medicaid money entering the state as part of the ACA will be directly passed to the state as higher tax revenue. We do not include other indirect tax revenue that may result from the ACA.
- ***Medicaid Administrative Costs:*** Because the state administers Medicaid, additional enrollment will increase the administrative costs borne by the state. We modeled the additional administrative cost by assuming that the average administrative cost for each person newly enrolled on Medicaid will be equal to the average administrative cost for each person currently on Medicaid.<sup>10</sup> If the fixed costs for providing Medicaid are high, we may overestimate the administrative costs.

Expanding insurance to low-income populations should also reduce the burden of uncompensated care on hospitals. Hadley et al. found that uncompensated care from the uninsured population totaled \$56 billion in 2008 (which would amount to nearly \$80 billion in 2016 with medical inflation).<sup>11</sup> In 2011, uncompensated care in the form of bad debt or charity care cost Pennsylvania's hospitals \$990 million beyond the payments from state and federal government about half of which is charity care for those without insurance.<sup>12</sup> The state also contributes approximately \$25 million each year using tobacco settlement funds authorized for this use under Act 77 of 2001.<sup>13</sup>

In addition to the budgetary and economic impacts of the ACA, expanding insurance enrollment will have effects on the population. The expansion of Medicaid has the potential to provide substantial benefits to the population under 138 percent of the poverty level. This segment of the population is disproportionately uninsured and therefore has limited access to health care services. A recent study by Sommers, Baicker, and Epstein indicated that previous state-level expansions of Medicaid led to a substantial decrease in mortality.<sup>14</sup> They found that Medicaid expansions have led to a decrease in absolute mortality of 19.6

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<sup>9</sup> Pennsylvania Department of Revenue, "Gross Receipts Tax," web page, undated.

<sup>10</sup> Governor's Budget Office, *Governor's Executive Budget 2013–14*, Harrisburg, Pa.: Commonwealth of Pennsylvania Office of the Budget, February 5, 2013.

<sup>11</sup> Jack Hadley, John Holahan, Teresa Coughlin, and Dawn Miller, "Covering the Uninsured in 2008: Current Costs Sources of Payment, and Incremental Costs," *Health Affairs*, web exclusive, August 25, 2008.

<sup>12</sup> Pennsylvania Health Care Cost Containment Council, *General Acute Care Hospitals Volume One: Financial Analysis*, May 2012.

<sup>13</sup> Hospital & Healthsystem Association of Pennsylvania, "Uncompensated Care," web page, June 19, 2012.

<sup>14</sup> Benjamin Sommers, Katherine Baicker, and Arnold Epstein, "Mortality and Access to Care Among Adults After State Medicaid Expansions," *New England Journal of Medicine*, special article, July 25, 2012.

per 100,000 for the state's total population. They assume that the mortality benefits were accrued to only those newly eligible for Medicaid, which led to an estimate of a decrease in mortality of 2,840 per 500,000 per year (or 568 per 100,000). We apply these rates to the number of newly insured with Medicaid expansion to calculate the incremental mortality benefit. These values were based on previous expansions in Arizona, Maine, and New York and will vary substantially depending on the underlying health of the newly insured population; thus, the actual change in mortality may be different for Pennsylvania.



## Results

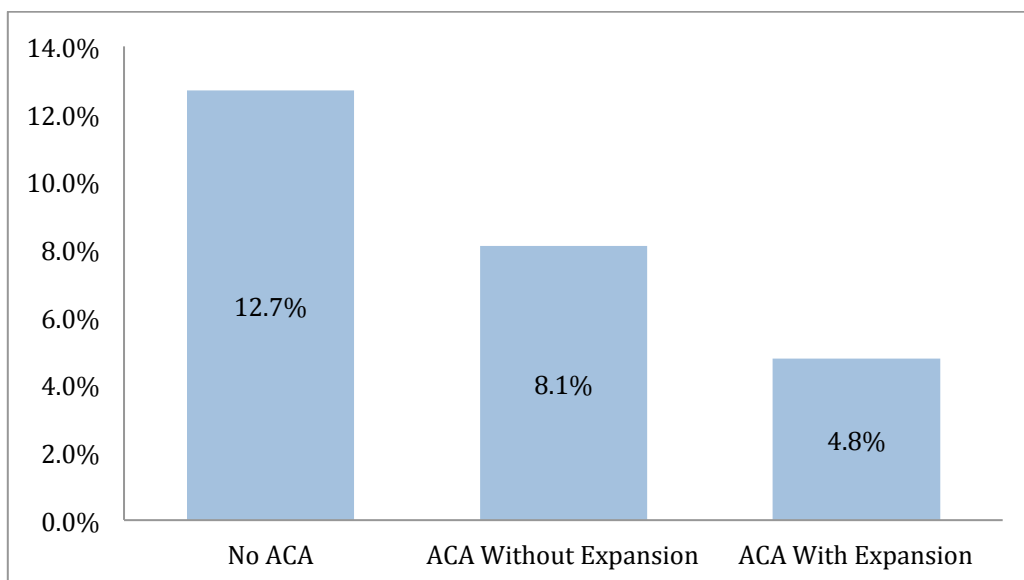
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The results are presented in six major sections: level and sources of insurance coverage, changes in federal spending, economic effects of federal spending, state budgetary effects, effects on providers, and regional effects. We present estimates of the ACA's impact on these outcomes both with and without the Medicaid expansion between 2014 and 2020.

### Level and Sources of Insurance Coverage

Figure 1 shows the difference in the share of Pennsylvanians without insurance coverage in 2016 under pre-ACA policies, with the ACA but no expansion of Medicaid, and with the ACA and the expansion of Medicaid.<sup>15</sup> With Medicaid expansion, the model estimates that all but 5 percent of nonelderly Pennsylvanians (those under the age of 65) will have insurance coverage compared with a rate of 8 percent under the ACA without Medicaid expansion, and 13 percent under pre-ACA policies.

**Figure 1. Uninsured Percentage of Nonelderly in Pennsylvania in 2016**



More detailed results of the ACA's effects on insurance coverage between 2014 and 2020 can be found in Table 1, which presents the total number of insured in the state assuming pre-ACA policies, as well as the level and sources of post-ACA coverage both

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<sup>15</sup> We look at 2016 here because several components of the ACA, such as the individual mandate, are not fully in effect until 2016. Thus, the results in 2016 will be more representative of the ACA's long-term effects.

with and without Medicaid expansion. The table contains a breakdown of coverage among Medicaid, the newly created nongroup exchanges, and other sources such as employer-sponsored insurance (ESI) and the Small-Business Health Options Program (SHOP). The last row in Table 1 shows the difference in coverage resulting from Medicaid expansion.

**Table 1. Health Insurance Coverage for Nonelderly in Pennsylvania, 2014–2020 (in millions)**

Scenario	Insurance Levels	2014	2015	2016	2017	2018	2019	2020
Pre-ACA policies	Total insured	9.18	9.17	9.15	9.13	9.12	9.09	9.07
	Uninsured	1.33	1.33	1.33	1.33	1.32	1.32	1.31
ACA without Medicaid expansion	Total insured	9.61	9.64	9.63	9.59	9.57	9.54	9.51
	Medicaid	1.92	1.93	1.95	1.95	1.96	1.96	1.95
	Individual insurance, including nongroup exchanges	1.07	1.15	1.24	1.23	1.22	1.20	1.20
	ESI, SHOP, and other	6.62	6.55	6.44	6.40	6.39	6.38	6.35
	Uninsured	0.90	0.86	0.85	0.87	0.87	0.87	0.88
ACA with Medicaid expansion	Total insured	9.95	9.98	9.98	9.94	9.91	9.88	9.85
	Medicaid	2.40	2.41	2.44	2.44	2.46	2.45	2.44
	Individual insurance, including nongroup exchanges	0.99	1.06	1.16	1.15	1.15	1.13	1.09
	ESI, SHOP, and other	6.56	6.49	6.38	6.33	6.31	6.30	6.31
	Uninsured	0.56	0.52	0.50	0.52	0.53	0.53	0.54
Effect of Medicaid expansion	Total increase in the insured	0.34	0.34	0.35	0.35	0.34	0.34	0.34

Without the Medicaid expansion, we estimate an increase of 400,000 to 500,000 nonelderly people with insurance coverage, or about a 5 percent increase in this time frame. In 2016, for example, we estimate that 9.63 million would have coverage post-ACA, as opposed to 9.15 million without the ACA. This would be due to the implementation of the insurance mandate, availability of subsidies to those with incomes up to 400 percent of the FPL, and a small increase in Medicaid enrollment by the “woodwork” population (i.e., those eligible under existing pre-ACA criteria who enroll to comply with the mandate).<sup>16</sup>

With the Medicaid expansion, an additional 350,000 Pennsylvanians (including another 3.3 percent of the nonelderly population) would have coverage (from all sources) for a total of 9.98 million covered. Decomposing this change in coverage, this is due to an increase of approximately 500,000 in Medicaid enrollment (2.44 million vs. 1.95 million under no

<sup>16</sup> The model estimates the “woodwork” population to be 3 percent or less of the Medicaid population.

expansion), including a small fraction of people who would have been covered on the exchange or by other sources without expansion.<sup>17</sup> Thus, we estimate the Medicaid expansion would create a small amount of crowd-out of other coverage sources: The model estimates that 10–15 percent of Medicaid enrollees under the expansion scenario would otherwise have been on an employer plan. Likewise, 15–25 percent of the expansion population would have obtained coverage through the insurance exchanges. People earning between 100 percent and 138 percent of the FPL will only be eligible for subsidies if the state does not expand Medicaid and those under 100 percent of FPL will not be eligible for subsidies in either case.

While the model does not assume an explicit take-up rate for Medicaid<sup>18</sup>, we can make an effective calculation for individuals. Of those newly eligible for Medicaid in 2020, roughly 60 percent would enroll in Medicaid, 38 percent would enroll in an employer plan (most of these are already on employer plans), and less than 2 percent remain uninsured (data not shown). The Medicaid enrollment totals are similar to those produced by Holahan, Buettgens, Carroll, and Dorn using the Urban Institute’s HIPSIM model (they estimate 540,000 new Medicaid enrollees in 2022 compared with our estimate of 490,000 in 2020 with the enrollment).<sup>19</sup>

## Changes in Federal Spending

Figure 2 displays federal inflows due to the ACA with and without expansion of Medicaid. In 2016, for example, federal inflows (subsidies to individuals and Medicaid matching funds) are estimated at \$4.7 billion without Medicaid expansion and \$7.2 billion with it. Therefore, Medicaid expansion would result in \$2.5 billion more in federal funds to Pennsylvania in that year. Each year between 2014 and 2020, Medicaid expansion would increase federal inflows by \$2.3 billion to \$2.5 billion.<sup>20</sup>

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<sup>17</sup> There is an increase of about 500,000 people on Medicaid but, without the Medicaid expansion, about 150,000 of them would have insurance from some other source. Thus, there is a net increase of about 350,000 in total enrollment.

<sup>18</sup> The model uses utility maximization instead of take-up rate assumptions. More details can be found in the Appendix.

<sup>19</sup> John Holahan, Matthew Buettgens, Cairlin Carroll, and Stan Dorn, *The Cost and Coverage Implications of the ACA Medicaid Expansion: National and State-by-State Analysis*, The Kaiser Commission on Medicaid and the Uninsured, November 2012.

<sup>20</sup> To be consistent with the CBO’s reporting standards, all dollars and calculations are done using current-year dollars that have not been discounted to reflect that they are worth more than future-year dollars. As a result, our estimates overstate costs and savings in future years from the perspective of net current value. However, the results reported reflect the nominal value of costs and savings that are projected to accrue in later years.

Figure 2. Estimated Annual Federal Inflows to Pennsylvania, 2014–2020

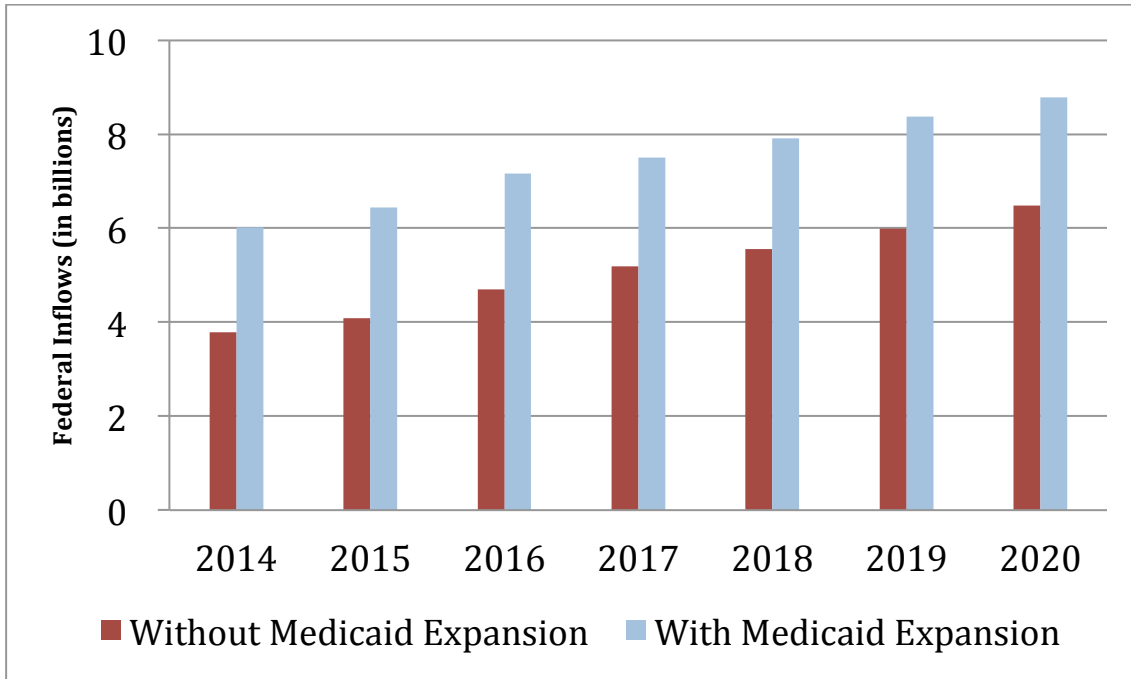
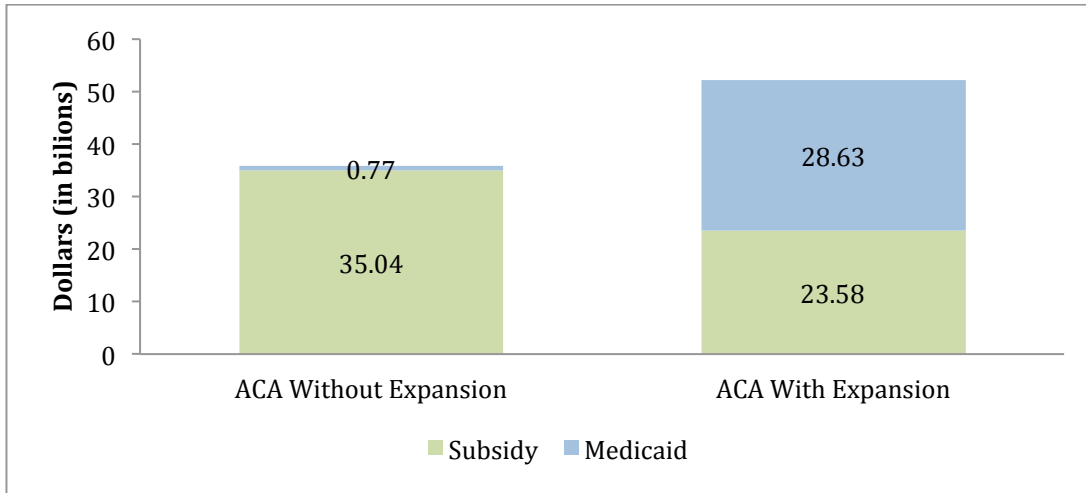


Figure 3 shows that cumulative federal inflows to Pennsylvania between 2014 and 2020 would be \$35.8 billion without Medicaid expansion and \$52.2 billion with it. Thus, Pennsylvania’s economy would forgo about \$16.54 billion in federal inflows in this seven-year period if it does not expand Medicaid. Breaking the federal inflows down by source, federal subsidies spending will be higher in absolute terms and as a share of federal inflows without the expansion because people with incomes between 100 percent and 138 percent of the FPL (who would have been covered by Medicaid under the expansion) would be eligible for subsidies if they did not have employer-sponsored coverage. As stated above, the population making less than 100 percent of the FPL will not be eligible for subsidies under the law, regardless of whether the state expands Medicaid.



**Figure 3. Cumulative Federal Inflows in Pennsylvania, 2014–2020**



NOTE: The inflows included in Figure 3 are the costs from the Medicaid expansion (if applicable), “woodwork” effects, advance premium tax credits, cost-sharing subsidies, and small-business tax credits. A detailed explanation is provided in the section on economic impact.

Table 2 displays the inflows to Pennsylvania from the federal government and the outflows of funds to the federal government from Pennsylvania, as well as the net change in federal spending both including and excluding a Medicaid expansion. It also presents the economic effects on state GDP and employment that might be produced by the federal funds associated with expanding Medicaid. We disaggregate inflows by new federal spending on Medicaid, which includes both the “woodwork” effect (under both scenarios) and the costs of covering the expansion population (under the expansion scenario only). Federal inflows for the subsidy spending include the cost-sharing subsidies, the advance premium tax credits, and the small-business tax credits. Outflows to the federal government, which are the same under both scenarios, include the taxes, fees, and Medicare and DSH changes.

The federal outflows grow substantially, from \$4.68 billion in 2014 to \$12.22 billion in 2020, because many of these components are phased in slowly and do not take full effect until 2016 or later (see Table 2). For example, the magnitude of the individual mandate penalties will not be fully scaled until 2016, after which it will be inflated annually. The payment reductions are similarly phased in over time.

Between 2014 and 2016, the ACA’s net effect on federal spending in Pennsylvania is only positive with Medicaid expansion, with inflows exceeding outflows by \$1.33 billion and \$460 million in 2014 and 2016, respectively. Without Medicaid expansion, federal outflows exceed inflows during that time. The state’s cumulative net loss in federal dollars is nearly four times higher without the Medicaid expansion (\$22.24 billion, compared with \$5.7 billion). Thus, over the 2014–2020 time period, Pennsylvania’s economy would see \$16.54 billion more in federal spending with the expansion of Medicaid.

**Table 2. Inflows and Outflows from the Federal Government**

<b>Scenario</b>	<b>Funding</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2014– 2020</b>
Federal ACA funding without Medicaid expansion (in \$billions)	New federal Medicaid spending (inflows)	0.06	0.06	0.11	0.12	0.13	0.14	0.15	0.77
	Federal subsidy spending (inflows)	3.73	4.02	4.59	5.07	5.43	5.86	6.34	35.04
	New taxes, fees, and Medicare and DSH changes (outflows)	(4.68)	(6.07)	(6.70)	(7.69)	(9.49)	(11.07)	(12.22)	(57.91)
	Net change in federal spending	(0.90)	(1.99)	(2.02)	(2.52)	(3.95)	(5.10)	(5.76)	(22.24)
Federal ACA funding with Medicaid expansion (in \$billions)	Federal Medicaid spending (inflows)	3.62	3.81	4.08	4.07	4.21	4.39	4.46	28.63
	Federal subsidy spending (inflows)	2.40	2.64	3.08	3.44	3.71	3.99	4.33	23.58
	New taxes, fees, and Medicare and DSH changes (outflows)	(4.68)	(6.07)	(6.70)	(7.69)	(9.49)	(11.07)	(12.22)	(57.91)
	Net change in federal spending	1.33	0.38	0.46	(0.18)	(1.57)	(2.70)	(3.43)	(5.70)
Economic effects of federal funding from expanding Medicaid	Change in federal spending	2.23	2.37	2.48	2.34	2.38	2.40	2.33	16.54
	Change in GDP from federal spending (\$billions)	3.19	3.39	3.55	3.34	3.40	3.43	3.33	23.63
	Change in employment from federal spending (thousands of jobs)	35.2	37.5	39.2	36.9	37.6	37.9	36.8	—

NOTE: Federal subsidy spending includes funding for individuals with incomes between 100 percent and 400 percent of the FPL to purchase insurance and small-business tax credits; it is higher under the scenario of no Medicaid expansion because participation in the insurance exchange is assumed to be higher if the state does not expand Medicaid. New taxes, fees, and Medicare and DSH changes include the individual mandate, employer mandate, premium taxes, and the reductions in Medicare and DSH payments.

## Economic Effects of Federal Spending

Table 2 also presents economic effects of this federal spending. Adding \$2.2 billion to \$2.5 billion to annual federal inflows as a result of the expansion will have broader economic impact on the state's economy. Using the multipliers from the BEA, we estimate that this additional federal spending would lead to \$3.2 billion to \$3.6 billion in additional economic activity in Pennsylvania. The GDP growth would sustain 35,000 to 39,000 jobs in the state.

## State Budgetary Effects

Table 3 summarizes the state spending effects of expanding Medicaid (or not). As with the previous tables, it presents state budgetary effects with and without a Medicaid expansion. It also contains figures on new state spending on Medicaid costs, and administrative costs for new enrollees, as well as new tax revenue from Medicaid MCOs. The new state spending on Medicaid includes both the spending on people enrolling due to the "woodwork" effect (for both cases) and spending for the newly eligible (under the case of expansion only).

Between 2014 and 2016, new state Medicaid spending will be same regardless of whether the state expands Medicaid. For example, in 2016, state Medicaid spending (not including administrative costs) is estimated at \$91 million in either case. That is because the federal government takes on 100 percent of the costs for the expansion population for this time period while continuing to provide the same FMAP rate for those who were previously eligible. However, beginning in 2017, Pennsylvania's cost to expand Medicaid will grow substantially. By the year 2020, we estimate that new state Medicaid spending would be \$611 million with the expansion, as opposed to \$118 million without it. The Medicaid expansion would increase state spending by approximately 10 percent over current levels.

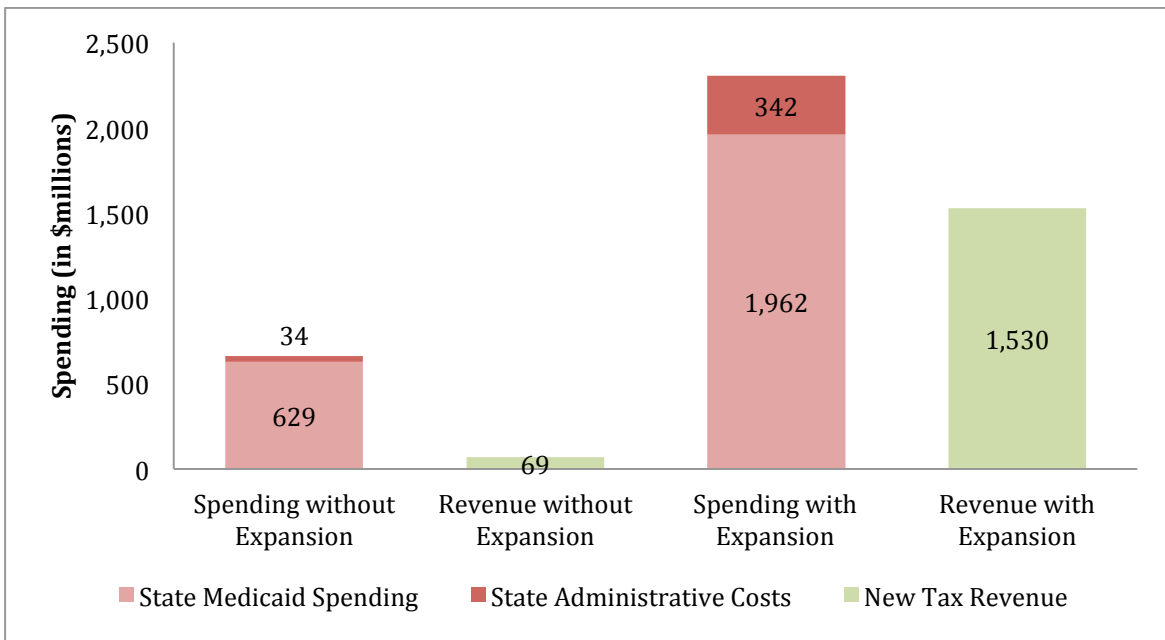
These costs will be partially offset by tax revenue generated from Medicaid MCO taxes on gross receipts that will be greater under expansion (from 2014–2020, \$1,530 million compared with \$69 million without expansion), such that the cumulative net increase in state spending would be \$180 million higher with expansion (\$774 million compared with \$594 million). The tax receipts from the increase in GDP and the sustained jobs may offset additional spending. These cumulative effects are displayed in Figure 4.

**Table 3. Pennsylvania State Budgetary Effects (in \$millions)**

Scenario	Funding	2014	2015	2016	2017	2018	2019	2020	2014–2020
ACA without Medicaid expansion	New state Medicaid spending	48	52	91	101	107	112	118	629
	New state Medicaid administrative costs	3	3	5	5	6	6	6	34
	New state tax revenue	5	6	10	11	12	12	13	69
	Net spending change	46	49	86	95	101	106	111	594
ACA with Medicaid expansion	New state Medicaid spending	48	52	91	325	385	450	611	1,962
	New state Medicaid administrative costs	39	42	47	50	52	55	57	342
	New state tax revenue	183	193	209	219	230	242	254	1,530
	Net spending change	(96)	(99)	(71)	156	207	263	414	774

NOTE: The new state tax revenue includes only the revenue from the gross receipts tax on MCOs. There will be tax effects from the changes in federal spending that will not be accounted for in this total.

**Figure 4. Cumulative Pennsylvania State Budgetary Effects, 2014–2020**

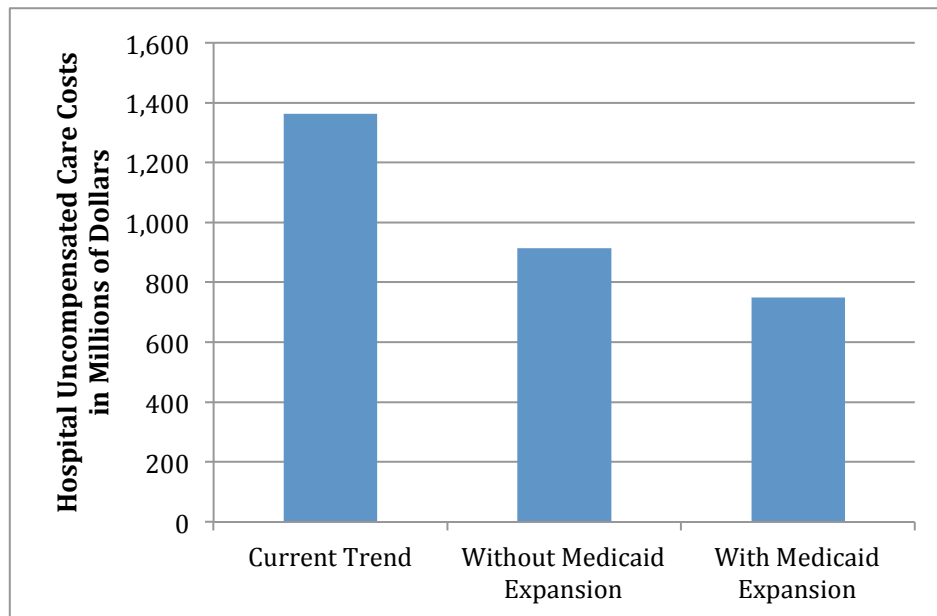


### Effects on Providers

Larger numbers of Pennsylvanians with insurance will lower the burden of uncompensated care for providers. As mentioned earlier, hospitals’ uncompensated care costs amounted to \$990 million in 2011. Figure 5 shows the annual uncompensated care costs for hospitals from 2016 (this is representative of the 2014–2020 time frame). The model estimates that without the expansion of Medicaid, the ACA will reduce uncompensated hospital costs by 33 percent between 2014 and 2020. The Medicaid expansion will reduce uncompensated care costs for hospitals by an additional 10 percent to 15 percent. These estimates indicate that hospitals would still incur more than \$750 million per year in uncompensated care costs, but that is a substantial

reduction from the current trend without the ACA. The reduction in uncompensated care costs borne by providers could also result in fewer costs being shifted to other payers and higher revenues for the providers. Furthermore, it is important to note that the reduction in federal DSH payments will partially offset any uncompensated care cost reductions for hospitals.

**Figure 5. Hospital Uncompensated Care Costs in Pennsylvania in 2016**



## Regional Effects

Regional coverage results for 2016 are presented in Table 4 and the economic effects for 2016 by region are presented in Table 5. We present 2016 findings because several components of the ACA, such as the individual mandate, are not fully in effect until 2016. Thus, the results in 2016 will be more representative of the ACA’s long-term effects.

The effects of the Medicaid expansion on Pennsylvania’s regions will vary somewhat. For example, the proportion of the population left uninsured under no Medicaid expansion varies from a low of 7.2 percent in south-central Pennsylvania to 9.7 percent in the north-central part of the state. Expanding Medicaid would narrow the gap between these regions, with 4.7 percent remaining uninsured in south-central and 5.3 percent in north-central. The model estimates that the expansion of Medicaid would increase coverage from between 2.5 percentage points to 4.4 percentage points depending on the region. The coverage results include the number of nonelderly people enrolled in Medicaid, the number with some other form of insurance, and the uninsured assuming the state expands Medicaid. The coverage table also contains the change in enrollment for each of these categories if the state does not expand Medicaid.

The regional level economic effects include the federal spending associated both with Medicaid and the net change in spending from the other aspects of the ACA (this includes net effect of subsidy spending, Medicare compensations reductions, and the other tax and fee provisions). Additionally, the spending differences between the full ACA and the ACA without the expansion are also displayed by region in this table, along with the change in the economic activity associated with not expanding Medicaid. Table 5 indicates that without expansion, all regions will experience a net loss in federal funding in 2016. With Medicaid expansion, seven of the eight regions will experience an increase in federal funding. Medicaid expansion has a positive effect on the GDP in all regions in Pennsylvania, but this effect is largest in absolute terms in the southeast and southwest (largely because of Philadelphia and Allegheny counties).

**Table 4. Nonelderly Coverage by Region in Pennsylvania in 2016**

<b>Region</b>	<b>Total Insured Without Expansion</b>	<b>Total Insured With Expansion</b>	<b>Percentage Insured Without Expansion</b>	<b>Percentage Insured With Expansion</b>
Total	9,630,000	9,980,000	91.9	95.2
Allentown/Reading	964,000	995,000	92.3	95.4
Altoona/Johnstown	351,000	367,000	91.0	94.8
North-central	467,000	490,000	90.2	94.4
Northeast	711,000	737,000	91.8	95.1
Northwest	694,000	724,000	91.2	94.9
South-central	1,518,000	1,559,000	92.8	95.5
Southeast	3,129,000	3,246,000	91.9	95.2
Southwest	1,796,000	1,862,000	91.9	95.2

**Table 5. Economic Impact by Region in Pennsylvania in 2016**

<b>Region</b>	<b>Total New Federal Spending Without Expansion (in \$millions)</b>	<b>Total New Federal Spending With Expansion (in \$millions)</b>	<b>Effect of Expanding Medicaid on Gross Domestic Product (in \$millions)</b>	<b>Effect of Expanding Medicaid on Employment (number of jobs)</b>
Total	(1,999)	460	3,550	39,200
Allentown/Reading	(204)	10	297	3,000
Altoona/Johnstown	(45)	65	131	1,200
North-central	(57)	95	185	1,700
Northeast	(114)	79	253	2,600
Northwest	(84)	128	256	2,500
South-central	(317)	(52)	371	4,100
Southeast	(771)	78	1,350	15,600
Southwest	(407)	62	704	8,600

NOTE: The total new federal spending includes both the federal subsidy spending and the Medicaid spending, less the new taxes, fees, and Medicare and DSH changes.

Allentown/Reading includes Berks, Carbon, Lehigh, Northampton, and Schuylkill counties; Altoona/Johnstown includes Bedford, Blair, Cambria, Indiana, and Somerset counties, north-central includes Center, Clinton, Columbia, Lycoming, Mifflin, Montour, Northumberland, Snyder, Tioga, and Union counties; northeast includes Bradford, Lackawanna, Luzerne, Monroe, Pike, Sullivan, Susquehanna, Wayne, and Wyoming counties; northwest includes Cameron, Clarion, Clearfield, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Potter, Venango, and Warren counties; south-central includes Adams, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Perry, and York counties; southeast includes Bucks, Chester, Delaware, Montgomery, and Philadelphia counties; and southwest includes Allegheny, Armstrong, Beaver, Butler, Fayette, Greene, Washington, and Westmoreland counties.





## Conclusions

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With or without the expansion of Medicaid, the ACA will increase insurance coverage to hundreds of thousands of Pennsylvanians. However, the COMPARE model estimates that the expansion of Medicaid eligibility would increase Medicaid enrollment by 500,000 people (65 to 75 percent of whom would have been uninsured otherwise) and bring more than \$2 billion in federal spending into the state annually. Should the state expand Medicaid, the additional spending will add more than \$3 billion a year to the state's GDP and support 35,000 to 39,000 jobs. But Medicaid expansion is not without cost for the state; we estimate that the cumulative effect on Pennsylvania's Medicaid spending will be \$180 million higher with the expansion than without between 2014 and 2020.

Substantial reductions in uncompensated care costs by hospitals are possible even without expansion because the exchange subsidies and "woodwork" effect increase insurance coverage, although fewer people are newly insured if the state opts not to expand. Savings to hospitals for uncompensated care costs are even larger with the Medicaid expansion, amounting to \$550 million or more each year.

Under either scenario, we estimate substantial differences at the regional level in the net flow of funds, as well as the rate of insurance due to differences in socioeconomic status, demographic characteristics, and existing sources of coverage by region. For example, the proportion of the population left uninsured under no Medicaid expansion varies from a low of 7.2 percent in south-central Pennsylvania to 9.7 percent in north-central Pennsylvania. Expanding Medicaid would narrow the gap between these regions, with 4.7 percent remaining uninsured in south-central and 5.3 percent in north-central Pennsylvania. The decision to expand Medicaid also has significant economic implications for all of Pennsylvania's regions.

As policymakers consider the decision to expand Medicaid, there are many factors to weigh. Expanding Medicaid eligibility will mean greater coverage and a reduction in uncompensated care costs, as well as a possible reduction in mortality rates. This choice would also bring substantial funds from the federal government. While there will not be substantial costs for this decision in the first three years (in fact, we estimate that the state will see a net surplus from 2014 to 2016), in 2017 and beyond the state costs for the expansion will grow. Beginning in 2017, there will be a net flow of money out of the state regardless of how the Medicaid expansion is handled; however, Pennsylvania will see much larger outflows without the expansion of eligibility. In summary, the expansion of Medicaid increases coverage, net federal inflows, economic growth, and employment compared to not expanding Medicaid but requires a net increase in state spending beginning in 2017.



## Appendix: COMPARE Model

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COMPARE models the decisions made by various economic actors—including individuals, families, and firms—using a utility maximization framework. The model is calibrated to accurately reproduce the decisions made by current actors in Pennsylvania about whether to obtain health insurance. Insurance premiums are derived from aggregate choices of the population, and individual decisions regarding insurance can respond to changes in premiums and coverage availability. Eventually, equilibrium is reached when none of the economic actors want to change their decision. We present a basic overview of the COMPARE model here, but a more thorough description of the microsimulation can be found in Eibner et al. (2010).<sup>21</sup> We develop two specifications or versions of the model, one with the Medicaid expansion and one without.

COMPARE uses a synthetic population constructed from several data sources to characterize the families and firms that form the basis for the model. It uses records from the 2008 Survey of Income and Program Participation (SIPP), a nationally representative survey conducted by the Census Bureau to provide accurate and comprehensive information about the income and program participation of individuals and households, to assign demographic characteristics to the synthetic population.<sup>22</sup> To get medical spending values for each synthetic person, the SIPP records are matched to records in the Medical Expenditure Panel Survey (MEPS) Household Component from 2002 and 2003 based on demographic profiles.<sup>23</sup> MEPS is a set of large-scale surveys of families and individuals that collects data on specific health services used, how frequently they are used, their costs, and how they are paid for. The synthetic people form synthetic families based on the family relation indicators in the SIPP. Each person and family is assigned an income, family poverty level, and health care costs. We construct a utility for each individual based on the premium, out-of-pocket expenditures, out-of-pocket spending risk (i.e., expected future out-of-pocket spending based on current health status), and a general utility of health care (i.e., families will make decisions to maximize the aggregate utility of the family).

In the COMPARE model, workers are assigned to synthetic firms. These synthetic firms are created from the 2010 Kaiser/Health Research and Educational Trust (HRET), a large national survey of employers on their health insurance offerings. People are matched to synthetic firms based on the firm size, sector, and region.<sup>24</sup> Firms choose to offer health insurance to their

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<sup>21</sup> Eibner et al., 2010.

<sup>22</sup> U.S. Census Bureau, “Survey of Income and Program Participation,” web page, undated.

<sup>23</sup> Agency for Healthcare Research and Quality, “Medical Expenditure Panel Survey,” web page, April 23, 2010.

<sup>24</sup> Kaiser Family Foundation and Health Research and Educational Trust, *Employer Health Benefits 2010*, Menlo Park, Calif., 2010.

employees based on the aggregated utilities of their employees, the employer penalty assessed under the ACA, premium subsidies, and the tax advantage of ESI. Factors such as the employers' contribution to their employees' health insurance, which tend to vary based on characteristics such as employer size and sector, are based on the distribution from the Kaiser/HRET survey.

Plan enrollments are determined from the decisions of individuals and families in light of premiums and their insurance options. Premiums are estimated in the model based on the average spending of plan enrollees, the actuarial value of the plan, and administrative loading factors through the plan enrollment. We adjust the predicted nongroup premium in the absence of the ACA to match Pennsylvania-specific premiums reported by America's Health Insurance Plans;<sup>25</sup> these adjustments are implemented by allowing nongroup insurers to deny coverage to older and sicker individuals until the appropriate premium is reached. With the ACA implemented, these denials are no longer allowed. Government spending values are calculated based on individuals' choices, premiums, and—for Medicaid—individuals' health spending.

The model does not make explicit assumptions about the Medicaid take-up rate. Instead, it uses the utility maximization framework to estimate enrollment. Under current law, not all eligible people are enrolled in Medicaid either because they lack eligibility information or because there is stigma attached to doing so. We assume this lack of information or stigma carries over to the newly eligible, but the effective take-up rate is higher because the penalties for being uninsured will apply to individuals who are eligible for Medicaid and have incomes above the tax filing threshold.

The synthetic population created from the SIPP, Kaiser/HRET, and MEPS is representative of the United States as a whole. The sample size for any one state is so small that selecting only the Pennsylvania respondents to these surveys for the model would generate misleading results. As an alternative approach, COMPARE reweights the records in the SIPP to reflect the specific demographics of Pennsylvania, including age, gender, race, income, insurance type (if insured), and employer's firm size (if employed). COMPARE employs the Iterative Proportional Fitting procedure to ensure that each demographic category has the right number of individuals; for instance, if the benchmark state-level data suggest that there are 50,000 females between the ages of 18 and 24 in Pennsylvania, the Iterative Proportional Fitting procedure reweights female records between the ages of 18 and 24 in the synthetic population such that the sum of their weights equals 50,000. State specific benchmark data for Pennsylvania were used where available;<sup>26</sup> data from the Integrated Public Use Microdata Series, Statistics of U.S. Businesses, and the Kaiser Family Foundation were employed to supplement data obtained directly from

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<sup>25</sup> America's Health Insurance Plans, *2011 Health Insurance: Overview and Economic Impact in the States*, September 2011.

<sup>26</sup> Centers for Medicare and Medicaid Services, "Medicaid Statistical Information System State Summary Datamarts," web page, undated.

state publications. In addition to reweighting records in the synthetic population, COMPARE adjusts the health expenditures of individuals to reflect health spending in Pennsylvania.

Key factors such as Medicaid eligibility are based on health insurance eligibility unit, immigration status, and other criteria derived from Pennsylvania's specific eligibility requirements. In the case in which Medicaid is expanded, the eligibility is based on the immigration status and the income of the health insurance eligibility unit. Regardless of whether Medicaid is expanded, those eligible under the pre-ACA rules remain eligible.

After running COMPARE for the entire state of Pennsylvania to assess the impact of the ACA in the state, we reweighted records once again to obtain county-level results. Records were reweighted based on county-level age and income distributions from the five-year 2006–2010 American Community Survey. From the reweighted population, we derived estimates at the county level for insurance type enrollment and expected additional government spending for newly insured individuals. The spending is attached to the county where people live and not the county where they spend the money. This may underestimate spending in counties with large hospital systems. However, the new spending will be directed less to specialty care than primary care, so the underestimate is not likely to be too distortionary.



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