# The Business of American Democracy: *Citizens United*, Independent Spending, and Elections*

Tilman Klumpp† Hugo M. Mialon‡ Michael A. Williams§

February 2014

**Abstract**

In *Citizens United v. FEC* (2010), the U.S. Supreme Court ruled that restrictions on independent political expenditures by corporations and labor unions are unconstitutional. We analyze the effects of *Citizens United* on state election outcomes. We find that *Citizens United* is associated with an increase in Republican election probabilities in state House races of approximately four percentage points overall and ten or more percentage points in several states. We link these estimates to "on the ground" evidence of significant spending by corporations through channels enabled by *Citizens United*. We also explore the effects of *Citizens United* on candidate entry and direct contributions in state elections. Implications for national elections are discussed.

**Keywords:** *Citizens United*; independent expenditures; business; labor unions; parties; elections; campaign finance; direct contributions; candidate entry; democracy.

**JEL codes:** D72, K19

---

*We thank David Park and Brijesh Pinto for outstanding research assistance. We also thank Daron Acemoglu, Maria Arbatskaya, Andy Daughety, Hashem Dezhbakhsh, Andrew Francis, David Frisvold, Dan Hamermesh, Ross Hickey, Anthony Johnstone, Navin Kartik, Preston McAfee, Sue Mialon, Paul Rubin, Anindya Sen, Andrei Shleifer, Max Stinchcombe, Xuejuan Su, Sidney Tarrow, Tim Werner, Abe Wickelgreen, Tom Wiseman, Melanie Williams, and Wei Zhao for wonderfully helpful comments.

†University of Alberta, Department of Economics. 9-20 Tory Building, Edmonton, AB, Canada T6G 2H4 (klumpp@ualberta.ca).

‡Emory University, Department of Economics. Rich Building 317, 1602 Fishburne Dr., Atlanta, GA 30322, USA (hmialon@emory.edu).

§Competition Economics, LLC. 2000 Powell Street, Suite 510, Emeryville, CA 94608, USA (mwilliams@competitioneconomics.com).

> Last week, the Supreme Court reversed a century of law to open the floodgates for special interests . . . to spend without limit in our elections. Well, I don't think American elections should be bankrolled by America's most powerful interests. . . . They should be decided by the American people. . . .
>
> *Barack Obama*, State of the Union address (January 27, 2010)

> Corporations are people, my friend.
>
> *Mitt Romney*, campaigning in Des Moines, Iowa (August 11, 2011)

# 1 Introduction

On January 21, 2010, the U.S. Supreme Court issued its ruling in *Citizens United v. Federal Election Commission* (558 U.S. 50, 2010; henceforth *Citizens United*), holding that restrictions on independent political campaign expenditures by corporations and labor unions violate the First Amendment's free speech clause. In particular, the decision paved the way for corporations and labor unions to spend money on political advertising, either independently or by contributing funds to various forms of advocacy groups (e.g., Super PACs).

*Citizens United* is one of the most controversial and widely debated Supreme Court decisions in recent history. The central point of contention is whether expenditures by corporations and labor unions have tilted the political playing field so strongly in favor of wealthy players that elections can now be "bought" routinely with sufficient money. In his dissent to *Citizens United*, for example, Justice Stevens wrote that "the court's ruling threatens to undermine the integrity of elected institutions across the nation." Whether this outlook will prove to be valid remains to be seen—the ways in which independent expenditure groups can affect the democratic process are numerous, and some of the ramifications of *Citizens United* may not become evident for many years. It is not too early, however, to assess some of the direct and measurable effects *Citizens United* has had on elections.

In this paper, we examine whether *Citizens United* systematically shifted the election probabilities of Republican and Democratic candidates. If independent spending is unbalanced—in particular, if business interests outspend labor interests and business interests spend more on Republican candidates than on Democratic candidates—one may hypothesize that removing

restrictions on independent spending increases the probability that Republican candidates win elections, at the expense of Democratic candidates. We also investigate whether *Citizens United* has affected the democratic process by altering candidates' incentives to run for office and donors' incentives to contribute to political campaigns directly.

We examine these questions empirically in the context of state House and Senate elections. The 50 U.S. states provide an ideal testing ground for our hypotheses because a subset of the states had never placed restrictions on independent political expenditures and were, thus, unaffected by the court's ruling. The remaining states had banned independent expenditures by corporations and/or unions and were forced to lift these bans following the court's decision. The fact that some states were affected by *Citizens United*, but others were not, enables us to apply difference-in-differences techniques to estimate the effects of *Citizens United* on election outcomes in affected states. We utilize data from $29,698$ state House races and $8,517$ state Senate races in 49 states, 22 of which had banned independent political spending by corporations and/or unions prior to the court's ruling. Our dataset covers two post-*Citizens United* elections (2010 and 2012), as well as five prior election cycles (2000–2008).

We find that *Citizens United* is associated with an increase of approximately four percentage points in the probability that a Republican candidate is elected in state legislative races. The association is statistically significant for state House races but not for state Senate races. We then conduct a state-by-state assessment of the ruling's effects on state House elections, by comparing Republican election probabilities in each state affected by *Citizens United* to those of a synthetic control state constructed from the pool of states unaffected by *Citizens United*. The synthetic control analysis reveals that the effect of *Citizens United* has not been uniform across states: eleven states had an increase of seven or more percentage points in Republican election probabilities in at least one post-*Citizens United* election cycle, relative to their synthetic control states, and six states had an increase of ten or more percentage points.

We are able to link our state-by-state findings to case-based evidence, gathered from investigative reports in journalistic publications, that documents significant efforts by independent expenditure groups funded by corporations to elect Republican legislators following *Citizens United*. These activities were enabled by the removal of independent expenditure bans and occurred overwhelmingly in those states for which our synthetic control analysis indicates pronounced increases in Republican election probabilities in 2010 and 2012. Thus, by integrating

both quantitative and qualitative approaches in our study, we find considerable support for the claim that it was indeed *Citizens United* that increased Republican election probabilities.

To interpret these results, note that corporations have traditionally (i.e., in terms of campaign contributions) supported Republican candidates more than Democratic candidates, while labor unions have supported Democratic candidates more than Republican ones. *Citizens United* has given corporations and labor unions new means of influencing political elections. We argue in Section 2 that corporations are likely to be in a better position, relative to unions, to take advantage of these new possibilities. Our statistical result that *Citizens United* is associated with an increase in the election probabilities of Republican candidates hence suggests that *Citizens United* has, on balance, increased the political influence of corporations relative to that of unions.

The relative advantage of corporations over unions in engaging in more political speech may have broad implications for economic policy. Corporations and unions make independent political expenditures that promote their interests. To the extent that corporations have advantages over unions in making such expenditures, one might expect their interests to be more reflected in public policies over time.[1] As we document in Section 6, corporations making large independent political expenditures include firms in the health care, tobacco, communications, energy, banking, and home building industries.

In addition to having increased the relative political influence of corporations, *Citizens United* may have had a number of other consequences for the democratic process. A number of opinions have portrayed *Citizens United* as a threat to the foundations of American democracy. These concerns often center on fears that unlimited spending by corporations and wealthy individuals in elections will foster a climate of political corruption, drown out other sources of information, discourage small donors from contributing to political campaigns, or deter candidates not aligned with wealthy supporters from running for office (e.g., Democratic National Committee 2009; Organization for Security and Cooperation in Europe 2010).[2] Our dataset allows us to test

[1]This policy shift works through two channels. In the short run, political parties aligned with corporate interests may see their election probabilities increase as a result of *Citizens United*, and we argue that this effect is what we observe in the data. In the long run, parties likely will adjust their policy platforms in response to profound changes in the campaign finance environment. In particular, both the Democratic and the Republican party may align their positions more strongly with the interests of corporations. We do not attempt to measure these long-term policy effects in this paper—by looking at election probabilities, our analytical focus is deliberately set on the short-term consequences of *Citizens United*.

[2]For example, in its brief for the *Citizens United* case, the Democratic National Committee (2009) argued that "[w]hat will predictably follow is a widespread sense that the rules were changed, and corporate political power restored to commanding levels, just as the era of the small individual donor had begun." Moreover, one day after *Citizens*

some claims related to these concerns. Specifically, it allows us to test whether *Citizens United* reduced the number of candidates running for election and whether it crowded out direct campaign contributions to candidates. Using difference-in-differences methods, we find some suggestive but not conclusive evidence that *Citizens United* is associated with a reduction in the number of candidates running in state House elections and a reduction in campaign contributions to Democratic candidates in state Senate elections.

The remainder of the paper is organized as follows. In Section 1.1 we review previous research and locate our contributions within the existing literature. In Section 2 we explain the institutional framework for outside spending in elections before and after *Citizens United*, and then formulate our hypothesis concerning the effects of *Citizens United* on election probabilities. In Section 3 we describe our data, and in Section 4 we formulate our empirical strategy, including our quantitative and qualitative methods. Our quantitative results concerning the effects of *Citizens United* on election probabilities are presented in Section 5. In Section 6, we complement this statistical analysis with qualitative evidence on corporate independent spending in the 2010 and 2012 state elections. Section 7 contains our results concerning the effects of *Citizens United* on candidate entry and campaign contributions. Section 8 concludes with a discussion of broader implications of *Citizens United* and possible regulatory responses. An online appendix contains additional information on the legal and institutional background relevant for understanding the impact of *Citizens United*, and on qualitative evidence of independent spending efforts in state elections in 2010 and 2012.

### 1.1 Relation to previous work

Our work is related to several strands of literature in economics, law, political science, and corporate finance. A substantial body of evidence shows that political influence—conventionally understood as having political connections or contributing to political campaigns—conveys significant benefits to firms. Analyzing a large international sample of firms, Faccio (2006) finds that political connections increase firm value, and Faccio, Masulis, and McConnell (2006) show that politically connected firms are more likely to be bailed out by government in times of financial

*United* was decided, the Organization for Security and Cooperation in Europe (2010), which monitors elections around the globe and to which the U.S. is a signatory, released a statement warning that "[t]he ruling . . . threatens to further marginalize candidates without strong financial backing or extensive personal resources, thereby in effect narrowing the political arena."

stress. Cooper, Gulen, and Ovtchinnikov (2010) find that firms that made more contributions to candidates for the U.S. House had higher future stock returns, and Kang and Shepherd (2011) find that elected state Supreme Court judges who received more direct contributions from business interests during their election campaigns were more likely to decide cases in favor of business interests.[3]

A similarly large literature examines the political effects of restrictions on direct campaign contributions. Studying U.S. House races from 1935 to 2009, La Raja and Schaffner (2012) find that state regulations that limit direct contributions by corporations had no effect on partisan control of government and had only a slight effect on incumbency reelection rates. Ansolabehere, deFigueiredo, and Snyder (2003) show that direct contributions have had little effect on legislator votes in the U.S. House. Examining state elections, Besley and Case (2003) show that limits on corporate campaign contributions increase voter turnout and the fraction of state Houses held by Democrats. Stratmann and Aparicio-Castillo (2006) demonstrate that limits on direct contributions in state elections increased the number of candidates who ran for lower house seats, and made these elections more competitive. Hamm and Hogan (2008) present evidence that contribution limits reduced the probability that incumbents were unchallenged in state House races in 1994, 1996, and 1998. Cordis and Milyo (2013) find no significant effects of state campaign finance regulations (including limits on direct corporate and individual contributions to candidates) on filings or convictions in public corruption cases during the last 25 years.

By comparison, the issue of independent political expenditures has received much less attention in the academic literature, but has become a focus of inquiry after *Citizens United* was decided in 2010. Spencer and Wood (2014) examine the effects of *Citizens United* on the level and composition of independent political expenditures in the U.S. states. They find that *Citizens United* resulted in a significant increase in independent expenditures in states that previously restricted them, and especially increased independent expenditures made by groups not required to disclose their donors. We provide a more detailed discussion of their results in Section 2.2, where we review the evidence that *Citizens United* affected independent expenditures.

Several other papers investigate the effects of *Citizens United* on firms. Using event study methods, Werner (2011) finds that *Citizens United* did not affect firms' stock prices; however,

[3]Other studies on the value of political connections include Fisman (2001), Johnson and Mitton (2003), Khwaja and Mian (2005), Goldman, Rocholl, and So (2009; 2013), and Acemoglu *et al.* (2013).

Skaife and Werner (2013) find some evidence that the decision reduced the stock returns of regulated firms and firms that incurred large lobbying expenditures. Since a firm's independent expenditures are typically decided on by its management and not its shareholders, it has been argued that *Citizens United* may primarily help to advance the interests of managers, resulting in weaker investor protection rules and weaker corporate governance (Bebchuk 2010). Coates IV (2012) finds that corporate lobbying and PAC donations increased sharply following *Citizens United*, especially in firms that were politically active before *Citizens United*, and that increased lobbying and PAC donations are associated with lower shareholder power and lower firm value. Finally, Werner and Coleman (2013) examine the effects of pre-*Citizens United* state independent expenditure bans on state minimum wage rates and anti-takeover laws between 1977 and 2006. They find that allowing unlimited corporate and union independent expenditures had no significant effects on minimum wage rates, but induced a change in anti-takeover laws in favor of management.

Our paper contributes to the literature in several ways. To our knowledge, ours is the first study of the effects of *Citizens United* on election outcomes. Using data from more than $38,000$ state legislative races over seven election cycles (including both post-*Citizens United* cycles to date), we provide a detailed examination of the effects of lifting independent expenditure bans on election outcomes. By linking difference-in-differences estimates, synthetic control estimates, and qualitative, "on the ground" evidence, we find considerable support for the hypothesis that *Citizens United* increased Republican election probabilities. We argue that this increase reflects a shift in relative political influence away from labor interests and toward business interests. Finally, we shed some light on the validity of claims that *Citizens United* could have crowded out direct campaign contributions and reduced the number of candidates running for election.

## 2 Background and Hypotheses

In this section, we explain how *Citizens United* has affected the ability of corporations and unions to influence elections through independent expenditures (Section 2.1) and formulate our main hypothesis concerning the effect of *Citizens United* on election probabilities (Section 2.2).

## 2.1 Legal background

In the U.S., individuals or organizations seeking to influence an election with money have two means of doing so: campaign contributions and independent expenditures. Campaign contributions are monetary and in-kind donations given to election campaigns directly. Independent expenditures are activities—typically political advertising—that support or oppose a candidate or cause, but are not coordinated with election campaigns. Campaign finance laws at the national and state level regulate campaign contributions as well as independent expenditures. Regulation of campaign contributions usually involves limits on how much individuals and organizations can donate to campaigns in an election cycle. Regulation of independent expenditures involves rules on who can make independent expenditures, what independent political ads can and cannot say, and whether or not the spender can remain anonymous.

*Citizens United* affected the regulation of independent expenditures. U.S. law has long recognized a First Amendment right of individuals and certain groups of individuals to make unlimited independent expenditures supporting or opposing candidates in elections (*Buckley v. Valeo*, 424 U.S. 1, 1976). This right did not, however, extend to corporations and labor unions: Federal campaign finance law, as well as laws in several states, either banned corporate and union independent expenditures or subjected them to restrictions that did not apply to independent expenditures made by individuals. In *Citizens United*, the court mandated the equal treatment of independent expenditures by individuals, corporations, and unions.

This decision affected the ability of corporations and unions to engage in political speech in two ways. First, it permitted corporations and unions to make unrestricted independent expenditures firsthand to influence elections anywhere in the United States. Second, it lifted significant constraints on intermediary groups through which corporations or unions can make independent expenditures. Specifically, it permitted the creation of Super PACs, which are political action committees that only make independent expenditures and can accept unlimited donations from corporations and unions. It also permitted 527 groups (which are political organizations registered under Section 527 of the Internal Revenue Code) to use corporate and union donations to fund ads that mention a political candidate by name shortly before an election; and it allowed 501(c) groups (which are social welfare, labor, or business groups registered under Sections 501(c)(4)–(6) of the Internal Revenue Code) to use corporate and union donations to fund ads

that expressly advocate for the election or defeat of a candidate. Importantly, 501(c) groups are not required to disclose the names of their donors publicly.

In Online Appendix A, we provide a more detailed overview of how Citizens United affected the ability of each of these groups to act as conduits for corporate and union independent expenditures. In sum, these changes have created an ecosystem of intermediary groups that provides corporations and unions with an array of new options for engaging in political speech, including channels for anonymous speech. In Section 6 and Online Appendix B, we illustrate these mechanisms through concrete instances of corporate and union independent spending in the 2010 and 2012 elections.

## 2.2 Main hypothesis

Our main hypothesis concerns the effects of *Citizens United* on election probabilities and is based on the following assumptions: (1) *Citizens United* removed binding constraints on political speech by business and labor interests, and their removal increased independent expenditures, (2) business interests have traditionally outspent labor interests and are likely to be in a better position to take advantage of the opportunities created by *Citizens United*, and (3) business interests have traditionally supported Republican candidates more than Democratic candidates.

There is evidence that the pre-*Citizens United* restrictions on independent expenditures by corporations and labor unions imposed binding constraints on these organizations, and that their elimination increased independent spending in state elections. Analyzing data for 18 states from 2006 to 2010,[4] Spencer and Wood (2014) find a significant positive effect of *Citizens United* on independent spending in state elections. While independent spending in 2010 increased both in states that had previous bans on independent expenditures by corporations and unions and in states that did not, the increase was twice as large in the states that had previous bans on independent expenditures. Spencer and Wood (2014) also find that a large part of the increase in independent spending can be attributed to advocacy groups that do not disclose their donors, suggesting that the ability to engage in anonymous speech is an important aspect of *Citizens United* for corporations and unions.

[4]State-level data on independent spending are not available for all states. Many states do not have disclosure requirements for independent expenditures in state elections. The National Institute for Money in State Politics (NIMSP), whose dataset we use in this paper, currently provides (incomplete) state-level data on independent spending for 21 states (correspondence with Denise Roth Barber, Managing Director of NIMSP).

Increased independent spending is most likely to affect elections if it is unbalanced, that is, if a disproportionate share of it is directed towards supporting candidates from one party or towards advocating policies from one end of the partisan spectrum. Evidence on the split in political spending between business and labor interests is available for national elections. It is informative to first look at the breakdown for direct campaign contributions. Table 1 describes the funds disbursed by political action committees (PACs) to candidates and parties in national elections between 2000 and 2008, broken down by PAC policy interest and recipient party. Two observations stand out: First, business interests outspent labor interests by a margin of almost 4-to-1; second, business interests contributed approximately 50% more to Republican candidates than to Democratic candidates. Labor interests, on the other hand, overwhelmingly contributed to Democratic candidates, resulting in an overall funding balance across parties.

Evidence on the split in independent expenditures by Super PACs is also available for the 2010 and 2012 national elections.[5] Table 2 shows that Republican Super PACs raised about 50% more, and spent about 100% more, than Democratic Super PACs. Table 2 also shows the funding sources for the top 10 Super PACs (in terms of fundraising) in the 2010 and 2012 national elections. Similar to what is the case for PACs, business interests donated approximately four times more to Super PACs than labor interests. Business interests also donated approximately four times more to Republican Super PACs than to Democratic Super PACs, while labor interests donated exclusively to Democratic Super PACs.

The relatively small labor share in PAC contributions and Super PAC independent expenditures suggests that unions are perhaps more constrained by their internal collective action problem than by any existing campaign finance regulations, and the opposite is true for business interests. Under these circumstances, one should expect that permitting corporations and unions to make unlimited independent expenditures will increase corporate independent expenditures more than union independent expenditures, which in turn will benefit Republican candidates more than Democratic candidates. This leads us to our main hypothesis:

**Hypothesis 1.** *Citizens United* is associated with an increase in the election probabilities of Republican candidates.

[5] Super PACs are required to publicly disclose their donors (see Online Appendix A for a detailed description of Super PACs as well as other types of independent expenditure groups).

We now test this hypothesis using data on U.S. state legislative elections between 2000 and 2012, and taking advantage of the fact that only some states restricted independent expenditures by corporations and unions prior to *Citizens United*.

## 3 Data

We reviewed state statutory and constitutional law in order to compile a database of state laws on independent expenditures by corporations and labor unions. Figure 1 shows the geographical distribution and year of enactment of state independent expenditure bans. As of January 2010, 22 states had bans. These 22 states were forced by *Citizens United* to remove their bans during the 2010 election cycle. The remaining 28 states never had any restrictions on independent expenditures and were, thus, technically unaffected by *Citizens United*. Out of the 22 states that restricted independent expenditures, 14 banned independent expenditures by corporations and labor unions, and eight banned only corporate independent expenditures.[6]

Our goal is to examine the effects of lifting these restrictions on election outcomes in states that were affected by *Citizens United*. For our outcome and control variables, we use campaign finance data provided by the National Institute on Money in State Politics (NIMSP).[7] NIMSP collects campaign finance reports submitted to state disclosure agencies by all state-level candidates in primary and general elections. The data include candidate-level detail for state elections, including party affiliation, state, the election cycle year in which the candidate ran for office, the office[8]

[6]The state of New Hampshire had a ban on corporate and union independent expenditures in place until 2000. The corporate ban was repealed in 2000 and replaced with a $\$5,000$ cap (the same as applies to individuals). Due to the small size of the corporate cap, we classify New Hampshire as a state with both a corporate and union ban prior to *Citizens United*. Our results are robust to instead classifying New Hampshire separately as the only state with a cap but not a ban on corporate independent expenditures prior to *Citizens United*.

In the state of Montana, a law originally enacted in 1912 and designed as an anticorruption effort prohibited corporate political expenditures. Following *Citizens United*, the law was successfully challenged in a lawsuit brought by various corporations, with an injunction issued by the Montana District Court on October 18, 2010. This decision was in turn reversed by the Montana Supreme Court, which found the statute constitutional and therefore lawful on December 30, 2011 (*Western Tradition Partnership, Inc. v. Attorney General of State*, 271 P.3d 1). The Montana Supreme Court's decision was then challenged in the U.S. Supreme Court. The Supreme Court issued a stay of the Montana decision on February 17, 2012. The Montana ruling was subsequently reversed on June 25, 2012 with the Supreme Court finding that the statute violated the U.S. Constitution's First Amendment, consistent with its ruling in *Citizens United* (*American Tradition Partnership, Inc. v. Bullock*, 132 S. Ct. 2490). Thus, the *Citizens United* decision was in effect in Montana from October 18, 2010 through the November 2010 elections and from June 25, 2012 through the November 2012 elections. For these reasons, in our analysis, Montana is considered to be a state that was "treated" by *Citizens United* in both the 2010 and 2012 elections.

[7]http://www.followthemoney.org.

[8]State office indicates the office for which the candidate is seeking election (e.g., Governor, State House, State Senate, State Supreme Court).

and district for which the candidate sought election, whether the candidate was an incumbent or challenger, whether the candidate won or lost, and total direct contributions raised by the candidate.

We aggregate the data to the level of election races. An election race is defined as a unique combination of office/district, state, and election year.[9] For example, "Georgia Senate District 4 in 2010" is a race. A race includes all primary, general, and runoff elections associated with its office, district, state, and year. We focus on state legislative races, which include races for seats in the lower house of a state's legislature, called the State House of Representatives, and the upper house, called the State Senate.[10] Our initial dataset covers all elections that took place between 2000 and 2012. For most states, this time span includes seven election cycles. Four states (Louisiana, Mississippi, New Jersey, and Virginia) hold off-year elections and hence had only six election cycles between 2000 and 2012.

For each election race, we record whether the race was won by a Republican/Democratic candidate; whether the race had a Republican/Democratic incumbent; the number of candidates running; and the number of Republican/Democratic candidates running. For each race, we also record the total direct contributions to all candidates and the total direct contributions to Republican/Democratic candidates. Using these totals, we calculate contributions per capita and in terms of 2012 U.S. dollars, using the following method. First, we count the number of unique districts. Next, we use the U.S. Census Bureau's historical data on annual state population estimates to estimate district populations for each district, by dividing the state population estimate by the number of unique districts. Then, for each election race, we calculate total contributions per capita by dividing total contributions by district population. Lastly, we use historical Consumer Price Index (CPI) data from the Bureau of Labor Statistics to translate the variables to total contributions per capita in terms of 2012 U.S. dollars.

We exclude a number of observations from our dataset. First, we exclude the state of Nebraska from the sample because the Nebraska legislature is unicameral and nonpartisan, the only such legislature in the union. Second, we exclude any observations for which the candidate's status is listed as *DNR* ("did not run"). This status generally indicates that the candidate is not running that

[9] Districts are either House districts or Senate districts; thus, a district identifies the office associated with it.

[10] In California, New Jersey, Nevada, New York, and Wisconsin, the lower house is called "State Assembly," which we renamed as "State House of Representatives."

election year cycle but raising money for future runs. Third, we exclude any special elections and recall elections. Fourth, we exclude any races that had more than one winner.[11] The final sample contains detail on 38,215 election races (29,698 House races in 7,627 House districts, and 8,517 Senate races in 3,078 Senate districts), in 49 states over 6 or 7 election cycles depending on the state.

Table 3 displays summary statistics for our dataset. Republican candidates won 48.9% of state legislative races in our sample. In states without independent expenditure bans, Republicans won slightly more often (50.4%), and in states with independent expenditure bans they won slightly less often (47.4%). Democratic candidates won practically all remaining races (only 0.2% of races in our sample were won by an independent or third-party candidate), so that our focus on Republican election probabilities throughout the paper is equally informative about Democratic election probabilities. Almost 85% of races had an incumbent (40.4% Republican and 44.4% Democrat). Races in our sample have an average of 2.259 candidates. Candidates, on average, received about one dollar in campaign contributions for each constituent ($0.97 for Republican candidates and $1.02 for Democratic candidates). These numbers are slightly higher in House races ($1.04 and $1.08) and lower in Senate races ($0.74 and $0.79), reflecting the fact that Senate districts are typically more populous than House districts.

# 4 Empirical Strategy

Our empirical strategy aims to identify the effects of *Citizens United* on Republican election probabilities in state legislative elections through three methodological approaches. First, we obtain estimates of the overall effect of *Citizens United* using difference-in-differences (DID) regressions. Second, we obtain estimates in individual states using synthetic control methods. Third, we link the quantitative analysis to ground-level evidence of independent spending initiatives, gathered from journalistic sources.

[11] Each district for the House of Representatives in Arizona and in South Dakota is represented by two winners.

### 4.1 Difference-in-differences regression analysis

We assume that the following equation governs the outcome for an election race $(i,s,t)$, defined by office/district $i$ in state $s$ during election year $t$:

$$Repub_{ist} = \beta\left[IEBan_s \times Post\text{-}CU_t\right] + \gamma X_{ist} + \delta Z_{st} + \alpha_{is} + \mu_t + \varphi_s t + \varepsilon_{ist}. \quad (1)$$

$Repub_{ist}$ is a dummy variable equal to 1 if the winning candidate in a race belongs to the Republican party. $IEBan_s$ is a dummy variable equal to 1 if state $s$ had a ban on corporate independent expenditures leading up to *Citizens United*, and $Post\text{-}CU_t$ is a dummy variable equal to 1 if the election year is 2010 or later, and thus is an indicator for the post-*Citizens United* period. $X_{ist}$ is a collection of race-level controls (indicators for whether the race had a Republican/Democratic incumbent; the number of Republican/Democratic candidates; and per capita contributions to Republican/Democratic candidates in constant 2012 dollars). $Z_{st}$ is a collection of state-level controls (percent population aged 15–29/30–44; percent black; percent high school/some college/bachelors; and average household income in constant 2012 dollars). $\alpha_{is}$ are district fixed effects (which subsume state fixed effects), $\mu_t$ are election year fixed effects, $\varphi_s t$ are state-specific linear time trends, and $\varepsilon_{ist}$ is the error term.[12]

We are interested in the effect of the interaction term $IEBan_s \times Post\text{-}CU_t$ on the probability that $Repub_{ist} = 1$, which measures the difference between the differences in election probabilities before and after *Citizens United* in the states with independent expenditure bans prior to *Citizens United* (i.e., the "treated" states) and in the states without independent expenditure bans prior to *Citizens United* (i.e., the "control" states). We estimate this effect using a linear probability model, that is, with ordinary least squares (OLS). We run our regressions for House races and for Senate races, and we report our parameter estimates with robust standard errors adjusted for clustering on states.

An important identifying assumption in the DID analysis is that trends in Republican election probabilities leading up to *Citizens United* in the treated states match those in the control states.

[12] Two states instituted independent expenditure bans during our sample period (Colorado in 2002 and South Dakota in 2007). These states went from having no independent expenditure ban at the start of our panel, to having a ban, to again having no ban in 2010–2012. The interaction term $IEBan_s \times Post\text{-}CU_t$ does not capture the first of these two policy changes (i.e., instituting a ban). As a robustness check, we also ran all of our regressions with these states excluded from the sample, and none of our results were substantially affected.

Figure 1 shows that states with (without) independent expenditure bans prior to *Citizens United* are geographically dispersed and are not all traditionally Democratic (Republican) strongholds. For example, Arizona, Ohio, Texas, and Wyoming are among the states with independent expenditure bans, and Republicans had control of the legislatures in each of these states for at least 10 years within the period from 2000 to 2012. Similarly, California, Maine, Maryland, and New Jersey did not ban independent expenditures, and Democrats had control of the legislatures in each of these states for at least 10 years within the period from 2000 to 2012.[13] Overall, as shown in Table 3, the Republican election probability is only slightly higher in states with independent expenditure bans than in states without them. Moreover, we include state-specific linear time trends in our regressions to control for non-matching linear trends across states.

## 4.2 Synthetic controls

To further address the issue of potentially non-matching non-linear time trends in states with versus without independent expenditure bans prior to *Citizens United*, and to obtain state-by-state estimates of the effects of *Citizens United*, we also perform a synthetic control analysis using the data averaged to the state level (Abadie and Gardeazabal 2003; Abadie, Diamond, and Hainmueller 2010 and 2012). In the analysis, the control states (i.e., those without independent expenditure bans prior to *Citizens United*) form a "donor pool" of states. For each treated state (i.e., each state with independent expenditure bans prior to *Citizens United*), a "synthetic control" is constructed by searching for a convex combination of the donor states that replicates the treated state as closely as possible in terms pre-*Citizens United* outcomes (Republican election probabilities) and predictors or pre-*Citizens United* outcomes (politial and demographic characteristics). The goal is to find a synthetic control for which trends in outcomes match as closely as possible those for the treated state leading up to *Citizens United*.

The closeness of the pre-treatment match in outcomes is measured in terms of the pre-treatment root mean squared prediction error (RMSPE). While there is as yet no conventional RMSPE cutoff for a synthetic control to be "sufficiently good," we use a cutoff of 0.1. In cases where our procedure yields an RMSPE above this threshold, we determine that the synthetic control approach is unable to generate plausible estimates of the effects of *Citizens United*. For

[13] http://www.census.gov/compendia/statab/cats/elections.html.

the set of variables predicting Republican election probabilities in the pre-treatment period, we include our political controls from the NIMSP data (average number of Republican/Democratic candidates per race, average per capita direct contributions to Republican/Democratic candidates per race, and percent of races with a Democratic/Republican incumbent) and our demographic controls (percent of population aged 15–29/30–44, percent black, percent high school/some college/bachelors, and average household income). Following Abadie, Diamond, and Hainmueller (2010), we also include Republican election probabilities in a few evenly spaced pre-treatment years (2000, 2004, and 2008) to improve the pre-treatment match.

We then estimate the effects of *Citizens United* on Republican election probabilities in each treated state for which there exists a synthetic counterpart providing a good pre-treatment match, by comparing the evolution of Republican election probabilities in that treated state and in its synthetic counterpart in the post-treatment period. The size of the "post-treatment gap" between election probabilities in the treated state and in its synthetic counterpart measures the size of the effect of *Citizens United* in the treated state. To test whether the gap can be attributed to *Citizens United* or is due to chance or other factors, we conduct "placebo trials" using the donor states. That is, we successively run the synthetic control procedure on each of the control states. We then construct an empirical distribution of post-treatment gaps and generate pseudo $p$-values to determine whether the gap for a treated state is statistically significant.

To implement the synthetic control procedure, a balanced panel with no missing years of data is required. Thus, for the synthetic control analysis, we drop states with odd-year elections (Louisiana, Mississippi, New Jersey, and Virginia) and states without House and Senate data for some even-year elections (Alabama, Maryland, North Dakota, and New Hampshire).

### 4.3 Qualitative analysis

Finally, we complement our synthetic control analysis with "ground-level" evidence of significant spending by corporations through channels enabled by *Citizens United*. In particular, we search journalistic sources for reports and investigations documenting independent expenditure campaigns in the 2010 and 2012 state elections. We find evidence of large independent expenditures by corporations in precisely those states in which the Republican election probabilities increased significantly relative to those in the synthetic control states after *Citizens United*. Tarrow (1995)

describes the integration of statistical and case-based research methods aptly as "putting qualitative flesh on quantitative bones." Adopting this approach here allows us to provide additional support for the hypothesis that it was indeed the removal of independent expenditure bans on corporations that caused the post-*Citizens United* change in election probabilities.

# 5 Estimation Results

In this section, we present our estimation results concerning the effects of *Citizens United* on election probabilities.

## 5.1 Difference-in-differences estimations

We estimate the DID model described by Equation (1) in Section 4.1 using OLS. The estimated coefficient on the interaction term $IEBan_s \times Post\text{-}CU_t$ measures the association between *Citizens United* and election outcomes. Regression results using our full sample (2000–2012) are displayed in columns (1)–(4) in Table 4. Results are presented for specifications with and without controls for direct contributions and number of candidates. All specifications include dummies for Republican and Democratic incumbents, district fixed effects, election year fixed effects, state time trends, and state-year demographic controls. In all estimations, we report robust standard errors adjusted for clustering at the state level.

For the House sample, the estimated coefficient on the interaction term $IEBan_s \times Post\text{-}CU_t$ is equal to 0.041 and is statistically significant at the 5 percent level in both specifications, suggesting that *Citizens United* is associated with an increase in Republican election probabilities in House races of 4.1 percentage points. To put this estimate in context, an increase in Republican election probabilities in House races of 4.1 percentage points corresponds to a 9.1 percent increase in seats picked up by Republican candidates after *Citizens United*, compared to before *Citizens United*, in states that previously banned independent expenditures. This also implies that about 64 percent of the post- over pre-*Citizens United* surge in Republican-won House seats in states with prior bans on independent expenditures is associated with the lifting of these bans following *Citizens*

*United*.[14] On the other hand, for the Senate sample, the estimated coefficient on the interaction term $IEBan_s \times Post\text{-}CU_t$ is positive but not statistically significant in either specification.

One possible issue with including district fixed effects in the regressions is that some states underwent redistricting following the 2000 and 2010 censuses, so district boundaries may not have remained exactly constant throughout our sample period. The redistricting that followed the 2000 census was largely in effect by November 2002, and the redistricting that followed the 2010 census was largely in effect by November 2012. Thus, to mitigate the possible effects of redistricting, we also estimate our regressions using a restricted sample covering only the years 2002–2010. The results, which are presented in columns (5)–(8) of Table 4, are similar to those for 2000–2012. In particular, the estimated coefficient on the interaction term $IEBan_s \times Post\text{-}CU_t$ is only slightly larger and remains statistically significant at the 5 percent level in both specifications for the House regressions.

## 5.2 Synthetic control results

Next, we obtain state-by-state estimates of the effects of *Citizens United* in state House elections based on the synthetic control approach described in Section 4.2. This technique further addresses the issue of potentially non-matching time trends in election outcomes across states. It also permits us to identify states in which *Citizens United* had particularly pronounced effects on election probabilities, allowing us to link our results to qualitative evidence in the next section.

Table 5 shows the composition of the estimated synthetic controls for each of the treated states. For many of the treated states, the synthetic controls seem reasonable in that they attach significant weights to states that are "similar" (geographically, culturally, or historically) to the treated state. For example, synthetic Alaska consists of more than 90 percent Northwestern states; synthetic Connecticut is almost 90 percent New York; synthetic North Carolina is over 40 percent South Carolina; and synthetic Tennessee is almost 50 percent Georgia. The synthetic controls for Massachusetts and Rhode Island, however, seem much less reasonable with most of the weight

[14] The first estimate is obtained by dividing 4.1 by 0.452, the proportion of state House races in our sample that were won by Republicans prior to *Citizens United* in states with independent expenditure bans. The second estimate is obtained by dividing 4.1 by 0.064, the post- over pre-*Citizens United* difference in the proportion of state House races won by Republicans in states that previously banned independent expenditures.

on Hawaii.[15] As we will see shortly, the synthetic control procedure is unable to produce a good pre-treatment match in Republican election probabilities for these two states.

For each treated state, Figure 2 shows the evolution of Republican election probabilities for House races in the state and in its estimated synthetic counterpart. For all the treated states except for Massachusetts and Rhode Island, the synthetic control procedure produces a very close pre-treatment match in Republican election probabilities.[16] Given that the pre-treatment match is poor for Massachusetts and Rhode Island, we cannot obtain reasonable estimates of the effects of *Citizens United* for these states. This leaves us with 17 treated states for which we can obtain plausible estimates of the effects of *Citizens United* using synthetic control methods. As Figure 2 shows, in 11 of these 17 states (Colorado, Iowa, Michigan, Minnesota, Montana, North Carolina, Ohio, Tennessee, Texas, Wisconsin, and Wyoming), the Republican election probability is higher than in the state's synthetic counterpart by seven or more percentage points in at least one post-*Citizens United* election cycle. In six of these states (Michigan, Minnesota, Montana, North Carolina, Ohio, Tennessee), the Republican election probability is ten or more percentage points higher than in the state's synthetic counterpart in at least one post-*Citizens United* election. In North Carolina and Tennessee, the Republican election probability is more than 15 percentage points higher than in the state's synthetic counterpart in the 2012 elections.

Figure 3 graphs the gaps between Republican election probabilities in each treated state and in its synthetic control in the post-treatment period. Figure 3 also graphs the results of our placebo trials, which generate analogous gaps for control states. The pre-treatment RMSPEs are well below 0.1 for all 20 control states. In the treated states of Iowa, Michigan, Minnesota, Montana, North Carolina, Ohio, Tennessee, and Wisconsin, the post-treatment gaps in 2010 are greater than they are in all 20 of the control states. If one were to assign the treatment at random to a group of states consisting of any one of these treated states along with the 20 control states, then the probability of obtaining a post-treatment gap in 2010 as large as the one obtained in any one of these treated states would be $1/21 = 0.0476$. This suggests that the 2010 post-treatment gaps in each of these treated states are statistically significant at the 5 percent level. Moreover, in Colorado, Oklahoma, Texas, and Wyoming, the gaps in 2010 are greater than they are in 19 out of

[15] Massachusetts and Rhode Island are the two most liberal states among our treated states (only a very small fraction of their state House is Republican). The only state in our donor pool that is similar in this aspect is Hawaii.

[16] The pre-treatment RMSPEs, which are given in the last row of Table 5, are below 0.05 in all the treated states except for Massachusetts and Rhode Island.

the 20 control states. If one were to assign the treatment at random, the probability of obtaining a post-treatment gap in 2010 as large as the one obtained in any of these treated states would be $2/21 = 0.0952$, suggesting that the 2010 post-treatment gaps in each of these treated states are statistically significant at the 10 percent level. Similarly, in North Carolina and Tennessee, the gaps in 2012 are greater than they are in all 20 of the control states, and in Michigan and Ohio, the gaps in 2012 are greater than they are in 19 out of the 20 control states, suggesting that these gaps are also statistically significant at conventional levels.

# 6 Independent Spending After *Citizens United*: Evidence From the States

The finding that *Citizens United* increased Republican election probabilities in state legislative races is consistent with our main hypothesis, developed in Section 2.2. This hypothesis, in turn, was based on the premise that *Citizens United* lifted binding constraints on corporate and union independent spending in elections, but, on balance, conferred a larger advantage to corporations. Unfortunately, a direct test of this mechanism is not available: Due to weak disclosure requirements in many states, only limited data exist on the size of independent expenditures and on who made these expenditures (see Spencer and Wood 2014).

In this section, we turn to qualitative evidence of corporate and union spending in the 2010 and 2012 state elections. We exploit the fact that our synthetic control analysis identified a number of states in which the effect of *Citizens United* on Republican election probabilities were particularly pronounced (see Figure 3). We show that it is possible to link these results to "ground-level" evidence of independent spending activities in the states. This information was gathered from a number of sources, including materials published by independent expenditure groups as well as investigative reports in journalistic publications.

We are able to document significant efforts, funded by corporations, to elect Republican candidates through independent expenditures in the 2010 state legislative elections in Colorado, Michigan, Minnesota, Montana, North Carolina, Ohio, Pennsylvania, Texas, and Wisconsin. With the exception of Pennsylvania, these are all states in which Republican election probabilities increased significantly relative to their synthetic controls in 2010. We could not find a liberal independent expenditure initiative funded by unions that carried out a strategy similar in scale or

scope to these conservative efforts in 2010. On the other hand, independent expenditure efforts in the 2012 elections included campaigns funded by labor unions. The relative lack of union spending in 2010 and its emergence in 2012 can help explain the weakening of the *Citizens United*-effect in 2012 in some states.

### 6.1 The "Redmap" strategy

A large part of conservative independent spending in the 2010 elections was linked to a larger conservative strategy orchestrated by the Republican State Leadership Committee (RSLC). The RSLC is a political organization with a stated mission of "providing strategic and financial support to state candidates." As the 2010 Census approached, the RSLC began to formulate a strategy to win control of state legislatures, in order to gain control over each state's redistricting process and thereby influence the outcomes of U.S. congressional races (Republican State Leadership Committee 2013; DiNovella 2011; Rove 2010). The strategy—which was called the "Redistricting Majority Project," or "Redmap" for short—was implemented by making independent expenditures in key legislative races in several states.

The RSLC funded "Redmap" primarily through contributions from corporations. During the 2010 election cycle, the RSLC raised approximately $30 million. According to IRS documents (Center for Responsive Politics 2010a), top contributors to the group in 2010 were the U.S. Chamber of Commerce, American Justice Partnership, American Crossroads, as well as large corporations, including Altria/Philip Morris, Reynolds America, Blue Cross/Blue Shield, WellPoint, AstraZeneca, Verizon, Devon Energy, AT&T, Wal-Mart, Massachusetts Mutual Life Insurance, Comcast, Eli Lilly, Citigroup, Exxon Mobil, Home Depot, Anheuser-Busch, and Monsanto.[17]

The RSLC then invested a significant portion of these funds to target legislative elections in states where independent expenditures would yield a high probability of gaining control of the legislature. In particular, it targeted House races in Colorado, Michigan, North Carolina, Ohio, Pennsylvania, Texas, and Wisconsin (Republican State Leadership Committee 2013). Each of these states had banned independent expenditures by corporations prior to *Citizens United*, each

[17] American Crossroads is the Super PAC co-founded by Karl Rove. In the 2010 election cycle, the top three contributors to Americans Crossroads were Perry Homes, TRT Holdings, and Public Storage Inc. (Center for Responsive Politics 2010c). The U.S. Chamber of Commerce and American Justice Partnership are 501(c) groups and are not required to disclose the names of their donors.

had a legislative composition of 40–50% Republican in 2008 (see Figure 2), and each played an important role in national politics. As a result of reapportionment, Texas picked up four congressional seats, Ohio lost two, and Michigan and Pennsylvania each lost one; furthermore, Colorado, North Carolina, Ohio, and Wisconsin were projected to be swing states in the 2012 national elections. The RSLC spent $1 million in Michigan, where Republicans picked up 20 House seats; close to $1 million in Ohio, targeting six House races and winning five; close to $1 million in Pennsylvania, targeting and winning three House races; and $750,000 in Texas, where Republicans picked up 22 House seats. In addition, the RSLC spent $1.2 million, $1.1 million, and $550,000 in North Carolina, Wisconsin, and Colorado, respectively. In each of these states, the state House changed from a Democratic majority to a Republican majority following the 2010 election.[18]

The "Redmap" strategy would not have been feasible without the fundraising and spending channels opened up by *Citizens United*. The RSLC is a 527 group. Before *Citizens United*, such groups could use corporate or union donations only to fund "issue advocacy," but not to fund either "electioneering communications," which are political ads that mention a candidate's name prior to an election, or "express advocacy," which are political ads that call for the election or defeat of specific candidates. *Citizens United* allowed the RSLC and other 527s to use corporate donations to fund electioneering communications, and to fund other groups that are permitted to engage in express advocacy. In fact, as the 2010 elections approached the RSLC made over $5.1 million in contributions to other committees (Center for Responsive Politics 2010b).

## 6.2 Other independent spending initiatives

Several other conservative independent expenditure groups funded by corporations played a significant role in both the 2010 and 2012 state elections. In addition, labor unions began funding some liberal independent expenditure groups in the 2012 state elections. Below we provide a brief summary of these efforts. As was the case for "Redmap," these initiatives would not have been feasible prior to *Citizens United*. A detailed description, including sources for the information summarized below, is in Online Appendix B.

[18] Several hundred thousand dollars in advertising can have a large effect on election probabilities in state House races, given that the amounts typically spent on campaign activities in such races are not very large. For example, in 2010, the average and median amounts raised by state House candidates in our sample were $53,538 and $14,477.

In North Carolina's 2010 elections, eleven outside groups (not including the RSLC) spent $2.6 million, nearly 92 percent of which was used to support Republican candidates. Three of these groups are connected with North Carolina businessman Art Pope and accounted for 72 percent of outside spending in North Carolina in 2010. One group, Real Jobs NC, was funded directly from the treasury of Mr. Pope's company. Real Jobs NC targeted 19 House and Senate races, in 16 of which a Republican challenger defeated a Democratic incumbent. Altogether, the groups associated with Mr. Pope targeted 27 races and were successful in 20. In Minnesota, groups funded by corporations spent over $400,000 on independent expenditures in support of 15 Republican candidates, resulting in 12 new Republican House members. On average, these groups spent $28,300 on each of their 12 successful campaigns, accounting for 34% of money spent in these campaigns and exceeding direct contributions to candidates by a margin of nearly 2 to 1. In Montana, a conservative group called Western Tradition Partnership (WTP) raised and spent over $500,000 on legislative races in Montana, funding support for 23 conservative candidates and a list of opposing candidates to be attacked with negative mailers. In the 2010 elections, Republicans picked up 17 House seats in Montana. Interestingly, WTP elicited corporate donations by explicitly appealing to the fact that corporate donors could remain anonymous. In Colorado, a conservative group called Colorado Citizens for Accountable Government spent over $1.5 million targeting various state House and Senate races. The group received substantial funds via a chain of other groups whose original donors include a number of large corporations. Lastly, in Tennessee, one conservative group called the Tennessee Legislative Campaign Committee (TLCC) made over $900,000 in independent expenditures targeting state House and Senate races. TLCC received over $500,000 in contributions from the Republican Governors Association (RGA), whose top contributors included a number of large corporations and business groups.

Many conservative organizations continued to play a role in the 2012 elections. For example, the RSLC raised and spent approximately $40 million in the 2012 state elections. In North Carolina, ten outside groups spent over $13 million on 2012 races, over 70 percent of which was used to support Republican candidates, and in Tennessee the TLCC spent over $400,000 targeting 21 House races. One important development in the 2012 election, however, was the emergence of independent spending campaigns by labor unions. In Colorado, the American Federation of State, County and Municipal Employees (AFSCME) helped fund three liberal groups, which spent over $4.4 million to support Democratic candidates or oppose Republican candidates. The AFSCME

and another union, the National Education Association, further contributed nearly $1 million to liberal independent spending initiatives in Minnesota via a chain of intermediaries. In both Colorado and Minnesota, Democrats regained a state House majority in 2012. It is plausible that the weakening of the *Citizens United*-effect in our synthetic control estimations for these states in 2012 (see Figure 3) can be explained by the emergence of union independent spending.

# 7 The Effects of *Citizens United* on Direct Contributions and Candidate Entry

We now explore the effects of *Citizens United* on other outcomes that are important to the democratic process. Table 4 shows that the controls for direct contributions and number of candidates per race in the DID regressions are statistically significant predictors of election probabilities. In particular, the number of Republican candidates and the amount of direct contributions to Republican candidates are positively correlated with Republican victories, and vice versa for Democratic candidates and contributions. We now investigate whether *Citizens United* affected these variables using DID methods. If so, then these effects need to be added to an overall estimate of the treatment effect.

Table 6 displays the results of DID regressions (estimated via OLS) where the total number of candidates (per race), the number of Republican candidates, and the number of Democrat candidates are the outcome variables. All specifications include incumbency controls, state-level demographic controls, election year fixed effects, district fixed effects, and state time trends. In the Senate sample, the estimated coefficient on the interaction term $IEBan_s \times Post\text{-}CU_t$ is not statistically significant in any of the regressions. In the House sample, the coefficient on the interaction term is negative and statistically significant at the 10 percent level when the outcome variable is either the total number of candidates or the number of democratic candidates. According to the estimates, in House elections, *Citizens United* is correlated with a reduction of approximately 18 percent in the total number of candidates per race, and of approximately nine percent in the number of Democratic candidates per race.

Table 7 displays the results of OLS regressions where total direct contributions (per capita and per race), direct contributions to Republican candidates, and direct contributions to Democrat candidates are the outcome variables (with race controls, state demographic controls, year

and district fixed effects, and state time trends). In the House sample, *Citizens United* is not significantly associated with either total direct contributions or direct contributions to Democrat or Republican candidates. In the Senate sample, the decision is negatively and significantly (at the 10 percent level) associated with direct contributions to Democratic candidates. The estimate suggests that *Citizens United* is correlated with a reduction of approximately three dollars per capita and per race in direct contributions to Democratic candidates in Senate elections.

We also attempted synthetic control analyses of the effects of *Citizens United* on the average number of candidates per race in House elections and average contributions to Democratic candidates per race in Senate elections. However, for most of the treated states, we were not able to obtain synthetic controls with close pre-treatment matches in terms of these outcome variables. Overall, we view the evidence regarding the effects of *Citizens United* on candidate entry and direct contributions as suggestive but inconclusive.

# 8 Conclusion

We examined the effects of *Citizens United* on Republican election probabilities in state legislative elections using difference-in-differences and synthetic control methods as well as case-based evidence. In combination, our results show that, by removing restrictions on corporate and union independent expenditures, *Citizens United* has increased Republican election probabilities in state House elections. We interpret our findings as reflecting an increase in the political influence of corporations relative to unions. In the long run, this change has the potential to influence a wide range of policies, including healthcare, environmental, immigration, trade, tax, and financial policies.

We note that our estimates of the effects of *Citizens United* on the election probability of Republican candidates may be lower bounds for at least two reasons. First, *Citizens United* may have had larger effects on election probabilities than those identified through our state-level analyses, because it affected once-in-a-decade redistricting and thereby potentially U.S. Congressional elections. Second, by setting a clear legal precedent for all states, *Citizens United* may have increased political spending even in states where corporate and union independent

expenditures were technically legal prior to *Citizens United*.[19] Any effects that *Citizens United* may have had in such states are not counted in our difference-in-differences estimates.

We also examined the effects of *Citizens United* on candidate entry and direct campaign contributions in state elections. We found some evidence suggesting that *Citizens United* has reduced candidate entry in state House elections and direct contributions to Democratic candidates in state Senate elections, but this evidence is not conclusive.

Going forward, a number of important regulatory questions remain open. One question is whether the federal government (through the FEC, IRS, and/or SEC) should mandate the public disclosure of corporate and union independent expenditures. By revealing which corporations are funding political advertising, disclosure can provide valuable information to voters. On the other hand, if disclosure reduces advertising it could conceivably result in less information for voters (see, e.g., Justice Thomas' opinion in *Citizens United*). A second question concerns possible implications of *Citizens United* for the regulation of direct campaign contributions. According to Justice Kennedy's majority opinion in *Citizens United*, restrictions on political spending are legal only if they prevent quid pro quo corruption, while justifications such as "leveling the playing field" are no longer permissible. Constitutional challenges to direct contribution limits may hence succeed, unless the government can prove that those limits prevent corruption.[20] Evaluating the effects and efficiency of disclosure requirements, and of the removal of limits on direct campaign contributions, in an environment with unlimited independent expenditures are interesting avenues for future work.

## References

[1] Abadie, Alberto, Alexis Diamond, and Jens Hainmueller (2010). "Synthetic Control Methods for Comparative Case Studies: Estimating the Effect of California's Tobacco Control Program." *Journal of the American Statistical Association* 105, 493–505.

[19] *Citizens United* may also have increased independent political spending by wealthy individuals (in addition to corporations) across all states. While in principle individuals could make unlimited independent expenditures even prior to *Citizens United*, individuals who gave large amounts to 527 or 501(c) groups would have had reason to expect IRS and FEC scrutiny given the "legal cloud" that had long surrounded these types of groups (Hasen 2012). *Citizens United* dissipated this legal cloud and gave all donors greater assurance of legality.

[20] While this paper was being written, the U.S. Supreme Court heard arguments in the case of *McCutcheon v. FEC* (Docket No. 12-536, 2013), which challenges federal limits on aggregate campaign contributions by individuals. The lower court judge who considered the case noted the "possibility that *Citizens United* undermined the entire contribution limits scheme" (*McCutcheon v. FEC*, Case No. 12cv1034, 2012).

[2] Abadie, Alberto, Alexis Diamond, and Jens Hainmueller (2012). "Comparative Politics and the Synthetic Control Method." Working Paper. http://hks.harvard.edu/fs/aabadie/comparative.pdf (accessed 12/20/2013).

[3] Abadie, Alberto and Javier Gardeazabal (2003). "The Economic Costs of Conflict: A Case Study of the Basque Country." *American Economic Review* 93, 112–132.

[4] Acemoglu, Daron, Simon Johnson, Amir Kermani, James Kwak, and Todd Mitton (2013). "The Value of Connections in Turbulent Times: Evidence from the United States." Working Paper. http://econ.northwestern.edu/seminars/Nemmers13/Johnson.pdf (accessed 12/20/2013).

[5] Ansolabehere, Stephen, John deFigueiredo, and James Snyder (2003). "Why Is There so Little Money in U.S. Politics?" *Journal of Economic Perspectives* 17, 205–130.

[6] Bebchuk, Lucian A. (2010). "Corporate Political Speech is Bad for Shareholders." *Project Syndicate*, February 23.

[7] Besley, Timothy and Anne Case (2003). "Political Institutions and Policy Choices: Evidence from the United States." *Journal of Economic Literature* 41, 7–73.

[8] Center for Responsive Politics (2010a). "Republican State Leadership Cmte: Top Contributors, 2010 Cycle." http://www.opensecrets.org/527s/527cmtedetail_contribs.php?ein=050532524&cycle=2010 (accessed 12/20/2013).

[9] Center for Responsive Politics (2010b). "Republican State Leadership Cmte: Expenditures, 2010 Cycle." http://www.opensecrets.org/527s/527cmtedetail_expends.php?cycle=2010&ein=050532524 (accessed 12/20/2013).

[10] Center for Responsive Politics (2010c). "Top Organizations Disclosing Donations to American Crossroads: 2010." http://www.opensecrets.org/outsidespending/contrib.php?cmte=C00487363&cycle=2010 (accessed 12/20/2013).

[11] Coates IV, John C. (2012). "Corporate Politics, Governance, and Value Before and After Citizens United." *Journal of Empirical Legal Studies* 9, 657–696.

[12] Cooper, Michael J., Huseyin Gulen, and Alexei V. Ovtchinnikov (2010). "Corporate Political Contributions and Stock Returns." *Journal of Finance* 65, 687–724.

[13] Cordis, Adriana and Jeff Milyo (2013). "Do State Campaign Finance Reforms Reduce Public Corruption?" Working Paper. http://economics.missouri.edu/working-papers/2013/WP1301_Milyo.pdf (accessed 12/20/2013).

[14] Democratic National Committee (2009). "Brief of the Democratic National Committee as Amicus Curiae in Support of Appellee." *Citizens United v. Federal Election Commission*, 558 U.S. 50 (2010), No. 08-205.

[15] DiNovella, Elizabeth (2011). 'The Group Behind the Republican Takeover." *The Progressive*, November Issue.

[16] Faccio, Mara (2006). "Politically Connected Firms." *American Economic Review* 96, 369–386.

[17] Faccio, Mara, Ronald W. Masulis, and John J. McConnell (2006). "Political Connections and Corporate Bailouts." *Journal of Finance* 61, 2597–2635.

[18] Fisman, Raymond (2001). "Estimating the Value of Political Connections." *American Economic Review* 91, 1095–1102.

[19] Gerber, Alan S., James G. Gimpel, Donald P. Green, and Daron R. Shaw (2011). "How Large and Long-lasting Are the Persuasive Effects of Televised Campaign Ads? Results from a Randomized Field Experiment." *American Political Science Review* 105, 135–150.

[20] Goldman, Eitan, Jörg Rocholl, and Jongil So (2009). "Do Politically Connected Boards Affect Firm Value?" *Review of Financial Studies* 22, 2331–2360.

[21] Goldman, Eitan, Jörg Rocholl, and Jongil So (2013). "Politically Connected Boards of Directors and the Allocation of Procurement Contract." *Review of Finance*, forthcoming.

[22] Gordon, Brett R. and Hartmann, Wesley R. (2013). "Advertising Effects in Presidential Elections." *Marketing Science* 32, 19–35.

[23] Hamm, Keith and Robert Hogan (2008). "Campaign Finance Laws and Candidacy Decisions in State Legislative Elections." *Political Research Quarterly* 61, 458–467.

[24] Hasen, Richard L. (2012). "The Numbers Don't Lie. If You Aren't Sure Citizens United Gave Rise to the Super PACs, Just Follow the Money." *Slate*, March 9.

[25] Johnson, Simon and Todd Mitton (2003). "Cronyism and Capital Controls: Evidence from Malaysia." *Journal of Financial Economics* 67, 351–382.

[26] Kang, Michael S. and Joanna M. Shepherd (2011). "The Partisan Price of Justice: An Empirical Analysis of Campaign Contributions and Judicial Decisions." *New York University Law Review* 86, 69–130.

[27] Khwaja, Asim I. and Atif Mian (2005). "Do Lenders Favor Politically Connected Firms? Rent-Seeking in an Emerging Financial Market." *Quarterly Journal of Economics* 120, 1371–1411.

[28] La Raja, Raymond and Brian Schaffner (2012). "The (Non-)Effects of Campaign Finance Spending Bans on Macro Political Outcomes: Evidence From the States." Working Paper. http://ssrn.com/abstract=2017056 (accessed 12/20/2013).

[29] National Conference of State Legislatures (2011): "Life After *Citizens United*." January 4, 2011. http://www.ncsl.org/legislatures-elections/elections/citizens-united-and-the-states.aspx (accessed 12/20/2013).

[30] Organization for Security and Cooperation in Europe (2010). "Head of OSCE Election Body Concerned about U.S. Supreme Court Ruling on Election Spending." http://www.osce.org/odihr/elections/51838 (accessed 12/20/2013).

[31] Rekkas, Marie (2007). "The Impact of Campaign Spending in Votes in Multiparty Elections." *Review of Economics and Statistics* 89, 573–585.

[32] Republican State Leadership Committee (2013). *REDMAP 2012 Summary Report*. http://www.rslc.com/redmap_2012_summary_report (accessed 12/20/2013).

[33] Rove, Karl (2010). "The GOP Targets State Legislatures." *The Wall Street Journal*, March 4.

[34] Skaife, Hollis A. and Timothy Werner (2013). "The Effects of Corporate 'Free Speech' on Firm Value." Working Paper. http://editorialexpress.com/cgi-bin/conference/download.cgi?db_name=ALEA2013&paper_id=120 (accessed 12/20/2013).

[35] Spencer, Douglas and Abby Wood (2014). "Citizens United, States Divided: An Empirical Analysis of Independent Political Spending." *Indiana Law Journal* 89, forthcoming.

[36] Stratmann, Thomas and Francisco Aparicio-Castillo (2006). "Competition Policy for Elections: Do Campaign Contribution Limits Matter?" *Public Choice* 127, 177–206.

[37] Tarrow, Sidney (1995). "Bridging the Quantitative-Qualitative Divide in Political Science." *American Political Science Review* 89, 471–474 (republished in Henry Brady and David Collier, eds., *Rethinking Social Inquiry: Diverse Tools, Shared Standards*, 2nd edition, 2010, Lanham, MD: Rowman and Littlefield).

[38] Werner, Timothy (2011). "The Sound, the Fury, and the Nonevent: Business Power and Market Reactions to the *Citizens United* Decision." *American Politics Research* 39, 118–141.

[39] Werner, Timothy and John J. Coleman (2013). "Assessing the Potential Effects of *Citizens United*: Policy and Corporate Governance in the States." Working Paper. http://ssrn.com/abstract=2108171 (accessed 12/20/2013).

**Table 1:** Contributions from PACs to candidates and parties in national elections, by recipient party and PAC policy interest (2000–2008).

| PAC interest | Total contributions ($1,000) | Recipient party | | Recipient party (share) | |
|---|---|---|---|---|---|
| | | Republican ($1,000) | Democrat ($1,000) | Republican (%) | Democrat (%) |
| Business | 1,238,611 | 755,238 | 480,600 | 61.0 | 38.8 |
| Labor | 318,908 | 32,409 | 285,112 | 10.2 | 89.4 |
| Ideological | 269,552 | 144,975 | 123,400 | 53.8 | 45.8 |
| Other | 5,477 | 2,067 | 3,396 | 37.7 | 62.0 |
| Total | 1,829,990 | 933,023 | 891,891 | 51.0 | 48.7 |

Notes:

Numbers represent totals over 2000–2008 election cycles. PAC policy interest is based on connected organization; ideological PACs are non-connected PACs. Source: *Center for Responsive Politics* (http://www.opensecrets.org).

**Table 2:** Super PAC fundraising and spending in 2010/2012 national elections, by Super PAC orientation and donor policy interest.

| SuperPAC orientation | 2010 | | 2012 | |
|---|---|---|---|---|
| | Funds raised ($1,000) | Funds spent ($1,000) | Funds raised ($1,000) | Funds spent ($1,000) |
| Republican | 47,421 | 36,687 | 488,913 | 405,866 |
| Democrat | 33,146 | 24,616 | 325,547 | 195,509 |
| Mixed/other | 1,376 | 1,338 | 13,754 | 8,065 |
| Total | 81,953 | 62,641 | 828,214 | 609,440 |

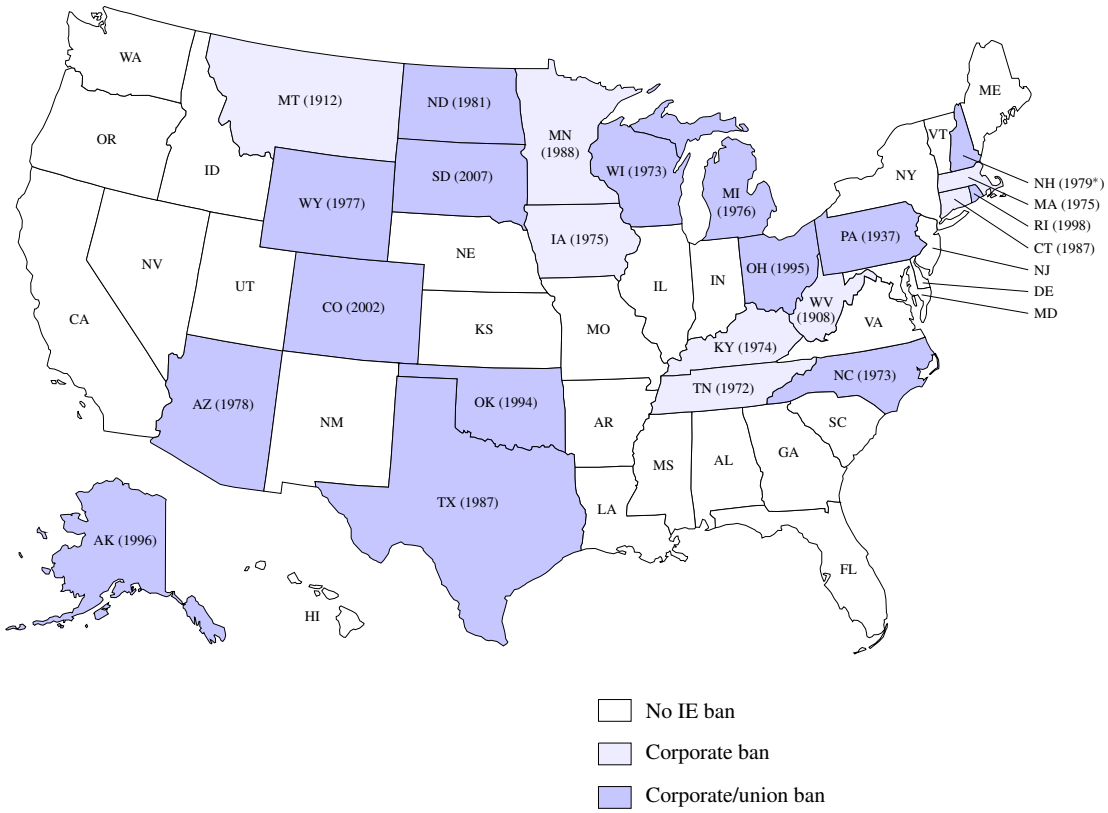
*Donations to top 10 fundraising Super PACs:*

| Donor interest | 2010 | | 2012 | |
|---|---|---|---|---|
| | Republican Super PACs ($1,000) | Democrat Super PACs ($1,000) | Republican Super PACs ($1,000) | Democrat Super PACs ($1,000) |
| Business | 31,688 | 4,118 | 265,450 | 79,868 |
| Labor | 0 | 13,413 | 0 | 75,216 |
| Other/unknown | 10,417 | 6,427 | 71,393 | 41,293 |
| Total | 42,105 | 23,958 | 336,843 | 196,377 |
| Super PACs in top 10 | 6 | 4 | 5 | 5 |

Notes:

Super PAC is classified as "Republican" ("Democrat") if it supports only Republican (Democratic) candidates and opposes only Democratic (Republican) candidates; otherwise Super PAC orientation is "mixed/other". Donor interest is authors' classification based on Super PAC donor disclosure. Source: *Center for Responsive Politics* (http://www.opensecrets.org).

**Figure 1:** State restrictions on independent political expenditures by corporations and labor unions.




Notes:

Years in paranthesis are start years of state laws banning independent expenditures by corporations and unions. *Corporate ban repealed in 2000 and replaced with a $5,000 cap, the same as applies to individuals (NH AG Opinion 143270). Source: National Conference of State Legislatures (2012).

**Table 3:** Summary statistics, state legislative elections 2000–2012.

| | All states | | States without IE bans | | States with IE bans | |
|---|---|---|---|---|---|---|
| | House | Senate | House | Senate | House | Senate |
| Republican elected | 0.486 | 0.500 | 0.501 | 0.514 | 0.470 | 0.485 |
| | (0.500) | (0.500) | (0.500) | (0.500) | (0.499) | (0.500) |
| Republican incumbent | 0.395 | 0.435 | 0.404 | 0.449 | 0.384 | 0.421 |
| | (0.489) | (0.496) | (0.491) | (0.497) | (0.486) | (0.494) |
| Democrat incumbent | 0.438 | 0.462 | 0.415 | 0.447 | 0.463 | 0.479 |
| | (0.496) | (0.499) | (0.493) | (0.497) | (0.499) | (0.500) |
| Candidates per race | 2.247 | 2.304 | 2.235 | 2.305 | 2.260 | 2.303 |
| | (1.258) | (1.137) | (1.211) | (1.137) | (1.308) | (1.137) |
| Republican | 1.028 | 1.069 | 1.036 | 1.067 | 1.019 | 1.072 |
| | (0.844) | (0.781) | (0.835) | (0.792) | (0.853) | (0.769) |
| Democrat | 1.043 | 1.060 | 1.021 | 1.057 | 1.066 | 1.064 |
| | (0.865) | (0.773) | (0.836) | (0.806) | (0.895) | (0.737) |
| Per-capita contributions per race ($) | 2.140 | 1.543 | 2.182 | 1.774 | 2.095 | 1.300 |
| | (3.131) | (1.830) | (2.642) | (2.062) | (3.591) | (1.511) |
| Republican | 1.040 | 0.737 | 1.087 | 0.900 | 0.989 | 0.566 |
| | (1.967) | (1.119) | (1.753) | (1.323) | (2.177) | (0.819) |
| Democrat | 1.083 | 0.792 | 1.075 | 0.860 | 1.091 | 0.721 |
| | (2.241) | (1.264) | (1.782) | (1.402) | (2.654) | (1.097) |
| Number of races | 29,698 | 8,517 | 15,527 | 4,366 | 14,171 | 4,151 |

Notes:

Cells represent means, with standard deviations in parantheses. Contributions are reported in constant 2012 dollars.

**Table 4:** LPM estimates of the effect of *Citizens United* on Republican election probabilities.

| | 2000–2012 | | | | 2002–2010 | | | |
|---|---|---|---|---|---|---|---|---|
| | House | | Senate | | House | | Senate | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Repuplican incumbent | 0.229*** | 0.235*** | 0.195*** | 0.184*** | 0.146*** | 0.161*** | 0.118*** | 0.114*** |
| | (0.021) | (0.020) | (0.029) | (0.028) | (0.017) | (0.018) | (0.029) | (0.029) |
| Democrat incumbent | −0.258*** | −0.239*** | −0.255*** | −0.239*** | −0.172*** | −0.162*** | −0.161*** | −0.151*** |
| | (0.025) | (0.019) | (0.028) | (0.029) | (0.022) | (0.019) | (0.029) | (0.031) |
| Republican candidates | | 0.060*** | | 0.041*** | | 0.042*** | | 0.025*** |
| | | (0.010) | | (.009) | | (0.009) | | (.009) |
| Democrat candidates | | −0.043*** | | −0.042*** | | −0.026*** | | −0.021*** |
| | | (0.008) | | (.009) | | (0.006) | | (.007) |
| Republican contributions | | 0.017*** | | 0.032*** | | 0.015*** | | 0.028*** |
| | | (0.006) | | (.011) | | (0.004) | | (.011) |
| Democrat contributions | | −0.019*** | | −0.034*** | | −0.017*** | | −0.035*** |
| | | (0.005) | | (.009) | | (0.004) | | (.009) |
| IE ban × Post-*CU* | 0.041** | 0.041** | 0.051 | 0.041 | 0.051** | 0.049** | 0.069 | 0.059 |
| | (0.020) | (0.020) | (0.047) | (0.045) | (0.024) | (0.023) | (0.051) | (0.048) |
| $N$ | 29,698 | 29,698 | 8,517 | 8,517 | 21,656 | 21,656 | 6,168 | 6,168 |
| $R^2$ | 0.773 | 0.790 | 0.761 | 0.774 | 0.803 | 0.812 | 0.792 | 0.800 |

Notes:

All regressions include election year fixed effects, district fixed effects (which subsume state fixed effects), state-specific time trends, and state-year demographic controls (percent population aged 15–29 / 30–44, percent black, percent high school / some college / bachelors, and average household income in constant 2012 dollars). Numbers in parantheses are robust standard errors adjusted for clustering on states. Stars denote statistical significance: * significant at 10%; ** significant at 5%; *** significant at 1%.

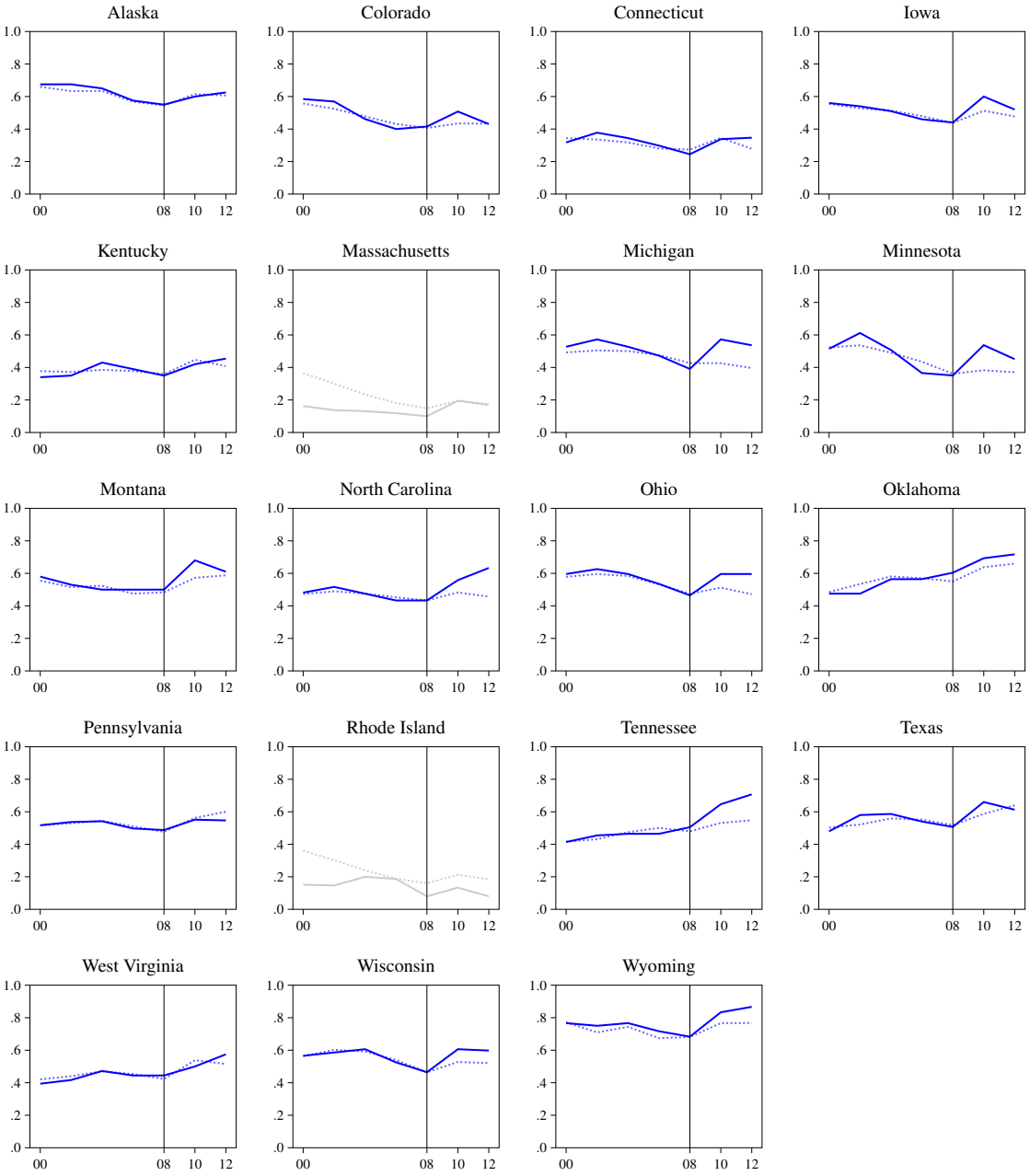
**Table 5:** Composition of synthetic controls for states affected by *Citizens United* in analysis of Republican House election probabilities.

| **Control states** | **Treated states** | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AK | CO | CT | IA | KY | MA | MI | MN | MT | NC | OH | OK | PA | RI | TN | TX | WI | WV | WY |
| AR | | | | | | | | | .356 | | | | | .037 | | | | | .053 |
| CA | .040 | .151 | | | | | .692 | .084 | .195 | | .189 | | | | | | | | |
| DE | .024 | | .019 | .038 | | | .149 | .361 | | .028 | .153 | | .116 | | | .122 | .344 | | |
| FL | | | | | | | | | | | .271 | | .083 | | | | | | .080 |
| GA | | | | | .128 | | | | | | | .142 | | | .469 | .243 | | .102 | |
| HI | | .126 | .066 | | | .806 | | .148 | .031 | .042 | .058 | | | .735 | | | .035 | | |
| ID | .347 | .104 | | .187 | | | .159 | | .415 | .034 | .107 | .021 | .036 | | | | .035 | | .647 |
| IL | | | | .177 | | | | | | .054 | | | .132 | | | | | | |
| IN | | | | | .032 | | | | | | | | .592 | | | .417 | .180 | .113 | |
| KS | | | | | | | | | | | | | | | | | | | .220 |
| ME | | | .030 | | .075 | | | | | | | | | | | | .202 | .270 | |
| MO | | | | | | | | | | | | .581 | | | | | .012 | .152 | |
| NM | | | | .308 | .359 | | | | .003 | | | .133 | .038 | | .248 | .075 | | .363 | |
| NV | | | | | | | | | | .143 | | | | | .219 | | | | |
| NY | | | .885 | | .406 | .194 | | .078 | | .261 | | | | .228 | | | | | |
| OR | .237 | | | .171 | | | | | | | .222 | | | | | | | | |
| SC | | | | | | | | | | .437 | | | | | | | | | |
| UT | .116 | .178 | | | | | | .094 | | | | .123 | .002 | | .064 | .144 | .191 | | |
| VT | | .358 | | .119 | | | | .019 | | | | | | | | | | | |
| WA | .236 | .084 | | | | | | .215 | | | | | | | | | | | |
| RMSPE | .021 | .029 | .029 | .010 | .029 | .130 | .040 | .047 | .022 | .015 | .017 | .037 | .008 | .123 | .023 | .032 | .012 | .019 | .028 |

Notes:

Columns contain states affected by *Citizens United*. Rows contain potential donor states (not affected by *Citizens United*). Entry in row $s$ and column $t$ represents weight of donor state $s$ in synthetic state $t$ (zero weights omitted). RMSPE = root mean squared prediction error.

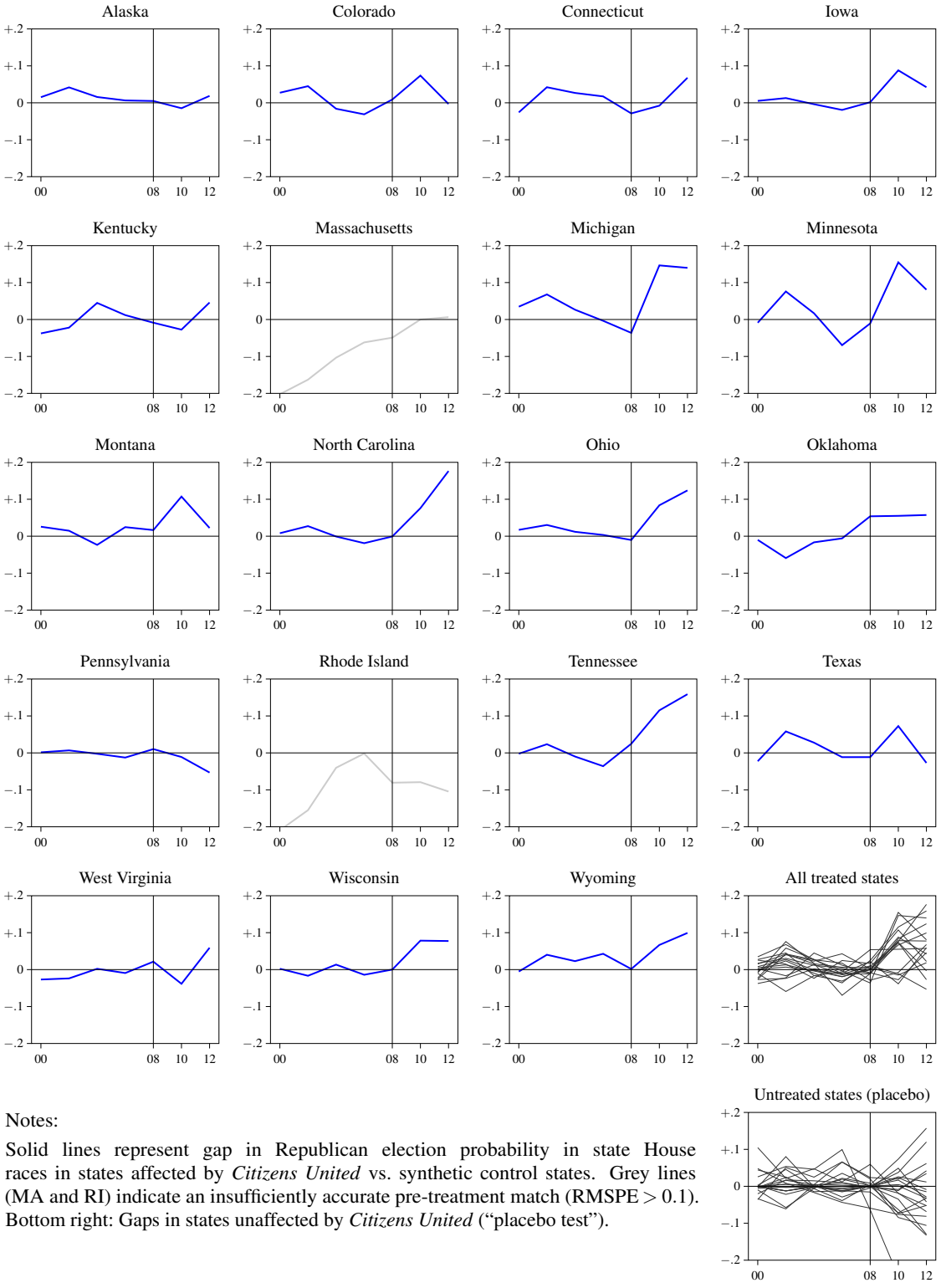
**Figure 2:** Republican election probability in state House races in states affected by *Citizens United* vs. synthetic control states.




Notes:

Solid lines represent Republican election probability in state House races in states affected by *Citizens United*. Dotted lines represent Republican election probability in state House races in synthtetic control states. Grey lines (MA and RI) indicate an insufficiently accurate pre-treatment match (RMSPE $> 0.1$).

**Figure 3:** Gap in Republican election probability in state House races in states affected by *Citizens United* vs. synthetic control states.




Notes:

Solid lines represent gap in Republican election probability in state House races in states affected by *Citizens United* vs. synthetic control states. Grey lines (MA and RI) indicate an insufficiently accurate pre-treatment match (RMSPE $> 0.1$). Bottom right: Gaps in states unaffected by *Citizens United* ("placebo test").

**Table 6:** OLS estimates of the effect of *Citizens United* on the number of candidates per race, 2000–2012.

| | House | | | Senate | | |
|---|---|---|---|---|---|---|
| | Candidates | Republican candidates | Democrat candidates | Candidates | Republican candidates | Democrat candidates |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Repuplican incumbent | $-1.397^{***}$ | $-0.697^{***}$ | $-0.612^{***}$ | $-0.791^{***}$ | $-0.350^{***}$ | $-0.371^{***}$ |
| | (0.138) | (0.107) | (0.062) | (0.132) | (0.087) | (0.069) |
| Democrat incumbent | $-1.406^{***}$ | $-0.647^{***}$ | $-0.662^{***}$ | $-0.889^{***}$ | $-0.437^{***}$ | $-0.340^{***}$ |
| | (0.154) | (0.072) | (0.116) | (0.155) | (0.086) | (0.076) |
| IE ban $\times$ Post-*CU* | $-0.182^{*}$ | $-0.070$ | $-0.089^{*}$ | 0.055 | 0.025 | 0.050 |
| | (0.099) | (0.056) | (0.053) | (0.223) | (0.141) | (0.103) |
| $N$ | 29,698 | 29,698 | 29,698 | 8,517 | 8,517 | 8,517 |
| $R^2$ | 0.375 | 0.408 | 0.417 | 0.215 | 0.329 | 0.329 |

Notes:

All regressions include election year fixed effects, district fixed effects (which subsume state fixed effects), state-specific time trends, and state-year demographic controls (percent population aged 15–29 / 30–44, percent black, percent high school / some college / bachelors, and average household income in constant 2012 dollars). Numbers in parantheses are robust standard errors adjusted for clustering on states. Stars denote statistical significance: $^{*}$ significant at 10%; $^{**}$ significant at 5%; $^{***}$ significant at 1%.

**Table 7:** OLS estimates of the effect of *Citizens United* on direct contributions per race, 2000–2012.

| | House | | | Senate | | |
|---|---|---|---|---|---|---|
| | Contributions | Republican contributions | Democrat contributions | Contributions | Republican contributions | Democrat contributions |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Repuplican incumbent | $-0.344^{***}$ | 0.076 | $-0.384^{***}$ | $-0.072$ | $0.115^{*}$ | $-0.152^{**}$ |
| | (0.121) | (0.073) | (0.082) | (0.108) | (0.063) | (0.066) |
| Democrat incumbent | $-0.267^{**}$ | $-0.403^{***}$ | $0.173^{**}$ | 0.097 | $-0.103^{*}$ | $0.234^{***}$ |
| | (0.119) | (0.085) | (0.082) | (0.105) | (0.062) | (0.075) |
| Repuplican candidates | $0.696^{***}$ | $0.578^{***}$ | $0.126^{***}$ | $0.540^{***}$ | $0.457^{***}$ | $0.088^{***}$ |
| | (0.089) | (0.074) | (0.031) | (0.072) | (0.066) | (0.026) |
| Democrat candidates | $0.610^{***}$ | $0.069^{**}$ | $0.546^{***}$ | $0.524^{***}$ | $0.089^{***}$ | $0.436^{***}$ |
| | (0.101) | (0.032) | (0.080) | (0.074) | (0.033) | (0.064) |
| IE ban $\times$ Post-*CU* | $-0.308$ | $-0.147$ | $-0.157$ | $-0.202$ | 0.060 | $-0.276^{*}$ |
| | (0.218) | (0.117) | (0.136) | (0.171) | (0.119) | (0.140) |
| $N$ | 29,698 | 29,698 | 29,698 | 8,517 | 8,517 | 8,517 |
| $R^2$ | 0.514 | 0.429 | 0.641 | 0.431 | 0.462 | 0.498 |

Notes:

All regressions include election year fixed effects, district fixed effects (which subsume state fixed effects), state-specific time trends, and state-year demographic controls (percent population aged 15–29 / 30–44, percent black, percent high school / some college / bachelors, and average household income in constant 2012 dollars). Numbers in parantheses are robust standard errors adjusted for clustering on states. Stars denote statistical significance: $^{*}$ significant at 10%; $^{**}$ significant at 5%; $^{***}$ significant at 1%.

## Appendix A: Detailed Legal Background

In this section we provide additional background on how *Citizens United* affected the ability of independent expenditure groups to engage in political speech and to fund their activities through corporate and union contributions. We begin with a few definitions necessary for understanding the regulation of independent expenditures.

The content of political ads can be divided into three categories: *Express advocacy*, which calls for the election or defeat of candidates; *electioneering communications*, which mention a candidate by name shortly before an election but stop short of express advocacy; and *issue advocacy*, which promotes or attacks a political cause instead of a candidate.[21] Political ads must generally mention the party responsible for them. Thus, if an individual, a business, or a labor union makes an independent expenditure firsthand, the audience will become informed about their identity. If the ad is paid for by an intermediary, the intermediary's name must be mentioned in the ad; however, this name is often uninformative about who paid the intermediary. For this reason, intermediary groups may be required to disclose their donors through mandatory filings with the Federal Election Commission ("FEC") or state election commissions, which in turn publicize this information (*public disclosure*). In addition, intermediaries must also disclose their donors to the Internal Revenue Service ("IRS") and state revenue agencies for tax purposes, but these agencies generally do not publicize the information they receive (*private disclosure*).[22] The choice of intermediary involves a tradeoff between how much money a corporation or union can give to a group, what type of advertising the group is allowed to use the money for, and whether the group must publicly disclose its donors.

Three types of groups can act as conduits for corporate and union independent expenditures: Political action committees (PACs), 527 groups, and 501(c) groups.[23]

1. PACs are organizations that can make campaign contributions as well as independent expenditures. They are typically limited in the amount they can donate to a candidate's campaign, but are allowed to make unlimited independent expenditures, including inde-

[21] Some campaign finance laws use the term "independent expenditure" exclusively for political advertising that involves express advocacy. We follow the nomenclature established in the economics literature and use the term "independent expenditure" to include any kind of political advertising not coordinated with a campaign.

[22] One exception is information from "527 groups" (described below), which the IRS makes available on the internet.

[23] For legal analyses of these groups, see Briffault (2012) and Lunder and Whitaker (2013).

pendent expenditures that constitute express advocacy. Because PACs can make campaign contributions, they are typically limited in the amount of contributions they can accept from individuals, corporations, unions, and other organizations, and they must publicly disclose all donors and expenditures. *Citizens United* did not affect these restrictions for PACs that actually contribute to campaigns. However, along with *Speechnow.org v. FEC* (2010), the decision permitted the creation of so-called Super PACs.[24] These are PACs that only make independent expenditures. As such, Super PACs are not subject to the campaign contribution limits imposed on traditional PACs, and they are permitted to accept unlimited donations from individuals, corporations, and unions, but must still publicly disclose their donors.

2. 527 groups are political organizations registered under Section 527 of the Internal Revenue Code.[25] They can raise unlimited amounts from individuals, corporations, and unions, but must publicly disclose their donors. 527s are prohibited from making campaign contributions and cannot engage in express advocacy, but are permitted to engage in issue advocacy and make electioneering communications. Before *Citizens United*, 527s could only use individual donations, but not corporate and union donations, to fund electioneering communications. (Corporate and union donations could be used for issue advocacy, however.) After *Citizens United*, 527 groups can use donations from corporations and unions to fund electioneering communications.

3. 501(c)(4), 501(c)(5), and 501(c)(6) groups are non-profit organizations, registered under Section 501(c) of the Internal Revenue Code, whose goals are to promote social welfare, improve labor conditions, and improve business conditions, respectively.[26] These groups can raise unlimited amounts from individuals, corporations, and unions, and they do not have to publicly disclose their donors. They cannot make campaign contributions, but

[24] Well-known Super PACs include Karl Rove's "American Crossroads."

[25] Well-known 527s include the Koch-funded "Americans for Prosperity Foundation." While most PACs and Super PACs are also registered under IRS code 527, the term "527 group" is commonly understood to mean groups that are not PACs or Super PACs.

[26] Well-known 501(c)(4) groups include "Americans for Prosperity" (the 501(c)(4) arm of "Americans for Prosperity Foundation") and "Crossroads GPS" (the 501(c)(4) arm of "American Crossroads"). Well-known 501(c)(6) groups include the U.S. Chamber of Commerce.

can engage in political advocacy as long as it is not their primary activity.[27] Before *Citizens United*, 501(c) groups were subject to the following restrictions: those that were incorporated could not engage in express advocacy, and those that were non-incorporated could engage in express advocacy, but could only use individual donations (not corporate or union donations) to fund it. After *Citizens United*, these groups can accept corporate and union donations to fund express advocacy.

# Appendix B: Review of Qualitative Evidence of Independent Spending in 2010 and 2012

In this section we provide a detailed account of several independent expenditure campaigns in the 2010 and 2012 state elections. Section 6.2 of the main paper contains an abridged version of the material presented below. Section B.1 focuses on independent spending efforts during the 2010 elections which are not linked to the Republican State Leadership Committee's "Redmap" strategy (which is described in detail Section 6.1 of the main paper). Section B.2 reviews independent spending initiatives that influenced the 2012 elections.

## B.1 2010 state-level initiatives not linked to "Redmap"

In addition to the RSLC's "Redmap" strategy, other independent expenditure groups funded by corporations played a significant role in the 2010 state elections. As was the case for "Redmap," these initiatives would not have been feasible prior to *Citizens United*.

In North Carolina's 2010 elections, eleven outside groups (not including the RSLC) spent $2.6 million, nearly 92 percent of which was used to support Republican candidates (North Carolina Free Enterprise Foundation 2011). Three groups, Real Jobs NC (RJNC), Americans for Prosperity (AFP), and Civitas Action (CVA), accounted for 72 percent of this outside spending. All three groups are connected with Art Pope, the Chairman and CEO of discount store chain Variety Wholesalers (Mayer 2011). Although the corporate donors of APF and CVA cannot be traced, IRS records indicate that Mr. Pope funded RJNC directly from the treasury of his company, Variety Wholesalers (Center for Responsive Politics 2010d). RJNC targeted 19 House and Senate

[27] The IRS has traditionally interpreted "primary activity" to mean that political advocacy cannot exceed 50% of a group's expenditures (Reilly, Hull, and Braig Allen 2003).

races in North Carolina in 2010. In 16 of them, a Republican challenger defeated a Democratic incumbent. Altogether, the three groups associated with Mr. Pope targeted 27 races and were successful in 20. Republicans gained state House and Senate majorities in North Carolina, which they had not held since 1870 (Parkinson 2011b).

In Minnesota, corporations were instrumental in the Republican takeover of the state's legislature in 2010 (TakeAction Minnesota 2012). Two 501(c)(6) groups, the Coalition of Minnesota Businesses (CMB) and the Minnesota Chamber of Commerce (MCC), spent over $\$400,000$ on independent expenditures in support of 15 Republican candidates, resulting in 12 new Republican House members. On average, CMB and MCC spent $\$28,300$ on each of their 12 successful campaigns, accounting for 34% of money spent in these campaigns and exceeding direct contributions to candidates by a margin of nearly 2 to 1. Among the big contributors to the MCC were several large banks, and the Chair of the MCC in 2010 was Executive Vice President of Wells Fargo, Jon Campbell.

Outside groups were also influential in Montana elections. Investigations by the Montana Commissioner of Political Practices and PBS Frontline (PBS 2012) exposed documents from Western Tradition Partnership (WTP), a 501(c)4 organization that has a stated goal of "advancing reasonable resource development and stopping radical environmentalism." The documents offer a rare glimpse into the workings of a politically active 501(c)4. For instance, they reveal a secret script used by WTP's fundraisers:

> We're a 501(c)4 organization. Corporate contributions are completely legal under this program. There's no limit on how much you can give. It's confidential. We're not required to report the name of any contributor or amount of any contribution that we receive. No politician, no bureaucrat, no radical environmentalist will ever know that you helped to make this program possible. You can just sit back on election night and see what a difference you've made. (PBS 2012)

The documents, including a folder entitled "Montana $ Bomb," describe WTP's plan to raise and spend $\$537,000$ on legislative races in Montana. The plan would fund support for 23 conservative candidates and a list of opposing candidates to be attacked with negative mailers. In the 2010 elections, Republicans picked up 17 House seats in Montana.

In Colorado, one of the largest independent spenders in the 2010 state elections was a conservative 527 group called Colorado Citizens for Accountable Government, which spent $1,589,150 in targeting various state House and Senate races (Parkinson 2011a). Extensive research by Kersgaard (2012) revealed that the group received substantial funds from another 527 group called the Colorado Leadership Fund Political Committee, which received substantial donations from yet another 527 group called the Colorado Leadership Fund. This chain of 527s may have afforded some degree of anonymity to corporate donors. Among the large donors to the Colorado Leadership Fund in 2010 were Farmers Insurance, PHRMA, and Altria/Philip Morris.

Lastly, in Tennessee, the top independent spender in the state's 2010 elections was the Tennessee Legislative Campaign Committee (TLCC), a 527 group that made $931,244 in independent expenditures targeting state House and Senate races (Quist 2011). The TLCC received over $500,000 in contributions from the Republican Governors Association (RGA) in the final weeks of the elections, which it used to pay for mass mailings to benefit state legislative campaigns (Humphrey 2010). The RGA's top contributors in 2010 were Perry Homes, the Michigan Chamber of Commerce, and Elliott Management (Center for Responsive Politics, 2010e).[28]

## B.2 Independent spending in the 2012 elections

An important development in 2012 was the emergence of independent spending campaigns by labor unions. The largest-spending union was the American Federation of State, County and Municipal Employees (AFSCME), which contributed over $10 million to various independent spending groups in 2012 (Suderman and Wieder 2013). In Colorado, the AFSCME helped fund three liberal groups that all supported Democratic candidates or opposed Republican candidates: the Colorado Accountable Government Alliance, the Coalition for Colorado's Future, and the Community Information Project. Together, these three groups spent over $4.4 million on several legislative races in 2012, accounting for 60% of reported independent spending in the state. In Minnesota, one of the largest-spending outside group in 2012 was another liberal organization, the Alliance for a Better Minnesota, which spent more than $1.9 million on legislative races. The group was funded by labor unions and individuals via a chain of intermediaries. The

[28]The RGA was the largest independent spender in the 2010 state elections, spending over $26.5 million primarily on gubernatorial races (McNellis and Parkinson 2012). Among the RGA's targets were gubernatorial races in Ohio ($11.7 million), Wisconsin ($3.5 million), and Oklahoma ($438,199). These expenditures may have affected state House and Senate races since gubernatorial elections can have "coattail" effects in legislative elections (Hogan 2005).

AFSCME contributed approximately $780,000 to independent expenditure efforts in the state, and another union, the National Education Association, contributed $220,000. In both Colorado and Minnesota, Democrats regained a state House majority in 2012. It is plausible that the weakening of the *Citizens United*-effect in our synthetic control estimations for these states in 2012 (see Figure 3 in the paper) can be explained by the emergence of union independent spending.

Despite these independent expenditures by labor unions in 2012, however, corporations seemed to remain stronger spenders overall. In particular, many of the conservative groups that had made large independent expenditures supporting Republican candidates in the 2010 elections continued to be influential in 2012. The RSLC raised and spent approximately $40 million in the 2012 state elections (Center for Responsive Politics 2012). In North Carolina, ten outside groups, including RJNC and APF, spent over $13 million on 2012 state races, over 70 percent of which was used to support Republican candidates, and Republicans gained veto-proof super-majorities in both the state House and state Senate (Kromm 2013). In Tennessee, the largest independent spender in 2012 was once again the Tennessee Legislative Campaign Committee (TLCC), which spent over $400,000 targeting 21 House races (National Institute for Money in State Politics 2013). These sustained conservative efforts may explain why the effect of *Citizens United* on Republican election probabilities remained positive in most states after 2010, and the size of the effect has in fact increased in North Carolina and Tennesse.[29]

## References (Appendix)


[1] Briffault, Richard (2012). "Super PACs." *Minnesota Law Review* 96, 1644–1693.

[2] Center for Responsive Politics (2010d). "Real Jobs NC: Top Contributors, 2010 Cycle." http://www.opensecrets.org/527s/527cmtedetail_contribs.php?cycle=2010&ein=272515965 (accessed 12/20/2013).


[29] Corporations are likely to continue to be influential in the 2014 elections. The U.S. Chamber of Commerce has already announced a plan to spend over $50 million on selecting business-friendly candidates in Republican primaries in the 2014 elections (King and O'Connor 2013).

[3] Center for Responsive Politics (2010e). "Republican Governors Association: Top Contributors, 2010 Cycle." http://www.opensecrets.org/527s/527cmtedetail_contribs.php?ein=050532524&cycle=2010 (accessed 12/20/2013).

[4] Center for Responsive Politics (2012a). "Republican State Leadership Cmte: Overview." http://www.opensecrets.org/527s/527cmtedetail.php?ein=050532524&cycle=2012 (accessed 12/20/2013).

[5] Hogan, Robert (2005). "Gubernatorial Coattail Effects in State Legislative Elections." *Political Research Quarterly* 61, 458–467.

[6] Humphrey, Tom (2010). "Republican Governors Fund Fuels Tennessee Races." *KnoxNews*, October 13.

[7] Kersgaard, Scot (2012). "Colorado GOP Donors Fly Below the Radar with Maze of 527 Committees." *The Colorado Independent*, April 23.

[8] King Jr., Neil and Patrick O'Connor (2013). "Republican Leaders, Allies Aim to Diminish Clout of Most-Conservative Activists." *Wall Street Journal*, December 25.

[9] Kromm, Chris (2013). "Big Money in NC: Outside Groups Unleashed $14.5 Million in State Races." *Facing South*, January 25.

[10] Lunder, Erika K. and L. Paige Whitaker (2013). "501(c)4s and Campaign Activity: Analysis Under Tax and Campaign Finance Laws." Congressional Research Service, CRS Report for Congress, R40183. http://fas.org/sgp/crs/misc/R40183.pdf (accessed 12/20/2013).

[11] Mayer, Jane (2011): "State for Sale." *The New Yorker*, October 10.

[12] McNellis, Kevin and Robin Parkinson (2012). "Independent Spending's Role in State Elections, 2006–2010." http://www.followthemoney.org/press/ReportView.phtml?r=481 (accessed 12/20/2013).

[13] North Carolina Free Enterprise Foundation (2011): "About the Capital: GOP Legislative Candidates Benefit $10-to-$1 from Outside Spending." http://www.ncfef.org/NCFEF_News/Entries/2011/2/24_GOP_Legislative_Candidates_Benefit_%2410-to-%241_from_Outside_Spending.html (accessed 12/20/2013).

[14] National Institute for Money in State Politics (2013): "Tennessee 2012: Independent Spending." http://www.followthemoney.org/database/StateGlance/state_ie_spenders.phtml?s=TN&y=2012 (accessed 12/20/2013).

[15] Parkinson, Robin (2011a). "Independent Spending in Colorado, 2006–2010." National Institute for Money in State Politics Report. http://www.followthemoney.org/press/ReportView.phtml?r=458 (accessed 12/20/2013).

[16] Parkinson, Robin (2011b). "Independent Spending in North Carolina, 2006–2010." National Institute for Money in State Politics Report. http://www.followthemoney.org/press/ReportView.phtml?r=472 (accessed 12/20/2013).

[17] PBS (2012). "Big Sky, Big Money: How has the Supreme Court's *Citizens United* decision changed campaigns in America?" *Frontline*, October 30. http://www.pbs.org/wgbh/pages/frontline/big-sky-big-money/ (accessed 12/20/2013).

[18] Politico (2013). "2012 Swing States." http://www.politico.com/2012-election/swing-state/ (accessed 12/20/2013).

[19] Quist, Peter (2011). "Independent Spending in Tennessee, 2006–2010." National Institute for Money in State Politics Report. http://www.followthemoney.org/press/ReportView.phtml?r=467 (accessed 12/20/2013).

[20] Reilly, John F., Carter C. Hull, and Barbara A. Braig Allen (2003). "IRC 501(c)(4) Organizations." http://www.irs.gov/pub/irs-tege/eotopici03.pdf (accessed 12/20/2013).

[21] Suderman, Alan and Ben Wieder (2013): "'Citizens United' Ruling Helped Unions Win State Elections." The Center for Public Integrity, http://www.publicintegrity.org/2013/11/14/13691/citizens-united-ruling-helped-unions-win-state-elections (accessed 12/20/2013).

[22] TakeAction Minnesota (2012). "The 1% Versus Democracy in Minnesota: Following the Money Behind the Photo ID Amendment." http://www.theuptake.org/wp-content/uploads/2012/02/TakeActionPhotoIDReport.pdf (accessed 12/20/2013).