

**An Economic Evaluation of Medicaid Expansion  
In Alabama under the Affordable Care Act**

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### Introduction

In June 2012 the United States Supreme Court upheld the Affordable Care Act (ACA), ruling that the individual mandate was constitutional based upon the congressional power to “lay and collect taxes”. However, in its majority opinion, the Court also ruled that Congress had overstepped its power by threatening to withhold existing Medicaid funding to states that did not expand their programs as initially required under the ACA. With this decision, the authority to expand Medicaid to individuals with family incomes up to 138% of the federal poverty level (FPL) reverted back to the states.

This report provides a comprehensive economic analysis designed to help inform Alabama as it decides whether or not to participate in the Medicaid expansion under the ACA. Our report estimates the impact of a Medicaid eligibility expansion over the 2014-2020 period and focuses on five principal areas: 1) Medicaid enrollment of newly eligible individuals; 2) State and Federal spending on the expansion population; 3) Aggregate economic impact of the expansion; 4) State budgetary impact of the expansion; and 5) Potential health effects of the expansion. Other provisions of the ACA will impact Alabama Medicaid and the state’s health care providers including significant reductions in disproportionate share payments and increased enrollment among those already eligible but not enrolled in Medicaid/ALL Kids. This is the so-called “woodwork” effect. However, these changes will occur regardless of how Alabama proceeds on the Medicaid expansion. This report focuses exclusively on areas which are directly affected by the state’s decision to participate in the Medicaid expansion.

### New Medicaid Enrollment under Expansion

Under the ACA, Medicaid eligibility is expanded to adults (19-64) with family incomes less than 138% of the FPL (133% with a 5% income disregard) who are not currently eligible for Medicare. Legal immigrants who have lived in the United States fewer than 5 years and all undocumented immigrants are not eligible for Medicaid coverage. Table 1 presents our estimates of the number of new Medicaid enrollees under varying assumptions regarding the take-up (enrollment) behavior of the newly eligible.

**Table 1: Estimated Number of New Alabama Medicaid Enrollees under ACA Expansion**

	2014	2015	2016	2017	2018	2019	2020	Average 2014-20
High Take-up	521,566	510,744	497,979	488,391	482,517	481,531	479,673	494,629
Intermediate Take-up	308,572	302,169	294,617	288,945	285,469	284,886	283,787	292,635
Low Take-up	247,224	242,094	236,044	231,499	228,714	228,247	227,366	234,455

To construct these estimates we first use data from the 2010 American Community Survey (ACS) to estimate the newly eligible population and its distribution of health insurance status. The ACS is a national survey conducted by the U.S. Bureau of the Census. Among the eligible residents in Alabama in 2010, approximately 332,000 were uninsured, another 155,000 had employer-sponsored (group) coverage and 44,000 had privately purchased non-group health insurance. All of these 531,000 individuals would be newly eligible for Medicaid coverage in 2010. Next we use demographic and employment forecasts, together with estimates of the proportion of the uninsured that gain private coverage as the economy expands, to project the newly eligible expansion population through 2020. Not everyone who is newly eligible for an expanded Medicaid program will take the coverage. We apply the take-up rates reported in Table 2 to estimate the Medicaid expansion enrollment under three alternative scenarios.

**Table 2: Alternative Take-Up Scenarios**

	Uninsured	Private Group Coverage	Private Non-Group Coverage
High Take-up	100%	100%	100%
Intermediate Take-up	75%	25%	60%
Low Take-up	57%	25%	54%

The “high take-up” scenario is designed to provide an upper bound estimate of enrollment and costs, as it assumes (perhaps unrealistically) complete take up among the uninsured and full crowd-out of private insurance. Our preferred specification is the “intermediate take-up” scenario which is derived from the Urban Institute’s Health Insurance Policy Simulation Model. It assumes a 75% take-up by the uninsured, a 60% take-up by those currently buying non-group coverage and a 25% take up by those who currently have group coverage. In contrast, the low-take up scenario (based on Congressional Budget Office projections), assumes lower take-ups: 57% for the uninsured, 54% for the non-group buyers and 25% for those with group coverage. Overall our estimates suggest that the eligibility expansion would lead to just under 300,000 new Medicaid enrollees, with nearly 80% of these being previously uninsured individuals. Additional details on these enrollment projections are shown in the data appendix.

### **State and Federal Costs of Medicaid Expansion**

We use the number of new enrollees from Table 1 together with estimated per capita health care expenditures and administrative costs to project the aggregate state and federal costs of the Medicaid expansion from 2014-2020. Under the ACA, Alabama would receive a significantly higher Federal Matching Assistance Percentage (FMAP) for the expansion population than the 68.5% it currently receives for the non-expansion population. The ACA provides for a uniform FMAP to all states

of 100% in 2014-2016, 95% in 2017, 94% in 2018, 93% in 2019 and 90% in all years thereafter. In addition to a share of the direct costs associated with the coverage expansion, the state of Alabama will also incur new administrative costs related to the expansion. Based upon historical administrative costs for Alabama Medicaid, we assume that the administrative costs of the expansion will be 2.25 percent of total program benefit costs<sup>1-2</sup>. See the appendix for details of these administrative cost estimates.

Our estimates of health spending for the expansion population are derived using the Medical Expenditure Panel Survey (MEPS) from 2008-2010. The MEPS is a national survey of households conducted for the U.S. Agency for Health Care Research and Quality. For the newly eligible population of adults under 138% FPL we calculate per capita health expenditures by current insurance status. Since state of residence is unavailable in the public use MEPS data, our estimates are based upon newly eligible residents in the South Census Region. We assume that newly insured individuals will have expenditures similar to those of the currently privately insured. As shown in the data appendix, the expenditures of the privately insured are between those of the uninsured and the publicly insured. This is not unreasonable. The uninsured are likely to use more health services once they have insurance coverage and those in the 19 to 64 age group who have public coverage are disproportionately disabled. Our per capita expenditure estimates are inflated by a factor of 1.25 to account for the well-documented underestimation of expenditures in the MEPS data<sup>3</sup>. Table 3 presents estimated per capita health expenditures for the expansion population (in 2012 constant dollars) through 2020 based upon the assumption of 2.3% annual growth in real per capita health care expenditures<sup>4</sup>.

**Table 3: Estimated Per Capita Expenditure of Expansion Population (2012 \$)**

	2014	2015	2016	2017	2018	2019	2020
Per capita expenditure	\$5,567	\$5,695	\$5,826	\$5,960	\$6,097	\$6,237	\$6,381

We use this per capita spending estimate, our projections of new Medicaid enrollees, assumptions regarding administrative costs, and the annual FMAP under the ACA to project the aggregate costs of the Medicaid expansion to the state of Alabama and the Federal Government from 2014 to 2020. Although the state bears none of the direct costs of the coverage expansion through 2016, the state will be responsible for some of the administrative costs of the expansion in all years. See Table 4. Under our preferred intermediate take-up scenario, we estimate that the state of Alabama would be responsible for \$771 million (6.2%) of the estimated \$12.5 billion in new Medicaid program costs over the 2014-2020 period. This figure likely overstates the net costs to the state, because our analysis does not consider potential savings from reduced spending on uncompensated care, mental

health care and other services currently provided to the expansion population. The \$11.7 billion dollars in program costs financed by the federal government reflects an increase in direct revenues to health care providers in Alabama. The next sections of this report will project the impact of these increases in Federal spending on Alabama’s economic output and the state budget.

**Table 4: Estimated State and Federal Costs Associated with Alabama Medicaid Expansion (in millions)**

	2014	2015	2016	2017	2018	2019	2020	Total 2014-20
<u>High Take-up Scenario</u>								
Alabama Costs	\$65	\$65	\$65	\$211	\$243	\$278	\$375	\$1,303
Federal Costs	\$2,904	\$2,909	\$2,901	\$2,765	\$2,765	\$2,793	\$2,755	\$19,793
Total Costs	\$2,969	\$2,974	\$2,967	\$2,976	\$3,008	\$3,071	\$3,130	\$21,095
<u>Intermediate Take-up</u>								
Alabama Costs	\$39	\$39	\$39	\$125	\$144	\$164	\$222	\$771
Federal Costs	\$1,718	\$1,721	\$1,716	\$1,636	\$1,636	\$1,653	\$1,630	\$11,710
Total Costs	\$1,757	\$1,760	\$1,755	\$1,761	\$1,780	\$1,817	\$1,852	\$12,480
<u>Low Take-up Scenario</u>								
Alabama Costs	\$31	\$31	\$31	\$100	\$115	\$132	\$178	\$617
Federal Costs	\$1,376	\$1,379	\$1,375	\$1,311	\$1,311	\$1,324	\$1,306	\$9,382
Total Costs	\$1,407	\$1,410	\$1,406	\$1,411	\$1,426	\$1,456	\$1,483	\$9,999

The aggregate cost burden of the Medicaid expansion is dependent upon our assumptions regarding take-up. If more previously uninsured or privately insured individuals elect to enroll in Medicaid costs to the state and Federal government would rise. If take-up were lower, the costs to the state and Federal government would fall. However, under each of these scenarios, the state of Alabama is responsible for 6.2% of program costs through 2020.

#### **Economic Impact of Medicaid Expansion**

The additional Federal spending in Alabama shown in Table 4 will be partly offset by reductions in Medicaid and Medicare Disproportionate Share (DSH) payments over the coming decade. However, these reductions in DSH payments will occur irrespective of whether the state of Alabama elects to expand its Medicaid program<sup>5</sup>. As such, we do not consider these reductions in DSH payments in our estimation of the economic impact of the decision to expand coverage. Table 5 shows the projected reductions in Medicare and Medicaid DSH payments to Alabama through 2020. These estimates are derived from Congressional Budget Office projections of national reductions in Medicare and Medicaid DSH spending in each year multiplied by Alabama’s share of Medicaid DSH spending reported by the State Health Access Data Assistance Center<sup>6-7</sup>. See the appendix for more details. In the absence of a

public insurance expansion these significant cuts will threaten access to health care for the indigent and would place additional financial pressure on Alabama hospitals and health care providers.

**Table 5: Change in Alabama Medicare and Medicaid DSH Revenues (in millions)**

	2014	2015	2016	2017	2018	2019	2020
Change in DSH Revenue	\$0	(\$82.2)	(\$109.6)	(\$164.4)	(\$219.2)	(\$274.0)	(\$246.6)

We estimate the economic impact of new federal spending related to the Medicaid coverage expansion using the IMPLAN input-output software model. The data and model provide industry specific multipliers which allow us to estimate both the direct and indirect effects of the initial increase in federally financed Medicaid spending. The intuition for a multiplier is that the initial direct Medicaid spending provides revenues to the health care sector (e.g physician incomes and hospital revenues) which are in turn spent on other goods and services. These purchases yield new revenues to other individuals and firms who increase spending on other goods and services. The initial increase in spending leads to successive rounds of progressively smaller spending increases as its impact ripples through the economy. Our estimates of the indirect impact use health-sector industry specific multipliers (e.g. hospitals, nursing homes, etc) which were weighted by their projected share of annual personal health care expenditures between 2014 and 2020. All of the multipliers ranged between 0.65 and 0.75, suggesting that a \$1 increase in federal spending on the Medicaid spending yields an additional 65-75 cents of economic activity. Multipliers of this magnitude realistically reflect the fact that in states like Alabama, that do not have a large multi-sector economy, will spend many of the new dollars on goods and services from other states.

**Table 6: Estimated Economic Impact of Federal Spending on Alabama Medicaid Expansion (in millions)**

	2014	2015	2016	2017	2018	2019	2020	Total 2014-20
<u>High Take-up Scenario</u>								
Direct	\$2,904	\$2,909	\$2,901	\$2,765	\$2,765	\$2,793	\$2,755	\$19,793
Indirect	\$2,015	\$2,018	\$2,012	\$1,921	\$1,921	\$1,938	\$1,911	\$13,736
Total Impact	\$4,919	\$4,927	\$4,913	\$4,686	\$4,686	\$4,731	\$4,666	\$33,529
<u>IntermediateTake-up</u>								
Direct	\$1,718	\$1,721	\$1,716	\$1,636	\$1,636	\$1,653	\$1,630	\$11,710
Indirect	\$1,192	\$1,194	\$1,190	\$1,136	\$1,136	\$1,147	\$1,131	\$8,127
Total Impact	\$2,910	\$2,915	\$2,907	\$2,772	\$2,773	\$2,799	\$2,761	\$19,837
<u>Low Take-up Scenario</u>								
Direct	\$1,376	\$1,379	\$1,375	\$1,311	\$1,311	\$1,324	\$1,306	\$9,382
Indirect	\$955	\$957	\$954	\$910	\$911	\$919	\$906	\$6,511
Total Impact	\$2,331	\$2,335	\$2,329	\$2,221	\$2,221	\$2,243	\$2,212	\$15,893

Table 6 presents our economic impact projections for 2014-2020. In addition to the direct effect of the increase in federal spending on the Medicaid expansion (\$11.7 in the intermediate take-up case), these flows of new federal dollars would generate an additional \$8.1 billion of economic activity over the 2014 to 2020 period. Under the intermediate take-up scenario, the additional federal revenues to support the Medicaid expansion would generate nearly \$20 billion in economic activity for the state of Alabama through 2020. See appendix for additional details regarding our input-output analysis.

### Alabama State Budgetary Impact of Medicaid Expansion

In Table 7 we conclude our economic analysis by projecting the state budgetary impact of the potential Medicaid expansion. Under the intermediate take-up scenario we estimate that the federal spending to support the coverage expansion would generate nearly \$20 billion in increased economic activity between 2014 and 2020. The Federation of Tax Administrators (FTA) estimates Alabama’s tax burden at 8.6 percent of income<sup>8</sup>. The FTA computes the state’s tax burden as taxes collected by state and local governments from residents and non-residents divided by the total incomes of Alabama residents. Taxes include personal and corporate income taxes, sales and property taxes and other taxes. Based upon this 8.6 percent tax burden, we project that the increase in federal Medicaid spending would generate over \$1.7 billion in additional state tax revenues during this same period<sup>8</sup>. The costs to the state of expanding the Medicaid program are the administrative and direct benefit costs presented earlier in Table 4. Net of these costs, we project that the Medicaid expansion would increase the state budget by approximately \$935 million between 2014 and 2020.

**Table 7: Impact of Medicaid Expansion on Alabama State Budget (in millions)**

	2014	2015	2016	2017	2018	2019	2020	Total 2014-20
<u>High Take-up Scenario</u>								
AL Costs of Expansion	(\$65)	(\$65)	(\$65)	(\$211)	(\$243)	(\$278)	(\$375)	(\$1,303)
Increased Tax Revenues	\$423	\$424	\$423	\$403	\$403	\$407	\$401	\$2,883
Net Impact	\$358	\$358	\$357	\$192	\$160	\$129	\$26	\$1,581
<u>Intermediate Take-up</u>								
AL Costs of Expansion	(\$39)	(\$39)	(\$39)	(\$125)	(\$144)	(\$164)	(\$222)	(\$771)
Increased Tax Revenues	\$250	\$251	\$250	\$238	\$238	\$241	\$237	\$1,706
Net Impact	\$212	\$212	\$211	\$114	\$95	\$76	\$16	\$935
<u>Low Take-up Scenario</u>								
AL Costs of Expansion	(\$31)	(\$31)	(\$31)	(\$100)	(\$115)	(\$132)	(\$178)	(\$617)
Increased Tax Revenues	\$201	\$201	\$200	\$191	\$191	\$193	\$190	\$1,367
Net Impact	\$170	\$170	\$169	\$91	\$76	\$61	\$12	\$749

## Medicaid Expansion and Health

We estimate that an expansion of the Alabama Medicaid program under the ACA would increase annual Medicaid enrollment by approximately 292,000 and reduce the number of uninsured Alabamians by 232,000. In contrast to the cost estimates of the coverage expansion, which involve relatively straight-forward calculations, it is far more difficult to quantify the potential benefits of expanded health insurance coverage. Credible evidence of the cause-and-effect link between coverage and health has proven elusive within the field of health economics. The central challenge is that health insurance status is likely correlated with unobservable person specific factors that independently affect health. This raises questions about the value of observational based studies that simply compare the utilization and health outcomes of insured versus uninsured populations<sup>9</sup>. The most compelling evidence comes from a smaller number of experimental and quasi-experimental studies.

The most influential research on the consequences of health insurance comes from the RAND Health Insurance Experiment of the 1970s<sup>10</sup>. In this large scale social experiment, individuals were randomly assigned to health insurance plans with coinsurance rates that varied between 0% (“free care”) and 95%. Overall, individuals in the high-coinsurance plans had significantly lower health care expenditures, but did not experience higher rates of major adverse health outcomes (e.g. mortality). However, among individuals with low-incomes and/or health status, increased out-of-pocket exposure was associated with a range of adverse health outcomes including inferior blood pressure control and dental health. This evidence suggests that insurance coverage may lead to significant improvements in chronic disease management among low income individuals in poor health.

A particularly relevant study of the link between health insurance and health comes from the recent experiences of the Oregon Medicaid program<sup>11</sup>. In 2008 Oregon opened its Medicaid waiting list to a limited number of low-income adults who were selected by a lottery from the pool of eligible adult applicants. Researchers from the Oregon Health Study Group have used the random assignment from the lottery to study the effects of Medicaid coverage on the health care utilization, debt burden and health of low-income adults. The study found significant effects of insurance on the use of all forms of health care services, including primary and preventative care. Health insurance was associated with a significant improvement in financial security, as evidenced by a 25% reduction in the probability of having an unpaid medical bill sent to a collection agency. With respect to health outcomes, the authors document significant improvements in self-reported measures of physical and mental health. Although



evidence of improvements in objective measures of health are not yet available, the early results from Oregon suggest that Medicaid coverage for low-income adults can provide significant improvements in overall well-being.

## **Conclusions**

This report provides a detailed assessment of the potential effects of an expansion of Alabama's Medicaid program under the Affordable Care Act. We provide estimates of the number of new expansion enrollees, the costs of the coverage expansion to state and federal governments, the impact of the expansion on the Alabama economy and budgetary impact on the state during the first seven years of the program (2014-2020). Using our "intermediate" scenario we project that a coverage expansion would reduce the state's uninsured population by approximately 232,000 individuals while generating \$20 billion in new economic activity and a \$935 million increase in net state tax revenues.

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## Data/Methodology Appendix

### A. Enrollment Projections

The estimates of the number of new Medicaid enrollees in Table 1 are derived using the 1-year American Community Survey (ACS) Public Use Microdata Sample (PUMS) files from 2008-2010. The PUMS data allow us to estimate the size of the newly eligible population (adults 19-64, <138% FPL, resident of US>5 years) and to characterize the current distribution of health insurance coverage. Appendix Table 1 shows the size of the potential expansion and the distribution of health insurance coverage from 2008 to 2010. The newly eligible population increased significantly from 2008 to 2010 as the unemployment rate in the state increased

**Appendix Table 1: Potential Alabama Medicaid Expansion Population (2008-2010)**

	2008	Year 2009	2010
<b>Newly Eligible Population</b>			
Number of Individuals, N	638,659	703,872	771,387
Annual Growth Rate, %	--	10.2%	9.6%
<b>Insurance Status</b>			
Uninsured Currently (SE)	253,782 (7,549)	293,208 (7,741)	332,087 (7,367)
Insured – Private Group (SE)	144,392 (4,803)	145,788 (5,917)	155,008 (5,374)
Insured – Private Non-Group (SE)	43,806 (2,918)	41,484 (2,682)	43,074 (3,604)
Insured – Public/Other (SE)	196,679 (6,300)	223,392 (5,561)	241,218 (7,704)

Source: American Community Survey 1-Year Public Use Micro Files. Estimates are based on the population of 19-64 year olds with family incomes below 138% of the Federal Poverty Level, who have resided in the United States for at least 5 years.

To project the expansion population forward through 2020 we must address two principal issues: 1) Trends in the working-age population; and 2) The impact of economic recovery on the % eligible for the Medicaid expansion. First, we used the 2005 Interim State Population Projections from the US Census Bureau to project trends in the 19-64 year old population in Alabama through 2020<sup>12</sup>. The working age population begins to decline in 2011 as the earliest baby boomer cohorts reach retirement age. Second, we account for the impact of macroeconomic conditions on the size of the expansion eligible population. As mentioned previously, the 2008 - 2010 data suggest that increases in unemployment are associated with an increase in the percentage of the 19-64 year old population who are eligible for the Medicaid expansion. Based on work by Cawley et al. (2011), we estimate that a 1% decrease in the unemployment rate will lead to a 0.57 percent reduction in the share of 19-64 year olds who are eligible for the Medicaid expansion<sup>13</sup>. We then use national unemployment rate projections from the Congressional Budget Office (2012) to estimate the fraction of the working age population who will be eligible for the Medicaid expansion in 2014-2020<sup>14</sup>.

Based on the above methodology we are able to project the newly eligible population through 2020. To simplify matters, we assume that the distribution of health insurance coverage among this newly eligible population observed in 2010 remains constant over time (Uninsured = 43%, Private Group = 20.2%, Private Non-group = 5.7%) With the data in Appendix Table 1 projected through 2020, we are then able to simply apply our alternative assumptions about Medicaid take-up to generate estimates of the annual Medicaid expansion enrollment.

### B. Administrative Costs of Medicaid Expansion

Nationally, administrative costs to run the state's Medicaid program account for approximately 5.5 percent of benefits costs<sup>2</sup>. The federal match for administrative costs does not vary by state and is set at 50/50 for most

functions. However, for some functions, the federal government pays 75 percent. Overall, the federal government pays approximately 55 percent of administrative costs and the state pays 45 percent<sup>2</sup>. Thus, nationally, states incur approximately 2.48 percent of benefits costs as the costs of running Medicaid.

Administrative costs vary significantly across states, however. Administrative costs in Alabama are below the national average. The *Medicaid Resource Book* reports that Alabama’s share of Medicaid administrative costs in 1997 were 2.25 percent of benefit costs<sup>1</sup>. We use 2.25 percent of total Medicaid benefit costs associated with the expansion as our estimate of the administrative costs associated with an expansion.

### C. Expenditure Projections

Our estimates of the per capita expenditures of newly eligible Medicaid beneficiaries in Table 2 are derived from the 2008-2010 Medical Expenditure Panel Survey (MEPS) data. The primary assumption in projecting expenditures and total program costs is that expansion Medicaid enrollees will have expenditures similar to those of low-income privately insured individuals. Appendix Table 2 shows the annual MEPS expenditure data by insurance status for 2008 to 2010. Owing to the imprecision of the 1-year MEPS estimates we used the pooled 2008-2010 mean (multiplied by the adjustment factor of 1.25) as our baseline level of per capita expenditure. The adjustment factor is used to account for the well known underreporting of expenditures in the MEPS<sup>3</sup>. Appendix 2 highlights the inappropriateness of using the per capita expenditures of the uninsured or the publicly insured population to estimate the cost of the expansion enrollees. The overwhelming majority of publicly insured 19-64 year olds are disabled, thus the average expenditures of publicly insured working age adults are much higher than adults with private coverage. With Medicaid coverage, the expenditures among the currently uninsured should become reasonably similar to those of the privately insured population. We project these expenditures forward through 2020 based upon 2.3% annual growth in real per capita health expenditures.

**Appendix Table 2: Per Capita Total Health Expenditures, Expansion Population in South Census Region (2008-10)**

Population	Mean Expenditure <sup>1</sup> (95% CI)		
	2008	2009	2010
Full-year Uninsured	\$1,399 (969,1829)	\$1,491 (1144,1840)	\$1,656 (1103,2208)
Ever privately insured in year	\$3,894 (2985,4802)	\$4,645 (2511,6778)	\$3,662 (2856,4467)
Ever publicly insured in year	\$7,653 (5457,9849)	\$7,222 (5769,8676)	\$6,260 (5266,7255)
Overall	\$3,631 (2925,4336)	\$3,846 (3073,4620)	\$3,525 (3088,3962)

Notes: 1) Converted to 2012 dollars using CPI index (all items)

### D. Disproportionate Share Expenditures

The Medicare and Medicaid DSH revenue reductions for Alabama are computed using data from the Congressional Budget Office<sup>6</sup>. The CBO reported their estimated annual reductions for 2014 through 2020. SHADAC reports the Alabama share of total federal Medicaid DSH payments for the years 2008 through 2010; the average share was 2.74%<sup>7</sup>. We applied this share to the combined Medicare and Medicaid DSH annual reductions estimated by CBO.

### E. IMPLAN Input-Output Model

The IMPLAN analytic software provides a comprehensive set of data and analytic tools to conduct sophisticated regional economic impact analyses. Most relevant to our report are the input-output multipliers which allow us to estimate the aggregate impact of additional federal spending on the potential Medicaid expansion.

These multipliers capture the extent to which an initial increase in direct spending (federal spending on the Medicaid expansion) leads to additional economic activity, including demands for intermediate goods by the health care sector and the increase in consumption driven by resultant increases in household incomes.

Appendix Table 3 presents the distribution of health care expenditures by industry sector and the multipliers provided by IMPLAN. Using this information, we allocate direct spending to industry sectors and use the industry specific multipliers to estimate the indirect effects of increased federal spending on the Alabama economy.

**Appendix Table 3: Health Sector Multipliers and Personal Health Care Expenditure Projections (2014-2020)**

	2014	2015	2016	2017	2018	2019	2020	Multiplier
Professional Services	30.7%	30.6%	30.5%	30.6%	30.6%	30.6%	30.6%	0.647
Hospital Services	37.5%	37.4%	37.5%	37.4%	37.3%	37.2%	37.1%	0.752
Pharmacy Services	15.6%	15.7%	15.6%	15.7%	15.7%	15.7%	15.7%	0.593
Other Health Services	16.2%	16.3%	16.3%	16.4%	16.5%	16.5%	16.6%	0.746
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Source: Centers for Medicare and Medicaid Services (2012). National Health Expenditure Projections. 2011-2021. Baltimore, MD Retrieved 10/20/2012 from <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/Downloads/Proj2011PDF.pdf>