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THE POLITICAL ROOTS OF
HEALTH INSURANCE BENEFIT MANDATES

by Douglas Webber and James Bailey



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Abstract

As of 2011, the average US state had 37 health insurance benefit mandates, laws requiring health insurance plans to cover a specific treatment, condition, provider, or person. This number is a massive increase from less than one mandate per state in 1965, and the topic takes on a new significance now, when the federal government is considering many new mandates as part of the “essential health benefits” required by the Affordable Care Act. A large body of literature has attempted to evaluate the effect of mandates on health, health insurance, and the labor market. However, previous papers did not consider the political processes behind the passage of mandates. In fact, when they estimate the laws’ effect, almost all papers on the subject assume that mandates are passed at random. We use fixed effects estimation to determine why some states pass more mandates than others. We find that the political strength of health care providers is the strongest determinant of mandates. Our paper opens the way to estimating the causal effect of mandates on health insurance and the labor market using an instrumental variables strategy that incorporates political information about why mandates get passed.

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The Political Roots of Health Insurance Benefit Mandates

Douglas Webber and James Bailey

1. Health Insurance Mandates

1.1. *What Are Benefit Mandates?*

Benefit mandates restrict the kinds of plans that private health insurance companies can offer by requiring them to cover certain conditions or procedures. Benefit mandates should not be confused with individual mandates (which require individuals to buy health insurance) or employer mandates (which require employers to buy health insurance for their workers). Most commonly, benefit mandates require insurers to cover a specific procedure (such as prostate cancer screening tests) or disease (such as diabetes). It is also common for mandates to require coverage of certain types of providers, such as nurse-practitioners or naturopaths.

Occasionally, mandates specify whom insurance plans must cover. Table 1 gives some examples of common mandates.

Table 1. Examples of Common Mandates

Mandated benefit	Number of states
Minimum maternity stay	50
Diabetic supplies	46
Podiatrists	38
Nurse-practitioners	32

Source: Laudicina et al. (2011).

1.2. *Federal vs. State Regulation*

1.2.1. National mandates. Health insurance benefit mandates have been almost entirely a state-level phenomenon. While the average state has passed 37 mandates,¹ the federal

¹ Laudicina et al. (2011).

government had only a handful of mandates as of 2010.² Moreover, the federal mandates tend to be for benefits already mandated by most or all states, such as mental health parity or minimum maternity stays.

1.2.2. ERISA mandate exemption. The federal government has not only passed relatively few mandates itself; the federal Employee Retirement Income Security Act of 1974 (ERISA) limits the coverage of state mandates. ERISA exempts self-insured firms from most state health insurance regulations, including mandates. Self-insured firms pay their employees' claims directly, rather than paying their premiums to an outside insurer. Self-insurance has become increasingly common since 1974. Jensen et al. (1995) argue that this trend is largely in response to the increasing number of mandates.

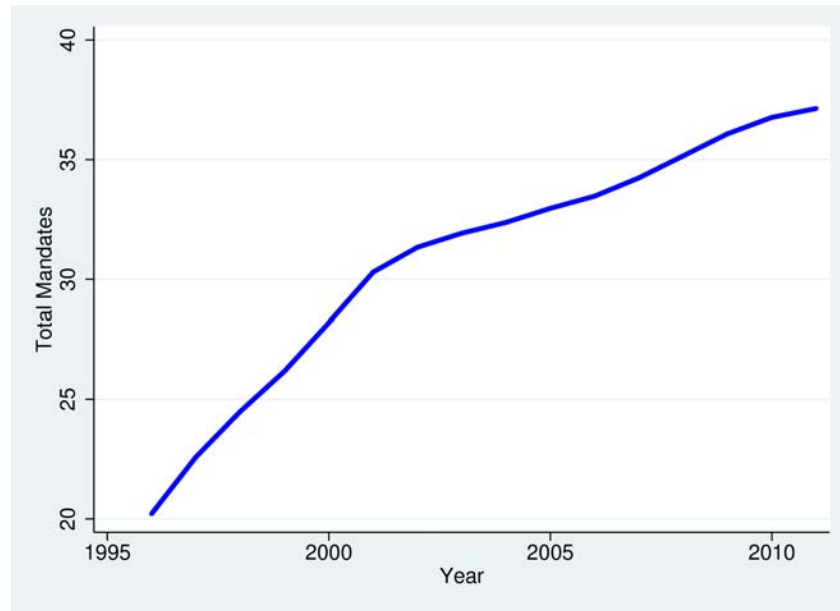
1.3. *The Trend of Mandates*

There has been a huge increase in the number of health insurance mandates over time, as figure 1 shows.

But this dramatic increase in mandates has been far from uniform. There is enormous variation in the number of mandates in each state, from Idaho's 12 to Maryland's 62. Table 2 shows the number of mandates in each state as of 2011. Our paper will attempt to explain why states have passed so many mandates and why some states have passed so many more than others.

² There are new federal benefit mandates in the Affordable Care Act (ACA) of 2010, but it is difficult to disentangle their effects from the rest of the ACA. In this paper we end our analysis in 2010 to avoid the complications of the ACA implementation, and because some of our key variables of interest are not available after 2010.

Figure 1. Mandates per State, 1996–2011



Source: Laudicina et al. (2011).

Table 2. Mandates in the States, 2011

State	Total mandates, 2011	State	Total mandates, 2011
Alabama	18	Montana	36
Alaska	31	Nebraska	26
Arizona	26	Nevada	48
Arkansas	41	New Hampshire	42
California	54	New Jersey	44
Colorado	44	New Mexico	44
Connecticut	51	New York	43
Delaware	27	North Carolina	45
Florida	46	North Dakota	28
Georgia	40	Ohio	28
Hawaii	25	Oklahoma	33
Idaho	12	Oregon	37
Illinois	43	Pennsylvania	35
Indiana	35	Rhode Island	43
Iowa	25	South Carolina	28
Kansas	31	South Dakota	33
Kentucky	33	Tennessee	41
Louisiana	45	Texas	54
Maine	48	Utah	36
Maryland	62	Vermont	31
Massachusetts	41	Virginia	55
Michigan	24	Washington	41
Minnesota	49	West Virginia	34
Mississippi	26	Wisconsin	34
Missouri	38	Wyoming	34

Source: Laudicina et al. (2011).

2. Previous Work

Previous work on state health insurance benefit mandates is full of mixed results. Of the two review articles on the subject, Jensen and Morrisey (1999) focus on the problems with mandates, while Monheit and Rizzo (2007) focus on their benefits. Kowalski et al. (2008) and Bailey (2013a) find that mandates significantly increase insurance premiums, while LaPierre et al. (2009) find no significant effects, and Gohmann and McCrickard (2009) find that different kinds of mandates can significantly increase or decrease premiums. Gruber (1994b) finds that mandates do not reduce the number of individuals with employer-based health insurance, while Jensen and Gabel (1992) and van der Goes et al. (2011) find that they do. Kaestner and Simon (2002) find that mandates do not affect employment, while Meer and West (2011) find that they do. The literature's only unanimous finding is that mandates that target an identifiable group (based on gender or age) have significant negative wage effects on that group (see Gruber 1994a, Lahey 2012, Bailey 2012, and Bailey 2013b).

To date, van der Goes et al. (2011) is the sole study of which we are aware that incorporates information about how mandate laws in general are passed into the estimation of their effect. The authors find that each mandate reduces the probability that an individual has employer-based health insurance by a statistically significant 0.2 percent. However, they take only a very small step toward determining the causes of mandates. Their sole instrument for the number of mandates in a state is the percentage of votes for Democratic candidates for the US House of Representatives in 2004 and 2006. There are several minor problems with this selection (e.g., using only two years of data, using national party votes when modeling state legislatures), and one major one: the variable could plausibly affect labor market outcomes in many ways (e.g., states that are more Democratic will pass other kinds of laws affecting labor markets and health insurance), not only through mandates. The fact that Democratic votes can have direct effects on the labor market and the health

insurance market means that using the Democratic voteshare violates the key assumption of instrumental variables estimation when used to study these markets.

Klick and Strattman (2006, 2007) consider why mandates were passed when estimating the effect of specific mandates for mental health parity, alcoholism treatment, and diabetes treatment. They find evidence that the passage of these mandates was influenced by malpractice laws, the passage of other kinds of health insurance mandates, physicians per capita, term limits for state legislators, and limits on corporate contributions to state politics.

We plan to improve on previous work by looking to the data to determine why states pass mandates in general, rather than assuming they are passed randomly. Once we determine why some states pass more mandates than others, future researchers can study the economic effects of mandates in a way that uses the hard-earned insights of scholars of political science, political economy, and public choice.

3. Hypotheses

Why do mandates get passed? We consider three broad reasons: interest groups, ideology, and institutions.

3.1. Interest Groups

3.1.1. High-cost patients/consumers. To know who the relevant interest groups are, we must know who benefits from mandates. A mandate requiring insurers to cover a certain procedure (say, mammography) benefits individuals who would use the procedure and whose insurance did not cover it before the mandate. Some of these individuals were paying for the service out of pocket before the mandate, but now get their insurers to pay for it. Others did not use the service

before the mandate, but will find it worthwhile once their insurance covers it. This outcome is known as moral hazard.

The consumer/patient interest group is made up of those likely to use the service. For the mammography mandate, this group is women over 40. When considering mandates in general, the consumers/patients who will benefit most are those with the highest health care costs. Therefore, we should expect states with less healthy populations and higher health care costs to pass more mandates. Causation may also run the other way in this case; mandates may increase total health spending in a state because once insurance lowers the patient cost of medical procedures, patients are likely to use more of them.

3.1.2. Privately insured individuals. Mandates only apply to private insurers and do not directly benefit those with public insurance or no insurance. In fact, mandates may actually harm those without private insurance by increasing the demand for health care, thereby increasing prices and waiting times. Therefore, we should expect states with a higher proportion of privately insured individuals to pass more mandates.

3.1.3. Providers. Just as consumers of mandated services expect to benefit from the mandate, so do producers. Chiropractors should benefit from a mandate that requires insurers to cover their services (45 states have passed such a mandate). Radiologists should benefit from the mammography mandate as the demand for their services increases.

Health insurance reduces the marginal cost of health services; one might pay a \$25 copay for an office visit that would cost \$100 without insurance. The RAND health insurance experiment found that individuals have an elasticity of demand for medical care of -0.2 , meaning

that if insurance cut the cost of a service in half, they would use it 10 percent more.³ Expansions of health insurance may have much larger effects when they cover many people at once, for reasons both static (shifting demand right along an upward-sloping supply curve) and dynamic (encouraging the development of expensive new technologies). Finkelstein (2007) finds that following the introduction of Medicare, health spending increased by six times more than the RAND experiment would suggest.

Because providers benefit from mandates that cover their services, we expect states with more politically powerful health care providers to pass more mandates. Political power can be measured by the overall size of the group as a percentage of the population and by the size of their political contributions.

3.1.4. Insurers. Not everyone benefits from mandates. Insurers in particular seem to be the losers when mandates pass. In theory, they could benefit from a law requiring consumers to buy more of their product. But a major concern of economists studying the subject is that mandates cause individuals and firms to drop insurance entirely, or to switch to a kind of insurance that is exempt from the mandate (e.g., firms that self-insure are exempt from state mandates).

Insurance industry groups such as the Council for Affordable Health Insurance and the Blue Cross and Blue Shield Association regularly release reports arguing against mandates.

Therefore, we expect states with more politically powerful insurers (as measured by political contributions) to pass fewer mandates.

³ See Aron-Dine et al. (2013) for further information and a caution that the experiment estimated a nonlinear demand curve that does not have the same elasticity at all points.

3.2. Ideology

Self-interest is not the sole motive of political actors. Caplan (2009) argues that voters choose policies they believe (often mistakenly) are good for the whole polity, even if the policy does not benefit them personally. Health insurance mandates are a kind of economic regulation restricting the choices of firms. Left-wing voters, represented in the United States by Democratic Party members, generally support this kind of regulation. Therefore, we expect states with more left-wing voters and more Democratic state politicians to pass more mandates.

3.3. Institutions

Political outcomes are determined by institutions as well as by interests and ideology.

3.3.1. Mandate review boards. According to Bellows et al. (2006), 26 states have established mandate review boards. These boards issue reports on proposed mandates, attempting to predict their effects. The review boards slow the legislative process and provide a chance for lawmakers to consider the potential costs of mandates, so we expect them to reduce the number of mandates.

3.3.2. ERISA. The Employee Retirement Income Security Act of 1974 allowed firms to self-insure under federal law and be exempt from most state regulations, including mandates. Self-insured firms must pay for their employees' health insurance claims directly, although they can hire third-party administrators and buy reinsurance to protect against especially large claims. ERISA is often seen as a blow to state mandates because it limits the scope of any given mandate. Today, more than half of workers with employer-sponsored health insurance are

covered by self-insured firms and thus are not covered by state mandates.⁴ But ERISA may be responsible for the proliferation in the number of mandates.

Employers that provide health insurance to their employees might be expected to oppose mandates, since mandates can increase the cost of providing health benefits. But ERISA removes this incentive for self-insured firms, shrinking the coalition against mandates. Crucially, large firms are much more likely to self-insure than small firms.⁵ In a classic example of Mancur Olson's logic of collective action, it is easier for a few large firms to work together than for many small firms to coordinate to oppose a law. If only small firms oppose mandates, mandates are more likely to pass. In fact, large firms may even approve of mandates as a way of raising their rivals' costs.

It is possible that ERISA explains a large part of the huge increase in mandates since 1974. However, there are few data from before 1974 with which to test this hypothesis. One possible continuing effect of ERISA is that states with more large employers and more self-insured employers will pass more mandates. This possibility can be tested with available data, though there is an endogeneity problem to overcome: more self-insured firms may cause more mandates, but more mandates almost certainly cause more self-insurance.

⁴ The precise number is 58.5 percent, according to Fronstin (2012).

⁵ Data on self-insurance and firm size are available as part of the Insurance Component of the Medical Expenditure Panel Survey. Large firms are better able to bear the fixed cost of overhead, and the law of large numbers means the health costs of large firms' employees vary less. It is easy to imagine 10 percent of the workers in a firm with 10 employees getting cancer this year, but very hard to imagine in a firm with 10,000 employees.

4. Data and Empirical Strategy

4.1. Data Sources

Table 3 shows the summary statistics for our data, which run from 2000 to 2010.⁶

Table 3. Summary Statistics

Variable	Mean	Standard deviation	Source
Mandates	33.17	9.98	Laudicina et al. (2011)
Democratic governor	0.52	0.50	University of Kentucky Center on Poverty Research
Democratic senate	0.52	0.16	University of Kentucky Center on Poverty Research
Health political contributions (real 2010 dollars per capita)	0.47	0.59	National Institute on Money in State Politics
Insurance political contributions (real 2010 dollars per capita)	0.04	0.04	National Institute on Money in State Politics
Mandate review board	0.46	0.49	Bellows et al. (2006)
Doctors per 1,000 individuals	2.55	0.62	DHHS Area Health Resources File
Percentage of individuals privately insured	0.71	0.07	Current Population Survey
Percentage of individuals publicly insured	0.26	0.05	Current Population Survey
Percentage of firms self-insured	0.53	0.09	Medical Expenditure Panel Survey
Mean income (thousands of real 2010 dollars)	29.15	4.30	Current Population Survey
Observations	272		

The Blue Cross and Blue Shield Association provides data on the total number of mandates in force in each state and for each year. It also provides information on the specific types of mandates passed. Over the time period studied (2000–2010), the average state had 33 mandates.

Data on the political party of each state’s governor, senate, and house come from the University of Kentucky’s Center on Poverty Research. We include a dummy variable for whether the governor is a Democrat and a variable indicating the percentage of the state senate

⁶ We have many missing observations in odd years. For most years this shortfall is due to missing data on political contributions. In 2007, no data were available on self-insurance; in 2009, no data were available for doctors per capita. It is not clear whether our model should ideally use data from every calendar year, or only from each two-year electoral cycle. Our main specification takes advantage of all available data from 2000 through 2010, using data from each year. In a robustness check, we also limit our observations to even years.

seats held by Democrats. We did not include a variable on the percentage of the state house seats held by Democrats because it is highly correlated with the senate variable, leading to collinearity problems.

Data on political contributions come from the National Institute on Money in State Politics, which categorizes political contributions in each state and year by donor industry. We use its data on annual contributions by the health care industry and the health insurance industry as measures of each group's lobbying strength. Health care industry donors include physicians, hospitals, and other health care providers. Political contributions by health care providers are much larger than those by health insurers, averaging over \$3 million per year in each state (in real 2011 dollars), compared to around \$300,000 for insurers. The data from the National Institute on Money in State Politics are comprehensive for election years from 2000 on, but observations for many states in nonelection years are missing.

Data on mandate review boards come from Bellows et al. (2006). They identify 26 states with review boards as of 2006 and provide the year that each board began. Over our sample period, an average of 24 states had review boards in place.

Data on the proportion of privately and publicly insured individuals, along with mean income in each state, come from the Census Bureau's Current Population Survey. Health insurance mandates apply only to private health insurance, so a larger proportion of people with private health insurance makes a larger constituency that can benefit from mandates.

Data on the number of doctors in each state come from the US Department of Health and Human Services's Area Health Resources File.

Data on the percentage of self-insured firms in each state come from the Medical Expenditure Panel Survey's Insurance Component. The Medical Expenditure Panel surveys firms annually and reports on how many of them offer at least one self-insured plan. Self-insured firms

pay their employees' health insurance claims directly instead of purchasing coverage from a third-party insurer; this exempts them from state-level mandates.

4.2. Estimation Strategy

Our main regression is as follows:

$$\text{Mandates}_{st} = \text{DemGov}_{st} + \text{DemSenate}_{st} + \text{HealthLobby}_{st} + \text{InsLobby}_{st} + \text{Board}_{st} + \text{Doctors}_{st} + \text{PrivateIns}_{st} + \text{Self}_{st} + \tau_t + \theta_s + \varepsilon_{st},$$

where

- Mandates_{st} gives the total number of mandates in a given state and year;
- DemGov_{st} is a dummy equal to one when a state has a Democratic governor and zero otherwise;
- DemSenate_{st} gives the percentage of Democrats in the state senate;
- HealthLobby_{st} represents the real per capita dollar contributions of the health care industry to political candidates in each state and year;
- InsLobby_{st} represents real per capita dollar contributions by the health insurance industry to political candidates in each state and year;
- Board_{st} is a dummy equal to one when a state has a mandate review board;
- Doctors_{st} gives the number of doctors per 1,000 inhabitants in a state;
- PrivateIns_{st} gives the proportion of individuals in a state who are privately insured;
- Self_{st} gives the proportion of firms in a state that self-insure, exempting them from mandates;
- τ_t is a vector containing separate dummies for T-1 years (we also use a linear time trend); and
- θ_s is a vector containing separate dummies for S-1 states.

Because the data are panel in nature (we have several years of observations for each state), we use fixed effects estimation.⁷

⁷ A Hausman test determined that random effects estimation is not consistent.

5. Results

5.1. Main Specifications

Table 4 shows our results. Column 1 shows the results of a regression with our main variables of interest and a time trend. Our main specification, shown in column 2, adds controls including state fixed effects.

Table 4. Predictors of Mandates, 2000–2010

	(1)	(2)
<i>Democratic governor</i>	-0.791 (1.975)	0.212 (0.392)
<i>Democratic senate</i>	-4.025 (9.595)	1.103 (2.550)
<i>Health contributions</i>	1.038 (0.973)	0.0438 (0.131)
<i>Insurance contributions</i>	9.914 (20.04)	-8.287** (3.665)
<i>Mandate review board</i>	1.784 (2.222)	-0.697 (0.616)
<i>Doctors per capita</i>	7.705*** (2.501)	10.19*** (3.189)
<i>Percentage privately insured</i>	-34.47 (20.74)	-4.462 (8.950)
<i>Percentage of firms self-insured</i>	-8.984 (9.019)	-3.115 (2.597)
<i>Average income</i>		0.0002 (0.0001)
<i>Large firm</i>		-15.86 (11.54)
<i>Percentage publicly insured</i>		8.410 (13.99)
<i>Time trend</i>	Yes	Yes
<i>State fixed effects</i>	No	Yes
<i>Observations</i>	272	272
<i>R-squared</i>	0.268	0.732

Significance levels are denoted as follows: *** $p < .01$, ** $p < .05$, * $p < .10$.

Note: Robust standard errors clustered at the state level are given in parentheses. Column 1 shows the results of ordinary least squares estimation; column 2 shows the results of fixed effects estimation.

We find that political contributions by health care providers are associated with a statistically insignificant increase in mandates in the first specification. The magnitude of the effect is somewhat large: an additional \$1 per capita in political contributions leads to 1.04 additional mandates. On average, health care providers contribute 47 cents per person in a state per year. But once state fixed effects are included, the estimated effect of health care providers' contributions drops to one-twentieth its previous size. It seems that while states with more contributions by health care providers pass more mandates, the contributions are not the true cause of the mandates.

In the first specification, political contributions by insurance companies actually appear to increase mandates, the opposite of what we predicted. But once state fixed effects are included, the coefficient becomes negative and statistically significant. We interpret the wrong-signed coefficient in the first specification to mean that insurers are spending money to fight losing battles against proposed mandates. In states where more mandates are proposed, they spend more to fight them, leading to a correlation between insurers' political contributions and mandates. Once state fixed effects are included, it seems that insurers' political contributions are quite effective at stopping mandates: our results suggest that if insurers gave \$1 per capita they could get eight fewer mandates. In fact, insurers gave only 3.7 cents per capita in political contributions in the average state.

Political party control does not have a statistically significant effect in any specification. Mandate review boards also have no statistically significant effect in any specification. The sign is negative in the specification with state fixed effects, providing slight evidence that the boards reduce mandates.

The proportion of doctors in the state is significant in every specification. The magnitudes appear enormous, with one additional doctor per 1,000 inhabitants leading to 7.7 to 10.2

additional mandates. But there is not much variation in doctors per capita. Massachusetts has the most with 3.2 doctors per 1,000 inhabitants, while Mississippi has the fewest with 1.6. According to our estimates, the larger number of doctors leads Massachusetts to have 12.3 to 16.3 more mandates than Mississippi. In this case, the number of doctors seems to have a lot of explanatory power, since Massachusetts had 15 more mandates than Mississippi as of 2011 (41 vs. 26). But no other states have such a wide gap in doctors per capita. Our estimates imply that in an average state, it would take a 4 percent increase in doctors per capita to get one additional mandate.

The proportion of privately insured individuals in a state is not significant at the 5 percent level in any specification. The sign is negative, meaning that more privately insured individuals may lead to fewer mandates being passed. This outcome is the opposite of what we predicted, since privately insured individuals benefit from mandates. Similarly, we find that the proportion of self-insured firms in a state is statistically insignificant and negatively signed. This outcome is also the opposite of what we predicted, since self-insured firms are exempt from mandates and might enjoy a cost advantage against other firms as more mandates are passed.

5.2. Robustness

One reasonable concern about our results is that they could be driven by missing observations. Our data are for US states between 2000 and 2010, so with no missing data we would have 550 observations; in fact, we have 272. Almost all the missing observations are due to missing data on political contributions in odd years. This shortfall could bias our results if there is a pattern to which states are missing. To account for possible bias, we reran the analysis on only even years, where relatively few observations are missing (246 of 300 state-years are present). The first column of table 5 presents our results. The estimated effect of doctors per capita and political

contributions by insurers remains strongly statistically significant. In fact, the estimated magnitude of each variable increases slightly.

The second column of table 5 shows what happens to our estimates when year fixed effects are used instead of a time trend. Doctors per capita and political contributions by insurers remain statistically significant; the estimated magnitude of the effect of doctors per capita decreases slightly, while the magnitude for political contributions by insurers increases slightly.

Table 5. Predictors of Mandates, 2000–2010

	<i>Even years</i>	<i>Year FE</i>
<i>Democratic governor</i>	0.297 (0.468)	0.322 (0.382)
<i>Democratic senate</i>	0.134 (2.660)	1.611 (2.684)
<i>Health contributions</i>	0.128 (0.178)	0.0912 (0.147)
<i>Insurance contributions</i>	-10.63*** (3.668)	-9.406** (4.411)
<i>Mandate review board</i>	-0.973 (0.654)	-0.471 (0.715)
<i>Doctors per capita</i>	10.63*** (3.387)	8.365** (3.273)
<i>Percentage privately insured</i>	-3.847 (9.389)	-3.628 (8.569)
<i>Percentage of firms self-insured</i>	-3.475 (2.940)	-2.820 (2.625)
<i>Average income</i>	0.0002 (0.0001)	0.0002 (0.0001)
<i>Large firm</i>	-20.48 (12.36)	-12.80 (12.03)
<i>Percentage publicly insured</i>	8.066 (14.53)	15.74 (14.98)
<i>Time control</i>	Trend	FE
<i>State fixed effects</i>	Yes	Yes
<i>Observations</i>	246	272
<i>R-squared</i>	0.743	0.750

Significance levels are denoted as follows: *** $p < .01$, ** $p < .05$, * $p < .10$.

Note: Robust standard errors clustered at the state level are given in parentheses.

Our results are also robust to dropping Massachusetts from the data, and so are not driven by its extensive health insurance reforms during this period.

6. Discussion

6.1. Interpretation

We find that states with more doctors per capita pass more mandates, and that political contributions by insurance companies reduce the number of mandates passed. States where the Democratic party has more political power do not pass more mandates once other factors are controlled for. Our results strongly suggest that health insurance mandates are driven more by interest groups than by ideology. In particular, they appear to be driven by health care providers more than by patients.

One puzzle that emerges from our results is that political contributions by insurers appear to be very effective in reducing mandates, yet insurers spend relatively little on political contributions. One possibility is that mandates are not so costly to insurers because they are able to pass the cost on to customers. Another possibility is that we have estimated only a local average treatment effect of political contributions. Contributions may be very effective at first, but they have sharply diminishing marginal returns. Finally, it may be the case that additional political contributions really would bring large benefits to insurers, but they refrain anyway. Insurers failing to eat this apparent free lunch would be an example of the Tullock paradox (Buchanan et al. 1980), in which constituencies spend relatively little money on lobbying despite the enormous stakes of the lawmaking process and the large apparent benefit to lobbying.

6.2. Directions for Future Research

6.2.1. Political economy. Our paper is not the final word on the political economy of mandates.

We have not considered every possible cause of mandates. Some reasonable candidates that were beyond the scope of this study include average health care spending, market share of managed care insurers, surveys of economic ideology, and membership in the American Medical Association or state medical associations (as a measure of doctors' political engagement).

Our paper only studied the causes of mandates in the 2000–2010 period. This time frame presents two potential problems. One is statistical power: some of our estimates may be statistically insignificant because 272 observations are not enough to identify their effect, rather than because they actually have zero effect. Second, the causes of mandates might vary over time, and forces other than health providers and insurers are more important in different periods.

This paper attempted to determine the causes of health insurance benefit mandates generally. But this attempt masks the enormous variation in the different types of mandates. It is possible that certain types of mandates are driven by ideology or patient groups even if mandates in general are not. Future papers could look into subgroups of mandates or even single mandates, using data on specific types of health providers (such as chiropractors or radiologists) and single-issue patient advocacy groups (such as the American Cancer Society).

6.2.2. Health and labor economics. This paper identified two variables as significant reasons why mandates are passed or not passed: doctors per capita and political contributions by insurers. One major goal of our paper is to identify variables that can be used as instruments for mandates in papers by health and labor economists. Our measure of the political strength of health care providers will be useful for labor economists, but less so for health economists. The key assumption behind an instrument is that it is correlated with the intermediate variable (mandates)

but does not affect the final variable of interest except through the intermediate variable. This exogeneity assumption is reasonable for labor applications: it is hard to imagine how doctors per capita and the political contributions of health insurers affect employment and wages, other than possibly through mandates. It is easier to imagine how these variables will be correlated with health outcomes of interest, such as premiums, insurance coverage, or the use of specific procedures, rendering the IV strategy invalid. Our variables may still be useful for some health research that looks at individual behaviors, such as moral hazard.

7. Conclusion

We find that the political strength of health care providers, which we measure using doctors per capita, is the major factor leading to the passage of health insurance benefit mandates. We find that political contributions by health insurers reduce the number of mandates states pass. Political parties, mandate review boards, and the political strength of patients appear to have no effect. Our findings suggest that concentrated interest groups are the strongest drivers of change in mandate legislation. We hope that future research on the effects of mandates will incorporate this information by using our measures of the political strength of health care providers as instruments, rather than continuing to assume that mandates are passed randomly.

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