The following Methods Appendix is supplemental to a Commonwealth Fund publication, L. Ku, E. Steinmetz, E. Brantley et al., "The Graham-Cassidy Proposal Would Eliminate a Third of a Million Jobs," *To the Point*, The Commonwealth Fund, Sept. 26, 2017, available on the Fund's website at: http://www.commonwealthfund.org/publications/blog/2017/sep/graham-cassidy-job-loss

Methods Appendix

This analysis uses the same basic methodology described in earlier analyses of ACA repeal and replace proposals.[1] Our analyses are based on modelling state-level economic and employment consequences associated with changes in federal funding triggered by the legislation, including both tax and health coverage–related changes, using the PI+ model (version 2) developed by Regional Economic Models Inc. PI+ 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. (More details about the model are available at www.remi.com.)

The Graham-Cassidy proposal was originally released in mid-September 2017, but a revised version was released on Sunday, September 24. Our analysis includes almost all components of the revised Graham-Cassidy bill, including: (1) repealing several ACA taxes, (2) eliminating the individual and employer insurance responsibility requirements, (3) terminating the Medicaid expansions and federal subsidies for insurance purchased in the health insurance exchanges effective in2020 and replacing it with a short-term block grant, the Market-Based Health Care Grant Program from 2020 to 2026, (4) increasing the federal matching rate for Alaska and Hawaii, (5) converting Medicaid funding to a per capita allotment with limited growth rates, (6) providing short-term funding for low-density and non-Medicaid expansion states, (7) creating a temporary Home and Community Based Services demonstration, (8) establishing a federal reinsurance fund in 2019 and 2020, (9) encouraging Health Savings Account use, (10) letting states waive various premium rating rules, (9) eliminating the Prevention and Public Health Fund, (11) terminating Medicaid funding for Planned Parenthood, and many other changes. We were unable to model Section 128, concerning non-application of cuts to Medicaid disproportionate share hospital (DSH) payments for certain states due to the lack of sufficient data.

In our earlier analyses, we aligned national estimates with the Congressional Budget Office's (CBO) detailed cost estimates for the respective bills (cited in the reports). CBO has not yet produced a complete analysis of Graham-Cassidy, although a very partial report was just released. Since it only includes estimates for non-coverage-related changes, it sheds little light on the main effects of the proposal.[2] We examined three recent independent analyses of the initial Graham-Cassidy proposal, including the block grant and Medicaid per capita cap, produced by the Center on Budget and Policy Priorities,[3] Avalere Health,[4] and the Kaiser Family Foundation.[5]. The three reports were generally consistent in their findings, although the estimated reductions in federal funding differed across the reports.[6] We decided to use Avalere's detailed estimates, which were in the middle of the range, in our analysis. This should not be interpreted as an assessment of the validity of the three estimates, but as an attempt to produce moderate estimates. The Centers for Medicare and Medicaid Services[7] and Manatt[8]

produced similar estimates of the block grant, but we focused on the other three because they also included per capita cap components of the legislation. All five estimates reveal that the block grant would transfer funds from Medicaid expansion states to states that did not expand Medicaid.

The September 24 revised bill necessitated further changes. We modified our initial analysis by computing the difference in 2020 to 2026 federal block grant levels as reported on Senator Cassidy's website.[9] These were allocated proportionate to the level of the block grant in each year, which rose from $136 billion in 2020 to $200 billion in 2026. The difference between the first and second versions of the bill was used to modify the analyses conducted by Avalere. In addition, we estimated differences in federal Medicaid funding that would be received by Alaska and Hawaii based on Sec. 129 of the revision, which lifts the Medicaid matching rate for the two states. As noted in the main paper, we have no estimates for 2027. If the temporary block grant were not renewed in 2027, federal assistance could plunge by $200 billion or more, and the employment and economic consequences for states could be much more severe. S&P Global has just released an analysis estimating a 587,000 job loss in 2027, assuming the block grant is not renewed.[10] Our estimates, which only run through 2026 and do not assume that there is no additional funding in 2027, are not directly comparable to the S&P Global estimates.

For other elements of the legislation, our estimates drew upon CBO estimates for similar provisions in earlier bills and our previous efforts to allocate federal funding changes across the states.

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[1] L. Ku, E. Steinmetz, E. Brantley et al., *Repealing Federal Health Reform: The Economic and Employment Consequences for States* (The Commonwealth Fund, Jan. 2017); L. Ku, E. Steinmetz, E. Brantley et al., *The American Health Care Act: Economic and Employment Consequences for States* (The Commonwealth Fund, June 2017); L. Ku, E. Steinmetz, E. Brantley et al., *The Better Care Reconciliation Act: Economic and Employment Consequences for States* (The Commonwealth Fund, July 2017). All are available at www.commonwealthfund.org.

[2] Congressional Budget Office, Preliminary Analysis of Legislation That Would Replace Subsidies for Health Care with Block Grants, Sept. 25, 2017, https://www.cbo.gov/system/files/115th-congress-2017-2018/costestimate/53126-health.pdf.

[3] J. Leibenluft, E. Park, M, Broaddus et al., *Like Other ACA Repeal Bills, Cassidy-Graham Plan Would Add Millions to the Uninsured, Destabilize Individual Market* (Center on Budget and Policy Priorities, Updated, Sept. 18, 2017).

[4] Avalere Health, *Graham-Cassidy-Heller-Johnson Bill Would Reduce Federal Funding to States by $215 Billion,* September 20, 2017.

[5] R. Garfield, L. Levitt, R. Rudowitz et al., *State-by-State Estimates of Changes in Federal Spending on Health Care Under the Graham-Cassidy Bill*, Kaiser Family Foundation, Sept. 2017.

[6] We gratefully thank Chris Sloan and Elizabeth Carpenter of Avalere Health, Larry Levitt and Rachel Garfield of Kaiser Family Foundation, and Edwin Park of the Center on Budget and Policy Priorities for sharing information about their estimates.

[7] Center on Medicare and Medicaid Services, Estimated State Funding Amounts Under Current Law, Compared to Graham-Cassidy. Sept. 2017, https://www.documentcloud.org/documents/4058669-CMS-Graham-Cassidy.html.

[8] P. Boozang, J. Guyer, A. Grady, *Update: State Policy and Budget Impacts of New Graham-Cassidy Repeal and Replace Proposal*, Sept. 2017, https://www.manatt.com/Insights/White-Papers/2017/Impacts-of-New-Graham-Cassidy-Repeal-and-Replace-P.

[9] See updated GCHJ HHS estimates at https://www.cassidy.senate.gov/read-about-graham-cassidy-heller-johnson, as available on Sept 25, 2017. We compared these to the prior version of estimates that had been posted on the website on September 22, 2017; they do not appear to be posted now.

[10] S&P Global, "Proposed U.S. Health Care Bill Would Hurt The Economy, States, And Health Insurers, Says Report," Press Release, Sept. 25, 2017, http://now.eloqua.com/es.asp?s=302554905&e=386385&elq=12dcbf69987c4839b37fb99afa7d2a84.