The following appendices are supplemental to a Commonwealth Fund issue brief, L. Ku, E. Steinmetz, E. Brantley et al., *The Better Care Reconciliation Act: Economic and Employment Consequences for States* (The Commonwealth Fund, July 2017), available on the Fund's website at: http://www.commonwealthfund.org/publications/issue-briefs/2017/jul/bcra-economic-employment-consequences-states.

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	-1.8
Arizona	M	20.3	20.7	13.1	8.3	3.8	-1.2	-4.3	-7.3	-12.8
Arkansas	M, T	2.5	2.2	-5.0	-8.0	-10.5	-13.8	-14.5	-15.2	-16.8
California	M	99.6	53.3	-2.9	-30.5	-50.5	-62.9	-74.9	-90.0	-117.0
Colorado	M	18.5	17.5	11.5	7.9	4.4	1.4	-0.2	-2.4	-7.2
Connecticut	M	8.8	5.0	-3.9	-9.6	-14.1	-18.2	-21.2	-24.3	-28.2
Delaware	M	2.0	1.2	-1.0	-2.4	-3.5	-4.7	-5.5	-6.2	-7.2
Dist. Columbia	M	1.9	0.9	-0.9	-2.1	-3.0	-3.9	-4.7	-5.4	-6.3
Florida		50.4	44.1	-2.7	-22.7	-34.5	-54.5	-58.9	-64.6	-78.0
Georgia		28.8	30.0	12.4	3.4	-3.5	-13.6	-16.8	-20.4	-27.5
Hawaii	M	4.4	3.7	2.9	2.4	1.9	1.8	1.6	1.2	0.2
Idaho		4.1	3.9	1.7	0.7	-0.2	-1.4	-1.8	-2.2	-3.3
Illinois	M, T	11.2	6.2	-29.0	-42.4	-52.0	-62.8	-63.6	-65.1	-71.3
Indiana	M, T	8.6	6.2	-10.1	-17.9	-23.8	-30.5	-32.9	-35.2	-39.3
Iowa	M	7.3	5.5	-0.5	-3.8	-6.4	-9.1	-10.5	-12.0	-14.6
Kansas		7.9	8.1	3.6	1.2	-0.9	-3.5	-4.6	-5.7	-8.0
Kentucky	M	7.0	2.6	-7.2	-13.0	-17.5	-22.2	-25.5	-28.4	-32.1
Louisiana	M	13.1	13.0	2.5	-3.9	-8.9	-14.8	-15.8	-18.2	-22.2
Maine		2.6	1.8	-1.9	-4.2	-5.9	-8.0	-9.1	-10.1	-11.6
Maryland	M	14.3	9.9	-1.2	-8.4	-14.3	-19.8	-23.9	-28.1	-34.0
Massachusetts	M	16.6	13.5	-3.9	-15.6	-24.9	-34.3	-40.2	-46.2	-54.3
Michigan	M, T	-2.2	-9.7	-43.0	-56.5	-65.9	-76.4	-79.0	-81.2	-86.3
Minnesota	M	13.8	10.0	-0.8	-7.5	-13.5	-19.9	-24.0	-27.8	-33.5
Mississippi		7.2	7.7	3.4	1.0	-1.0	-3.5	-4.6	-5.7	-7.6
Missouri		14.0	12.9	0.2	-6.7	-11.9	-18.5	-21.6	-24.9	-30.1
Montana	M	2.5	1.9	0.0	-1.0	-1.9	-2.8	-3.3	-3.9	-4.7
Nebraska		5.1	4.8	1.4	-0.4	-1.9	-3.7	-4.4	-5.2	-6.8
Nevada	M	8.5	6.4	2.7	1.1	-0.3	-1.3	-2.0	-3.0	-5.1
New Hampshire	M, T	2.6	1.9	-2.0	-4.1	-5.8	-7.4	-8.1	-8.9	-10.2
New Jersey	M	22.5	13.8	-5.7	-18.1	-27.9	-37.1	-44.2	-51.0	-60.0
New Mexico	M, T	-0.1	-1.1	-7.3	-9.4	-11.0	-12.7	-12.8	-12.9	-13.7
New York	M	47.5	37.9	-2.2	-30.2	-53.4	-77.0	-94.8	-111.1	-131.7
North Carolina		23.0	21.1	1.7	-8.1	-14.5	-23.3	-26.1	-29.4	-36.2
North Dakota	M	2.7	2.4	0.5	-0.7	-1.8	-2.8	-3.4	-3.9	-4.9
Ohio	M	19.6	6.9	-23.3	-41.1	-54.9	-68.8	-78.9	-87.6	-98.8
Oklahoma		10.8	12.1	6.9	3.9	1.3	-2.1	-3.3	-4.5	-7.1
Oregon	M	7.6	1.5	-6.2	-10.3	-13.8	-16.7	-19.2	-21.6	-25.1
Pennsylvania	M	25.4	12.4	-19.2	-39.2	-55.4	-72.9	-85.4	-96.4	-109.9
Rhode Island	M	1.7	0.3	-2.7	-4.5	-6.0	-7.4	-8.5	-9.5	-10.8
South Carolina		11.7	11.6	4.7	1.1	-1.6	-5.1	-6.4	-7.8	-10.8
South Dakota		2.4	2.1	0.4	-0.5	-1.3	-2.2	-2.6	-3.1	-3.9
Tennessee		17.0	16.1	1.1	-7.4	-14.2	-22.8	-26.7	-30.2	-35.8
Texas		107.8	125.8	88.0	65.2	43.7	15.8	6.1	-4.2	-26.2
Utah		10.4	10.7	7.1	5.3	3.7	2.0	1.5	0.7	-1.5
Vermont	M	1.4	1.1	-0.5	-1.5	-2.3	-3.2	-3.7	-4.3	-5.0
Virginia		20.6	19.0	6.8	0.0	-5.2	-10.9	-13.4	-16.6	-22.7
Washington	M, T	10.3	8.1	-4.2	-8.6	-11.8	-14.0	-13.4	-13.8	-16.9
West Virginia	M	2.6	1.2	-2.6	-5.0	-6.9	-9.0	-10.4	-11.6	-13.1
Wisconsin		11.2	9.4	-2.9	-9.3	-14.1	-19.9	-22.0	-24.3	-28.5
Wyoming		1.9	1.9	1.3	0.9	0.5	0.2	0.0	-0.1	-0.6

* 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	-1.6
Arizona	M	1.2	0.8	-2.1	-4.1	-5.8	-8.1	-9.7	-11.0	-12.3
Arkansas	M, T	-1.9	-2.3	-5.3	-6.4	-7.4	-8.9	-9.4	-9.8	-10.2
California	M	-2.1	-21.3	-41.6	-52.4	-60.6	-69.4	-79.0	-86.7	-93.5
Colorado	M	0.6	-0.6	-2.5	-3.6	-4.7	-6.0	-7.0	-7.8	-8.7
Connecticut	M	-0.5	-2.5	-6.0	-8.2	-9.9	-12.0	-13.8	-15.2	-16.5
Delaware	M	-0.1	-0.5	-1.3	-1.9	-2.3	-2.8	-3.3	-3.6	-3.9
Dist. Columbia	M	-0.1	-0.5	-1.3	-1.8	-2.2	-2.7	-3.1	-3.5	-3.8
Florida		-1.1	-4.6	-22.1	-29.7	-34.1	-43.3	-46.3	-49.2	-52.0
Georgia		0.9	0.5	-5.3	-8.3	-10.4	-14.5	-16.1	-17.5	-18.9
Hawaii	M	0.2	-0.2	-0.5	-0.7	-1.0	-1.2	-1.4	-1.6	-1.8
Idaho		0.0	-0.2	-1.1	-1.5	-1.8	-2.4	-2.7	-2.9	-3.2
Illinois	M, T	-8.6	-10.7	-23.7	-27.9	-31.1	-36.1	-37.3	-38.3	-39.5
Indiana	M, T	-2.7	-4.0	-10.1	-12.8	-14.8	-17.7	-19.1	-20.2	-21.3
Iowa	M	-0.4	-1.3	-3.2	-4.2	-5.0	-6.1	-6.8	-7.4	-8.0
Kansas		0.2	0.0	-1.6	-2.5	-3.2	-4.3	-4.9	-5.4	-5.9
Kentucky	M	-1.0	-3.2	-6.9	-8.9	-10.6	-12.6	-14.3	-15.6	-16.8
Louisiana	M	-0.2	-1.0	-5.1	-7.3	-8.8	-11.2	-11.6	-12.6	-13.7
Maine		-0.3	-0.7	-2.3	-3.2	-3.8	-4.8	-5.3	-5.8	-6.2
Maryland	M	-0.1	-2.5	-6.8	-9.4	-11.5	-14.1	-16.3	-18.1	-19.6
Massachusetts	M	-0.1	-1.6	-8.6	-13.1	-16.7	-21.1	-24.4	-27.1	-29.5
Michigan	M, T	-10.1	-13.2	-27.3	-32.1	-35.6	-40.5	-42.2	-43.5	-44.9
Minnesota	M	-0.3	-2.2	-6.0	-8.3	-10.4	-13.2	-15.2	-16.8	-18.2
Mississippi		0.2	-0.1	-1.6	-2.5	-3.1	-4.2	-4.7	-5.2	-5.7
Missouri		-0.2	-1.0	-5.8	-8.4	-10.3	-13.2	-14.9	-16.4	-17.8
Montana	M	-0.1	-0.5	-1.2	-1.6	-1.9	-2.3	-2.6	-2.9	-3.1
Nebraska		0.0	-0.3	-1.4	-2.0	-2.5	-3.2	-3.6	-3.9	-4.2
Nevada	M	0.0	-0.9	-2.0	-2.5	-2.9	-3.4	-3.8	-4.2	-4.6
New Hampshire	M, T	-0.7	-1.0	-2.5	-3.1	-3.6	-4.3	-4.6	-4.9	-5.2
New Jersey	M	-0.6	-5.2	-12.5	-17.0	-20.7	-25.0	-28.9	-32.0	-34.7
New Mexico	M, T	-2.3	-2.9	-5.7	-6.4	-7.0	-7.8	-7.9	-8.1	-8.2
New York	M	1.8	-2.3	-19.1	-31.5	-42.1	-54.7	-65.3	-73.7	-81.3
North Carolina		-0.4	-2.0	-9.2	-12.7	-14.9	-18.8	-20.5	-22.1	-23.7
North Dakota	M	0.0	-0.3	-0.9	-1.2	-1.5	-1.8	-2.1	-2.3	-2.4
Ohio	M	-2.8	-9.1	-20.9	-27.6	-32.9	-39.2	-44.5	-48.7	-52.3
Oklahoma		0.4	0.3	-1.6	-2.6	-3.4	-4.8	-5.5	-6.0	-6.5
Oregon	M	-1.0	-3.8	-6.9	-8.5	-10.0	-11.6	-13.2	-14.5	-15.6
Pennsylvania	M	-2.3	-9.2	-22.4	-30.5	-37.2	-45.8	-52.7	-58.1	-62.8
Rhode Island	M	-0.3	-1.1	-2.4	-3.2	-3.8	-4.6	-5.2	-5.8	-6.2
South Carolina		0.2	-0.1	-2.4	-3.6	-4.4	-5.8	-6.5	-7.1	-7.7
South Dakota		0.0	-0.2	-0.9	-1.2	-1.5	-1.9	-2.1	-2.3	-2.5
Tennessee		0.2	-0.6	-5.4	-8.0	-10.0	-13.0	-14.6	-15.9	-17.3
Texas		7.5	8.6	-4.3	-11.4	-17.4	-28.0	-32.4	-36.0	-40.3
Utah		0.5	0.3	-1.0	-1.6	-2.1	-2.8	-3.2	-3.5	-3.8
Vermont	M	-0.1	-0.3	-0.9	-1.2	-1.5	-1.9	-2.2	-2.4	-2.6
Virginia		0.4	-0.6	-4.7	-6.8	-8.4	-10.8	-12.0	-13.1	-14.3
Washington	M, T	-2.9	-4.0	-8.8	-10.4	-11.6	-13.1	-13.6	-14.0	-14.5
West Virginia	M	-0.3	-1.1	-2.8	-3.8	-4.5	-5.5	-6.2	-6.8	-7.3
Wisconsin		-0.9	-1.8	-6.1	-8.2	-9.8	-12.2	-13.3	-14.3	-15.2
Wyoming		0.0	0.0	-0.2	-0.3	-0.3	-0.4	-0.5	-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	-$243
Arizona	M	$1,881	$2,000	$1,366	$974	$584	$120	-$166	-$486	-$1,143
Arkansas	M, T	$266	$259	-$334	-$603	-$849	-$1,186	-$1,295	-$1,416	-$1,649
California	M	$11,566	$7,231	$1,171	-$1,877	-$4,228	-$5,750	-$7,194	-$9,261	-$13,462
Colorado	M	$1,905	$1,891	$1,314	$985	$648	$341	$192	-$57	-$701
Connecticut	M	$1,151	$801	-$173	-$826	-$1,368	-$1,899	-$2,315	-$2,782	-$3,445
Delaware	M	$219	$152	-$68	-$215	-$341	-$482	-$584	-$693	-$845
Dist. Columbia	M	$293	$191	-$67	-$237	-$390	-$556	-$697	-$843	-$1,049
Florida		$4,565	$4,217	$142	-$1,686	-$2,842	-$4,881	-$5,435	-$6,197	-$7,971
Georgia		$2,717	$2,902	$1,301	$480	-$185	-$1,221	-$1,596	-$2,043	-$3,003
Hawaii	M	$445	$391	$325	$286	$242	$234	$222	$174	$50
Idaho		$344	$344	$167	$85	$13	-$89	-$122	-$165	-$282
Illinois	M, T	$1,518	$1,111	-$2,306	-$3,778	-$4,959	-$6,329	-$6,647	-$7,075	-$8,188
Indiana	M, T	$952	$787	-$679	-$1,436	-$2,064	-$2,809	-$3,149	-$3,499	-$4,132
Iowa	M	$757	$635	$76	-$242	-$509	-$798	-$960	-$1,146	-$1,498
Kansas		$744	$785	$390	$178	-$6	-$265	-$371	-$504	-$789
Kentucky	M	$660	$347	-$502	-$1,031	-$1,489	-$1,995	-$2,391	-$2,769	-$3,289
Louisiana	M	$1,304	$1,367	$418	-$189	-$698	-$1,333	-$1,478	-$1,785	-$2,343
Maine		$229	$174	-$141	-$343	-$509	-$721	-$853	-$991	-$1,188
Maryland	M	$1,464	$1,128	$46	-$694	-$1,346	-$2,004	-$2,536	-$3,120	-$3,986
Massachusetts	M	$1,994	$1,731	-$141	-$1,464	-$2,602	-$3,811	-$4,648	-$5,577	-$6,934
Michigan	M, T	$202	-$398	-$3,337	-$4,706	-$5,802	-$7,061	-$7,593	-$8,130	-$9,060
Minnesota	M	$1,551	$1,268	$160	-$552	-$1,225	-$1,986	-$2,498	-$3,036	-$3,901
Mississippi		$580	$639	$310	$122	-$42	-$272	-$373	-$487	-$712
Missouri		$1,315	$1,277	$154	-$473	-$979	-$1,657	-$2,016	-$2,426	-$3,132
Montana	M	$220	$181	$12	-$86	-$174	-$278	-$341	-$410	-$528
Nebraska		$494	$481	$174	$5	-$138	-$325	-$408	-$510	-$716
Nevada	M	$809	$656	$322	$155	$11	-$94	-$180	-$304	-$589
New Hampshire	M, T	$292	$244	-$130	-$348	-$530	-$722	-$822	-$938	-$1,138
New Jersey	M	$2,624	$1,879	-$159	-$1,519	-$2,685	-$3,850	-$4,796	-$5,810	-$7,267
New Mexico	M, T	$62	-$7	-$529	-$737	-$916	-$1,111	-$1,161	-$1,217	-$1,362
New York	M	$6,103	$5,223	$721	-$2,542	-$5,464	-$8,550	-$11,044	-$13,607	-$17,194
North Carolina		$2,120	$2,038	$339	-$532	-$1,146	-$2,032	-$2,359	-$2,773	-$3,657
North Dakota	M	$325	$312	$99	-$54	-$194	-$340	-$432	-$528	-$688
Ohio	M	$2,109	$1,139	-$1,631	-$3,385	-$4,876	-$6,469	-$7,723	-$8,936	-$10,603
Oklahoma		$1,035	$1,198	$731	$463	$222	-$115	-$225	-$356	-$688
Oregon	M	$765	$284	-$435	-$839	-$1,205	-$1,529	-$1,829	-$2,136	-$2,618
Pennsylvania	M	$2,720	$1,705	-$1,240	-$3,224	-$4,967	-$6,935	-$8,470	-$9,967	-$11,974
Rhode Island	M	$183	$72	-$195	-$375	-$529	-$691	-$824	-$965	-$1,147
South Carolina		$1,052	$1,092	$492	$180	-$60	-$404	-$533	-$695	-$1,070
South Dakota		$227	$211	$58	-$28	-$105	-$203	-$257	-$316	-$422
Tennessee		$1,596	$1,573	$70	-$835	-$1,606	-$2,663	-$3,234	-$3,797	-$4,670
Texas		$10,771	$12,977	$9,584	$7,601	$5,688	$2,965	$2,168	$1,159	-$1,633
Utah		$933	$1,004	$705	$562	$433	$281	$256	$183	-$81
Vermont	M	$126	$102	-$29	-$120	-$201	-$293	-$356	-$423	-$520
Virginia		$2,060	$1,981	$786	$91	-$478	-$1,139	-$1,477	-$1,928	-$2,808
Washington	M, T	$1,309	$1,127	-$199	-$713	-$1,131	-$1,454	-$1,422	-$1,528	-$2,089
West Virginia	M	$285	$188	-$168	-$405	-$610	-$842	-$1,014	-$1,179	-$1,404
Wisconsin		$1,113	$1,001	-$115	-$730	-$1,233	-$1,862	-$2,141	-$2,460	-$3,054
Wyoming		$220	$237	$159	$108	$60	$15	-$2	-$30	-$105

* 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	-$436
Arizona	M	$3,011	$3,210	$2,164	$1,504	$848	$65	-$426	-$971	-$2,048
Arkansas	M, T	$558	$566	-$464	-$925	-$1,341	-$1,910	-$2,080	-$2,275	-$2,682
California	M	$19,530	$12,192	$1,902	-$3,245	-$7,172	-$9,747	-$12,193	-$15,683	-$22,707
Colorado	M	$3,250	$3,230	$2,238	$1,671	$1,095	$571	$315	-$107	-$1,194
Connecticut	M	$2,011	$1,428	-$216	-$1,296	-$2,182	-$3,051	-$3,717	-$4,475	-$5,570
Delaware	M	$371	$257	-$119	-$369	-$584	-$823	-$995	-$1,179	-$1,437
Dist. Columbia	M	$494	$320	-$120	-$408	-$666	-$948	-$1,185	-$1,433	-$1,778
Florida		$7,280	$6,754	$146	-$2,828	-$4,688	-$7,991	-$8,882	-$10,115	-$12,962
Georgia		$4,705	$5,029	$2,306	$930	-$165	-$1,877	-$2,471	-$3,191	-$4,800
Hawaii	M	$779	$697	$581	$510	$430	$414	$391	$306	$88
Idaho		$593	$588	$276	$130	$1	-$178	-$239	-$318	-$524
Illinois	M, T	$2,825	$2,162	-$3,675	-$6,187	-$8,179	-$10,482	-$10,975	-$11,681	-$13,596
Indiana	M, T	$2,067	$1,828	-$825	-$2,178	-$3,274	-$4,549	-$5,057	-$5,611	-$6,758
Iowa	M	$1,639	$1,430	$303	-$324	-$831	-$1,362	-$1,599	-$1,905	-$2,590
Kansas		$1,366	$1,448	$741	$364	$39	-$412	-$589	-$814	-$1,322
Kentucky	M	$1,266	$753	-$742	-$1,656	-$2,441	-$3,306	-$3,955	-$4,584	-$5,490
Louisiana	M	$2,512	$2,663	$969	-$95	-$971	-$2,050	-$2,251	-$2,739	-$3,715
Maine		$417	$324	-$222	-$567	-$847	-$1,202	-$1,417	-$1,645	-$1,981
Maryland	M	$2,394	$1,865	$122	-$1,070	-$2,113	-$3,162	-$4,000	-$4,927	-$6,312
Massachusetts	M	$3,412	$2,954	-$193	-$2,398	-$4,286	-$6,290	-$7,671	-$9,213	-$11,473
Michigan	M, T	$722	-$236	-$5,235	-$7,553	-$9,385	-$11,480	-$12,315	-$13,188	-$14,805
Minnesota	M	$2,767	$2,286	$338	-$904	-$2,064	-$3,364	-$4,211	-$5,115	-$6,609
Mississippi		$1,103	$1,233	$651	$325	$46	-$341	-$493	-$672	-$1,066
Missouri		$2,359	$2,321	$387	-$684	-$1,539	-$2,681	-$3,260	-$3,936	-$5,147
Montana	M	$420	$351	$34	-$147	-$308	-$493	-$601	-$721	-$937
Nebraska		$974	$959	$382	$72	-$184	-$511	-$634	-$800	-$1,179
Nevada	M	$1,346	$1,096	$528	$239	-$10	-$195	-$347	-$560	-$1,040
New Hampshire	M, T	$493	$410	-$215	-$580	-$882	-$1,202	-$1,372	-$1,569	-$1,904
New Jersey	M	$4,431	$3,269	-$18	-$2,193	-$4,041	-$5,870	-$7,319	-$8,898	-$11,220
New Mexico	M, T	$124	$13	-$867	-$1,218	-$1,517	-$1,842	-$1,921	-$2,011	-$2,255
New York	M	$10,814	$9,238	$1,609	-$3,772	-$8,527	-$13,507	-$17,431	-$21,541	-$27,454
North Carolina		$3,685	$3,560	$679	-$782	-$1,801	-$3,278	-$3,804	-$4,483	-$5,976
North Dakota	M	$607	$587	$195	-$89	-$346	-$611	-$777	-$948	-$1,239
Ohio	M	$3,875	$2,303	-$2,430	-$5,384	-$7,861	-$10,493	-$12,485	-$14,442	-$17,246
Oklahoma		$1,817	$2,117	$1,311	$849	$437	-$137	-$316	-$532	-$1,104
Oregon	M	$1,313	$503	-$727	-$1,424	-$2,051	-$2,607	-$3,118	-$3,645	-$4,468
Pennsylvania	M	$4,841	$3,193	-$1,772	-$5,083	-$7,957	-$11,182	-$13,639	-$16,066	-$19,396
Rhode Island	M	$314	$139	-$296	-$587	-$834	-$1,095	-$1,305	-$1,529	-$1,823
South Carolina		$1,865	$1,958	$940	$417	$21	-$548	-$746	-$999	-$1,633
South Dakota		$407	$380	$102	-$55	-$194	-$371	-$466	-$570	-$760
Tennessee		$2,848	$2,831	$243	-$1,292	-$2,585	-$4,365	-$5,296	-$6,224	-$7,714
Texas		$18,516	$22,388	$16,615	$13,228	$9,995	$5,407	$4,115	$2,447	-$2,297
Utah		$1,591	$1,717	$1,209	$963	$742	$485	$441	$317	-$131
Vermont	M	$216	$174	-$52	-$207	-$343	-$500	-$606	-$721	-$886
Virginia		$3,500	$3,373	$1,353	$186	-$762	-$1,865	-$2,423	-$3,170	-$4,641
Washington	M, T	$2,364	$2,072	-$188	-$1,062	-$1,758	-$2,273	-$2,174	-$2,321	-$3,275
West Virginia	M	$520	$357	-$266	-$678	-$1,028	-$1,423	-$1,704	-$1,977	-$2,361
Wisconsin		$2,103	$1,914	-$95	-$1,194	-$2,084	-$3,183	-$3,650	-$4,193	-$5,254
Wyoming		$425	$458	$312	$217	$131	$51	$25	-$23	-$163

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

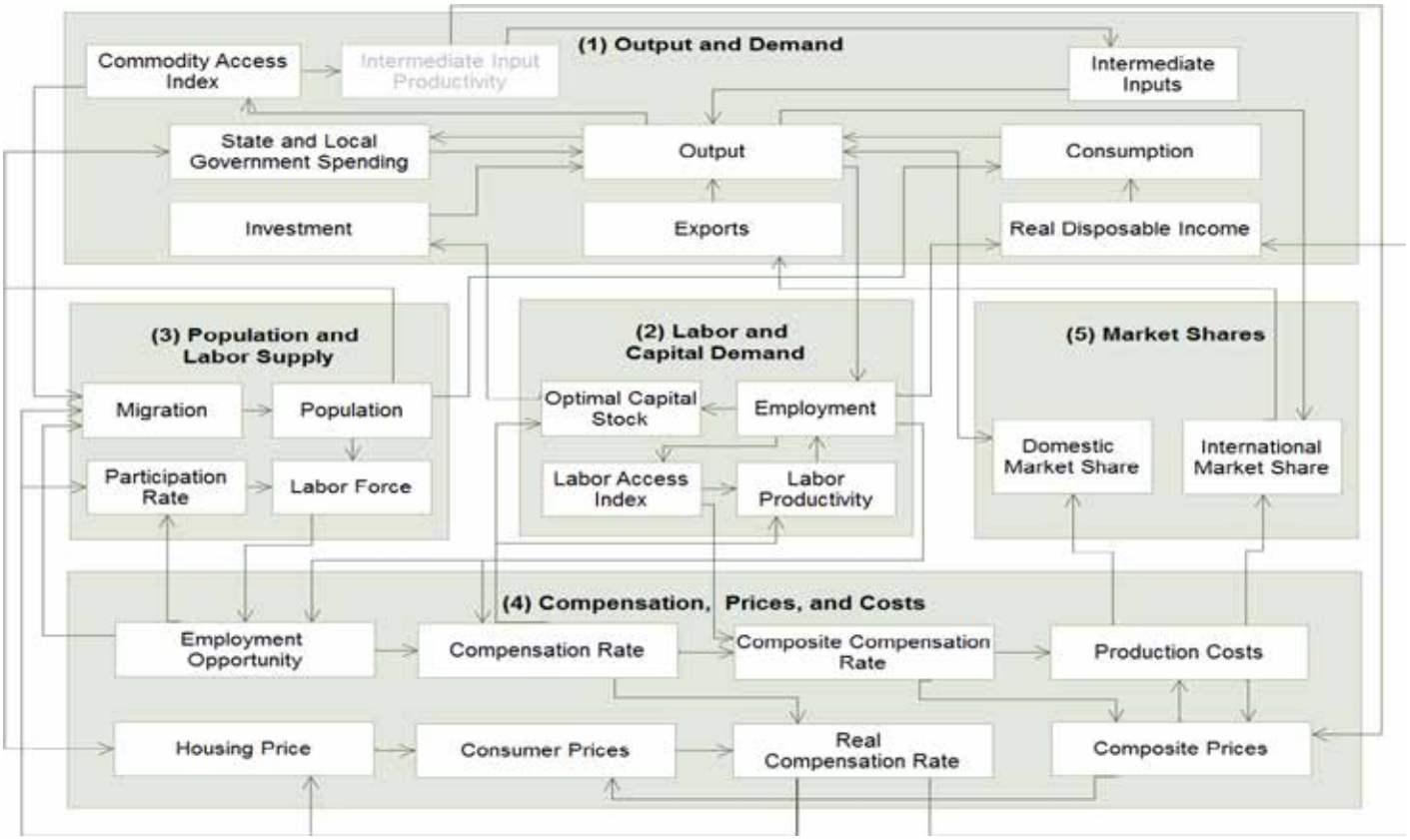
Source: George Washington University analysis.

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 estimates[3] 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 Education[8] 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 expansions[11] 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

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