REDUCTION IN UNINSURED RATE FOR SMALL-GROUP VERSUS LARGE-GROUP EMPLOYEES post-ACA

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**Abstract**

Using data from the Medical Expenditure Panel Survey (MEPS) Household Component 2007-2015, we examined whether trends in insurance offering, insurance status, access to care, and financial burden differed for small-group employees (defined as less than 50 full-time equivalent employees) versus large-group employees after the implementation of the Affordable Care Act. Our difference-in-difference model showed a reduction of 3 percentage points (p<0.001) in the uninsured rate for small-group versus large-group employees. Changes in other outcomes were not statistically significantly different between small-group and large-group employees.

**Reduction in uninsured rate for small-group versus large-group employees post-ACA**

*Analyses using the Medical Expenditure Panel Survey 2007-2015 showed a reduction of 3 percentage points (p<0.001) in the uninsured rate for small-group versus large-group employees post-ACA. No difference was found in other insurance and access measures, signaling that the ACA did not adversely affect small-group relative to large-group employees.*

Prior to the Affordable Care Act (ACA), no firm was required to provide health insurance to employees, although small firms (defined as less than 50 full-time equivalent employees) historically offered insurance at lower rates than large firms. Beginning January 1, 2014, the ACA imposed new rules and regulations on health insurance, some of which applied to fully-insured plans sold to small firms but not to fully-insured plans sold to large firms or self-insured plans.(1)

Researchers have expressed concerns that the above requirements would raise monthly premiums for small firms and as a result, many small firms would drop their health coverage.(2) At the same time, however, the Affordable Care Act established individual exchanges as well as expanded Medicaid in certain states, giving employees more choices in obtaining health insurance. The net effect of these changes on insurance status, access to care and financial burden for small-group employees was unknown.

Using data from the Medical Expenditure Panel Survey (MEPS) Household Component 2007-2015, we found that the ACA was associated with significant reductions in the likelihood of being uninsured for small-group versus large-group employees (Exhibit 1). From 2013 to 2015, the share of the uninsured in small firms declined by 10 percentage points to 21.1%, 6.5 percentage points below the uninsured level in 2007. Regression analysis using a difference-in-difference (DD) methodology showed that the small-group employees had a greater estimated reduction in the likelihood of being uninsured of 3 percentage points relative to large-group employees. We also analyzed trends in a number of other measures (employer-sponsored insurance availability and rate of take-up, access to care and financial burden) for small-group versus large-group employees, but did not find any statistically significant differences associated with ACA implementation. Therefore, the ACA appears not to have adversely affected small-group employees on a range of insurance offering and access to care measures.

**Study Data and Methods**

Exhibit 2 shows selected differences between plans sold to small firms versus large firms starting 2014. For small firms, the ACA limits the factors that health insurance companies can use to price premiums to age, geography, tobacco usage and whether the coverage is for individual or family.(1) Plans are also required to have ten essential health benefits including maternity and newborn care, preventive and wellness services, disease management services, and mental health services.(3,4) These benefits can be more generous than what small firms used to offer prior to the ACA.

For the study, we used 7 years of data pre-ACA (2007-2013) and 2 years of data post-ACA (2014-2015) from the Medical Expenditure Panel Survey (MEPS) Household Component Public Use File (PUF). The analysis sample was limited to employees age 26 and older, defined as any persons age 26 to less than 65 who were “currently employed” and who were not self-employed. Employees of federal, state or local government were also excluded.

The outcome variables of interest were:

* the offer rates of employer-sponsored insurance (ESI);
* the take-up rates of different insurance types, which were categorized as employment-related insurance (including personal ESI and spouse’s ESI), public insurance (Medicare, Medicaid etc.) and private insurance (including individual health exchange plans);
* three self-reported measures of access and financial burden:
  + whether the person was unable to get necessary medical care;
  + whether the person delayed in getting necessary medical care; and
  + whether the person experienced medical financial burden, defined as having total out-of-pocket expenditure (total amount of health care expenditure paid by self/family, not including premiums) higher than 10% of family income.(5)

Population-weighted descriptive statistics were used to plot trends in the outcomes of interest. Logistic regressions models were used to estimate the difference-in-difference effect of the ACA on small-group and large-group employees in 2014 and 2015 versus the previous 7 years. The models, which were population-weighted and adjusted for the complex survey design, controlled for age, race, gender, family poverty level, education level, hours worked per week, region, and health risk level (based on the number of conditions out of 11 priority conditions as defined by MEPS: diabetes, heart disease, high blood pressure, stroke, emphysema, chronic bronchitis, high cholesterol, cancer, joint pain, arthritis, and asthma). We calculated the marginal effects of pre and post ACA on small-group versus large-group employees and used the Wald test to test the DD effects.(6)

**Study Results**

Exhibit 3 shows the availability of ESI from current main job separately for small-group and large-group employees. The availability of ESI for large-group employees was stable at around 90% from 2007 to 2015. Availability for small-group employees declined slightly from 55% in 2007 to 49% in 2013 but picked up since 2014 to around 53% in 2015.

For insurance take-up, Exhibit 1 shows the steady decline in employment-related coverage and the rise in private insurance coverage, public insurance coverage and being uninsured during 2007-2013. These trends occurred for both small-group and large-group employees, albeit with a bigger magnitude for the small-group employees. From 2013 to 2015, the share of the uninsured in small firms declined by 10 percentage points to 21.1%, 6.5 percentage points below the uninsured level in 2007. The decline corresponded with a 4.3 percentage point rise in other private insurance, 4.2 percentage point rise in public insurance, and 1.6 percentage point rise in employment/union insurance.

Exhibit 4 shows the proportions of small-group and large-group employees who self-reported that they were unable to access to care, who delayed getting care and who had medical financial burden. There was no discernable trend for the access to care and financial burden variables among large-group employees, and the proportions reporting problems were small (under 5%). The small proportions reporting problems and low absolute number of sample respondents reporting problems made these estimates imprecise and subject to fluctuation. Among small-group employees, these two measures seemed to be on a downward trend. The proportion of people who delayed care also declined from 2008 to 2013. Since then, however, the proportion reporting a delay climbed back to close to 3.3% and 3.4%, wiping out most of the drop among small-group employees and less than half among large-group employees.

An appendix (Exhibit 1A) presents results from the logistic multivariate models of the relationship of small-group status post ACA for each outcome variable. Exhibit 5 shows the marginal effects of pre and post ACA on small-group versus large-group employees; the last row of this exhibit presents a Wald test assessing the significance of the DD effects. The DD effect of ESI availability was not statistically significant. The post ACA period was associated with decreases in the ESI rate and uninsured rate in both large-group and small-group employees, holding other variables in the model constant. Small group estimates showed a reduction of .75 percentage point (p<0.05) and .67 percentage point (p<0.05) in the inability to access medical care and financial burden post ACA. However, the only DD effect that was statistically significant was the 3 percentage point reduction in the uninsured rate (p<0.001); other DD effects comparing small-group to large-group differences were not statistically significant.

**Discussion**

Despite concerns about employers dropping coverage, we did not find evidence strongly indicating that the ACA had an impact on ESI availability two years post-ACA, which is consistent with other recent research.(7) Other factors such as the economy and job market may continue to have larger impact on whether small firms offers health insurance or not. On the other hand, the ESI rate has been on the decline since 2007 in our study population, bottoming out in 2013 (Exhibit 1). Taken together, these two trends mean that since 2007, employees continued to receive ESI offers from their employers but increasingly decided not to take it. The result was a rise in uninsured rate from 2007 to 2013 (Exhibit 1). Such a trend of declining take-up rates and rising uninsured rates has been documented as early as the 1990s;(8) factors identified as contributing to the trend such as rising health care costs and higher contribution rates for employees are still true today. Hence, the declines in the uninsured rate of close to 2 percentage points (p<0.001) in large-group and 5 percentage points (p<0.001) in small-group employees post-ACA were particularly notable, with a net DD effect of 3 percentage points.

Nevertheless, the ACA and attendant gain in insurance coverage was not accompanied by big improvements in self-reported access to care and financial burden for employees. Small-group employees reported marginally but not statistically significant better access to care, not delaying care and not having financial burden post-ACA compared to large group.

Our analysis showed that small firms were not adversely affected compared to large firms post-ACA. Nevertheless, the ACA has not decidedly improved ESI availability at small firms, despite incentives such as the Small Business Health Options Program (SHOP) exchanges. A proposal from the Labor Department plans to allow small firms to band together and buy plans which were previously available only to large firms.(9) The proposal, if signed into law, might increase ESI availability. However, small-group employees have come to rely more on public insurance and private insurance rather than ESI relative to large-group employees. When significant changes happen to Medicaid or the individual market, small-group employees might be greatly affected. The cost-sharing reduction payments were already cut in Oct 2017, which means assistance for co-payments and deductibles are no longer available for people buying plans on the exchange.(10) In addition, HHS has recently announced a proposal to allow the use of short-term insurance for up to 12 months.(11) The proposal might further erode the individual market’s risk pool, leading to even higher premiums even in the absence of outright repeal of the ACA.

Our study has some limitations. First, the MEPS survey question simply asked respondents for the number of employees at their place of employment, which might be different from the number of full-time-equivalent employees (FTE). As the ACA uses FTE to determine firm size, the number of employees reported in MEPS might not be a precise measure for deciding whether a firm is small-group or large-group. Second, the survey question only asked for the number of employees at the location of the person’s current main job. We only considered small-group employees to be those in firms with one location and having 50 employees or less. To calculate financial burden, we used family income data, which did not account for taxes that the family paid. Hence, our financial burden data might have underestimated the true burden. Finally, the proportions of people reporting access problems and financial burden were low, as was the absolute number of observations (about 30 people each for small and large group across the years). This small number of observations led to a low power and imprecise estimates of those variables for the study.

**Conclusion**

Ever since its inception, arguments and controversies abound about the ACA. This analysis looked at small-group employees, who make up almost one-third of the workforce,(12) to see if they were adversely affected by the provision of the ACA compared to large-group. We found a statistically significant reduction in the uninsured rate. We also found a slight decrease in ESI availability and slight improvement on access to care and financial burden although none was statistically significant. Therefore, we found no evidence that small-group employees were adversely affected by the ACA compared to large-group employees.

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***Exhibit 1: Insurance status by firm size from 2007 to 2015***



***Exhibit 2: Selected differences between plans for small firms and large firms starting 1/1/2014(1)***

|  |  |  |
| --- | --- | --- |
|  | Small firms (fully-insured plans) | Large firms |
| Coverage mandate | No | Yes\* |
| Required essential health benefits† | Yes | No |
| Premium rating restrictions | 4 factors: age, geography, tobacco usage and whether the coverage is for individual or family | No |
| Actuarial value levels | Metallic levels (60%, 70%, 80% and 90%) | Minimum of 60% |
| SHOP (Small Business Health Options Program) exchange | Yes | No\*\* |

†Include services like ambulatory patient services, emergency services, hospitalization, maternity and newborn care, and so on. It is different from the required “Preventive services” clause, which applies to all plans that are not grandfathered.

\*Went into effect 1/1/2015 for firms with 100 or more FTEs and 1/1/2016 for firms with 50-99 FTEs

\*\*Beginning 2017, states have the option to allow health insurance companies to offer plans for large group on the exchange. If a state adopts this option, all fully-insured plans sold to large group in that state will then be subject to the same restrictions as small group.

***Exhibit 3: Availability of ESI by firm size from 2007 to 2015***



***Exhibit 4: Inability to access care, delay to care and financial burden by firm size from 2007 to 2015***



***Exhibit 5: Difference-in-Difference (DD) effects of pre and post ACA on small-group versus large-group employees*** ***(using logistic regression, population weighted)***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) | (6) |
|  | **Availability of ESI offer** | **ESI rate** | **Uninsured rate** | **Inability to access medical care** | **Delay access to medical care** | **Financial burden** |
| Large group | -0.23% | -1.82%\*\* | -1.80%\*\*\* | -0.39% | 0.24% | -0.33% |
| Small group | -1.31% | -2.46%\* | -4.80%\*\*\* | -0.75%\* | -0.19% | -0.67%\* |
| **DD** | **-1.08%** | **-0.64%** | **-3.00%\*\*\*** | **-0.36%** | **-0.43%** | **-0.35%** |

*\* p<0.05, \*\* p<0.01, \*\*\* p<0.001 An appendix (Exhibit 1A) show full regression controls and results.*

***APPENDIX: Exhibit A1: Logistic regression of the availability of ESI offer, insurance status, access to care and financial burden (population weighted)***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) | (6) |
|  | **Availability of ESI offer** | **ESI rate** | **Uninsured rate** | **Inability to access medical care** | **Delay access to medical care** | **Financial burden** |
| Small group | -1.96\*\*\* | -1.41\*\*\* | 1.28\*\*\* | 0.39\*\*\* | 0.19\* | 0.31\*\* |
| Post ACA (versus 2007-1013) | -0.03 | -0.17\*\* | -0.28\*\*\* | -0.21 | 0.08 | -0.3 |
| Small group \* Post ACA | -0.04 | 0.03 | -0.12 | -0.09 | -0.14 | -0.21 |
| Age | 0.05\*\* | 0.06\*\*\* | -0.04\* | 0.04 | 0 | -0.07 |
| Age squared | -0.00\* | -0.00\*\* | 0 | 0 | 0 | 0.00\* |
| Female | 0 | 0.26\*\*\* | -0.54\*\*\* | 0.22\*\* | 0.41\*\*\* | 0.1 |
| Race (versus White) |  |  |  |  |  |  |
| Black | 0.03 | -0.1 | -0.03 | -0.09 | -0.27\*\* | -0.71\*\*\* |
| Asian | -0.11 | -0.21 | 0.11 | -0.40\* | -0.64\*\*\* | -0.95\*\*\* |
| Others | 0.15 | -0.11 | 0.14 | -0.07 | 0.21 | -0.34 |
| Education (versus Less than high school) |  |  |  |  |  |  |
| High school | 0.60\*\*\* | 0.75\*\*\* | -0.82\*\*\* | -0.30\*\* | 0 | 0.42\*\* |
| Some college | 0.83\*\*\* | 1.02\*\*\* | -1.15\*\*\* | -0.29\* | -0.05 | 0.71\*\*\* |
| College | 1.14\*\*\* | 1.43\*\*\* | -1.66\*\*\* | -0.41\*\* | 0.28\* | 0.93\*\*\* |
| Married | 0 | 0.71\*\*\* | -0.66\*\*\* | -0.61\*\*\* | -0.56\*\*\* | -0.92\*\*\* |
| Health status (versus Low risk) |  |  |  |  |  |  |
| Medium risk (1-2 priority conditions) | 0.21\*\*\* | 0.22\*\*\* | -0.41\*\*\* | 0.82\*\*\* | 0.83\*\*\* | 0.63\*\*\* |
| High risk (3-8 priority conditions) | 0.24\*\*\* | 0.32\*\*\* | -0.74\*\*\* | 1.38\*\*\* | 1.51\*\*\* | 1.36\*\*\* |
| Poverty level (versus Poor) |  |  |  |  |  |  |
| Low income (100% - <200%) | 0.85\*\*\* | 1.06\*\*\* | -0.26\*\*\* | -0.21 | -0.06 | -1.21\*\*\* |
| Middle income (200% - <400%) | 1.58\*\*\* | 2.10\*\*\* | -1.05\*\*\* | -0.79\*\*\* | -0.39\*\* | -2.17\*\*\* |
| High income (400% and above) | 2.03\*\*\* | 2.91\*\*\* | -2.02\*\*\* | -1.46\*\*\* | -0.62\*\*\* | -3.49\*\*\* |
| Full-time (Over 35 hrs) | 1.68\*\*\* | 1.17\*\*\* | -0.54\*\*\* | -0.24\* | -0.24\* | -0.25 |
| Region (versus North) |  |  |  |  |  |  |
| Midwest | 0.09 | 0.09 | 0.05 | 0.03 | 0.03 | 0.37\* |
| South | -0.16\* | -0.24\*\*\* | 0.66\*\*\* | 0.26\* | 0.09 | 0.48\*\* |
| West | -0.07 | -0.11 | 0.24\*\* | 0.15 | 0.05 | 0.56\*\* |
| Constant | -2.69\*\*\* | -4.29\*\*\* | 1.56\*\*\* | -3.80\*\*\* | -3.27\*\*\* | -2.07\* |
| N | 314,784 | 314,784 | 314,784 | 314,677 | 314,663 | 314,784 |

*\* p<0.05, \*\* p<0.01, \*\*\* p<0.001*