The Effects of Campaign Finance Laws on Turnout, 1950-2000[*]

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Abstract

Scholars have proposed many routes by which campaign finance laws may impact turnout. For instance, laws restricting campaign spending may decrease mobilization, resulting in lower turnout. Alternatively, such laws might increase the competitiveness of elections, resulting in higher turnout. Existing studies tend to focus on only one causal pathway, ignoring the net effects of campaign finance reforms on voter turnout. We exploit the variation in state campaign finance laws from 1950 to 2000 in order to estimate the reduced-form relationships between reform and turnout. Using both aggregate and individual-level data, we find that campaign finance laws on net have little impact on turnout in gubernatorial elections. There are two exceptions to this finding: Limits on organizational contributions are shown in an individual-level analysis to increase turnout prior to a sea change in campaign finance ushered in by the *Buckley v. Valeo* decision in 1976, while public financing laws are shown to have an equally large *negative* impact on turnout in the post-*Buckley* era. These results strengthens the existing literature, which finds similarly perverse effects of public financing on the "quality of democracy," and demonstrates the advantages of reduced-form analysis for understanding the influence of laws on behavior.

Scholars and practitioners often acknowledge that stricter campaign finance laws impose an unfortunate tradeoff between the ideals of free speech and association on the one hand and equality, broadly defined, on the other. Still, campaign finance reform is considered by many to be a panacea for perceived democratic ills such as low voter turnout, diminished trust in government, and declining campaign competitiveness. Many political and legal decision-makers have taken at face value that campaign finance reform will have the intended consequences, and have made decisions or formed opinions accordingly. For example, in the recent Supreme Court ruling, *McConnell v. FEC*, 540 U.S. 93 (2003), the majority asserted that "contribution limits, like other measures aimed at protecting the integrity of the process, tangibly benefit public participation in political debate" (540 U.S., at 137). Similar arguments are found in the majority opinions of two previous landmark Supreme Court cases, *Buckley v. Valeo*, 424 U.S. 1 (1976), and *Nixon v. Shrink Missouri Government PAC*, 528 U.S. 377 (2000).[1]

Arguably the most basic form of participation in the political debate is voting, and there is no shortage of claims that turnout would be enhanced by reforming the political system. Often these claims are made with reference to a single aspect of the political system. For instance, stricter campaign finance laws will enhance competitiveness, which in turn will increase turnout (e.g., Teixeira 1992). Alternatively, stricter campaign finance laws that limit negative advertising would in turn mitigate the demobilizing impact of such ads (e.g., Ansolabehere et al. 1994). The issue with these claims, however, is that they consider one effect of campaign finance laws at a time. In this paper, we argue that there are in fact several possible effects of

[1] In *Buckley*, the Court argued that public financing for presidential races "is a congressional effort, not to abridge, restrict, or censor speech, but rather to use public money to facilitate public discussion and participation in the electoral process, goals vital to a self-governing people" (424 U.S., at 92-93). In *Shrink*, the majority wrote, "Leave the perception of impropriety unanswered, and the cynical assumption that large donors call the tune could jeopardize the willingness of voters to take part in democratic governance" (528 U.S., at 390).

campaign finance laws on turnout, and we argue that an important, but thus far unanswered, question is what the *net* effects of campaign finance laws are. Ideally, we would like to understand the relative impacts of factors like competition, but this approach is perilous. We argue that our approach allows for a more complete perspective of the impact of the laws than simply considering the effects piecemeal.

State-level laws vary cross-sectionally and over time, unlike federal campaign finance laws, which have been relatively stable over the past three decades. This makes the U.S. states an ideal arena for exploring the impact of campaign finance laws on turnout. We utilize both aggregate-level data from 1950 to 2000 and individual-level data from 1952 to 2000. The aggregate analysis suggests that reforms such as public financing may have a large and positive effect on turnout; however, these estimates are not robust to the time period examined. Further, because individual level characteristics such as age, education, party affiliation and race play an important role in determining individual turnout decisions, our analysis of aggregate data may not appropriately control for the differing composition of state populations. For this reason, we estimate the contextual effects of state campaign finance reforms on individual voter turnout. In this analysis, which avoids the ecological inference problem, we find that in the pre-*Buckley* era, only limits on contributions made by organizations (i.e., corporations, unions or PACs) have a positive effect on turnout. In the post-*Buckley* era, however, campaign finance laws have no positive impact on turnout, and in fact public financing has a large negative impact on voter turnout. Combined with the findings of Primo and Milyo (2006), who find little impact of state campaign finance laws on perceptions of government, this paper strengthens the evidence that campaign finance laws are unlikely to be an effective means for improving the "quality of

democracy." It also suggests the value of reduced form analyses for understanding the impact of political reforms on behavior.

Theory

The health of democracy is often judged by the willingness of citizens to participate in elections, as indicated by the quotations above and widespread public concern about low voter turnout in national elections. Institutional reforms are widely thought to be a potential policy lever for improving turnout. There is a large literature on changes in registration and post-registration laws (e.g., Wolfinger et al. 2004, Highton 2004, Wolfinger and Rosenstone 1980), which are best thought of as direct effects. Campaign finance laws, to the contrary, are likely to have indirect effects on turnout via some other characteristic, whether at the elite or mass level.

When reformers, think tanks, and elected officials discuss the benefits (or drawbacks) of campaign finance reform for turnout, this is what they often mean. A sampling of such claims is suggestive.

- Rep. Dennis Moore (D-KS) wrote in an op-ed intended for local constituents, "current campaign finance law alienates voters," leading to apathy, and in turn, lower turnout (Moore 1999).

- Sen. Herb Kohl (D-WI) made a clear causal link between reform and participation: "Whether the presence of unlimited political contributions is corrupting or whether it just creates the appearance of corruption, the damage is done. Americans are disaffected with politics and political campaigns and have voted against the current system with their feet: U.S. voter turnout in elections is in serious decline… Our representative democracy is harmed by eroding participation… In response, we should be working to help reconnect the voters with their elected officials and to invest them in the political debates of the day. Campaign finance reform, in one form or another, is an important part of that process" (*Congressional Record* 1999).

- Speaking about the eventually enacted 2002 Bipartisan Campaign Reform Act (BCRA), Sen. Charles Schumer (D-NY) remarked, "We have to restore the system of regulated contributions. If we don't, the cynicism and distrust and lack of engagement that are already so pervasive will continue to spread. Our citizens

> are increasingly tuned out from our democratic process. Voter turnout for the 1998 election was 36 percent, the lowest turnout for a nonpresidential election in 56 years. In presidential elections, turnout has declined 13 percent since 1960. We all know that banning soft money won't cure all of this by itself, but it will help restore the impression and the reality that politics is more than a game played by and for only those who can afford to give" (*Congressional Record* 2002).

- A labor union, in response to attempts to strengthen BCRA, stated, "AFSCME opposes these new efforts [for stricter laws], not only because they are premature, but because they would limit the grassroots activities that help increase voter turnout and they would further diminish the influence of ordinary Americans on the political process" (AFSCME 2005).

- The Public Policy Institute of California noted, "Spending on [California] state elections has increased dramatically whereas the turnout of registered voters has steadily declined, reflecting the public's dissatisfaction with political candidates and the type of campaign they wage" (Public Policy Institute of California 2004). The brief went on to note that Californians would be in favor of reforms to ameliorate these problems.

Scholars have made similar claims:

- Based upon their research finding a demobilizing effect of campaign advertising, Ansolabehere et al. (1994) and Ansolabehere and Iyengar (1995) discuss potential reforms to mitigate the impact of negative ads, which the authors find lead to increased cynicism in the process.

- Teixeira, in a study of declining voter turnout, mentions campaign finance reform as a possibility for increasing campaign competitiveness and improving perceptions of government responsiveness (Teixeira 1992).

- In an article noting that compulsory voting is unlikely to have desired effects unless changes in the political system are made, Franklin states, "[A]rguments for compulsory voting divert attention from other proposed reforms of the American electoral process: reforms which would address genuine deficiencies in that process…Campaign finance reform, for example, by reducing the power of non-elected bodies should increase the relevance of elected bodies and so raise the stakes of elections to those bodies and the salience of those elections" (Franklin 1999, 216).

In short, there are ample arguments, both in political science and policy circles, that campaign finance reform may have a meaningful impact on turnout. However, existing claims are speculative and are typically based on only one slice of the larger theoretical picture. In fact,

we argue that all of the above claims are embedded in a complex system of equations relating many aspects of the democratic process. In turn, each of these features has some impact on turnout, as well as on each other. For instance, campaign finance laws may alter the competitiveness of campaigns directly by enabling challengers to raise more or less money, but they may also impact competitiveness via increasing or decreasing voter mobilization, which is in turn directly affected by campaign finance laws. Parsing these effects requires a complex structural model.

Such a model would need to consider the impact of campaign finance laws on the following features of politics. If changes in campaign finance law limited the amount of negative ads, this could have a positive, negative, or minimal impact on turnout, depending on whether such ads are mobilizing (e.g., Goldstein and Freedman 2002), demobilizing (e.g., Ansolabehere and Iyengar 1995, Ansolabehere et. al 1994), or a wash (e.g., Finkel and Geer 1998). More generally, changes in campaign finance law could limit advertising, which would be likely to negatively impact turnout (Freedman, Franz, and Goldstein 2004). Changes in campaign finance law could potentially limit mobilization activities, which would hurt turnout (Gerber and Green 2000, Rosenstone and Hansen 1993). Changes in the sources or size of contributions could increase trust in government or political efficacy, which in turn could impact turnout.[2] Changes in campaign finance law could also increase or decrease campaign competitiveness, which would have, respectively, a positive or negative impact on turnout, most likely through increased mobilization (e.g., Matsusaka and Palda 1993, Matsusaka 1993, Cox 1988, Cox and Munger 1989).

[2] This is a common assertion, though the empirical evidence suggests that trust in government does not have a major impact on turnout (Rosenstone and Hansen 1993, Citrin 1974), but that efficacy seems to have an effect (Rosenstone and Hansen 1993, Bennett 1986). However, Primo and Milyo (2006) show that campaign finance laws have no substantively meaningful effect on either trust or efficacy.

To illustrate the problems inherent in estimating all of these effects simultaneously, we will consider just trust, competitiveness, spending, and turnout. We can capture the relationships with the following system of equations.

Define:

X = a vector of individual characteristics (e.g., age, race, party id, etc.)

Z = a vector of characteristics of state institutions (e.g., campaign finance laws, term limits, etc.)

TRUST = an individual's perception of trust in government or political efficacy

TURNOUT = an individual's turnout decision

COMPETITION = competitiveness of elections at the time of an individual-level survey

SPENDING = campaign spending by candidates

A stylized structural model for i = (1, ..., n) individuals residing in s = (1, ..., k) states may then be articulated as:

$$TURNOUT_i = f_1(\mathbf{X}_i, \mathbf{Z}_s; TRUST_i, COMPETITION_s, SPENDING_s) \quad (1)$$
$$TRUST_i = f_2(\mathbf{X}_i, \mathbf{Z}_s; COMPETITION_s, SPENDING_s) \quad (2)$$
$$COMPETITION_s = f_3(\mathbf{Z}_s; SPENDING_s) \quad (3)$$
$$SPENDING_s = f_4(\mathbf{Z}_s; COMPETITION_s) \quad (4)$$

Estimating this system of equations would require potentially unavailable data as well as instruments for the endogenous variables, which are often difficult to find or are subpar. On the other hand, simply estimating equation 1, with the endogenous variables on the right-hand side, would lead to biased and inconsistent parameter estimates.[3] A better approach is to rewrite

[3] The one study that does probe the laws-turnout link, using state-level data, is Gross and Goidel (2003). Using aggregate data, the authors find that only public financing improves turnout. However, they do not control for year or state fixed effects in the analysis, and they include endogenous regressors, so we can draw limited conclusions from these findings.

equation one in terms of exogenous variables only. This reduced form can then be estimated using standard OLS or MLE techniques to assess the net effects of campaign finance laws on turnout.[4] Formally,

$$TURNOUT_i = g(\mathbf{X}_i, \mathbf{Z}_s) \quad (5)$$

The reduced form model represented by (5), which excludes all endogenous regressors and includes state and year effects where appropriate, allows us to estimate the reduced form impact of these laws. In short, then, theory tells us that each campaign finance law may have many indirect, countervailing impacts on turnout, but these are not estimable given existing data and methodological constraints. Rather than attempt to identify such a complex structural system, we propose a reduced-form analysis that captures the net effect of each state campaign finance law on turnout. This reduced-form approach has the advantages of avoiding errors in model identification that are frequent in structural analysis while at the same time increasing the range of years for which data is available.

Data

We analyze both aggregate and individual-level data. Aggregate turnout data is from *America Votes* and is measured as total votes cast for governor in an election divided by voting age population.[5] The National Election Studies has the longest time series of questions on turnout, spanning five decades, so we measure individual-level turnout using the NES. We focus on self-reported turnout, rather than validated turnout (i.e., where survey researchers verify that

[4] For further details, see Maddala (1983) and Kennedy (2003).
[5] A better measure of turnout would be total votes case for governor divided by voting-eligible population. As McDonald and Popkin (2001) have argued, declines in turnout in recent decades have been due to a change in the denominator, not the numerator. Should data become available that spans our entire time period, we encourage our study to be replicated using these figures.

an individual has actually voted), because validated turnout was used in only limited years, primarily in the post-Buckley era, and there is little substantive difference in the results when using validated instead of self-reported turnout. Turnout is dichotomous and is coded one if an individual responded that he or she voted. Individual-level data is from the 1948-2000 NES Cumulative Data File.

State-level data on political institutions are taken from *The Book of the States* and *Campaign Finance Law*, while demographic data employed in the aggregate analysis are taken from the *Statistical Abstract of the United States*.[6] Summary statistics for variables used in the aggregate-level analysis are presented in Table 1; the corresponding figures for the individual-level analysis are presented in Table 4.

Campaign finance laws have changed dramatically in the states in recent decades. In 1950 few states had restrictions on contributions by individuals, but by 2000 limits on contributions from both individuals and organizations (i.e., corporations, unions, and PACs) were the norm. The trend in state reforms mirrors that at the federal level, where a major wave of changes occurred in the 1970s. State reforms also picked up steam in the 1990s, with more than one-third of states altering their laws during this period (Malbin and Gais 1998). We are in what might be called an era of "mature" campaign finance regulation, since all states have disclosure laws on the books, and most states have some restrictions on contributions.

We focus here on contributions to candidates rather than to parties, as information on the latter is not readily available for the full time period under study. We consider disclosure laws, contribution limits on organizations, contribution limits on individuals, the presence of public financing tied to voluntary expenditure limits, and mandatory expenditure limits in place prior to the Supreme Court's ruling that such limits were unconstitutional. Figure 1 depicts the number

[6] Missing years for state-level demographic variables are linearly interpolated from adjacent years.

of states over time with each type of campaign finance law that apply to either legislative or gubernatorial candidates.

[Insert Figure 1 about here]

While there are several ways to categorize and measure state-level laws, in this case simpler is better. We measure the presence or absence of particular types of laws, such as contribution limits and public financing. Using specific dollar amounts leads one into a morass, in part because states greatly differ in many respects, including cost-of-living, wealth, and the cost of media markets. Put concretely, does a $1000 limit on individual contributions to a candidate mean the same thing in Arkansas as it does in California? If not, how would one compare specific limits across states? Other aspects of campaign finance law, such as enforcement quality, suffer from similar problems. The presence or absence of particular laws, on the other hand, can be clearly measured and is directly comparable across states.

Methods

Aggregate-Level Analysis. We examine state-level voter turnout from every gubernatorial election from 1950 to 2000 (N=756); turnout is measured as the total vote for governor divided by voting age population. Campaign finance laws are those already in effect for at least one year at the time of the election and, for the data analysis, refer to gubernatorial elections only. Five dichotomous campaign finance variables represent the laws in each state.[7]

[7] By defining the variables in this way, we avoid concerns about multicollinearity, especially between limits on contributions to individuals and organizations. This was verified by conducting a variety of diagnostic tests for the campaign finance variables. We do not create an index of laws because we do not expect their effects to be additive. This is borne out in the empirical analysis.

These are indicators for the presence of

1. public disclosure of campaign contributions
2. limits on contributions by organizations only
3. limits on contributions by organizations and individuals
4. public subsidies to candidates that abide by expenditure limits
5. mandatory expenditure limits in place prior to the 1976 *Buckley v. Valeo* decision outlawing such limits.

We estimate the relationship between voter turnout and campaign finance laws by a grouped probit (weighted by voting age population), although the main substantive findings presented here are little different when we estimate a grouped logit or a weighted least squares model. While our analysis of aggregate turnout data suffers from the familiar ecological inference problem (Freedman 2001), it nevertheless serves as a useful benchmark for comparison to the analysis of individual-level turnout data. Our specification includes year fixed effects. Because both campaign finance laws and voter turnout may be influenced by some unobserved state-specific factors (e.g., a progressive ideology), state fixed effects are employed to limit the potential for spurious correlation.

We also include controls for demographic variables and other state political institutions. The demographic controls include the log of real per capita income, the percent of population over age 65, percent black, percent with high school degrees, percent with college degrees, and the Republican vote margin in the most recent presidential election (as a proxy for the partisan leanings of the population). To account for partisan tides, we also interact the Republican margin variable with the year indicators. Other state political institutions include indicators for gubernatorial term limits, direct legislation, poll taxes, literacy tests, and ease of voter registration (election day voter registration or no voter registration). Because the pre- and post-*Buckley* eras differ so much, with voluntary public financing being introduced only post-*Buckley*

and mandatory expenditure limits disappearing due to the same decision, we also estimate these two time periods separately.

Individual-Level Analysis. Using state-level variables when working with individual-level variables requires caution. For instance, because the National Election Studies does not include representative state samples, it is not possible to make claims about a specific state and how it has changed over time.[8] Rather, residing in a state should be viewed as a "treatment" on the individuals, with state institutional features, including campaign finance laws, representing treatment effects similar to those we might observe in medical experiments. In this way, we can ascertain whether living in a state with particular campaign finance laws influences the decision to vote. Probit models are estimated in this paper, with standard errors corrected for clustering within state and year. We include only those respondents in states with gubernatorial elections at the time of the survey (N=16,013).

Several state-level variables are included in the analysis to control for other features of a state, besides changes in campaign finance law, that may influence turnout. These include indicators for the presence of the citizen initiative, gubernatorial term limits, whether a poll tax or literacy tests are necessary to vote, and whether easy voting registration is present (i.e., same day or no advance registration required).[9] We also include state dummy variables to control for unobserved heterogeneity across states; this is particularly important given that state campaign finance laws may be passed precisely in those states with chronically low levels of turnout. Year dummy variables are included in the analysis to control for features of particular survey years

[8] NES-provided weights ensure that the analysis of campaign finance laws is accurate with respect to subgroups. Since in the NES sample the number of individuals surveyed in a state is typically related to that state's population, we have also verified that there is a negligible relationship between the population of a state and the presence of campaign finance laws.

[9] Poll taxes and literacy tests are of course now outlawed; however, they were present for some years in our sample.

that may influence survey responses.[10] To investigate whether there is a delay before campaign finance laws affect turnout, we examine models that include four-year lags of these laws. We also include four-year leads of laws in some specifications to see whether turnout is related to future campaign finance laws, which is possible if low levels of turnout usher in reform.

Individual-level controls include education (grade school, high school, some college, college or more), age, age squared, income (measured in percentiles, with a coding of 1 representing the 1st to 16th percentile, 2 the 17th to 33rd percentile, 3 the 34th to 67th percentile, 4 the 68th to 95th percentile, and 5 the 96th to 99th percentile), unemployment, race, gender, and the strength of one's partisan affiliation (ranging from 1- 4). We include strength of affiliation because we expect that individuals with strong partisan ties are more likely to vote, regardless of whether they are Republicans or Democrats. In addition, we include controls for Republican and Democratic party identification. We also interact party identification and year to assess whether there are any national-level partisan trends that may cause Democrats or Republicans to turn out to the polls to a greater (or lesser) degree. Additional variables include unified state Democratic government and unified state Republican government, as well as interaction terms for Democratic respondent living in a unified Democratic state, Democratic respondent living in a unified Republican state, Republican respondent living in a unified Republican state, and Republican respondent living in a unified Democratic state. These interactions capture whether affiliating with an out-of-power party makes one less likely to vote.

[10] When working with data of this type, it is also possible to use hierarchical linear modeling (HLM), which enables the researcher to offer theoretical explanations for differences in behavior across levels. However, HLM requires many more assumptions than standard regression or maximum likelihood techniques, and it is more sensitive to measurement error (Bryk and Raudenbush 1992; Steenbergen and Jones 2002). For our purposes, then, HLM is not the best method.

Results

Aggregate-Level Analysis. Summary statistics appear in Table 1. Table 2 reports the results from the grouped probit estimation. Public financing has a positive and significant influence on turnout, but most surprising is the large positive and significant effect of laws which simply require disclosure of the source and size of campaign contributions. On the other hand, mandatory expenditure limits of the sort outlawed in 1976 have a significant and negative effect on turnout, while contribution limits also have a negative effect, albeit not significant. Demographic and socioeconomic variables, such as age and education, have little effect on turnout, though race and income have the expected effects.

[Insert Tables 1-3 about here.]

In order to better gauge the substantive impact of campaign finance reform, we calculate the change in voter turnout attributable to a change in law at the mean turnout in the sample (49%); these marginal effects are listed in Table 3. We also present marginal effects for estimates obtained when we split the sample of gubernatorial elections around the *Buckley* decision in 1976. The results suggest the importance of splitting the sample. For example, public financing has a large positive effect in the full sample analysis, but when we omit years prior to 1976, during which no states had implemented public financing, we find no effect. Similarly, disclosure laws, which were passed in most states by 1980, appear to have no effect on turnout when we restrict attention to the pre-*Buckley* period.

Finally, in order to facilitate the comparison of results across the aggregate and individual analyses, we have re-estimated the model using only those elections that appear in the NES sample employed in the subsequent individual-level analysis. We lose almost 400 observations when we restrict ourselves to this NES-matched sample; nevertheless, the estimated coefficients

on campaign finance reforms are nearly identical to those obtained for the full sample of gubernatorial elections from 1950-2000.

Overall, these results merit caution and illustrate the pitfalls of ecological analysis. For instance, education, which is known to be a major predictor of turnout, fails to attain statistical significance. This suggests that merely focusing on the aggregate analysis may lead to incorrect inferences, as the next section demonstrates.

Individual-Level Analysis. Summary statistics appear in Table 4. Table 5 reports the effects from the individual-level analysis. Year and state-level effects are statistically significant in joint significance tests, so they are included in this specification. Lags and leads of the campaign finance variables are not jointly significant, so we report the specification without these variables included. The inclusion of dummy variables for year and state is important; in naïve specifications without these, one can find spurious relationships between campaign finance laws and turnout.

[Insert Tables 4 and 5 about here]

Demographic variables have the expected impact on turnout. Voting propensity is increasing in income, except for the very wealthy, who are slightly less likely to vote than those on the next rung of the income ladder. The probability of voting is increasing monotonically in education, is quadratic in age, and is lower for nonwhites and women but higher for strong partisans. The unemployed tend to vote less than the employed. Partisan affiliation has no impact on turnout.

Institutional restrictions on voting have mixed effects. The poll tax has the expected negative sign and is statistically significant, but the literacy test has the wrong sign and is not statistically significant. Easy registration laws, term limits, and direct democracy are statistically

as well as substantively insignificant. Similarly, the unified government variables have no impact on turnout.

[Insert Table 6 about here]

Campaign finance laws also have neither a statistically nor a substantively significant impact on turnout over the entire timer period. The first column of Table 6 displays the marginal effects on the laws for a typical respondent. As we noted earlier, one critique of this analysis is that our time period is too long. For instance, mandatory expenditure limits were outlawed by *Buckley*, which means there is no variance in this variable from 1976 on, and public financing does not emerge until the 1980s and 1990s, meaning that there is no variance in the pre-*Buckley* era. If we split the sample into pre-1976 and 1976-2000, however, some fascinating patterns emerge. For the period prior to *Buckley*, limits on organizational contributions increase the probability of voting by 9 percent, a non-trivial amount. This effect is erased, however, once a state adopts an individual limit as well. For 1976-2000, only public financing is statistically significant, and its impact is negative and substantively large. The second and third columns of Table 5 describe the effects for these two time periods. In short, then, the only two campaign finance variables that attain statistical significance in the entire analysis are organizational contributions in the years prior to 1976, and public financing for the modern era. The effects of the two move in opposite directions but in nearly equal magnitudes. This suggests that early reforms may have had a positive effect on turnout, but that such have effects have since dissipated. Even more importantly, in an era of "mature" campaign finance reform, further efforts, such as public financing, may have deleterious effects on turnout.

Discussion

This paper makes three important contributions. First, it offers a theoretical foundation for understanding the ways in which campaign finance laws may impact turnout. Most studies consider these effects piecemeal, but we present a more complete picture. Future work may want to disentangle these effects, but we think that understanding the net impact of the laws is an important first step for thinking about public policy.

Second, it makes a simple yet often overlooked methodological point. Reduced-form analysis, while perhaps not as "sexy" methodologically as a structural analysis, provides a solid foundation for subsequent study and has the virtue of simplicity. To analyze the impact of laws that have multiple routes of influence on a variable of interest requires either a complicated structural model that is likely to lead one down the wrong path or a willingness to focus on net effects via a reduced form analysis. We choose the latter in this paper and are able to get leverage on an important question. Importantly, by excluding endogenous variables from the right-hand side of our estimations, we avoid endogeneity bias. Moreover, we demonstrate (again) the pitfalls of ecological analysis.

Third, it contributes to the literature on campaign finance, and more broadly on the "quality of democracy," by suggesting that campaign finance laws are unlikely to have a significant and positive effect on turnout, and may in some cases have unintended negative consequences. This is of both theoretical and practical interest. Theoretically, it reinforces existing findings that using laws to impact democratic participation is difficult. On the practical side, it offers policy analysts and jurists a scientific study that can take the place of speculation with respect to the impact of campaign finance laws on turnout.

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Table 1. Summary Statistics for Aggregate-Level Analysis

Variable	Mean	Standard Deviation
Gubernatorial turnout (%voting-age population)	49.25	14.50
Public disclosure of contributions	.81	.40
Contribution limits (organizations only)	.38	.49
Contribution limits (orgs. and ind.)	.28	.45
Public funding	.05	.22
Mandatory expenditure limits	.33	.47
Log(real per-capita income)	9.73	0.37
High School	52.57	22.96
College	13.17	6.63
Age65+ (% Population)	10.45	2.47
Black (%Population)	8.36	9.34
Republican % of the Presidential Vote	50.87	11.16
Citizen initiative	.47	.50
Gub. term limits	.47	.50
Poll tax	.04	.20
Literacy test	.12	.33
Easy registration	.03	.18
Off-year election	.08	.26

Data are for all state gubernatorial elections from 1950-2000; N=756.

Table 2. Results from Aggregate-Level Analysis

Variable	Impact on Turnout	
	Coefficient	t-statistic
Public disclosure of contributions	.062	2.55
Contribution limits (organizations only)	-.022	0.97
Contribution limits (orgs. and ind.)	-.037	1.58
Public funding	.108	4.11
Mandatory expenditure limits	-.053	2.46
Log of real per-capita income	.705	5.85
High school	.000	0.02
College	-.002	0.55
Age65+ (% population)	.010	1.18
Black (% population)	-.029	6.38
Republican % of the presidential vote	.135	0.85
Citizen initiative	-.016	0.42
Gub. term limits	.025	1.07
Poll tax	-.287	7.54
Literacy test	-.043	1.62
Easy registration	.076	1.71
Off-year election	-1.26	2.24
Constant	-6.51	5.81

Grouped probit specification (weighted by voting age population) includes state and year dummy variables, as well as a set of interaction variables for (year X republican share of presidential vote). Absolute values of t-statistics listed.; N=756.

Table 3. Marginal Effects of Campaign Finance Laws on Turnout (Estimates from Aggregate-Level Analysis)

Variable	Entire sample	NES-matched	Pre-1976	1976-2000
Mean of dependent variable	.49	.49	.52	.45
Change in probability from the presence of campaign finance laws				
Public disclosure of campaign contributions	.025**	.016	.011	-.008
Limits on contributions from organizations only	-.009	-.016	.042**	-.019
Limits on contributions from organizations and individuals	-.015	-.022*	.020	-.005
Public funding of candidates conditional on expenditure limits	.043***	.043***	n/a	-.010
Mandatory expenditure limits (pre-Buckley)	-.021**	-.023**	-.020	n/a

The change in probability of a favorable response from the implementation of a particular law (or set of laws) is derived from the estimated coefficients of the probit models, where all changes are calculated at the mean of the dependent variable. *p < .10, ** p < .05, ***p < .01.

Table 4. Summary Statistics for Individual-Level Analysis

Variable	Mean	Standard Deviation
Did you vote?	.64	.48
Public disclosure of contributions	.87	.33
Contribution limits (organizations only)	.45	.50
Contribution limits (orgs. and ind.)	.28	.45
Public funding	.07	.26
Mandatory expenditure limits	.25	.43
Income=2	.17	.38
Income=3	.32	.47
Income=4	.29	.45
Income=5	.05	.22
Unemployed	.06	.24
High School	.48	.50
Some College	.19	.39
College	.16	.37
Age	45.07	16.95
Age Squared	2318.62	1681.63
Nonwhite	.15	.36
Female	.55	.50
Partisan Strength	2.88	.97
Democrat	.54	.50
Republican	.35	.48
Unified Dem. Govt.	.33	.47
Unified Rep. Govt.	.12	.33
Dem. x Unified Dem.	.21	.40
Dem. x Unified Rep.	.06	.24
Rep. x Unified Rep.	.05	.22
Rep. x Unified Dem.	.09	.29
Citizen Initiative	.48	.50
Gub. Term Limits	.44	.50
Poll Tax	.04	.19
Literacy Test	.07	.25
Easy Registration	.02	.15

The NES was administered every two years beginning in 1948, with the exception of 1950. The turnout question was not asked in 1954 or 1962, and the unemployed question was not asked in 1954 or 1966, so those years are omitted from the sample. 1948 is omitted because many questions were not asked in that initial year. N=16,013. The following states were not included in the analysis due to a lack of observations, if responses did not vary within the state, or if they held off-year elections: Alaska, Delaware, Hawaii, Kentucky, Mississippi, Montana, Nevada, New Jersey, North Dakota, Rhode Island, Vermont, and Virginia.

Table 5. Results from Individual-Level Analysis

Variable	Impact on Turnout	
	Coef.	z-stat
Public disclosure of contributions	-.05	.61
Contribution limits (organizations only)	.07	1.00
Contribution limits (orgs. and ind.)	-.03	.49
Public funding	-.05	.73
Mandatory expenditure limits	-.02	.33
Income=2	.21	5.38
Income=3	.37	9.99
Income=4	.52	12.38
Income=5	.49	6.52
Unemployed	-.25	4.12
High School	.36	9.93
Some College	.76	16.13
College	.95	19.43
Age	.07	15.53
Age Squared	.00	10.92
Nonwhite	-.12	3.46
Female	-.09	3.86
Partisan Strength	.27	14.25
Democrat	-.06	.12
Republican	.08	.20
Unified Dem. Govt.	-.11	1.27
Unified Rep. Govt.	-.05	.45
Dem. x Unified Dem.	.16	1.62
Dem. x Unified Rep.	.02	.23
Rep. x Unified Rep.	.17	1.26
Rep. x Unified Dem.	.10	.82
Citizen Initiative	-.05	.37
Gub. Term Limits	-.01	.11
Poll Tax	-.38	3.71
Literacy Test	.03	.28
Easy Registration	.00	.03
Constant	-.05	.61

Probit specification includes state and year dummy variables with robust standard errors adjusted for clustering within state and year, as well as interaction terms for year and party identification. Absolute values of z-statistics are presented in the table. The dependent variable is coded 1 for a response indicating that an individual voted, and 0 otherwise. N=16,013.

Table 6. Marginal Effects of Campaign Finance Laws on Turnout (Estimates From Individual-Level Analysis)

Variable	Did You Vote? (Entire Sample)	Did You Vote? (Pre-1976)	Did You Vote? (1976-2000)
Mean of dependent variable	.64	.69	.58
Change in probability from the presence of campaign finance laws			
Public disclosure of campaign contributions	-.019	-.06	n/a
Limits on contributions from organizations only	.026	.093*	-.06
Limits on contributions from organizations and individuals	-.010	.010	-.026
Public funding of candidates conditional on expenditure limits	-.02	n/a	-.087**
Mandatory expenditure limits (pre-Buckley)	-.008	-.041	n/a

The change in probability of a favorable response from the implementation of a particular law (or set of laws) is derived from the estimated coefficients of the probit models, where all changes are calculated at the mean of the dependent variable. *p < .10, ** p < .05.

Figure 1: Campaign Finance Laws in the U.S. States, 1950-2000