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## The Effect of Massachusetts' Health Reform on Employer-Sponsored Insurance Premiums\*

John F. Cogan<sup>\*</sup>, R. Glenn Hubbard<sup>†</sup>, and Daniel Kessler<sup>‡</sup>

<sup>\*</sup>Stanford University, cogan@stanford.edu

<sup>†</sup>Graduate School of Business of Columbia University, rgh1@columbia.edu

<sup>‡</sup>Stanford University, fkessler@stanford.edu

### Abstract

In this paper, we use publicly available data from the Medical Expenditure Panel Survey - Insurance Component (MEPS-IC) to investigate the effect of Massachusetts' health reform plan on employer-sponsored insurance premiums. We tabulate premium growth for private-sector employers in Massachusetts and the United States as a whole for 2004 – 2008. We estimate the effect of the plan as the difference in premium growth between Massachusetts and the United States between 2006 and 2008—that is, before versus after the plan—over and above the difference in premium growth for 2004 to 2006. We find that health reform in Massachusetts increased single-coverage employer-sponsored insurance premiums by about 6 percent, or \$262. Although our research design has important limitations, it does suggest that policy makers should be concerned about the consequences of health reform for the cost of private insurance.

### Keywords

health reform

### Introduction

In April 2006, Massachusetts enacted legislation designed to provide nearly universal coverage to its residents. The Massachusetts Health Reform Plan involved several components (McDonough et al. 2008): an individual mandate, an employer pay-or-play requirement, subsidies for low- and moderate-income people, an insurance exchange (coupled with other insurance market reforms), changes in insurance regulations, and an expansion of the Massachusetts Medicaid program. These changes were phased in throughout 2007.

Much has been written about the Plan, both favorable (e.g., Long and Stockley 2009) and critical (e.g., Tanner 2009). Because the Plan's main components are the same as those of the new health reform law, the effects of the Plan provide a window onto the country's future. Yet, despite this, no study has carefully examined the Plan's effects on employer-sponsored

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\*John F. Cogan is the Leonard and Shirley Ely Senior Fellow at the Hoover Institution at Stanford University; R. Glenn Hubbard is Dean and Russell L. Carson Professor of Finance and Economics (Graduate School of Business) and Professor of Economics at Columbia University and Research Associate at the National Bureau of Economic Research (NBER); and Daniel Kessler is Professor (Graduate School of Business and Law School) and Senior Fellow (Hoover Institution) at Stanford University and Research Associate at NBER. Kessler gratefully acknowledges funding from the National Institutes on Aging through the NBER. All errors or misstatements are our own.

insurance premiums. This omission is significant because, in 2008, 58.5 percent of Americans obtained coverage from their employer (DeNavas-Walt et al. 2009).

The Plan's effect on premiums is theoretically indeterminate. On the one hand, the Plan might lead to lower premiums for employer-sponsored insurance. The creation of an insurance exchange could reduce transaction costs, especially for small employers. In addition, the individual and employer mandates, by expanding coverage, could reduce cost-shifting from the uninsured. On the other hand, the Plan might lead to higher premiums. If the supply of health services is upward-sloping, then the expansion in the demand for health services induced by the plan would lead prices of health services to increase, and premiums to follow prices. Any expansion of regulation through the exchange could exacerbate this effect.

The Plan's effect on small firms relative to their larger counterparts is indeterminate as well. One of the consequences of the Plan was the merger of the nongroup/individual and small group insurance markets, which was predicted to increase small group rates by 1–1.5 percent (Gorman Actuarial et al. 2006). However, other features of the Plan, such as the insurance exchanges, may have benefitted small firms disproportionately and therefore have offset this effect.

In this note, we use publicly-available data from the Medical Expenditure Panel Survey - Insurance Component (MEPS-IC) to investigate the issue empirically. We tabulate premium growth for private-sector employers in Massachusetts and the United States as a whole for 2004–2008. We estimate the effect of the Plan as the difference in premium growth between Massachusetts and the United States between 2006 and 2008 -- that is, before versus after the Plan -- over and above the difference in premium growth for 2004 to 2006. In doing so, we control not only for differences in the level of premiums in Massachusetts versus the rest of the country, but also for preexisting differences in premium growth that may be due to factors unrelated to reform.

We calculate the effect of reform on single-coverage and family premiums, and on premiums for small firms (< 50 employees). In addition, to better account for possible economic and demographic differences between Massachusetts and the rest of the country, we also compare premium growth in the Boston Metropolitan Statistical Area (MSA) to premium growth in the 19 largest other MSAs. Massachusetts as a whole is characteristically different from the United States, in that its residents have higher incomes and are more concentrated in urban areas. To the extent that these differences affected premium growth for reasons unrelated to health reform, the United States would not be a good "control" for Massachusetts in the analysis above. Our comparison of the Boston MSA only to other large MSAs provides an alternative estimate that, at least in part, addresses this concern.

## Analysis

Table 1 presents our analysis of single-coverage premiums. The top panel compares premiums in Massachusetts to those in the United States. The first column presents the growth in premiums for the 2006 to 2008 period, before versus after Massachusetts' adoption of its health reform Plan. Premiums for single coverage at private sector employers rose by 8.7 percent in Massachusetts, as compared to 6.5 percent in the United States as a whole. A simple estimate of the effect of the Plan, then, would be the difference between 8.7 and 6.5, or 2.2 percent.

This simple calculation, however, does not account for the fact that Massachusetts may have had a different preexisting trend in premiums from the rest of the country. The second

column shows that it did: premiums in Massachusetts grew 3.7 percent more slowly than premiums nationwide from 2004 to 2006. Thus, the differential growth in Massachusetts versus the United States between 2006 and 2008, as compared to the growth from 2004 to 2006, is 5.9 percent -- our estimate of the effect of the Plan. On the base of Massachusetts' 2006 premiums of \$4,448, this amounts to \$262.

The middle panel of the table presents analogous calculations that compare the Boston/Cambridge/Quincy, MA/NH MSA to the 19 largest other MSAs. Comparing the premium growth in the Boston MSA to the country's other large MSAs yields an estimate of the effect of the Plan of 5.5 percent -- almost identical to the one above.

The bottom panel presents calculations for small private-sector employers only. It shows that the premiums for this group grew 6.8 percent more in Massachusetts versus the United States between in 2006–08 as compared to 2004–06 -- 0.9 percent greater than the 5.9 percent differential growth rate for all private-sector employers. This finding is consistent with other analysts' predictions, as discussed above.

Table 2 presents our analysis of family premiums. As in Table 1, the top panel compares Massachusetts to the United States. It shows that premiums in Massachusetts grew 4.1 percent more rapidly from 2006 to 2008 than premiums in the nation as a whole. However, in the two years before health reform, family insurance premiums were already growing 2.7 percent faster in Massachusetts than in the rest of the country. Our estimate of the effect of reform is therefore the difference between these numbers, 1.5 percent. This finding is surprising, in light of the fact that the Plan required that fully insured family policies offer coverage to children for two years after loss of dependent status, or until they turn 26, whichever comes first. Previously, family policies could cease covering dependents when they were no longer full-time students (McDonough et al. 2008).

In the Boston MSA, however, family premiums grew far more rapidly: from 2006–08, by 21.7 percent, or 8.2 percent more than premiums in the nineteen largest other MSAs. This rapid growth does not appear to be due to preexisting differential trends: from 2004–06, premiums in Boston grew only 0.1 percent more than in the other large MSAs. The fact that family premiums in Boston rose much more than in the Commonwealth as a whole suggests that the composition of families may have been changing differently across the state.

Small employers in the Commonwealth as a whole also experienced very high family premium growth contemporaneous with health reform. In particular, family premiums for employers with less than 50 employees grew 9.4 percent more from 2006–08 in Massachusetts than the United States. By comparison, Massachusetts had 5 percent lower premium growth in the small-group market from 2004–06. Thus, the differential Massachusetts/US growth in small-group premiums from 2006–08, over and above the growth from 2004–06, was 14.4 percent. At least by this measure, health reform in Massachusetts imposed a very large burden on small businesses and their employees.

## Discussion

As the country begins to implement health reform, the experience of Massachusetts has become increasingly relevant. Even though the Massachusetts reform is little more than two years old, data on its effects offer important lessons for the nation as a whole.

In this note, we use publicly available data from the Medical Expenditure Panel Survey - Insurance Component to calculate the effect of health reforms on premium growth from 2006–08 in Massachusetts relative to the United States, and the Boston MSA relative to the 19 largest other MSAs. We control for the 2004–06 trends in premiums in order to account

for any preexisting differences in health care cost growth between Massachusetts and the rest of the country.

We find that health reform in Massachusetts increased single-coverage employer-sponsored insurance premiums by about 6 percent in aggregate, and by about 7 percent for firms with fewer than 50 employees. The effect of reform on family premiums is less uniform. If Massachusetts is compared to the nation as a whole, reform had a modest 1.5 percent effect on family premiums. However, in the Boston MSA, and among employees of small firms, the effect of reform on family premiums was much greater. Family premiums grew by about 8 percent more in Boston than in the 19 largest other MSAs from 2006–08, as compared to 2004–06. For small employers, the differential Massachusetts/US growth in small-group premiums from 2006–08, over and above the growth from 2004–06, was 14.4 percent.

This premium growth is unlikely to be due to changes in cost-sharing. To investigate this possibility, we tabulated trends in single-coverage insurance-policy deductibles and copayments in Massachusetts and the United States over the study period (not in any exhibit).<sup>1</sup> We found that deductibles fell slightly, and copayments rose slightly, in Massachusetts versus the rest of the country. The average deductible in Massachusetts fell approximately \$12 relative to the United States from 2006–08, as compared to 2004–06; the average copayment for an office visit rose approximately \$1 in Massachusetts relative to the nation as a whole from 2006–08, relative to 2004–06. Of course, these calculations are not definitive, as they only measure two (out of many) dimensions of the extent of cost sharing of an insurance policy. Nonetheless, the small magnitude of these changes suggest that changes in cost sharing would be unlikely to explain the differential Massachusetts/U.S. increase in premiums due to reform.

Our analysis has at least three important limitations. First, if relative premium growth in Massachusetts follows a random process around a long-run mean, then using the pre-reform trend as a control for the post-reform period could lead our estimates to overstate the true effect of reform. In other words, if there were regression to the mean in relative premiums, then the negative 2004–06 trend would lead to high 2006–08 growth, even in the absence of reform. Second, the publicly available MEPS-IC tables do not contain sufficient information to calculate standard errors for our estimates. Third, we have only calculated the short-run effect of reform; long-run effects may be smaller or larger. For example, if the increase in premiums is due to the short-run inelasticity of supply of health services, then the long-run effect of reform on premiums would decline as supply expands.

Although the data do not permit firm conclusions about the effect of the Massachusetts Plan on premiums, they do suggest that policy makers should be concerned about the consequences of health reform for the cost of private insurance. In addition, this note shows how researchers seeking to evaluate the effects of the new health reform law can use the Massachusetts experience as a roadmap to guide their analyses.

## References

- Long SK, Stockley K. Massachusetts Health Reform: Employer Coverage from Employees' Perspective. *Health Affairs*. 2009; 29:w1079–w1087. [PubMed: 19797331]
- McDonough JE, Rosman B, Butt M, Tucker L, Howe LK. Massachusetts Health Reform Implementation: Major Progress and Future Challenges. *Health Affairs*. 2008; 27:w285–w297. [PubMed: 18522949]

<sup>1</sup>See MEPS-IC tables II.F.1, II.F.2, II.F.4, II.F.5 available at [http://www.meps.ahrq.gov/mepsweb/survey\\_comp/Insurance.jsp](http://www.meps.ahrq.gov/mepsweb/survey_comp/Insurance.jsp)

- Tanner, M. Massachusetts Miracle or Massachusetts Miserable: What the Failure of the 'Massachusetts Model' Tells Us About Health Care Reform. Vol. 112. Washington: Cato Institute Briefing Paper; 2009.
- DeNavas-Walt, C.; Proctor, BD.; Smith, JC. Income, Poverty, and Health Insurance Coverage in the United States: 2008. Washington: US Census Bureau publication; 2009. p. P60-P236. available at <http://www.census.gov/prod/2009pubs/p60-236.pdf>
- Gorman Actuarial, DeWeese Consulting, and Health Strategies. Impact of Merging the Massachusetts Non-Group and Small Group Insurance Markets. 2006 December 26. available at [http://www.mass.gov/Eoca/docs/doi/Legal\\_Hearings/NonGrp\\_SmallGrp/Fin](http://www.mass.gov/Eoca/docs/doi/Legal_Hearings/NonGrp_SmallGrp/Fin)

**Table 1**

Employer-sponsored single-coverage health insurance premiums Massachusetts versus United States, and Boston versus the 19 largest other MSAs, 2004–2008

	<b>Premium Growth 2006-08</b>	<b>Premium Growth 2004-06</b>	<b>Differential Growth 06-08 - 04-06</b>
<u>All private-sector employers</u>			
MA	8.7%	7.4%	1.3%
US	6.5%	11.1%	-4.6%
Difference	2.2%	-3.7%	5.9%
Boston MSA	11.9%	5.2%	6.7%
19 largest other MSAs	8.8%	7.6%	1.2%
Difference	3.1%	-2.4%	5.5%
<u>Small private-sector employers (&lt;50 employees)</u>			
MA	9.0%	9.7%	-0.7%
US	5.7%	13.2%	-7.5%
Difference	3.3%	-3.5%	6.8%

Source: Medical Expenditure Panel Survey - Insurance Component, tables II.C.1. and IX.B.2., 2004, 2006, 2008, available at [http://www.meps.ahrq.gov/mepsweb/survey\\_comp/Insurance.jsp](http://www.meps.ahrq.gov/mepsweb/survey_comp/Insurance.jsp)

**Table 2**

Employer-sponsored family-coverage health insurance premiums Massachusetts versus United States, and Boston versus the 19 largest other MSAs, 2004–2008

	<b>Premium Growth 2006-08</b>	<b>Premium Growth 2004-06</b>	<b>Differential Growth 06-08 - 04-06</b>
<u>All private-sector employers</u>			
MA	12.2%	16.4%	-4.2%
US	8.1%	13.7%	-5.7%
Difference	4.1%	2.7%	1.5%
Boston MSA	21.7%	7.4%	14.3%
19 largest other MSAs	13.5%	7.3%	6.2%
Difference	8.2%	0.1%	8.1%
<u>Small private-sector employers (&lt;50 employees)</u>			
MA	14.7%	7.1%	7.6%
US	5.3%	12.1%	-6.8%
Difference	9.4%	-5.0%	14.4%

Source: Medical Expenditure Panel Survey - Insurance Component, tables II.D.1. and IX.B.2., 2004, 2006, 2008, available at [http://www.meps.ahrq.gov/mepsweb/survey\\_comp/Insurance.jsp](http://www.meps.ahrq.gov/mepsweb/survey_comp/Insurance.jsp).