

Supporting Information

“Election Laws, Mobilization, and Turnout: The Unanticipated Consequences of Election Reform”

Coding of State Laws

Our coding of state election laws uses data from the National Conference on State Legislatures, and our own review of state election statutes. We do not distinguish between states that actually count the ballots ahead of the election, and states that merely accept the ballot for election day tallying. Although the administrative procedures behind no-excuse absentee voting and true early voting are distinct in important ways, voters will see no differences between the two practices. Research by Giammo and Brox (2010) finds no difference in the turnout effects of no-excuse and absentee voting.

The states commonly considered as having EDR are Idaho, Iowa, Maine, Minnesota, Montana, New Hampshire, North Carolina, Wisconsin, and Wyoming. After carefully reviewing state statutes and consulting with state election officials, we modified this list for our analysis. In 2008 we include the usual suspects, and categorize North Dakota as an EDR state (although it technically has no registration requirement and will be given its own dummy variable in the analysis below). We exclude North Carolina, because while it has same day registration and early voting, there is no registration permitted on election day itself. But we also include Alaska, Connecticut, and Rhode Island, each of which permitted election day registrants to vote for President. Breaking with the common practice, we suggest that these states should be treated as EDR states in a presidential election year. EDR states may still have closing dates for traditional registration, but nonetheless permit last-minute registrations on election day itself. Our criterion for defining SDR is that the practice must be widely available to eligible voters without significant administrative barriers. We excluded states that had limited “one-stop shopping”

available only to subsets of the population. For example, we do not count Colorado as an SDR state because it permits same day registration only for “emergency” registrants who moved across county lines after the registration closing date. As we define it, a dozen states had some form of SDR in 2008, permitting voters to register and vote anywhere from one month to one day before the election.

Television Advertising

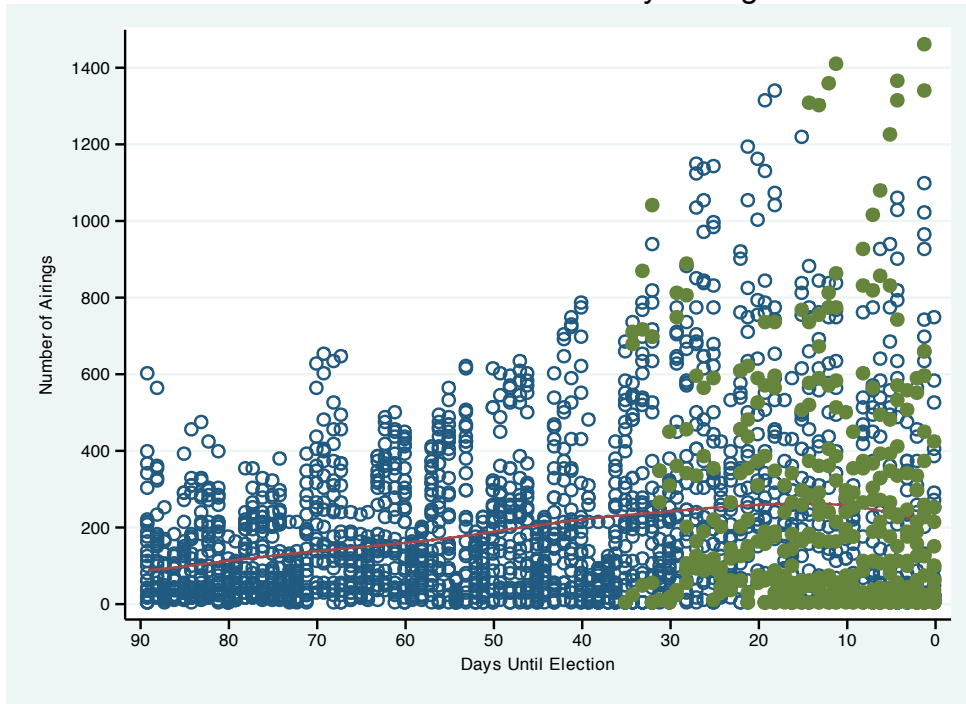
We offer evidence from political advertising in the 2008 presidential campaign. Here we draw upon data on television ads from the Wisconsin Advertising Project. Campaign activity provides an admittedly incomplete but reasonable proxy for elite efforts to stimulate turnout. Our theory suggests that, like other forms of mobilization, television advertising should be lower in early voting states.

Figure A1 plots daily advertising volume separately for different sets of states. Because advertising is heavily concentrated in the most competitive states, we begin by isolating battleground states, defined here as states where Pollster.com reported that the major party nominees were separated by less than 10 points at the opening of the early voting period. Having limited the analysis to these competitive states, we further distinguish them based on the degree of early voting (circles in the plot), using the simple threshold of whether more or less than 50% of total votes were cast early.¹

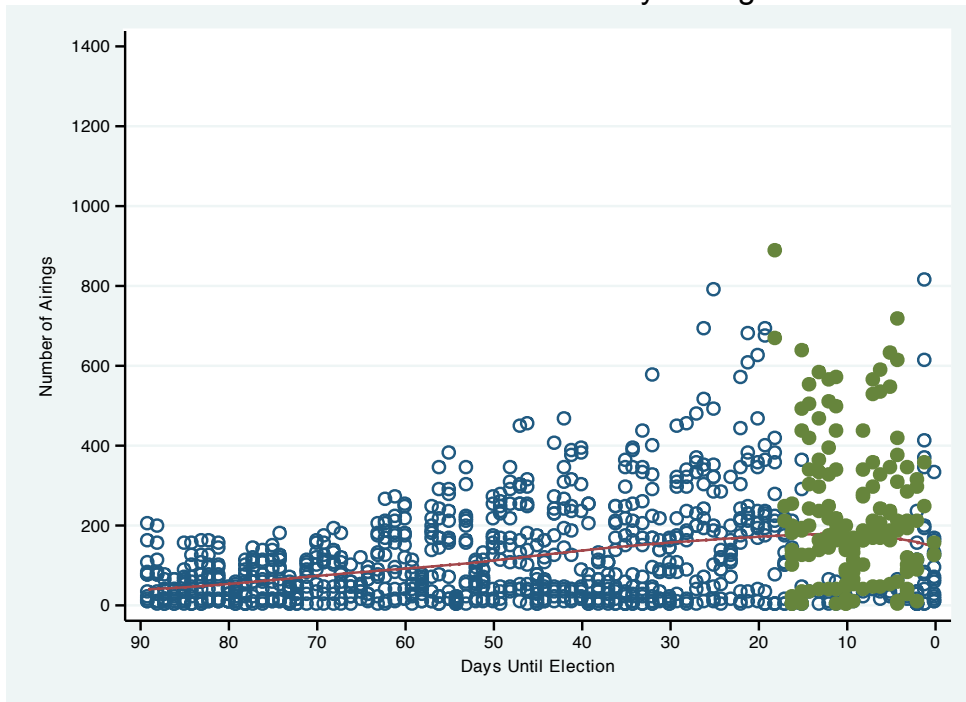
¹ States with no early voting are thus categorized as having less than 50% early voting.

Figure A1: Television Campaign Advertising by Level of Early Voting

Panel A: Less Than 50% Early Voting



Panel B. More than 50% Early Voting



Plot displays number of television ads aired by state each day for the last 90 days of the presidential campaign. Solid green circles indicate days when early voting is permitted. Loess lines are superimposed.

The figure reveals two important patterns. First, the overall level of campaign stimulation (as represented by advertising) is lower in states with substantial early voting: an average of 126 ads per day in states with more than 50% early voting compared to 204 ads per day in states with less than 50% early voting. Even among this set of battleground states, the ad volume is dramatically greater when early voting is less common. Second, in states with less early voting, campaign intensity was high and continued to increase until election day. In contrast, in states with extensive early voting, advertising volume was substantially lower and does not appear to have risen monotonically up to the election. As election day approached, the number of ads increased by 2.1 per day in low early voting states but only 1.8 per day in high early voting states. Instead, advertising leveled off or even declined after the opening of the early voting period. In short, even after conditioning on battleground status, early voting states saw less overall campaign mobilization, and that mobilization peaked earlier in the election period, removing much of the stimulation that could have happened close to or on election day. This pattern of mobilization has little negative effect for likely voters, but will do little to encourage marginal voters who might otherwise be captured by mobilization efforts close to election day.

Matching Analysis

We use a method called “coarsened exact matching” (CEM), with modules written in R and as an option in the broader R module MatchIT (Iacus et al. 2009; Iacus et al. 2008). CEM has the advantage of eliminating the need to carefully manage the post-matching balance characteristics of most matching methods. The method involves recoding most variables into a smaller number of categories (the “coarsening” step), creating a histogram of each coarsened variable, and then uses these coarsened histograms to match observations in the treated and

untreated groups (Iacus et al 2009). We matched using the default options within CEM, which automates the process of setting the bin sizes for each variable histogram. CEM produces a multivariate measure of overall imbalance between the treated and untreated groups, the statistic L1. L1 varies from zero (indicating a perfect balance between groups) and one (indicating no overlap at all).

Table A2 reports the pre-and post-matching characteristics of our treated and control groups, defined by the existence of early voting in the treated group. We matched using demographic measures that appear in the regression models reported in the paper, eliminating any state-specific variables as well as variables affecting only a very small portion of our sample (such as the naturalization variables), or variables that were interactions or subsets of other variables (such as the additional age categories). As is immediately obvious, the overall differences between the groups, as measured by L1, decreased from .988 in the unmatched groups to .921 in the processed groups. Even clearer is the near disappearance of differences as measured by any single variable. For example, prior to matching the difference in average age in the two groups in 2008 was 0.600. After matching, the difference between the two groups dropped to -0.017, a 97.1% improvement. The differences in income (using the 16-category variable in the CPS) dropped from .068 to -1.7×10^{-15} after processing, or essentially zero. The results were similar for 2004. We are confident that our treatment and control groups are well balanced across all of the variables we used to pre-process.

Table A2: Individual Level Variable and Overall Balance Measures Before and After Matching

Variable	2008		2004	
	Before Matching	After Matching	Before Matching	After Matching
Education	0.009	4.4×10^{-16}	-0.016	4.4×10^{-16}
African-American	-0.0007	0	0.016	3.47×10^{-18}
Hispanic	-0.068	-4.34×10^{-19}	-0.05	0
Married	-0.0003	-1.1×10^{-16}	-0.015	0
Residence 1 Year	0.019	-1.1×10^{-16}	0.032	0
Income	0.068	-1.7×10^{-15}	0.008	0
Female	0.002	0	0.011	0
Age	0.600	-0.017	0.724	-0.04
South	-0.180	-1.39×10^{-17}	-0.107	0
Campaign Competitiveness	-1.839	0.211	5.15	0.636
L1 Statistic (overall balance)	0.988	0.921	0.971	0.898

Table entries are differences in means of variable values between treatment groups (states with early voting) and control groups (states with no convenience voting). The overall multivariate imbalance measure L1 is described in Iacus (2008). Lower values show closer matching, although the values themselves are highly contextual, contingent on the structure of the variables. The important result is that L1 is smaller after the matching process.

Basic County Model

Table A3: Regression Estimates of Election Laws on County Turnout

	2008	2004
Early Voting	-3.024*** (1.119)	-.794 (1.182)
Early Voting + SDR	.178 (1.081)	-1.345 (1.532)
Early Voting + EDR	4.265*** (.990)	4.528*** (1.264)
Early Voting + EDR + SDR	7.770*** (1.668)	11.992*** (1.118)
EDR	5.054* (3.058)	5.128 (3.810)
<i>Other Election Laws</i>		
30-day Registration Close	-1.014 (.945)	.177 (1.099)
ID Requirement	.063 (1.115)	.238 (1.269)
<i>Demographics</i>		
Percent African-American	.064** (.031)	-.088** (.033)
Percent Hispanic	-.259*** (.034)	-.299*** (.041)
Median Income (in 1,000s)	.149*** (.046)	.028 (.046)
Percent College Graduates	.263*** (.047)	.290*** (.044)
Percent 65 or Older	.332*** (.078)	.311*** (.086)
Population (in 100,000s)	-.045 (.032)	-.039 (.027)
Population Density	-.0002*** (.00003)	-.0002*** (.00003)
<i>State Electoral Factors</i>		
Campaign Competitiveness	.305*** (.053)	.185*** (.057)
South	-1.829* (1.081)	-1.620 (1.319)
Oregon	3.694*** (.928)	6.762*** (1.043)
Washington	3.313** (1.512)	2.250** (1.055)
Constant	19.634*** (4.335)	33.444*** (4.805)
R^2	.720	.717
N	3,108	3,109

*** $p < .01$ ** $p < .05$, * $p < .10$, two-tailed test. Cell entries are OLS regression estimates with robust standard errors clustered by state in parentheses. Estimates are weighted by population.