

An Economic Perspective on the Affordable Care Act: Expectations and Reality

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Abstract The Affordable Care Act (ACA) was enacted in 2010 to address both high uninsured rates and rising health care spending through insurance expansion reforms and efforts to reduce waste. It was expected to have a variety of impacts in areas within the purview of economics, including effects on health care coverage, access to care, financial security, labor market decisions, health, and health care spending. To varying degrees, legislative, executive, and judicial actions have altered its implementation, affecting the extent to which expectations in each of these dimensions have been realized. We review the ACA's reforms, the subsequent actions that countered them, and the expected and realized effects on coverage, access to care, financial security, health, labor market decisions, and health care spending.

Keywords Affordable Care Act, economics, health policy

Through the 2000s, high health care spending and growing numbers of uninsured were widely viewed as public policy crises (Gruber, Newquist, and Schreiber 2011; Blendon et al. 2006). The Affordable Care Act (ACA) attempts to address both. At the time of its passage, the ACA's expanded coverage options were expected to have a significant positive impact on the economic conditions of US households through lower spending on premiums and out-of-pocket payments, greater financial security, improved job mobility, and improved health. The ACA was also expected to reduce the growth rate of health care spending. Ten years after its passage, we compare expected and realized effects of the ACA on its key economic outcomes: coverage, access to care, financial security, labor market decisions, health, and health care spending.

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Expected Effects of the ACA on Economic Outcomes as Enacted

A goal of the ACA was to achieve near-universal coverage through consumer protective regulation of private health insurance, an individual health insurance mandate, and subsidies in the form of Medicaid expansion for low-income households and tax credits for middle-income households. The Congressional Budget Office (CBO) and other organizations and scholars estimated the consequences of the ACA on coverage, spending, the labor market, and health.

According to the CBO, the ACA's reforms were expected to increase coverage by 32 million Americans by 2019 (CBO 2010), enhancing financial security through protection from catastrophic health spending while reducing out-of-pocket costs. By improving the quality and affordability of alternatives to employer-sponsored insurance (ESI), the ACA's coverage gains were also expected to alleviate "job lock," wherein individuals are discouraged from leaving their job for fear of losing (or paying more for) coverage. The CBO (2014) estimated that the ACA would encourage 2.5 million Americans to leave the labor force by 2023, likely to retire or become self-employed. Despite debate among economists over the causal effect of insurance on health (Frakt 2011), some expected the ACA's coverage provisions could improve it (Sommers, Gawande, and Baicker 2017).

The second goal of the ACA was to reduce the nation's health spending growth rate (Cutler 2010). The law, as enacted, attempted to reduce health care spending by various means: increased insurer competition, reduced federal tax subsidies for generous ESI plans (the "Cadillac tax," subsequently repealed), and a host of Medicare and Medicaid payment reforms and reimbursement cuts. Reimbursement cuts were focused mainly on hospitals and Medicare Advantage plans, cuts in the growth rate of payments to providers, and "delivery system reforms" (DSRs), which tie payment to quality and/or spending goals. The ACA also included an Independent Medicare Advisory Board, which was charged with cutting reimbursements in the Medicare program should spending exceed a target. However, the CBO never expected the Independent Medicare Advisory Board to produce much in the way of Medicare savings, and the board, which faced daunting political challenges, was ultimately repealed by Congress without ever having been constituted (Oberlander and Spivack 2018).

The CBO estimated that the ACA would lower federal deficits by \$198 billion, and that cost-control provisions would reduce federal spending by

approximately \$416 billion over 10 years, relative to the status quo (CBO 2010; Cutler, Davis, and Stremikis 2010). Economists expected that many of these mostly federally focused cost-control measures would have spillover effects on private health spending (Zuckerman and Holahan 2012). Some economists therefore suggested that reforms like those in the ACA could reduce national health spending by \$590 billion over 10 years relative to the estimated total national health spending over that period without the ACA, and slow the growth rate of spending by about 10% (Cutler, Davis, and Stremikis 2010).

Realized Economic Effects of the ACA

Because predicting the future is always uncertain, few estimates about any law's effects are perfectly accurate. In the case of the ACA in particular, legislative, executive, and judicial actions subsequent to passage had substantial impacts on the realized economic effects, summarized below.

Coverage

Between 2009 and 2018, the uninsured rate decreased from 15.1% to 8.9%, with the largest decrease occurring after implementation of the ACA's coverage provisions (see table 1). Between 2013 and 2014, the uninsured rate fell from 13.3% of Americans (41.8 million) in 2013 to 7.9% of Americans (25.6 million) in 2014 (Smith and Medalia 2015) (table 1). While slightly larger, this number was similar to the CBO's projected number of uninsured Americans by 2019 (23 million) (CBO 2010). The number of Americans with coverage in the individual market increased over this period from 11.4% (35.8 million) to 14.1% (46.1 million), while Medicaid enrollment increased from 17.5% (54.9 million) to 19.5% (61.7 million) (Smith and Medalia 2015).

Importantly, the ACA's coverage gains were not due to the erosion of ESI. The probability of losing ESI changed by less than 1% while rates of gaining nongroup and public coverage among the uninsured increased by 3% and 5%, respectively (Graves and Nikpay 2017). Other work shows that the ACA's dependent coverage mandate—which allowed dependent children to stay on their parents' insurance through age 26—increased ESI by 10% and resulted in 938,000 fewer uninsured young adults (Akosa Antwi, Moriya, and Simon 2013).

Nevertheless, coverage gains have fallen short of CBO estimates. Most of the discrepancy can be attributed to post-ACA legislative, executive, and

Table 1 Affordable Care Act Economic Indicators

| Indicator | 2009 | 2018 | Change |
|--|----------------|----------------|----------------|
| Fraction of the US population that has ‡ | | | |
| No coverage | 15.1% | 8.9% | 6.2% |
| Medicaid coverage | 16.2% | 20.5% | -4.3% |
| Individual market coverage | 13.1% | 13.4% | -1.2% |
| Employer-sponsored coverage | 56.6% | 55.2% | 1.4% |
| Total US health care spending† | \$2.5 trillion | \$3.6 trillion | \$1.1 trillion |
| Per capita health care spending † | \$8,131 | \$11,172 | \$3,041 |
| Annual spending growth † | | | |
| Total health care | 4.0% | 4.6% | — |
| Medicare | 6.8% | 6.4% | — |
| Medicaid | 8.8% | 3.0% | — |
| Private | 3.5% | 5.8% | — |
| Monthly benchmark plan premium* | \$273 (2014) | \$481 | — |
| Average employer-sponsored insurance premiums# | | | |
| Family coverage | \$13,375 | \$19,616 | \$6,241 |
| Single coverage | \$4,824 | \$6,896 | \$2,072 |
| Fraction of individuals in a high-deductible plan# | 8.0% | 29.0% | |
| Average employer-sponsored deductibles# | \$825 | \$1573 | \$748 |

Notes: All dollar figures are expressed in nominal dollars.

‡Census Bureau estimates of health insurance coverage estimates in the United States, 2009 (Denavas-walt, Proctor, and Smith 2010) and 2018 (Berchick, Barnett, and Upton 2019).

†Historical national health expenditure accounts (2019).

*Kaiser Family Foundation average benchmark plan (2019).

‡The benchmark plan is the second-lowest cost “silver plan” to which the value of health insurance subsidies in the ACA marketplaces is pegged.

#Kaiser Family Foundation Employer Health Benefits Annual Survey, 2019 (2019c).

judicial actions. Because some states did not expand Medicaid coverage—made optional by a 2012 Supreme Court ruling—2.3 million Americans are without affordable coverage options, too wealthy to qualify for (non-expanded) Medicaid but too poor to qualify for marketplace subsidies (Garfield, Orgera, and Damico 2020). Elimination of the individual mandate by Congress (Tax Cuts and Jobs Act of 2017, H.R. 1, 115th Cong.), elevation of nonregulated coverage options by executive order (Trump 2017), and regulations that increase barriers to marketplace enrollment such as shortened enrollment periods (DHHS 2017) have further eroded coverage gains. Although the number of individuals enrolled in the ACA’s marketplaces remained relatively stable, falling from 12.2 million to 11.8 million between 2017 and 2018 (KFF 2019b), the uninsured rate did

increase 0.5 percentage points, leaving an additional 1.86 million Americans uninsured (Berchick, Barnett, and Upton 2019).

Financial Security and Access to Care

The ACA makes health insurance more affordable to many Americans—especially those with high-cost medical conditions. Acknowledging that such individuals often could not obtain coverage before the ACA, the premium for the average plan in the individual market increased slightly by about 9% between 2009 and 2014 when the ACA's coverage provisions took effect (Adler and Ginsburg 2016). The cost of a standardized plan used to calculate health insurance subsidies in the marketplace, the benchmark plan premium, has increased from an average of \$273 in 2014 to \$476 in 2019 (KFF 2019a). Importantly, because marketplace premium subsidies are based on the household's income and increase when benchmark premiums rise, those who purchased marketplace coverage with subsidies should not have paid more for health insurance coverage as a result of rising premiums in the marketplace. However, in theory, elimination of the individual mandate and elevation of nonregulated alternatives to the marketplace plans should have made these new health insurance markets more expensive and less stable. Although estimates of coverage in 2019—the first year without the individual mandate—are not yet available, multiple studies suggest that the removal of the individual mandate alone should raise the number of uninsured Americans (Fiedler 2020).

With coverage expansion came reduced out-of-pocket spending and increased access to care. Relative to those in nonexpansion states, individuals in Medicaid expansion states are 11% more likely to have no out-of-pocket medical or premium expenditures (Abramowitz 2020), have about \$1,000 less in past-due debts (Hu et al. 2016), are 11% less likely to use payday loans (Allen et al. 2017), are 2.8% less likely to file for bankruptcy (Caswell and Waidmann 2019), and have greater improvement in credit scores (Brevoort, Grodzicki, and Hackmann 2017). Gaining coverage increases office-based primary care visits by 24.1% (Biener, Zuvekas, and Hill 2018), prescription drug use by 19% (Ghosh, Simon, and Sommers 2019), and use of certain high-value medical screenings by 9.9–11.6% (Sommers et al. 2017; Guth et al. 2020).

While out-of-pocket spending declined for Americans who gained coverage, per-capita out-of-pocket spending actually increased over all Americans by \$3,041 between 2009 and 2018 (table 1). This increase likely results from higher prevalence of high-deductible health insurance plans,

including among those with ESI. The fraction of employees enrolled in a high-deductible plan increased from 8% to 29% between 2009 and 2018. At the same time, the deductible for an average single plan increased by \$748 (KFF 2019c).

Labor Market Decisions

Although several studies and the CBO predicted large increases in self-employment and retirement (Nikpay 2020; Blumberg, Corlette, and Lucia 2013; CBO 2010), there is little evidence they materialized. Older adults in Medicaid expansion states are no less likely to work full-time than similar adults in nonexpansion states (Levy, Buchmueller, and Nikpay 2018). The ACA's dependent coverage provisions also did not lead to changes in labor market decisions (Heim, Lurie, and Simon 2015). Other than the broad inference that new coverage options under the law may not be sufficiently attractive to draw people out of the labor force (despite predictions to the contrary), it is not clear specifically why. One possibility is that the near-continuous attacks on and erosion of the law's provisions raised doubts about the durability of its protections.

Health

The preponderance of evidence suggests that health insurance improves health. Therefore, it is not surprising that those who gained coverage through the ACA's Medicaid expansion (Burns and Wolfe 2016; Graves et al. 2020) or extension of employer-sponsored coverage to young adults (Barbaresco, Courtemanche, and Qi 2015) saw gains in self-reported health. Two recent studies showed that the ACA's coverage provisions reduce mortality. Linking mortality and survey data on Americans who were the targets of the ACA Medicaid expansion, Miller and colleagues (2019) found that the Medicaid expansion averted 19,200 deaths over its first four years. Goldin, Lurie, and McCubbin (2019) used a randomized field trial to compare uninsured individuals who signed up for marketplace coverage to those who did not and found a large 2.4% reduction in mortality for each month of coverage gained.

Health Care Spending

The ACA was expected to modestly reduce the growth of health spending. Federal Medicare spending growth has slowed from 6.8% in 2009 to 6.4%

in 2018, and Medicaid spending growth has slowed from 8.8% to 3.0%, over the same time. However, private spending on health care has increased from 3.5% to 5.8% between 2009 and 2018, and out-of-pocket expenditures have also increased. As a result, national health care spending growth increased from 4% to 4.6% (see table 1) (CMS 2019), with spikes in spending growth corresponding to insurance expansions in 2014 (Hartman et al. 2019). While a slowing of expenditure growth in Medicare and Medicaid was too small to reduce the overall national trend, actual spending growth over the ACA's first decade is lower than was originally predicted by the Centers for Medicare and Medicaid Services (Holahan et al. 2017). However, federal health spending growth reductions may not be fully attributable to the ACA and may reflect changes in underlying health care use among the Medicare-eligible population (Cutler et al. 2019).

In fact, studies suggest that many of the ACA's delivery system reforms have had only modest effects on spending. ACOs appear to have resulted in a few percentage points of savings to Medicare (McWilliams, Landon, and Chernew 2013), but the extent to which these are attributable to the program is debated (Markovitz et al. 2019). The evidence on savings from Medicare Bundled Payments is also mixed (Joynt Maddox et al. 2018; Navathe et al. 2017; Lewin Group 2016; Yee, Pizer, and Frakt forthcoming). Although the Center for Medicare and Medicaid Innovation has launched 37 new payment models (Twomey 2018), the effects on spending are unknown.

There are several reasons that the ACA's DSRs had a modest impact on spending at best. First, the ACA was implemented at the same time as a wave of provider consolidation. Since the law's passage, there have been 1,792 mergers between hospitals as well as growing consolidation between hospitals and physician groups (Gee and Gurwitz 2018; Nikpay, Richards, and Penson 2018). The consequence is higher commercial market prices (Cooper et al. 2019; Capps, Dranove, and Ody 2018). In an effort to improve coordination, the ACA's DSRs may encourage consolidation, although the evidence is mixed (Kanter, Polsky, and Werner 2019; Neprash, Chernew, and McWilliams 2017). Lack of Medicaid expansion may also increase consolidation by hastening hospital closures among poorly performing hospitals in rural areas (Lindrooth et al. 2018). Second, DSRs relied on provider incentives that may have been underpowered. In other words, the incentive to reduce costs was small relative to the wider health care system's incentives for volume over value (Frakt and Jha 2018). Additionally, these reforms were often voluntary, meaning that if the

targets for savings are too aggressive, nobody will participate. Finally, the cost of implementing the DSRs may have eaten away at modest DSR savings. One recent analysis found that, after factoring in the costs of implementing DSRs, the net savings amount to only \$1 billion (Buntin and Graves 2020).

The expected effects of the ACA's cost-control measures were also altered by policy actions taken after its passage. Legislation in 2020 repealed the Cadillac tax on generous employer-sponsored coverage (Further Consolidated Appropriations Act of 2020, H.R. 1865, 116th Congress), which was expected to lower health spending and raise payroll tax revenue by \$204 billion between 2020 and 2025 (Drake et al. 2017). Legislative actions have also repeatedly delayed the implementation of Medicaid cuts to hospitals, which were expected to reduce federal spending by \$4 billion. Finally, administrative actions have eliminated the implementation of several planned DSRs, although the specific impact of costs is unknown (CMS 2017). In total, these actions are expected to increase health spending by \$225 billion from 2019 to 2023 above what it would have otherwise been (CBO 2017a, 2019).

Discussion

The architects of the ACA sought to increase coverage and reduce costs and the law was expected by economists to increase access to care, financial security, and job mobility. Although legislative, executive, and judicial actions subsequent to the law's passage have weakened it in a variety of ways, gains in coverage, access to care, financial security, and health have been surprisingly durable. Yet, these benefits are not evenly shared. For some low-income individuals in Medicaid nonexpansion states, there is little change in these outcomes from the pre-ACA period. For others, even subsidized marketplace coverage comes with high deductibles and cost sharing that impose significant financial burdens (Cohen and Zammiti 2017).

While economists anticipated many of the ACA's effects, one prominent surprise is the role of the individual mandate. Economists believed it was necessary to maintain low premiums in the individual market. Though it was effectively removed for 2019 by the reduction of the penalty to \$0, marketplaces remained stable (CBO 2017b; Tax Cuts and Jobs Act of 2017). Perhaps the mandate was needed to create stable individual markets but is not needed to maintain them.

New studies continue to inform economists' understanding of the law. For example, state-specific, Medicaid-focused DSRs introduced under the ACA may improve health (Deb, Gangaram, and Khajavi 2019); the Hospital Value-Based Payment Program, a DSR that rewards hospitals for high-quality care, has shown mixed results (Figueroa et al. 2016; Ryan et al. 2017); and other literature identifies unintended consequences of or technical flaws in the ACA's many DSRs (Das et al. 2016; Joshi 2019; Ody et al. 2019). Other studies estimate spillover effects of Medicaid coverage on other social programs (Schmidt, Shore-Sheppard, and Watson 2019) or the targeting for public support for hospitals (Nikpay 2019). A growing literature also documents how narrow network plans affect health care utilization (Ellis and Zhu 2016; Atwood and Lo Sasso 2016).

Still, many questions remain unanswered. For example, how have erosions of the ACA's provisions since passage affected the federal deficit and private insurance markets? How does enrollment in nonregulated coverage options affect access to care and financial security? How do hospital closures and health care consolidation influenced by the ACA or reforms to it affect access to care and spending? And how do new variations in state Medicaid programs affect enrollment, access, utilization, as well as health and financial outcomes? Finally, many of the existing studies focus on the first years after the law's passage or implementation. Therefore, longer-term effects of the ACA are unknown.

Conclusion

The ACA provides coverage to millions of Americans, with documented improvements in health care access, reduced financial burden, and better health. On the whole, there is little evidence it has made a substantial contribution to reducing health care spending, reflecting the fact that we have not figured out a politically feasible way forward on substantial cost control. Medicaid expansion remains uncertain in many states, and the outcome of the 2020 or subsequent elections could bring repeal back into political feasibility.

In many ways, we are in a qualitatively similar position as we were in 2010: uninsurance and financial security remain issues for many Americans, as does health spending. The ACA has changed the status quo—the individual market is dramatically reformed, for example—but it has not resolved key health care issues that have sustained US policy debates and fueled health economics scholarship for decades.

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References

- Abramowitz, Joelle. 2020. "The Effect of ACA State Medicaid Expansions on Medical Out-of-Pocket Expenditures." *Medical Care Research and Review* 77, no. 1: 19–33. doi.org/10.1177/1077558718768895.
- Adler, Loren, and Paul Ginsburg. 2016. "Obamacare Premiums Are Lower than You Think." *Health Affairs Blog*, July 21. www.healthaffairs.org/doi/10.1377/hblog.20160721.055898/full/.

- Akosa Antwi, Yaa, Asako S. Moriya, and Kosali Simon. 2013. "Effects of Federal Policy to Insure Young Adults: Evidence from the 2010 Affordable Care Act's Dependent-Coverage Mandate." *American Economic Journal: Economic Policy* 5, no. 4: 1–28. doi.org/10.1257/pol.5.4.1.
- Allen, Heidi, Ashley Swanson, Jialan Wang, and Tal Gross. 2017. "Early Medicaid Expansion Associated with Reduced Payday Borrowing in California." *Health Affairs* 36, no. 10: 1769–76. doi.org/10.1377/hlthaff.2017.0369.
- Atwood, Alicia, and Anthony Lo Sasso. 2016. "The Effect of Narrow Provider Networks on Health Care Use." *Journal of Health Economics* 50: 86–98. doi.org/10.1016/j.jhealeco.2016.09.007.
- Barbaresco, Silvia, Charles Courtemanche, and Yanling Qi. 2015. "Impacts of the Affordable Care Act Dependent Coverage Provision on Health-Related Outcomes of Young Adults." *Journal of Health Economics* 40: 54–68. doi.org/10.1016/j.jhealeco.2014.12.004.
- Berchick, Edward, Jessica Barnett, and Rachel Upton. 2019. "Health Insurance Coverage in the United States: 2018." Current Population Reports, November. www.census.gov/content/dam/Census/library/publications/2019/demo/p60-267.pdf.
- Biener, Adam, Samuel Zuvekas, and Steven Hill. 2018. "Impact of Recent Medicaid Expansions on Office-Based Primary Care and Specialty Care among the Newly Eligible." *Health Services Research* 53, no. 4: 2426–45. doi.org/10.1111/1475-6773.12793.
- Blendon, Robert J., Mollyann Brodie, John M Benson, Drew E Altman, and Tami Buhr. 2006. "Americans' Views of Health Care Costs, Access, and Quality." *Milbank Quarterly* 84, no. 4: 623–57. doi.org/10.1111/j.1468-0009.2006.00463.x.
- Blumberg, Linda, Sabrina Corlette, and Kevin Lucia. 2013. "The Affordable Care Act: Improving Incentives for Entrepreneurship and Self-Employment." Urban Institute, May 31. www.urban.org/research/publication/affordable-care-act-improving-incentives-entrepreneurship-and-self-employment.
- Brevoort, Kenneth, Daniel Grodzicki, and Martin B Hackmann. 2017. "Medicaid and Financial Health." National Bureau of Economic Research, NBER Working Paper 24002, November. doi.org/10.3386/w24002.
- Buntin, Melinda Beeuwkes, and John A. Graves. 2020. "How the ACA Dented the Cost Curve." *Health Affairs* 39, no. 3: 403–12. doi.org/10.1377/hlthaff.2019.01478.
- Burns, Marguerite E., and Barbara L. Wolfe. 2016. "The Effects of the Affordable Care Act Adult Dependent Coverage Expansion on Mental Health." *Journal of Mental Health Policy and Economics* 19, no. 1: 3–20.
- Capps, Cory, David Dranove, and Christopher Ody. 2018. "The Effect of Hospital Acquisitions of Physician Practices on Prices and Spending." *Journal of Health Economics* 59: 139–52. doi.org/10.1016/j.jhealeco.2018.04.001.
- Caswell, Kyle, and Timothy Waidmann. 2019. "The Affordable Care Act Medicaid Expansions and Personal Finance." *Medical Care Research and Review* 76, no. 5: 538–71. https://doi.org/10.1177/1077558717725164.
- CBO (Congressional Budget Office). 2010. "Letter to the Honorable Nancy Pelosi on the Effects of H.R. 4872, the Reconciliation Act of 2010." March 18. www.cbo.gov/sites/default/files/hr4872_0.pdf.

- CBO (Congressional Budget Office). 2014. "Appendix C. Labor Market Effects of the Affordable Care Act: Updated Estimates." Budget and Economic Outlook: 2014 to 2024, February. www.cbo.gov/sites/default/files/cbofiles/attachments/45010-break-out-AppendixC.pdf.
- CBO (Congressional Budget Office). 2017a. "The Effects of Terminating Payments for Cost-Sharing Reductions." August 15. www.cbo.gov/publication/53009.
- CBO (Congressional Budget Office). 2017b. "How Repealing Portions of the Affordable Care Act Would Affect Health Insurance Coverage and Premiums." January 17. www.cbo.gov/publication/52371.
- CBO (Congressional Budget Office). 2019. "HR 748, Middle Class Health Benefits Tax Repeal Act of 2019." Cost Estimate at a Glance, July 17. www.cbo.gov/system/files/2019-07/hr748.pdf.
- CMS (Centers for Medicare and Medicaid Services). 2017. "Medicare Program; Cancellation of Advancing Care Coordination through Episode Payment and Cardiac Rehabilitation Incentive Payment Models; Changes to Comprehensive Care for Joint Replacement Payment Model: Extreme and Uncontrollable Circumstances Policy for the Comprehensive Care for Joint Replacement Payment Model." *Federal Register* 82, no. 230: 57066–104. www.govinfo.gov/content/pkg/FR-2017-12-01/pdf/2017-25979.pdf.
- CMS (Centers for Medicare and Medicaid Services). 2019. "Historical National Health Expenditure Data." December 17. www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsHistorical.
- Cohen, Robin A., and Emily Zammitti. 2017. "High-Deductible Health Plans and Financial Barriers to Medical Care: Early Release of Estimates from the National Health Interview Survey, 2016." National Center for Healthcare Statistics, National Health Interview Survey Early Release Program, June. www.cdc.gov/nchs/data/nhis/earlyrelease/ERHDHP_Access_0617.pdf.
- Cooper, Zack, Stuart V. Craig, Martin Gaynor, and John Van Reenen. 2019. "The Price Ain't Right? Hospital Prices and Health Spending on the Privately Insured." *Quarterly Journal of Economics* 134, no. 1: 51–107. doi.org/10.1093/qje/qjy020.
- Cutler, David. 2010. "How Health Care Reform Must Bend the Cost Curve." *Health Affairs* 29, no. 6: 1131–35. doi.org/10.1377/hlthaff.2010.0416.
- Cutler, David, Karen Davis, and Kristof Stremikis. 2010. "The Impact of Health Reform on Health System Spending." Commonwealth Fund, Center for American Progress, Issue Brief, May. ct.gov/sustinet/lib/sustinet/cfib_cutler_impacthealthreform_healthsystemspending_v4_092210mtg.pdf.
- Cutler, David, Kaushik Ghosh, Cassandra Messer, Trivellore Raghunathan, Susan Stewart, and Allison Rosen. 2019. "Explaining the Slowdown in Medical Spending Growth among the Elderly, 1999–2012." *Health Affairs* 38, no. 2: 222–29. doi.org/10.1377/hlthaff.2018.05372.
- Das, Anup, Edward Norton, David Miller, Andrew Ryan, John Birkmeyer, and Lena Chen. 2016. "Adding a Spending Metric to Medicare's Value-Based Purchasing Program Rewarded Low-Quality Hospitals." *Health Affairs* 35, no. 5: 898–906. doi.org/10.1377/hlthaff.2015.1190.

- Deb, Partha, Anjelica Gangaram, and Hoda Khajavi. 2019. "Can Diffuse Delivery System Reforms Improve Population Health? A Study of the State Innovation Models Initiative." National Bureau of Economic Research, NBER Working Paper No. 26360, October. www.nber.org/papers/w26360.
- DeNavas-Walt, Carmen, Bernadette D. Proctor, and Jessica C. Smith. 2010. "Income, Poverty and Health Insurance Coverage in the United States, 2009." US Census Bureau, September. www.census.gov/prod/2010pubs/p60-238.pdf.
- DHHS (US Department of Health and Human Services). 2017. "Patient Protection and Affordable Care Act; Market Stabilization." s3.amazonaws.com/public-inspection.federalregister.gov/2017-03027.pdf (accessed April 28, 2020).
- Drake, Coleman, Lucas Higuera, Fernando Alarid-Escudero, and Roger Feldman. 2017. "A Kinked Health Insurance Market: Employer-Sponsored Insurance under the Cadillac Tax." *American Journal of Health Economics* 3, no. 4: 455–76. doi.org/10.1162/ajhe_a_00084.
- Ellis, Randall, and Wenjia Zhu. 2016. "Health Plan Type Variations in Spells of Health-Care Treatment." *American Journal of Health Economics* 2, no. 4: 399–430. doi.org/10.1162/AJHE_a_00056.
- Fiedler, Matthew. 2020. "The ACA's Individual Mandate in Retrospect: What Did It Do, and Where Do We Go from Here?" *Health Affairs* 39, no. 3: 429–35. doi.org/10.1377/hlthaff.2019.01433.
- Figueroa, Jose F., Yusuke Tsugawa, Jie Zheng, E. John Orav, and Ashish K. Jha. 2016. "Association between the Value-Based Purchasing Pay for Performance Program and Patient Mortality in US Hospitals: Observational Study." *BMJ*, May 9. doi.org/10.1136/bmj.i2214.
- Frakt, Austin. 2011. "Medicaid and Health Outcomes (Again)." *Incidental Economist* (blog), March. theincidentaleconomist.com/wordpress/medicaid-and-health-outcomes-again/.
- Frakt, Austin, and Ashish Jha. 2018. "Face the Facts: We Need to Change the Way We Do Pay for Performance." *Annals of Internal Medicine* 168, no. 4: 291–92. doi.org/10.7326/M17-3005.
- Garfield, Rachel, Kendal Orgera, and Anthony Damico. 2020. "The Coverage Gap: Uninsured Poor Adults in States That Do Not Expand Medicaid." Kaiser Family Foundation (blog), January 14. www.kff.org/medicaid/issue-brief/the-coverage-gap-uninsured-poor-adults-in-states-that-do-not-expand-medicaid/.
- Gee, Emily, and Ethan Gurwitz. 2018. "Provider Consolidation Drives Up Health Care Costs." Center for American Progress, December 5. www.americanprogress.org/issues/healthcare/reports/2018/12/05/461780/provider-consolidation-drives-health-care-costs/.
- Ghosh, Ausmita, Kosali Simon, and Benjamin Sommers. 2019. "The Effect of Health Insurance on Prescription Drug Use among Low-Income Adults: Evidence from Recent Medicaid Expansions." *Journal of Health Economics* 63: 64–80. doi.org/10.1016/j.jhealeco.2018.11.002.
- Goldin, Jacob, Ithai Lurie, and Janet McCubbin. 2019. "Health Insurance and Mortality: Experimental Evidence from Taxpayer Outreach." SSRN, December. papers.ssrn.com/abstract=3496282.

- Graves, John A., Laura A. Hatfield, William Blot, Nancy L. Keating, and J. Michael McWilliams. 2020. "Medicaid Expansion Slowed Rates of Health Decline for Low-Income Adults in Southern States." *Health Affairs* 39, no. 1: 67–76. doi.org/10.1377/hlthaff.2019.00929.
- Graves, John, and Sayeh Nikpay. 2017. "The Changing Dynamics of US Health Insurance and Implications for the Future of the Affordable Care Act." *Health Affairs* 36, no. 2: 297–305. doi.org/10.1377/hlthaff.2016.1165.
- Gruber, Jonathan, and H. P. Newquist. 2011. *Health Care Reform: What It Is, Why It's Necessary, How It Works*. New York: Hill and Wang.
- Guth, Madeline, Rachel Garfield, and Robin Rudowitz. 2020. "The Effects of Medicaid Expansion under the ACA: Updated Findings from a Literature Review." Kaiser Family Foundation (blog), March 17. www.kff.org/medicaid/issue-brief/the-effects-of-medicaid-expansion-under-the-aca-updated-findings-from-a-literature-review-august-2019/
- Hartman, Micah, Anne B. Martin, Joseph Benson, and Aaron Catlin. 2019. "National Health Care Spending in 2018: Growth Driven by Accelerations in Medicare and Private Insurance Spending." *Health Affairs* 39, no. 1: 8–17. doi.org/10.1377/hlthaff.2019.01451.
- Heim, Bradley, Ithai Lurie, and Kosali Simon. 2015. "The Impact of the Affordable Care Act Young Adult Provision on Labor Market Outcomes: Evidence from Tax Data." *Tax Policy and the Economy* 29, no. 1: 133–57. doi.org/10.1086/683366.
- Holahan, John, Linda Blumberg, Lisa Clemans-Cope, Stacey McMorro, and Erik Wengle. 2017. "The Evidence on Recent Health Care Spending Growth and the Impact of the Affordable Care Act." Robert Wood Johnson Foundation and the Urban Institute, US Health Reform—Monitoring and Impact, May. www.urban.org/sites/default/files/publication/90471/2001288-the_evidence_on_recent_health_care_spending_growth_and_the_impact_of_the_affordable_care_act.pdf.
- Hu, Luoia, Robert Kaestner, Bhashkar Mazumder, Sarah Miller, and Ashley Wong. 2016. "The Effect of the Patient Protection and Affordable Care Act Medicaid Expansions on Financial Wellbeing." National Bureau of Economic Research, NBER Working Paper No. 22170, April. doi.org/10.3386/w22170.
- Joshi, Sushant. 2019. "Does Regression to the Mean Explain the Decline in Readmissions Observed at Hospitals Penalized for Excess Readmissions?" Paper presented at the Eighth Conference of the American Society of Health Economists, Marriott Wardman Park Hotel, Washington, DC, June 26. ashecon.confex.com/ Ashecon/2019/webprogram/Paper7548.html.
- Joynt Maddox, Karen E., E. John Orav, Jie Zheng, and Arnold Epstein. 2018. "Evaluation of Medicare's Bundled Payments Initiative for Medical Conditions." *New England Journal of Medicine* 379, no. 3: 260–69. doi.org/10.1056/NEJMsa1801569.
- Kanter, Genevieve P., Daniel Polsky, and Rachel M. Werner. 2019. "Changes in Physician Consolidation with the Spread of Accountable Care Organizations." *Health Affairs* 38, no. 11: 1936–43. doi.org/10.1377/hlthaff.2018.05415.
- KFF (Kaiser Family Foundation). 2019a. "Marketplace Average Benchmark Premiums." State Health Facts. www.kff.org/health-reform/state-indicator/marketplace-average-benchmark-premiums/ (accessed April 28, 2020).

- KFF (Kaiser Family Foundation). 2019b. "Marketplace Enrollment, 2014–2019." State Health Facts. www.kff.org/health-reform/state-indicator/marketplace-enrollment/ (accessed April 28, 2020).
- KFF (Kaiser Family Foundation). 2019c. "Employer Health Benefits: 2019 Annual Survey." files.kff.org/attachment/Report-Employer-Health-Benefits-Annual-Survey-2019 (accessed May 5, 2020).
- Levy, Helen, Thomas Buchmueller, and Sayeh Nikpay. 2018. "Health Reform and Retirement." *Journals of Gerontology: Series B* 73, no. 4: 713–22. doi.org/10.1093/geronb/gbw115.
- Lewin Group. 2016. "CMS Bundled Payments for Care Improvement Initiative Models 2–4: Year 2 Evaluation and Monitoring Annual Report August 2016." August. innovation.cms.gov/Files/reports/bpci-models2-4-yr2evalrpt.pdf.
- Lindrooth, Richard C., Marcelo C. Perraiillon, Rose Y. Hardy, and Gregory J. Tung. 2018. "Understanding the Relationship between Medicaid Expansions and Hospital Closures." *Health Affairs* 37, no. 1: 111–20. doi.org/10.1377/hlthaff.2017.0976.
- Markovitz, Adam, John Hollingsworth, John Ayanian, Edward Norton, Phyllis Yan, and Andrew Ryan. 2019. "Performance in the Medicare Shared Savings Program after Accounting for Nonrandom Exit: An Instrumental Variable Analysis." *Annals of Internal Medicine* 171, no. 1: 27–36. doi.org/10.7326/M18-2539.
- McWilliams, J. Michael, Bruce Landon, and Michael Chernew. 2013. "Changes in Health Care Spending and Quality for Medicare Beneficiaries Associated with a Commercial ACO Contract." *JAMA* 310, no. 8: 829–36. doi.org/10.1001/jama.2013.276302.
- Miller, Sarah, Sean Altekruze, Norman Johnson, and Laura R. Wherry. 2019. "Medicaid and Mortality: New Evidence from Linked Survey and Administrative Data." National Bureau of Economic Research, WBER Working Paper No. 26081, August. www.nber.org/papers/w26081.
- Navathe, Amol, Andrea Troxel, Joshua M. Liao, Nan Nan, Jingsan Zhu, Wenjun Zhong, and Ezekiel J. Emanuel. 2017. "Cost of Joint Replacement Using Bundled Payment Models." *JAMA Internal Medicine* 177, no. 2: 214–22. doi.org/10.1001/jamainternmed.2016.8263.
- Neprash, Hannah T., Michael E. Chernew, and J. Michael McWilliams. 2017. "Little Evidence Exists to Support the Expectation That Providers Would Consolidate to Enter New Payment Models." *Health Affairs* 36, no. 2: 346–54. doi.org/10.1377/hlthaff.2016.0840.
- Nikpay, Sayeh. 2019. "The Medicaid Windfall: Medicaid Expansions and the Target Efficiency of Hospital Safety-Net Subsidies." Paper presented at the Association for Public Policy Analysis and Management 41st Annual Fall Research Conference, Sheraton Denver Downtown Hotel, November 8.
- Nikpay, Sayeh S. 2020. "Entrepreneurship and Job Lock: The Interaction between Tax Subsidies and Health Insurance Regulations." *Contemporary Economic Policy* 38, no. 1: 30–47. doi.org/10.1111/coep.12424.
- Nikpay, Sayeh, Michael Richards, and David Penson. 2018. "Hospital-Physician Consolidation Accelerated in the Past Decade in Cardiology, Oncology." *Health Affairs* 37, no. 7: 1123–27. doi.org/10.1377/hlthaff.2017.1520.

- Oberlander, Jonathan, and Steven Spivack. 2018. "Technocratic Dreams, Political Realities: The Rise and Demise of Medicare's Independent Payment Advisory Board." *Journal of Health Politics, Policy and Law* 43, no. 3: 483–510. doi.org/10.1215/03616878-4366196.
- Ody, Christopher, Lucy Msall, Leemore S. Dafny, David C. Grabowski, and David M. Cutler. 2019. "Decreases in Readmissions Credited to Medicare's Program to Reduce Hospital Readmissions Have Been Overstated." *Health Affairs* 38, no. 1: 36–43. doi.org/10.1377/hlthaff.2018.05178.
- Ryan, Andrew M., Sam Krinsky, Kristin A. Maurer, and Justin B. Dimick. 2017. "Changes in Hospital Quality Associated with Hospital Value-Based Purchasing." *New England Journal of Medicine* 376: 2358–66. doi.org/10.1056/NEJMsa1613412.
- Schmidt, Lucie, Lara Shore-Sheppard, and Tara Watson. 2019. "The Impact of Expanding Public Health Insurance on Safety Net Program Participation: Evidence from the ACA Medicaid Expansion." National Bureau of Economic Research, NBER Working Paper No. 26504, November. www.nber.org/papers/w26504.
- Smith, Jessica C., and Carla Medalia. 2015. "Health Insurance Coverage in the United States: 2014." US Census Bureau, Current Population Reports, September. www.census.gov/content/dam/Census/library/publications/2015/demo/p60-253.pdf.
- Sommers, Benjamin, Atul Gawande, and Katherine Baicker. 2017. "Health Insurance Coverage and Health: What the Recent Evidence Tells Us." *New England Journal of Medicine* 377: 586–93. www-nejm-org/doi/full/10.1056/NEJMSb1706645.
- Sommers, Benjamin, Bethany Maylone, Robert J. Blendon, E. John Orav, and Arnold M. Epstein. 2017. "Three-Year Impacts of the Affordable Care Act: Improved Medical Care and Health among Low-Income Adults." *Health Affairs* 36, no. 6: 1119–28. doi.org/10.1377/hlthaff.2017.0293.
- Trump, Donald. 2017. "Presidential Executive Order Promoting Healthcare Choice and Competition across the United States." October 12. www.whitehouse.gov/presidential-actions/presidential-executive-order-promoting-healthcare-choice-competition-across-united-states/.
- Twomey, Madeline. 2018. "Center for Medicare and Medicaid Innovation: Time to Get Back on Track." Center for American Progress, May 4. www.americanprogress.org/issues/healthcare/reports/2018/05/04/450288/center-medicare-medicicaid-innovation/.
- Yee, Christine, Stephen Pizer, and Austin Frakt. Forthcoming. "Medicare's Bundled Payment Initiatives for Hospital-Initiated Episodes: Evidence and Evolution." *Milbank Quarterly*.
- Zuckerman, Stephen, and John Holahan. 2012. "Despite Criticism, the Affordable Care Act Does Much to Contain Health Care Costs." Urban Institute, Health Policy Center, October. www-urban-org/sites/default/files/publication/25856/412665-Despite-Criticism-The-Affordable-Care-Act-Does-Much-to-Contain-Health-Care-Costs.PDF.