

The Better Care Reconciliation Act: Economic and Employment Consequences for States

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ABSTRACT

ISSUE: A draft Better Care Reconciliation Act (BCRA) has been introduced in the U.S. Senate as an alternative to the American Health Care Act (AHCA), which was passed by the House of Representatives on May 4, 2017. The Congressional Budget Office estimates the BCRA would raise the number of uninsured by 22 million by 2026.

GOAL: To determine the consequences of the draft BCRA on employment and economic activity in every state. This report updates an earlier analysis of the effects of the AHCA.

METHODS: We compute changes in federal spending and revenue from 2018 to 2026 for each state and use the PI+ model to project the effects on states' employment and economies.

FINDINGS AND CONCLUSIONS: While the draft BCRA and the AHCA would have similar effects on the number of uninsured Americans, the BCRA would lead to significantly larger job losses and deeper reductions in states' economies by 2026. A brief spurt in employment would add 753,000 more jobs in 2018, but employment would then deteriorate sharply. By 2026, 1.45 million fewer jobs would exist, compared to levels under the current law. Every state except Hawaii would have fewer jobs and a weaker economy. Employment in health care would be especially hard hit with 919,000 fewer health jobs, but other employment sectors lose jobs too. Gross state products would be \$162 billion lower in 2026. States that expanded Medicaid would be especially hard hit.

[Click here](#) to see a map of the BCRA's employment impact by state.

KEY TAKEAWAYS

- ▶ If the draft BCRA becomes law, projections show the nation will experience a loss of 1.45 million jobs by 2026. More than 900,000 health care jobs will be lost
- ▶ Under the proposal, every state except Hawaii has fewer jobs and weaker economies by 2026. The 10 states with the largest job losses by 2026 include: New York (132,000), California (117,000), Pennsylvania (110,000), Ohio (99,000), Michigan (86,000), Florida (78,000), Illinois (71,000), New Jersey (60,000), Massachusetts (54,000), and Indiana (39,000)

- ▶ States that expanded Medicaid eligibility under the Affordable Care Act would experience more severe economic losses



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BACKGROUND

On June 22, 2017, Senate Majority Leader Mitch McConnell unveiled a discussion draft of the Better Care Reconciliation Act (BCRA), the Senate alternative to the American Health Care Act (AHCA), passed by the House of Representatives on May 4, 2017. Both bills seek to partially repeal and replace the Affordable Care Act (ACA), also known as Obamacare. The Congressional Budget Office (CBO) estimated that this draft version of the BCRA would lead to 22 million fewer insured Americans by 2026, roughly the same as the 23 million uninsured estimated for the AHCA.¹ As of early July, discussions to revise the

draft bill were under way, in preparation for an eventual vote on the Senate floor.

This report is an update of our June analysis of the AHCA's effects on states' economies and employment.² The June report found that the AHCA would briefly increase employment by 864,000 more jobs in 2018, but then lead to the deterioration of state economies. By 2026, there would be 924,000 fewer jobs and state economies would be \$93 billion smaller than if the law was not enacted. This analysis is based on the Senate version of the bill analyzed by the CBO on June 26, 2017 (Exhibit 1).³

Exhibit 1. Key Provisions of the Draft Better Care Reconciliation Act

- Eliminates individual penalties for not having health insurance and penalties for employers that do not offer adequate coverage to employees. Imposes a six-month waiting period for nongroup coverage for people who have been uninsured for more than 63 days.
- Lowers the ACA's premium tax credits by reducing the benchmark used to compute the value of tax credits from 70 percent actuarial value to 58 percent. Establishes income criteria between zero and 350 percent of the federal poverty level and alters age structure, making net premiums paid somewhat larger for young adults, but much higher for older adults. Allows premiums to be five times higher for the oldest individuals, compared with younger people. Currently, premiums can be no more than three times higher.
- Cost-sharing reductions to reduce deductibles and copayments for low-income people are retained in 2018 and 2019 but eliminated in 2020.
- Makes numerous changes to Medicaid. Restricts state Medicaid eligibility expansions for adults, primarily by gradually ratcheting down federal matching rates from 90 percent in 2020 to between 50 percent and 75 percent by 2024.
- Creates temporary funding for safety-net health services in states that did not expand Medicaid and eliminates reductions in Medicaid disproportionate share payments for nonexpansion states.
- Restructures Medicaid funding based on per capita allotments rather than the current entitlement. States may adopt fixed block grants instead. Reduces the per capita cap inflation index to the overall consumer price index in 2025.
- Creates a State Stability and Innovation Fund with short-term and long-term elements. Also creates a temporary program to help with the opioid crisis.
- Terminates the Prevention and Public Health Fund.
- Repeals numerous taxes included in the ACA, including Medicare taxes on investment income and on high-income earnings, taxes on health insurance and medical devices, and a tax on high-cost insurance (i.e., the "Cadillac tax"), and raises limits for health savings accounts and lowers the medical care deduction threshold.
- Allows states to waive key insurance rules—like essential health benefits—by loosening Section 1332 waivers.

The CBO reported this version of the BCRA would increase the number of uninsured Americans under age 65 by 15 million in fiscal year 2018, eventually reaching 22 million more uninsured by 2026.⁴ In contrast, the CBO estimated the AHCA would increase the number of uninsured by 23 million by 2026.⁵ The Urban Institute estimates that the BCRA would lead to 25 million more uninsured people by 2022.⁶

This report examines the potential economic effects of the draft BCRA from calendar years 2018 to 2026, including:

- **employment levels**, measured as changes in the number of jobs created or lost due to policy changes
- **state economic growth**, as measured by changes in gross state products in current dollars, adjusted for inflation; this is an aggregate measure of state economies, analogous to the gross domestic product at the national level
- **state business output**, as measured by changes in business receipts in current dollars at production, wholesale, and retail levels, encompassing multiple levels of business activity.

Our estimates are based on changes in federal funding gained or lost to states, consumers, and businesses. The BCRA significantly reduces federal funding for Medicaid. It lowers federal match funding for the District of Columbia and 31 states that expanded Medicaid, encouraging them to discontinue their expansions. It gives states an option to either adopt per capita allotments for Medicaid or fixed block grants. Either option lowers federal Medicaid expenditures. The BCRA sets the inflation index for Medicaid per capita caps based on the consumer price index for medical care (plus 1 percent for the elderly and disabled), but reduces it to the overall consumer price index in 2025. According to the CBO, the BCRA results in a 26 percent reduction in federal Medicaid funding in 2026, deepening to a 35 percent reduction by 2036.⁷ Eliminating the tax penalty for individuals without health insurance reduces incentives to purchase insurance, raising the number of uninsured people. Restructuring premium tax credits, revising the insurance benchmark, and widening age-related differences in premiums would shrink nongroup insurance coverage and reduce federal spending for health insurance subsidies. New waiver policies would

let states reduce essential health benefits and could result in lower insurance coverage.⁸ The BCRA is designed so that tax cuts take effect sooner than reductions in health insurance subsidies. Thus, state employment and economies could grow at first, but shrink in later years as the coverage reductions deepen.

HOW FEDERAL HEALTH FUNDING STIMULATES JOB CREATION AND STATE ECONOMIES

Federal health funds are used to purchase health care. Then, fiscal effects ripple out through the rest of the economy, creating employment and other economic growth. This phenomenon is called the *multiplier effect*. Health funds directly pay hospitals, doctors' offices, and other providers; this is the *direct effect* of federal funding. These facilities use revenue to pay their employees and buy goods and services, such as rent or equipment; this is the *indirect effect* of the initial spending. In addition, there are *induced effects* that occur as health care employees or other businesses (and eventually their workers) use their income to purchase consumer goods like housing, transportation, or food, producing sales for a diverse range of businesses. Similarly, when federal taxes are reduced, consumers or businesses retain income and can purchase goods and services, invest, or save. Due to interstate commerce, each type of effect can flow across state lines.

Both government spending increases and tax reductions can stimulate job creation and economic growth. The relative effects depend on how the funds are used. Government spending or transfers, like health insurance subsidies, typically have stronger multiplier effects in stimulating consumption and economic growth than do tax cuts. Tax cuts usually aid people with high incomes who shift much of their gains into savings, stimulating less economic activity.^{9,10,11} A recent analysis found that most of the BCRA tax cuts go to the top one-fifth of households.¹²

This report estimates how the BCRA will change federal funds gained or lost from 2018 to 2026 for all 50 states and the District of Columbia. We allocate federal funding changes, based on CBO estimates, for each state. We then analyze how federal funding changes ripple through state economies, using the PI+ economic model, developed by Regional Economic Models, Inc.¹³ (See [Appendix B. Study Methods](#).)

FINDINGS

Overall Effects of the Better Care Reconciliation Act

As illustrated in Exhibits 2 and 3, most of the BCRA's tax repeals begin almost at once, while coverage-related spending reductions phase in. The tax reductions initially raise the federal deficit by more than \$50 billion in 2018 and 2019. In 2018, the number of jobs would rise by 753,000 and state economies would grow. However, health sector employment begins to fall immediately in 2018, with a loss of 30,000 jobs. (All economic and employment estimates in this report are compared to a baseline that corresponds to levels that would occur if current law did not change.)

By 2020, the reduction in federal funding for coverage exceeds the level of tax cuts and there would be 13,000 fewer jobs. Economic losses deepen in subsequent years.

By 2026, 1.45 million fewer people would have jobs. Gross state products would drop by \$162 billion and business output would be \$265 billion lower, while 919,000 jobs would be lost in health care. More than half a million jobs (534,000) are lost in other sectors, including construction and real estate, finance, retail trade, and public employment. These downward trends would continue after 2026. These losses are substantially worse than the estimated effects of the AHCA.¹⁴

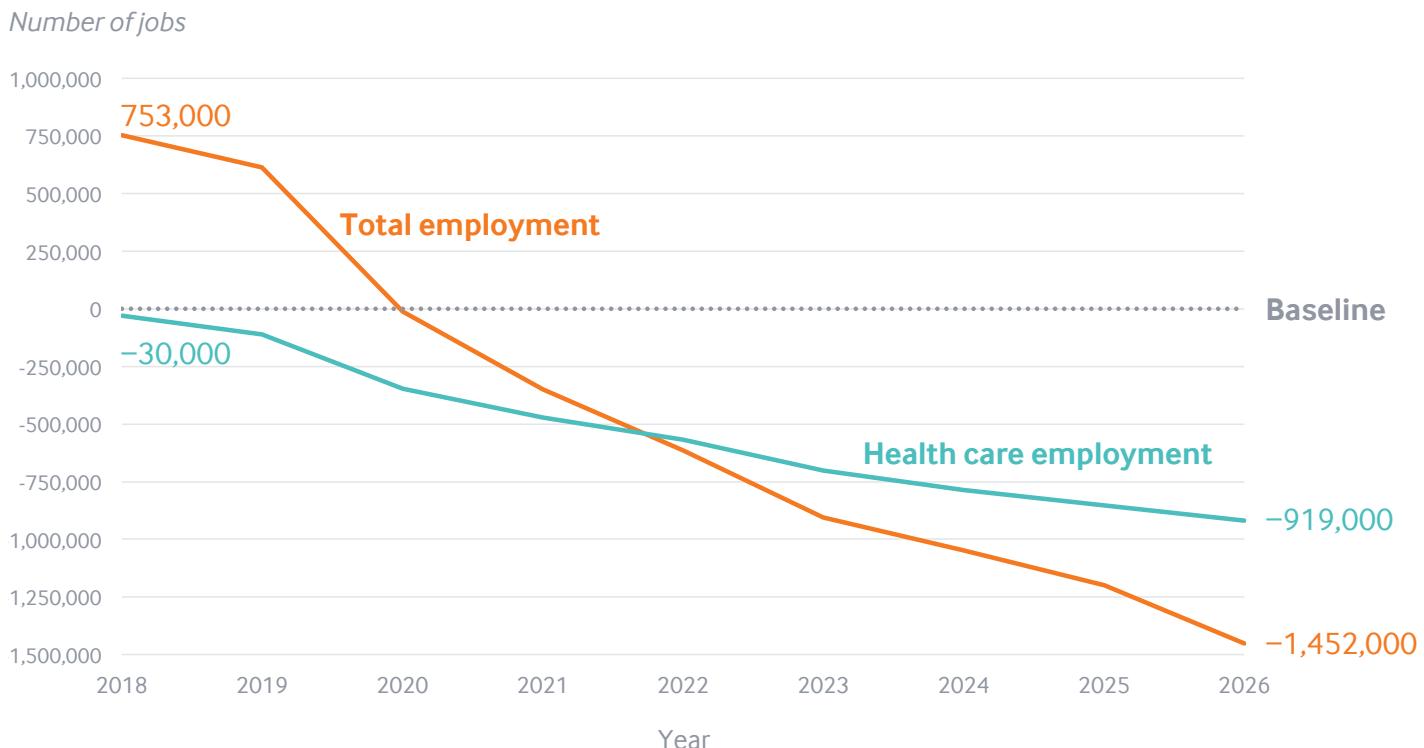
Exhibit 2. Total Estimated Changes in Employment, Gross State Products, and Business Output Due to the Draft Better Care Reconciliation Act, National Level, 2018 to 2026

All changes are compared to the baseline for that year

Calendar year	2018	2019	2020	2021	2022	2023	2024	2025	2026
CHANGES IN FEDERAL FUNDING:									
Tax repeal (billions of current \$)	\$37.7	\$38.6	\$46.0	\$52.2	\$58.8	\$71.5	\$81.5	\$86.0	\$82.6
Coverage-related spending (billions of current \$)	-\$5.2	-\$19.3	-\$62.7	-\$84.9	-\$103.2	-\$130.6	-\$149.8	-\$166.6	-\$183.3
Net change in federal deficit (billions of current \$)	\$32.5	\$19.3	-\$16.7	-\$32.7	-\$44.4	-\$59.1	-\$68.2	-\$80.6	-\$100.7
CHANGES IN ECONOMIC OUTPUTS:									
Total employment (thousands of jobs)	753	614	-13	-350	-614	-905	-1,049	-1,199	-1,452
Private employment	733	587	-27	-350	-602	-881	-1,022	-1,163	-1,406
Health care	-30	-111	-347	-471	-567	-701	-785	-853	-919
Construction and real estate	174	199	133	74	23	-16	-35	-52	-91
Retail trade	109	86	23	-5	-27	-50	-59	-72	-101
Finance and insurance	84	68	29	15	8	1	0	-4	-16
All other private	396	346	135	36	-40	-116	-143	-182	-281
Public employment	20	26	14	0	-13	-24	-28	-36	-46
Gross state product (billions of current \$)	\$79.5	\$69.5	\$9.7	-\$24.2	-\$52.8	-\$85.5	-\$103.8	-\$124.7	-\$162.0
Business output (billions of current \$)	\$139.3	\$123.3	\$21.3	-\$36.1	-\$83.8	-\$138.3	-\$167.7	-\$201.9	-\$264.9

Source: George Washington University analysis.

Exhibit 3. Changes in Total and Health Care Employment Due to the Draft Better Care Reconciliation Act, 2018 to 2026 (compared to baseline in each year without law)



Source: George Washington University analysis.

Looking at Coverage-Related and Tax Repeal Policies

To better understand how the BCRA affects state economies and employment, Exhibit 4 looks at the two major components of the BCRA separately. The coverage-related policies generally lower federal spending, particularly due to cuts to Medicaid and premium tax credits. Some policies partially offset those large cuts, such as the State Stability and Innovation Fund. The tax repeal policies (Sections 108 through 123)—that is, those repealing the Medicare-related taxes, Cadillac tax, Health Savings Account-related tax, or medical device tax—predominantly help people with high incomes or selected businesses.

Implemented alone, the coverage-related policies would lead to steep job losses over time, with 2.3 million fewer jobs by 2026, driven principally by deep Medicaid cuts (Exhibit 4). Alternatively, the tax repeal policies on their

own would be associated with higher employment and state economic growth. They would add 730,000 jobs in 2018 and an additional 861,000 jobs in 2026. When combined together, tax repeal and coverage-related changes lead to economic and employment growth at first, but then to large losses.

The detailed employment results show how these two components of the BCRA affect different economic sectors. Coverage and spending-related policies are directly related to funding for health services (e.g., Medicaid, premium tax credits, and high-risk pools). The reductions directly affect the health sector—hospitals, doctors' offices, or pharmacies—but then flow out to other sectors. Thus, almost half of jobs lost due to coverage policies are in the health sector while the rest are in other sectors. Tax changes affect consumption broadly, so effects are spread over most job sectors.

Exhibit 4. Changes in Employment, Gross State Products, and Business Output Associated with Coverage-Related and Tax Repeal Changes in the Draft Better Care Reconciliation Act, 2018 to 2026
All changes are compared to the baseline for that year

Calendar year	2018	2019	2020	2021	2022	2023	2024	2025	2026
COVERAGE-RELATED CHANGES:									
Federal funds (billions of current \$)	-\$5.2	-\$19.3	-\$62.7	-\$84.9	-\$103.2	-\$130.6	-\$149.8	-\$166.6	-\$183.3
Total employment lost/gained (thousands of jobs)	21	-185	-950	-1,344	-1,611	-1,968	-2,152	-2,251	-2,311
Private employment	20	-181	-924	-1,299	-1,550	-1,894	-2,071	-2,162	-2,216
Health care	-95	-177	-425	-554	-653	-797	-887	-954	-1,005
Construction and real estate	36	24	-69	-133	-173	-212	-227	-224	-212
Retail trade	12	-11	-90	-124	-147	-180	-196	-204	-209
Finance and insurance	-1	-19	-66	-84	-92	-104	-109	-111	-112
All other private	68	1	-274	-403	-485	-600	-651	-669	-678
Public employment	1	-4	-25	-45	-60	-75	-81	-89	-94
Gross state product (billions of current \$)	\$4.4	-\$15.4	-\$93.5	-\$137.9	-\$172.0	-\$217.8	-\$246.7	-\$266.7	-\$282.8
Business output (billions of current \$)	\$8.4	-\$24.7	-\$158.3	-\$233.8	-\$290.8	-\$367.6	-\$414.9	-\$447.7	-\$473.7
TAX REPEAL CHANGES:									
Federal funds (billions of current \$)	\$37.7	\$38.6	\$46.0	\$52.2	\$58.8	\$71.5	\$81.5	\$86.0	\$82.6
Total employment (thousands of jobs)	730	797	937	995	999	1,067	1,107	1,055	861
Private employment	711	767	898	950	951	1,016	1,053	1,002	813
Health care	65	66	78	84	86	96	103	101	86
Construction and real estate	137	174	202	207	197	197	193	172	122
Retail trade	97	97	113	120	121	131	138	133	109
Finance and insurance	85	86	95	100	101	106	110	108	96
All other private	327	343	409	439	446	485	510	489	399
Public employment	19	30	39	45	48	51	53	53	48
Gross state product (billions of current \$)	\$74.9	\$84.7	\$103.2	\$113.8	\$119.5	\$132.7	\$143.4	\$142.5	\$121.3
Business output (billions of current \$)	\$130.4	\$147.6	\$179.6	\$198.0	\$207.5	\$230.0	\$248.2	\$246.7	\$209.6

Note: The sums of these components differ from totals shown in Exhibits 2 and 3 because of interaction effects.

Source: George Washington University analysis.

State-Level Effects of the BCRA

Consequences differ from state to state. We illustrate with data for 10 states: Alaska, Florida, Kentucky, Maine, Michigan, Nevada, New York, Ohio, Pennsylvania, and West Virginia. Exhibit 5 shows the effects of the BCRA in 2018 and 2026. Complete results for all 50 states and the District of Columbia are available in [Appendices A1–A4](#). In this analysis, states that expanded Medicaid tend to experience deeper and faster economic declines, although substantial losses occur even among nonexpansion states.

- Nine of the 10 states (Alaska, Florida, Kentucky, Maine, Nevada, New York, Ohio, Pennsylvania, and West Virginia) begin with positive economic and employment effects in 2018, but are worse off by 2026. Outcomes typically turn negative by 2022.

- Michigan is worse off in 2018 and continues to decline through 2026. We assume Michigan will terminate its Medicaid expansion quickly because of a state law that automatically cancels the expansion if the federal matching rate changes.¹⁵ Six other states (Arkansas, Illinois, Indiana, New Hampshire, New Mexico, and Washington) have similar legislation and experience losses sooner than other states.
- Most job losses are in health care. In seven states (Florida, Kentucky, Maine, Michigan, Ohio, Pennsylvania and West Virginia), health care job losses begin in 2018, but all 10 states have large reductions in health employment by 2026. Looking at the U.S. overall, losses in health care jobs begin by 2019 in most states ([Appendix A2](#)).

Exhibit 5. Effects of the Draft Better Care Reconciliation Act on Employment and Economic Growth in Selected States, 2018 and 2026

All changes are compared to the baseline for that year

State	Status*	Employment (thousands of jobs)		Health employment (thousands of jobs)		Gross state product (millions of current \$)		Business output (millions of current \$)	
		2018	2026	2018	2026	2018	2026	2018	2026
Alaska	M	1.9	-1.8	0.0	-1.6	\$227	-\$243	\$431	-\$436
Florida		50.4	-78.0	-1.1	-52.0	\$4,565	-\$7,971	\$7,280	-\$12,962
Kentucky	M	7.0	-32.1	-1.0	-16.8	\$660	-\$3,289	\$1,266	-\$5,490
Maine		2.6	-11.6	-0.3	-6.2	\$229	-\$1,188	\$417	-\$1,981
Michigan	M, T	-2.2	-86.3	-10.1	-44.9	\$202	-\$9,060	\$722	-\$14,805
Nevada	M	8.5	-5.1	0.0	-4.6	\$809	-\$589	\$1,346	-\$1,040
New York	M	47.5	-131.7	1.8	-81.3	\$6,103	-\$17,194	\$10,814	-\$27,454
Ohio	M	19.6	-98.8	-2.8	-52.3	\$2,109	-\$10,603	\$3,875	-\$17,246
Pennsylvania	M	25.4	-109.9	-2.3	-62.8	\$2,720	-\$11,974	\$4,841	-\$19,396
West Virginia	M	2.6	-13.1	-0.3	-7.3	\$285	-\$1,404	\$520	-\$2,361

* M = Medicaid expansion state, T = state terminates expansion if match rate is reduced.

Source: George Washington University analysis.

- States that expanded Medicaid tend to have deeper and faster losses. Having earned more federal funds under the ACA, they lose more when Medicaid matching rates are cut. In addition to cutting funds to states that expanded health insurance for low-income Medicaid populations, the bill also increases funding to states that did not expand Medicaid. Nonetheless, states that did not expand Medicaid, like Florida and Maine, experience job and economic losses after a few years. In fact, Florida has the sixth highest level of job loss in the nation by 2026.
- Other factors that affect the size of economic and employment effects include:
 - the extent to which states gained coverage in the ACA health insurance marketplaces; states with higher marketplace enrollment tend to lose more
 - age structure; older people will find insurance less affordable
 - state population size; the population size of states magnifies their losses or gains
 - other factors that affect tax distribution, like number of residents with investment income or high incomes or whether medical device or pharmaceutical manufacturers are located in the state.

Every state except Hawaii experiences job and economic losses by 2026. The 10 states with the largest job losses by 2026 are: New York (132,000), California (117,000), Pennsylvania (110,000), Ohio (99,000), Michigan (86,000), Florida (78,000), Illinois (71,000), New Jersey (60,000), Massachusetts (54,000) and Indiana (39,000) ([Appendix A1](#)).

CONCLUSIONS

The Senate bill to repeal and replace the Affordable Care Act would greatly reduce the number of people with insurance coverage, effectively reversing gains made since the ACA's enactment. The BCRA would initially create more employment and economic growth, driven by increasing the federal deficit in 2018 and 2019, but the effects turn negative as coverage reductions deepen. Job losses and lower economic growth would begin in 2020

and continue to deepen. By 2026, 1.45 million jobs would disappear, gross state products would be \$162 billion lower, and business output could fall by \$265 billion.

Although the estimated effects of the BCRA on insurance coverage are similar to the effects of the AHCA, the economic consequences for states are much harsher. There are three principal reasons. First, although the BCRA delays the phase-down of federal matching for the Medicaid expansions, by 2026 it has deeper Medicaid reductions than the AHCA. These reductions would be decidedly harsher in the second decade of implementation. Second, the changes in premium tax credits result in deeper federal expenditure cuts. This is because the BCRA provides tax assistance to almost as many people as the AHCA, but the value of assistance is much lower because the actuarial value benchmark is lowered, especially for older Americans. As a result, the insurance coverage will offer less protection from high deductibles and cost-sharing. This results in fewer people enrolling and smaller tax credits for those who do enroll since the premiums are lower for this value coverage. Finally, the BCRA reduces the threshold of the medical care deduction from 10 percent to 7.5 percent, while the AHCA reduced it to 5.8 percent.

Health care has been one of the principal areas of job growth in recent years.¹⁶ Under the BCRA, the sector would lose jobs immediately—30,000 in 2018. By 2026, there would be 919,000 fewer health sector jobs, equivalent to about one out of every 22 health jobs. This would be a major reversal from current trends. While our analysis shows other employment sectors grow initially, by 2026 more than half a million jobs are lost in other sectors of the economy, too.

It may be useful to look at these findings in a macroeconomic context. The U.S. unemployment rate for May 2017 was 4.3 percent, the lowest in 16 years and about half as high as during the recent recession. When unemployment is low, additional job growth creates a tighter labor market, and businesses often have greater difficulties filling job vacancies. In turn, this can accelerate inflation.

It is likely that the business cycle will eventually slow down again in the future. In that event, the BCRA could accentuate job loss and economic contraction. Combined with major increases in the number of uninsured, this could contribute to a period of economic and medical hardship in the U.S. The BCRA could distort both the highs and lows of the business cycle. From a national policy perspective, it may be more useful to develop countercyclical policies that strengthen employment and the economy during times of contraction.

The combination of more uninsured and more unemployed people will increase the demand for social assistance, but weaker state economies and federal reductions in Medicaid spending will make it more difficult for states to respond to those needs. States will confront painful choices between raising taxes or slashing services.

This analysis has many limitations. We do not know whether or when the AHCA, the BCRA, or an alternative

will be enacted into law. There have been discussions that the draft BCRA will be modified to add \$45 billion in funding to address the opioid crisis. Other changes may be made as well. Since there are no available details, we have not been able to analyze those changes. However, modest changes are unlikely to markedly change the overall results.

These projections, like others, are fraught with uncertainty. Economic, technical, or policy changes could alter results. In particular, the BCRA grants substantial discretion to states in terms of Medicaid expansions, waivers of federal regulations, and use of new funds like the State Stability and Innovation Fund. While this analysis is aligned with the CBO's national estimates, we developed state-level projections, introducing further uncertainty. Our approach conservatively spreads changes across states and may underestimate the highs and lows for individual states.

NOTES

- ¹ Congressional Budget Office, *Cost Estimate: H.R. 1628, Better Care Reconciliation Act of 2017* (CBO, June 26, 2017).
- ² L. Ku, E. Steinmetz, E. Brantley et al., *The American Health Care Act: Economic and Employment Consequences for States* (The Commonwealth Fund, June 2017).
- ³ Congressional Budget Office, *Cost Estimate: H.R. 1628, Better Care Reconciliation Act of 2017* (CBO, June 26, 2017).
- ⁴ Congressional Budget Office, *Cost Estimate: H.R. 1628, Better Care Reconciliation Act of 2017* (CBO, June 26, 2017).
- ⁵ Congressional Budget Office, *Cost Estimate: H.R. 1628, American Health Care Act of 2017* (CBO, May 24, 2017).
- ⁶ L. J. Blumberg, M. Buettgens, J. Holahan et al., *State-by-State Coverage and Government Spending Implications of the Better Care Reconciliation Act* (Urban Institute, June 28, 2017).
- ⁷ Congressional Budget Office, *Longer-Term Effects of the Better Care Reconciliation Act of 2017 on Medicaid Spending* (CBO, June 29, 2017).
- ⁸ J. Levitis, *Changes to State Innovation Waivers in the Senate Health Bill Undermine Insurance Coverage and Open the Door to Misuse of Federal Funds* (Brookings Institution, June 23, 2017).
- ⁹ C. Whalen and F. Reichling, *The Fiscal Multiplier and Economic Policy Analysis in the United States, Working Paper* (Congressional Budget Office, Feb. 2015).
- ¹⁰ G. Coenen, C. J. Erceg, C. Freedman et al., “*Effects of Fiscal Stimulus in Structural Models*,” *American Economic Journal: Macroeconomics*, Jan. 2012 4(1):22–68.
- ¹¹ M. Zandi, “*At Last, the U.S. Begins a Serious Fiscal Debate*,” *Moody’s Analytics*, April 14, 2011.
- ¹² H. Gleckman, *The Senate Leadership’s Health Bill Is a Big Tax Cut, Especially for the Top One Percent* (Urban Institute–Brookings Institution Tax Policy Center, June 26, 2017).
- ¹³ See www.remi.com for more information about the PI+ model (version 2.0).
- ¹⁴ L. Ku, E. Steinmetz, E. Brantley et al., *The American Health Care Act: Economic and Employment Consequences for States* (The Commonwealth Fund, June 2017).
- ¹⁵ Manatt, *Summary of Termination/Reduction Provisions Linked to Federal Matching Rate in State Medicaid Expansions* (Manatt, Nov. 21, 2016).
- ¹⁶ Bureau of Labor Statistics, *Occupational Outlook Handbook* (BLS, Dec. 2015).

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The mission of The Commonwealth Fund is to promote a high performance health care system. The Fund carries out this mandate by supporting independent research on health care issues and making grants to improve health care practice and policy. Support for this research was provided by The Commonwealth Fund. The views presented here are those of the authors and not necessarily those of The Commonwealth Fund or its directors, officers, or staff.

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Appendix A1. State-Level Changes in Employment Due to the Draft Better Care Reconciliation Act, 2018 to 2026 (thousands of jobs)

Status*	2018	2019	2020	2021	2022	2023	2024	2025	2026
Alabama	12.0	12.6	5.8	2.1	-0.9	-5.1	-6.7	-8.3	-11.5
Alaska	M	1.9	1.7	0.6	0.1	-0.4	-0.8	-1.1	-1.3
Arizona	M	20.3	20.7	13.1	8.3	3.8	-1.2	-4.3	-7.3
Arkansas	M, T	2.5	2.2	-5.0	-8.0	-10.5	-13.8	-14.5	-15.2
California	M	99.6	53.3	-2.9	-30.5	-50.5	-62.9	-74.9	-90.0
Colorado	M	18.5	17.5	11.5	7.9	4.4	1.4	-0.2	-2.4
Connecticut	M	8.8	5.0	-3.9	-9.6	-14.1	-18.2	-21.2	-24.3
Delaware	M	2.0	1.2	-1.0	-2.4	-3.5	-4.7	-5.5	-6.2
Dist. Columbia	M	1.9	0.9	-0.9	-2.1	-3.0	-3.9	-4.7	-5.4
Florida		50.4	44.1	-2.7	-22.7	-34.5	-54.5	-58.9	-64.6
Georgia		28.8	30.0	12.4	3.4	-3.5	-13.6	-16.8	-20.4
Hawaii	M	4.4	3.7	2.9	2.4	1.9	1.8	1.6	1.2
Idaho		4.1	3.9	1.7	0.7	-0.2	-1.4	-1.8	-2.2
Illinois	M, T	11.2	6.2	-29.0	-42.4	-52.0	-62.8	-63.6	-65.1
Indiana	M, T	8.6	6.2	-10.1	-17.9	-23.8	-30.5	-32.9	-35.2
Iowa	M	7.3	5.5	-0.5	-3.8	-6.4	-9.1	-10.5	-12.0
Kansas		7.9	8.1	3.6	1.2	-0.9	-3.5	-4.6	-5.7
Kentucky	M	7.0	2.6	-7.2	-13.0	-17.5	-22.2	-25.5	-28.4
Louisiana	M	13.1	13.0	2.5	-3.9	-8.9	-14.8	-15.8	-18.2
Maine		2.6	1.8	-1.9	-4.2	-5.9	-8.0	-9.1	-10.1
Maryland	M	14.3	9.9	-1.2	-8.4	-14.3	-19.8	-23.9	-28.1
Massachusetts	M	16.6	13.5	-3.9	-15.6	-24.9	-34.3	-40.2	-46.2
Michigan	M, T	-2.2	-9.7	-43.0	-56.5	-65.9	-76.4	-79.0	-81.2
Minnesota	M	13.8	10.0	-0.8	-7.5	-13.5	-19.9	-24.0	-27.8
Mississippi		7.2	7.7	3.4	1.0	-1.0	-3.5	-4.6	-5.7
Missouri		14.0	12.9	0.2	-6.7	-11.9	-18.5	-21.6	-24.9
Montana	M	2.5	1.9	0.0	-1.0	-1.9	-2.8	-3.3	-3.9
Nebraska		5.1	4.8	1.4	-0.4	-1.9	-3.7	-4.4	-5.2
Nevada	M	8.5	6.4	2.7	1.1	-0.3	-1.3	-2.0	-3.0
New Hampshire	M, T	2.6	1.9	-2.0	-4.1	-5.8	-7.4	-8.1	-8.9
New Jersey	M	22.5	13.8	-5.7	-18.1	-27.9	-37.1	-44.2	-51.0
New Mexico	M, T	-0.1	-1.1	-7.3	-9.4	-11.0	-12.7	-12.8	-12.9
New York	M	47.5	37.9	-2.2	-30.2	-53.4	-77.0	-94.8	-111.1
North Carolina		23.0	21.1	1.7	-8.1	-14.5	-23.3	-26.1	-29.4
North Dakota	M	2.7	2.4	0.5	-0.7	-1.8	-2.8	-3.4	-3.9
Ohio	M	19.6	6.9	-23.3	-41.1	-54.9	-68.8	-78.9	-87.6
Oklahoma		10.8	12.1	6.9	3.9	1.3	-2.1	-3.3	-4.5
Oregon	M	7.6	1.5	-6.2	-10.3	-13.8	-16.7	-19.2	-21.6
Pennsylvania	M	25.4	12.4	-19.2	-39.2	-55.4	-72.9	-85.4	-96.4
Rhode Island	M	1.7	0.3	-2.7	-4.5	-6.0	-7.4	-8.5	-9.5
South Carolina		11.7	11.6	4.7	1.1	-1.6	-5.1	-6.4	-7.8
South Dakota		2.4	2.1	0.4	-0.5	-1.3	-2.2	-2.6	-3.1
Tennessee		17.0	16.1	1.1	-7.4	-14.2	-22.8	-26.7	-30.2
Texas		107.8	125.8	88.0	65.2	43.7	15.8	6.1	-4.2
Utah		10.4	10.7	7.1	5.3	3.7	2.0	1.5	0.7
Vermont	M	1.4	1.1	-0.5	-1.5	-2.3	-3.2	-3.7	-4.3
Virginia		20.6	19.0	6.8	0.0	-5.2	-10.9	-13.4	-16.6
Washington	M, T	10.3	8.1	-4.2	-8.6	-11.8	-14.0	-13.4	-13.8
West Virginia	M	2.6	1.2	-2.6	-5.0	-6.9	-9.0	-10.4	-11.6
Wisconsin		11.2	9.4	-2.9	-9.3	-14.1	-19.9	-22.0	-24.3
Wyoming		1.9	1.9	1.3	0.9	0.5	0.2	0.0	-0.1

* M = Medicaid expansion state, T = state terminates expansion if match rate is reduced.

Source: George Washington University analysis.

Appendix A2. State-Level Changes in Health Employment Due to the Draft Better Care Reconciliation Act, 2018 to 2026 (thousands of jobs)

Status*	2018	2019	2020	2021	2022	2023	2024	2025	2026
Alabama	0.4	0.1	-2.3	-3.6	-4.6	-6.4	-7.2	-7.9	-8.7
Alaska	M	0.0	-0.1	-0.6	-0.8	-1.0	-1.2	-1.3	-1.5
Arizona	M	1.2	0.8	-2.1	-4.1	-5.8	-8.1	-9.7	-11.0
Arkansas	M, T	-1.9	-2.3	-5.3	-6.4	-7.4	-8.9	-9.4	-10.2
California	M	-2.1	-21.3	-41.6	-52.4	-60.6	-69.4	-79.0	-86.7
Colorado	M	0.6	-0.6	-2.5	-3.6	-4.7	-6.0	-7.0	-7.8
Connecticut	M	-0.5	-2.5	-6.0	-8.2	-9.9	-12.0	-13.8	-15.2
Delaware	M	-0.1	-0.5	-1.3	-1.9	-2.3	-2.8	-3.3	-3.6
Dist. Columbia	M	-0.1	-0.5	-1.3	-1.8	-2.2	-2.7	-3.1	-3.5
Florida		-1.1	-4.6	-22.1	-29.7	-34.1	-43.3	-46.3	-49.2
Georgia		0.9	0.5	-5.3	-8.3	-10.4	-14.5	-16.1	-17.5
Hawaii	M	0.2	-0.2	-0.5	-0.7	-1.0	-1.2	-1.4	-1.6
Idaho		0.0	-0.2	-1.1	-1.5	-1.8	-2.4	-2.7	-3.2
Illinois	M, T	-8.6	-10.7	-23.7	-27.9	-31.1	-36.1	-37.3	-38.3
Indiana	M, T	-2.7	-4.0	-10.1	-12.8	-14.8	-17.7	-19.1	-20.2
Iowa	M	-0.4	-1.3	-3.2	-4.2	-5.0	-6.1	-6.8	-7.4
Kansas		0.2	0.0	-1.6	-2.5	-3.2	-4.3	-4.9	-5.4
Kentucky	M	-1.0	-3.2	-6.9	-8.9	-10.6	-12.6	-14.3	-15.6
Louisiana	M	-0.2	-1.0	-5.1	-7.3	-8.8	-11.2	-11.6	-12.6
Maine		-0.3	-0.7	-2.3	-3.2	-3.8	-4.8	-5.3	-5.8
Maryland	M	-0.1	-2.5	-6.8	-9.4	-11.5	-14.1	-16.3	-18.1
Massachusetts	M	-0.1	-1.6	-8.6	-13.1	-16.7	-21.1	-24.4	-27.1
Michigan	M, T	-10.1	-13.2	-27.3	-32.1	-35.6	-40.5	-42.2	-43.5
Minnesota	M	-0.3	-2.2	-6.0	-8.3	-10.4	-13.2	-15.2	-16.8
Mississippi		0.2	-0.1	-1.6	-2.5	-3.1	-4.2	-4.7	-5.2
Missouri		-0.2	-1.0	-5.8	-8.4	-10.3	-13.2	-14.9	-16.4
Montana	M	-0.1	-0.5	-1.2	-1.6	-1.9	-2.3	-2.6	-2.9
Nebraska		0.0	-0.3	-1.4	-2.0	-2.5	-3.2	-3.6	-3.9
Nevada	M	0.0	-0.9	-2.0	-2.5	-2.9	-3.4	-3.8	-4.2
New Hampshire	M, T	-0.7	-1.0	-2.5	-3.1	-3.6	-4.3	-4.6	-4.9
New Jersey	M	-0.6	-5.2	-12.5	-17.0	-20.7	-25.0	-28.9	-32.0
New Mexico	M, T	-2.3	-2.9	-5.7	-6.4	-7.0	-7.8	-7.9	-8.1
New York	M	1.8	-2.3	-19.1	-31.5	-42.1	-54.7	-65.3	-73.7
North Carolina		-0.4	-2.0	-9.2	-12.7	-14.9	-18.8	-20.5	-22.1
North Dakota	M	0.0	-0.3	-0.9	-1.2	-1.5	-1.8	-2.1	-2.3
Ohio	M	-2.8	-9.1	-20.9	-27.6	-32.9	-39.2	-44.5	-48.7
Oklahoma		0.4	0.3	-1.6	-2.6	-3.4	-4.8	-5.5	-6.0
Oregon	M	-1.0	-3.8	-6.9	-8.5	-10.0	-11.6	-13.2	-14.5
Pennsylvania	M	-2.3	-9.2	-22.4	-30.5	-37.2	-45.8	-52.7	-58.1
Rhode Island	M	-0.3	-1.1	-2.4	-3.2	-3.8	-4.6	-5.2	-5.8
South Carolina		0.2	-0.1	-2.4	-3.6	-4.4	-5.8	-6.5	-7.1
South Dakota		0.0	-0.2	-0.9	-1.2	-1.5	-1.9	-2.1	-2.3
Tennessee		0.2	-0.6	-5.4	-8.0	-10.0	-13.0	-14.6	-15.9
Texas		7.5	8.6	-4.3	-11.4	-17.4	-28.0	-32.4	-36.0
Utah		0.5	0.3	-1.0	-1.6	-2.1	-2.8	-3.2	-3.5
Vermont	M	-0.1	-0.3	-0.9	-1.2	-1.5	-1.9	-2.2	-2.4
Virginia		0.4	-0.6	-4.7	-6.8	-8.4	-10.8	-12.0	-13.1
Washington	M, T	-2.9	-4.0	-8.8	-10.4	-11.6	-13.1	-13.6	-14.0
West Virginia	M	-0.3	-1.1	-2.8	-3.8	-4.5	-5.5	-6.2	-6.8
Wisconsin		-0.9	-1.8	-6.1	-8.2	-9.8	-12.2	-13.3	-14.3
Wyoming		0.0	0.0	-0.2	-0.3	-0.3	-0.4	-0.5	-0.6

* M = Medicaid expansion state, T = state terminates expansion if match rate is reduced.

Source: George Washington University analysis.

Appendix A3. State-Level Changes in Gross State Product Due to the Draft Better Care Reconciliation Act, 2018 to 2026 (millions of current \$)

Status*	2018	2019	2020	2021	2022	2023	2024	2025	2026
Alabama	\$1,057	\$1,153	\$586	\$277	\$16	-\$375	-\$533	-\$712	-\$1,096
Alaska	M	\$227	\$221	\$101	\$29	-\$28	-\$87	-\$116	-\$158
Arizona	M	\$1,881	\$2,000	\$1,366	\$974	\$584	\$120	-\$166	-\$486
Arkansas	M, T	\$266	\$259	-\$334	-\$603	-\$849	-\$1,186	-\$1,295	-\$1,416
California	M	\$11,566	\$7,231	\$1,171	-\$1,877	-\$4,228	-\$5,750	-\$7,194	-\$9,261
Colorado	M	\$1,905	\$1,891	\$1,314	\$985	\$648	\$341	\$192	-\$57
Connecticut	M	\$1,151	\$801	-\$173	-\$826	-\$1,368	-\$1,899	-\$2,315	-\$2,782
Delaware	M	\$219	\$152	-\$68	-\$215	-\$341	-\$482	-\$584	-\$693
Dist. Columbia	M	\$293	\$191	-\$67	-\$237	-\$390	-\$556	-\$697	-\$843
Florida		\$4,565	\$4,217	\$142	-\$1,686	-\$2,842	-\$4,881	-\$5,435	-\$6,197
Georgia		\$2,717	\$2,902	\$1,301	\$480	-\$185	-\$1,221	-\$1,596	-\$2,043
Hawaii	M	\$445	\$391	\$325	\$286	\$242	\$234	\$222	\$174
Idaho		\$344	\$344	\$167	\$85	\$13	-\$89	-\$122	-\$165
Illinois	M, T	\$1,518	\$1,111	-\$2,306	-\$3,778	-\$4,959	-\$6,329	-\$6,647	-\$7,075
Indiana	M, T	\$952	\$787	-\$679	-\$1,436	-\$2,064	-\$2,809	-\$3,149	-\$3,499
Iowa	M	\$757	\$635	\$76	-\$242	-\$509	-\$798	-\$960	-\$1,146
Kansas		\$744	\$785	\$390	\$178	-\$6	-\$265	-\$371	-\$504
Kentucky	M	\$660	\$347	-\$502	-\$1,031	-\$1,489	-\$1,995	-\$2,391	-\$2,769
Louisiana	M	\$1,304	\$1,367	\$418	-\$189	-\$698	-\$1,333	-\$1,478	-\$1,785
Maine		\$229	\$174	-\$141	-\$343	-\$509	-\$721	-\$853	-\$991
Maryland	M	\$1,464	\$1,128	\$46	-\$694	-\$1,346	-\$2,004	-\$2,536	-\$3,120
Massachusetts	M	\$1,994	\$1,731	-\$141	-\$1,464	-\$2,602	-\$3,811	-\$4,648	-\$5,577
Michigan	M, T	\$202	-\$398	-\$3,337	-\$4,706	-\$5,802	-\$7,061	-\$7,593	-\$8,130
Minnesota	M	\$1,551	\$1,268	\$160	-\$552	-\$1,225	-\$1,986	-\$2,498	-\$3,036
Mississippi		\$580	\$639	\$310	\$122	-\$42	-\$272	-\$373	-\$487
Missouri		\$1,315	\$1,277	\$154	-\$473	-\$979	-\$1,657	-\$2,016	-\$2,426
Montana	M	\$220	\$181	\$12	-\$86	-\$174	-\$278	-\$341	-\$410
Nebraska		\$494	\$481	\$174	\$5	-\$138	-\$325	-\$408	-\$510
Nevada	M	\$809	\$656	\$322	\$155	\$11	-\$94	-\$180	-\$304
New Hampshire	M, T	\$292	\$244	-\$130	-\$348	-\$530	-\$722	-\$822	-\$938
New Jersey	M	\$2,624	\$1,879	-\$159	-\$1,519	-\$2,685	-\$3,850	-\$4,796	-\$5,810
New Mexico	M, T	\$62	-\$7	-\$529	-\$737	-\$916	-\$1,111	-\$1,161	-\$1,217
New York	M	\$6,103	\$5,223	\$721	-\$2,542	-\$5,464	-\$8,550	-\$11,044	-\$13,607
North Carolina		\$2,120	\$2,038	\$339	-\$532	-\$1,146	-\$2,032	-\$2,359	-\$2,773
North Dakota	M	\$325	\$312	\$99	-\$54	-\$194	-\$340	-\$432	-\$528
Ohio	M	\$2,109	\$1,139	-\$1,631	-\$3,385	-\$4,876	-\$6,469	-\$7,723	-\$8,936
Oklahoma		\$1,035	\$1,198	\$731	\$463	\$222	-\$115	-\$225	-\$356
Oregon	M	\$765	\$284	-\$435	-\$839	-\$1,205	-\$1,529	-\$1,829	-\$2,136
Pennsylvania	M	\$2,720	\$1,705	-\$1,240	-\$3,224	-\$4,967	-\$6,935	-\$8,470	-\$9,967
Rhode Island	M	\$183	\$72	-\$195	-\$375	-\$529	-\$691	-\$824	-\$965
South Carolina		\$1,052	\$1,092	\$492	\$180	-\$60	-\$404	-\$533	-\$695
South Dakota		\$227	\$211	\$58	-\$28	-\$105	-\$203	-\$257	-\$316
Tennessee		\$1,596	\$1,573	\$70	-\$835	-\$1,606	-\$2,663	-\$3,234	-\$3,797
Texas		\$10,771	\$12,977	\$9,584	\$7,601	\$5,688	\$2,965	\$2,168	\$1,159
Utah		\$933	\$1,004	\$705	\$562	\$433	\$281	\$256	\$183
Vermont	M	\$126	\$102	-\$29	-\$120	-\$201	-\$293	-\$356	-\$423
Virginia		\$2,060	\$1,981	\$786	\$91	-\$478	-\$1,139	-\$1,477	-\$1,928
Washington	M, T	\$1,309	\$1,127	-\$199	-\$713	-\$1,131	-\$1,454	-\$1,422	-\$1,528
West Virginia	M	\$285	\$188	-\$168	-\$405	-\$610	-\$842	-\$1,014	-\$1,179
Wisconsin		\$1,113	\$1,001	-\$115	-\$730	-\$1,233	-\$1,862	-\$2,141	-\$2,460
Wyoming		\$220	\$237	\$159	\$108	\$60	\$15	-\$2	-\$30

* M = Medicaid expansion state, T = state terminates expansion if match rate is reduced.

Source: George Washington University analysis.

Appendix A4. State-Level Changes in Business Output Due to the Draft Better Care Reconciliation Act, 2018 to 2026 (millions of current \$)

Status*	2018	2019	2020	2021	2022	2023	2024	2025	2026
Alabama	\$1,999	\$2,205	\$1,208	\$678	\$239	-\$412	-\$645	-\$923	-\$1,592
Alaska	M	\$431	\$421	\$197	\$64	-\$42	-\$151	-\$202	-\$277
Arizona	M	\$3,011	\$3,210	\$2,164	\$1,504	\$848	\$65	-\$426	-\$971
Arkansas	M, T	\$558	\$566	-\$464	-\$925	-\$1,341	-\$1,910	-\$2,080	-\$2,275
California	M	\$19,530	\$12,192	\$1,902	-\$3,245	-\$7,172	-\$9,747	-\$12,193	-\$15,683
Colorado	M	\$3,250	\$3,230	\$2,238	\$1,671	\$1,095	\$571	\$315	-\$107
Connecticut	M	\$2,011	\$1,428	-\$216	-\$1,296	-\$2,182	-\$3,051	-\$3,717	-\$4,475
Delaware	M	\$371	\$257	-\$119	-\$369	-\$584	-\$823	-\$995	-\$1,179
Dist. Columbia	M	\$494	\$320	-\$120	-\$408	-\$666	-\$948	-\$1,185	-\$1,433
Florida		\$7,280	\$6,754	\$146	-\$2,828	-\$4,688	-\$7,991	-\$8,882	-\$10,115
Georgia		\$4,705	\$5,029	\$2,306	\$930	-\$165	-\$1,877	-\$2,471	-\$3,191
Hawaii	M	\$779	\$697	\$581	\$510	\$430	\$414	\$391	\$306
Idaho		\$593	\$588	\$276	\$130	\$1	-\$178	-\$239	-\$318
Illinois	M, T	\$2,825	\$2,162	-\$3,675	-\$6,187	-\$8,179	-\$10,482	-\$10,975	-\$11,681
Indiana	M, T	\$2,067	\$1,828	-\$825	-\$2,178	-\$3,274	-\$4,549	-\$5,057	-\$5,611
Iowa	M	\$1,639	\$1,430	\$303	-\$324	-\$831	-\$1,362	-\$1,599	-\$1,905
Kansas		\$1,366	\$1,448	\$741	\$364	\$39	-\$412	-\$589	-\$814
Kentucky	M	\$1,266	\$753	-\$742	-\$1,656	-\$2,441	-\$3,306	-\$3,955	-\$4,584
Louisiana	M	\$2,512	\$2,663	\$969	-\$95	-\$971	-\$2,050	-\$2,251	-\$2,739
Maine		\$417	\$324	-\$222	-\$567	-\$847	-\$1,202	-\$1,417	-\$1,645
Maryland	M	\$2,394	\$1,865	\$122	-\$1,070	-\$2,113	-\$3,162	-\$4,000	-\$4,927
Massachusetts	M	\$3,412	\$2,954	-\$193	-\$2,398	-\$4,286	-\$6,290	-\$7,671	-\$9,213
Michigan	M, T	\$722	-\$236	-\$5,235	-\$7,553	-\$9,385	-\$11,480	-\$12,315	-\$13,188
Minnesota	M	\$2,767	\$2,286	\$338	-\$904	-\$2,064	-\$3,364	-\$4,211	-\$5,115
Mississippi		\$1,103	\$1,233	\$651	\$325	\$46	-\$341	-\$493	-\$672
Missouri		\$2,359	\$2,321	\$387	-\$684	-\$1,539	-\$2,681	-\$3,260	-\$3,936
Montana	M	\$420	\$351	\$34	-\$147	-\$308	-\$493	-\$601	-\$721
Nebraska		\$974	\$959	\$382	\$72	-\$184	-\$511	-\$634	-\$800
Nevada	M	\$1,346	\$1,096	\$528	\$239	-\$10	-\$195	-\$347	-\$560
New Hampshire	M, T	\$493	\$410	-\$215	-\$580	-\$882	-\$1,202	-\$1,372	-\$1,569
New Jersey	M	\$4,431	\$3,269	-\$18	-\$2,193	-\$4,041	-\$5,870	-\$7,319	-\$8,898
New Mexico	M, T	\$124	\$13	-\$867	-\$1,218	-\$1,517	-\$1,842	-\$1,921	-\$2,011
New York	M	\$10,814	\$9,238	\$1,609	-\$3,772	-\$8,527	-\$13,507	-\$17,431	-\$21,541
North Carolina		\$3,685	\$3,560	\$679	-\$782	-\$1,801	-\$3,278	-\$3,804	-\$4,483
North Dakota	M	\$607	\$587	\$195	-\$89	-\$346	-\$611	-\$777	-\$948
Ohio	M	\$3,875	\$2,303	-\$2,430	-\$5,384	-\$7,861	-\$10,493	-\$12,485	-\$14,442
Oklahoma		\$1,817	\$2,117	\$1,311	\$849	\$437	-\$137	-\$316	-\$532
Oregon	M	\$1,313	\$503	-\$727	-\$1,424	-\$2,051	-\$2,607	-\$3,118	-\$3,645
Pennsylvania	M	\$4,841	\$3,193	-\$1,772	-\$5,083	-\$7,957	-\$11,182	-\$13,639	-\$16,066
Rhode Island	M	\$314	\$139	-\$296	-\$587	-\$834	-\$1,095	-\$1,305	-\$1,529
South Carolina		\$1,865	\$1,958	\$940	\$417	\$21	-\$548	-\$746	-\$999
South Dakota		\$407	\$380	\$102	-\$55	-\$194	-\$371	-\$466	-\$570
Tennessee		\$2,848	\$2,831	\$243	-\$1,292	-\$2,585	-\$4,365	-\$5,296	-\$6,224
Texas		\$18,516	\$22,388	\$16,615	\$13,228	\$9,995	\$5,407	\$4,115	\$2,447
Utah		\$1,591	\$1,717	\$1,209	\$963	\$742	\$485	\$441	\$317
Vermont	M	\$216	\$174	-\$52	-\$207	-\$343	-\$500	-\$606	-\$721
Virginia		\$3,500	\$3,373	\$1,353	\$186	-\$762	-\$1,865	-\$2,423	-\$3,170
Washington	M, T	\$2,364	\$2,072	-\$188	-\$1,062	-\$1,758	-\$2,273	-\$2,174	-\$2,321
West Virginia	M	\$520	\$357	-\$266	-\$678	-\$1,028	-\$1,423	-\$1,704	-\$1,977
Wisconsin		\$2,103	\$1,914	-\$95	-\$1,194	-\$2,084	-\$3,183	-\$3,650	-\$4,193
Wyoming		\$425	\$458	\$312	\$217	\$131	\$51	\$25	-\$23

* M = Medicaid expansion state, T = state terminates expansion if match rate is reduced.

Source: George Washington University analysis.

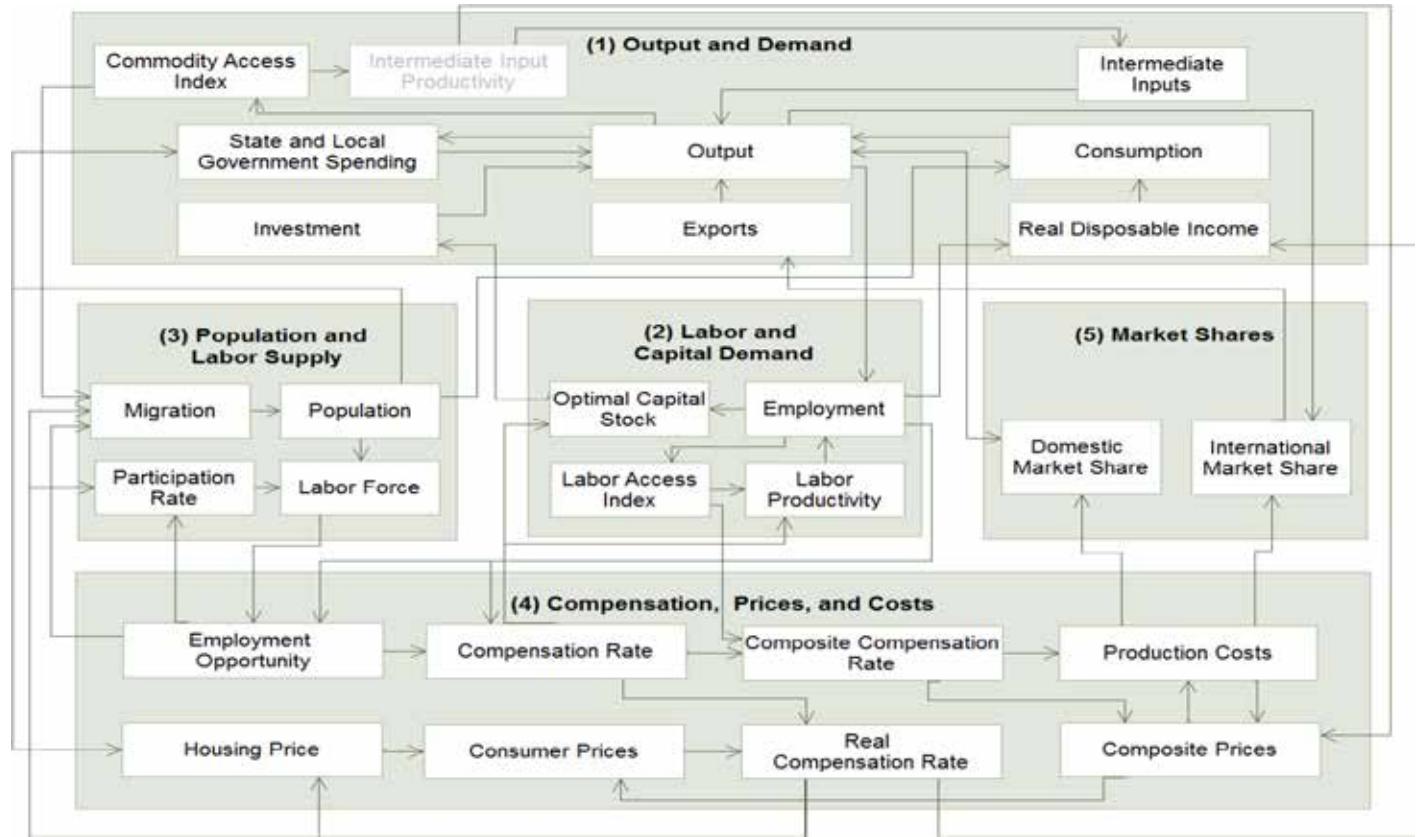
Appendix B. Study Methods

Our approach is similar to the methodology described in our previous reports.¹ We use REMI's PI+ model (version 2.0), which is a dynamic, structural equation system that has been widely used for a variety of economic analyses by public agencies, state legislatures, universities, and private clients across the nation.² More information about the model, its methodology, and data sources is available at REMI's website (www.remi.com). The figure below illustrates the structural linkages in the model. The economic, demographic, and employment data used in PI+ come from a variety of sources, particularly from the Bureau of Economic Analysis.

Researchers at George Washington University estimated changes in federal funds (spending or revenue) for all major provisions of the BCRA for all states for every year from calendar year 2018 to 2026. At the national level, our estimates are aligned with the Congressional Budget

Office's (CBO's) June 26 estimates³ and we allocated these changes to every state. The state-level estimates were then applied as policy changes (or inputs) to the economic baselines in the PI+ model. The model includes year- and state-specific baseline projections for models of employment and other economic parameters for each state and modifies the estimates based on changes in the inputs. Estimates of the effects of the BCRA are based on differences between the baseline and estimates that result after the addition or subtraction of funds in various parts of the economies. For example, changes related to direct health care spending, such as changes in Medicaid spending or health insurance tax credits, are modeled as changes in hospital, ambulatory, pharmaceutical, and long-term care spending, while changes in general taxes are related to changes in general consumer or business consumption.

PI+ Model and System of Equations



Source: Regional Economic Models, Inc. (REMI).

The BCRA's tax cuts predominantly help those with high incomes. Analyses by the Urban Institute-Brookings Tax Policy Center found that 67 percent of the tax reductions help those in the top 20 percent of income.⁴ Economic research indicates that tax cuts, which primarily help high-income people, have less of a stimulative effect than spending or transfers for low- or moderate-income people.⁵ Essentially, if a low- or moderate-income person gains \$1,000 in benefits, the income gained will rapidly translate into about \$1,000 in additional consumption of goods and services, providing rapid stimulus to economies and employment. But if a high-income person gains an additional \$1,000 through tax cuts, much of it will be saved and less spent, resulting in less of a stimulative effect in the near term.

However, the tax module in PI+ does not account for the distribution of income by those receiving the tax gains. After consultation with REMI economists, we adjusted estimates of the effects of tax repeal policies to account for lower levels of the consumption by those with high incomes. Our estimates of the marginal propensity to consume among those in the top quintile of income were based on 2015 data from the Bureau of Labor Statistics and the Consumer Expenditure Survey,⁶ which indicated that expected consumption should be reduced by about one-third. These adjustments were applied to three tax repeal categories for individuals that are skewed to those with high incomes, noted below. To be conservative, we apply these adjustments only to those three categories and not to the other tax categories. It is likely that most of the other individual and business tax changes also preferentially help those with high incomes, and thus also are somewhat less stimulative. Thus, we probably still overestimate the extent to which overall BCRA tax cuts enhance employment or economic growth.

In our January publication, we estimated the effects of repeal on state and local tax revenues, but do not do so in this report. Many of the BCRA's economic effects are due to federal tax policy changes. When federal tax policies change, states often "piggyback" on the federal changes, changing state taxes, too.⁷ While federal tax cuts might lead to increases in gross state products because of

increased economic activity, piggybacking would reduce state tax revenue because state taxes are also cut. Since we do not know the extent to which states would adopt the BCRA's federal tax changes, we cannot estimate effects on state and local tax revenues. If states do not piggyback on the federal changes, state and local revenues may rise, but if they piggyback, they likely will fall.

Our findings are generally compatible with other recent studies that analyzed the potential economic and employment effects of repealing the ACA, including studies by the UC Berkeley Center for Labor Research and Education⁸ and the Economic Policy Institute.⁹ The principal policy difference is that this report provides a detailed analysis of the consequences of the BCRA, as passed by the U.S. House of Representatives. Some technical differences also exist. The Berkeley report used IMPLAN, a well-known regional economic model, while the Economic Policy Institute used a set of economic multipliers based on its analysis of the literature. Our study used REMI's PI+, which is a more sophisticated model that has dynamic and interstate capabilities.

We used the following methods to allocate changes for each state. To conduct the analysis, we estimate each component separately, but the total model includes all components, estimated jointly. All estimates in this report were developed so that the sum of state changes in spending or tax revenue is about the same as the CBO's national level estimates for each provision.¹⁰ Three important coverage-related changes are:

1. Medicaid changes. Using recent estimates of additional federal funding for Medicaid expansions¹¹ and state estimates of 2017 expenditures (from CMS-37 reports filed by states), we developed baseline estimates of federal funding for Medicaid expansions and overall Medicaid programs through 2026. We partitioned state effects in three phases. The first phase assumed that the seven states (Arkansas, Illinois, Indiana, Michigan, New Hampshire, New Mexico, and Washington) that have state legislation will automatically terminate expansions if federal matching rates change. Next, there are additional,

but more gradual reductions in expansion funding in the remaining expansion states. It seems plausible that some states will completely terminate their expansions, while others will find ways to curtail costs without complete termination, but we are unable to predict which or when, so we spread these reductions proportionately across all expansion states. Under the BCRA, the federal matching rate gradually declines between 2020 and 2024, at which point it reaches the “regular” matching rate also used in the AHCA. Finally, we then gradually reduce federal funding proportionately across all states, including nonexpansion states, in response to the per capita allocation method and other changes in Medicaid policies. The capped Medicaid payments would be inflated by the Consumer Price Index – Medical Care component (plus 1 percent for some categories of enrollees) from 2020 to 2024, but beginning in 2025 the inflation factor would be reduced to the Consumer Price Index for All Items – Urban. Thus, the greatest reductions occur among the seven states that automatically terminate their expansions, followed by the other expansion states, but all states have some Medicaid reductions that gradually deepen over time.

2. Revised premium tax credits. Like the ACA premium tax credits, the BCRA tax credits are adjusted based on income and the cost of insurance in each locale, but other features are changed. One key change is that the insurance benchmark used to establish the credit’s level is reduced from a 70 percent actuarial value to 58 percent, so that most consumers would face much higher deductibles and cost-sharing. The BCRA modifies the age gradient, so that credits will tend to be higher for young adults, but much lower for those who are older. Finally the income criteria are shifted to include those with incomes below poverty in states that do not expand Medicaid, but end at 350 percent of the poverty line. Our model is based on the actual state distribution of premium tax credits, but modified to account for the distribution of younger and older adults in each state. Like the CBO, we anticipate that relatively few people with incomes below poverty would use the tax credits since the

cost-sharing reductions will expire in 2020, when the new system begins, so that poor adults purchasing insurance would face extremely high deductibles and cost-sharing.

3. State Stability and Innovation Fund. This component of the legislation includes short- and long-term assistance for states that can be used to address problems in state insurance markets. In the absence of guidance in the BCRA about how funds should be allocated to states, we used estimated allocations of the AHCA’s Patient and State Stability Fund for fiscal year 2018 by the Oliver Wyman consulting firm.¹² The Patient and State Stability Fund was designed to help states with greater financial problems due to uncompensated care and uninsurance. We aligned national totals to the CBO annual estimates. States and CMS have flexibility in applying for and authorizing these funds and gradually rising matching rates are required of states for the long-term fund, so actual use of funds might be lower than amounts authorized.

Changes related to health spending were translated into inputs for consumer demand for hospital care, ambulatory care, long-term care, pharmaceuticals, or insurance administration, using data from the 2014 Medical Expenditure Panel Survey. Changes in Medicaid and Medicare Disproportionate Share Hospital (DSH) payments were allocated to hospital care.

A variety of other state allocation methods were used for all remaining provisions:

4. Penalty payments for individuals and employers were allocated in proportion to the number of uninsured in each state, using the 2015 American Community Survey (ACS).
5. Safety net funding for nonexpansion states. This was based on the 19 nonexpansion states (as of May 2017) and the number of people below 135 percent of the federal poverty level, according to the 2015 ACS.
6. Opioid assistance. We allocated funds to states in proportion to the distribution of opioid deaths in 2015.¹³

7. Changes in Medicaid DSH payment reductions. We allocated funds to non-expansion states, based on estimates of currently planned DSH payment reductions.¹⁴
8. Provider tax reduction. We used General Accounting Office and Kaiser Family Foundation data about the levels of provider taxes in 2016.¹⁵
9. Medicaid and CHIP quality bonuses and BCRA implementation fund. These were allocated across states as funding for state government revenue.
10. Medicare DSH reductions. These were modeled for changes in the hospital sector, allocated based on Urban Institute estimates of the number of uninsured people in each state, after the partial ACA repeal.¹⁶
11. Elimination of the Prevention and Public Health Fund. This was based on the fiscal year 2016 state allocations.¹⁷

The effect of tax repeal changes was based on the PI+ tax module, treating the changes as consumer/personal or business tax changes for the relevant type of tax change:

12. Repeal of tax on high-cost health insurance premiums (i.e., the Cadillac tax). Modeled as changes in sales taxes on net health insurance costs for businesses.
13. Repeal of net investment tax. Modeled as a personal tax, allocated to states based on the top quintile of income in the 2015 ACS. Consumption adjusted due to high income.
14. Changes related to health savings accounts. Modeled as changes in personal taxes by consumption (Section 208) or population (Sections 216 and 217).

15. Repeal of medical device taxes. Based on consumer taxes on therapeutic appliances and devices.
16. Repeal of elimination of deduction for expenses related to Part D subsidy. Modeled based on business tax based on the production cost of insurance carriers.
17. Change in the threshold for the medical care deduction (repeal of the chronic care tax). Allocated in proportion to total health expenditures.¹⁸ Consumption adjusted due to high income.
18. Repeal of the Medicare tax increase for high-income people. Modeled as a personal tax decrease, allocated to states based on the top quintile of income in the 2015 ACS. This change begins in 2023 under the BCRA. Consumption adjusted due to high income.
19. Repeal of tax on prescription medications. Modeled as business tax on pharmaceutical and other medical products (a category of the chemical manufacturing industry), allocated by retail prescription drug fills at pharmacies in 2016.¹⁹
20. Repeal of health insurance tax. Modeled as a business tax on insurance carriers, allocated by direct net insurance premiums written in each state, based on National Association of Insurance Commissioners data for 2014.²⁰
21. Repeal of tanning tax. Modeled as sales tax on personal services.
22. Remuneration from certain insurers. Modeled as business tax based on production costs of insurance carriers.
23. Other effects on revenues and outlays. Modeled as personal taxes and allocated by state population.

NOTES TO STUDY METHODS

- ¹ L. Ku, E. Steinmetz, E. Brantley et al., *The American Health Care Act: Economic and Employment Consequences for States* (The Commonwealth Fund, June 2017); and L. Ku, E. Steinmetz, E. Brantley et al., *Repealing Federal Health Reform: The Economic and Employment Consequences for States* (The Commonwealth Fund, Jan. 2017).
- ² Examples of the use of REMI models include: J. Z. Ayanian, G. M. Ehrlich, D. R. Grimes et al., “*Economic Effects of Medicaid Expansion in Michigan*,” *New England Journal of Medicine*, Feb. 2, 2017 376(5):407–10; L. Ku, B. Bruen, E. Steinmetz et al., *The Economic and Employment Costs of Not Expanding Medicaid in North Carolina: A County-Level Analysis* (Cone Health Foundation and Kate B. Reynolds Charitable Trust, Dec. 2014); R. T. Carey and G. M. Mikota, *The Projected Economic & Fiscal Impact of Exempting Military Pension Income from South Carolina Income Tax* (Strom Thurmond Institute, Clemson University, Feb. 18, 2015); and D. Wei and A. Rose, “*Macroeconomic Impacts of the California Global Warming Solutions Act on the Southern California Economy*,” *Economics of Energy and Environmental Policy*, Sept. 2014 3(2):101–18.
- ³ Congressional Budget Office, *Cost Estimate: H.R. 1628, Better Care Reconciliation Act of 2017* (CBO, June 26, 2017).
- ⁴ H. Gleckman, *The Senate Leadership's Health Bill Is a Big Tax Cut, Especially for the Top One Percent* (Urban Institute–Brookings Institution Tax Policy Center, June 26, 2017).
- ⁵ C. J. Whalen and F. Reichling, *The Fiscal Multiplier and Economic Policy Analysis in the United States*, Working Paper (Congressional Budget Office, Feb. 2015); G. Coenen, C. J. Erceg, C. Freedman et al., “*Effects of Fiscal Stimulus in Structural Models*,” *American Economic Journal: Macroeconomics*, Jan. 2012 4(1):22–68; and M. Zandi, “*At Last, the U.S. Begins a Serious Fiscal Debate*,” *Moody's Analytics*, April 14, 2011.
- ⁶ Bureau of Labor Statistics, “*Deciles of Income Before Taxes: Annual Expenditure Means, Shares, Standard Errors, and Coefficients of Variation, Table 1110, Consumer Expenditure Survey*” (BLS, 2015).
- ⁷ N. Francis, *What Federal Business Tax Changes Mean for the States* (Tax Policy Center, Urban Institute and Brookings Institution, April 20, 2017).
- ⁸ L. Lucia and K. Jacobs, *California's Projected Economic Losses Under ACA Repeal* (University of California, Berkeley, Center for Labor Research and Education, Dec. 2016).
- ⁹ J. Bivens, *Repealing the Affordable Care Act Would Cost Jobs in Every State* (Economic Policy Institute, Jan. 31, 2017).
- ¹⁰ Congressional Budget Office, *Cost Estimate: H.R. 1628, Better Care Reconciliation Act of 2017* (CBO, June 26, 2017).
- ¹¹ L. Ku, E. Steinmetz, E. Brantley et al., *The Economic and Employment Consequences of Repealing Federal Health Reform: A 50 State Analysis* (Milken Institute School of Public Health, George Washington University, Jan. 2017).
- ¹² K. Giesa and T. Van Tol, *Estimating State Allocations Under the AHCA's Patient and State Stability Fund* (Oliver Wyman Health, May 4, 2017).
- ¹³ Kaiser Family Foundation, *Opioid Overdose Deaths by Gender, 2015* (Kaiser, n.d.).
- ¹⁴ Dobson, DaVanzo & Associates and KNG Health analysis cited by: Medicaid and CHIP Payment and Access Commission, *Report to Congress on Medicaid Disproportionate Share Hospital Payments* (MACPAC, Feb. 2016).
- ¹⁵ Kaiser Family Foundation, *States and Medicaid Provider Taxes or Fees* (Kaiser, updated June 27, 2017); and General Accounting Office, *Medicaid Financing: Questionnaire Data on States' Methods for Financing Medicaid Payments from 2008 Through 2012* (GAO-15-227SP, March 2015), an E-supplement to GAO-14-627 (GAO, reissued Dec. 7, 2015).
- ¹⁶ L. J. Blumberg, M. Buettgens, and J. Holahan, *Implications of Partial Repeal of the ACA Through Reconciliation* (Urban Institute, Dec. 2016).
- ¹⁷ Trust for America's Health, *Special Analysis: Prevention and Public Health Fund: Federal and State Allocations* (TFAH, Jan. 2017).
- ¹⁸ Kaiser Family Foundation, *Health Care Expenditures by State of Residence, 2014* (Kaiser, n.d.).
- ¹⁹ Kaiser Family Foundation, *Total Retail Sales for Prescription Drugs Filled at Pharmacies* (Kaiser, 2016).
- ²⁰ National Association of Insurance Commissioners, *2014 Market Share Reports for the Top 125 Accident and Health Insurance Groups and Companies by State and Country-wide* (NAIC, 2015).



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