A STUDY OF THE ECONOMIC IMPACTS OF THE PATIENT PROTECTION AND AFFORDABLE CARE ACT ON TENNESSEE

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF TABLES (continued)

EXECUTIVE SUMMARY

- The impact of the Patient Protection and Affordable Care Act (PPACA) will increase federal and state costs in Tennessee because over 466,000 newly-covered recipients will be insured. Accordingly, federal and state tax support will have to increase to pay for the expansion unless substantial cost savings and program changes occur.
- But, indigent and charity care provided currently by doctors, hospitals, and other health care providers will decline because more patients will be covered either by private insurance coverage extensions for young adults, by Medicaid, or by 2public exchanges.

Medicaid/TennCare

- Two broadly-defined groups are expected to gain insurance due to the implementation of the PPACA insurance plan in Tennessee under TennCare coverage: (1) those who will be newly eligible based upon newly-defined income guidelines and (2) previously eligible individuals who will sign up for coverage as a result of the higher profile and increased recruiting efforts defined in the PPACA enabling legislation (the woodwork effect).
- Woodwork individuals are expected to account for the lion's share of expenditures at the state level as the federal reimbursement rate for this group is substantially lower than that for the newly insured.
- Additional federally-funded TennCare spending under PPACA is expected to be more than $1,080.0 million from 2014 to 2019 given an annual average 5.2 percent increase in per capita spending per TennCare enrollee.

Exchanges

- PPACA creates new entities called American Health Benefit Exchanges (Exchanges) through which individuals and small businesses can purchase insurance (health coverage).
- Citizens and legal residents with incomes between 133.0 percent and 400.0 percent of the federal poverty level (FPL) are eligible for a federal premium subsidy to help them purchase coverage through the health benefits exchange. Persons with incomes up to 250.0 percent of FPL will also be eligible for reduced cost sharing, such as lower deductibles and co-payments, with the amount of the reduction varying based on their income.
- An estimated 4.2 percent of Tennessee's population under the age of 65 would be covered in the state's exchange.

- Between 2014 and 2019, an additional $6,391.4 million in federal premium and cost- sharing subsidies will flow to Tennessee to support the state's exchange.

Impacts from New Federal Spending

- For economic impact purposes, the only numbers of concern in this analysis were net new federal dollars flowing to the state. State and locally-sourced public dollars represent money that would have been spent in the economy anyway and are not included in the analysis.
- The additional federal health-related spending stimulated by PPACA will generate millions of new dollars in the state's economy.
- Between 2014 and 2019, it is projected that an additional $7.5 billion in federal money will be spent on health care in Tennessee via Medicaid/TennCare and the exchange subsidies
- In 2014, the additional $454.5 million in federal spending in Tennessee due to PPACA-related changes is estimated to generate a total of $1,092.8 million in output (the value of goods and services produced as a result of and including the initial spending of the $454.5 million), $370.5 million in additional earnings, and 7,573 additional jobs.
- In 2019, the additional $1,766.8 million in federal spending in Tennessee due to PPACA-related changes is expected to generate a total of $4,924.5 million in output (the value of goods and services produced as a result of and including the initial spending of the $1,766.8 million), $1,669.3 million in additional earnings, and 29,440 additional jobs.

STUDY OF THE ECONOMIC IMPACTS OF THE PATIENT PROTECTION AND AFFORDABLE CARE ACT ON TENNESSEE

Introduction

The economic saying that there is no such thing as a free good certainly holds true for health care. High quality health care is expensive, and it is expensive no matter how or by whom the bill is paid. The uninsured are not without health care. They just get it in some form that does not show up as a direct payment for services. Some uninsured do pay cash for services, but many others use the charity and uncompensated care provided by either public or private hospitals or care providers. In every case, someone pays for the health care received by patients. In some cases, the cost of care provided for the uninsured is shifted to third-party payers with insurance or to the public. Much of the current controversy about the expansion of health care is in response to the increased role of the federal government in supporting and mandating health care insurance.

But, it should be noted that the idea of insurance mandates or government mandates is not new. Certainly, states mandate insurance coverage for automobile drivers, and the Medicare payments made to support health care for the elderly are not optional. Government mandates are everywhere a potential free-rider problem exists. Public goods are common examples of areas where public interests override the interests of some private citizens. National defense is a classic example of a public good paid for by public taxpayers. People who do not pay for insurance are free riders who use other forms of payments if they need health care; some may pay, but most do not.

Public expenditures for care will certainly increase as the costs of care are shifted to the public and as public programs are expanded. Savings may result from shifting higher income participants from existing programs into health care exchanges and also from decreases that may be the result of proactive care and reductions in the need for care. The impact of the Patient Protection and Affordable Care Act (PPACA) shown in Table 1 will increase federal and state costs because

Table 1. Projected Changes in the Number of Uninsured in Tennessee

Intervention	Newly Insured	Cumulative Newly Insured	Remaining Uninsured	Reduction in Uninsured (%)
Baseline	—	—	910,215	—
Young Adult Eligibility for Parental Coverage	91,390	91,390	818,825	10.0
Medicaid Expansion	239,101	330,491	579,724	36.3
Insurance Exchange	227,554	558,044	352,171	61.3

Source: *Impacts of Health Reform in Tennessee*, Methodist Le Bonheur Center for Healthcare Economics and the Sparks Bureau of Business and Economic Research, The University of Memphis , 2012.

over 466,000 newly-covered recipients will be able to receive health care—239,101 recipients in Medicaid and 227,554 recipients in the insurance exchange. These estimates and those in Tables 2 and 3 were developed in *Impacts of Health Care Reform in Tennessee.*[1]

Federal and state tax support will have to increase to pay for the expansion unless substantial cost savings and program changes occur. Taxpayers will have to provide the funding for those least able to pay for either private coverage or the public insurance exchanges included in the law.

Indigent and charity care provided currently by doctors, hospitals, and other health care providers will decline, and the impact of those expenditures on third-party payers will decline also. Reductions in charity care will occur because more patients will be covered either by the private insurance coverage extensions for young adults, by Medicaid, or by public exchanges. The number of uninsured will be reduced from over 910,000 to 352,000 but will not be eliminated by the PPACA (see Table 1).

The data in Tables 2 and 3 show the projected changes in hospital utilization and emergency room utilization after 2014. The decline in the number of uninsured reduces uninsured admissions and days of hospitalization. The reductions from the declines in uninsured are nearly offset by the increases in admissions and days from Medicaid and privately insured. Only small reductions in total admissions and days are expected as a result of health care reform. Large reductions in the use of the

[1] *Impacts of Health Reform in Tennessee*, Methodist Le Bonheur Center for Healthcare Economics and the Sparks Bureau of Business and Economic Research, The University of Memphis, 2012.

emergency department by the uninsured are partly offset by small increases in use by those with public and private insurance. Overall, hospital admissions, days of hospitalization, and emergency room use will decline as a result of PPACA.

Table 2. Projected Changes in Hospital Utilization After Health Care Reform

	Projected Changes		Percent Change	
Insurance	Admissions	Days	Admissions	Days
Medicaid	17,104	73,548	13.3	11.5
Private	12,974	55,789	6.5	1.5
Uninsured	-33,422	-143,194	-64.5	-64.5
Total	-3,344	-13,857	-0.9	-3.3

Note: Only general acute care, general, and pediatric hospitals are included.
Source: *Impacts of Health Reform in Tennessee*, Methodist Le Bonheur Center for Healthcare Economics and the Sparks Bureau of Business and Economic Research, The University of Memphis, 2012.

Table 3. Projected Changes in Emergency Department Utilization After Health Care Reform

	Current		Projected	
Insurance	Total	Rate Per 1,000 Population	Total	Percent Change
Public	915,141	1,117	972,016	6.2
Private	662,005	179	705,147	6.5
Uninsured	457,695	529	162,620	-64.5
Total	2,034,841	378	1,839,783	-9.6

Source: *Impacts of Health Reform in Tennessee*, Methodist Le Bonheur Center for Healthcare Economics and the Sparks Bureau of Business and Economic Research, The University of Memphis, 2012.

Expanded health care coverage and access should improve the operation of the existing system by increasing the transparency of the payment system, by reducing the demand for highly expensive emergency department services, and by initiating a prevention model that improves overall health and reduces individual care costs. Other cost savings might be generated by eliminating Medicaid coverage for adults with over 133.0 percent of the federal poverty level (FPL) and shifting them to federally-funded subsidies in exchanges, replacing state and local spending

on uncompensated care with federal Medicaid dollars, and by replacing state and local spending on mental health services with federal Medicaid dollars.[2]

Estimates of state budget impacts vary widely. An Urban Institute report by Bovbjerg, Ormond, and Chen[3] indicated that Florida expected a multi-year total cost after savings of $5.7 billion, and Texas estimated their cost to be $27.0 billion. By comparison, Kansas and Maryland expected costs to actually decline by $200.0 million and $800.0 million, respectively. Wide variations in the models and estimates of savings make state-to-state comparisons difficult.

The PPACA legislation includes a number of options for creating savings that offset increased spending requirements. Those include higher reimbursement for preventive care, bundled payment for acute and post–acute medical services, shared savings or capitation payments for accountable provider groups, and pay for performance incentives for Medicare providers.[4] Other savings also exist that would potentially reduce the cost of extending care to the broader range of participants (such as an increase in the quality of hospital care to reduce unnecessary hospital readmissions, elimination of excessive administrative costs, etc.).

Employers provide health care insurance because it proves beneficial for the bottom line. Improving employee health reduces absenteeism, increases productivity, and improves the profitability of most businesses. Building modern production teams directly links employees and their health to the quantity and quality of the goods and services produced and to the profit of the employer. Concerns about reductions in insurance coverage by employers—crowd out—vary widely. Some crowd out will occur as a result of the new coverage provided by PPACA and the availability of the insurance exchange, but the exact amount remains unknown.

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[2] Stan Dorn and Matthew Buettgens, *Net Effects of the Affordable Care Act on State Budgets* (Washington, DC: The Urban Institute, December, 2010).

[3] Randall R. Bovbjerg, Barbara A. Ormond, and Vicki Chen, State Budgets Under Federal Health Reform: The Extent and Causes of Variations in Estimated Impacts, The Urban Institute, February, 2011.

[4] See the statement of David M. Cutler, Otto Eckstein Professor of Applied Economics, Harvard University, before the Subcommittee on Health, House Committee on Energy and Commerce, The True Cost of the Patient Protection and Affordable Care Act, March 30, 2011.

Public taxpayers are already paying for the health care of the poor and those unwilling to pay for their own insurance. Additional enrollments caused by employers dropping health care for their employees will generate additional costs for individuals covered by the exchanges and for the federal government if subsidies are involved. Under PPACA, the mandate to require insurance coverage is an attempt to require free riders to pay for their health care instead of shifting the cost to the health care industry, third-party payers, or the public. Extending protection for the poor under PPACA reduces the impact of indigent and charity care on health care providers, reduces shifted costs to third-party payers, reduces the need for emergency department visits, and promotes prevention. Prevention, transparency, cost reductions, and expanded coverage go hand in hand under the provisions of PPACA.

Political and Legal Uncertainties Cloud the Future of PPACA

Political and legal uncertainties make estimates of the impact of PPACA difficult. Certainly, the Supreme Count decisions regarding PPACA will have an impact on the structure of PPACA and the nature of its provisions. Exchanges and mandated coverage will be two areas that will most likely be impacted by any court decision.

The political future of PPACA is also still in doubt. Even before PPACA becomes a feature of the health care system, national elections may impact the nature of the program. Faced with these uncertainties, it is true that decisions to participate in the nation's health care initiative will have a large impact on Tennessee. Tennessee has a large low-income uninsured population that needs health care. Either they get care in the current system or they will get it under the new system. In either case, the need for care for the uninsured will not disappear. The impact of PPACA will not solve the entire problem of the need for care for the uninsured, but it will greatly reduce the unmet need for assistance.

Price is a Rationing Mechanism

Price will continue to be the dominant mechanism for distributing health care in America. Access to the best and highest quality health care will still be based upon a person's ability to pay. Most segments of the health care marketplace will not be impacted by PPACA. The targeted nature of the legislation limits its application to the income and insurance status groups of special concern. People with private insurance and those with other coverage will not be impacted by PPACA.

It is true that the role of government in providing health care continues to expand as the need for assistance and the social commitment to universal health care expand. But, private insurance coverage is still the dominant model for most people and for most providers. Ability to pay will continue to be the primary allocation mechanism for health care.

The direct link between hospital industry charity and bad debt, third-party payer costs and the cost of health care services provided for the uninsured will be reduced as the number of uninsured people declines and as competition increases in the market for health care services. Private insurance providers will compete in public health exchanges and existing hospitals and health care providers will compete for customers from both public and private payer groups. The ability to control costs and increase the service/cost ratio will determine many of the winners in the increasingly competitive health care environment.

Pressure will exist on health care providers to improve services and reduce costs with or without PPACA. Legal and political challenges aside, the rising cost of health care will make the issue of the quality of care, health care costs, and payment methods important issues for the foreseeable future. Neither the presence nor absence of PPACA will change the basic problems faced by the health care industry.

Scope of Work

The purpose of this study was to analyze the statewide economic impact of the Patient Protection and Affordable Care Act and the Health Care and Education Affordability Reconciliation Act. Specifically, the study includes:

- An assessment of changes in statewide health care spending, by source, resulting from implementation of the law;
- A projection of the net changes in statewide employment produced by the new law's implementation; and
- An analysis of the impact on the budget of the state of Tennessee for each of the years from 2014 through 2019.

Assumptions

This study builds upon the findings of the previously released *Impacts of Health Reform in Tennessee* in addition to *Impacts of Health Reform in Shelby County, Tennessee.*[5] Critical assumptions and findings from these studies also used in the current analysis include:

- Mandatory eligibility of young adults on parental policies;
- Mandatory Medicaid eligibility of persons with incomes up to 133.0 percent (138.0 percent) of the federal poverty level;
- Insurance exchanges with premium subsidies for enrollees up to 250.0 percent of the FPL and cost sharing credits up to 400.0 percent of the FPL.

Further, as the expansion in coverage for young adults is funded privately, they were excluded from the present analysis. Additionally, Medicare-eligible adults were also excluded (ages 65 and up). The focus in this report is on Medicaid expansion and exchange enrollment and the associated costs and impacts on the state of Tennessee.

Data

Data used in this analysis were the same as that used in the prior study and include:

[5] *Impacts of Health Reform in Shelby County, Tennessee*, Methodist Le Bonheur Center for Healthcare Economics and the Sparks Bureau of Business and Economic Research, The University of Memphis, 2010.

- *National Health Expenditure Projections 2010—2020*, Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group;
- *National Health Expenditure Projections 2009—2019*, Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group;
- Published reports and peer-review articles.

Methodology

The methodology employed to calculate the economic impact of additional spending was an economic multiplier model developed by the U.S. Bureau of Economic Analysis (BEA). The Regional Input-Output Modeling System (RIMS II) model includes output (i.e., goods and services produced as a result of the economic activity in question), earnings, and employment multipliers for the state of Tennessee. Specifically, the methodology incorporates into its estimation the linkages between the industry in question, other local industries, and local households.

State Data: Newly Eligible, Remaining Uninsured, and Costs

Table 4 presents a comparison of the public and private insurance costs per insured in the state of Tennessee from 2003 to 2010. TennCare per person costs were obtained from actual spending and enrollment figures, and total cost per enrollee was generated by combining Tennessee data with Federal FMAP matching percentages. The private insurance figures represent the average per person cost for a single enrollee policy in the state of Tennessee, and the average total premiums for a single enrollee by year include the employer-matched amount for coverage. Over the period shown, both TennCare costs and private insurance premiums per individual have increased, although you will note that initially the out-of-pocket average paid by employees was lower for private insurance although the gap has closed some of late. Overall the total cost per enrollee in TennCare has dropped while total private insurance premiums have increased to the point where they are now higher per individual than the average cost of TennCare per person.

Table 4. Comparison of Public and Private Insurance Costs Per Enrollee in the State of Tennessee, 2003-2010

	TennCare		Private Insurance	
Year	Average Per Person Cost, State Of Tennessee	Average Total Spending Per Enrollee (Including Federal)	Average Employee Insurance Premium Contribution, Single Enrollee	Average Total Insurance Premiums, Single Enrollee
2003	$1,522	$4,485	$ 760	$3,602
2004	1,509	4,435	854	3,634
2005	1,827	5,192	800	3,828
2006	1,589	4,413	745	3,744
2008	1,973	5,437	914	4,271
2009	1,554	4,350	1,010	4,550
2010	$1,253	$3,639	$ 970	$4,755

Notes**:** TennCare spending obtained from http://www.tennessee.gov/tenncare/forms/historicalchart.pdf; FMAP percentages from http://aging.senate.gov/crs/medicaid6.pdf; Information on private insurance premiums and average employee insurance premium contributions is from the Medical Expenditure Panel Survey (MEPS).

PPACA Impact on State Budget: TennCare

There will be two broadly-defined groups that are expected to gain insurance due to the implementation of the PPACA insurance plan in the state of Tennessee under TennCare coverage: those who will be newly eligible based on newly-defined income qualification guidelines and previously eligible individuals who will sign up for coverage as a result of the higher profile and increased recruiting efforts defined in the PPACA enabling legislation. The category that new TennCare enrollees fall under is very important as federal matching rates in terms of expenses differ greatly according to their designation

The reimbursement schedule for individuals who become newly eligible for health insurance as a result of PPACA is presented below. Initially the full cost of newly-enrolled Medicaid recipients will be paid for by the federal government, although over time these payments will lessen. This is of particular importance for our period of study, as the reimbursement rates differ by year from 2014 to 2019.

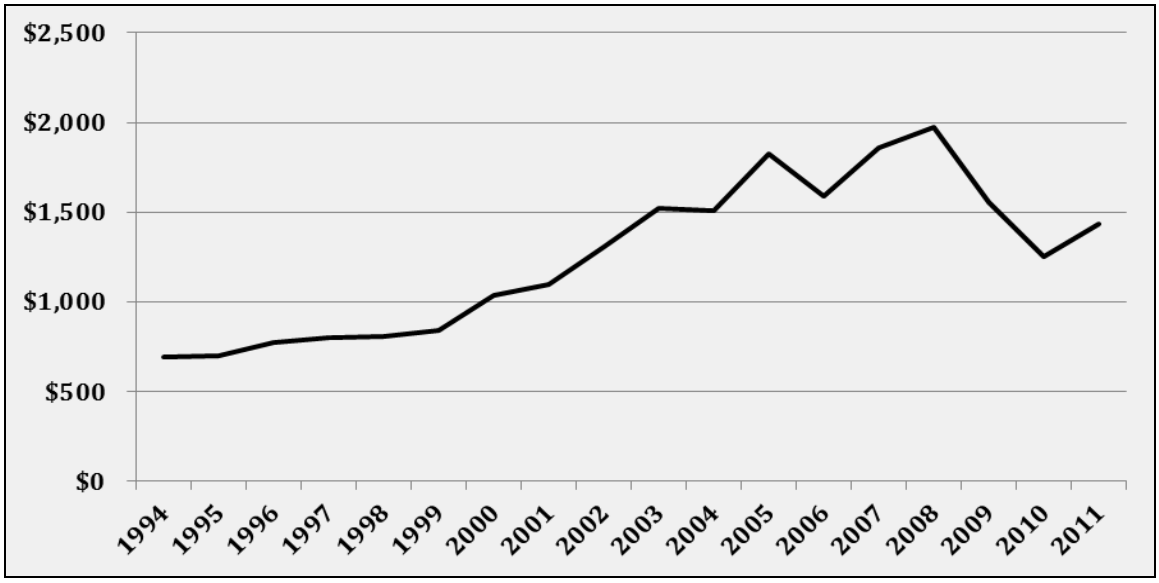
The PPACA stipulates the following Federal Medical Assistance Percentages (FMAP) for the expansion population:

100.0 percent FMAP in CY 2014, 2015, and 2016
95.0 percent FMAP in CY 2017
94.0 percent FMAP in CY 2018
93.0 percent FMAP in CY 2019
90.0 percent FMAP in CY 2020 and beyond.[6]

Population currently eligible for Medicaid in Tennessee will continue to be subject to the regular FMAP levels. For the purpose of this analysis, the expected FMAP percentage for 2013 is held constant at 66.13 percent from 2014 to 2019 in the absence of expected estimates.[7]

Since TennCare's inception in 1994, costs have generally trended upward, with an average yearly per recipient increase of 5.2 percent. Figure 1 contains a representation showing yearly per capita costs.

Figure 1. Yearly Average Per Capita TennCare Spending, 1994 To 2011



Source: Obtained on March 15, 2012, from
http://www.tennessee.gov/tenncare/forms/historicalchart.pdf.

[6] "Medicaid Coverage and Spending in Health Reform: National and State-by-State Results for Adults at or Below 133% FPL" Retrieved online March 14, 2012, from http://www.kff.org/healthreform/upload/medicaid-coverage-and-spending-in-health-reform-national-and-state-by-state-results-for-adults-at-or-below-133-fpl.pdf.
[7] "Federal Medical Assistance Percentage (FMAP) for Medicaid and Multiplier." Retrieved online March 20, 2012. from http://www.statehealthfacts.org/comparetable.jsp?ind=184&cat=4.

Table 5 contains historical information regarding TennCare spending since its inception in 1994. Spending and enrollments have generally trended upward over time, with expected FY2011 enrollees at 1.3 million insured individuals, a total state outlay of $1.9 billion, and combined state and federal spending amounts of almost $8.3 billion.

Table 5 also contains per capita spending per enrollee for the period FY1994 to FY2011. These spending levels are of interest in terms of this report as per capita spending per insured will be utilized to forecast the expected impact of TennCare expansion on the state budget during the period of study. Three alternatives will be utilized in the preparation of this report. The forecasted future increase in TennCare costs for the 2014 to 2019 period of study will be 3.8, 5.2, and 6.5 percent. The most conservative estimate is an expected future 3.8 percent annual increase in TennCare costs, as described in the TennCare Presentation on the Governor's FY2012 Recommended Budget[8] and TennCare Presentation on the Governor's FY2013 Recommended Budget[9] reports.

Over the lifespan of TennCare, the average increase in per capita spending per TennCare enrollee has been 5.2 percent. The 6.5 percent previously mentioned is the forecasted national average expected increase in Medicare costs from 2013 to 2020 as described in the 2011 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds.[10] These three annual increase amounts will be utilized in forecasting future growth rates in per capita spending per TennCare enrollee. The expected costs per insured individual will be combined with the expected increased enrollments in TennCare programs to estimate future TennCare spending as a result of the PPACA expansion.

[8] Retrieved on March 19, 2012, from http://www.tn.gov/tenncare/forms/tenncarebudgetFY12.pdf.
[9] Retrieved on March 19, 2012, from http://www.tn.gov/tenncare/forms/tenncarebudgetFY13.pdf.
[10] 2011 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds. Retrieved on March 20, 2012, from http://www.cms.gov/ReportsTrustFunds/downloads/tr2011.pdf.

Table 5. Historical TennCare Expenditure And Enrollment Data

Fiscal Year	Enrollments on June 30 in each Fiscal Year (Millions)	Total (Millions of Dollars)	State (Millions of Dollars)	Federal (Millions of Dollars)	Per Capita State Spending (Dollars)
FY 1994	1.14	$2,644	$785	$1,827	$691
FY 1995	1.24	2,991	865	2,044	697
FY 1996	1.22	3,191	943	2,176	775
FY 1997	1.23	3,405	986	2,390	799
FY 1998	1.31	3,652	1,057	2,497	808
FY 1999	1.36	3,935	1,147	2,717	843
FY 2000	1.37	4,539	1,415	2,983	1,035
FY 2001	1.48	5,431	1,624	3,530	1,101
FY 2002	1.45	6,106	1,902	3,865	1,308
FY 2003	1.35	6,864	2,057	4,484	1,522
FY 2004	1.40	7,631	2,108	4,857	1,509
FY 2005	1.39	8,569	2,539	5,196	1,827
FY 2006	1.26	6,874	2,004	4,473	1,589
FY 2007	1.25	7,093	2,330	4,567	1,857
FY 2008	1.28	7,497	2,524	4,675	1,973
FY 2009	1.31	7,688	2,030	5,349	1,554
FY 2010	1.30	7,859	1,632	6,227	1,253
FY 2011**	1.32	$8,281	$1,890	$6,391	$1,436

Notes: Enrollments, Total, State, and Federal spending are in millions of dollars, Per Capita State Spending is in dollars. Enrollment data include Qualified Medicare Beneficiary (QMB) enrollees and Specified Low-Income Medicare Beneficiaries (SLMB) enrollees.
**FY2011 expenditure figures are not final.
Source: Obtained on March 15, 2012, from
http://www.tennessee.gov/tenncare/forms/historicalchart.pdf.

Newly Eligible

Two groups of newly-eligible workers will receive coverage under the implementation of PPACA in Tennessee: those who were previously uninsured prior to its enactment who will become available due to the increased income availability (newly insured) and a certain number of previously insured who will opt to purchase public TennCare coverage in place of their private policy (crowd out). Both groups will be eligible for the higher FMAP percentages paid by the federal government based on the income guidelines designated in the enacting legislation.

Newly Insured

In the previously published *Impacts of Health Reform in Tennessee*, the total newly insured for the 2014 to 2019 time period was estimated to be 224,994. It is anticipated that not all of these individuals will obtain coverage at the same time and that there will be an implementation period where take-up rates of coverage increase. For the purposes of this report, take-up rates as generated by the Congressional Budget Office (CBO) are combined with the total newly insured over the total period of study to estimate a newly insured by year to determine yearly budgetary impacts.[11] These take-up rates and resulting newly insured by year are included in Table 6 below.

Table 6. CBO Estimates of Medicaid Enrollee Take-Up Rates and Corresponding Expected Tennessee Newly Insured Individuals

Year	Percent of Total Enrollees	Total Enrollees
2014	45.0	101,247
2015	75.0	168,746
2016	95.0	213,744
2017	95.0	213,744
2018	95.0	213,744
2019	100.0	224,994

Source: *Impacts of Health Reform in Tennessee* and Medicaid Spending and Enrollment Detail for CBOs, March 2012, Baseline Source: http://cbo.gov/sites/default/files/cbofiles/attachments/43059_Medicaid.pdf. Retrieved online March 17, 2012.

Crowd Out

In the previously published *Impacts of Health Reform in Tennessee*, the total crowd out for the 2014 to 2019 time period was estimated to be 78,232. It is anticipated that not all of these individuals will obtain coverage at the same time and that there will be an implementation period where take-up rates of coverage increase. For the purposes of this report, take-up rates as generated by the Congressional Budget Office (CBO) are combined with the total newly insured over

[11] Medicaid Spending and Enrollment Detail for CBOs, March 2012, Baseline Source: http://cbo.gov/sites/default/files/cbofiles/attachments/43059_Medicaid.pdf. Retrieved online March 17, 2012.

the total period of study to estimate a newly insured by year to determine yearly budgetary impacts.[12] These take-up rates and resulting crowd-out enrollees by year are included in Table 7 below.

Table 7. CBO Estimates of Medicaid Enrollee Take-Up Rates and Corresponding Expected Tennessee Crowd-Out Insured Individuals

Year	Percent Take-Up Newly Eligible	Crowd Out Enrollees
2014	45.0	35,204
2015	75.0	58,674
2016	95.0	74,320
2017	95.0	74,320
2018	95.0	74,320
2019	100.0	78,232

Source: *Impacts of Health Reform in Tennessee* and Medicaid Spending and Enrollment Detail for CBOs, March 2012, Baseline Source: http://cbo.gov/sites/default/files/cbofiles/attachments/43059_Medicaid.pdf. Retrieved online March 17, 2012.

Woodwork, or Previously-Eligible New Enrollees

In the previously published *Impacts of Health Reform in Tennessee*, the total woodwork enrollees for the 2014 to 2019 time period were estimated to be 14,107. It is anticipated that not all of these individuals will obtain coverage at the same time and that there will be an implementation period where take-up rates of coverage increase. For the purposes of this report, take-up rates as generated by the Congressional Budget Office (CBO) are combined with the total newly insured over the total period of study to estimate a newly insured by year to determine yearly budgetary impacts.[13] These take-up rates and resulting woodwork enrollees by year are also included in Table 8.

[12] Medicaid Spending and Enrollment Detail for CBOs, March 2012, Baseline Source: http://cbo.gov/sites/default/files/cbofiles/attachments/43059_Medicaid.pdf. Retrieved online March 17, 2012.
[13] Medicaid Spending and Enrollment Detail for CBOs, March 2012, Baseline Source: http://cbo.gov/sites/default/files/cbofiles/attachments/43059_Medicaid.pdf. Retrieved online March 17, 2012.

Table 8. CBO Estimates of Medicaid Enrollee Take-Up Rates and Corresponding Expected Tennessee Woodwork Insured Individuals

Year	Percent Take-Up Newly Eligible	Woodwork Enrollees
2014	45.0	6,348
2015	75.0	10,580
2016	95.0	13,402
2017	95.0	13,402
2018	95.0	13,402
2019	100.0	14,107

Source: *Impacts of Health Reform in Tennessee* and Medicaid Spending and Enrollment Detail for CBOs, March 2012, Baseline Source: http://cbo.gov/sites/default/files/cbofiles/attachments/43059_Medicaid.pdf. Retrieved online March 17, 2012.

The CBO take-up rates are combined with the three different per capita spending scenarios based on growth rates as described above to generate yearly estimates of the impact of TennCare on state budgets. In the tables that follow, you will note that expense amounts are zero for the crowd out or newly eligible insured.[14] This is due to the federal FMAP rates as described above that cover the full cost of newly insured due to the increased income expansion. The 100.0 percent coverage in payments that is in place from 2014 to 2016 begins to slowly decline in 2017, resulting in expenditures at the state level for these individuals.

From 2014 to 2016, the state of Tennessee will have some increased spending due to the woodwork individuals or those who are currently eligible who will sign up following the enactment of the PPACA regulations. These individuals are expected to account for the lion's share of expenditures at the state level. For a more detailed description of how this population was estimated, more information is available in the *Impacts of Health Reform in Tennessee* report made available earlier this year. In total, this increase should be expected to cost $993.3 million from 2014 to 2019 given a 3.8 percent increase in per capita TennCare enrollee spending as shown in Table 9 below.

[14] New TennCare enrollees are assumed to receive the higher FMAP percentage regardless of prior insurance status (Newly Insured or Crowdout) based on income eligibility

Table 9. Estimated Impact on State Budgets Given a 3.8 Percent Increase in Annual Per Capita Spending (In Millions of Dollars)

Year	Woodwork	Crowd Out	Newly Eligible	Total
2014	$ 56.5	$ 0.0	$ 0.0	$ 56.5
2015	97.8	0.0	0.0	97.8
2016	128.6	0.0	0.0	128.6
2017	133.5	19.7	56.7	209.9
2018	138.6	24.5	70.6	233.7
2019	151.4	29.7	85.5	266.6
Total 2014—2019	$706.5	$74.0	$212.8	$993.3

Note: Numbers may not add due to rounding.

Table 10 contains estimates of the impact on Tennessee state budgets given the historical 5.2 percent annual increase in per capita spending per TennCare enrollee. While this does increase the expected amount of spending from 2014 to 2019, it would result in $1,080.6 million in additional outlays over a five-year period.

Table 10. Estimated Impact on State Budgets Given a 5.2 Percent Increase in Annual Per Capita Spending (In Millions of Dollars)

Year	Woodwork	Crowd Out	Newly Eligible	Total
2014	$ 58.9	$ 0.0	$ 0.0	$ 58.9
2015	103.2	0.0	0.0	103.2
2016	137.5	0.0	0.0	137.5
2017	144.7	21.4	61.4	227.5
2018	152.2	27.0	77.5	256.7
2019	168.5	33.1	95.2	296.8
Total 2014—2019	$765.0	$81.4	$234.1	$1,080.6

Note: Numbers may not add due to rounding.

Table 11 contains the estimated impact on future Tennessee state outlays given the national expected annual increase in the Medicare rate of 6.5 percent. Here the additional 1.3 percent annual increase would result in an increase of $1,167.8 million in spending over the 2014 to 2019 time frame.

Table 11. Estimated Impact on State Budgets Given a 6.5 Percent Increase in Annual Per Capita Spending (In Millions of Dollars)

Year	Woodwork	Crowd Out	Newly Eligible	Total
2014	$ 61.1	$ 0.0	$ 0.0	$ 61.1
2015	108.4	0.0	0.0	108.4
2016	146.2	0.0	0.0	146.2
2017	155.7	23.0	66.1	244.9
2018	165.9	29.4	84.5	279.8
2019	186.0	36.5	105.0	327.5
Total 2014—2019	$823.3	$88.9	$255.6	$1,167.8

Note: Numbers may not add due to rounding.

Table 12 contains a summary by year and estimated annual percentage cost increase scenarios on the expected additional impact to state outlays over the 2014 to 2019 period. For the total five-ear period, this could prove to be a major expansion in expected TennCare outlays, with these three estimates ranging from just below $1.0 billion in spending to over $1.1 billion.

Table 12. Total Estimated Impact by Scenario on the State Budget from TennCare Expansion by Budget Year, 2014-2019 (In Millions of Dollars)

Year	3.8% Annual Increase	5.2% Annual Increase	6.5% Annual Increase
2014	$ 56.5	$ 58.9	$ 61.1
2015	97.8	103.2	108.4
2016	128.6	137.5	146.2
2017	209.9	227.5	244.9
2018	233.7	256.7	279.8
2019	266.6	296.8	327.5
Total 2014—2019	$993.3	$1,080.6	$1,167.8

Note: Numbers may not add due to rounding.

Exchanges

In order to make coverage more accessible and affordable, PPACA creates new entities called American Health Benefit Exchanges,[15] through which individuals and small businesses can purchase coverage. While nationally 8.9 percent of the nonelderly would be covered via non-group exchanges,[16] in Tennessee approximately 4.17 percent of the population under the age of 65 would be covered in the exchange.[17]

Citizens and legal residents with incomes between 133.0 percent and 400.0 percent of the FPL are eligible for a federal premium subsidy to help them to purchase coverage through the health benefits exchange. Persons with incomes up to 250.0 percent of FPL will also be eligible for reduced cost sharing, such as lower deductibles and copayments, with the amount of the reduction varying based on their income. Persons who are offered coverage through their employer may be eligible for the subsidies provided through the exchange. However, they are only eligible to receive them if their employer's plan fails to meet certain specifications or if the premium would exceed 9.5 percent of the employee's income.

On the supply side, the PPACA places requirements on certain employers to provide coverage and provides some subsidies to encourage the expansion of employer-based coverage. To make coverage more accessible for low- and modest-income individuals and families, the federal law contains provisions limiting the premiums and lowering cost-sharing obligations such as co-pays and deductibles that can be charged to those who purchase coverage. In addition, the PPACA imposes various new standards on health insurers.

The law requires insurers to offer and renew coverage on a guaranteed issue basis, meaning that an insurer must accept every applicant for coverage with certain

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[15] The state-based "exchanges" are marketplaces for buying and selling small group and individual health insurance policies. Plans offered in the exchanges will include bronze, silver, gold, and platinum policies, with corresponding actuarial values of 60.0, 70.0, 80.0, and 90.0 percent.

[16] Matthew Buettgens, Bowen Garrett, and John Holahan, "America Under the Affordable Care Act," The Urban Institute, December 2010.

[17] *Impacts of Health Reform in Tennessee*, Methodist Le Bonheur Center for Healthcare Economics and the Sparks Bureau of Business and Economic Research, The University of Memphis, 2012.

exceptions. The PPACA provides low-income persons greater access to health coverage by expanding the Medicaid program (TennCare). The new federal law also establishes a temporary high-risk insurance pool that will allow persons with preexisting medical conditions to purchase coverage.

Individual states will begin implementation of their insurance exchanges beginning currently with the first year of required availability in 2014. Individual states can either implement their own exchange system[18] or allow the federal government to step in and implement a centralized exchange system. According to the law, state expenditures for developing an insurance exchange should not be exceeded by the federal grant funding.

In the report "Impacts of Health Reform in Tennessee," it was estimated there would be 227,554 individuals who would receive insurance coverage through the exchange program in Tennessee by 2019. All of these individuals would likely not become covered under the exchanges right away, and it would take time for them to receive coverage. Table 13 contains Congressional Budget Office (CBO) estimates for exchange take-up rates on a national level, as contained within their March 2011 health insurance exchanges report. Using these expected national take-up rates and the localized Tennessee expected insured as detailed in the prior PPACA impact in Tennessee report generates localized newly exchange-insured individuals for Tennessee by year.

Table 13. CBO Estimates of Exchange Enrollee Take-Up Rates and Corresponding Expected Tennessee Insured Individuals

Year	Percent Of Total Enrollees	Total Exchange Enrollees
2014	37.7	85,815
2015	61.0	138,847
2016	91.5	208,270
2017	98.3	223,697
2018	100.0	227,554
2019	100.0	227,554

Source: Health Insurance Exchanges - March 2011 Baseline http://www.cbo.gov/publication/42417, retrieved online March 19, 2012.

[18] States have the option of establishing the exchange as part of an existing state agency or office (Operated by State), as an independent public agency (Quasi-governmental), or as a non-profit entity (Non-profit).

Federal health care reform requires the establishment of the exchange no later than January 1, 2014, and provides for "planning and establishment grants" to states. Tennessee submitted a second Level One Establishment grant for funding to support Exchange Planning staffing needs, ongoing review and analysis of new federal rules and guidelines, planning for a health plan management system, marketing and outreach planning, consumer research assistance, and other administrative expenses. These grants (Table 14) provide up to one year of funding to the state provided that some progress has been made under the Tennessee Exchange Planning grant.

Table 14. Total Health Insurance Exchange Grants Received by Tennessee, 2012 (Millions)

	Tennessee	United States
Exchange Planning Grant Amount	$1.0	$ 46.8
Exchange Establishment Grant Amount	3.8	667.3
Early Innovator Grant Amount	NA	117.3
Total Exchange Grant Amount	$4.8	$831.5

Source: Kaiser Family Foundation at http://www.statehealthfacts.org/profileind.jsp?cat=17&sub=205&rgn=44. Retrieved online March 19, 2012.

The secretary of the federal Department of Health and Human Services must award these grants to states no later than one year after enactment of the act, with the funding available until January 2015. Thereafter, the exchange is required to be self-supporting through administrative fees charged to participating insurers.[19] However, the ACA requires states to pay increased costs in the exchange that result from state requirements to cover services that go beyond federally-specified minimum essential benefits.[20]

Plans offered in the exchanges will include bronze, silver, gold, and platinum policies, with corresponding actuarial values of 60.0, 70.0, 80.0, and 90.0 percent.[21]

[19] Mark Taylor, "The Patient Protection and Affordable Care Act: An Overview of Its Potential Impact on State Health Programs," Legislative Analyst Office, May 13, 2010.
[20] By opting to implement a Basic Health Program (BHP), some states eliminate the need to pay such costs for adults at 138.0 -200.0 percent of FPL.
[21] The actuarial value is the proportion of health expenditures covered by the plan, assuming a standard enrollee population.

Although insurers can still offer plans outside of the exchanges, most of the new regulations will apply both within and outside the exchanges. Insurance-rating regulations, such as those enacted by the ACA, tend to have the effect of reducing premiums for sicker and more-expensive enrollees while increasing premiums for healthier and lower-cost enrollees. Taken alone, these regulations could lead to "adverse selection," in which lower-cost enrollees leave the risk pool and premiums increase.

However, additional policy changes enacted with the ACA may mitigate this effect. First, the individual mandate requires all legal U.S. residents to obtain health insurance coverage, with noncompliance penalties that can reach 2.5 percent of household income. Several categories of people are exempted from these penalties, including individuals with incomes below the tax filing threshold and those who would be required to pay more than 8.0 percent of income to acquire the lowest-cost plan available to them. However, for most people, the mandate will strengthen their incentive to enroll in insurance.[22]

Second, the law provides federal health insurance subsidies to individuals with incomes between 133.0 and 400.0 percent of the federal poverty level who receive a qualifying offer of coverage from an employer. The subsidy amount is equal to the difference between a given percentage of an individual's or family's income and the price of the second lowest-cost silver plan available in the exchanges. The applicable percentage of income that a family must contribute is means-dependent and ranges from 2.0 to 9.5 percent of income. Subsidies in general can reduce adverse selection since they insulate enrollees from the full force of premium increases. The subsidy structure of the ACA provides relatively strong insulation because—unless the enrollee chooses a relatively expensive plan—spending is capped. This effect is reinforced by cost-sharing subsides, which raise the effective actuarial value of the silver plan for enrollees with incomes below

[22] C. Eibner and C. C. Price, "The Effect of the Affordable Care Act on Enrollment and Premiums, With and Without the Individual Mandate" (Santa Monica, CA: RAND Corporation), TR-1221-CMF, 2012 (http://www.rand.org/pubs/technical_reports/TR1221.html).

250.0 percent of the FPL and reduce the incentive to choose a more generous gold or platinum plan.

Under PPACA, federal premium subsidies provided through the exchanges are tied to the premium of the second-lowest-cost plan offering a specified level of coverage (the "silver" level) in an area. The formula used to determine the amount of subsidy is:

> **Federal Payment in Tax Credits = Premium/month – 7%* Income/month –Excess over the reference premium**[23]

Specifically, the Congressional Budget Office and the staff of the Joint Committee on Taxation in their March 2011 baseline summary for the health insurance exchanges computed annual average federal dollars paid per subsidized enrollee (Table 15). The per person amount is based on estimates of annual average exchange enrollments (includes spouses and dependents covered by family policies and does not include coverage purchased directly from insurers outside the exchanges) and annual direct federal spending in exchanges as premium credit outlays, cost-sharing subsidies, and other related spending (includes mandatory outlays for high-risk pools, premium review activities, loans to co-op plans, and administration fees).

Table 15. Annual Average Federal Spending on Subsidies in Tennessee, 2014-2019

Year	Estimated Total Enrollment Using CBO Guidelines	Average Exchange Subsidy per Subsidized Enrollee ($)	Total Subsidies (Millions $)
2014	85,815	$4,610	$ 395.61
2015	138,847	5,320	738.66
2016	208,270	5,450	1,135.07
2017	223,697	5,630	1,259.41
2018	227,554	6,120	1,392.63
2019	227,554	6,460	1,470.00
Total	--	--	$6,391.38

Source: SBBER, the Congressional Budget Office, and the staff of the Joint Committee on Taxation, 2011.

[23] HIPSM, 2011.

The Urban Institute estimates the amount of subsidies by type paid by the federal government during the time period 2014-2019 (see Table 16). Using the

Table 16. Total Federal Spending on Exchange Subsidies in Tennessee, 2014-2019

Premium Subsidies		Cost-Sharing Subsidies		Total Subsidies	
Millions $	Percent	Millions $	Percent	Millions $	Percent
$5,948	87.9%	$823	12.2%	$6,770	100.0%

Source: Urban Institute of Analysis, HIPSM, 2014-2019.[24]

same composition by type of subsidy, Table 17 presents annual estimates of the premium subsidies and cost-sharing subsidies paid by the federal government for individuals enrolled in the exchange in Tennessee.

Table 17. Average Annual Federal Subsidies for the Health Insurance Exchange in Tennessee by Type, 2014-2019.

Year	Total Subsidies	Premium Subsidies	Cost-Sharing Subsidies
2014	$395.61	$ 347.57	$48.04
2015	738.66	648.98	89.68
2016	1,135.07	997.25	137.82
2017	1,259.41	1,106.50	1,532.91
2018	1,392.63	1,223.54	169.09
2019	$1,470.00	$1,291.51	$ 178.49

Source: SBBER, 2011, the Congressional Budget Office, and the Urban Institute of Analysis, HIPSM 2014-2019.

The Economic Impact of New Federal Spending

In addition to changes in the financing of the health care enterprise, health system reform will impact the overall economy of Tennessee. The purpose of this section of the report is to examine these effects. The additional spending for health care takes many forms—both public and private. Public spending funded by taxes that come to Tennessee serves as an economic injection into the state. By contrast, additional private spending that is local in origin simply displaces spending on other things and is not a new injection.

[24] For a description of HIPSM, see Urban Institute Health Policy Center, The Urban Institute's Health Microsimulation Capabilities, July 19, 2010, http://www.urban.org/uploadedpdf/412154-Health-Microsimulation-Capabilities.pdf.

The additional health-related spending stimulated by PPACA will generate millions of new dollars in the state's economy. The extra outlays will increase revenues for all types of health care service providers, including the health care industry, its employees and staff physicians, and its suppliers. In turn, the health industry employers, their employees, and physicians will spend large portions of their revenues and salaries on goods and services in the local economies. As a result, there will be increases in jobs, earnings, and the production of goods and services in all sectors of the state's economy. This process of multiple rounds of spending and respending in the local economy is called the economic multiplier process.

For economic impact purposes, the only numbers of concern in this analysis were net new federal dollars, as state and locally-sourced public dollars represent money that would have been spent in the economy anyway. Table 18 shows the projected net increase in federal health care expenditures for Tennessee between 2014 and 2019. Thus, between 2014 and 2019, it is projected that an additional $7.5 billion in federal money will be spent on health care in Tennessee.

Table 18. Net Increase in Federal Public Health Care Expenditures, 2014—2019 (Nominal Dollars, in Millions)

Year	Medicaid	Exchanges	Total New Federal Spending
2014	$ 58.9	$ 395.6	$ 454.5
2015	103.2	738.7	841.9
2016	137.5	1,135.1	1,272.6
2017	227.5	1,259.4	1,486.9
2018	256.7	1,392.6	1,649.3
2019	296.8	1,470.0	1,766.8
Totals	$1,080.6	$6,391.4	$7,472.0

Source: Tables 12 and 15.

The estimated net new publicly-funded spending (federal only) increases that will occur in Tennessee between 2014 and 2019 due to PPACA were used with the RIMS II economic impact modeling system to estimate the economic impacts of PPACA-related changes on Tennessee. The results shown in Table 19 indicate that

for 2014, the additional $454.5 million in federal spending in Tennessee due to PPACA-related changes is estimated to generate a total of $1,092.8 million in output (the value of goods and services produced as a result of and including the initial spending of the $454.5 million), $370.5 million in additional earnings, and 7,573 additional jobs. In 2019, the additional $1,766.8 million in federal spending in Tennessee due to PPACA-related changes is expected to generate a total of $4,924.5 million in output (the value of goods and services produced as a result of and including the initial spending of the $1,766.8 million), $1,669.3 million in additional earnings, and support 29,440 jobs.

Table 19. Economic Impact of PPACA on Tennessee (Nominal Dollars in Millions)

Year	Federal Health Expenditures	Change in Total Output (the Value of Goods and Services Produced)	Change in Earnings	Total Increase in Employment (Jobs)
2014	$ 454.5	$1,092.8	$ 370.5	7,573
2015	841.9	2,085.6	707.0	14,028
2016	1,272.6	3,247.1	1,100.7	21,205
2017	1,486.9	3,906.4	1,324.2	24,776
2018	1,649.3	4,463.1	1,512.9	27,482
2019	$1,766.8	$4,924.5	$1,669.3	29,440

Source: Authors' analysis of the RIMS II economic multiplier model.

It should be noted that this analysis does not subtract Tennessean's tax payments into the federal system. If Tennessee does not participate in PPACA, then all estimates of federal revenues coming into Tennessee and their associated economic impacts will simply flow to other states. Therefore, the economic impact estimates presented in Table 19 represent what Tennessee would lose by not participating in PPACA. Because Tennessee has a large number of uninsured and low-income residents who need assistance and qualify for assistance under PPACA, the impact of PPACA on the state would be very positive even if federal tax payments were deducted from the total expenditures analyzed in this report.