## Online Appendix to "The Articulation of Government Policy: Health Insurance Mandates Versus Taxes"

Appendix Table A1: Demographics by Wave and Pre- and Post-Controversy

					Post-	
Dec	Mar	Tune	Nov	Pre-	•	Post-
						Controversy
						(8)
` '			` '			1,407
						29.4
						40.2%
51.7%	50.0%	45.4%	49.6%	51.0%	51.0%	47.3%
15.2%	17.9%	13.4%	19.4%	16.3%	18.3%	16.1%
43.7%	33.9%	43.4%	45.6%	39.5%	44.1%	44.3%
41.1%	48.2%	43.2%	35.0%	44.2%	37.6%	39.6%
26.5%	18.8%	22.6%	20.4%	23.2%	23.2%	21.6%
61.6%	64.3%	76.3%	69.8%	62.7%	62.7%	73.4%
39.7%	33.0%	21.9%	33.4%	36.9%	36.9%	27.0%
25.8%	25.0%	24.4%	23.4%	25.5%	21.7%	24.0%
38.4%	32.1%	31.5%	35.5%	35.7%	35.4%	33.3%
21.2%	25.0%	24.4%	20.5%	15.2%	20.9%	19.5%
14.6%	16.1%	19.3%	19.9%	22.8%	22.1%	22.7%
53.5%	55.4%	61.4%	56.5%	54.3%	57.0%	59.2%
61.4%	65.1%	69.6%	64.8%	63.0%	65.2%	67.5%
45.9%	47.9%	52.2%	48.8%	46.8%	49.2%	50.7%
54.4%	53.4%	54.1%	53.5%	54.0%	54.6%	53.8%
2.5	2.5	2.4	2.4	2.5	2.5	2.4
	15.2% 43.7% 41.1% 26.5% 61.6% 39.7% 25.8% 38.4% 21.2% 14.6% 53.5% 61.4% 45.9% 54.4%	2011         2012           (1)         (2)           151         112           36.6         32.2           61.6%         54.5%           51.7%         50.0%           15.2%         17.9%           43.7%         33.9%           41.1%         48.2%           26.5%         18.8%           61.6%         64.3%           39.7%         33.0%           25.8%         25.0%           38.4%         32.1%           21.2%         25.0%           14.6%         16.1%           53.5%         55.4%           61.4%         65.1%           45.9%         47.9%           54.4%         53.4%	2011         2012         2012           (1)         (2)         (3)           151         112         784           36.6         32.2         27.7           61.6%         54.5%         40.1%           51.7%         50.0%         45.4%           15.2%         17.9%         13.4%           43.7%         33.9%         43.4%           41.1%         48.2%         43.2%           26.5%         18.8%         22.6%           61.6%         64.3%         76.3%           39.7%         33.0%         21.9%           25.8%         25.0%         24.4%           38.4%         32.1%         31.5%           21.2%         25.0%         24.4%           14.6%         16.1%         19.3%           53.5%         55.4%         61.4%           61.4%         65.1%         69.6%           45.9%         47.9%         52.2%           54.4%         53.4%         54.1%	2011         2012         2012         2012           (1)         (2)         (3)         (4)           151         112         784         623           36.6         32.2         27.7         31.4           61.6%         54.5%         40.1%         40.4%           51.7%         50.0%         45.4%         49.6%           15.2%         17.9%         13.4%         19.4%           43.7%         33.9%         43.4%         45.6%           41.1%         48.2%         43.2%         35.0%           26.5%         18.8%         22.6%         20.4%           61.6%         64.3%         76.3%         69.8%           39.7%         33.0%         21.9%         33.4%           25.8%         25.0%         24.4%         23.4%           38.4%         32.1%         31.5%         35.5%           21.2%         25.0%         24.4%         20.5%           14.6%         16.1%         19.3%         19.9%           53.5%         55.4%         61.4%         56.5%           61.4%         65.1%         69.6%         64.8%           45.9%         47.9%         52.	2011         2012         2012         2012         Controversy           (1)         (2)         (3)         (4)         (5)           151         112         784         623         263           36.6         32.2         27.7         31.4         34.7           61.6%         54.5%         40.1%         40.4%         58.6%           51.7%         50.0%         45.4%         49.6%         51.0%           15.2%         17.9%         13.4%         19.4%         16.3%           43.7%         33.9%         43.4%         45.6%         39.5%           41.1%         48.2%         43.2%         35.0%         44.2%           26.5%         18.8%         22.6%         20.4%         23.2%           61.6%         64.3%         76.3%         69.8%         62.7%           39.7%         33.0%         21.9%         33.4%         36.9%           25.8%         25.0%         24.4%         23.4%         25.5%           38.4%         32.1%         31.5%         35.5%         35.7%           21.2%         25.0%         24.4%         20.5%         15.2%           14.6%         16.1%	2011         2012         2012         Controversy         Neighbor           (1)         (2)         (3)         (4)         (5)         (7)           151         112         784         623         263         263           36.6         32.2         27.7         31.4         34.7         30.7           61.6%         54.5%         40.1%         40.4%         58.6%         58.6%           51.7%         50.0%         45.4%         49.6%         51.0%         51.0%           15.2%         17.9%         13.4%         19.4%         16.3%         18.3%           43.7%         33.9%         43.4%         45.6%         39.5%         44.1%           41.1%         48.2%         43.2%         35.0%         44.2%         37.6%           26.5%         18.8%         22.6%         20.4%         23.2%         23.2%           61.6%         64.3%         76.3%         69.8%         62.7%         62.7%           39.7%         33.0%         21.9%         33.4%         36.9%         36.9%           25.8%         25.0%         24.4%         23.4%         25.5%         21.7%           38.4%         32.1%<

Caption: Demographics and choices broken down by wave of study (columns 1 to 4). The paper identifies differences in treatment effects before and after the controversy, during which time demographics differ slightly (column 5 and column 8). Consequently, we construct an alternative post-controversy sample that is more similar to the pre-controversy data on demographics and replicate the results in that sample (see Appendix Table 2). The "Nearest Neighbor" data draws one observation from post-controversy period (without replacement) for each observation from the pre-controversy period. The procedure performs an exact match on "coarsened" demographics (Blackwell et al. 2009) for whether or not the subject: is female, has insurance, is married, is college educated or above, and is unemployed.

**Appendix Table A2:** The Relative Effectiveness of the Mandate over Time Using Nearest Neighbor Matching

	Probability	of Purchase
	ÖLS	
	(1)	(2)
Annual Premium (\$1000s)	-8.455***	-8.455***
	(0.654)	(0.664)
Mandate (v. Tax)	10.18**	9.797**
	(4.374)	(4.037)
+ Mandate * [Post Controversy]	-17.18***	-14.26**
	(6.029)	(5.538)
Effect of Survey Wave	Yes	Yes
Controls	No	Yes
$R^2$	0.03	0.26
N Participants	526	526
N Observations	1,052	1,052

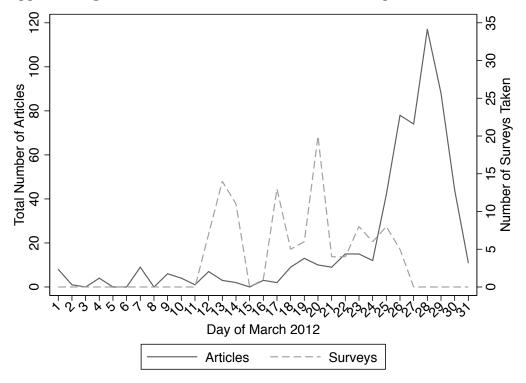
Caption: Two observations per participant (purchase probabilities at different prices). Heteroskedasticity robust standard errors clustered at the participant level are included in parentheses. Nearest Neighbor Matching performs an exact match on "coarsened" demographics (Blackwell et al. 2009) to match on whether the subject: is female, has insurance, is married, is college educated or above, and is unemployed. For this analysis, non-matched data is excluded from analysis. "Mandate v. Tax" reports the relative effect of the mandate in the pre-controversy period. The interaction captures the difference in effect in the postcontroversy period. Column 1 reports results without demographic controls. Column 2 reports results with demographic controls (age, gender, indicators for current insurance status and source, marital status, number of children, educational attainment, employment status, risk aversion, political affiliation, survey wave, and region). \*\*\* p<0.01,\*\* p<0.05, \* p<0.1.

Appendix Table A3: The effect of mandate articulation on social aspects of insurance purchase

	Probability of Purchase		
		OLS	
	Probability	Deserving of	Social
	Neighbor Would	Support if Uninsured	Appropriateness of
	Purchase	(% of Medical Bills)	Uninsurance (1 to 4)
Mandate (v. Tax)	3.441	0.929	-0.0264
	(3.854)	(3.082)	(0.100)
+ Mandate * [Wave 3 (June)]	-3.721	-0.344	0.0866
	(4.306)	(3.565)	(0.114)
+ Mandate *[Wave 4 (Nov.)]	-2.743	-3.280	0.0743
	(4.515)	(3.672)	(0.120)
Effect of Survey Wave	Yes	Yes	Yes
Controls	Yes	Yes	Yes
$R^2$	0.08	0.10	0.11
N	1670	1670	1670

Notes: One observation per participant. Controls include age, gender, indicators for current insurance status and source, marital status, number of children, educational attainment, employment status, risk aversion, political affiliation, survey wave, and region. Heteroskedasticity robust standard errors included in parentheses. \*\*\* p<0.01,\*\* p<0.05, \* p<0.1.

Appendix Figure A1: Detail on News Articles and Participants in March, 2012



Notes: "Articles" plots the sum of three measures of news activity, as in Figure 2. "Surveys" plots the number of participants, by day.

## **Experimental Materials**

**Vignettes:** Participants were shown the text below and then one of the treatments, named in {Brackets}, which were randomly assigned to each subject.

Please read the following carefully: The law around health insurance is currently in flux, and changes from year to year. Many people are concerned about the health consequences of being uninsured and the effects this has on health care costs of other people.

Imagine that the following were true:

## {Mandate}

The government considered a number of options to reduce the uninsurance rate. Ultimately, the government decided to mandate everyone purchase insurance, or else pay a fine of \$700 each year. Thus, if you purchased insurance that cost \$3000 per year, you would simply pay its cost: \$3000. If you did not purchase insurance, you would pay a fine of \$700 each year.

{Shown on following pages:} Recall: The government decided to mandate everyone purchase insurance, or else pay a fine of \$700 each year.

## {Uninsurance Tax}

The government considered a number of options to reduce the uninsurance rate. Ultimately, the government decided to recommend that everyone purchase health insurance, and charge people without insurance an uninsurance tax of \$700 each year. Thus, if you purchased insurance costing \$3000 per year, you would simply pay its cost: \$3000. If you did not purchase insurance, you would pay the uninsurance tax of \$700 each year.

{Shown on following pages:} Recall: the government decided to recommend that everyone purchase health insurance, and charge people without insurance an uninsurance tax of \$700 each year.

**Questions:** All participants then answered these questions below:

1. Imagine the following scenario: Suppose your current health insurance policy were no longer available, and you became uninsured. The only health insurance policy you could get offered you coverage that is as good as the coverage that members of Congress get. If it cost \$3000 per year (\$250 per month) to cover yourself, would you purchase this policy, or stay uninsured?

Your annual costs:

Buy Insurance

{Varied}

Stay Uninsured

{Varied}

Participant Choice Options for Questions 1-3

	a 1.	v 11
<u>Shown to Subjects</u>		<u>Imputed by</u>
		<u>Researchers</u>
<u>Choice</u>	Chance of buying the policy	<u>Probability of</u>
		<u>Purchase</u>
almost certain to buy the policy	96 to 100% chance	98%
very likely to buy the policy	81 to 95% chance	88%
somewhat likely to buy the policy	51 to 80% chance	65.5%
equally likely to buy the policy or	50% chance	50%
stay uninsured		
somewhat likely to stay uninsured	20 to 49% chance	33.5%
very likely to stay uninsured	5 to 19% chance	12%
almost certain to stay uninsured	0 to 4 % chance	2%

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What if, instead, that insurance policy cost only \$2000 per year (\$166 per month) to cover yourself. Would you purchase this policy, or stay uninsured?

Your annual costs: {Varied} Buy Insurance {Varied} Stay Uninsured

<next page>

Suppose an individual in your neighborhood was uninsured, but was given the opportunity to get themselves coverage by purchasing the same health insurance policy just described at the cost of \$3000 per year. How likely do you think they would be to purchase this policy versus staying uninsured?

Their annual costs: {Varied} Buy Insurance {Varied} Stay Uninsured

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Suppose someone in your community of average income was offered health insurance but chose not to buy it, despite the government's recommendation. After showing symptoms of weightloss, nausea, abdominal pain, they were diagnosed with pancreatic cancer and needed expensive treatment to stay alive. Because they were uninsured, they might not be able to pay for this care.

How much support should this person get from charity care and/or government safety net programs, such as Medicaid?

- A very generous amount of support (81% to 100% of medical bills)
- A generous amount of support (61% to 80% of medical bills)
- A moderate amount of support (41% to 60% of medical bills)
- A relatively small amount of support (21% to 40% of medical bills)
- A very small amount of support (1% to 20% of medical bills)

0	No support (0% of medical bills)
<ne< th=""><td>ext page&gt;</td></ne<>	ext page>
gov	ppose someone in your community chose not to buy health insurance, despite the vernment's recommendation. How would you evaluate their decision not to buy health urance?
O	Very socially inappropriate
O	Somewhat socially inappropriate
0	Somewhat socially appropriate
O	Very socially appropriate