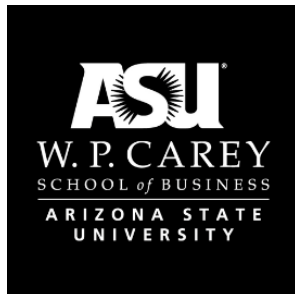


Economic Impact on Arizona Of Repeal of Funding Provisions Of the Affordable Care Act

Prepared by



**Seidman Research Institute
W. P. Carey School of Business
Arizona State University**

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Economic Impact on Arizona Of Repeal of Funding Provisions Of the Affordable Care Act

EXECUTIVE SUMMARY

The purpose of this report is to quantify the economic impacts on the Arizona economy of repeal of certain provisions of the Patient Protection and Affordable Care Act, often called the Affordable Care Act (ACA) or Obamacare. The ACA was enacted on March 23, 2010. Deliberations about repeal of the ACA are underway in the One Hundred Fifteenth Congress, which convened January 3, 2017.

In January 2014, implementation of the ACA Medicaid expansion in Arizona extended medical coverage to adults with incomes up to 138 percent of the federal poverty level (FPL, \$16,242 per year for an individual in 2015). According to figures from the Arizona Health Care Cost Containment System (AHCCCS), Arizona's Medicaid expansion program for the 2018 fiscal year projects 425,338 beneficiaries, of which 115,823 are newly eligible adults (working parents with incomes from 106 to 138 percent FPL and non-working parents and childless adults from 100 – 138 percent FPL), and an additional 309,515 previously eligible childless adults from 0 to 100 percent FPL who had been without coverage due to an enrollment cap set in 2011.

For the past two decades, well before the ACA was adopted, health care has been one of the most dynamic components of the Arizona economy. Since 1995, one out of every five new payroll jobs added (19.7 percent) has come in the health care sector. Following the national pattern, health care now is the largest sector in Arizona as measured by nonfarm payroll employment (two digit NAICS sectors, U.S. Bureau of Labor Statistics), accounting for 15 percent of private jobs (excluding proprietors, self-employed, and government workers). During the recent recession, as the Arizona economy lost over 300,000 jobs, health care continued to grow. Compared to all other states, the growth rate of Arizona health care employment ranked fourth in the nation in 2015.

The health care sector consists of four industry subsectors: ambulatory health care (such as medical offices and laboratories), hospitals, nursing and residential facilities, and social assistance services. Throughout this summary and in the report, any reference to the “health care sector” or “health care” should be understood to include these four industry subsectors.

Provisions under discussion for repeal will affect how health care is funded in the states, including Arizona. This study focuses on the loss of two key sources of ACA revenue: Medicaid expansion funds and insurance premium tax credits. In addition, the analysis also examines differential impacts if state matching funds are alternatively also withdrawn or remain within the state government spending stream.

If tax credits and Medicaid expansion ends in FY2018, it will lead to significant statewide job losses and a reduction in state economic activity. The table below displays economic impacts for the first full calendar year when such reductions would take place (2018), as well as totals for the entire time period analyzed (2017-2027).

Economic Impact on Arizona of Repeal of ACA Funding Provisions

Economic Impacts	Scenario 1		Scenario 2	
	2018	2017-2027	2018	2017-2027
Total Employment	-62,659	-717,701	-57,781	-663,217
Health Care Employment	-29,461	-325,381	-27,335	-301,417
Gross State Product (\$ mil.)	-\$4,955	-\$60,316	-\$4,606	-\$55,884
Personal Income (\$ mil.)	-\$3,477	-\$46,088	-\$3,222	-\$42,717

Seidman Research Institute analysis using REMI model; employment is measured in job-years, equivalent to one worker having a job for one calendar or fiscal year. Dollar values for gross state product and personal income are in constant 2016 dollars.

Funding cuts would be felt first by the health care sector, reducing employment and incomes of health care workers. Because of the inter-connected nature of the Arizona economy, other sectors would experience job losses related to the funding cuts as well. With a reduction in funding, health care firms would reduce purchases from suppliers or cancel plans for new construction. Job losses by health care workers would lead to reductions in spending on retail goods and services. As economic activity declined, this would affect the level of gross state product and personal income for the state.

Figures in the table represent the change in each economic measure resulting from the funding cuts. The estimated effects are based on differences between a baseline model (control forecast) and models assuming policy changes, in this case, the loss of premium tax credits and federal /state Medicaid expansion funding.

Scenario 1 assumes loss of all federal and state ACA related funding, including premium tax credits. Economic consequences in 2018 include a loss of gross state product of \$5 billion, and a loss of \$3.5 billion in personal income. Employment losses in all sectors in 2018 are 62,659 jobs, with the health care sector losing the most jobs at 29,461.

Scenario 2 assumes loss of federal funding, including premium tax credits, but the state match remains available to be spent on health care or any alternative allocation and is not lost to the Arizona economy. The result is a reduction of \$4.6 billion dollars in gross state product, \$3.2 billion in personal income and lost employment of 57,781 jobs in 2018. Out of these, 27,335 jobs would be in the health care sector. Health care job losses in 2018 account for 47 percent of all job losses in 2018, under either Scenario 1 or 2.

With the funding cuts of either Scenario 1 or Scenario 2, Arizona health care employment will decline year-to-year in 2018 for the first time since Arizona health care sector employment records began in 1965, creating a “recession in health care.” The damage spills over to other sectors of the economy with private sector jobs hit severely.

Moreover, both Scenario 1 and Scenario 2 cuts will continue to impact the level of health care employment in each following year, shown through 2027. Jobs over the years can be combined into “job-years”, a measure of years of employment, which amount to 717,701 job-years lost in health care under Scenario 1 during 2017-2027. The smaller Scenario 2 funding cuts reduce Arizona health care employment by 663,217 job-years over the 2017-2027 period.

Without the Scenario 1 funding cuts, Arizona total employment is projected at 3,752,030 for 2018. With the cuts, total employment across all industries will be 3,689,371. Without the cuts, total employment in Arizona would grow by 2.2 percent or 81,778 jobs in 2018. With the cuts, employment will grow by 48,848, or 1.3 percent, the lowest growth rate since 2011. The Scenario 2 growth rate for Arizona total employment is 1.4 percent, again very low by historical standards. Job losses in the health care sector represent the largest share of total job losses, approximately 47 percent. Other sectors that are heavily impacted are Construction and Real Estate (15%), Retail (7%), and State and Local Government (7%). Just as the Arizona economy struggles to recover, the headwinds created by these cuts will be felt across the economy.

Similar conclusions apply to all other impacts in the table for Scenario 1 and Scenario 2. For example, gross state product and personal income in Scenario 1 will continue to grow, but the magnitude of growth will be smaller due to the ACA funding cuts. Gross state product in 2018 will be \$344 billion instead of \$349 billion without the cuts, a reduction of \$5 billion. Personal income in 2018 will be \$315.5 billion instead of \$319.0 billion, smaller by \$3.5 billion under Scenario 1. Lost output and income on the order of 1.5% of the total economy translate into lost opportunities for thousands of Arizonans.

The total cumulative Scenario 1 impact of repealing both premium tax credits and Medicaid expansions on the economy of Arizona for years 2017 through 2027 is estimated to result in losses of \$60.3 billion in gross state product, and losses of personal income to Arizona residents of \$46.1 billion.

Cumulative effects of Scenario 2 for 2017 through 2027 are estimated to be \$55.9 billion lost in gross state product, and total personal income losses of \$42.7 billion.

In addition to the quantitative economic impacts illustrated in the table, funding cuts to the health care sector will have qualitative economic impacts as well. Health care availability and worker productivity have been found to be linked in various studies of worker performance and profitability. Arizona is a growth-oriented state and reduced worker productivity raises the potential for a decline in business competitiveness. Funding cuts will undermine progress in the Arizona bioscience cluster, which depends heavily on the health care sector to support research and development. Also, it should be noted that

health care represents a larger share of overall employment in rural counties, and therefore the impact of cuts will be uneven across the state. While a greater number of jobs will be lost in the urban areas, it is the non-urban areas that will feel a disproportionate economic impact.

1. THE AFFORDABLE CARE ACT IN ARIZONA

The Affordable Care Act, signed into law in 2010, brought changes in the policies and procedures governing the oversight of health care insurance, coverage and the actual provision of health care to millions of Americans. The U.S. Department of Health and Human Services (HHS) offers a timeline of some of the major elements of the ACA. Following that timeline:

In 2010, a new Patient's Bill of Rights protecting consumers from abuses and providing cost free preventative services began. The provisions guaranteed coverage for many who had heretofore been unable to obtain health care coverage by providing standardized quality care packages.

In 2011, free preventative service was extended to Medicare patients and steps taken to address the Medicare "donut hole." These measures afforded seniors more access at affordable rates.

In 2012, policies designed to link insurance payments with the delivery of quality care and to reduce administrative costs were implemented. In addition new voluntary options for long term care insurance were put in place.

In 2013, Medicaid expansion programs were enacted for those states wishing to participate, payment efficiency mechanisms were established for Medicare providers and the first marketplace enrollment occurred.

In 2014, access opened to all Americans with programs for both individuals and small businesses. Insurance companies were precluded from adding "pre-existing condition clauses." Subsidy program were established for low and middle income applicants and Medicaid programs were offered to individuals at 133% of the poverty level with 90% of the costs borne by the Federal Government.

The ACA brought access, greater coverage options, subsidies for those in need and clearly expanded health care provision resulting in over 22 million people to date gaining access to health care as a result of the law according to HHS.

For Arizona the impact on health care availability has been significant since the State chose to take advantage of the Medicaid expansion provisions offered by the ACA. According to data reported by HHS, the uninsured rate in Arizona has fallen by 36 percent since the ACA was enacted, with over 400,000 Arizonans gaining health insurance coverage, and benefits extending to millions of Arizonans with other forms of coverage that are influenced by some of the ACA provisions. For Arizona and the nation, the ACA

brought several popular features, including an end to lifetime limits, young adult coverage under parent's health insurance up to age 26, and free preventative care.

For Medicaid patients, over 1.7 million are now covered including children's programs and elder coverage extending to over 150,000 seniors. Some 44,000 became eligible through expanded coverage and another 4,000 benefit from mental illness programs.

For Individual market participants coverage expanded by about 200,000 in Arizona, counting those who enrolled on the exchange, and nearly 3 million people in Arizona that have pre-existing conditions were guaranteed access through the provisions of the ACA. Tax credits have been extended to approximately 125,000 low and middle income Arizonans to offset the costs of health care coverage.

Arizona has a large retiree population, and Medicare coverage applies to nearly 1.2 million people in Arizona. The ACA bolstered the Medicare trust fund. In addition, Medicare enrollees have benefited from lower costs for senior's prescription drugs and provided free preventive services to seniors. The ACA also improved care by creating incentives for fewer hospital mistakes and encouraging coordinated care.

The analysis in this report emphasizes quantitative economic losses, as measured by key indicators, which will occur in the economy if some or all of the provisions of the ACA are eliminated. The broad indicators reported here do not capture the impact on well-being or worker productivity as a result of the elimination or partial elimination of the ACA.

Reduced access to health care would likely result in additional absenteeism and lost workforce productivity that accompanies illness and/or chronic disease. The Milken Institute (2007) has estimated the cost of chronic disease at nearly 100 billion dollars per annum in Arizona and over \$4 trillion nationally.

While some of these costs are unavoidable apart from the quality of health care, Milken estimates that over 25% are avoidable with sufficient health care interventions. These numbers suggest that there are significant benefits that can accrue from investing in health care and the rewards may be measured in tens of billions of dollars

Further, the benefits of the ACA extend to small businesses. According to a report issued by the U.S. Treasury Department, some 20 percent of ACA enrollees were either small business owners or self-employed in 2014. The authors note that their findings suggest that the ACA is important in providing health insurance options for the self-employed and entrepreneurs as well as typical wage earners. Nationally these important nontraditional workers were about 3 times more likely to purchase insurance on an ACA exchange than were standard wage earners.

The U. S. Treasury Department report segmented their findings by state. The report indicated that Arizona's performance mirrored the national pattern with over 16,000 self-employed sole proprietors and an additional 11,000 small business owners participating, accounting for approximately one out of five of all ACA Arizona enrollees circa 2014.

2. HEALTH CARE AND THE ARIZONA ECONOMY

For the past two decades, well before the ACA was adopted, health care has been one of the most dynamic components of the Arizona economy. During the recent recession, as the Arizona economy lost over 300,000 jobs, health care continued to grow. Compared to all other states, the growth rate of Arizona health care employment ranked fourth in the nation in 2015 and the state is projected to remain among the top ten in 2016.

2.1 The Arizona Health Care Sector

The definition of the health care sector in this report follows the North American Industry Classification System (NAICS) for collecting and analyzing data on the industry structure of the national and state economies. NAICS codes provide a standardized way to compare growth and economic performance over time and geographically. The NAICS codes are numeric and accompanied by a brief business or activity title. The first two digits indicate the largest sectors (collections of similar industries) and the third digit designates industry subsectors. The fourth, fifth and sixth digits further refine the classifications.

The Health Care and Social Assistance sector is designated by NAICS code 62. Industry subsectors of the main sector include

- NAICS 621: Ambulatory Health Care
- NAICS 622: Hospitals
- NAICS 623: Nursing and Residential Care Facilities
- NAICS 624: Social Assistance

Throughout this report, any reference to the “health care sector” or “health care” should be understood to include these four industry subsectors. A profile of the Arizona health care sector and its industry subsectors is shown in Table 2.1. All figures in the table refer to private activity, excluding government or government enterprises. Arizona health care in 2015 consisted of 14,011 establishments that provided employment for 387,928 workers. Earnings for workers in Arizona health care were \$22.4 billion in 2015.

The establishment tally typically refers to single physical locations, and it should be noted that some firms may have multiple establishments. Establishment data are reported by the U.S. Bureau of Labor statistics. Employment in the table is derived from the U. S. Bureau of Economic Analysis (BEA) approach which includes nonfarm workers covered by unemployment insurance (UI) laws at the state level as well as workers not covered (such as those working for certain non-profit enterprises) and proprietors of businesses and the self-employed. Therefore, the employment figure as compiled by the BEA is broader and more inclusive than in some other statistical reports, such as those from the U. S. Bureau of Labor Statistics or the Census Bureau. Earnings is the sum of wages and salaries, supplements to wages and salaries, and nonfarm proprietors' income. Supplements to wages and salaries include benefits paid by employers, such as

contributions for government social insurance and employer contributions for employee pension and insurance funds.

Ambulatory health care establishments (NAICS 621) provide a wide range of services, extending from offices of care providers to medical laboratories and blood banks. Hospitals (NAICS 622) include general medical hospitals as well as psychiatric and substance abuse hospitals. Nursing and residential care facilities (NAICS 623) offer skilled nursing care as well as assisted living in specialized residential units. Social assistance (NAICS 624) includes services for the elderly and disabled as well as rehabilitation and various community based services for families, children and individuals.

Table 2.1 Arizona Health Care Sector and Industry Subsectors

Components	Establishments	Employment	Earnings (\$ millions)
Health Care Sector	14,011	387,928	\$22,423
<i>Ambulatory Health Care</i>	<i>11,128</i>	<i>175,051</i>	<i>12,188</i>
<i>Hospitals</i>	<i>134</i>	<i>90,992</i>	<i>6,590</i>
<i>Nursing & Residential Care</i>	<i>1,192</i>	<i>54,326</i>	<i>1,904</i>
<i>Social Assistance</i>	<i>1,557</i>	<i>67,559</i>	<i>1,741</i>
Arizona Economy	145,953	3,066,689	\$148,781
Arizona Health Care Share	9.6%	12.6%	15.1%

Establishments from U. S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages; private nonfarm employment and earnings from U.S. Bureau of Economic Analysis, including workers, proprietors and self-employed; all data from 2015 calendar year.

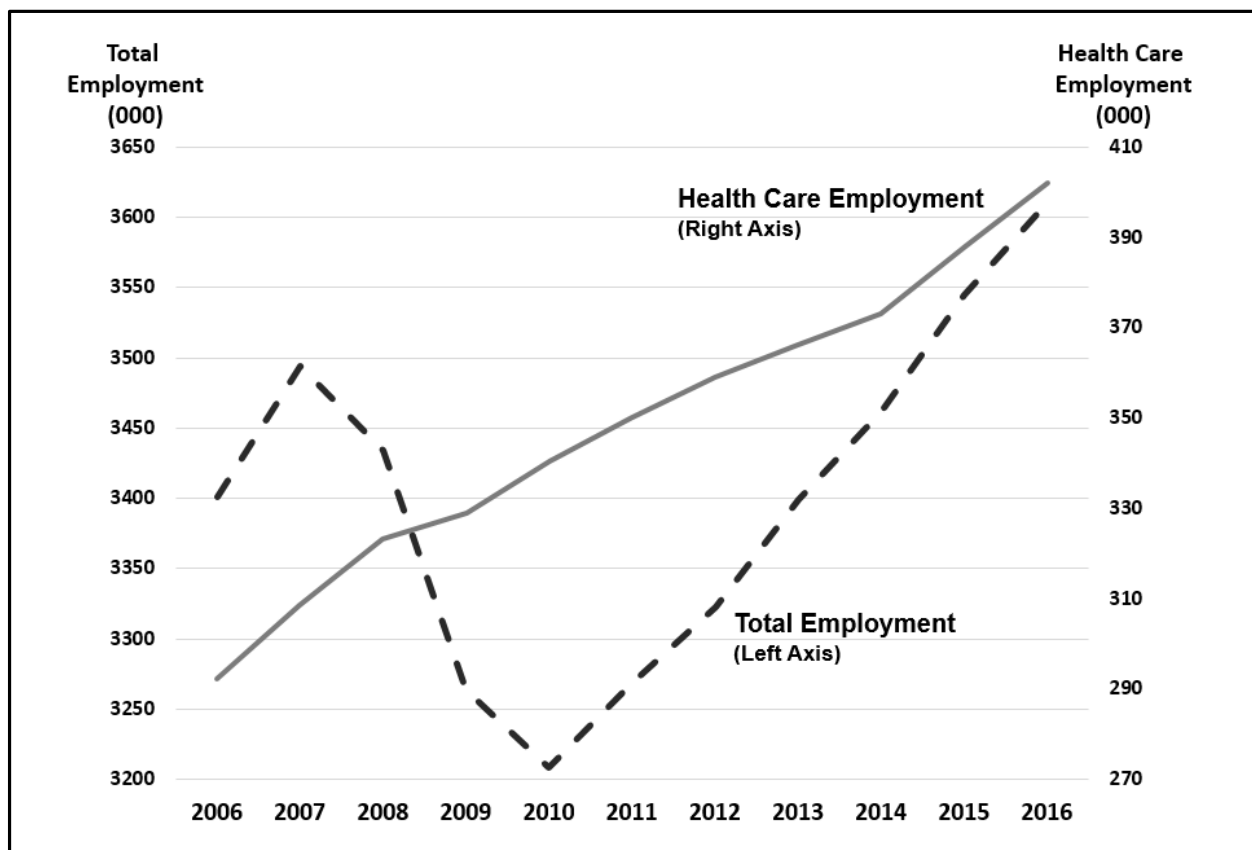
Ambulatory health care is the largest Arizona health care subsector, with 175,051 workers in 2015, accounting for 45 percent of all health care employment and 79 percent of establishments. Overall, health care establishments make up 9.6 of all private establishments in Arizona, health care accounts for 12.6 percent of private employment, and generates 15.1 percent of earnings received in the state.

2.2 Arizona Health Care in the Great Recession and Recovery

The Arizona economy was hit harder than most states during the period of the Great Recession (2008-2009). According to wage and salary employment data from the Arizona Department of Administration, Arizona payroll employment fell by 12 percent between the peak of October 2007 and the low point of September 2010, while national employment decreased by one half that amount (6 percent) in the downturn.

Every sector of the Arizona economy lost jobs during the Great Recession, with the exception of health care. While the overall Arizona economy was in contraction, health care continued to grow and add jobs (see figure 2.1).

Figure 2.1
Arizona Health Care Employment Grew Throughout The Great Recession



U.S. Bureau of Economic Analysis; employment includes workers, proprietors and self-employed

Calculating health care employment growth using the broader BEA definition (all private employment including self-employed and proprietorships), health care employment grew by 32,000 jobs between 2007 and 2010, while the overall economy lost nearly 300,000 jobs.

2.3 The Health Care Industry Share of Arizona Employment

In Arizona and nationally, health care is the largest employment sector (based on NAICS two-digit classifications). For the United States, health care accounts for 15.5 percent of private nonfarm payroll employment (excluding the self-employed and proprietors) and in Arizona the health care share is similar, at 15.1 percent (see Table 2.2).

Table 2.2 Arizona Nonfarm Payroll Employment Shares by NAICS Sectors

NAICS Sectors	U. S. Share	Arizona Share	Location Quotient
Health care	15.5%	15.1%	0.97
Retail trade	13.2%	14.4%	1.09
Accommodation/food service	10.9%	11.6%	1.06
Manufacturing	10.4%	7.1%	0.68
Administrative Support/waste management	7.4%	10.4%	1.41
Professional/technical	7.3%	5.9%	0.82
Construction	5.4%	5.7%	1.05
Wholesale trade	5.0%	4.2%	0.84
Finance/insurance	4.9%	6.4%	1.31
Transportation/warehousing	3.9%	3.4%	0.87
Other services	3.6%	3.1%	0.86
Information	2.3%	2.0%	0.87
Educational services	2.3%	2.6%	1.12
Management of companies and enterprises	1.9%	1.4%	0.75
Arts/entertainment/recreation	1.8%	1.8%	0.97
Real estate/rental/leasing	1.8%	2.2%	1.22
Agricultural/Forestry	1.1%	1.1%	1.08
Mining	0.6%	0.6%	0.88
Utilities	0.5%	0.5%	1.15

U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages, private sector workers; proprietors and self-employed are excluded; data for 2015

Arizona health care accounts for twice as many jobs as manufacturing and nearly three times as many jobs as construction, long seen as a mainstay of the Arizona economy. The location quotient figures in the table compare the share of NAICS two-digit employment with the national share. The largest location quotient is 1.41 for administrative support and waste management, indicating that there are 41 percent more jobs in this sector than would be expected based on national averages.

The location quotient for health care is .97. The interpretation is that, although health care accounts for a larger share of Arizona employment than any other two-digit sector, employment is still somewhat below the expected level, based on the national average.

2.4 Arizona Health Care Wages

Wages in the Arizona health care sector tend to be greater than for the economy overall, although there is a marked difference between occupations involved in direct delivery of health care and supporting jobs. The former typically require advanced education and training in medical and scientific fields, while the latter require training but not necessarily a college degree.

The average annual wage for all Arizona workers in 2015 was \$47,492, based on the *Quarterly Census of Employment and Wages* from the U.S. Bureau of Labor Statistics (Table 2.3). The average health care wage across all health care components was greater, at \$49,656, due to the high wages in ambulatory health care (\$59,832) and hospitals (\$58,780). However, lower than average wages were received in care facilities (\$29,717) and social assistance (\$23,580).

The growth rates of wages in health care have lagged behind the economy as a whole during the recovery period (2010-2015). While Arizona wages overall have increased by over 10 percent, health care wages are up by half this pace (5.4 percent).

Table 2.3 Arizona Health Care Wages

Component	Average Wage 2010	Average Wage 2015	Change 2010-2015
Ambulatory Health Care	\$55,897	\$59,832	7.0%
Hospitals	54,762	58,780	7.3
Nursing & Residential Care	27,113	29,717	9.6
Social Assistance	23,071	23,580	2.2
Health Care Sector	47,112	49,656	5.4
Arizona Economy	\$42,860	\$47,492	10.8%

U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages, private sector workers; proprietor and self-employed earnings are excluded; data from calendar year 2015.

While this report focuses on potential impacts of ACA funding cuts on health care, it is likely that reduction of ACA funding will impact certain Arizona bioscience industries as well. The economic development community has developed a twenty year plan to make Arizona bioscience nationally competitive, focusing on leveraging research to attract capital and build a critical mass of firms (see Flinn Foundation, *2015 Progress of the Biosciences in Arizona*).

As defined by the Flinn Foundation, hospitals provide the largest number of jobs to Arizona bioscience. Medical and diagnostic labs are also components of both the health care sector and the Arizona bioscience cluster. Some components of the biosciences (agricultural chemicals, for example) are not directly related to the health care sector. However, some other bioscience industries (pharmaceuticals, medical devices, research labs) are suppliers to and allied with the health care sector, both in Arizona and nationally. A profile of health care related industries in bioscience is shown in Table 2.4.

The health care related components accounted for 106,282 bioscience jobs in 2015, with an average wage of \$61,385, more than one-fourth greater than the overall Arizona average.

Table 2.4 Profile of Health Care Related Bioscience Industries in Arizona

Industry	Establishments 2015	Employment 2015	Average Wage 2015
Pharmaceuticals	51	2,094	\$56,058
Medical Devices	234	6,493	63,945
Research & Medical Labs	372	8,663	87,514
Hospitals	134	89,032	58,780
Health Care Related Bioscience Industries	791	106,282	\$61,385

U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages; private sector only; proprietors and self-employed workers are excluded.

2.5 Arizona Health Care and Gross State Product

Gross state product (GSP) is analogous to Gross Domestic Product (GDP) at the national level. Sector GSP is a measure of the value added by a sector (measured by output or final sales minus the cost of intermediate inputs) and is often used as an indicator of the size and vigor of the components of the state economy. Within the Arizona economy, the contribution of the health care sector to GSP has steadily increased. In 2000, health care accounted for 5.3 percent of Arizona GSP. By 2015, that figure had increased to 8.4 percent, as health care GSP rose by a factor of 2.8 times growth, from \$8.9 billion to \$24.5 billion (Table 2.5).

Although health care costs have increased since 2000, the increase in contribution to GSP is not due to inflation. When health care GSP and Arizona total GSP are expressed in constant 2009 dollars, the contribution of health care to GSP is 8.6 percent, essentially the same with and without inflation adjustment, indicating that health care and the overall economy have experienced similar inflation rates during the time period.

Table 2.5 Arizona Health Care Contribution to Gross State Product

Year	Arizona GSP-Current Dollars (millions of dollars)			Arizona GSP-Constant Dollars (millions of 2009 dollars)		
	Health Care	Arizona Total	Health Care Share	Health Care	Arizona Total	Health Care Share
2000	\$8,866	\$165,912	5.3	\$11,749	\$202,215	5.8
2005	13,863	227,358	6.1	15,560	251,185	6.2
2010	20,114	245,688	8.2	19,670	243,101	8.1
2015	24,513	290,903	8.4	22,187	261,350	8.5
Times Growth	2.8	1.8	1.6	1.9	1.3	1.5

U.S. Bureau of Economic Analysis

2.6 Health Care in Arizona Metro Areas

Health care accounts for 16 percent of the employment in the Tucson metro area, followed closely by 15.8 percent of Flagstaff metro employment and 15.5 percent in the Lake Havasu City-Kingman metro area. Health care also has an above average share of employment in Prescott (13.3 percent) and Yuma (12.9 percent) metro areas (Table 2.6).

Table 2.6 Health Care Employment in Arizona Metro Areas

Metro Area	Establishments	Health Care Employment	Share of MSA Employment
Tucson	2,122	65,865	16.0
Flagstaff	330	9,820	15.8
Lake Havasu City-Kingman	412	9,080	15.5
Prescott	617	11,153	13.3
Yuma	347	8,043	12.9
Sierra Vista-Douglas	185	4,264	12.2
Phoenix	9,412	267,840	11.8
Metro Total	13,425	376,065	12.6
Arizona Total	14,011	387,928	12.6
Metro Share	95.8	96.9	

U.S. Bureau of Economic Analysis, private employment including workers, proprietors and self-employed; establishments from Quarterly Census of Employment and Wages; data from calendar year 2015.

Across all metro areas, Phoenix health care makes up 40.4 percent of metro health care employment, although the health care share of Phoenix employment is only 11.8 percent.

2.7 Health Care in Arizona Counties

Arizona health care accounts for 12.6 percent of statewide employment, but in eight of the fifteen Arizona counties the role of health care is greater. In Table 2.7, health care employment as a share of all private employment is shown for Arizona counties. In Apache County, health care makes up 23.9 percent of employment, the highest among all counties, and providing nearly one out of every four private sector jobs. Health care employment also exceeds the state share in the counties of Pima (16 percent), Coconino (15.8 percent), Mohave (15.5 percent), Navajo (15.1 percent), Graham (15.0 percent), Yavapai (13.3 percent), and Yuma (12.9 percent).

Table 2.7 Health Care Employment in Arizona Counties

County	Establishments	Health Care Employment	% of County Employment
Apache	56	2,807	23.9
Pima	2,122	65,865	16.0
Coconino	330	9,820	15.8
Mohave	412	9,080	15.5
Navajo	182	4,160	15.1
Graham	50	1,239	15.0
Yavapai	617	11,153	13.3
Yuma	347	8,043	12.9
Gila	96	1,958	12.4
Cochise	185	4,264	12.2
Maricopa	9,165	261,485	11.9
Pinal	256	6,355	9.5
La Paz	15	359	7.3
Santa Cruz	37	1,197	7.1
Greenlee	6	143	3.2
Health Care Total	14,011	387,928	12.6

U.S. Bureau of Economic Analysis, private employment including workers, proprietors and self-employed; establishments from Quarterly Census of Employment and Wages; 2015 data

The higher share of health care jobs in some Arizona counties means that expansion of health care funding will increase overall employment in those counties by a greater proportion than in counties where the health care sector is not as large. The converse relationship also holds: reductions in support for health care will have a disproportionate impact in those counties where health care accounts for a greater overall share of employment.

2.8 Arizona Health Care Compared to Neighboring States

At the national level, health care employment grew by 26.5 percent between 2005 and 2015. The rate of job growth was greater than the national average in Arizona and all neighboring states except New Mexico. The rate of health care employment growth was highest in California, as the sector grew by 52.5 percent. Nevada and Arizona had the next fastest rate of health care job gains. Arizona’s rate of 40 percent was more rapid than Colorado and Utah, in addition to New Mexico (Table 2.8).

Table 2.8 Arizona Health Care Employment Compared to Neighboring States

State	Employment 2005	Employment 2015	Percent Growth
Arizona	276,998	387,928	40.0
California	1,640,745	2,502,335	52.5
Colorado	239,910	323,539	34.9
Nevada	91,571	128,714	40.6
New Mexico	105,772	129,672	22.6
Utah	115,480	156,662	35.7
USA	16,839,300	21,309,800	26.5

U.S. Bureau of Economic Analysis; private employment including workers, proprietors and self-employed

2.9 Arizona Health Care Growth Compared to All States

Arizona health care employment has not only grown more rapidly in recent years than in neighboring states, the state has often ranked among the top ten in the rate of health care job creation, with average annual growth of 4.1 percent and an average ranking since 1995 of 9.5 among all 50 states (Table 2.9). The average job creation in health care is 8,838 over the period. In comparison, Arizona’s overall employment growth over the same period averages 45,000 jobs per year according to U.S. Bureau of Labor Statistics. By this measure, one out of every five new jobs added since 1995 (19.7 percent) has come in the health care sector.

Table 2.9 Arizona Health Care Job Growth National Ranking

Year	AZ Health Care Job Creation	Annual % Rate Of Job Growth	National Growth Rank
1995	5,720	3.8	19
1996	8,440	5.4	3
1997	9,300	5.7	4
1998	6,140	3.6	13
1999	5,290	3.0	11
2000	1,730	0.9	42
2001	5,430	2.9	25
2002	10,890	5.7	4
2003	11,470	5.7	1
2004	9,970	4.7	2
2005	12,390	5.5	1
2006	13,820	5.9	1
2007	13,400	5.4	2
2008	13,690	5.2	3
2009	7,370	2.7	15
2010	7,010	2.5	10
2011	7,880	2.7	4
2012	9,790	3.3	1
2013	6,940	2.3	11
2014	6,920	2.2	14
2015	13,680	4.2	4
2016	13,020	3.9	6
20 Yr. Average	8,838	4.1	9.5

U. S. Bureau of Labor Statistics, Current Employment Statistics, various years. Includes payroll employment only and not proprietors and self-employed workers.

2.10 Arizona Economic Projections Assuming No ACA Repeal

As Congress deliberates issues relating to “repeal and replacement” of the Affordable Care Act, considerable uncertainty exists regarding the future of health care nationally and in Arizona. Changes in policies and funding associated with repeal of the ACA will affect the level and scope of health care services, with varying effects on different populations now covered by ACA programs. In addition to changes in coverage and services, as shown below in section 3 of this report funding cuts will have economic impacts, affecting employment, incomes and overall economic activity (GSP) as changes originating in the health care sector spread throughout the economy.

Analysis of the economic impacts of ACA funding cuts is based on comparisons of the levels and growth rates of key economic measures over time, with and without the potential reductions in funding. The “no change” projections for the Arizona economy are shown in Table 2.10, as derived from the REMI forecasting model for the years 2017 – 2027 (the REMI model is described in section 3). These projections from the model assume no change in federal ACA funding, thereby creating a baseline time series for each variable in the table, which in economic studies is known as the “control” forecast.

Table 2.10 Arizona Economy Control Forecast

Year	Health Care Employment	Total Employment	Personal Income (Millions 2016 \$)	Gross State Product (Millions 2016 \$)
2017	414,519	3,670,252	\$305,355	\$336,200
2018	425,118	3,752,030	319,036	348,921
2019	436,896	3,837,565	332,493	360,788
2020	448,998	3,910,616	344,321	372,155
2021	459,116	3,970,444	355,921	383,175
2022	469,227	4,040,505	367,994	395,056
2023	480,348	4,111,014	379,764	407,135
2024	493,030	4,175,022	391,526	418,997
2025	505,612	4,232,413	403,320	429,900
2026	517,690	4,286,190	415,527	440,568
2027	531,755	4,349,221	428,678	453,067
Cumulative 2017 - 2027	5,182,309	44,335,273	\$4,043,936	\$4,345,963

Seidman Research Institute, REMI projections; income and GSP figures are in millions of 2016 dollars; employment is in job-years and includes self-employed and proprietors.

3.0 ECONOMIC IMPACTS OF ACA REPEAL ON ARIZONA'S ECONOMY

This section examines the consequences of repealing the Affordable Care Act (ACA) on Arizona's economy. Repeal of the ACA would lead to a loss of federal Medicaid expansion funds and in addition, federal subsidies in the form of tax credits for insurance premium payments for eligible participants would be withdrawn. Arizona state matching funds could also be lost (Scenario 1) or remain available to be spent on health care or any alternative allocation but not lost to the Arizona economy (Scenario 2).

3.1 Summary of Findings

The following analysis shows that, if tax credits and Medicaid expansion ends in FY2018, these changes will lead to significant statewide job losses and a reduction in state economic activity. Table 3.1 displays economic impacts for the first full calendar year when such reductions would take place (2018), as well as totals for the entire time period analyzed (2017-2027). Data on federal and state funding for Medicaid expansion were obtained from AHCCCS; estimates for premium tax credits are from the Urban Institute.

Figures in the table represent the change in each economic measure resulting from the funding cuts. The estimated effects are based on differences between the baseline control forecast (Table 2.10) and projections assuming policy changes, in this case the loss of premium tax credits and federal /state Medicaid expansion funding.

Table 3.1 Economic Impact on Arizona of Repeal of ACA Funding Provisions

Economic Impacts	Scenario 1		Scenario 2	
	2018	2017-2027	2018	2017-2027
Total Employment	-62,659	-717,701	-57,781	-663,217
Health Care Employment	-29,461	-325,381	-27,335	-301,417
Gross State Product (\$ mil)	-\$4,955	-\$60,316	-\$4,606	-\$55,884
Personal Income (\$ mil.)	-\$3,477	-\$46,088	-\$3,222	-\$42,717

Seidman Research Institute, REMI projections; income and GSP figures are in millions of 2016 dollars; employment is in job-years.

Scenario 1 assumes loss of all federal and matching state funding, including premium tax credits. The economic consequences in 2018 include a loss of gross state product of \$5 billion, and a loss of \$3.5 billion in personal income. Employment losses in all sectors are 62,659 jobs, with the health care sector losing the most jobs at 29,461 or 47 percent. The total Scenario 1 cumulative impact of repealing both premium tax credits and Medicaid expansions on the economy of Arizona for years 2017 through 2027 is estimated to result in losses of \$60.3 billion in gross state product, and losses of personal income to Arizona residents of \$46.1 billion. Jobs over the years can be combined into

“job-years”, a measure of years of employment, which amount to 717,701 job-years lost during 2017-2027.

Scenario 2 assumes loss of federal funding, including premium tax credits, while matching state funding is reallocated for spending on health care or some alternative but is not lost to the Arizona economy. The result is a reduction of \$4.6 billion dollars in gross state product, \$3.2 billion in personal income and lost employment of 57,781 jobs in 2018. Out of these, 27,335 jobs (47 %) would be in the health care sector.

Cumulative effects of Scenario 2 for 2017 through 2027 are estimated to be \$55.9 billion lost in gross state product, and total personal income losses of \$42.7 billion. Job losses in all sectors are estimated as 663,217 total job-years, out of which 301,417 will be in health care. Losses under Scenario 2 are smaller than under Scenario 1, since state matching funds are reallocated and continue to have an economic impact.

3.2 Arizona Health Care Funding Cut Assumptions (Scenario 1 and Scenario 2)

In Scenario 1, federal and state funding cuts would start with \$2 billion in calendar year 2017, reaching a high of \$6 billion in 2026 (Table 3.2). In Scenario 2, repealing the ACA would cut federal payments for tax credits and Medicaid expansions by \$1.9 billion in 2017 and more than double in later years (Table 3.3).

Table 3.2 Scenario 1 Funding Cuts (Federal and State)

Year	Medicaid Expansion Cuts: State and Federal Funds (Millions Nominal \$)	Premium Tax Credit Cuts (Millions Nominal \$)	Total State and Federal Funds (Millions Nominal \$)
2017	\$1,620	\$390	\$2,010
2018	3,337	803	4,140
2019	3,537	827	4,364
2020	3,750	848	4,598
2021	3,975	874	4,848
2022	4,211	900	5,111
2023	4,449	927	5,376
2024	4,683	955	5,638
2025	4,950	984	5,934
2026	5,200	1,013	6,213
2027	\$2,650	\$1,043	\$3,693

Funding cut estimates from AHCCCS, The Urban Institute and Seidman Institute calculations. Amounts are in nominal dollars. Calendar year values were estimated based on fiscal year data provided by AHCCCS.

The funding cuts would affect health care workers and businesses first (such as hospitals, ambulatory care facilities, nursing and residential care facilities). These represent the direct effects, and then ripple effects would occur in the economy and affect workers and businesses in all other sectors. Economists refer to these secondary effects as multiplier effects.

Table 3.3 Scenario 2 Funding Cuts (Federal Only)

Year	Medicaid Expansion Cuts: Federal Funds (Millions Nominal \$)	Premium Tax Credit Cuts (Millions Nominal \$)	Total Federal Funds (Millions Nominal \$)
2017	\$1,474	\$390	\$1,864
2018	3,037	803	3,839
2019	3,219	827	4,046
2020	3,412	848	4,260
2021	3,617	874	4,490
2022	3,832	900	4,732
2023	4,049	927	4,976
2024	4,262	955	5,216
2025	4,504	984	5,488
2026	4,731	1,013	5,744
2027	\$2,411	\$1,043	\$3,453

Funding cut estimates from AHCCCS, The Urban Institute and Seidman Institute calculations. Amounts are in nominal dollars.

3.3 Economic Impact Results: Scenario 1 and Scenario 2

Repeal of the ACA under Scenario 1 would be expected to have the greatest impact on the Arizona economy. Not only would Federal Medicaid expansion funds and tax credit subsidies be withdrawn, but Scenario 1 also assumes that state matching funds would be lost to the health care spending stream as well. The loss of health care sector funding is apportioned among four industries: Ambulatory Health Care, Hospitals, Nursing and Residential Care and Social Assistance.

The economic impacts of the ACA repeal are estimated using the REMI (Regional Economic Models, Inc.) regional forecasting model for the State of Arizona. REMI is a dynamic forecasting and economic impact analysis tool which traces the full impact – direct as well as multiplier or ripple effects- of an economic activity -in this case, the loss of health care funding-on jobs and incomes in a region.

The REMI model has been used and tested by national researchers for many years, over a wide range of projects, and the model is well known in Arizona, where it has been in

use since 2003. More detail about the REMI model and the methodology used is available in the Technical Appendix.

The estimated impacts are the difference between the baseline or control economy and the baseline economy without the Medicaid expansion and tax credit funds. Impacts refer to jobs and incomes generated somewhere in the state. Other questions regarding the tax consequences of ACA elimination and the impacts of the degree of de-regulation that will occur if the ACA is repealed are potentially relevant but outside the scope of this study given the time constraints and uncertain features of possible “repeal and replace” options. Impacts are reported in terms of the following measures: employment, gross state product (GSP), and personal income (PI).

Total employment is an estimate of the total number of full-time (or equivalent) jobs in a state, encompassing every sector and industry, including government and farm workers. Gross state product represents new production, sometimes called “value added.” It excludes the value of intermediate goods and services purchased as inputs to final production.

Personal income (PI) is an estimate of the total income received by any person residing in a specific state such as wages and salaries of workers, contributions by employers to worker social security and benefit accounts, proprietor’s earnings by owners of small business, as well as rental and interest income.

For Scenario 1, total job losses in all sectors range from a low of 29,729 in 2017 to a high of 74,151 in 2026. Over the entire time period of 10 years, 717,701 job-years are lost. GSP losses range between \$2.3 billion in 2017 and \$6.5 billion in 2026, totaling \$60.3 billion over the entire time period (Table 3.4).

Losses in terms of personal income amount to \$1.6 billion in the first year of repeal and increase to \$5.2 billion by 2026. Repealing the federal tax credits and federal and state funds for Medicaid expansions leads to total personal income losses of \$46.1 billion between 2017 and 2027 in Arizona.

Job losses in the health care sector represent the largest share of private job losses, approximately 49 percent (Table 3.5). Other sectors that are heavily impacted are Construction and Real Estate (15%), Retail (7%), and State and Local Government (7%).

In Scenario 2, the loss of federal funding alone triggers a \$2.2 billion loss in gross state product and a \$1.5 billion loss in personal income in 2017. The impacts continue in later years, reaching losses of \$6 billion in GSP and \$4.9 billion in personal income in 2026 (Table 3.6). The economic losses are slightly lower in Scenario 2 because state matching funds are assumed to remain in the state to be allocated to alternative spending on health care or other potential state programs. Private job losses are 615,672 over the ten year period under Scenario 2, with 301,417 in health care (Table 3.7).

Table 3.4 Economic Impacts of Scenario 1

Year	Total Employment Lost	Gross State Product Lost (Millions 2016 \$)	Personal Income Lost (Millions 2016\$)
2017	-29,729	-\$2,320	-\$1,618
2018	-62,659	-4,955	-3,477
2019	-68,309	-5,520	-3,890
2020	-71,564	-5,880	-4,270
2021	-72,659	-6,054	-4,485
2022	-73,133	-6,163	-4,637
2023	-73,587	-6,229	-4,823
2024	-73,480	-6,327	-4,972
2025	-74,067	-6,406	-5,122
2026	-74,151	-6,476	-5,236
2027	-44,362	-3,987	-3,558
Total	-717,701	-\$60,316	-\$46,088

Seidman Research Institute, REMI projections; income and GSP figures are in millions of 2016 dollars; employment is in job-years.

Table 3.5 Economic Impacts of Scenario 1- Employment Detail

Year	Private Employment	Health Care	Construction	Retail	Professional, Technical Services	All Other Private	Public Employment
2017	-28,889	-14,798	-3,591	-2,002	-1,058	-7,440	-840
2018	-59,714	-29,461	-8,518	-4,188	-2,267	-15,281	-2,945
2019	-64,395	-30,146	-10,649	-4,607	-2,565	-16,427	-3,914
2020	-66,974	-30,936	-11,488	-4,826	-2,711	-17,013	-4,591
2021	-67,655	-31,495	-11,502	-4,842	-2,760	-17,056	-5,004
2022	-67,451	-32,142	-11,080	-4,794	-2,805	-16,629	-5,682
2023	-67,561	-32,952	-10,469	-4,773	-2,856	-16,510	-6,026
2024	-67,530	-33,773	-9,740	-4,755	-2,874	-16,388	-5,951
2025	-67,726	-34,533	-8,991	-4,744	-2,928	-16,529	-6,342
2026	-67,474	-35,151	-8,379	-4,742	-2,986	-16,215	-6,677
2027	-38,747	-19,994	-4,154	-2,996	-2,012	-9,592	-5,615
Total	-664,114	-325,381	-98,566	-47,267	-27,821	-165,079	-53,587

Seidman Research Institute, REMI projections; employment is in job-years.

Table 3.6 Economic Impacts of Scenario 2

Year	Total Employment Lost	Gross State Product Lost (Millions 2016 \$)	Personal Income Lost (Millions 2016 \$)
2017	-27,527	-\$2,152	-\$1,496
2018	-57,781	-4,606	-3,222
2019	-63,320	-5,123	-3,624
2020	-66,089	-5,433	-3,960
2021	-67,100	-5,594	-4,164
2022	-67,476	-5,689	-4,306
2023	-67,832	-5,781	-4,443
2024	-68,053	-5,866	-4,620
2025	-68,142	-5,933	-4,719
2026	-68,579	-5,992	-4,862
2027	-41,318	-3,715	-3,301
Total	-663,217	-\$55,884	-\$42,717

Seidman Research Institute, REMI projections; income and GSP figures are in millions of 2016 dollars; employment is in job-years.

Table 3.7 Economic Impacts of Scenario 2- Employment Detail

Year	Private Employment	Health Care	Construction	Retail	Professional, Technical Services	All Other Private	Public Employment
2017	-26,667	-13,721	-3,330	-1,882	-989	-6,745	-860
2018	-55,495	-27,335	-7,899	-3,906	-2,102	-14,253	-2,286
2019	-59,748	-27,918	-9,873	-4,280	-2,372	-15,305	-3,572
2020	-61,900	-28,646	-10,647	-4,458	-2,514	-15,635	-4,190
2021	-62,503	-29,154	-10,654	-4,472	-2,559	-15,664	-4,597
2022	-62,558	-29,749	-10,257	-4,463	-2,599	-15,489	-4,919
2023	-62,583	-30,502	-9,685	-4,400	-2,645	-15,351	-5,249
2024	-62,474	-31,209	-9,006	-4,379	-2,657	-15,223	-5,579
2025	-62,600	-31,955	-8,308	-4,366	-2,705	-15,267	-5,541
2026	-62,654	-32,511	-7,738	-4,361	-2,756	-15,289	-5,925
2027	-36,490	-18,718	-3,883	-2,825	-1,864	-9,201	-4,827
Total	-615,672	-301,417	-91,281	-43,792	-25,761	-153,422	-47,545

Seidman Research Institute, REMI projections; employment is in job-years.

4.0 NOTES ON ACA REPEAL ASSUMPTIONS FOR ARIZONA

This report examines the economic effects of repealing the following components of the ACA:

1. Expansion Populations: End coverage of Childless Adults 0% to 133% FPL. (PPACA Sec. 2001)
2. CHIP FMAP Increase: End temporary 23% increase to CHIP FMAP. (PPACA Sec. 2101)
3. Prescription Drug Rebates: End prescription drug rebates for Medicaid MCOs. (PPACA Sec. 2501)
4. Health Insurer Fee: End HIF and generate savings for State beginning in FY19. (PPACA Sec. 9010)
5. Hospital Assessment: Conditional repeal of state statute if ACA is repealed or available FMAP is less than 80%. (ARS 36-2901.08)
6. Premium Tax Credits: federal premium tax credits which are available to those with low to moderate incomes.

Acronyms:

ACA: Affordable Care Act; also called PPACA (Patient Protection and Affordable Care Act) or Obamacare

AHCCCS: Arizona Health Care Cost Containment System

CHIP: Children's Health Insurance Program

HHS: Department of Health and Human Services

FMAP: Federal Medical Assistance Percentage

HIF: Health Insurer Fees

5.0 TECHNICAL APPENDIX: THE REMI MODEL

REMI is a dynamic forecasting and analysis tool, developed by Regional Economic Models Inc., which simultaneously serves as an input-output, an econometric and a computable general equilibrium model. It contains detailed industries and incorporates complete inter-industry relationships. It is widely recognized by the business and academic communities as the leading economic modeling tool available.

Unlike most other regional economic impact models, REMI is a dynamic model that produces integrated multiyear forecasts and accounts for dynamic feedbacks among its economic and demographic variables. The REMI model is also an "open" model in that it explicitly accounts for trade and migration flows in and out of the state. A complete explanation of the model and discussion of the empirical estimation of the parameters/equations can be found at www.remi.com.

The operation of the REMI model has been developed to facilitate the simulation of policy changes, such as a tax increase for example, or many other types of events – anything from the opening of a new business to closure of a military base to a natural disaster. The model's construction includes a large set of policy variables that are under the control of the model's operators. To simulate the impact of a policy change or other event, a

change in one or more of the policy variables is entered into the model and a new forecast is generated. The REMI model then automatically produces a detailed set of simulation results showing the differences in the values of each economic variable between the control and the alternative forecast.

The specific REMI models used for this analysis is Policy Insight Model PI+ version 2.0.3 of the Arizona state-level economy leased from Regional Economic Models Inc. by a consortium of State agencies, including Arizona State University, for economic forecasting and policy analysis.

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