The Business of American Democracy:

*Citizens United*, Independent Spending, and Elections*

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

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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 reelection rates, candidate entry, and direct contributions. Implications for national elections and economic policy are discussed.

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

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†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 those 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 six 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. When controlling for a number of observable race-level characteristics—the party of the incumbent (in races with an incumbent), the number of candidates in each party, and direct campaign contributions raised by the candidates—we find that *Citizens United* is associated with a statistically significant increase of approximately four percentage points in the probability that a Republican candidate is elected in state House races. This suggests that part of the overall *Citizens United*-effect could be explained through an impact on the reelection probability of incumbent office holders, the decision to enter a race (including the decision to run for reelection), and the campaign contributions a candidate can raise directly. Examining each of these channels separately, we indeed find that *Citizens United* is associated with a statistically significant increase of approximately five percentage points in the probability that a Republican incumbent is running for reelection, and of approximately six percentage points in the probability that a Republican incumbent is reelected conditional on seeking reelection, in state House races. Furthermore, *Citizens United* is associated with a statistically significant decrease in the number of Democratic
candidates entering state House races (one Democratic candidate drops out of approximately every tenth race affected by *Citizens United*).

We also conduct a state-by-state assessment of the ruling’s effects on state House elections, through both difference-in-differences regression analysis and synthetic control techniques. Our results reveal 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, 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.

What is the “big picture” implied by 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.¹ *Citizens United* has given corporations and labor unions new means of influencing political elections. We argue in Section 4 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. As we demonstrate in Section 7.3, corporations making large independent political expenditures include firms in the health care, tobacco, communications, energy, banking, and home building industries. To the extent that corporations have advantages

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over unions in making independent expenditures, one might expect their interests to be more reflected in public policies over time.²

The remainder of the paper is organized as follows. In Section 2 we review previous research and locate our contributions within the existing literature. In Section 3 we explain the institutional framework for outside spending in elections in the United States, the evolution of this framework leading up to 2010, and the changes that followed Citizens United. In Section 4 we formulate our hypotheses concerning the effects of Citizens United on election probabilities, reelection probabilities, candidate entry, and direct contributions. In Section 5 we describe our dataset. In Section 6 we describe and estimate our difference-in-differences regression model, and present our regression results. In Section 7 we use both regression analysis and a synthetic control analysis to obtain state-specific treatment effects, which we relate to case-based evidence on corporate independent spending in the 2010 state elections. Section 8 concludes with a discussion of broader implications of Citizens United and possible regulatory responses. An Appendix contains a more detailed account of independent spending efforts in state elections in 2010 and 2012.

2 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 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

²The shift toward more business-oriented policies 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 see 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 effects on actual policies in this paper. Our analytical focus is on the relatively short-term consequences of Citizens United, measured by its effects on election probabilities.
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 until recently, but has become a focus of inquiry after \textit{Citizens United} was decided in 2010. Spencer and Wood (2014) examine the effects of \textit{Citizens United} on the level and composition of independent political expenditures in the U.S. states. They find that \textit{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.\(^4\) Using event study methods, Werner (2011) finds that \textit{Citizens United} did not affect firms’ stock prices; however, 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 \textit{Citizens United} may primarily help to advance the interests of managers, resulting in weaker investor protection rules and weaker

\(^3\)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).

\(^4\)We provide a more detailed discussion of their results in Section 4.1, where we review the evidence that \textit{Citizens United} affected independent expenditures.
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 two post-*Citizens United* cycles, 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. We also shed light on the possible mechanisms through which *Citizens United* has affected elections. Specifically, we find that *Citizens United* increased the reelection chances of Republican incumbents, increased the likelihood that Republican incumbents run for reelection, and decreased the number of Democratic candidates in elections.

3 Institutional 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 and tax law 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.

To understand the legal, economic, and political consequences of this decision, we need to introduce some additional background information. We do this in Section 3.1, where we describe the different categories of political advertising and the organizations that act as intermediaries for independent expenditures; and in Section 3.2, where we describe how the role of independent expenditures in the political process evolved over time, leading up to *Citizens United* in 2010. In Section 3.3, finally, we outline the specific consequences of *Citizens United* for corporate and union independent expenditures.

### 3.1 Independent political expenditures and their intermediaries

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.\(^5\) Regardless of its content, a political ad must generally mention the party responsible for it. 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 funded the intermediary. For this reason, intermediary groups may be required to disclose their donors through mandatory

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\(^5\)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.
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). The choice of intermediary involves a tradeoff between how much money a donor 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 independent expenditures: Political action committees (PACs), 527 groups, and 501(c) groups. 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 independent expenditures that constitute express advocacy. Because PACs can make campaign contributions, they are typically also 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. 527 groups are political organizations registered under Section 527 of the Internal Revenue Code. 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. Finally, 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. These groups can raise unlimited amounts from individuals, corporations, and unions, and they do not have to publicly disclose their donors. They cannot

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6One exception is information from “527 groups” (described below), which the IRS makes available on the internet.
7For legal analyses of these groups, see Briffault (2012) and Lunder and Whitaker (2013).
8Well-known 527s include the Koch-funded “Americans for Prosperity Foundation.” While most PACs are also registered under IRS code 527, the term “527 group” is commonly understood to mean groups that are not PACs.
9Well-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 the Super PAC “American Crossroads”). Well-known 501(c)(5) groups include the AFL-CIO. Well-known 501(c)(6) groups include the U.S. Chamber of Commerce.
make campaign contributions, but can engage in political advocacy, including express advocacy, as long as it is not their primary activity.\footnote{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).}

### 3.2 The road to *Citizens United*: A brief history

In the late 1980s, wealthy individuals, corporations, unions, and other organizations discovered that they could make donations to political parties in order to circumvent traditional campaign finance regulations that capped donations to individual candidates. No limits existed on these so-called “soft money” contributions, and while party committees could not forward soft money receipts to individual campaigns, they could use them to purchase issue ads and electioneering communications that supported these campaigns indirectly. “Soft money” was, in effect, a form of independent expenditure, and political parties were intermediaries through which these expenditures could be made. “Soft money” donations grew rapidly during the 1990s alongside mounting public pressure to reign in the influence of “soft money” donors. This development culminated in the 2002 *Bipartisan Campaign Reform Act* (BCRA), popularly known as the McCain-Feingold Act. The BCRA prohibited unlimited “soft money” contributions by individuals, corporations, and unions to national party committees, starting with the 2004 election cycle.

After the BCRA had gone into effect, donors sought alternative channels through which they could influence elections—outside groups not affiliated with political parties, in particular 527 and 501(c) groups. This arrangement was only an imperfect substitute for the previous “soft money” channel, as campaign finance and tax laws limited the amount these groups could raise, the portion they could spend on political advertising, and the types of ads they could purchase. Several legal challenges to these restrictions were mounted during the 2000s. Importantly, in the 2007 case of *FEC v. Wisconsin Right to Life, Inc.* the Supreme Court held that incorporated non-profit organizations could make electioneering communications as long as they were not the functional equivalent of express advocacy.

The *Wisconsin Right to Life* ruling was narrow, however, and applied only to expenditures by certain 501(c)4 groups. Considerable ambiguity remained over the legality of independent political expenditures in general. Even though the hypotheses we develop in Section 4 are based on the likely effects of allowing corporations and unions to make independent expenditures,
this “legal cloud” may have affected certain individual expenditures as well. For example, Hasen (2012) documents concerns during the 2008 elections that individuals making independent expenditures through 527s could face criminal liability. In 2010, the Supreme Court eliminated this uncertainty in its Citizens United ruling. The decision broadly affirmed a First Amendment right to make unlimited independent political expenditures, and mandated the equal treatment of these expenditures, regardless of whether they are made by corporations, unions, or individuals.

3.3 Citizens United and the political speech by corporations and unions

Citizens United 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 in efforts to influence elections anywhere in the United States. Second, it lifted significant constraints on intermediary groups through which corporations and unions could make independent expenditures. While Citizens United did not affect spending or fundraising restrictions for PACs that actually contribute to political campaigns, it led to the creation of so-called Super PACs. 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. In addition, Citizens United affected prior restrictions placed on 527 and 501(c) groups. 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. Similarly, 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 (but not corporate or union donations) to fund it. After Citizens United, these groups can accept corporate and union donations to fund express advocacy.

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11Super PACs were enabled by a separate federal court decision following Citizens United (Speechnow.org v. FEC, United States Court of Appeals for the District of Columbia No. 09-5223, 2010).
12Well-known Super PACs include Karl Rove’s “American Crossroads,” the “Club for Growth Action Fund,” and “Freedom Works for America.” Some large Super PACs are assembled to support a single campaign. In the 2012 elections, for example, “Restore Our Future” (supporting Mitt Romney) and “Priorities USA Action” (supporting Barack Obama) were the second largest and third largest Super PACs, respectively.
In sum, these changes 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. (Furthermore, to the extent that the legality of certain independent expenditures by individuals was ambiguous prior to 2010, *Citizens United* also dissipated this “legal cloud” and thus made the same channels available to all donors.) In Section 7.3, we illustrate these mechanisms by documenting specific instances of corporate and union independent spending in the 2010 and 2012 elections that were enabled by *Citizens United*.

4 The Effects of *Citizens United* on Elections: Hypotheses

4.1 Main hypothesis

Our main hypothesis concerns the effects of *Citizens United* on Republican election probabilities. It is based on the following premises: (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.

To support the first of these premises, let us consider non-party independent spending at the national level. Figure 1 plots independent spending in federal elections since 1990, as reported to the FEC. These figures include spending on express advocacy and electioneering communications, but not issue advocacy. Independent spending by non-party groups increased markedly in 2004 (the year of the “Swiftboat” ads). It then fell in the 2006 midterm cycle but increased again in 2008. Two events can account for the pre-*Citizens United* upward trend in non-party spending: the BCRA, which prohibited unlimited “soft money” contributions to parties, and thereby redirected some contributions to outside groups, in particular 527s;\(^\text{13}\) and the 2007 *Wisconsin Right to Life* decision, which allowed certain 501(c)4 groups to make electioneering communications. In the 2010 midterm elections—the first post-*Citizens United* elections—indepen}\(^\text{13}\)dent spending

\(^{13}\)At the same time, the BCRA introduced new reporting requirements for electioneering communications, a category that did not previously exist. May (2005) documents a number of costly independent political advertising campaigns during the 1990s, funded primarily by wealthy individuals, and these expenditures would have been reported as electioneering communications under the BCRA. Thus, the surge in spending by party committees and non-party groups in 2004 also reflects the fact that electioneering communications were now being reported for the first time.
remained at similar levels as in the 2008 presidential election. However, in 2012, independent spending rose again sharply, by over 200% compared to 2008, and surpassed the $1 billion threshold for the first time. Independent spending by party committees, on the other hand, remained flat after *Citizens United*. Post-*Citizens United* spending was mainly driven by express advocacy groups, that is, 501(c) groups and Super PACs, which together accounted for 76% of total non-party spending in 2010, and 91% in 2012. Significantly, Super PACs—which did not even exist four years earlier—spent $609 million in the 2012 presidential elections (59% of total non-party spending).

There is also evidence that lifting pre-*Citizens United* restrictions on independent expenditures by corporations and labor unions increased independent spending in state elections. Analyzing data for 18 states from 2006 to 2010, *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. Interestingly, a large part of the increase in independent spending can be attributed to 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.

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 political spectrum (premises (2) and (3) of our argument). Evidence on the split in independent expenditures by Super PACs is available for the 2010 and 2012 national elections. Table 1 shows that Republican Super PACs raised about 50% more, and spent about 100% more, than Democratic Super PACs. Table 1 also shows the funding sources for the top 10 Super PACs (in terms of fundraising) in the 2010 and 2012 national elections. 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 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.

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

### 4.2 Indirect effects

Election outcomes depend on a number of factors besides independent spending, including the presence of an incumbent in the election, the number of candidates running, and the direct campaign contributions raised by the candidates. Each of these factors, in turn, may be affected by the level of independent spending in an election. Thus, *Citizens United* may change election outcomes through indirect channels as well.

First, consider the possible effects of *Citizens United* on incumbency reelection rates and the decision to run for reelection. Incumbent reelection rates in U.S. elections are high in part due to financial advantages of incumbents over challengers (*Abramowitz 1991; Abramowitz et al. 2006*). Removing restrictions on political spending may hence increase incumbent election rates, and, in turn, make it more likely that incumbents seek reelection. Therefore, we examine the following hypothesis:

**Hypothesis 2.** *Citizens United* is associated with an increase in the reelection probabilities of incumbents, and with an increase in the likelihood that incumbents run for reelection.

If independent spending favors Republican candidates, then these effects should be especially pronounced for Republican incumbents.

Next, consider the effects of independent expenditures on the number of candidates running in a given election race. If, as hypothesized above, *Citizens United* strengthened the advantage incumbents hold over their challengers, one should expect less entry by potential challengers in
races with incumbents. But even in races without incumbents, increased spending by outside
groups potentially diminishes the control that candidates have over their campaigns (in particular
candidates without extensive personal financial resources), further reducing the incentives for
candidates to run for office. Therefore, our next hypothesis is the following:

**Hypothesis 3.** *Citizens United* is associated with a decrease in the number of candidates per race.

If independent spending favors Republican candidates, then this effect should be especially
pronounced for Democratic candidates.

Finally, *Citizens United* may have changed the incentives of donors to contribute to election
campaigns *directly*. Most states impose strict limits on campaign contributions, and many
prohibit campaign contributions made by corporations and unions.\(^{14}\) No such restrictions exist for
independent expenditures after *Citizens United*. A plausible effect of *Citizens United*, therefore,
is that it discourages some donors to contribute to election campaigns in an environment that
allows wealthy individuals and organizations to spend without limits.\(^ {15}\) If this is the case,
then independent spending effectively crowds out campaign contributions, leading to our final
hypothesis:

**Hypothesis 4.** *Citizens United* is associated with a decrease in direct campaign contributions to
candidates.

Again using our dataset of U.S. state legislative elections, we test each of these hypotheses
in order to gain a more comprehensive understanding of the impacts *Citizens United* has had on
various components of the democratic process.

## 5 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 prior to *Citizens United*. Figure 2
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

\(^{14}\) See, for example, *National Conference of State Legislatures* (2013).

\(^{15}\) 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.”
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.\(^{16}\)

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).\(^{17}\) 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\(^{18}\) 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.\(^{19}\)

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.\(^{20}\) 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

\(^{16}\) 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, we consider Montana to be a state that was “treated” by *Citizens United* in both the 2010 and 2012 elections.

\(^{17}\) [http://www.followthemoney.org](http://www.followthemoney.org).

\(^{18}\) State office indicates the office for which the candidate is seeking election (e.g., Governor, State House, State Senate, State Supreme Court).

\(^{19}\) State-level data on actual independent spending are not available for all states. Many states do not have disclosure requirements for independent expenditures in state elections. NIMSP currently provides incomplete state-level data on independent spending for only 21 states (correspondence with Denise Roth Barber, Managing Director of NIMSP).

\(^{20}\) Districts are either House districts or Senate districts; thus, a district identifies the office associated with it.
seats in the lower house of a state’s legislature, called the State House of Representatives, and the upper house, called the State Senate. 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 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. The final sample contains detail on 38,215 election races (29,698 House races in 7,627 House districts in 47 states, and 8,517 Senate races in 3,078 Senate districts and 49 states), over 6 or 7 election cycles depending on the state.

Table 2 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

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21 In California, New Jersey, Nevada, New York, and Wisconsin, the lower house is called “State Assembly,” which we renamed as “State House of Representatives.”

22 All Districts for the House of Representatives in Arizona and South Dakota, and many districts for the House of Representatives in North Dakota and New Hampshire, are represented by more than one winner.
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.

6 Regression Analysis

In this section, we obtain estimates of the overall effect of Citizens United on election probabilities through difference-in-differences (DID) regressions, using race level data. We then estimate the effect of Citizens United on candidate entry, campaign contributions, and reelection probabilities.

6.1 Difference-in-differences regression model

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 \(t\):

\[
\text{Repub}_{ist} = \beta [\text{IEBan}_s \times \text{Post-CU}_t] + \gamma X_{ist} + \delta Z_{st} + \alpha_s + \mu_t + \phi_t + \epsilon_{ist}. \tag{1}
\]

\(\text{Repub}_{ist}\) is a dummy variable equal to 1 if the winning candidate in a race belongs to the Republican party. \(\text{IEBan}_s\) is a dummy variable equal to 1 if state \(s\) had a ban on corporate independent expenditures leading up to Citizens United, and \(\text{Post-CU}_t\) 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, \( \varphi_{st} \) are state-specific linear time trends, and \( \varepsilon_{ist} \) is the error term.²³

We are interested in the effect of the interaction term \( IEBan_s \times Post-CU_t \) on the probability that \( Repub_{ist} = 1 \), which measures the difference between the differences in election probabilities before and after \textit{Citizens United} in the states with independent expenditure bans prior to \textit{Citizens United} (i.e., the “treated” states) and in the states without independent expenditure bans prior to \textit{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 \textit{Citizens United} in the treated states match those in the control states. Figure 2 shows that states with (without) independent expenditure bans prior to \textit{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 2012.²⁴ Overall, as shown in Table 2, 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 in our outcome variable across states.²⁵

²³Two 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 \( IEBan_s \times Post-CU_t \) 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.


²⁵In Section 7 we perform a synthetic controls analysis, which addresses the issue of potentially non-matching, non-linear time trends in election outcomes.
6.2 Estimation results

Regression results using our full sample (2000–2012) are displayed in columns (1)–(4) in Table 3. Results are presented for both the House and Senate subsamples, and for specifications with and without a set of race-level controls, consisting of direct contributions to Republican and Democratic candidates, the number of Republican and Democratic candidates, and dummies for Republican and Democratic incumbents. All specifications include 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 regression without race-level controls, the estimated coefficient on the interaction term $IEBan_s \times Post-CU_t$ is equal to 0.057 and is statistically significant on the 5 percent level, suggesting that Citizens United is associated with an increase in Republican election probabilities of 5.7 percentage points in House races. To put this number in context, an increase in Republican election probabilities of 5.7 percentage points corresponds to a 12.6 percent increase in House seats picked up by Republican candidates after Citizens United, compared to before Citizens United, in states that previously banned independent expenditures.\footnote{This estimate is obtained by dividing 5.7 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.}

When race-level controls are included, the estimate on the interaction term $IEBan_s \times Post-CU_t$ decreases to 4.1 percentage points but remains significant at the 5 percent level. The drop in magnitude suggests that part of the overall Citizens United-effect may be due to the impact of lifting independent expenditure bans on candidate entry, direct campaign contributions, and reelection probabilities of incumbents. We explore these indirect channels in Section 6.3 below. On the other hand, for the Senate sample, the estimated coefficient on the interaction term $IEBan_s \times Post-CU_t$ 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 3, are similar to
those for 2000–2012. In the House regressions the estimated coefficient on the interaction term $IEBan_s \times Post-CU_t$ is slightly larger in both specifications, remains statistically significant at the 5 percent level when race-level controls are included, and is significant at the 1 percent level in the baseline regression without race-level controls.

6.3 Examining the mechanism

Table 3 shows that our race-level controls are statistically significant predictors of election probabilities in our DID regressions. In particular, a Republican incumbent, 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 incumbents, candidates, and contributions. Moreover, when these race-level controls are included in our regressions, the estimated effect of *Citizens United* on Republican election probabilities decreases. This suggests that the decision to seek reelection, the total number of entering candidates, and the contributions raised by candidates are themselves affected by lifting restrictions on independent expenditures by corporations and unions, creating a number of indirect channels through which *Citizens United* may affect election outcomes. We now investigate these conjectures (i.e., Hypotheses 2–4 developed in Section 3), using DID methods.

Let us begin with the potential effects of *Citizens United* on incumbents’ reelection probabilities and the probability of an incumbent running for reelection. Table 4 contains two sets of OLS estimates. In the top panel of the table, the dependent variable is a dummy variable indicating whether a race had an incumbent, whether a race had a Republican incumbent, or whether a race had a Democratic incumbent. In the bottom panel, the dependent variable is a dummy indicating whether the incumbent was reelected conditional on the race having an incumbent, a Republican incumbent, or a Democratic incumbent. As before, the explanatory variable of interest is the interaction term $IEBan_s \times Post-CU_t$. The regressions are performed separately for House and Senate races, and all specifications include state-level demographic controls, election year fixed effects, district fixed effects, and state time trends.

For House races, *Citizens United* is associated with a 4.6 percentage point increase in the probability of a Republican incumbent running for reelection, and a 6.4 percentage point increase in the probability of a Republican incumbent being reelected, conditional on running. These
estimates are statistically significant at the 10 percent level and 5 percent level, respectively. For Democratic incumbents, the estimates are of the opposite sign but not statistically significant. These results are broadly consistent with our Hypothesis 2 and suggest that Citizens United has strengthened the incumbency advantage for Republican office holders but not for Democratic office holders, and has thus induced Republican office holders (but not Democratic ones) to seek reelection more often. The estimates for Senate races are of the same sign as the corresponding estimates in the House regressions, but none are significant.

Next, Table 5 displays the results of OLS regressions where the total number of candidates per race, the number of Republican candidates, and the number of Democratic candidates are the outcome variables. In the Senate sample, the estimated coefficient on the interaction term $I_{EBan,t} \times Post-CU_t$ 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 5 percent level when the outcome variable is either the total number of candidates or the number of Democratic candidates (Citizens United is correlated with a reduction of approximately 0.22 in the total number of candidates per race, and of approximately 0.10 in the number of Democratic candidates per race). The estimated effect of Citizens United on the number of Republican candidates is negative but not significant. These results are broadly consistent with our Hypothesis 3 and suggest that the overall treatment effect of Citizens United on Republican election probabilities can be partly explained through Citizens United having a negative impact on the decision of potential Democratic candidates to run in state House races.

Finally, Table 6 displays the results of OLS regressions where total direct contributions (per capita and per race), direct contributions to Republican candidates, and direct contributions to Democratic candidates are the outcome variables. In House races, Citizens United is associated with a reduction in direct contributions of about 44 cents per capita. This is a relatively large reduction (per-capita contributions in House races are a little over two dollars on average). However, the association is statistically significant at the 10 percent level only; and when examining the effects on the two parties separately, neither is significant. In the Senate sample, Citizens United is negatively and significantly (at the 10 percent level) associated with direct contributions to Democratic candidates. Overall, we do not find strong evidence in favor of our Hypothesis 4, namely, that that Citizens United has reduced direct campaign contributions in state legislative elections.
7 A Closer Look at the States

The regression results presented in Section 6.2 showed that \textit{Citizens United} is associated with a significant increase in Republican election probabilities in states that banned corporate or union independent spending prior to 2010. We now take a closer look at the relationship between \textit{Citizens United} and election outcomes in the individual states.

There are several reasons why the impact of \textit{Citizens United} on election outcomes may not have been uniform across states. First, Figure 2 shows that the set of states that had independent expenditure bans before \textit{Citizens United} includes states in New England, the South, the Midwest, the Central Plains, and the Mountain West—regions that differ in important cultural, demographic, and economic aspects, which could generate different effects of \textit{Citizens United} on election outcomes. Second, Figure 2 also shows that these states adopted their bans at different points in time over a 100-year period, and the effect of changing a century-old law may be different from the effect of changing a more recent one. Third, while independent expenditure bans are typically part of broader campaign finance laws aimed at limiting the influence of special interests on the democratic process, the specific events that motivated legislatures to adopt these measures differ from state to state. In 1912, Montana enacted an early law banning corporate independent expenditures following attempts by out-of-state copper mining interests to influence Montana legislators and judges at the turn of the 20th century.\textsuperscript{27} During the 1970s, a number of states adopted independent expenditures bans as part of a broad, nationwide movement to reform governance in the wake of the Watergate scandal. The rise of “soft money” during the 1980s and 1990s, finally, prompted several more states to pass campaign finance reform acts banning corporate and union independent spending. For example, Alaska enacted comprehensive campaign finance reform in 1996 over concerns that its legislative process had been undermined by “calculated evasions of the purpose and spirit of campaign laws” (Josephson Institute 1990). These contextual differences could, likewise, generate non-uniform responses to the removal of independent expenditure bans, depending on the state.

We now examine possible differences in the \textit{Citizens United}-effect on Republican election probabilities across states, using both regression analysis (Section 7.1) and synthetic control techniques (Section 7.2). These techniques allow us to identify states in which \textit{Citizens United} had

particularly pronounced effects on Republican election probabilities. We then link these results to qualitative evidence of corporate and union spending in the 2010 and 2012 state elections (Section 7.3). Because our results in the previous section revealed only a weak effect of *Citizens United* on state Senate election outcomes, we restrict the analysis below to state House elections.

### 7.1 Difference-in-differences analysis

To implement our state-specific regression analysis, we maintain the linear probability model but replace regression equation (1) with

\[
\text{Repub}_{ist} = \begin{cases} 
\beta_s \text{Post-CU} + \gamma X_{isl} + \delta Z_{ist} + \alpha_{is} + \mu_t + \varphi_{st} + \epsilon_{ist} & \text{if } IEBan_s = 1, \\
\gamma X_{isl} + \delta Z_{ist} + \alpha_{is} + \mu_t + \varphi_{st} + \epsilon_{ist} & \text{if } IEBan_s = 0.
\end{cases}
\]  

(2)

That is, we include state-specific treatment effects for all states that had a pre-*Citizens United* independent expenditure ban. In a given state \(s\), the estimate for \(\beta_s\) then measures the specific impact of *Citizens United* on Republican election probabilities in that state.

As we did previously, we estimate (2) with and without race-level controls for incumbency, contributions, and the number of candidates; and with and without the years 2000 and 2012. The states of Arizona and South Dakota are again excluded from the House analysis because these are states with multi-member House districts. Furthermore, because most House races in North Dakota and New Hampshire also had multiple winners, our sample of single-winner races contains only a small fraction of all House races that took place in North Dakota and New Hampshire. The included races are unlikely to be representative of House elections in North Dakota and New Hampshire, and we do not report estimates of a *Citizens United*-effect in these states. Estimates for the remaining 19 states with independent expenditure bans are in Table 7.

Out of 52 estimates that are significant on the 10% level or above, 45 are positive; and out of 43 estimates that are significant at the 5% level or above, all but one are positive. The *Citizens United*-effect is positive and significant at the 10% level or above in all four regression specifications in the following nine states: Minnesota (14.2–21.7 percentage points), Montana (10.1–14.2), Michigan (6.6–13.7), Ohio (9.4–12.2), Iowa (6.3–11.7), Wisconsin (7.1–9.9), Wyoming (4.7–9.3), North Carolina (3.7–8.4), and Connecticut (4.2–5.4). In Texas (4.4–8.8) and Tennessee (1.6–4.5), the effect is significant in three out of four regressions. In Colorado (7.8–8.3), the *Citizens
United-effect is significant at the 1% level in regressions without race-level controls, but becomes insignificant when race-level controls are added.

Only seven of the significant estimates for state-specific Citizens United-effects are negative. In Rhode Island, three of four estimates are significant at the 10% level, ranging from $-3.1$ to $-4.8$ percentage points in magnitude. In Kentucky, two estimates are significant ($-4.9$ at the 1% level, and $-3.4$ at the 10% level, respectively). All other states had at most a single negative estimate significant at the 10% level.

Recall that we estimated the average effect of Citizens United on Republican election probabilities to be in the range of 4.1 to 6.7 percentage points for state House races. The results in Table 7 reveal that this average effect can be decomposed into individual, state-specific effects that exhibit considerable variation: Our highest estimates exceed ten percentage percentage points in five states (Minnesota, Montana, Michigan, Ohio, and Iowa), and exceed eight percentage points in a total of ten states. At the same time, no significant effect, or even a negative effect, of Citizens United on Republican election probabilities is found in several other states.

One drawback of the regression approach adopted so far is that we had to make an assumption on the parametric form of time trends that describe the evolution in election outcomes over time in each state—namely, we assumed linear trends. In the following section we turn to the synthetic control approach, which can accommodate potentially non-matching, non-linear time trends in election outcomes across states in a more flexible manner.

7.2 Synthetic control analysis

The synthetic control technique is described in detail in Abadie and Gardeazabal (2003), Abadie, Diamond, and Hainmueller (2010), and Abadie, Diamond, and Hainmueller (2012). The basic idea behind our implementation is the following.

States without independent expenditure bans prior to Citizens United form a “donor pool” of control states. For each treated state (i.e., for each state with an independent expenditure bans prior to Citizens United), an artificial control state 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 (political 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*.

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.

For 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) as well as our demographic controls. 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. Finally, 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).

Table 8 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 on Hawaii. 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 3 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. 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. 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 4 graphs the gaps between Republican election probabilities in each treated state and in its synthetic control in the post-treatment period. Figure 4 also graphs the results of our placebo trials, which generate analogous gaps for 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

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28 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.

29 The pre-treatment RMSPEs, which are given in the last row of Table 8, are below 0.05 in all the treated states except for Massachusetts and Rhode Island.

30 The pre-treatment RMSPEs are well below 0.1 for all 20 control states.
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 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.

Our synthetic control results are generally consistent with the regression estimates obtained in Section 7.1. The main difference between the two approaches appears to be a somewhat stronger estimated *Citizens United*-effect for North Carolina and Tennessee that is revealed using the synthetic control methodology, compared to what we found in our regressions.

### 7.3 Independent spending after *Citizens United*: Qualitative evidence

The finding that *Citizens United* increased Republican election probabilities in state legislative races is consistent with our main hypothesis introduced in Section 4.1. 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 utilize the fact that our synthetic control analysis identified a number of states in which the effects of *Citizens United* on Republican election probabilities were particularly pronounced (see Figure 4). We 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 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 we estimated significant positive effects of *Citizens United* on Republican election probabilities in our regression analysis, and 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.

In the remainder of this section, we summarize the most important conservative independent spending efforts during the 2010 elections. A more detailed description of these and other initiatives, for both 2010 and 2012, is contained in the Appendix.

**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.\textsuperscript{31}

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 \textit{Citizens United}, each had a legislative composition of 40–50\% Republican in 2008 (see Figure 3), 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.\textsuperscript{32}

The “Redmap” strategy would not have been feasible without the fundraising and spending channels opened up by \textit{Citizens United}. The RSLC is a 527 group. Before \textit{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. \textit{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

\textsuperscript{31}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.

\textsuperscript{32}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, respectively.
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).

Other conservative independent spending initiatives. Several other conservative independent expenditure groups funded by corporations played a significant role in the 2010 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 the Appendix.

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.
8 Conclusion

We examined the effects of *Citizens United* on Republican election probabilities in state legislative elections using difference-in-differences regressions, synthetic control methods, and 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*. As we explained in Section 3.2, donors who gave large amounts to intermediary groups may have had reason to expect IRS and FEC scrutiny given the “legal cloud” that had long surrounded these types of groups. *Citizens United* dissipated this legal cloud and gave all donors greater assurance of legality. For the same reason, *Citizens United* may also have increased independent political spending by wealthy individuals (in addition to corporations and unions) across all states. Any effects that *Citizens United* may have had in states without explicit independent expenditure bans are not counted in our difference-in-differences estimates.

We also examined several possible indirect channels through which the removal of state independent expenditure bans following *Citizens United* may have affected election outcomes. We found evidence that *Citizens United* bolstered the reelection probabilities of Republican incumbent in state House races, and has led to an increase in the number of Republican incumbents who run for reelection in state House races. We also found evidence that *Citizens United* has reduced Democratic candidate entry in state House elections.
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. 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**


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33While this paper was being written, the U.S. Supreme Court issued its ruling in *McCutcheon v. FEC* (Docket No. 12-536, 2013), declaring unconstitutional aggregate campaign contribution limits by individuals.


Figure 1: Reported independent spending in national elections (1990–2012).

Notes:
In nominal dollars. CPI = Consumer Price Index (1990 = 100); BCRA = Bipartisan Campaign Reform Act; WRTL = FEC v. Wisconsin Right To Life; CU = Citizens United. Source: Center for Responsive Politics (http://www.opensecrets.org).
Table 1: Super PAC fundraising and spending in 2010/2012 national elections, by Super PAC orientation and donor policy interest.

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

Donations to top 10 fundraising Super PACs:

<table>
<thead>
<tr>
<th>Donor interest</th>
<th>2010 Republican Super PACs ($1,000)</th>
<th>2010 Democrat Super PACs ($1,000)</th>
<th>2012 Republican Super PACs ($1,000)</th>
<th>2012 Democrat Super PACs ($1,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business</td>
<td>31,688</td>
<td>4,118</td>
<td>265,450</td>
<td>79,868</td>
</tr>
<tr>
<td>Labor</td>
<td>0</td>
<td>13,413</td>
<td>0</td>
<td>75,216</td>
</tr>
<tr>
<td>Other/unknown</td>
<td>10,417</td>
<td>6,427</td>
<td>71,393</td>
<td>41,293</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>42,105</strong></td>
<td><strong>23,958</strong></td>
<td><strong>336,843</strong></td>
<td><strong>196,377</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Super PACs in top 10</th>
<th>2010</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>6</td>
<td>5</td>
</tr>
</tbody>
</table>

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 2: State restrictions on independent political expenditures by corporations and labor unions.

Notes:
Years in parenthesis 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 2: Summary statistics, state legislative elections 2000–2012.

<table>
<thead>
<tr>
<th></th>
<th>All states</th>
<th>States without IE bans</th>
<th>States with IE bans</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>House</td>
<td>Senate</td>
<td>House</td>
</tr>
<tr>
<td>Republican elected</td>
<td>0.486</td>
<td>0.500</td>
<td>0.501</td>
</tr>
<tr>
<td></td>
<td>(0.500)</td>
<td>(0.500)</td>
<td>(0.500)</td>
</tr>
<tr>
<td>Republican incumbent</td>
<td>0.395</td>
<td>0.435</td>
<td>0.404</td>
</tr>
<tr>
<td></td>
<td>(0.489)</td>
<td>(0.496)</td>
<td>(0.491)</td>
</tr>
<tr>
<td>Democrat incumbent</td>
<td>0.438</td>
<td>0.462</td>
<td>0.415</td>
</tr>
<tr>
<td></td>
<td>(0.496)</td>
<td>(0.499)</td>
<td>(0.493)</td>
</tr>
<tr>
<td>Candidates per race</td>
<td>2.247</td>
<td>2.304</td>
<td>2.235</td>
</tr>
<tr>
<td></td>
<td>(1.258)</td>
<td>(1.137)</td>
<td>(1.211)</td>
</tr>
<tr>
<td>Republican</td>
<td>1.028</td>
<td>1.069</td>
<td>1.036</td>
</tr>
<tr>
<td></td>
<td>(0.844)</td>
<td>(0.781)</td>
<td>(0.835)</td>
</tr>
<tr>
<td>Democrat</td>
<td>1.043</td>
<td>1.060</td>
<td>1.021</td>
</tr>
<tr>
<td></td>
<td>(0.865)</td>
<td>(0.773)</td>
<td>(0.836)</td>
</tr>
<tr>
<td>Per-capita contributions per race ($)</td>
<td>2.140</td>
<td>1.543</td>
<td>2.182</td>
</tr>
<tr>
<td></td>
<td>(3.131)</td>
<td>(1.830)</td>
<td>(2.642)</td>
</tr>
<tr>
<td>Republican</td>
<td>1.040</td>
<td>0.737</td>
<td>1.087</td>
</tr>
<tr>
<td></td>
<td>(1.967)</td>
<td>(1.119)</td>
<td>(1.753)</td>
</tr>
<tr>
<td>Democrat</td>
<td>1.083</td>
<td>0.792</td>
<td>1.075</td>
</tr>
<tr>
<td></td>
<td>(2.241)</td>
<td>(1.264)</td>
<td>(1.782)</td>
</tr>
<tr>
<td>Number of races</td>
<td>29,698</td>
<td>8,517</td>
<td>15,527</td>
</tr>
</tbody>
</table>

Notes:
Cells represent means, with standard deviations in parantheses. Contributions are reported in constant 2012 dollars.
Table 3: LPM estimates of the effect of *Citizens United* on Republican election probabilities.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>House</td>
<td>Senate</td>
</tr>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td>IE ban × Post-CU</td>
<td>0.057**</td>
<td>0.041**</td>
</tr>
<tr>
<td></td>
<td>(0.022)</td>
<td>(0.020)</td>
</tr>
<tr>
<td>Republican</td>
<td>0.235***</td>
<td>0.184***</td>
</tr>
<tr>
<td>incumbent</td>
<td>(0.020)</td>
<td>(0.028)</td>
</tr>
<tr>
<td>Democrat</td>
<td>−0.239***</td>
<td>−0.239***</td>
</tr>
<tr>
<td>incumbent</td>
<td>(0.025)</td>
<td>(0.029)</td>
</tr>
<tr>
<td>Republican</td>
<td>0.060***</td>
<td>0.041***</td>
</tr>
<tr>
<td>candidates</td>
<td>(0.010)</td>
<td>(.009)</td>
</tr>
<tr>
<td>Democrat</td>
<td>−0.043***</td>
<td>−0.042***</td>
</tr>
<tr>
<td>candidates</td>
<td>(0.008)</td>
<td>(.009)</td>
</tr>
<tr>
<td>Republican</td>
<td>0.017***</td>
<td>0.032***</td>
</tr>
<tr>
<td>contributions</td>
<td>(0.006)</td>
<td>(.011)</td>
</tr>
<tr>
<td>Democrat</td>
<td>−0.019***</td>
<td>−0.034***</td>
</tr>
<tr>
<td>contributions</td>
<td>(0.005)</td>
<td>(.009)</td>
</tr>
</tbody>
</table>

| N    | 29,698 | 29,698 | 8,517 | 8,517 | 21,656 | 21,656 | 6,168 | 6,168 |
| R²   | 0.695  | 0.790  | 0.699 | 0.774 | 0.775  | 0.812  | 0.771 | 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 parentheses are robust standard errors adjusted for clustering on states. Stars denote statistical significance: * significant at 10%; ** significant at 5%; *** significant at 1%.
Table 4: OLS estimates of the effect of *Citizens United* on the probability of an incumbent seeking reelection (top panel) and being reelected (bottom panel), 2000–2012.

<table>
<thead>
<tr>
<th>Incumbent running for reelection</th>
<th>House</th>
<th>Senate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Incumbent</td>
<td>Republican incumbent</td>
</tr>
<tr>
<td>IE ban × Post-CU</td>
<td>(1) 0.025</td>
<td>(2) 0.046*</td>
</tr>
<tr>
<td></td>
<td>(0.030)</td>
<td>(0.027)</td>
</tr>
<tr>
<td>N</td>
<td>29,698</td>
<td>29,698</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.011</td>
<td>0.498</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Incumbent reelected</th>
<th>(7)</th>
<th>(8)</th>
<th>(9)</th>
<th>(10)</th>
<th>(11)</th>
<th>(12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IE ban × Post-CU</td>
<td>(1) -0.025</td>
<td>(2) 0.064**</td>
<td>(3) -0.058</td>
<td>(4) 0.041</td>
<td>(5) 0.063</td>
<td>(6) -0.034</td>
</tr>
<tr>
<td></td>
<td>(0.020)</td>
<td>(0.025)</td>
<td>(0.035)</td>
<td>(0.036)</td>
<td>(0.053)</td>
<td>(0.064)</td>
</tr>
<tr>
<td>N</td>
<td>20,867</td>
<td>9,646</td>
<td>11,157</td>
<td>5,668</td>
<td>2,667</td>
<td>2,986</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.099</td>
<td>0.264</td>
<td>0.271</td>
<td>0.093</td>
<td>0.292</td>
<td>0.301</td>
</tr>
</tbody>
</table>

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 parentheses are robust standard errors adjusted for clustering on states. Stars denote statistical significance: * significant at 10%; ** significant at 5%; *** significant at 1%.
Table 5: OLS estimates of the effect of *Citizens United* on the number of candidates per race, 2000–2012.

<table>
<thead>
<tr>
<th></th>
<th>House</th>
<th>Senate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Candidates</td>
<td>Republican candidates</td>
</tr>
<tr>
<td>IE ban × Post-CU</td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td></td>
<td>–0.218**</td>
<td>–0.089</td>
</tr>
<tr>
<td></td>
<td>(0.108)</td>
<td>(0.068)</td>
</tr>
<tr>
<td>N</td>
<td>29,698</td>
<td>29,698</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.197</td>
<td>0.317</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th>House</th>
<th>Senate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Contributions</td>
<td>Republican contributions</td>
</tr>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td>IE ban × Post-CU</td>
<td>$-0.443^*$</td>
<td>$-0.193$</td>
</tr>
<tr>
<td></td>
<td>(0.253)</td>
<td>(0.141)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$N$</td>
<td>29,698</td>
<td>29,698</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.458</td>
<td>0.375</td>
</tr>
</tbody>
</table>

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 parentheses are robust standard errors adjusted for clustering on states. Stars denote statistical significance: * significant at 10%; ** significant at 5%; *** significant at 1%.
Table 7: LPM estimates of the state-specific effects of *Citizens United* on Republican House election probabilities.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td>Post-CU ×</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AK</td>
<td>$-.024$</td>
<td>$-.001$</td>
</tr>
<tr>
<td>CO</td>
<td>$0.083^{***}$</td>
<td>$0.013$</td>
</tr>
<tr>
<td>CT</td>
<td>$0.042^{**}$</td>
<td>$0.048^{**}$</td>
</tr>
<tr>
<td>IA</td>
<td>$0.117^{***}$</td>
<td>$0.063^{***}$</td>
</tr>
<tr>
<td>KY</td>
<td>$-.049^{***}$</td>
<td>$-.034^{*}$</td>
</tr>
<tr>
<td>MA</td>
<td>$0.041^{*}$</td>
<td>$-.006$</td>
</tr>
<tr>
<td>MI</td>
<td>$0.111^{***}$</td>
<td>$0.066^{***}$</td>
</tr>
<tr>
<td>MN</td>
<td>$0.161^{***}$</td>
<td>$0.142^{***}$</td>
</tr>
<tr>
<td>MT</td>
<td>$0.142^{***}$</td>
<td>$0.104^{***}$</td>
</tr>
<tr>
<td>NC</td>
<td>$0.084^{***}$</td>
<td>$0.037^{**}$</td>
</tr>
<tr>
<td>OH</td>
<td>$0.094^{***}$</td>
<td>$0.122^{***}$</td>
</tr>
<tr>
<td>OK</td>
<td>$-.008$</td>
<td>$-.008$</td>
</tr>
<tr>
<td>PA</td>
<td>$-.006$</td>
<td>$-.010$</td>
</tr>
<tr>
<td>RI</td>
<td>$-.048^{*}$</td>
<td>$-.028$</td>
</tr>
<tr>
<td>TN</td>
<td>$0.045^{**}$</td>
<td>$0.016^{**}$</td>
</tr>
<tr>
<td>TX</td>
<td>$0.024$</td>
<td>$0.044^{**}$</td>
</tr>
<tr>
<td>WV</td>
<td>$-.037^{*}$</td>
<td>$0.001$</td>
</tr>
<tr>
<td>WI</td>
<td>$0.084^{***}$</td>
<td>$0.071^{***}$</td>
</tr>
<tr>
<td>WY</td>
<td>$0.093^{***}$</td>
<td>$0.047^{*}$</td>
</tr>
</tbody>
</table>

Race-level controls: No, Yes

| N | 29,698 | 29,698 | 21,656 | 21,656 |
| $R^2$ | 0.695 | 0.791 | 0.775 | 0.813 |

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). Robust standard errors were adjusted for clustering on states but are not reported. Stars denote statistical significance: * significant at 10%; ** significant at 5%; *** significant at 1%.
Table 8: Composition of synthetic controls for states affected by *Citizens United* in analysis of Republican House election probabilities.

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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 3: 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 synthetic control states. Grey lines (MA and RI) indicate an insufficiently accurate pre-treatment match (RMSPE > 0.1).
Figure 4: 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").
Appendix: 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 7.3 of the main paper contains an abridged version of the material presented below. Section A.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 in the main paper). Section A.2 reviews independent spending initiatives that influenced the 2012 elections.

A.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 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 inde-
ependent 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).34

A.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 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

34The 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).
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 Tennessee.  

**References (Appendix)**


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35 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).


