

# Online Appendix: The Politics of Policy: The Initial Mass Political Effects of Medicaid Expansion in the States

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# 1 Estimates for All Counties, by Bandwidth, and McCrary Test

In the text we focus on counties whose geographic centroid is 100 miles from the closest border. Figure A1 graphs the estimated effects (from specification (1)) for counties located within 600 miles, 400 miles, 200 miles, 100 miles, 50 miles and 10 miles of the nearest border. As the plots make clear, the effects are largely unchanged, although the estimates become more imprecise as the bandwidth and sample size decrease.

In addition to showing point estimates by bandwidth, we also replicate our discontinuity plots for all border counties. Figure A2 shows this comparison for uninsurance, Figure A3 for registration, and Figure A4 for turnout. Tables A1, A2, and A3 show the corresponding regression results.

As is standard practice with regression discontinuity designs, we also show the results of the McCrary (2008) density test. While it is implausible that counties can sort across state borders, we may be worried about differences in densities that could influence our results. Figure A5 plots the number of counties, within bins of roughly six miles, as a function of distance to the state border. The circles represent the number of counties in each bin, the thick lines are moving averages generated using local regressions, and the thin lines represent confidence intervals. The graph suggests no evidence of changes in densities, and the p-value from the McCrary test (for which we adjust for clustering by bootstrapping the density test, blocking on states) is 0.85.

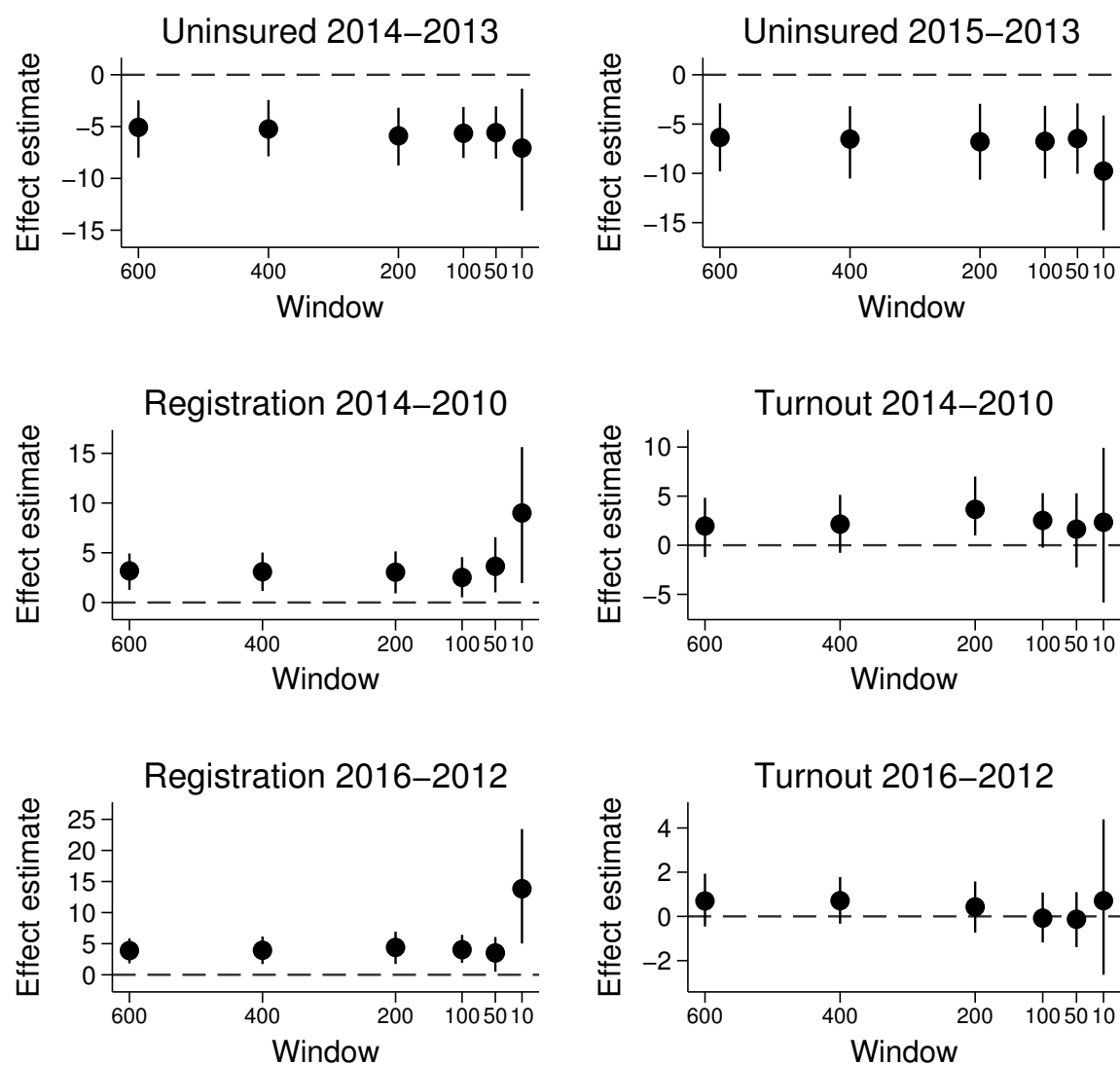


Figure A1: ESTIMATED EFFECTS FOR VARYING DISTANCE BANDWIDTHS.

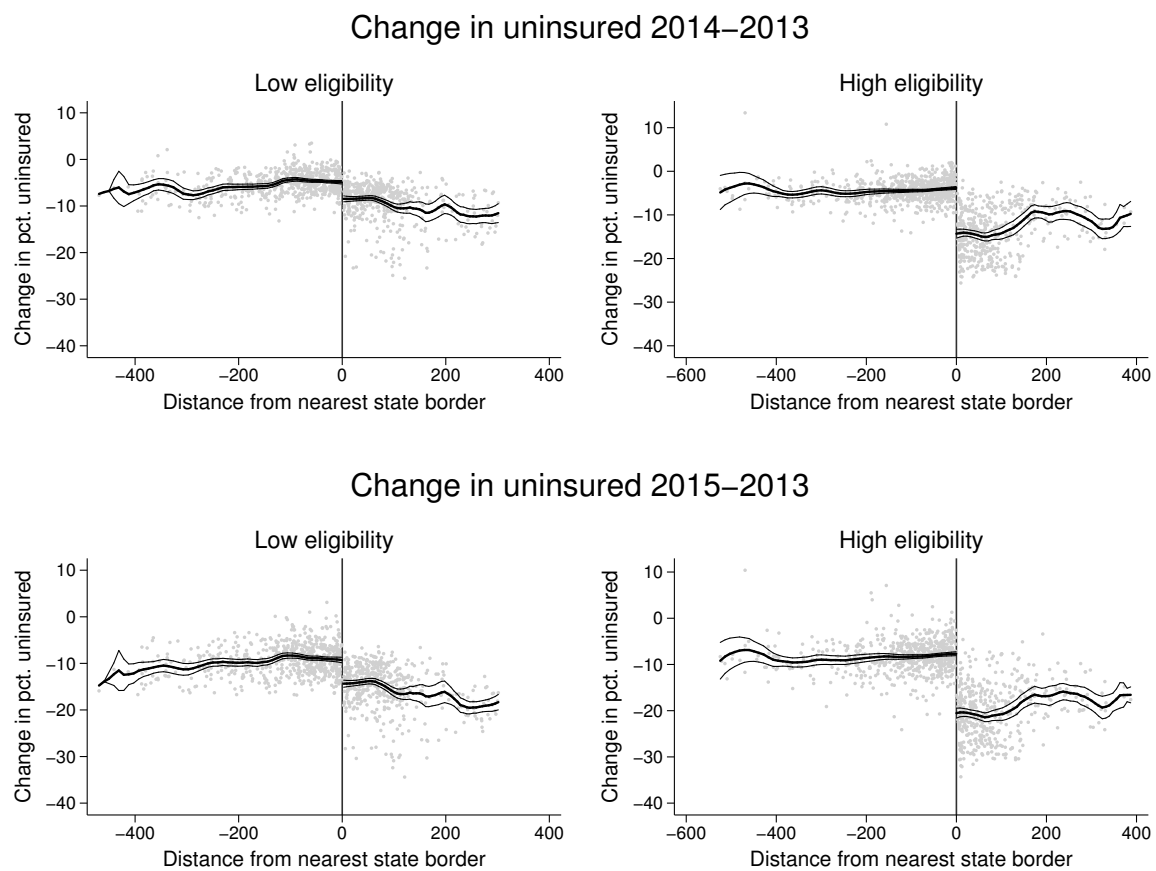


Figure A2: EFFECT ON PERCENT UNINSURED: ALL COUNTIES.

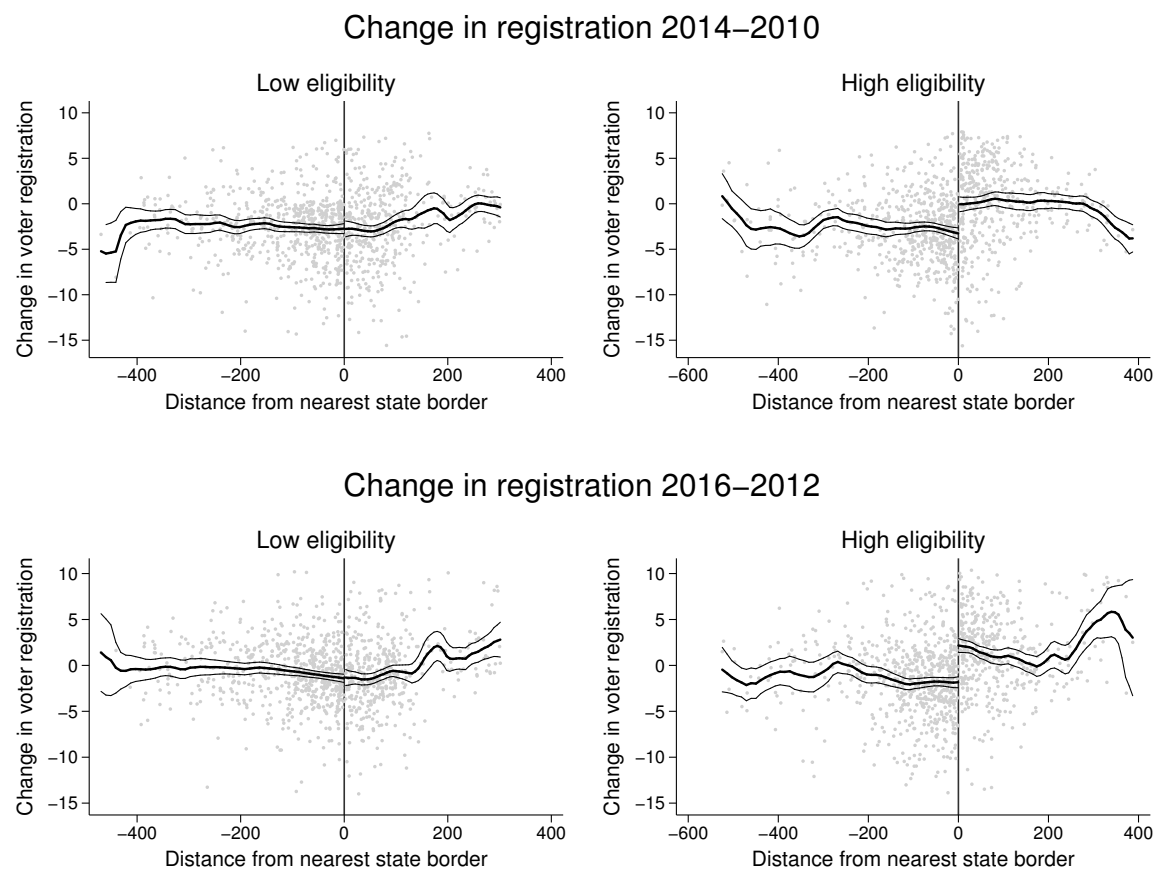


Figure A3: EFFECT ON REGISTRATION: ALL COUNTIES.

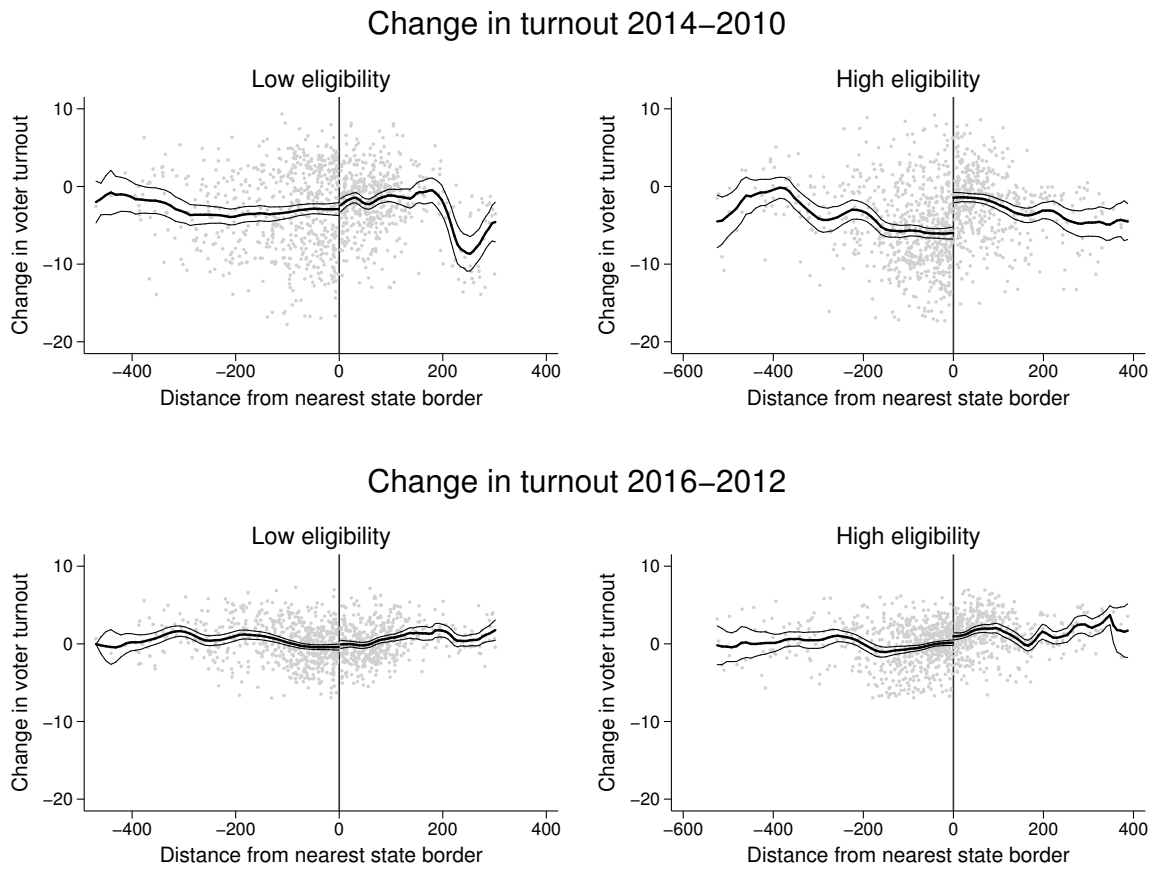


Figure A4: EFFECT ON TURNOUT: ALL COUNTIES.

	<u>Percent uninsured</u>		<u>Percent uninsured</u>	
	<u>2014-2013</u>		<u>2015-2014</u>	
	(1)	(2)	(3)	(4)
Medicaid expansion	-2.61	-4.33	-3.97	-5.71
	[-3.93, -1.14]	[-6.04, -2.60]	[-6.39, -1.18]	[-8.10, -3.22]
High eligibility	1.38	1.46	2.07	1.81
	[0.59, 2.11]	[0.61, 2.24]	[0.70, 3.43]	[0.42, 3.20]
Expansion X eligibility	-7.77	-5.62	-8.92	-6.69
	[-11.46, -4.22]	[-8.42, -3.09]	[-13.68, -4.36]	[-10.26, -2.91]
Number of Counties	1,348	1,348	1,348	1,348
Number of States	32	32	32	32
Window	All	All	All	All
Covariates	No	Yes	No	Yes
R-squared	0.57	0.70	0.59	0.68

Table A1: Effect on Percent Uninsured: All Counties.



	<u>Registration</u>		<u>Registration</u>	
	<u>2014-2010</u>		<u>2016-2012</u>	
	(1)	(2)	(3)	(4)
Medicaid expansion	-0.44	-0.60	-0.73	-0.26
	[-2.47, 1.83]	[-2.51, 1.29]	[-2.66, 1.03]	[-1.95, 1.41]
High eligibility	-0.18	-0.63	-0.78	-0.88
	[-1.18, 0.93]	[-1.57, 0.26]	[-1.79, 0.12]	[-1.73, -0.03]
Expansion X eligibility	3.78	3.18	4.07	3.89
	[0.93, 6.94]	[1.21, 5.11]	[2.26, 5.97]	[1.94, 5.99]
Number of Counties	1,933	1,921	2,045	2,033
Number of States	28	28	30	30
Window	All	All	All	All
Covariates	No	Yes	No	Yes
R-squared	0.09	0.20	0.09	0.14

Table A2: Effect on Registration: All Counties.

	<u>Turnout</u> <u>2014-2010</u>		<u>Turnout</u> <u>2016-2012</u>	
	(1)	(2)	(3)	(4)
Medicaid expansion	2.09	1.14	0.25	0.36
	[-1.74, 5.84]	[-2.20, 4.73]	[-1.23, 2.01]	[-0.77, 1.50]
High eligibility	-3.35	-2.27	0.06	0.15
	[-6.15, -0.64]	[-3.91, -0.60]	[-1.31, 1.54]	[-0.49, 0.71]
Expansion X eligibility	3.26	1.96	1.38	0.70
	[-0.70, 7.17]	[-1.07, 5.03]	[-0.57, 3.01]	[-0.49, 1.71]
Number of Counties	2,117	2,105	2,113	2,101
Number of States	32	32	32	32
Window	All	All	All	All
Covariates	No	Yes	No	Yes
R-squared	0.10	0.32	0.06	0.28

Table A3: Effect on Turnout: All Counties.

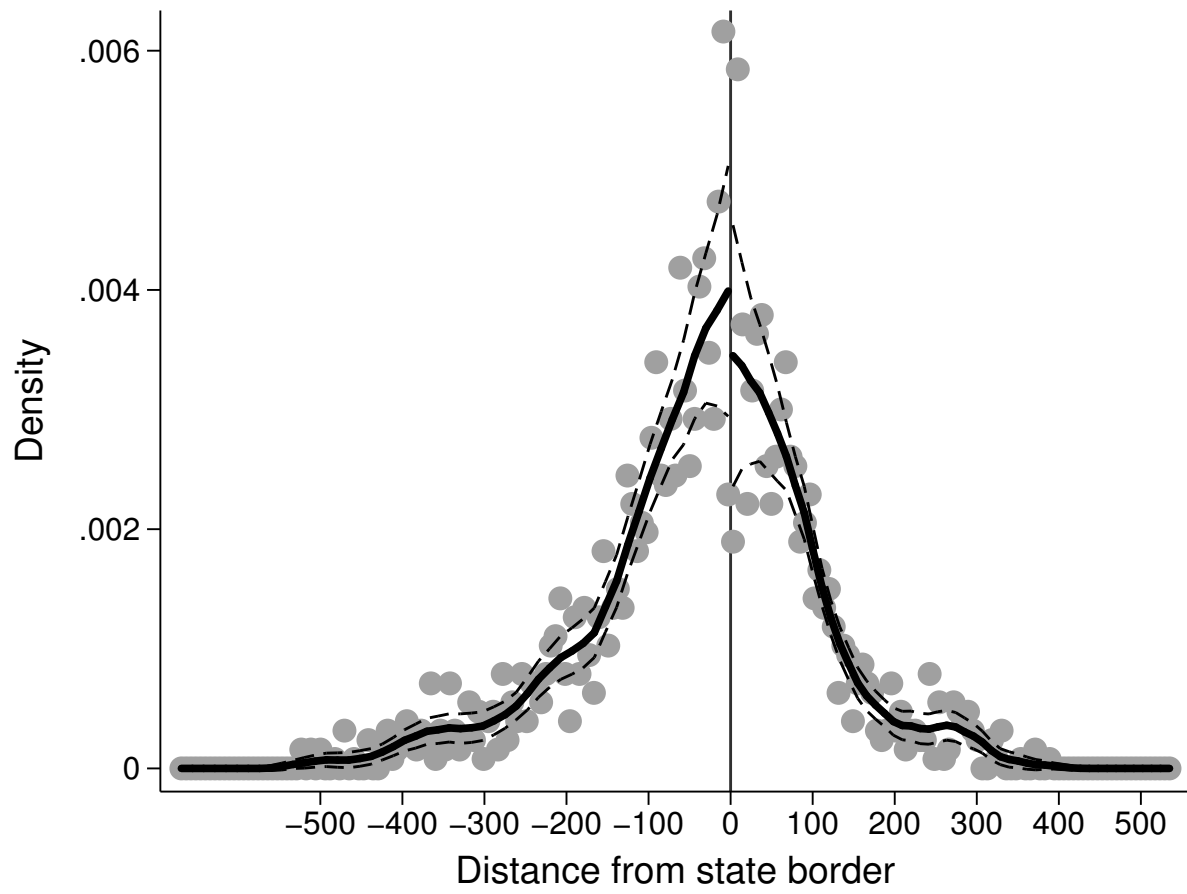


Figure A5: McCrARY DENSITY TEST.

## 2 Results Using Continuous Measure of Eligibility

Our main specification interacts expansion with an indicator for being below or above the sample median on eligibility. Here we show that we obtain similar results when we use a continuous measure of eligibility; all else remains the same in our specifications. Table A4 shows the results for the share uninsured, Table A5 for registration, and Table A6 for turnout.

In terms of statistical significance, the pattern of results is similar or stronger than shown in the main text (for instance, registration is significant in all specifications). The magnitudes are also interesting. They imply that a one percentage point increase in the share eligible is associated with a roughly half a percentage point increase (in absolute terms) in the impact of the expansion (Table A4). The spillover into participation shows a smaller fraction are mobilized: the interaction in Table A5 indicates that for every one percentage point increase in eligibility, the impact of the expansion on registration is between a fifth and three tenths of a percentage point higher. Finally, the interactive effects for turnout in Table A6 are smaller still for 2014-2010, between 0.15 and 0.25 percentage points. As always, the estimated interactions are null for 2016-2012 turnout.

	<u>Percent uninsured</u>		<u>Percent uninsured</u>	
	<u>2014-2013</u>		<u>2015-2014</u>	
	(1)	(2)	(3)	(4)
Medicaid expansion	4.27	-0.07	3.28	-1.06
	[0.78, 7.53]	[-4.00, 3.60]	[-2.07, 8.41]	[-6.15, 4.41]
High eligibility	0.13	0.06	0.16	0.05
	[0.08, 0.16]	[-0.05, 0.17]	[0.08, 0.23]	[-0.10, 0.20]
Expansion X eligibility	-0.49	-0.32	-0.53	-0.37
	[-0.67, -0.32]	[-0.48, -0.18]	[-0.76, -0.30]	[-0.59, -0.13]
Number of Counties	1,348	1,348	1,348	1,348
Number of States	32	32	32	32
Window	100 miles	100 miles	100 miles	100 miles
Covariates	No	Yes	No	Yes
R-squared	0.55	0.69	0.56	0.67

Table A4: EFFECT ON PERCENT UNINSURED: CONTINUOUS INTERACTION.

	<u>Registration</u>		<u>Registration</u>	
	<u>2014-2010</u>		<u>2016-2012</u>	
	(1)	(2)	(3)	(4)
Medicaid expansion	-5.41	-3.31	-3.91	-3.83
	[-10.06, -0.63]	[-6.92, 0.22]	[-7.79, -0.33]	[-7.72, -0.02]
High eligibility	-0.06	0.01	-0.01	0.05
	[-0.19, 0.07]	[-0.13, 0.14]	[-0.10, 0.07]	[-0.05, 0.16]
Expansion X eligibility	0.31	0.20	0.27	0.27
	[0.08, 0.54]	[0.07, 0.35]	[0.13, 0.41]	[0.12, 0.42]
Number of Counties	1,208	1,197	1,264	1,253
Number of States	28	28	30	30
Window	100 miles	100 miles	100 miles	100 miles
Covariates	No	Yes	No	Yes
R-squared	0.11	0.25	0.09	0.13

Table A5: EFFECT ON REGISTRATION: CONTINUOUS INTERACTION.

	<u>Turnout</u> <u>2014-2010</u>		<u>Turnout</u> <u>2016-2012</u>	
	(1)	(2)	(3)	(4)
Medicaid expansion	-2.92	-0.87	-0.69	-0.29
	[-10.54, 3.94]	[-7.25, 5.48]	[-3.88, 2.07]	[-2.13, 1.52]
Share eligible	-0.15	-0.09	0.03	0.07
	[-0.38, 0.08]	[-0.30, 0.10]	[-0.03, 0.10]	[0.01, 0.12]
Expansion X eligibility	0.25	0.15	0.05	0.02
	[0.01, 0.52]	[-0.08, 0.37]	[-0.06, 0.16]	[-0.05, 0.09]
Number of Counties	1,320	1,309	1,320	1,309
Number of States	32	32	32	32
Window	100 miles	100 miles	100 miles	100 miles
Covariates	No	Yes	No	Yes
R-squared	0.12	0.39	0.09	0.33

Table A6: EFFECT ON TURNOUT: CONTINUOUS INTERACTION.

### 3 Border Fixed Effects and Two-Dimensional Distance

In this section we use two strategies to further control for unobserved heterogeneity. First, we estimate specifications with border fixed effects, and with border fixed effects interacted with distance. Second, we use a two-dimensional measure of distance as suggested by Keele and Titiunik (2015). Our two-dimensional specification includes linear and quadratic measures of latitude and longitude, an interaction between latitude and longitude, and linear measures of the latitude and longitude of the nearest border point (see Mattingly 2017 for a similar implementation of a two-dimensional geographic RDD). To measure the latter two terms, for each pair of states we used the QGIS software program to (1) convert the pair of states' individual polygons to lines, (2) find the intersection of the states' borders, generating a line, (3) divide the resulting line into equally spaced points separated by 0.25 degrees (about 17 miles), (4) assign each county to its closest (in terms of Euclidean distance) border point.

Table A7 shows the results for the percent uninsured, Table A8 shows the results for registration, and Table A9 shows the results for turnout. Unsurprisingly, the results for uninsurance are the most robust. The results for registration fall short of significance and are reduced in magnitude when we include border fixed effects, but remain positive; the point estimate on the interaction is now 1.09, with a confidence interval of -0.42 to 2.46; with border-time-distance effects, the estimate reduces further to 0.5 (-1.14, 1.95). The remaining results are similar in terms of significance and magnitude, as compared with the specifications with controls reported in the main text.



	<u>Percent uninsured</u>			<u>Percent uninsured</u>		
	<u>2014-2013</u>			<u>2015-2013</u>		
	(1)	(2)	(3)	(4)	(5)	(6)
Medicaid expansion	-5.60	-5.61	-5.64	-7.33	-7.49	-7.17
	[-7.22,	[-6.92,	[-7.96,	[-9.53,	[-9.34,	[-10.28,
	-4.03]	-4.34]	-3.40]	-5.34]	-5.64]	-4.08]
High eligibility	1.27	1.32	0.86	1.78	1.76	1.13
	[0.38,	[0.34,	[-0.49,	[0.49,	[0.45,	[-0.30,
	2.13]	2.38]	2.11]	3.11]	2.91]	2.65]
Expansion X eligibility	-4.05	-4.24	-4.14	-4.58	-4.69	-5.10
	[-5.63,	[-5.61,	[-6.67,	[-6.86,	[-6.84,	[-8.31,
	-2.51]	-2.85]	-1.81]	-2.48]	-2.58]	-1.89]
Number of Counties	1,348	1,348	2,164	1,348	1,348	2,164
Number of States	32	32	32	32	32	32
Window	100 miles	100 miles	100 miles	100 miles	100 miles	100 miles
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.80	0.88	0.71	0.79	0.87	0.71
Fixed effects	Border	Border X distance	None	Border	Border X distance	None
Distance	1-D	1-D	2-D	1-D	1-D	2-D

Table A7: EFFECT ON PERCENT UNINSURED: ADDITIONAL SPECIFICATIONS.

	<u>Registration</u>			<u>Registration</u>		
	<u>2014-2010</u>			<u>2016-2012</u>		
	(1)	(2)	(3)	(4)	(5)	(6)
Medicaid expansion	1.23	1.85	-0.60	0.58	0.67	-0.10
	[-0.12,	[0.05,	[-2.70,	[-0.65,	[-0.16,	[-1.64,
	2.49]	3.67]	1.48]	1.81]	1.64]	1.56]
High eligibility	0.10	0.51	-0.77	0.10	0.54	-1.06
	[-0.97,	[-0.46,	[-1.66,	[-1.21,	[-0.62,	[-2.14,
	1.13]	1.56]	0.21]	1.36]	1.83]	-0.05]
Expansion X eligibility	1.09	0.50	3.23	3.51	3.30	3.48
	[-0.42,	[-1.14,	[1.37,	[1.91,	[1.79,	[1.55,
	2.46]	1.95]	4.99]	5.26]	4.70]	5.45]
Number of Counties	1,197	1,197	1,921	1,253	1,253	2,033
Number of States	28	28	28	30	30	30
Window	100 miles	100 miles	100 miles	100 miles	100 miles	100 miles
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.37	0.43	0.23	0.26	0.37	0.16
Fixed effects	Border	Border X distance	None	Border	Border X distance	None
Distance	1-D	1-D	2-D	1-D	1-D	2-D

Table A8: EFFECT ON REGISTRATION: ADDITIONAL SPECIFICATIONS.

	<u>Turnout</u> <u>2014-2010</u>		<u>Turnout</u> <u>2016-2012</u>			
	(1)	(2)	(3)	(4)	(5)	(6)
Medicaid expansion	1.70	2.50	0.70	0.46	0.53	0.42
	[-0.39, 3.57]	[0.94, 4.19]	[-2.60, 3.86]	[-0.09, 1.04]	[0.01, 1.04]	[-0.58, 1.44]
High eligibility	-0.47	-0.36	-1.58	0.61	0.70	0.09
	[-1.71, 0.90]	[-1.71, 0.77]	[-3.19, 0.04]	[0.09, 1.10]	[0.13, 1.24]	[-0.50, 0.65]
Expansion X eligibility	2.69	1.95	2.25	-0.18	-0.13	0.71
	[0.54, 4.72]	[-0.00, 3.64]	[-0.64, 5.33]	[-0.90, 0.46]	[-0.90, 0.52]	[-0.44, 1.85]
Number of Counties	1,309	1,309	2,105	1,309	1,309	2,101
Number of States	32	32	32	32	32	32
Window	100 miles	100 miles	100 miles	100 miles	100 miles	100 miles
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.56	0.66	0.39	0.45	0.55	0.29
Fixed effects	Border	Border X distance	None	Border	Border X distance	None
Distance	1-D	1-D	2-D	1-D	1-D	2-D

Table A9: EFFECT ON TURNOUT: ADDITIONAL SPECIFICATIONS.

## 4 Migration Patterns in Expansion vs. Non-Expansion States

One concern with our design is that individuals can select into one county or another for reasons that could co-vary with participation. If this is the case, then our estimates of the effects of expansions may partially represent the effect of these other factors.

We note that existing empirical evidence casts doubt on the possibility of confounding due to sorting. Generally speaking, the literature on “welfare magnets” – the idea that states with more generous social welfare policies attract poorer residents – is inconclusive (see Volden 2002). In the particular case of Medicaid, a recent analysis by Schwartz and Sommers (2014) finds no impact of pre-ACA state Medicaid expansions on state-level migration. These authors use state-level migration estimates from the Current Population Survey, and we use the same data source to look for trends in migration patterns between expansion and non-expansion states in Figure A6.

In this figure, we define “in-migration” as the number of residents who moved *to* a state in the past year. We define “out-migration” as the number of residents who moved *from* each state in the past year. We then calculate the ratio of in- to out-migration, averaging across states grouped by expansion status. This figure shows that, at least at the state level, there are no discernible differences in trends in migration between expansion and non-expansion states.

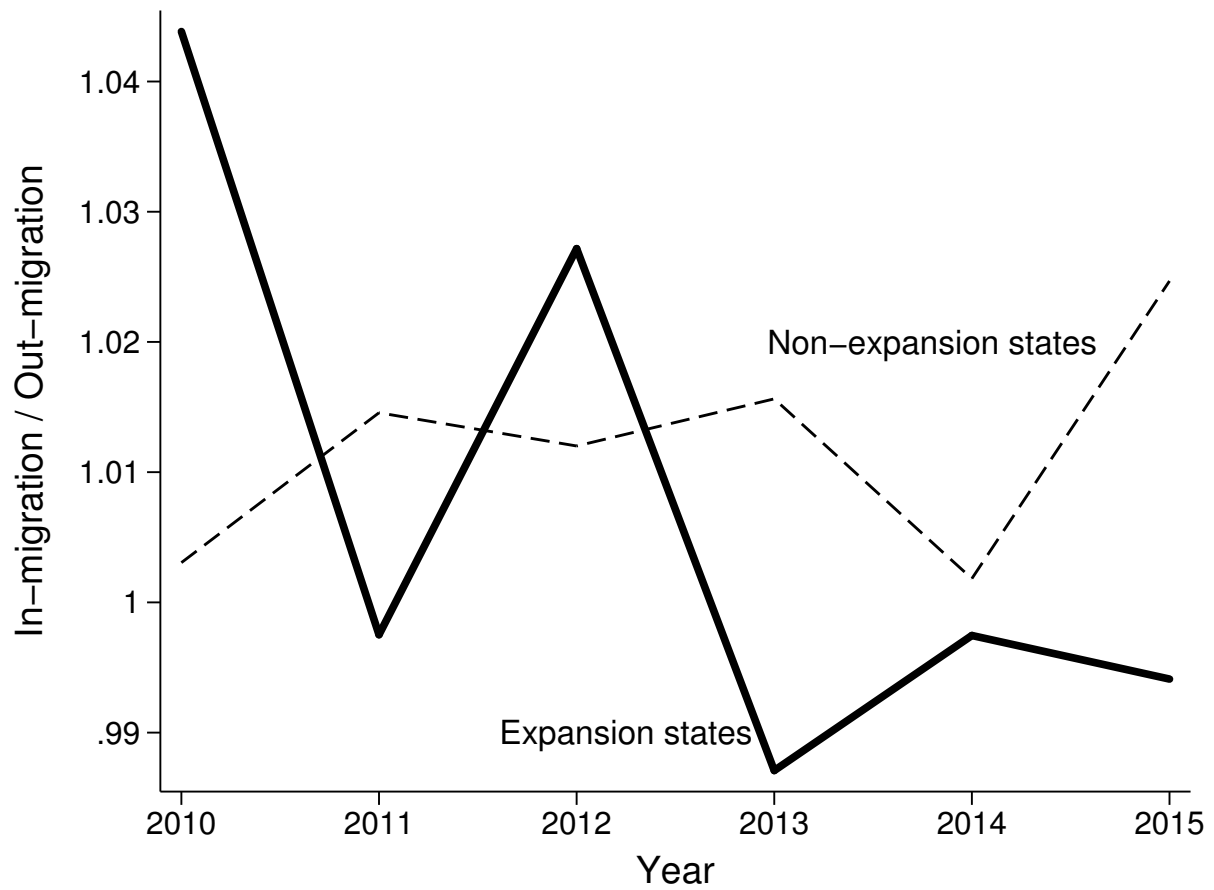


Figure A6: MIGRATION TRENDS IN EXPANSION AND NON-EXPANSION STATES, 2011-2015. Data source: Current Population Survey via Integrated Public Use Microdata Series (IPUMS).

## 5 Results Without Interactions

In the main text we focus on specifications with interactions between county-level eligibility and state-level expansion status. Here we report results without interactions. That is, we report the results of a specification:

$$Y_{cs} = \alpha Expansion_s + \beta Distance_{cs} + \gamma (Expansion_s \times Distance_{cs}) + \mathbf{X}_{cs}\pi + e_{cs}$$

Figures A7, A8, and A9 replicate the discontinuity plots reported in the main text for uninsured, registration, and turnout. Tables A10, A11, and A12 report the corresponding regressions. Visually, the figures show negative discontinuities in the change in the percentage of uninsured residents, and positive discontinuities in participation with the exception of 2016-2012 turnout, as per usual in our analysis. Predictably, given it is the most directly impacted outcome, the regressions show statistically significant results for insurance coverage. The estimates are positive, but fall short of significance, for 2014-2010 voter registration in the entire sample, but they are statistically significant for 2016-2012 registration. For turnout, the estimates are also positive and statistically significant in 2014 when we include controls, but they are close to zero and insignificant in 2016.

## Change in uninsured

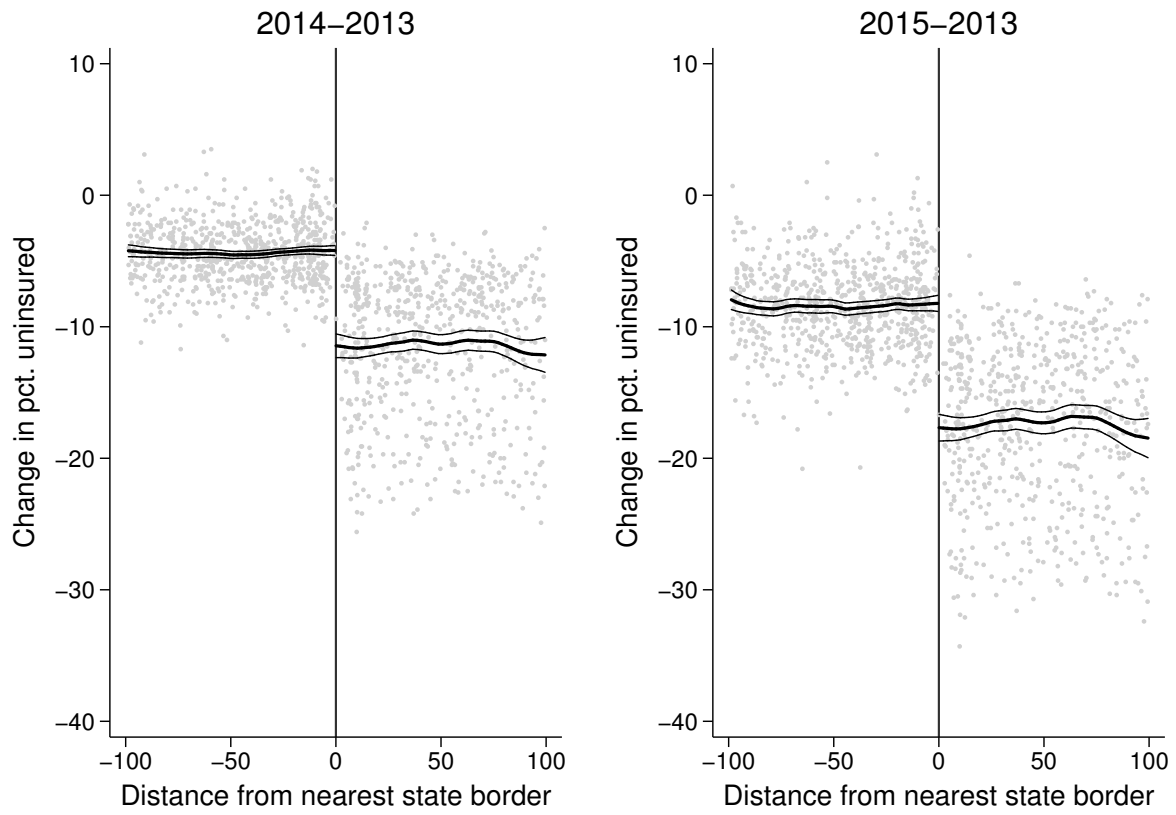


Figure A7: EFFECT OF EXPANSION ON UNINSURANCE: NO INTERACTION WITH ELIGIBILITY.

## Change in registration

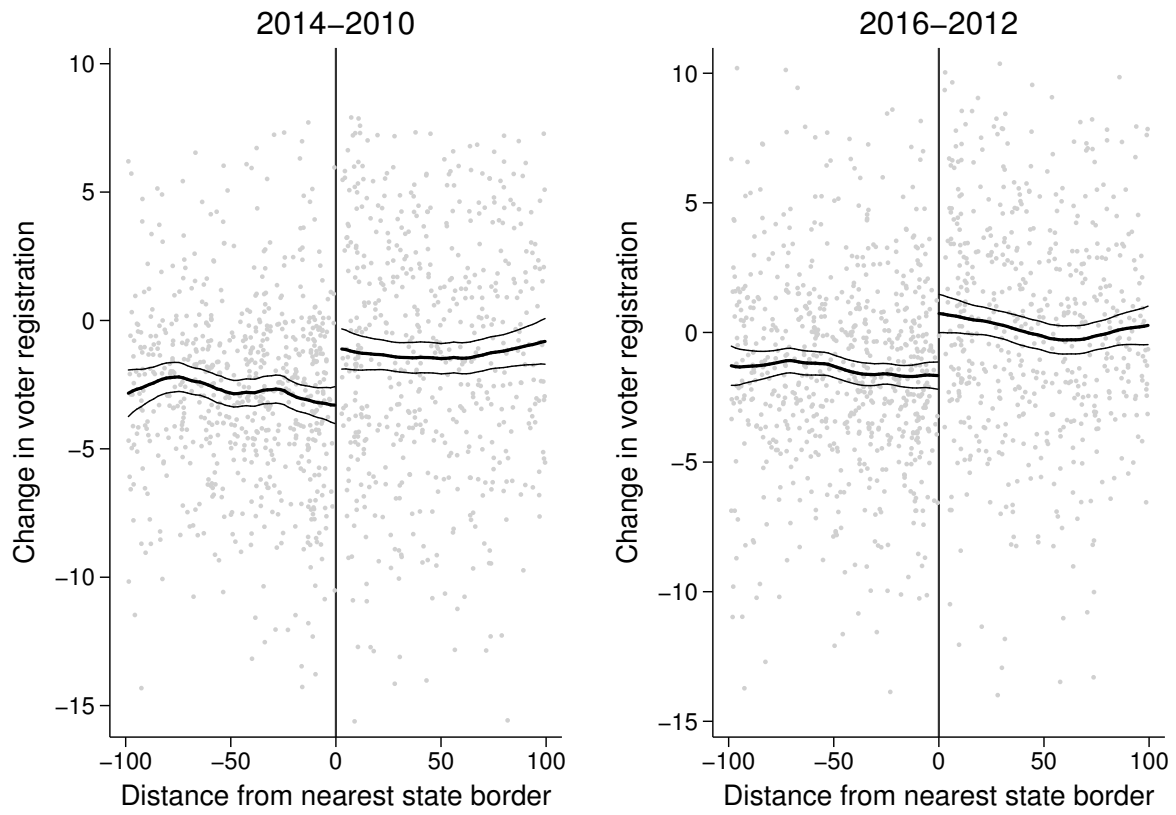


Figure A8: EFFECT OF EXPANSION ON REGISTRATION: NO INTERACTION WITH ELIGIBILITY.



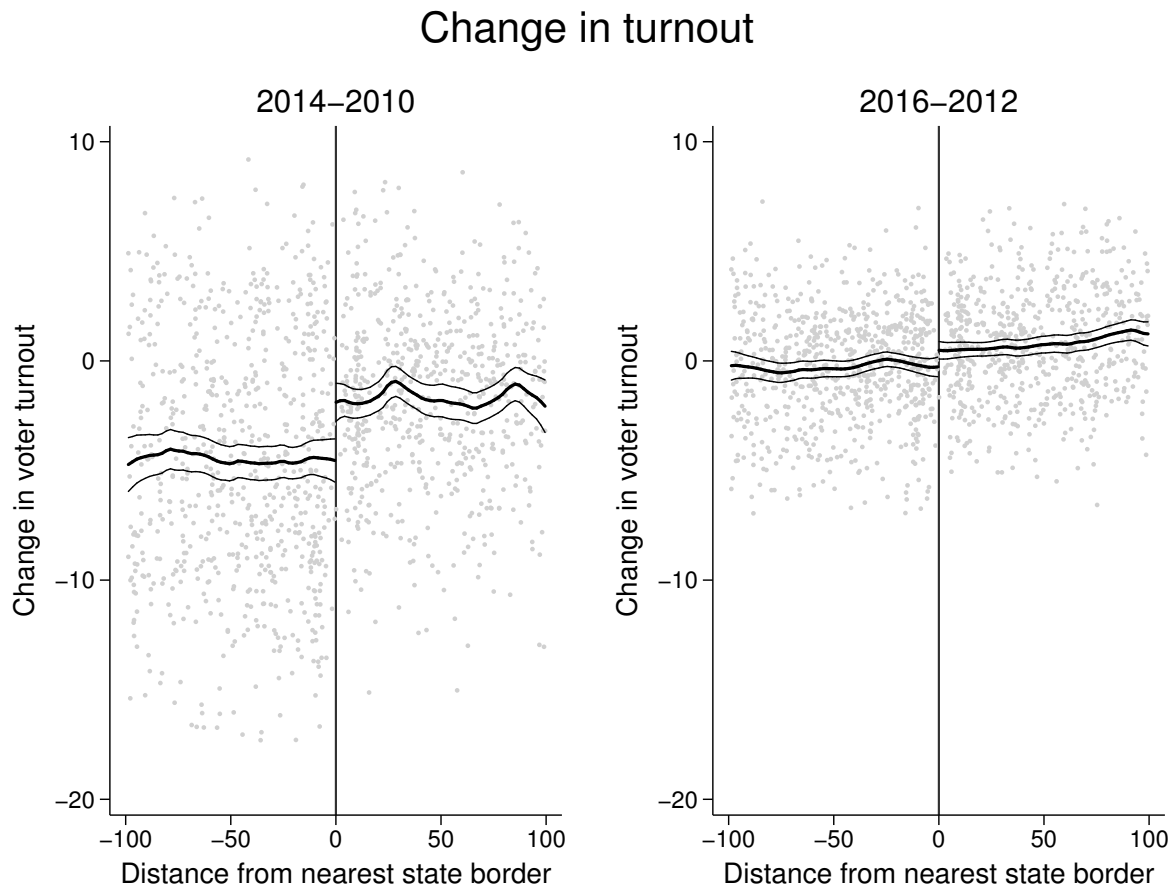


Figure A9: EFFECT OF EXPANSION ON TURNOUT: NO INTERACTION WITH ELIGIBILITY.

	<u>Percent uninsured</u>		<u>Percent uninsured</u>	
	<u>2014-2013</u>		<u>2015-2014</u>	
	(1)	(2)	(3)	(4)
Medicaid expansion	-6.95	-6.72	-8.95	-8.66
	[-10.16, -3.97]	[-9.05, -4.45]	[-12.54, -5.30]	[-11.72, -5.80]
Number of Counties	1,348	1,348	1,348	1,348
Number of States	32	32	32	32
Window	100 Miles	100 Miles	100 Miles	100 Miles
Covariates	No	Yes	No	Yes
R-squared	0.43	0.50	0.47	0.52

Table A10: EFFECT OF EXPANSION ON UNINSURANCE: NO INTERACTION WITH ELIGIBILITY.

	<u>Registration</u>		<u>Registration</u>	
	<u>2014-2010</u>		<u>2016-2012</u>	
	(1)	(2)	(3)	(4)
Medicaid expansion	1.77	1.33	2.34	2.23
	[-0.69, 4.25]	[-0.29, 2.91]	[0.28, 4.30]	[0.27, 4.30]
Number of Counties	1,208	1,197	1,264	1,253
Number of States	28	28	30	30
Window	100 miles	100 miles	100 miles	100 miles
Covariates	No	Yes	No	Yes
R-squared	0.03	0.22	0.04	0.09

Table A11: EFFECT OF EXPANSION ON REGISTRATION: NO INTERACTION WITH ELIGIBILITY.

	<u>Turnout</u> <u>2014-2010</u>		<u>Turnout</u> <u>2016-2012</u>	
	(1)	(2)	(3)	(4)
Medicaid expansion	2.87	2.55	0.44	0.24
	[-0.29, 6.06]	[0.29, 5.28]	[-0.52, 1.44]	[-0.38, 0.90]
Number of Counties	1,320	1,309	1,320	1,309
Number of States	32	32	32	32
Window	100 miles	100 miles	100 miles	100 miles
Covariates	No	Yes	No	Yes
R-squared	0.08	0.37	0.05	0.31

Table A12: EFFECT OF EXPANSION ON TURNOUT: NO INTERACTION WITH ELIGIBILITY.

## 6 Placebo Tests and All Possible Comparisons

To test for pre-existing differences in the political participation of expansion and non-expansion states, we re-estimate our main results for every possible election pairing between 2004 and 2016. This evaluates the robustness of our estimates to alternative choices of a pre-expansion election, and also probes the parallel paths assumption. An increase in turnout and registration in 2008 relative to 2004, for example, could not be due to the expansion of Medicaid, and would raise questions as to whether subsequent increases are spurious.

For completeness we report every possible comparison. With six elections, this provides 21 possible pre-post comparisons. A few important caveats bear mentioning. First, because we are using the same elections in multiple comparisons, these are not independent comparisons. If there is an election that generates an abnormal level of turnout – for instance, perhaps the 2010 midterm election that occurred on the heels of the passage of the ACA, an election in which Republican and conservative groups were particularly mobilized (Beland, Rocco, and Wadden 2016) – then this will affect every pairwise comparison involving 2010 as either a pre- or post-ACA election. Put differently, the 6 elections we examine do not generate 20 independent draws, and a single atypical election will affect multiple comparisons.

Second, when comparing a midterm election to a presidential election, it is important to recognize that many aspects are not being held constant, and omitted variables pertaining to the differences in midterm races in a state can affect the interpretation of the recovered estimates. Indicative of this danger, Table A13 reports the partisanship of the Senators up for re-election in each midterm election year nationwide, the overall shift in seats that resulted because of the election, and the number of expansion and non-expansion states in our sample with a senatorial election in each year. Third, the 2006 data are labeled “preliminary” by Leip (2017), and may be less reliable compared to the latter years.<sup>1</sup>

Figure A10 summarizes the results graphically. The horizontal axis denotes the election

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<sup>1</sup>See [http://uselectionatlas.org/BOTTOM/store\\_data.php](http://uselectionatlas.org/BOTTOM/store_data.php) (accessed May 25, 2017).

used as a “post-treatment” election, and the labels on each point denote the “pre-treatment” election. For example, in 2006, the interaction between eligibility and expansion is about 2 points for registration (top panel) and 4 points for turnout (bottom panel) using the data Leip identifies as preliminary. However, if we compare voting and registration in 2008 to 2004 and 2006, we find almost no difference, and the interactions are actually slightly negative in 2008 relative to 2006. To summarize the comparisons further, we mark horizontal lines at the mean of the estimates pre- and post-expansion. These lines show the average pre-expansion impact on registration is 0.87 (with a range of -1.6 to 2.2), compared to an average post-expansion impact of 4 (0.7 to 5.6); for turnout, the corresponding means are -0.1 pre-expansion (-4.5 to 3.5) and 1.7 post-expansion (-5.7 to 7.6).

This pattern of results highlights the difficulty of making comparisons across election-types. The 2006-2004 comparison reveals that the difference in participation between high- and low-eligibility counties, between expansion and non-expansion states, was slightly positive in the 2006 midterm election relative to the 2004 presidential election. However, perhaps as a consequence, when 2006 is used as a baseline for the 2008 election, we observe the exact opposite pattern – the interaction is negative. Clearly, these comparisons are not independent – a higher rate of participation in 2006 relative to 2004 means comparing 2008 to 2006 will be artificially depressed.

In fact, if we compare midterm-to-midterm and presidential-to-presidential, we find estimates that are near zero. The fact that the few departures from zero occur when comparing midterm and presidential contests – comparisons which are difficult because the electoral races vary by states – provides reassuring evidence that there are not pre-existing differences.

Finally, the comparison of 2016 to 2014 reveals that no evidence of an increase in registration between 2014 and 2016 – suggesting that most of the impact likely occurred prior to the 2014 election when citizens were first eligible for the Medicaid expansion. The fact that turnout fell significantly in 2016 relative to 2014 in expansion states is again a likely consequence of comparing a presidential election, in which every state had a notable top-of-the-

ticket race that was highly and consistently publicized, to a midterm election environment in 2014 that was far more variable between states.

Election	Rep Seats Up	Dem Seats Up	Shift	Expansion	Non-Expansion
2006	15	17	+6 D	9	11
2010	18	16	+6 R	12	8
2014	15	21	+9 R	11	13

Table A13: MIDTERM ELECTION ENVIRONMENTS.



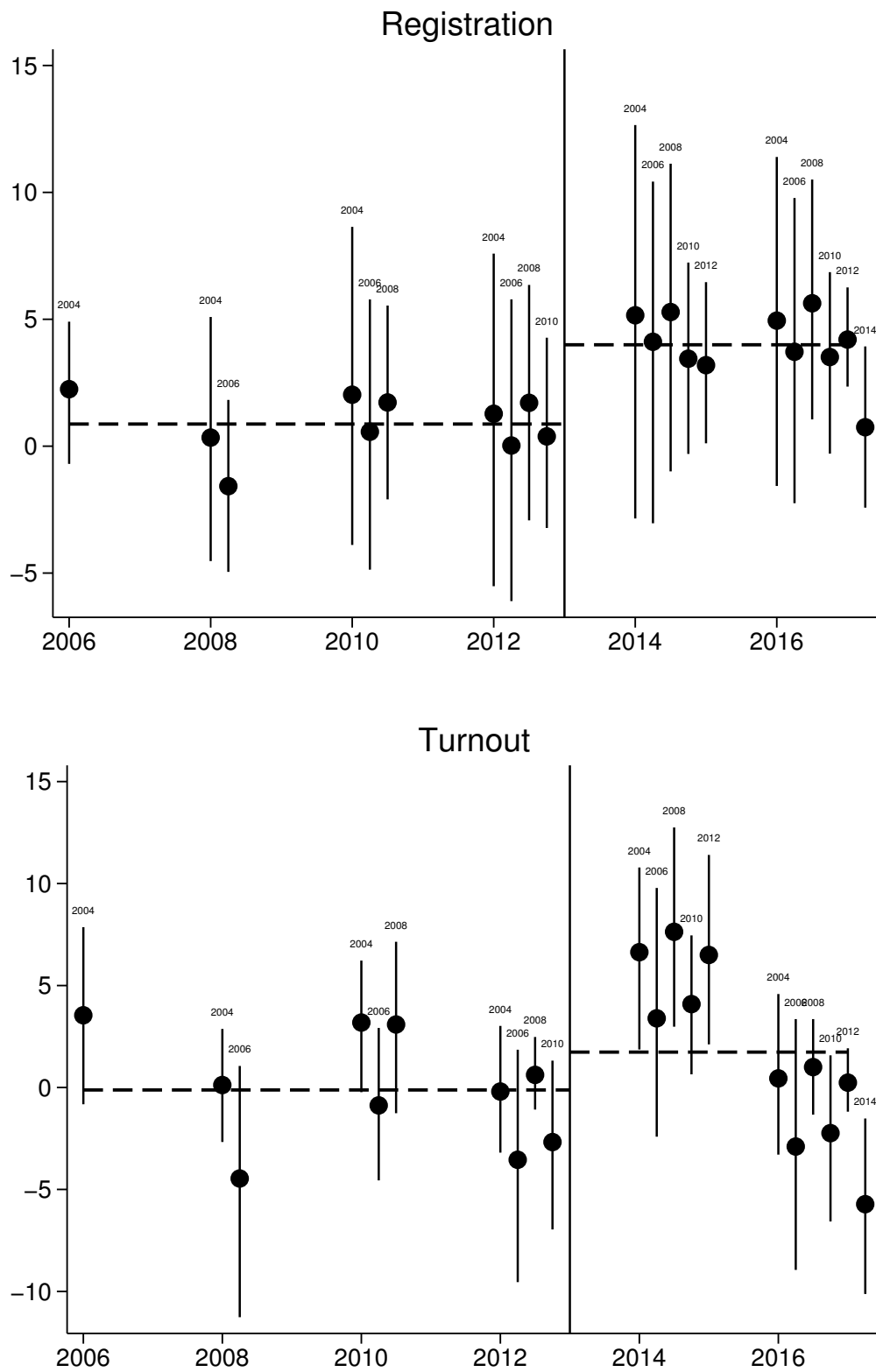


Figure A10: PLACEBO TESTS: ALTERNATIVE PRE/POST COMPARISONS.

## 7 Similarity of Close Counties on Observable Characteristics

Figure A11 plots nine county-level variables against distance from the border. The only variable that sees a noticeable jump is the percent uninsured in 2013, which is to be expected given the higher pre-ACA eligibility thresholds in expansion states (recall that we include pre-expansion uninsurance as a control variable in our specifications that include covariates). The absence of jumps in the remaining eight variables increases our confidence that the jump in turnout reported in the main text result of the Medicaid expansion, and not some other factor that also changes with the crossing of state borders.

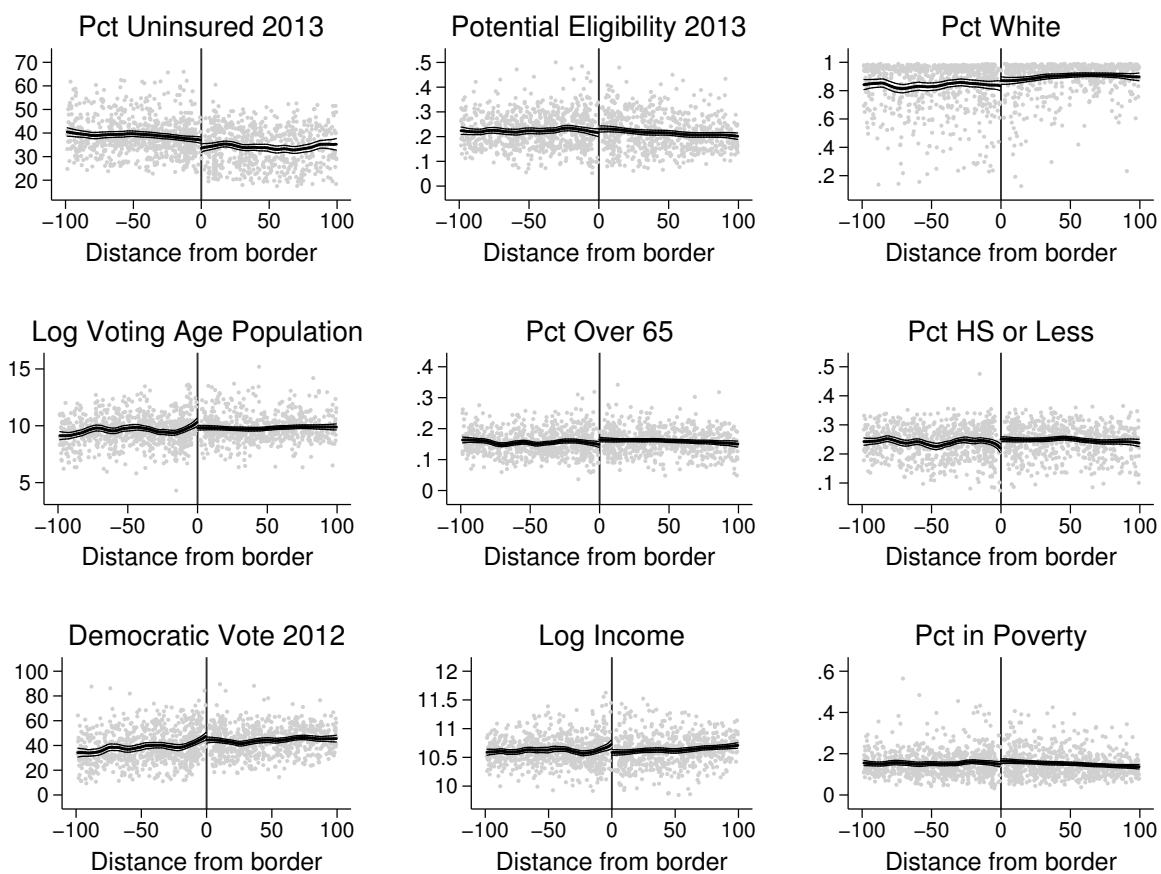


Figure A11: SIMILARITY OF CLOSE COUNTIES ON OBSERVABLE CHARACTERISTICS.

## 8 Details of Permutation Test

To explore whether the discontinuities we observe could have arisen by chance, we conduct 1,000 hypothetical Medicaid expansions and examine the distribution of point estimates across iterations. Specifically, we begin with the 48 contiguous United States, and for each iteration, we do the following:

- Randomly code 27 states as expanding Medicaid, and 20 states as not.
- Drop states that do not border another state with an expansion status different from its own.
- Each state should now be paired with another state that differs in expansion status. For states with expansion status equal to 0, multiply distance to the border state by -1. Use the transformed distance as the forcing variable.
- As in the main analysis, keep only the instance of the county where the distance to the border is smallest.
- Estimate the regressions for turnout and registration, for counties within 100 miles of a border.
- Save the estimates for each outcome in each iteration.

## 9 Trends in Uninsurance

In the main text we show trends in changes in registration and turnout. Here, we show the corresponding trends for the share uninsured. Because we have annual data for this variable, we estimate one-year changes in the share uninsured for each year from 2009 to 2015. Figure A12 shows the results.

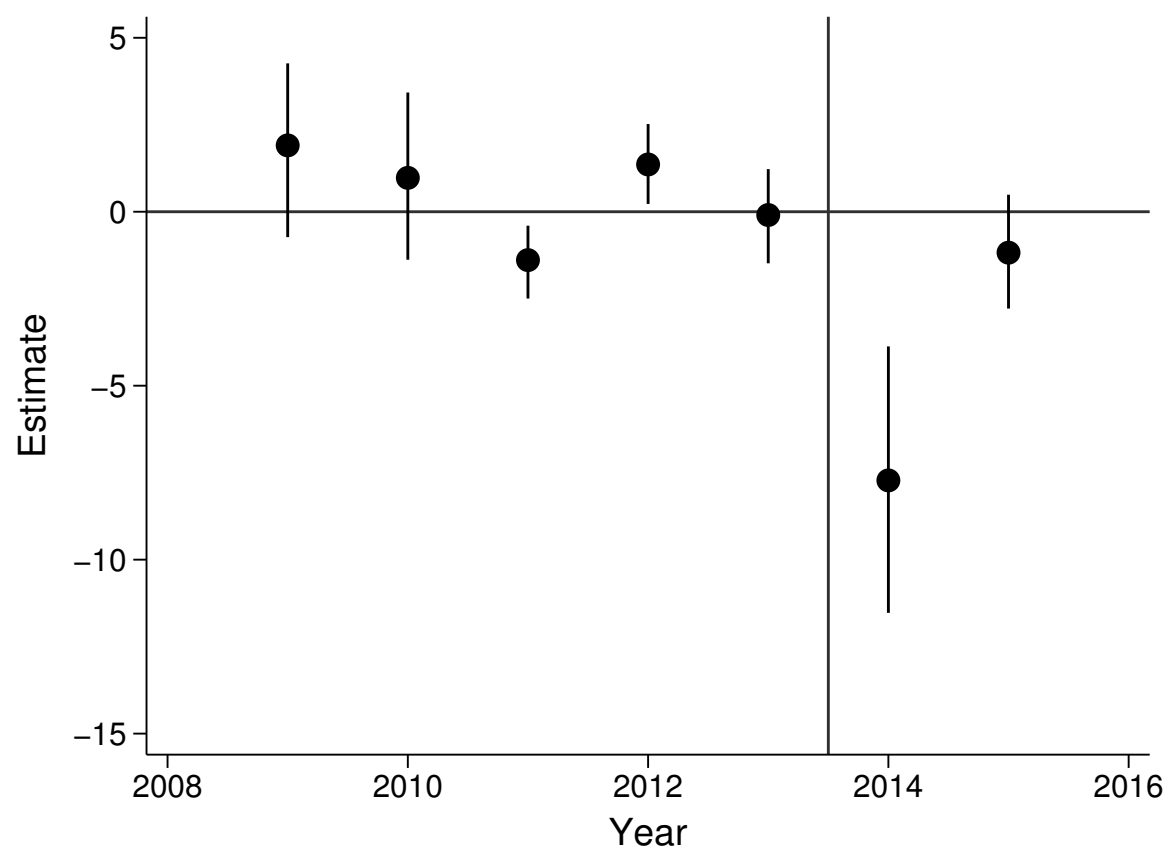


Figure A12: TRENDS IN UNINSURANCE.

## 10 State Pairs

In addition to using covariates and distance, we focus on states sharing a substantial border and estimate the effect separately for each pair. For each pair of states, we estimate:

$$Y_{cs} = \alpha Expansion_s + \beta Distance_{cs} + \gamma (Expansion_s \times Distance_{cs}) + e_{cs}$$

We exclude covariates and the interaction with eligibility, given that we lose a substantial amount of data when we focus on two states at a time. We use robust standard errors instead of clustered errors for each comparison, as each pair of states yields only two “clusters.” We conduct this comparison for 2014-2010 registration.

Figure A13 plots the results, sorted by the magnitude of the point estimate. The left panel shows the estimates for pairs of states with different electoral calendars. For example, Louisiana had a senate election in both 2014 and 2010 and a gubernatorial race in neither year; its bordering state, Arkansas, had both senate and gubernatorial races in both years. The right panel shows the estimates for pairs of states with the same configuration of races in both years. For instance, Virginia and West Virginia both had a senate race in 2014 but not 2010; neither had a gubernatorial race in either year.

Our full-sample estimates in midterm elections do not appear to be driven by variations in the electoral calendar: the estimates are actually larger, on average, focusing on pairs of states with the same races (the mean estimate for the left panel is 2.3, and it is 3.6 for the right panel). Overall, the mean estimate is 2.7, with a standard error of 0.6.

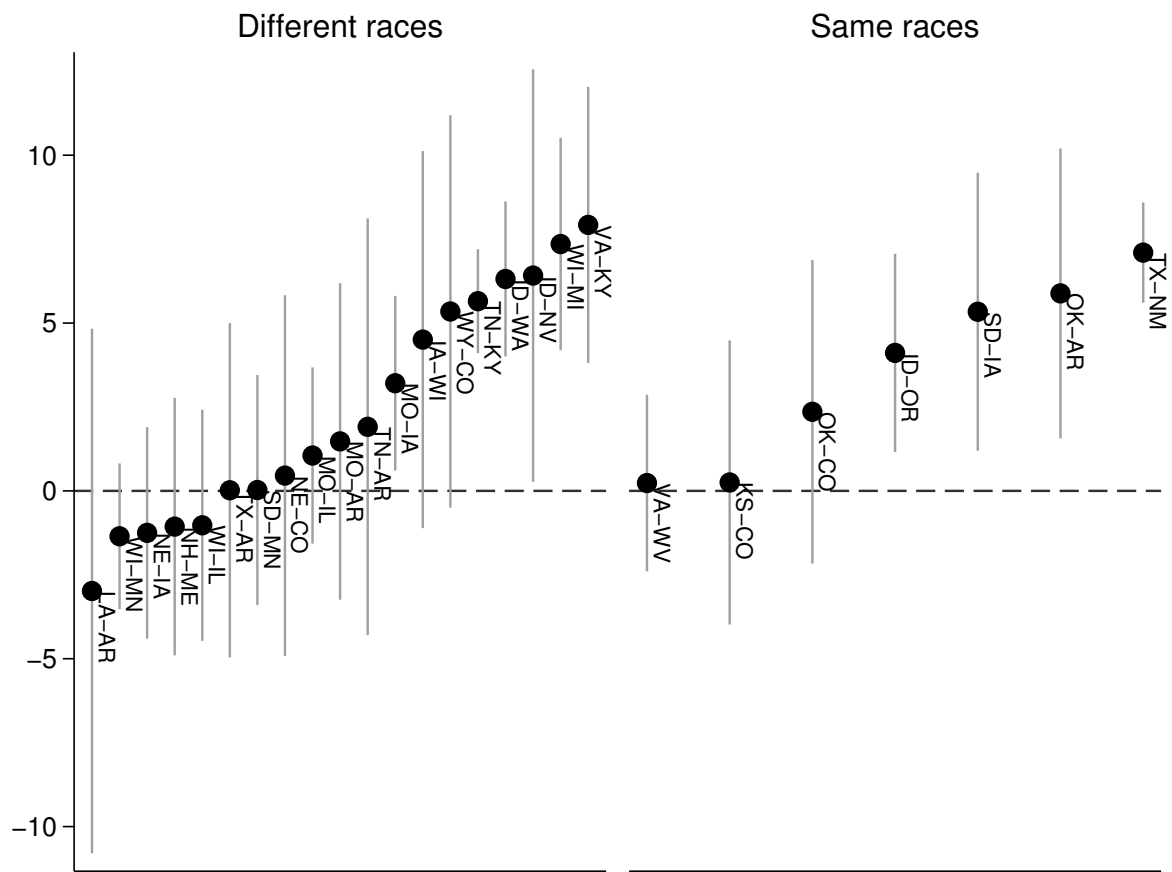


Figure A13: ESTIMATES BY BORDER.



## 11 Within-State Analysis

In this section we estimate a “within-state” specification where we regress changes in participation on the share eligible, separately for expansion and non-expansion states. This specification is similar to the graphical analysis presented in Figure 3 in the main text, but includes the same covariates as included in our discontinuity specifications, and also yields a standard error. In some specifications, we also include state fixed effects, which should absorb any within-state confounders including the electoral environment (note we do not include state fixed effects in our main specifications, as they would be perfectly collinear with the expansion dummy). That is, we estimate:

$$Y_{cs} = \alpha + \beta PotentialEligibility_{cs} + \mu_s + \mathbf{X}_{cs}\pi + e_{cs}$$

separately for expansion and non-expansion states.

Table A14 shows the results without state fixed effects. These results are similar to those shown in Figure 3 in the main text, but change slightly given that we add covariates. In non-expansion states, there is typically a negative correlation between the share eligible and participation (the exception is turnout for 2016); however, the estimates are always imprecisely estimated and statistically no different from zero. In expansion states, the estimates are always positive, and are statistically significant for all but 2014-2010 turnout.

The results change slightly when we add state fixed effects in Table A15. Now, the share eligible is positively related to participation in all specifications. However, in non-expansion states, eligibility is only statistically significantly related to participation for 2016-2012 registration; in expansion states, it is significantly related to participation for all outcomes save 2014-2010 turnout. Importantly, the estimated relationship is always larger in expansion states.

Registration				
	2014-2010		2016-2012	
	Not Expanding	Expanding	Not Expanding	Expanding
Eligibility	-0.00 (0.05)	0.23 (0.05)	-0.02 (0.05)	0.30 (0.05)
Number of Counties	648	549	701	552
R-Squared	0.17	0.33	0.06	0.20
Turnout				
	2014-2010		2016-2012	
	Not Expanding	Expanding	Not Expanding	Expanding
Eligibility	-0.01 (0.05)	0.01 (0.05)	0.03 (0.03)	0.13 (0.03)
Number of Counties	686	623	692	617
R-Squared	0.52	0.35	0.34	0.26

Table A14: WITHIN STATE ANALYSIS.

Registration				
	2014-2010		2016-2012	
	Not Expanding	Expanding	Not Expanding	Expanding
Eligibility	0.07 (0.05)	0.16 (0.06)	0.11 (0.05)	0.16 (0.05)
Number of Counties	648	549	701	552
R-Squared	0.29	0.46	0.24	0.40
Turnout				
	2014-2010		2016-2012	
	Not Expanding	Expanding	Not Expanding	Expanding
Eligibility	0.03 (0.04)	0.05 (0.05)	0.05 (0.03)	0.12 (0.03)
Number of Counties	686	623	692	617
R-Squared	0.66	0.48	0.48	0.41

Table A15: WITHIN STATE ANALYSIS: WITH STATE FIXED EFFECTS.

## 12 Interaction With Democratic Vote Share

To explore the possibility that the effects vary by the partisanship of the county, we replicate all of the previous results for counties with a greater-than-median percentage of vote for President Obama in 2012, and for counties with a less-than-median percentage of the vote for President Obama in 2012. So doing explores the extent to which the results are conditioned by partisanship, given the ongoing partisan contestation over the ACA and the expansion of Medicaid, and it helps reveal whether the largest impact occurs in counties with higher pre-existing levels of Republican or Democratic support.

Even so, there are some limits to the analysis. First, while we can determine if participation varies by eligibility and partisanship based on the past voting behavior of the county, we cannot determine who is being mobilized. If, for example, Republicans are mobilized and they are equally likely to be mobilized in Republican-leaning and Democratic-leaning counties, then the comparisons we conduct will reveal no differences. This is important because we classify the counties by vote share in 2012 pre-expansion, but the increase in participation likely occurs because of those who were not registered to vote in 2012.

A second limitation is that conducting the analysis separately by past partisan voting behavior results in fewer cases – especially in the interactions that we are most interested in between expansion and eligibility. The loss of precision due to the loss of sample is compounded further because of the relationship between wealth and partisanship.

With these caveats in mind, Figures A14 and A15 show the discontinuity in the change in the percentage of uninsured residents does not vary significantly by partisanship. Figures A16 and A17 show the plots for registration, and reveal a shift in high-eligibility counties regardless of 2012 voting. There is no impact in low-eligibility Democratic counties, and while the results in low-eligibility Republican counties are more variable due to a smaller sample size, there is no obvious difference in the change in voter registration.

Figures A18 and A19 show changes in turnout by partisan leaning. While there is no evidence of a shift in Democratic-leaning counties, there does seem to be suggestive evidence

of a shift in Republican leaning counties when comparing the 2014 midterm elections to the 2010 midterm elections – especially in high-eligibility counties.

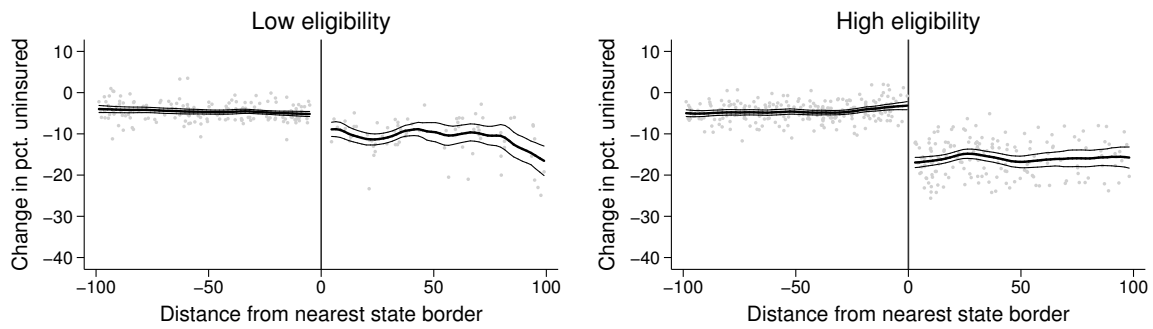
Tables A16 and A17 show regressions where change in uninsurance is the outcome, separately by party leanings. The results are substantively very similar to the pooled results reported in the text. If anything, there may be larger effects in Republican-leaning counties given the relative magnitude of the interaction effects, but it is clear that the policy had impacts on insurance regardless of the underlying partisanship of the county.

Tables A18 and A19 show regressions for registration, by party. Among Republican-leaning counties, there are positive registration effects in expansion states (the main effect of *Medicaid expansion*) but the impact is not higher in high-eligibility counties when comparing 2014-2010. When comparing 2016-2012, however, the results reveal that the increase in voter registration occurs in the high-eligibility counties. Among Democratic-leaning counties, the point estimates suggest an increase in registrations located in high-eligibility counties, but the effect is only distinguishable from zero for the 2016-2012 comparison.

Tables A20 and A21 show results for turnout. Among Democratic leaning counties, the estimates are imprecise, statistically insignificant from zero, but around two percentage points in 2014. Among Republican-leaning counties, however, the results suggest an increase in turnout occurred in 2014 relative to 2010 in expansion states. The main effect of *Medicaid expansion* is around five points for Republican counties. Because these increases are not concentrated in high-eligibility counties – the interaction of *Expansion X eligibility* is statistically indistinguishable from zero – the turnout effect was not concentrated in the counties that experienced the largest policy impact of Medicaid expansion.

## Republican counties

### Change in uninsured 2014–2013



### Change in uninsured 2015–2013

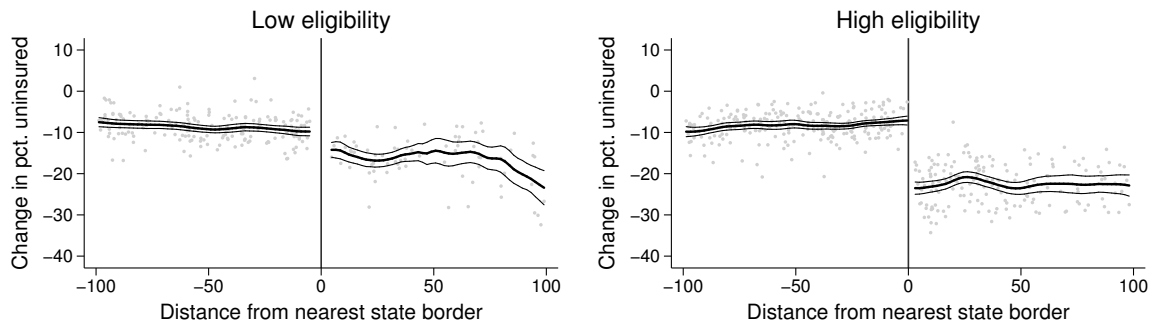
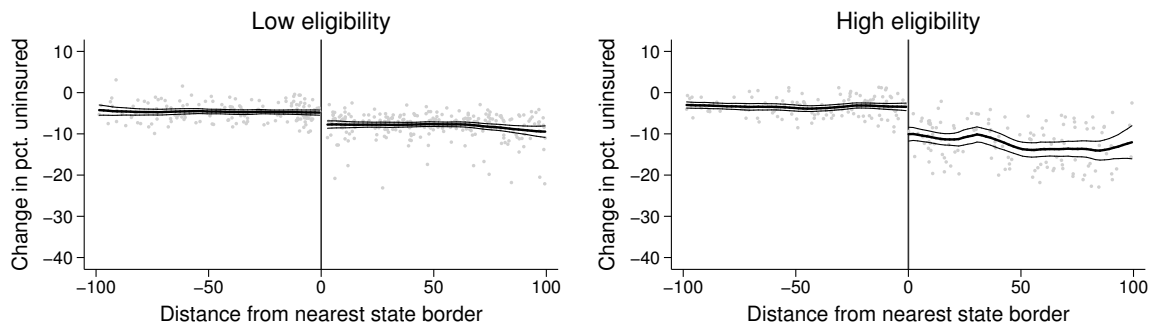


Figure A14: EFFECT OF EXPANSION ON INSURANCE: REPUBLICAN COUNTIES.

## Democratic counties

### Change in uninsured 2014–2013



### Change in uninsured 2015–2013

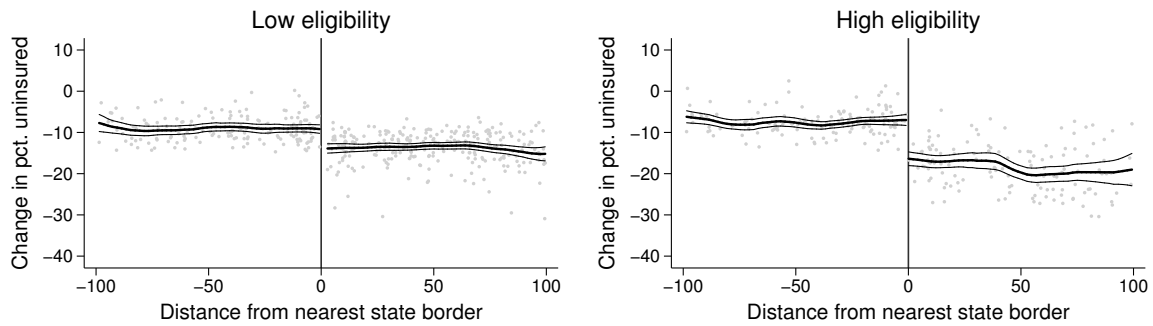
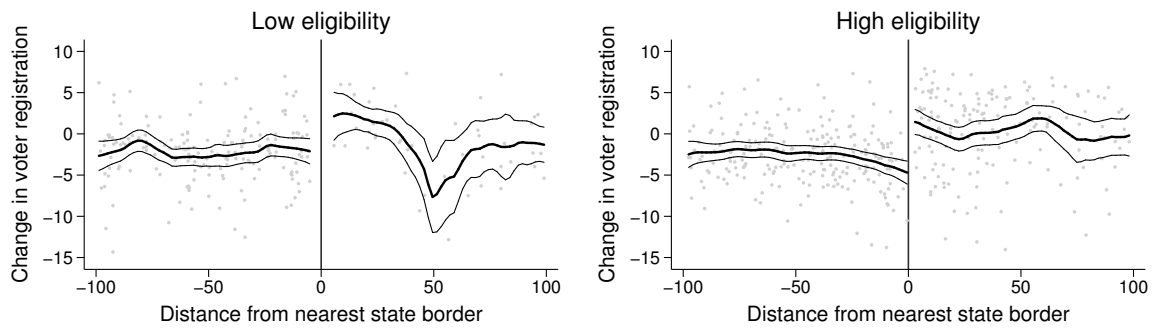


Figure A15: EFFECT OF EXPANSION ON INSURANCE: DEMOCRATIC COUNTIES.

## Republican counties

Change in registration 2014–2010



Change in registration 2016–2012

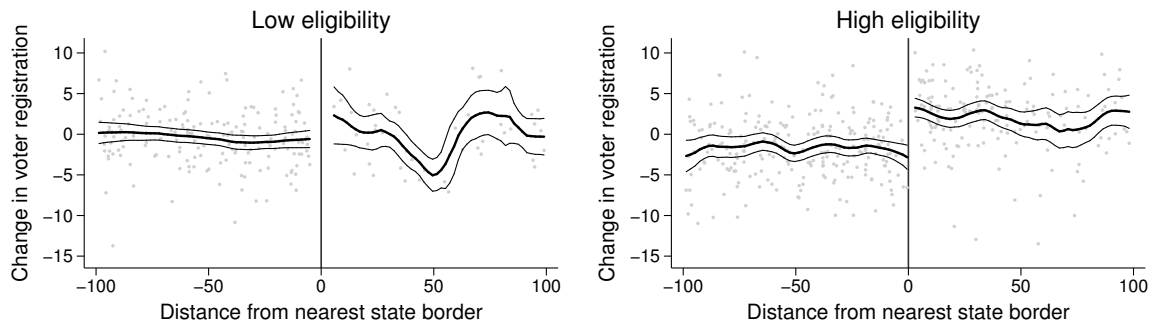
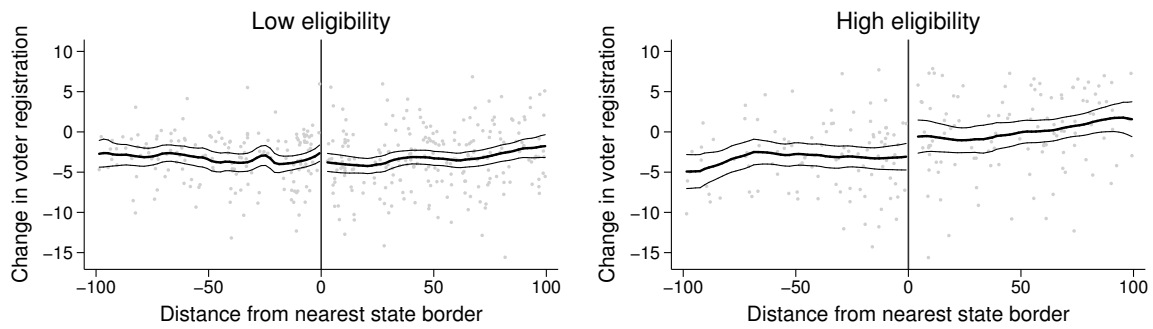


Figure A16: EFFECT OF EXPANSION ON REGISTRATION: REPUBLICAN COUNTIES.



## Democratic counties

Change in registration 2014–2010



Change in registration 2016–2012

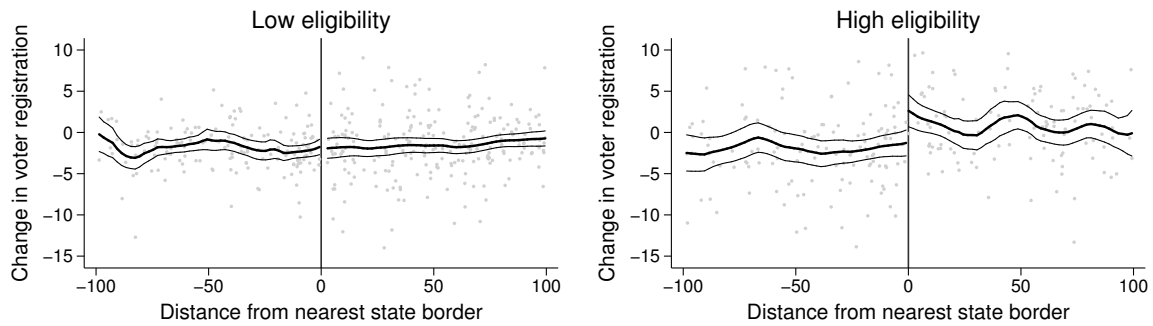
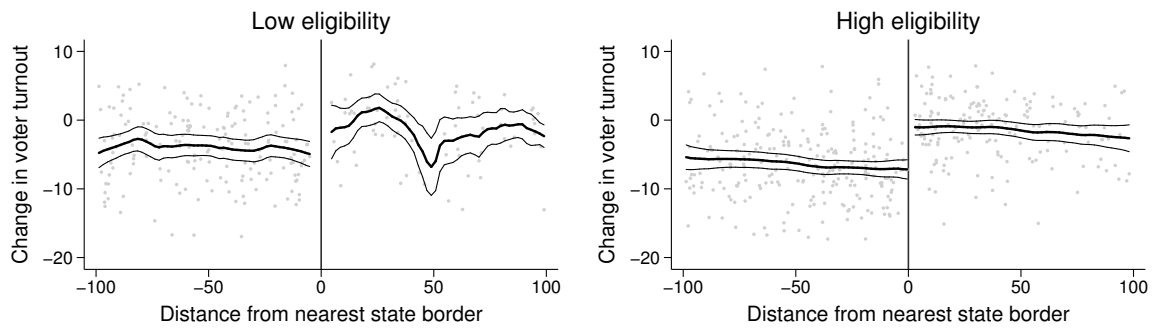


Figure A17: EFFECT OF EXPANSION ON REGISTRATION: DEMOCRATIC COUNTIES.

## Republican counties

Change in turnout 2014–2010



Change in turnout 2016–2012

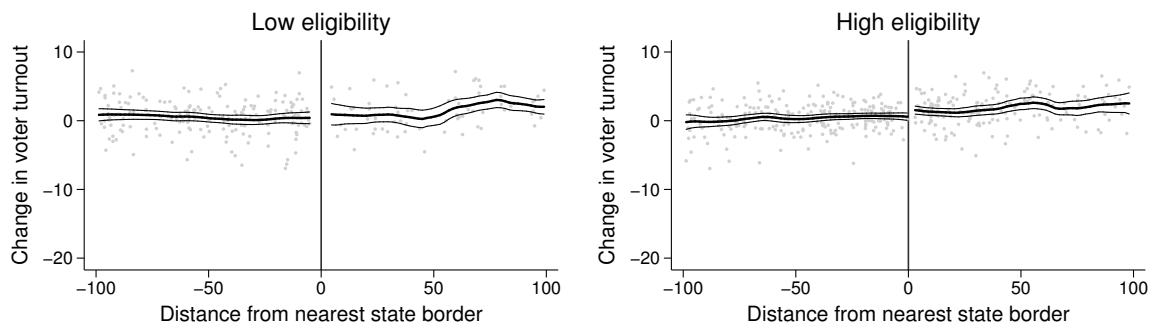
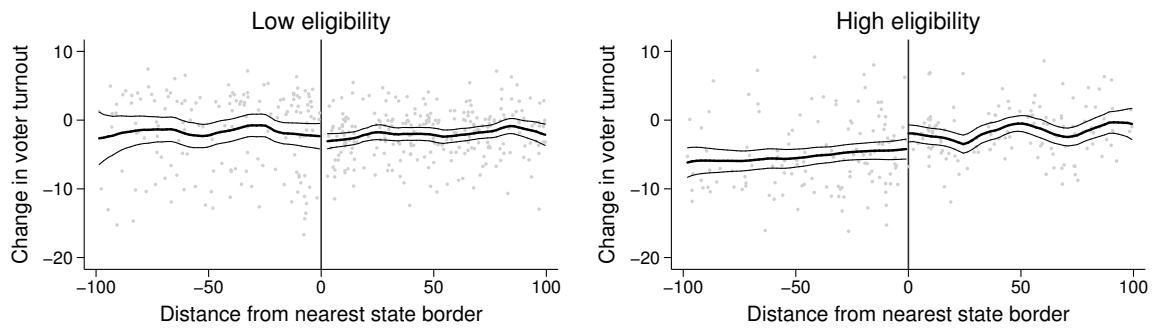


Figure A18: EFFECT OF EXPANSION ON TURNOUT: REPUBLICAN COUNTIES.

## Democratic counties

Change in turnout 2014–2010



Change in turnout 2016–2012

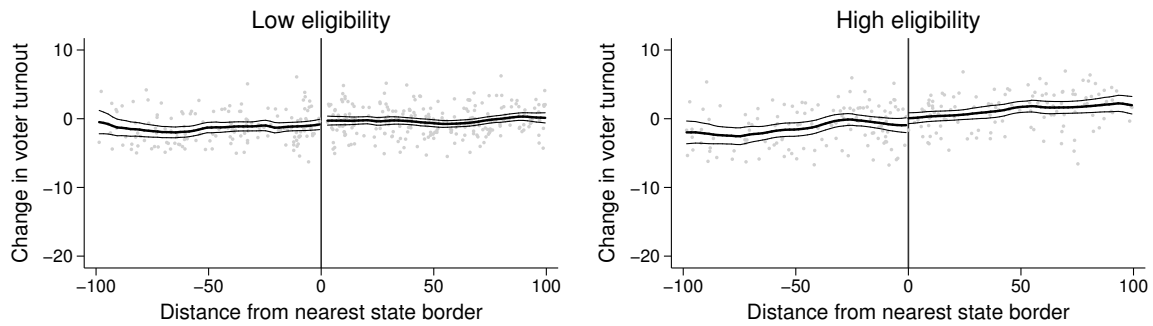


Figure A19: EFFECT OF EXPANSION ON TURNOUT: DEMOCRATIC COUNTIES.

	<u>Percent uninsured</u>		<u>Percent uninsured</u>	
	<u>2014-2013</u>		<u>2015-2014</u>	
	(1)	(2)	(3)	(4)
Medicaid expansion	-3.55	-5.04	-4.01	-5.67
	[-5.16, -1.89]	[-6.45, -3.61]	[-6.09, -1.79]	[-7.45, -3.77]
High eligibility	1.37	1.26	2.50	1.74
	[0.39, 2.28]	[0.09, 2.43]	[0.85, 3.89]	[-0.03, 3.55]
Expansion X eligibility	-8.72	-6.85	-11.04	-9.09
	[-13.00, -4.40]	[-10.28, -3.61]	[-16.31, -5.58]	[-13.32, -4.60]
Number of Counties	668	668	668	668
Number of States	28	28	28	28
Window	100 Miles	100 Miles	100 Miles	100 Miles
Covariates	No	Yes	No	Yes
R-squared	0.70	0.76	0.70	0.75

Table A16: EFFECT OF EXPANSION ON INSURANCE: REPUBLICAN COUNTIES.

	<u>Percent uninsured</u>		<u>Percent uninsured</u>	
	<u>2014-2013</u>		<u>2015-2014</u>	
	(1)	(2)	(3)	(4)
Medicaid expansion	-2.44	-4.50	-4.23	-6.61
	[-4.03, -0.64]	[-6.82, -2.31]	[-7.45, -1.51]	[-9.80, -3.25]
High eligibility	1.38	1.25	1.55	1.28
	[0.38, 2.33]	[0.37, 2.11]	[-0.16, 2.93]	[-0.52, 3.11]
Expansion X eligibility	-4.41	-2.67	-4.68	-2.52
	[-7.80, -1.00]	[-4.35, -0.71]	[-8.68, -0.39]	[-4.97, 0.28]
Number of Counties	679	679	679	679
Number of States	30	30	30	30
Window	100 Miles	100 Miles	100 Miles	100 Miles
Covariates	No	Yes	No	Yes
R-squared	0.48	0.69	0.49	0.68

Table A17: EFFECT OF EXPANSION ON INSURANCE: DEMOCRATIC COUNTIES.

	<u>Registration</u>		<u>Registration</u>	
	<u>2014-2010</u>		<u>2016-2012</u>	
	(1)	(2)	(3)	(4)
Medicaid expansion	3.61	3.38	1.16	1.52
	[0.96, 6.12]	[0.76, 5.74]	[-0.88, 3.34]	[-0.55, 3.41]
High eligibility	-1.59	-1.28	-0.55	-0.09
	[-3.28, 0.08]	[-3.03, 0.37]	[-1.83, 0.68]	[-1.47, 1.29]
Expansion X eligibility	0.57	-0.45	3.30	3.30
	[-4.08, 5.39]	[-2.63, 1.68]	[1.62, 5.09]	[1.28, 5.36]
Number of Counties	606	606	629	629
Number of States	24	24	26	26
Window	100 miles	100 miles	100 miles	100 miles
Covariates	No	Yes	No	Yes
R-squared	0.10	0.29	0.14	0.18

Table A18: EFFECT OF EXPANSION ON REGISTRATION: REPUBLICAN COUNTIES.

	<u>Registration</u>		<u>Registration</u>	
	<u>2014-2010</u>		<u>2016-2012</u>	
	(1)	(2)	(3)	(4)
Medicaid expansion	-0.76	-0.50	-0.09	-0.18
	[-3.09, 1.56]	[-1.94, 1.16]	[-1.93, 1.66]	[-1.96, 1.59]
High eligibility	0.66	1.07	0.32	0.21
	[-0.86, 2.33]	[-0.35, 2.59]	[-1.52, 2.19]	[-1.80, 2.25]
Expansion X eligibility	2.29	2.30	3.20	3.09
	[-0.96, 5.70]	[-1.02, 5.61]	[0.28, 5.79]	[0.29, 6.05]
Number of Counties	601	590	634	623
Number of States	26	26	28	28
Window	100 miles	100 miles	100 miles	100 miles
Covariates	No	Yes	No	Yes
R-squared	0.11	0.26	0.07	0.11

Table A19: EFFECT OF EXPANSION ON REGISTRATION: DEMOCRATIC COUNTIES.

	<u>Turnout</u> <u>2014-2010</u>		<u>Turnout</u> <u>2016-2012</u>	
	(1)	(2)	(3)	(4)
Medicaid expansion	4.72	5.42	0.17	0.31
	[0.98, 8.47]	[1.92, 9.26]	[-1.03, 1.47]	[-0.97, 1.50]
High eligibility	-3.12	-2.12	0.74	0.58
	[-5.67, -0.55]	[-3.77, -0.46]	[-0.17, 1.73]	[-0.17, 1.35]
Expansion X eligibility	2.27	0.03	0.17	-0.00
	[-1.62, 6.26]	[-4.08, 3.80]	[-1.29, 1.74]	[-1.53, 1.58]
Number of Counties	652	652	657	657
Number of States	28	28	28	28
Window	100 miles	100 miles	100 miles	100 miles
Covariates	No	Yes	No	Yes
R-squared	0.18	0.44	0.09	0.21

Table A20: EFFECT OF EXPANSION ON TURNOUT: REPUBLICAN COUNTIES.



	<u>Turnout</u> <u>2014-2010</u>		<u>Turnout</u> <u>2016-2012</u>	
	(1)	(2)	(3)	(4)
Medicaid expansion	-1.02	-0.12	0.50	0.25
	[-5.49, 3.34]	[-3.13, 2.57]	[-0.90, 1.88]	[-0.77, 1.31]
High eligibility	-2.26	-1.56	0.77	0.67
	[-5.37, 0.94]	[-4.45, 1.12]	[-0.64, 2.31]	[-0.45, 2.01]
Expansion X eligibility	2.39	1.82	-0.19	-0.37
	[-1.87, 6.40]	[-1.01, 4.95]	[-2.20, 1.71]	[-1.72, 1.06]
Number of Counties	667	656	662	651
Number of States	30	30	30	30
Window	100 miles	100 miles	100 miles	100 miles
Covariates	No	Yes	No	Yes
R-squared	0.08	0.46	0.15	0.40

Table A21: EFFECT OF EXPANSION ON TURNOUT: DEMOCRATIC COUNTIES.

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