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Why Did Employer Coverage Fall In Massachusetts After The ACA? Potential Consequences Of A Changing Employer Mandate

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ABSTRACT The Affordable Care Act (ACA) attempted to minimize disruptions to employer-sponsored insurance in part by implementing an employer mandate. Research has shown that employer coverage rates have been stable nationally under the ACA. Massachusetts enacted its own employer mandate in 2006 before eliminating it in 2014, in anticipation of the federal mandate. But the ACA's employer mandate was delayed until 2015 and exempted smaller firms that had been covered by the Massachusetts' mandate. In this unique policy environment, we found that the employer-sponsored insurance rate in Massachusetts fell by 2.3 percentage points after the ACA's coverage expansion took effect (2014–16), compared to the rest of the US. Coverage dropped more for middle-income workers than for lower-income workers, which suggests that crowd-out by Medicaid was not the primary factor. Employer surveys show that employer coverage offer rates declined significantly at small firms in Massachusetts beginning in 2014, but not at large firms. Our findings suggest that eliminating Massachusetts's employer mandate may have contributed to falling employer coverage rates in the state, although other policy and economic factors cannot be ruled out. These results may have implications for understanding the effects of the ACA's employer mandate and its potential repeal.

The majority of the US population still obtains health insurance from employers, although the Affordable Care Act (ACA) has significantly expanded coverage via Medicaid and federal- and state-based Marketplaces. Some policy makers and analysts had predicted that the ACA would erode employer-sponsored insurance because employees would have new options for coverage,[1] and the coverage expansions could reduce incentives to work.[2] The ACA includes provisions designed to reduce this risk. The employer shared responsibility provisions mandate that large employers—those with fifty or more full-time-equivalent (FTE) workers—pay a penalty if any of their workers obtain subsidized Marketplace coverage, and workers with an "affordable" offer of employer coverage—costing less than 9.5 percent of income—are prohibited from receiving Marketplace premium subsidies.[3] Research to date indicates that the law has not led to significant national changes in employment,[2,4,5] employer coverage offer rates,[6] or overall employer coverage rates.[7,8]

But national patterns may obscure important state-specific effects. The pre-ACA policy environment in Massachusetts, in particular, differed from that in most other states. Massachusetts implemented its own health insurance coverage expansion in 2006, including an employer mandate, expansion of eligibility for Medicaid, subsidized private plans, and a mandate

that people obtain coverage or pay a penalty.[9] Prior research shows that rates of employer-sponsored insurance in the state rose significantly after the reform.[10] Of note, Massachusetts eliminated its own employer mandate at the end of 2013, in anticipation of the ACA's employer mandate taking effect in 2014, but the latter was delayed by the administration of President Barack Obama until 2015. (The two mandate provisions are discussed in detail in the next section.)

Given this environment, it is possible that the ACA's effects on employer coverage would be different in Massachusetts than in other states. Moreover, state policy makers—most notably Gov. Charlie Baker (R)—have argued that employer coverage in Massachusetts has declined because of the ACA. In a 2016 letter to Congress, Governor Baker argued that the ACA had shifted nearly half a million lives from employer-sponsored insurance to the state's Medicaid program,[11] and the governor subsequently proposed policies to reduce this alleged crowd-out, such as reinstituting a state employer mandate[12] and excluding from Medicaid workers with affordable employer coverage offers.[13]

Concern about the substitution of public for private coverage (also known as "crowd-out") has been an issue before and since passage of the ACA.[14–16] Crowd-out can result from both employer and employee behavior. Employers may be less likely to offer coverage if their employees become eligible for other insurance. One analysis of Massachusetts's 2006 health care reform found that the state's employer mandate reduced crowd-out by preventing a reduction in employer offers when subsidized coverage options became available.[17] Crowd-out can also occur through reduced take-up of employer-sponsored insurance by employees who are newly eligible for subsidized coverage. The potential for crowd-out is a function of enrollment in employer-sponsored insurance at baseline and eligibility for subsidized coverage.

Massachusetts likely experienced greater exposure to crowd-out than other states because of its existing employer mandate and comparatively high rates of employer coverage. Thus, understanding the ACA's effects on employer coverage in Massachusetts has important implications for policy making in this state. More broadly, with most congressional proposals to repeal or amend the ACA including the elimination of the federal employer mandate, the state's experience could provide useful insights for national policy.

Our objective was to assess changes in employer-sponsored insurance in Massachusetts before and after the ACA's major coverage expansions in 2014, compared to changes elsewhere in the US. We also examined changes in employer coverage by income group and changes in offer rates and take-up rates by firm size, to better understand the policy implications of our findings.

Study Data And Methods

CONCEPTUAL MODEL Broadly speaking, employer-sponsored coverage rates can change for three main reasons: changes in employment, changes in employers' offer rates of employer-sponsored insurance, and changes in employees' take-up rates when offered such insurance. Our study first estimated whether any differential changes in employer-sponsored insurance occurred in Massachusetts surrounding the implementation of the ACA in 2014 and then attempted to disentangle these three factors.

Our primary study period was 2011–16. The key policy changes occurring during this period were Massachusetts's elimination of its employer mandate, at the end of 2013; the expansion of Medicaid eligibility (in states that chose to do so, including Massachusetts), creation of the ACA's Marketplaces, and implementation of the individual mandate (which superseded Massachusetts's existing individual mandate), all in 2014; and the delayed implementation of the ACA's employer mandate until 2015. While Massachusetts already had achieved high coverage rates based on its 2006 reforms, the ACA reflected a genuine expansion of Medicaid coverage in the state to many childless adults who were previously ineligible for Medicaid (but who could obtain subsidized coverage in the state's insurance exchange). The ACA also led to broader eligibility for subsidized private insurance in Massachusetts. The state's 2006 law offered premium subsidies for people with incomes up to 300 percent of the federal poverty level, whereas the ACA made subsidies available for people with incomes up to 400 percent of poverty. For those with incomes below 300 percent of poverty, the state kept the subsidies the same before and after 2014.

Meanwhile, the individual mandate penalty in Massachusetts changed from an average of $240 for lower-income people and $1,272 for those with incomes above 300 percent of poverty in 2013[18] to the ACA's penalty of $95 per person or 1.0 percent of taxable income in 2014 (whichever was larger), which increased to $695 and 2.5 percent by 2016.

But most relevant for our analysis is the employer mandate. Before 2014, Massachusetts's employer mandate assessed a $295 fine per FTE worker on any firm that did not offer a "fair and reasonable" contribution to employer-spon-

sored insurance, defined as covering at least 25 percent of FTEs, paying more than 33 percent of the premium, or both[9,19] (see online appendix table 1 for details).[20] The Massachusetts mandate applied to all firms employing at least eleven FTEs. In contrast, the ACA employer mandate exempts firms with fewer than fifty FTEs. Firms with fifty or more FTEs whose workers obtain coverage using a Marketplace tax credit face a variable fine, depending on whether they offered employer coverage. Firms that offer such coverage pay the lesser of $3,000 per worker getting subsidized Marketplace coverage or $2,000 per FTE worker beyond the first thirty workers. Firms not offering such coverage pay the latter fine in all cases.[3] The result is a fairly complex trade-off between the Massachusetts and ACA mandate penalties for larger firms, depending on what share of workers received Marketplace tax credits (see appendix figure 1 for a comparison of the mandate penalties by firm size).[20] However, the change was clear for smaller Massachusetts firms (those with 11–49 FTEs) under the ACA, because they no longer faced any employer mandate penalty beginning in 2014.

DATA SOURCES Our primary data sets were the American Community Survey (ACS), conducted by the Census Bureau, and the Medical Expenditure Panel Survey–Insurance Component (MEPS-IC), conducted by the Agency for Healthcare Research and Quality.[21]

The ACS includes data on employment, health insurance, demographic characteristics, and income. We compared rates of employer-sponsored insurance among nonelderly people (those ages 0–64) in Massachusetts and people in the rest of the US for the period 2011–16, creating a balanced data set of three years before and three years after the policy change. People with employer coverage included both those covered by their own employer's plan as well as dependents (including children) covered by a family member's employer plan.

MEPS-IC collects annual information from employers on plan offerings, employee eligibility, and take-up rates. Again, we analyzed results for Massachusetts versus the rest of the US. As discussed below, the survey provides only estimates at the state-year level (rather than the firm level). For this analysis, we used the years 2008–16. Adding 2008–10 data to the ACS analysis produced overall estimates similar to those in our main model, but we did not need the additional sample size for that analysis—in contrast to the state-year MEPS-IC model, where we needed to maximize our sample size.[22]

STATISTICAL ANALYSIS

▶ **HOUSEHOLD SURVEY DATA:** Our main analytical approach was to use ACS household survey data to compare changes from 2011 to 2016 in rates of employer coverage within Massachusetts versus the rest of the US. We measured the changes in employer coverage for the pre-ACA period (2011–13) versus the post-ACA period (2014–16) using a difference-in-differences regression model. This model included a variable for Massachusetts, a variable for the post-ACA period, and their interaction term as the estimated policy impact in Massachusetts compared to the rest of the US. We also conducted an analysis with separate indicators for 2014, 2015, and 2016 to see if changes in employer coverage differed across the three post-ACA years. We then repeated our main model with the sample split into four income groups: up to 138 percent of poverty (eligible for Medicaid under the ACA expansion), 139–250 percent of poverty (ineligible for Medicaid but eligible for highly subsidized Marketplace coverage and cost-sharing subsidies), 251–400 percent of poverty (eligible for Marketplace coverage with more modest subsidies), and more than 400 percent of poverty (ineligible for any subsidized coverage).

Massachusetts provides a unique policy environment in which to evaluate effects of the ACA.

Our multivariate difference-in-differences models adjusted for respondents' employment status (any work and part-time work versus full-time work), age, sex, race/ethnicity, and education; state-year unemployment; and a national linear time trend. For all models, family income was defined based on the health insurance unit (that is, an adult, their spouse, and any dependent children). All ACS analyses used survey weights and robust standard errors clustered at the state level.

▶ **EMPLOYER PLAN INFORMATION:** We compared employer information on ESI offer rates (that is, the percentage of workers who were employed by firms offering coverage) and take-up rates (that is, the percentage of workers in firms that offered coverage who actually enrolled in that coverage), using MEPS-IC data for state- and year-specific estimates for all fifty states and the District of Columbia. This produced a sample of 459 state-year observations, which we

used to conduct a state-level difference-in-differences model. The model adjusted for time-varying state-level covariates analogous to those used in the ACS (and derived from the ACS), such as the racial/ethnic distribution of each state's population in each year.

We analyzed these outcomes for the full sample and then stratified the analysis by firm size, comparing smaller firms (with fewer than fifty employees) and larger firms (with fifty or more employees). All regression models used robust standard errors clustered at the state level and were weighted by population size (the number of workers reported in MEPS-IC).

▶ **SENSITIVITY ANALYSES:** To test the appropriateness of our difference-in-differences study design, we tested whether trends in employer coverage in the two survey data sets were changing differentially for Massachusetts versus other states before 2014. We also tested in the ACS whether employment patterns were diverging between Massachusetts and the rest of the US by replacing employer-sponsored insurance in our regression outcomes with either full-time employment or any employment (part-time plus full-time). Lastly, we assessed changes in the distribution of workers at large versus small firms after 2014 for Massachusetts versus the rest of the US using data from MEPS-IC. All statistical analyses used Stata, version 14.0.

LIMITATIONS Our study had several limitations. The primary one is that many provisions of the ACA were implemented over the period 2014–16, which make it difficult to identify with certainty which ones led to the changes in coverage in Massachusetts that we detected. However, because we used multiple data sources and evaluated several different aspects of employer-sponsored insurance, we believe that our results offer useful and important evidence for policy makers and are suggestive that the employer mandate played an important role.

A second limitation is that our analysis of employer coverage offer rates and employee take-up rates comes from aggregate state-level data in MEPS-IC, without firm-specific details—which limited our ability to probe any firm-level changes.

Third, while our ACS sample has much richer person-level data that let us control for a range of household-level variables, including employment, it has other limitations. Its annual self-reported income data imperfectly measure ACA-related eligibility, which may lead to some misclassification of people eligible for Medicaid and the Marketplaces in our income-group analyses. It is also challenging to distinguish between Medicaid and subsidized Marketplace coverage in Census Bureau survey data, because some respondents may confuse the two.[7,23]

Finally, our difference-in-differences study design is potentially subject to bias from any unmeasured variables that were changing differentially in Massachusetts versus the rest of the US. However, our tests of pre-ACA trends offer support for our general approach.

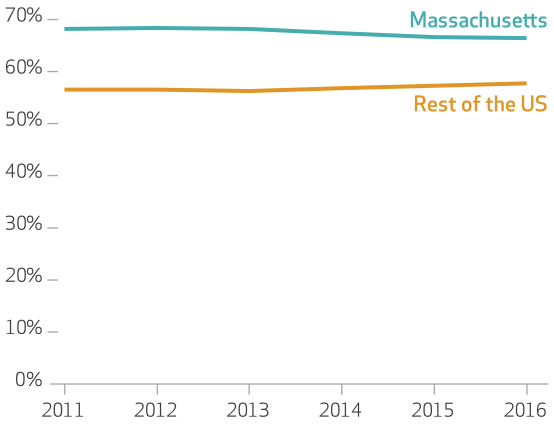
Study Results

CHANGES IN EMPLOYER COVERAGE Based on our analysis of ACS data for 2011–13, before the ACA, Massachusetts had much higher employer-sponsored insurance rates than the rest of the country—just under 70 percent compared to less than 60 percent (exhibit 1). Employer coverage rates remained essentially flat for both groups during the pre-ACA period. Starting in 2014, after the implementation of major ACA coverage provisions, and continuing through 2016, the rate began to decline in Massachusetts, while nationally the rate increased slightly.

Splitting out pre- versus post-ACA changes by state provided more evidence that Massachusetts's experience was unusual. Appendix figure 2 shows the unadjusted changes in employer-sponsored insurance from before (2011–13) to after (2014–16) the ACA for each state.[20] Massachusetts had the second-largest drop nationally and was one of only three states with significant declines in employer coverage that were larger than 1.0 percentage point. Four states had significant but more modest employer coverage de-

EXHIBIT 1

Percentages of people ages 0–64 with employer-sponsored health insurance in Massachusetts and in the rest of the United States, 2011–16



SOURCE Authors' analysis of data for 2011–16 from the American Community Survey. **NOTES** The sample consisted of 15,437,653 people. In 2014, the Affordable Care Act coverage expansion was implemented, and Massachusetts's employer mandate was eliminated.

creases (0.1–0.8 percentage point), twenty-one states had significant increases in employer coverage, and the rest had no significant changes. Thus, Massachusetts did not just experience a decrease in employer coverage that differed from national trends; it was also one of only a handful of states that had any sizable decrease.

In our regression-based difference-in-differences analysis, we found that there was a 2.3-percentage-point reduction in Massachusetts's employer coverage rate between the pre- and post-ACA period, compared to the changes in the rest of the US (exhibit 2). When we looked at within-group differences, we found that nearly 90 percent of the adjusted difference-in-differences estimate was due to the 2.0-percentage-point reduction in employer coverage in Massachusetts in the post period, compared to a modest 0.4-percentage-point increase in employer coverage in the rest of the US.

Our overall difference-in-differences estimate was similar but slightly smaller (a reduction of 1.8 percentage points) when we compared Massachusetts to only Medicaid expansion states. Adjustment for various demographic factors, including employment status, had essentially no effect on our estimates, which indicated that changes in employment in Massachusetts were not responsible for the state's unique changes in employer-sponsored insurance. Tracing out the changes by year, we found a 1.4-percentage-point drop in 2014, a cumulative 2.3-percentage-point drop in 2015 (versus pre ACA), and a cumulative 3.2-percentage-point drop in 2016 (versus pre ACA). Thus, the largest one-year drop was in 2014 (1.4 percentage points), with 0.9-percentage-point incremental decreases in both 2015 and 2016.

Splitting our sample into people potentially eligible for Medicaid under the ACA expansion (those with incomes up to 138 percent of poverty) and those with higher incomes, we found that the greatest reductions in employer coverage in Massachusetts occurred among near-poor and middle-income families, with a 6.5-percentage-point drop among people with incomes of 139–250 percent of poverty and a 3.1-percentage-point drop among those with incomes of 251–400 percent of poverty—compared to a 2.3-percentage-point decline for the poorest group.

EXHIBIT 2

Percentages of people ages 0–64 with employer-sponsored insurance (ESI) in Massachusetts and the rest of the US, before and after the Affordable Care Act (ACA) coverage expansion

		Massachusetts		Rest of US		
Model	Sample (*n*)	Percent with ESI pre ACA	Change from pre to post ACA	Change from pre to post ACA	Difference-in-differences estimate	Change as percent of pre ACA
Unadjusted, full sample	15,437,653	68.3	−0.020****	0.003**	−0.023****	−3.4
Adjusted, full sample	15,437,653	68.3	−0.020****	0.004**	−0.023****	−3.4
Adjusted, Medicaid expansion states only	9,591,153	68.3	−0.017****	0.001	−0.018****	−2.6
BY YEAR, FULL SAMPLE (COMPARED TO PRE ACA)[a]						
2014	15,437,653	68.3	−0.008****	0.006****	−0.014****	−2.0
2015	15,437,653	68.3	−0.012****	0.012****	−0.023****	−3.4
2016	15,437,653	68.3	−0.013****	0.018****	−0.032****	−4.7
INCOME[a]						
≤138% of poverty	4,586,389	28.4	−0.019****	0.004*	−0.023****	−8.1
139%–250% of poverty	2,671,192	54.0	−0.063****	0.002	−0.065**** [b]	−12.0
251%–400% of poverty	2,883,059	78.1	−0.027****	0.004*	−0.031**** [b]	−4.0
>400% of poverty	5,297,013	91.1	−0.004***	0.001	−0.005**** [b]	−0.5
AGE GROUP[a]						
Adults (ages 19–64)	11,168,053	69.2	−0.022****	0.004**	−0.026****	−3.8
Children (ages 0–18)	4,269,600	65.7	−0.012****	0.003	−0.015****	−2.3

SOURCE Authors' analysis of data for 2011–16 from the American Community Survey (ACS). **NOTES** People with ESI were defined as those covered by their own employer's plan as well as dependents (such as children) covered by a family member's employer plan. All models controlled for pre (2011–13) versus post (2014–16) ACA, Massachusetts versus the rest of the US, and a linear time trend. Adjusted models also included respondents' employment status (any work and part-time work versus full-time work), age, sex, race/ethnicity, and education and state-year unemployment rate. Income was defined based on the health insurance unit. All analyses used ACS survey weights and robust state-clustered standard errors. Estimates in the second-to-last column show the difference-in-differences estimates using linear probability models, which compared changes in Massachusetts from the pre- to the post-ACA period and changes in the rest of the US over the same time frame. Medicaid expansion states are those that expanded eligibility for Medicaid under the ACA. [a]By-year results are from a single model, with separate coefficients for each year. Income and age group models were stratified by subgroup. [b]Between-group difference for difference-in-difference estimates was significant ($p < 0.05$), with ≤138 percent of poverty as the reference group. *$p < 0.10$ **$p < 0.05$ ***$p < 0.01$ ****$p < 0.001$

The reduction in employer coverage in the group with incomes of 139–250 percent of poverty was highest in both absolute and relative terms, compared to the pre-ACA employer coverage rate for each group. It was also significantly larger than the change for the lowest-income group. There was a significant but small reduction in employer-sponsored insurance for the highest-income group (–0.5 percentage points). Analyzing changes by age, the majority of the coverage losses occurred among adults (–2.6 percentage points), with smaller but still significant losses among children (–1.5 percentage points).

CHANGES IN OFFER AND TAKE-UP OF EMPLOYER COVERAGE BY FIRM SIZE Using the MEPS-IC employer survey data, across all firm sizes, we found that employer coverage offer rates fell significantly (by 0.7 percentage point) in Massachusetts in 2008–16 compared to the rest of the US (exhibit 3). (Appendix figure 3 shows unadjusted trends.)[20] Offer rates were much higher (above 90 percent) for large firms (those with fifty or more workers) in both Massachusetts and the rest of the US, with no significant changes after the ACA. Meanwhile, in small firms (those with fewer than fifty workers), there was a reduction in offer rates in Massachusetts, with a difference-in-differences estimate of –1.8 percentage points.

Exhibit 4 shows the analogous changes in employee take-up rates of employer coverage, conditional on working in a firm that offered coverage (appendix figure 4 presents unadjusted trends).[20] For all firms and for large firms, there were no significant changes in Massachusetts or the rest of the US. In unadjusted analyses, there was a 1.3-percentage-point decline in take-up at small firms in Massachusetts compared to the rest of the US, but this result was not significant after adjustment.

SENSITIVITY ANALYSES AND EMPLOYMENT CHANGES We tested whether trends in employer-sponsored insurance were already diverging between Massachusetts and the rest of the US before 2014. Using ACS data, we found no significant difference in employer coverage trends (–0.1 percentage point per year; $p = 0.45$) (results not shown). Using MEPS-IC data, we found no significant differential trends in Massachusetts versus the rest of the US for employer coverage offer rates (0.2 percentage point per year; $p = 0.77$) or take-up rates (–0.4 percentage point per year; $p = 0.49$).

Using ACS data, we found no significant change after 2014 in the likelihood of having any employment (0.1 percentage point; $p = 0.29$) or full-time employment (0.0 percentage point; $p = 0.85$) in Massachusetts versus the rest of the US. Combined with the fact that adjusting for individual-level employment and state unemployment rates did not change our employer coverage estimates, this suggests that declining employer coverage in Massachusetts was not due to unique economic trends in the state.

We also tested in MEPS-IC whether the distribution of workers by firm size changed during this period (appendix table 2).[20] We found a modest but significant difference-in-differences estimate for the share of workers at small firms (unadjusted model: 0.4 percentage point; $p = 0.001$; adjusted model: 0.8 percentage point; $p = 0.01$) in Massachusetts compared to the rest of the US. This change was driven by a national decrease in the share of workers at small firms (–0.8 percentage points; $p = 0.08$); within Massachusetts, there was no change (0.0 percentage point; $p = 0.96$).

Finally, in descriptive analyses in Massachusetts (results not shown), the overall nonelderly uninsurance rate dropped from 4.7 percent in 2011–13 to 3.4 percent in 2014–16, which indicates that even though employer coverage rates were falling in the state, gains in subsidized coverage via Medicaid and the ACA Marketplace were more than enough to compensate.

Discussion

Massachusetts provides a unique policy environment in which to evaluate effects of the ACA. We

EXHIBIT 3

Offer rates for employer-sponsored insurance in Massachusetts and the rest of the US before and after the Affordable Care Act (ACA) coverage expansion, by firm size

	Massachusetts		Rest of US	
Model	Pre-ACA offer rate (%)	Change from pre to post ACA	Change from pre to post ACA	Difference-in-differences estimate
FULL SAMPLE				
Unadjusted	92.2%	–0.004	0.002	–0.006**
Adjusted	92.2	–0.006*	0.001	–0.007**
FIRMS WITH FEWER THAN 50 WORKERS				
Unadjusted	72.2	–0.017***	–0.002	–0.016***
Adjusted	72.2	–0.020**	–0.002	–0.018**
FIRMS WITH 50 OR MORE WORKERS				
Unadjusted	99.2	–0.002	0.001	–0.002
Adjusted	99.2	–0.003	–0.003	–0.000

SOURCE Authors' analysis of data for 2008–16 from the Medical Expenditure Panel Survey–Insurance Component. **NOTES** Offer rates are the number of workers employed in firms that offered employer-sponsored insurance, divided by the total number of workers in Massachusetts or the rest of the US. There were 459 state-year combinations (including the District of Columbia as a state). All models controlled for pre (2008–13) versus post (2014–16) ACA , Massachusetts versus the rest of the US, and a linear time trend. Adjusted models also included state-year means for respondent employment status (any work and part-time work versus full-time work), age, sex, race/ethnicity, and education and state-year unemployment rate. All analyses used robust state-clustered standard errors and were weighted by number of workers per state per year. *$p < 0.10$ **$p < 0.05$ ***$p < 0.01$

EXHIBIT 4

Employees' take-up rates of employer-sponsored insurance in Massachusetts and the rest of the US before and after the Affordable Care Act (ACA) coverage expansion, by firm size

	Massachusetts		Rest of US	
Model	Pre-ACA take-up rate (%)	Change from pre to post ACA	Change from pre to post ACA	Difference-in-differences estimate
FULL SAMPLE				
Unadjusted	57.0	0.005	0.002	0.003
Adjusted	57.0	0.007	0.006	0.001
FIRMS WITH FEWER THAN 50 WORKERS				
Unadjusted	51.6	−0.010**	0.003	−0.013**
Adjusted	51.6	−0.007	0.004	−0.011
FIRMS WITH 50 OR MORE WORKERS				
Unadjusted	58.4	0.007	0.002	0.006
Adjusted	58.4	0.009	0.006	0.003

SOURCE Authors' analysis of data for 2008–16 from the Medical Expenditure Panel Survey–Insurance Component. **NOTES** Take-up rates are the number of workers who had employer sponsored insurance (ESI), divided by the number of workers in firms that offered ESI to their employees. There were 459 state-year combinations (including the District of Columbia as a state). All models controlled for pre (2008–13) versus post ACA (2014–16), Massachusetts versus the rest of the US, and a linear time trend. "Adjusted models" are explained in the notes to exhibit 3. All analyses used robust state-clustered standard errors and were weighted by number of workers per state per year. **$p < 0.05$

found that the state was an outlier in terms of changes in employer-sponsored insurance after the ACA's major coverage expansions in 2014. While most states experienced stable or increased employer coverage rates after 2014, Massachusetts experienced a significant reduction in employer coverage. Small firms in the state became less likely to offer coverage to workers after the ACA's implementation, when the state's prior mandate gave way to the ACA's (delayed) federal mandate—under which firms with fewer than fifty full-time-equivalent workers are no longer subject to a penalty. This general pattern of results is consistent with employer surveys conducted by the Commonwealth of Massachusetts, which also show reductions in employer coverage between 2011 and 2016, primarily among workers at smaller firms.[24,25]

What might account for these changes? We found no evidence that employment changed differentially in the state compared to the rest of the US during this period, and adjusting our models for employment did not affect our overall results. Thus, it does not appear that differential economic trends in Massachusetts led to the drop in employer coverage. We found a small shift in firm-size composition nationally toward larger firms, while there was no change in firm-size composition within Massachusetts, but the magnitude of this change nationally is unlikely to explain our overall results.

Another possibility, which has been suggested by Governor Baker,[11] is that the state's expansion of Medicaid in 2014 (called MassHealth) led people to drop out of employer coverage and enroll in public coverage. However, we found that the reductions in employer coverage were largest among Massachusetts workers with incomes between 138 percent and 400 percent of poverty, not those in the income range eligible for Medicaid, which suggests that our results are not primarily due to a crowd-out effect from the 2014 Medicaid expansion. Rather, it appears that crowd-out—to the extent that it occurred in Massachusetts—was primarily among those eligible for subsidized Marketplace coverage.

A potential explanation consistent with these findings is that the change in the employer mandate led to reduced incentives for smaller firms in the state to offer employer coverage to their workers. This is consistent with Mark Pauly and Adam Leive's argument that one important role of the employer mandate is to reduce incentives for firms to shift middle-income employees from employer coverage to the Marketplaces.[26] The income distribution of workers by firm size in Massachusetts (appendix table 3)[20] offers additional support for this explanation, as employees with incomes between 138 percent and 400 percent of poverty are overrepresented in firms with fewer than fifty workers (41.1 percent versus 28.4 percent in larger firms).

In most states, the relevant policy change was a transition from no mandates pre ACA to a new individual mandate in 2014 and an employer mandate in 2015. The effect nationally was a slight increase in employer coverage that may be partially attributable to those provisions—which would be consistent with prior research on Hawaii's employer mandate that was implemented in the 1970s.[27]

Meanwhile, in Massachusetts, an existing employer mandate was eliminated in 2014, before being replaced in 2015 by a mandate that no longer applied to smaller firms—with the apparent result that fewer small firms offered employer coverage and more workers shifted to alternative forms of coverage. Our year-by-year findings show that the biggest single-year drop in employer coverage in Massachusetts occurred in 2014, the year with no mandate in effect. Employer coverage in Massachusetts continued to drop (though more slowly) in 2015 and 2016, once the ACA mandate was in effect. This suggests that it was not just the absence of any mandate in 2014 that caused a one-time change, but also the ACA's lack of penalties for smaller firms that produced an ongoing erosion of employer coverage after 2014. It is far from definitive that the employer mandate was the only factor in the differential drop in employer coverage in Massachusetts, but our results provide suggestive

It does not appear that differential economic trends in Massachusetts led to the drop in employer coverage.

evidence that this change did have a detectable impact.

Policy Implications

From a national perspective, these findings have implications for the ongoing debate about repealing or modifying the ACA, which has typically included proposals to eliminate (or stop enforcing) the employer mandate. The Congressional Budget Office (CBO) analysis of two major Republican proposals from early 2017—the American Health Care Act and the Better Care Reconciliation Act—predicted that minimal changes in employer-sponsored insurance would result from their passage. In fact, the CBO projected that employer coverage rates would actually go up under the former, despite its elimination of the employer and individual mandates, because with less generous options for nongroup plans, more employers would offer employer coverage and more employees would accept it.[28] Our findings suggest that the CBO may be underestimating the potential erosion of coverage that dropping the employer mandate could create. An alternative proposal to modify the employer mandate by exempting firms with fewer than 500 workers[29] might similarly reduce employer coverage in some firms. However, there are substantial differences between large and very large employers nationally (that is, those with 50–500 workers) and small employers (with fewer than 50 workers) in Massachusetts, so extrapolating from our findings is highly uncertain.

More locally, our findings offer insights into efforts within Massachusetts to understand coverage changes and assess the implications of the ACA on the state's MassHealth budget. Governor Baker's proposal to reinstitute a version of the state's employer mandate would potentially have helped increase or stabilize employer coverage. But his administration dropped that proposal and more recently focused on a provision to exclude people with an employer coverage offer from Medicaid. In August 2017 Governor Baker signed into law a new penalty (of up to $750 per employee) for employers whose workers forgo employer coverage to enroll in MassHealth.[30] This emphasis suggests that the administration believes declining take-up rates represent a more significant problem than decreasing offer rates. However, our findings suggest that offer rates are a key factor in declining rates of employer coverage in Massachusetts and, moreover, that Medicaid eligibility is unlikely to explain most of the state's employer coverage losses. Given that reductions in this coverage were much larger among middle-income families than among people with incomes below 138 percent of poverty, simply preventing a shift from employer coverage to Medicaid would at best address only a portion of the state's declining employer coverage rates—though of course the shift from employer coverage to Medicaid has greater budgetary implications for the state than do shifts to other types of insurance.

In conclusion, we offer new evidence suggesting that one of the less salient features of the ACA—the employer mandate—may have played an underappreciated role in maintaining national rates of employer coverage since 2014. As was the case with the original passage of the ACA in 2010, based in large part on Massachusetts's experience with its 2006 reform, evidence from the Bay State offers important insights for policy makers as they continue to debate the law's future. ■

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20 To access the appendix, click on the Details tab of the article online.
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