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The Impact of *Citizens United*: How the Removal of Independent Expenditure Bans Shaped U.S. Gubernatorial Elections

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Abstract

This paper examines the U.S. Supreme Court's 2010 *Citizens United* decision, which lifted bans on independent expenditures by corporations and unions. Using a difference-in-differences design, the study compares states with and without pre-existing bans, focusing on gubernatorial elections. The results show an 11 percentage point increase in the share of Republican TV ad airings following the removal of independent expenditure bans. This increase is especially pronounced (16 percentage points) in states where only corporate bans were lifted, with total TV ad airtime rising by over 29 hours on average. Negative campaigning also intensified, with a 5.5 percentage point rise in the share of attack ads. Survey and election data show a significant demobilization effect, particularly in states where only corporate bans were removed (3.5-5 percentage point decrease in county-level turnout). Finally, Republican gubernatorial candidates experienced a 7-11 percentage point boost in vote shares following the removal of independent spending bans.

Keywords: campaign finance, Citizens United v. FEC, independent expenditures, voter turnout, television markets, special interest groups, corporate money in politics

JEL classification: D72, K16, L82

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Introduction

The ability to funnel unlimited sums of money into the political arena is seen by many as critical because it may undermine the functioning of representative democracy. It could, for example, foster or strengthen exchange relationships between politicians and special interest donors (reflected in their strongest manifestation in quid pro quo arrangements), limit access to politics to rich vis-à-vis the average citizen, and reduce political competition by amplifying the advantages held by incumbents (with better connections to campaign supporters) over their challengers. Last but not least, there is ultimately the danger that citizens perceive the political realm more and more as one where only money matters. This prevailing sentiment carries the inherent risk of disengagement from the political process. It might become even more pronounced if campaign support is provided through undisclosed "dark money" sources (Rhodes et al. 2019; Wood 2020).

This paper examines the consequences of the 2010 U.S. Supreme Court decision in *Citizens United v. FEC*, which lifted restrictions on independent campaign expenditures by corporations, unions, and non-profit groups. Independent expenditures are expenditures for communications (typically TV ads) that expressly advocate for or against the election of candidates (officially uncoordinated with the candidates benefiting from them). Expanding on previous research into the effects of the court's ruling (see, e.g., Spencer and Wood 2014; Klumpp et al. 2016; Abdul-Razzak et al. 2020), this study examines the changing patterns of TV campaign advertising and voter behavior in the wake of *Citizens United*, with a focus on U.S. gubernatorial elections.

Recent research documents that the increased legal opportunities for political outside groups to make independent expenditures – beyond corporations, unions, and non-profit organizations also including Super PACs[1] – have indeed led to higher total independent spending (Hansen et al. 2015; Spencer and Wood 2014). Also robustly documented is the substantial pro-Republican voting effect in state legislative elections (Klumpp et al. 2016; Abdul-Razzak et al. 2020). At the U.S. gubernatorial level, there was a notable increase in Republican governorships from 22 in 2009 to an average of 30 from 2010 to 2019.[2] Can this increase in Republican gubernatorial victories also be attributed to the removal of restrictions on independent expenditures? If so, is increased TV campaign advertising supporting Republican candidates the

[1] Established in 2010, Super PACs are dedicated solely to making independent expenditures and can raise unlimited funds from individuals and organizations.

[2] https://www.statista.com/statistics/198486/number-of-governors-in-the-us-by-political-party-affiliation.

driving factor? Using data from the Wesleyan Media Project on aired TV campaign ads, as well as survey data and official election statistics on voter behavior, this paper aims to explore these questions.

Furthermore, this paper examines whether *Citizens United* led to an increase in the use of negative advertising, i.e., ads attacking opponents. Such an increase might be expected, as outside groups often prefer to support particular candidates by attacking their opponents rather than endorsing them.[3] This is related to the commonly observed backlash effect of attack ads, characterized by a decline in the attacking candidate's evaluation (Lau and Rovner 2009; Carraro and Castelli 2010; Galasso et al. 2023), which is found to be less pronounced when the attack ad is funded by an outside group (Brooks and Murov 2012; Dowling and Wichowsky 2015). Finally, a higher degree of negativity in political campaigns poses the risk of voter demobilization, as documented by Ansolabehere et al. (1994) and Ansolabehere et al. (1999) using both official election returns and survey data.[4]

To estimate the effect of lifting independent expenditure bans, the analysis exploits the fact that only 23 out of the 50 U.S. states had such bans prior to the federal *Citizens United* decision, which overturned their campaign finance regulations. The remaining 27 states had no independent expenditure bans. Thus, the latter states can serve as a control group in a difference-in-differences approach.[5] This framework enables an examination of how the lifting of state-level restrictions on independent political spending following *Citizens United* affected elections held at the state level (like gubernatorial elections).

A particular focus is placed on distinguishing the effects of lifting corporate versus union bans on independent expenditures. Among the U.S. states with independent

[3]Data from the Wesleyan Media Project indeed shows a stark contrast in negative ad usage: candidates and parties average 30.1% in pure attack ads (i.e., ads solely intended to attack candidates), compared to 73.9% for outside groups (period: 2000-2020; U.S. federal and gubernatorial elections).

[4]More recently, Gordon et al. (2023), using an instrumental strategy based on candidates' strategic choices to go positive or negative, found that negative advertising slightly decreases turnout levels, while positive ads boost voter participation.

[5]While several studies employ the same identification strategy, they investigate outcomes that diverge from the focus of this paper: Hansen et al. (2015) and Spencer and Wood (2014) illuminate the rise in independent spending post-*Citizens United*. Klumpp et al. (2016) and Abdul-Razzak et al. (2020) both detect a pro-Republican voting pattern in state legislative elections. Gilens et al. (2021) finds that states with prior bans on independent corporate spending experienced lower corporate tax rates in the wake of *Citizens United*. In a related study, Akey et al. (2023) link the decision to pro-growth policies and a rise in labor income. Taking a tangent towards the corporate realm, a subset of research has analyzed stock price reactions of corporations in the aftermath of the *Citizens United* decision. For instance, Stratmann and Verret (2015) unveils that the newfound liberty to engage in corporate independent spending corresponds with a rise in shareholder wealth. Conversely, Albuquerque et al. (2020) put forth findings in alignment with the perspective that the ability of corporations to undertake independent political spending undermines the previously perceived value of political connections.

expenditure bans before *Citizens United*, 14 states had both corporate and union bans, while 8 states had only corporate bans. In addition to estimating the overall effect of lifting any independent expenditure bans, the study introduces two separate treatment indicators: one for states that removed both corporate and union bans and another for states that removed only corporate bans.[6] This approach allows for capturing the differential effects resulting from the lifting of independent expenditure bans for these two groups of states. From a theoretical perspective, differential outcomes are plausible for two primary reasons. First, corporations generally outspend unions (Powell et al. 2003; Bonica 2014), which could lead to different reactions regarding the increased opportunities for making independent expenditures. Second, there is a stark contrast in the types of candidates typically supported by corporations versus unions. Corporations often back Republican candidates, whereas unions tend to align more closely with Democrats. Against this backdrop, one might expect differences in the changes in campaign advertising patterns and voter behavior resulting from the lifting of corporate versus union bans.

Examining broadcast TV campaign advertising, the findings indicate an increase in total ad airings for Republican gubernatorial candidates in states that lifted corporate independent expenditure bans only, along with a less pronounced increase in Democratic ad airings. In these states, the share of ad airings supporting Republican candidates rises by almost 16 percentage points. Overall, viewers are exposed to 3,560 more ad airings on average, which amounts to 29 additional hours of ad airtime. In the group of states that removed both corporate and union independent spending bans, a 9 percentage point higher share of Republican ad airings is observed, with no significant changes in total ad exposure.

Consistent with the explanation that political outside groups are more likely to attack candidates, the results also show an increase in negativity in gubernatorial election campaigns as a result of lifting independent expenditure bans. This increase is particularly evident in states where only corporate spending bans were lifted, with an average rise of 11 percentage points in the share of attack ads (as opposed to promotional and contrast ads). Given a mean negativity rate of 25% across all observed TV markets, this rise represents a substantial shift.

The analysis of voter behavior – drawing on both survey data from the Cooperative Election Study (CES) and official county-level election returns – documents a clear pattern of voter demobilization following the lifting of independent expenditure

[6]See Table A1 in the Supplementary Materials for an overview of the states that removed both corporate and union bans versus those that removed only corporate bans. Note that New Hampshire lifted only its ban on independent spending by unions, but it is excluded from the analysis because none of its TV markets meet the criteria requiring at least 90% of the viewers to reside within the state (see the empirical section for details).

bans. In states where only corporate bans were removed, the decline in county turnout rates is estimated to range from 3.5-5 percentage points, according to official election returns (corresponding to a 10-15% decline based on counties' mean turnout rates). Further analysis of voter party affiliation based on the survey data shows that demobilization can be observed among Democrats, Republicans and – particularly pronounced – among Independents.

Regarding the effects on voters' candidate choices, the findings indicate a pronounced pro-Republican voting effect in gubernatorial elections resulting from the removal of independent expenditure bans. After lifting independent spending bans, counties in those states experience a 7-11 percentage point higher Republican vote share compared to counties in the control group. The estimates are not statistically significantly different between states that lifted both corporate and union bans versus those that lifted corporate bans only.

The remainder of this paper is organized as follows: the next section describes the institutional setting within the U.S. campaign finance landscape and the role of the *Citizens United* decision. This is followed by a description of the empirical strategy used to identify the causal effect of *Citizens United* on U.S. gubernatorial elections within a difference-in-differences framework. Subsequent sections present the data and results on TV campaign advertising and voter behavior, respectively. Finally, concluding remarks are offered.

Citizens United and the U.S. Campaign Finance Landscape

The campaign finance system in the United States primarily relies on private donations from individuals and interest groups. In the realm of supporting political candidates, there are two primary avenues for doing so. The first involves making direct campaign contributions to candidates and parties, who then use these funds to finance their campaigns.[7] The second is through so-called 'independent expenditures' or 'electioneering communications', where organizations use funds to pay for communications related to candidates. These political expenditures – also referred

[7] At the U.S. federal level, corporations, unions, and non-profits are prohibited from directly donating to political candidates or parties. Instead, they need to establish Political Action Committees (PACs) which fall under the oversight of the Federal Election Commission (FEC). These PACs either raise funds from individuals affiliated with their parent organizations (e.g., employees for corporations, members for unions) or from the general public, as is the case for PACs founded by ideological or single-issue non-profit groups. The former type of PACs are referred to as connected PACs, while the latter are termed non-connected PACs. Both the contributions from individuals to PACs and the donations made by PACs to candidates or parties are subject to limits.

to as *outside spending* – are officially uncoordinated with candidates' campaigns and are often channeled into political TV advertisements.[8] Whereas electioneering communications only mention candidates running for office and are made close to elections, independent expenditures involve communications that explicitly call for or against the election of specific candidates.

In January 2010, a momentous decision by the U.S. Supreme Court in the case of *Citizens United v. FEC*[9] brought a significant shift in the campaign finance landscape. In its ruling, the court declared restrictions on independent expenditures financed by the general treasuries of corporations, unions, and political non-profit groups to be unconstitutional. Prior to this decision, corresponding bans were in place at both the federal level and in various states.[10] While the ruling was based on the idea that it would promote freedom of speech, Justice John Paul Stevens, in the dissenting opinion on *Citizens United*, raised serious concerns about a potential influence motive in independent campaign support, stating that "a democracy cannot function effectively when its constituent members believe laws are being bought and sold." He also notes that the decision "threatens to undermine the integrity of elected institutions across the Nation. The path it has taken to reach its outcome will, I fear, do damage to this institution."[11] It is crucial to emphasize, however, that the court's decision in *Citizens United* did not alter the federal-level ban on using funds from the general treasuries of corporations, unions, or non-profits to make direct contributions to candidates and parties.

A ruling closely related to *Citizens United* was issued in March 2010 by the United States Court of Appeals for the District of Columbia Circuit. In *SpeechNow.org. v. FEC*, it lifted the restrictions that normally apply to individual donations to PACs ($5,000 per individual/year) as long as the PACs only make independent expenditures. This decision paved the way for the emergence of what are known as Super PACs. These

[8] If there was coordination, FEC regulations would classify such expenditures as direct donations. As a result, they would be prohibited if sourced from the general treasuries of corporations, unions, or non-profit groups, or subject to limitations if originating from PACs or individuals.

[9] See Citizens United v. Federal Election Commission, 558 U.S. 310 (2010). The ruling was decided with a 5-4 split vote along conservative-liberal lines.

[10] The 2002 *Bipartisan Campaign Reform Act (BCRA)* instituted a federal ban on electioneering communications (including independent expenditures) by corporations, unions, and non-profits. This ban did not apply to communications financed by PACs or individuals. Before *Citizens United*, the U.S. Supreme Court had already narrowed the scope of the ban in its 2007 decision *FEC v. Wisconsin Right to Life, Inc.*, limiting it to communications that explicitly called for or against the election of a candidate (i.e., independent expenditures). Thus, from then on, corporations, unions, and non-profits were no longer restricted from paying for 'issue ads' that only discuss candidates' positions on specific issues.

[11] The majority opinion, along with the two concurring and one dissenting opinion, can be retrieved from the FEC's webpage: https://www.fec.gov/legal-resources/court-cases/citizens-united-v-fec.

are PACs exclusively dedicated to independent campaign spending, being permitted to accept unlimited contributions from individuals but also from organizations such as corporations or non-profit groups.

Following the *Citizens United* decision, there has been a marked rise in both the magnitude and proportion of independent expenditures as a fraction of total money in U.S. politics, as illustrated in Figure 1. Panel (a) of this figure depicts changes in total direct and independent spending at the federal level, while Panel (b) shows the percentage of TV campaign advertisements funded by political outside groups (i.e., groups different from candidate and party committees). While the average share of independent expenditures in direct campaign donations between 2004 and 2008 was around 30%, this share has risen to over 70% after 2010. Similarly, comparing the periods before and after *Citizens United*, the share of TV ads financed by political outside groups has increased from roughly 8% to around 28%, on average. In the following, the empirical method is outlined to investigate whether this shift at the national level, hard to distinguish from a time trend, can be causally established by leveraging pre-*Citizens United* differences in independent spending rules at the U.S. state level.

Empirical Strategy: Deciphering the Effects of *Citizens United* on U.S. Gubernatorial Elections

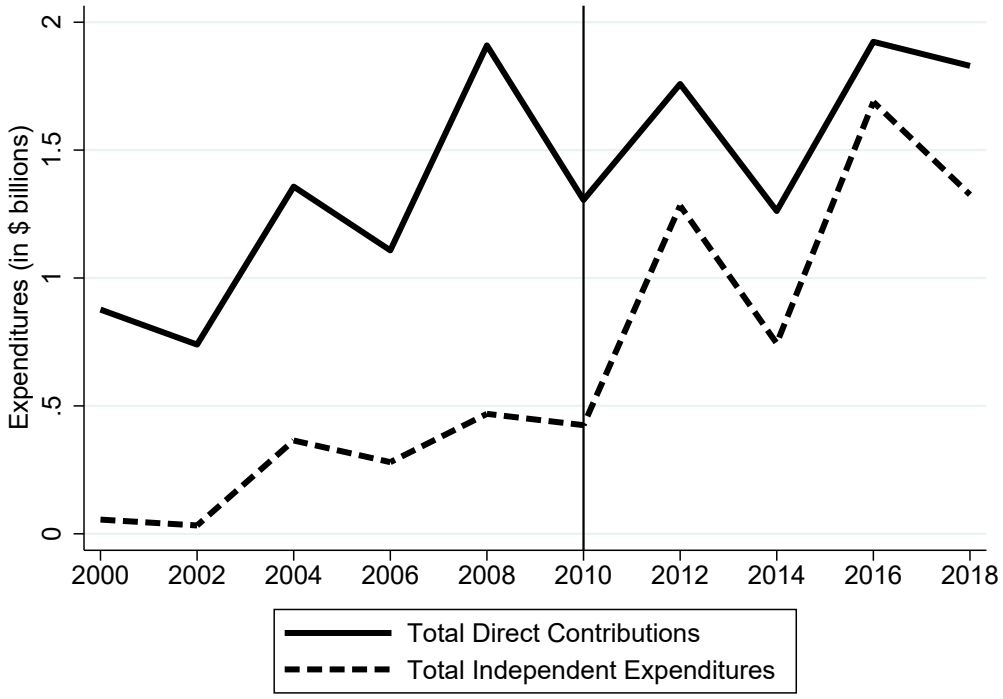
Prior to the *Citizens United* decision, 23 of the 50 U.S. states had instituted bans on independent expenditures by corporations or unions. The federal ruling required these states to revise their campaign finance regulations to comply with the decision, which involved removing restrictions on independent expenditures.[12] Adjustments to campaign finance rules in these states were made between January and October 2010, as documented by Spencer and Wood (2014) and Abdul-Razzak et al. (2020). Consequently, these 23 states are the ones directly impacted by *Citizens United*.[13] In contrast, the remaining 27 states, which already aligned with the federal ruling, can serve as a control group in a difference-in-differences analysis. Importantly, among the states that had independent expenditure bans prior to *Citizens United*, three

[12]Information on state-specific regulations before *Citizens United* is drawn from Hall (2016) (with the replication dataset publicly available on Harvard's Dataverse at https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/HWC60A) and augmented with information from the National Conference of State Legislatures (NCSL), available at https://www.ncsl.org/elections-and-campaigns/citizens-united-and-the-states.

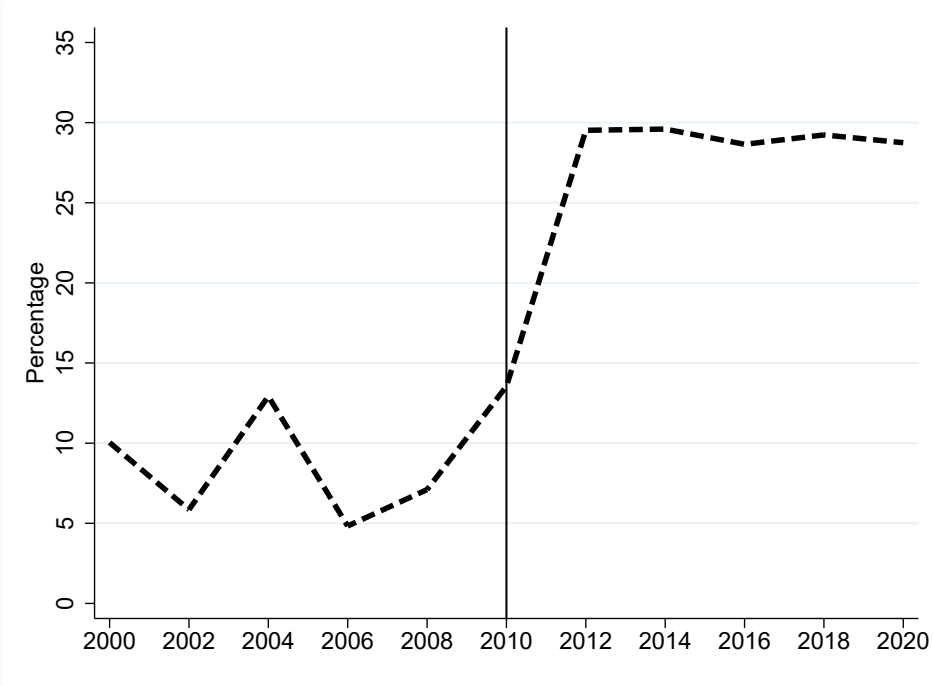
[13]Table A1 in the Supplementary Materials provides an overview of the states that had bans on independent expenditures, along with the years in which these bans were introduced.

Figure 1: Independent Expenditures at the U.S. Federal Level
Before and After the 2010 *Citizens United* Decision

(a) Totals in direct campaign contributions and independent expenditures (2000-2018)



(b) Share of TV campaign ads financed by outside groups (vs. candidate/party-funded) (2000-2020)



Notes: Panel (a): *Total Direct Contributions* represents the cumulative sum of campaign contributions made to candidates running for the U.S. presidency and seats in the U.S. Congress. *Total Independent Expenditures* encompasses the total of independent campaign expenditures related to these elections, including communication costs but excluding coordinated party expenditures. Panel (b) illustrates the trend in the proportion of TV campaign advertisements funded by outside groups, which includes all entities except political parties and candidate committees. *Sources:* Own calculations based on data from the Center for Responsive Politics (a) and Wesleyan Media Project (b).

states – Colorado, Iowa, and South Dakota – instituted the bans for a short period before they were lifted again, i.e., between 2000 and 2010.[14] Accordingly, these states are not equally treated and are thus not considered in the empirical analysis.

The empirical strategy employs two specific approaches to assess the effect of *Citizens United* on U.S. gubernatorial elections. The first approach classifies all states as 'treated' if they had any ban on independent expenditures. The second approach adopts a more nuanced strategy by categorizing states into two treatment groups: one for states with bans on both corporate and union spending, and another for states with only corporate spending bans, but no bans on union spending. This latter approach aims to differentiate the effects of removing both corporate and union bans from the effects of removing corporate bans only. The distinction is empirically feasible, as among the 23 affected states, 14 had bans on both corporate and union spending, 8 had only corporate spending bans (without union bans), and 1 state had a ban on union spending only.[15] The control group consists of the 27 states that did not have any bans on either corporate or union spending prior to *Citizens United*.

The fundamental idea is to compare how the outcomes of interest – namely TV campaign advertising and voter behavior in U.S. gubernatorial elections – changed with the *Citizens United* decision across states affected by the ruling and those that were not. This comparison allows for a causal interpretation of the impact of lifting independent expenditure bans on gubernatorial elections. The key assumption for identification is that the affected states would have evolved in the same way as the unaffected ones if they had not been treated. Another critical assumption in this difference-in-differences framework is that the treatment is exogenous and not influenced by state-level factors that might also affect the outcomes. This assumption appears plausible, given that the *Citizens United* decision was made at the federal level, overriding state-level campaign finance rules. As a result, state-level confounding factors are unlikely to bias the estimation results.

Handling In vs. Out-of-State TV Markets

When assessing the influence of *Citizens United*, this study focuses on local TV markets as the primary unit for determining treatment status. These markets, known as Designated Market Areas (DMAs), are the level at which campaign ads are typically

[14] Colorado and South Dakota introduced bans on both corporate and union spending in 2002 and 2007, respectively, while Iowa implemented a ban on corporate spending in 2003 (also see Table A1 in the Supplementary Materials).

[15] New Hampshire is the only state with a ban on union spending only; however, it cannot be included in the empirical analysis because none of its TV markets cover more than 90% of the state's area, which is a criterion for consideration in the empirical examination outlined below.

purchased and are defined and regulated by the Federal Communications Commission (FCC).[16] Relying on a state-level assessment would potentially distort outcomes, particularly because 97 of the 210 U.S. DMAs cover multiple states.

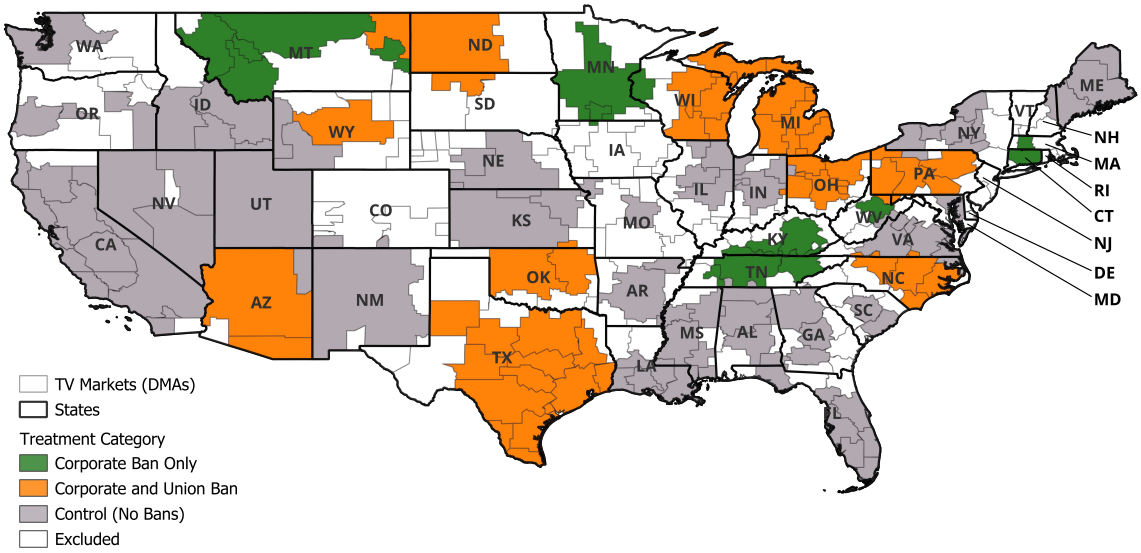
This issue will be further illustrated using the example of Texas. Prior to *Citizens United*, Texas had a ban on independent expenditures by corporations and unions. In a state-level assessment, Texas would thus be coded as treated. However, a significant portion of Texans live in DMAs that also span neighboring states. For example, part of East Texas is served by the Shreveport, Louisiana TV market, which also covers parts of Louisiana, Arkansas, and Oklahoma. This means that individuals in the Shreveport TV market are not only exposed to Texas political advertising but also to ads aired for political races in these other states. In analyzing voter behavior, it is not reasonable to assume that Texas voters living in the Shreveport TV market are treated the same way as voters in other Texas TV markets, such as the Houston TV market, which is entirely within Texas. First, TV markets that encompass multiple states may not be targeted equally by political actors during state-level elections, as only a portion of relevant voters is reached, and thus the reaction to the lifting of independent expenditure bans may differ. Second, Texas voters in the Shreveport TV market may not only be influenced by campaign ads for Texas races, in which they are eligible to vote, but also by ads for races in neighboring Louisiana, Arkansas, or Oklahoma. In the context of removing state-level regulations on independent expenditures, Louisiana and Arkansas had no bans on independent expenditures, while Oklahoma, like Texas, banned independent expenditures by both corporations and unions. Given this complexity, it is unclear whether the Shreveport TV market – and voters within it – should be classified as treated or part of the control group.

To resolve this issue, the analysis focuses exclusively on TV markets that are predominantly located within a single state, using a 90% threshold as the defining criterion. Accordingly, a TV market is labeled as 'treated' if (based on the latter criterion) it is located in a state with independent expenditure bans before *Citizens United*, with distinctions made between states that banned both corporate and union spending and those that only banned corporate spending. TV markets located in states without any bans on independent expenditures before the ruling are categorized as part of the control group.

[16] U.S. TV markets represent geographic zones where residents can access a distinct assortment of local channels, whether through antenna, cable, or satellite. Typically anchored in major cities, these local TV stations' signals extend into the surrounding suburban and rural areas. The FCC allocates each U.S. county to one of the 210 non-overlapping market territories. Post-2000, the FCC's demarcation for these areas aligns with Nielsen Media Research's classifications, a U.S.-based private company that specializes in measuring media viewership.

Figure 2 provides an overview of U.S. states and TV markets categorized into the treatment group, control group, or excluded from the analysis. The excluded markets are those not predominantly located within specific states (i.e., serving out-of-state regions) or those in states that introduced independent expenditure bans only during the pre-treatment period between 2000 and 2010 (Iowa, South Dakota, and Colorado). In total, 49 TV markets from 11 states are assigned to the treatment group comprising states that had both corporate and union bans. Another 15 markets from 7 states are assigned to the group consisting of states with only corporate bans. The control group includes 78 markets from 24 states that had no independent expenditure bans prior to *Citizens United*.

Figure 2: TV Markets Across U.S. States by Treatment Category



Notes: The graph illustrates the U.S. TV markets (i.e., DMAs) and their treatment status in the empirical analyses. Only markets are included where more than 90% of the market's area is located within a specific state. The treatment status is categorized as follows: markets in states that had a ban on both corporate and union independent expenditures before *Citizens United* (49), markets in states with only a corporate ban (15), and markets in states with no bans at all (78), which serve as the control group. TV markets in Colorado, South Dakota, and Iowa are excluded, as these states implemented bans on independent expenditures only between 2000 and 2010. Alaska and Hawaii (not shown on the map) had bans on both corporate and union independent expenditures, and no bans at all, respectively.

Data and Results on TV Campaign Advertising

For the period 2000 to 2020, the analysis utilizes information on broadcast TV campaign advertising related to U.S. gubernatorial elections. The data is sourced from the Wisconsin Advertising Project and its successor, the Wesleyan Media Project.[17] Crucially, the data identifies whether an ad was funded by a political outside group (as opposed to candidates or parties), the tone of the ad (categorized as attack, promote, or contrast), and the party of the supported candidate (either Democrat or Republican).

Each observation in the sample represents a unique TV market airing ads for a U.S. gubernatorial race in a state holding an election. The analysis employs six outcome variables: i) total ad exposure (measured by the cumulative number of TV campaign ad airings), ii) total airings for Republican candidates, iii) total airings for Democratic candidates, iv) the percentage of airings supporting Republican candidates, v) the proportion of ad airings financed by outside groups, and vi) the fraction of attack ads compared to promote and contrast ads (i.e., negativity). In 48 of the 50 U.S. states, gubernatorial elections are held every four years, with New Hampshire and Vermont as the exceptions, where terms last two years. However, these elections are not synchronized nationally: 36 states hold them in even-numbered years (e.g., 2002, 2006, 2010, 2014), 11 states hold them in other even-numbered years (e.g., 2004, 2008, 2012, 2016), and five states hold them in odd-numbered years.

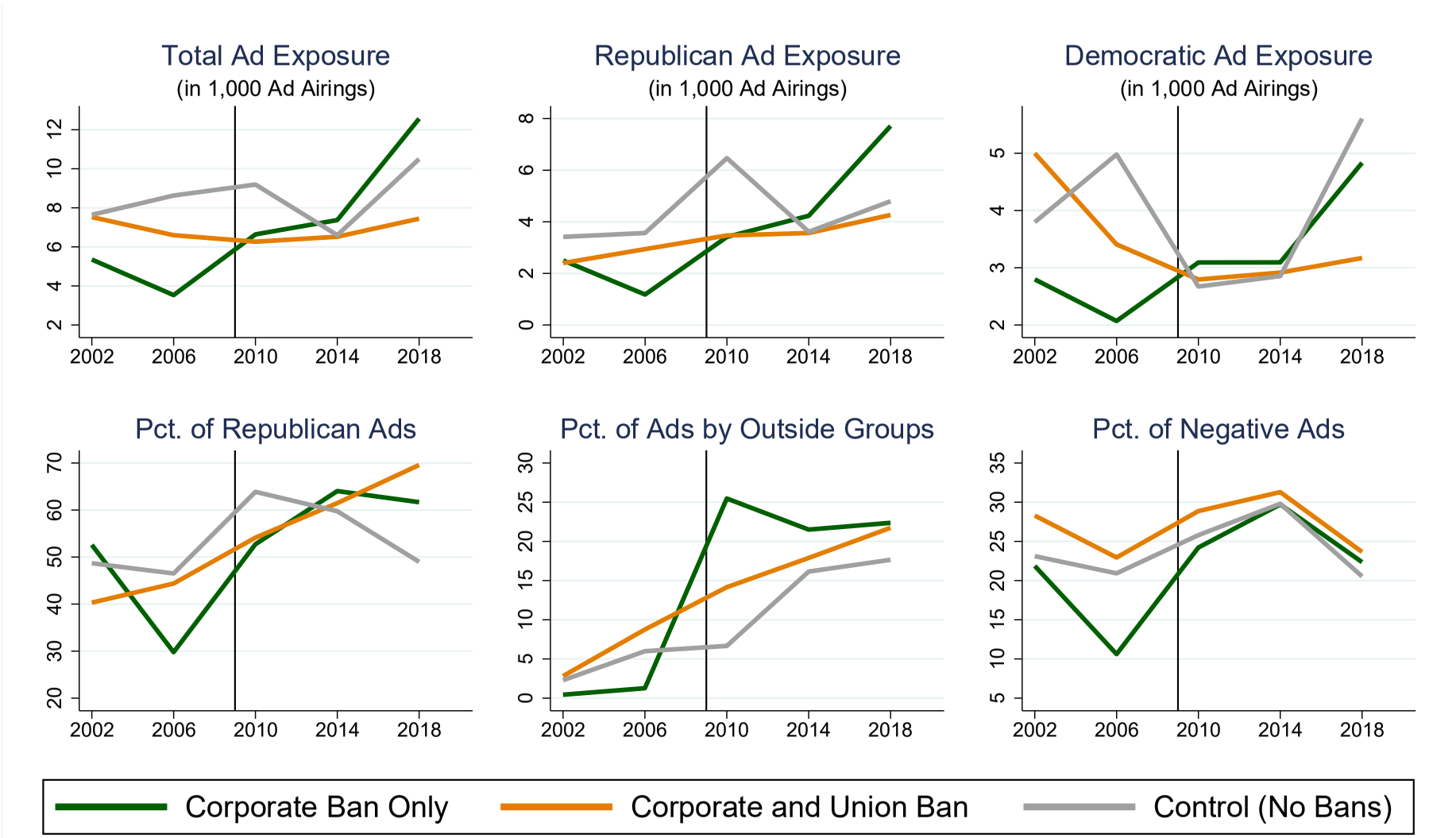
Figure 3 illustrates the raw trends in ad airings by contrasting treated and control TV markets. The three lines represent markets in states that had bans on both corporate and union independent spending before *Citizens United*, markets in states with only corporate bans, and control TV markets in states with no bans at all. For more concise aggregation, observations are grouped into years when most states (36 in total) conduct gubernatorial elections, namely 2002, 2006, 2010, 2014, and 2018.[18]

A graphical comparison of the trends suggests that removing bans on corporate independent expenditures is associated with an increase in total ad exposure. This rise seems to be driven by an increase in ad airings supporting Republican candidates. In contrast, there appears to be no significant change in the total level of Democratic-supporting ad airings resulting from the removal of independent expenditure bans.

[17] Further details can be found at https://elections.wisc.edu/wisconsin-advertising-project and https://mediaproject.wesleyan.edu. Coverage includes the top 75 TV markets in 2000, the top 100 markets between 2002-2006, and all 210 markets from 2008-2020.

[18] For instance, data from 2016 is integrated into 2014 and so are those from 2013 and 2015. However, for the 2009 observations, it is deviated from the rule because of the 2010 treatment, accordingly, they have been added to the 2006 observations.

Figure 3: Evolution of Advertising Outcomes in U.S. Gubernatorial Elections: Contrasting TV Markets in States with and without Pre-*Citizens United* Bans on Corporate and Union Independent Expenditures



Notes: The graph illustrates the evolution of advertising outcomes in U.S. gubernatorial elections across treated and control TV markets, using simple averages per election year. The two treatments are: markets in states that banned both corporate and union independent expenditures before *Citizens United* (#49), and markets in states that only banned corporate spending (#15). Control markets are those in states without any pre-*Citizens United* bans on independent spending (#78). Data are aggregated into the years when most states held their elections. All data is sourced from the Wesleyan Media Project (respectively its predecessor, the Wisconsin Advertising Project).

Regarding the share of ads supporting Republican candidates, the figure suggests a notable increase due to the lifting of independent expenditure bans. This effect appears to be particularly pronounced in TV markets located in states where only corporate bans were removed. Finally, in states where only corporate bans were lifted, graphical evidence suggests a marked rise in ad airings funded by political outside groups and an increase in the share of negative (i.e., attack) ads. These changing patterns are not observed in states where both corporate and union bans were lifted.

Table 1: Difference-in-Differences Estimation Results: Impact of *Citizens United* on Advertising Outcomes in U.S. Gubernatorial Elections, 2000-2020

	Total Ad Exposure		Republican Ad Exposure		Democratic Ad Exposure	
	(1)	(2)	(3)	(4)	(5)	(6)
Indep. Expenditure Ban (Any) x Post-CU	-630.9		-131.9		-480.8	
	(1500)		(791.1)		(870.4)	
Corporate and Union Ban x Post-CU		-1962		-862.6		-1092
		(1525)		(798.4)		(882.0)
Corporate Ban Only x Post-CU		3560*		2168*		1444
		(2029)		(1124)		(1278)
Observations	562	562	562	562	562	562
Adjusted R^2	0.399	0.408	0.295	0.301	0.364	0.370
	Pct. Republican		Pct. Outside Groups		Pct. Negative	
	(7)	(8)	(9)	(10)	(11)	(12)
Indep. Expenditure Ban (Any) x Post-CU	10.90**		6.742**		5.540*	
	(4.487)		(2.934)		(3.325)	
Corporate and Union Ban x Post-CU		9.368**		4.102		3.850
		(4.362)		(3.060)		(3.292)
Corporate Ban Only x Post-CU		15.89		15.35**		11.05*
		(10.13)		(6.030)		(5.921)
Observations	547	547	547	547	547	547
Adjusted R^2	0.302	0.301	0.382	0.388	0.348	0.349

Notes: OLS regressions with robust standard errors clustered at the TV market level. Observations denote local TV markets broadcasting ads for U.S. gubernatorial elections. The sample includes markets where more than 90% of the audience resides in a specific state. A market is considered 'treated' if its state had restrictions on independent expenditures prior to *Citizens United*. Two types of specifications are used: the first identifies treatment for states with any ban on independent expenditures, while the second distinguishes between states with bans on both corporate and union spending and those that only banned corporate independent spending. Share outcomes are scaled from 0 to 100%. All regressions include fixed effects at the TV market and election year level. Descriptive statistics for the variables used can be found in Table A2 in the Supplementary Materials. *** p<0.01, ** p<0.05, * p<0.1.

Table 1 depicts the difference-in-differences estimation results.[19] The different outcomes are regressed on an interaction between the respective treatment indicator (denoting whether there where independent spending restrictions prior to *Citizens*

[19]See Table A2 within the Supplementary Materials for descriptive statistics regarding all variables used.

United) and the post-*Citizens United* indicator (starting from 2010 onwards), complemented with fixed effects for each TV market and election year. Importantly, the TV market fixed effects inherently capture state-level effects. Standard errors are clustered at the TV market level.

In general, the estimation results confirm the impressions already gathered from comparing the raw trends in treated and control TV markets. In particular, the results suggest that the removal of bans on independent expenditures has led to higher total ad exposure in states that removed bans on corporate independent spending only, but not in states that removed both corporate and union bans. The related estimate indicates 3,560 more ad airings resulting from the removal of corporate independent expenditure bans, which corresponds to more than 29 hours of additional ad exposure (based on the typical 30-second length of a single ad). This increase is substantial given an average of approximately 60 hours of campaign ads aired in gubernatorial election campaigns across all TV markets before *Citizens United*. Importantly, this rise is driven by a higher number of ad airings supporting Republican gubernatorial candidates. A corresponding rise in the total level of Democratic ad airings is also observed, though it is smaller and not significantly different from zero. The latter two effects are reflected in a substantial increase in the share of ad airings supporting Republican candidates, which rises by 15.9 percentage points. Interestingly, in TV markets where bans on both corporate and union spending were lifted, the estimates also indicate a higher share of Republican advertising. This effect appears to result from decreases in the total levels of Republican and Democratic ad airings, with Democratic ads experiencing a slightly greater decline (estimated effects of -863 versus -1092 in total ad airings, respectively).

Furthermore, the results indicate a notable shift towards increased advertising by outside groups (versus party and candidate-funded advertising). The total effect resulting from the removal of independent expenditure bans is an approximate 6.7 percentage point increase in the share of airings financed by outside groups. This rise constitutes roughly one-third of the total surge in outside group advertising at the U.S. federal level, as illustrated in Figure 1. The increase is driven by states that have only lifted corporate bans, where the share of outside group ad airings rises by 15.3 percentage points (with a mean share of 4.4% across all TV markets in the pre-treatment period). Finally, the estimation results show an increase in negativity in U.S. gubernatorial election campaigns, respectively the proportion of ads categorized as attack ads (compared to promote and contrast ads). This rise is again driven by TV markets where only corporate independent expenditure bans were lifted,

amounting to more than 11 percentage points – a notable increase considering the average negativity rate was around 23% before *Citizens United* lifted independent expenditure bans.

Given the documented shifts in both the level and composition of aired advertising due to the lifting of independent expenditure bans, the next step is to analyze how the lifting of these bans affected voter behavior in U.S. gubernatorial elections. The next section uses both survey data and official election statistics to examine changing patterns in voter turnout and Republican vs. Democratic vote choices.

Data and Results on Voter Behavior

Information on voter behavior in U.S. gubernatorial elections originates from the Congressional Election Study (CES) (Kuriwaki 2020). This data comprises responses from individuals residing in 1,472 counties across 38 U.S. states covering the period from 2006 to 2022. The median respondent is 55 years old, earns an annual income between $60,000 and $70,000, and has a 2-year college degree. In terms of race, 77% of respondents are White, 9% are Black, 8% are Hispanic, and 6% are categorized as other. Gender distribution is nearly balanced, with 50.4% of respondents being female.

The dependent variables for analyzing changes in voter behavior due to the lifting of independent expenditure bans are constructed from citizens' reported voting choices in U.S. gubernatorial elections. The variable *Did Vote*, measuring turnout, is coded with 100 if respondents indicate having cast a vote for any of the listed candidates, and 0 if they respond with 'I Did Not Vote In This Race' or 'Not Sure'. The variable *Republican Vote* is coded with 100 if the respondent states having voted for the Republican gubernatorial candidate, and 0 if they voted for the Democratic (or another) candidate. The mean turnout rate across the sample is observed at 97.0%, with 44.8% of respondents choosing the Republican candidate.

Identification is based on the same difference-in-differences framework employed in the previous analyses on advertising effects. However, the unit of analysis shifts from TV market to individual survey respondent, each assigned to a specific TV market.[20] Only respondents served by TV markets predominantly located within their respective states (over 90%) are included in the sample (see the preceding discussion on in vs. out-of-state TV markets). Alongside the interaction of whether the respondent's state is treated or not (i.e., pre-*Citizens United* restrictions on in-

[20] Assignment is based on the respondent's county, which is used to determine the corresponding TV market.

dependent spending) and the post-*Citizens United* indicator, the regression model includes fixed effects at the county (encompassing TV market and state effects) and year level. At the individual level, to ensure that observed effects are not confounded by demographic shifts among respondents in affected vs. non-affected states, controls for age, gender, income, education, and ethnicity are included. These covariates are identified by recent literature as significant predictors of turnout and voting preferences (see, e.g., Timpone 1998).[21] To address the potential non-representativeness of survey respondents, cumulative survey weights are employed in the estimations.

The corresponding estimation results are presented in Table 2. Residents in states where independent expenditure bans were lifted as a result of *Citizens United* are found to be roughly 5 percentage points less likely to report turning out to vote in U.S. gubernatorial elections. The demobilization effect is evident in both groups of states – those lifting corporate and union bans and those lifting only corporate independent expenditure bans – with somewhat larger effects in states lifting only corporate bans (though the difference is not statistically significant). In line with what previous studies document for state legislative elections (Abdul-Razzak et al. 2020; Klumpp et al. 2016), the results indicate a strong pro-Republican voting effect in gubernatorial elections resulting from the lifting of independent expenditure bans. Specifically, this effect corresponds to an approximate 16 percentage point increase in the probability that respondents choose the Republican candidate once independent expenditure bans were removed in their state, compared to respondents in control states. The effect for the group of states that lifted corporate bans only is less precisely estimated, likely due to the lower number of respondents in this group. A corresponding t-test does not allow rejecting the hypothesis that the effects are identical for states lifting both corporate and union bans compared to states lifting only corporate bans (p-value=0.47).

In Table A3 in the Supplementary Materials, corresponding results are shown using an alternative survey question on intended vote choices, rather than actual voting behavior, asked before the elections (with 36% more observations). Compared to the results based on reported actual voting behavior, the demobilization effect is only statistically significant in states that removed corporate bans, but not in states that removed both corporate and union bans. In terms of magnitude, the estimated demobilization effect in states removing corporate bans is slightly smaller compared to the baseline estimate using actual voting decisions (4% versus 6% of

[21] In the regression analyses, they are represented through categorical dummy indicators, encompassing respondents' gender, age (18-29, 30-39, 40-49, 50-65, or 66 and older), family income (less than $30,000, between $30,000 and $60,000, between $60,000 and $100,000, or more than $100,000), educational level (high school degree or less, some college or a 2-year degree, 4-year degree or post-graduate degree), and ethnic background (White, Black, Hispanic, or other).

the mean turnout rate). Patterns in the documented pro-Republican voting effect are similar: respondents are more likely to intend to vote for Republican gubernatorial candidates in states that have lifted independent expenditure bans, with an average increase of approximately 14 percentage points in their likelihood to intend to support Republican candidates.

Table 2: Difference-in-Differences Estimation Results: Impact of *Citizens United* on Voter Behavior in U.S. Gubernatorial Elections, 2006-2022

	Did Vote		Republican Vote	
	(1)	(2)	(3)	(4)
Indep. Expenditure Ban (Any) x Post-CU	-4.957***		15.91***	
	(1.286)		(5.448)	
Corporate and Union Ban x Post-CU		-4.784***		16.90***
		(1.286)		(5.376)
Corporate Ban Only x Post-CU		-5.970**		10.13
		(2.295)		(10.07)
Mean DV	97.04		44.78	
Observations	101,352	101,352	98,356	98,356
Adjusted R^2	0.134	0.134	0.134	0.135

Notes: OLS regressions with robust standard errors clustered at the state level. Observations denote individual survey respondents of particular U.S. states. The sample only includes respondents residing in TV markets that are predominantly (more than 90%) located within their respective states. Treatment status is determined by whether the respondent's state had restrictions on independent expenditures prior to *Citizens United*. Two types of specifications are used: the first identifies treatment for states with any ban on independent expenditures, while the second distinguishes between states with bans on both corporate and union spending and those that only banned corporate independent spending. Outcomes are scaled 0-100%. All regressions include fixed effects at the county and election year level, along with controls at the individual survey respondent level (age, gender, income, education, ethnicity). *** p<0.01, ** p<0.05, * p<0.1.

Heterogeneous Effects by Citizens' Party Affiliation

To assess whether there are differential effects based on citizens' party affiliation, Table 3 shows estimations that are split by citizens identifying themselves as Democratic, Republican, or Independent. The findings reveal that across all respondent groups, individuals are less likely to vote in gubernatorial elections after their state lifted bans on independent expenditures. This effect is particularly pronounced among those residing in states where only corporate bans were lifted. Notably, Independents show the strongest response. As a result of the removal of corporate

independent expenditure bans, estimates show an 8.8 percentage point decrease in their likelihood to turn out to vote compared to Independents in the control group who were not affected by *Citizens United*.

Regarding pro-Republican voting, estimates indicate that respondents identifying as Democrats, Republicans, or Independents are all more likely to vote for Republican gubernatorial candidates after their states lifted bans on independent expenditures. Evaluated at the corresponding means, the effects are strongest for Democrats (+202%), followed by Independents (+40%) and Republicans (+10%). Among the three voter groups, the point estimates are more pronounced in states that lifted both corporate and union bans compared to those that only lifted corporate bans, though the differences are not statistically significant (p-values: 0.26, 0.75, 0.52).

In summary, the findings suggest that following the lifting of bans on independent campaign expenditures due to the *Citizens United* decision, voter turnout in U.S. gubernatorial elections has decreased. There is some evidence that this effect is more likely driven by the removal of corporate independent expenditure bans. Demobilizing effects are observed among Democrats, Republicans, and Independents alike. The documented success of the Republican Party in U.S. gubernatorial elections, attributed to *Citizens United*, can be explained by increased Republican voting probabilities across all three voter groups.

Table 3: Difference-in-Differences Estimation Results: Impact of *Citizens United* on Voter Behavior in U.S. Gubernatorial Elections, 2006-2022 – Party Split

Dependent Variable:	Democrats		Republicans		Independents	
Did Vote	(1)	(2)	(3)	(4)	(5)	(6)
Indep. Expenditure Ban (Any) x Post-CU	-4.632***		-4.163***		-6.269***	
	(1.516)		(1.064)		(1.868)	
Corporate and Union Ban x Post-CU		-4.603***		-4.092***		-5.792***
		(1.598)		(1.124)		(1.861)
Corporate Ban Only x Post-CU		-4.826		-4.600**		-8.871**
		(3.010)		(2.065)		(3.597)
Mean DV	97.93		97.78		95.76	
Observations	38,921	38,921	29,495	29,495	27,428	27,428
Adjusted R^2	0.154	0.154	0.110	0.110	0.195	0.195
Dependent Variable:	Democrats		Republicans		Independents	
Republican Vote	(1)	(2)	(3)	(4)	(5)	(6)
Indep. Expenditure Ban (Any) x Post-CU	12.87***		9.465***		19.18***	
	(4.179)		(3.485)		(5.937)	
Corporate and Union Ban x Post-CU		13.74***		9.946***		20.18***
		(4.140)		(3.554)		(5.976)
Corporate Ban Only x Post-CU		7.165		6.489		13.90
		(6.754)		(10.27)		(10.25)
Mean DV	6.385		90.92		47.95	
Observations	38,117	38,117	28,839	28,839	26,264	26,264
Adjusted R^2	0.079	0.079	0.072	0.073	0.120	0.121

Notes: OLS regressions with robust standard errors clustered at the state level. Observations denote individual survey respondents of particular U.S. states. The sample only includes respondents residing in TV markets that are predominantly (more than 90%) located within their respective states. Treatment status is determined by whether the respondent's state had restrictions on independent expenditures prior to *Citizens United*. Two types of specifications are used: the first identifies treatment for states with any ban on independent expenditures, while the second distinguishes between states with bans on both corporate and union spending and those that only banned corporate independent spending. Outcomes are scaled 0-100%. All regressions include fixed effects at the county and election year level, along with controls at the individual survey respondent level (age, gender, income, education, ethnicity). *** p<0.01, ** p<0.05, * p<0.1.

Utilizing Official Election Return Data

Two potential issues emerge when using CES survey data to analyze the impact of lifting independent expenditure bans as a result of *Citizens United*. First, the availability of CES data starting only from 2006 limits the number of pre-treatment periods for analysis. Second, the CES survey data is limited to congressional election years, thereby excluding gubernatorial elections taking place in off-years (five states).

To mitigate these limitations, the study incorporates actual election return data. This data, sourced from Amlani and Algara 2021, includes U.S. gubernatorial election results at the county level from 2000 to 2020.[22] Turnout is calculated as the total vote count divided by the county population.[23] Consistent with the methodology used in the other analyses of this study, the sample excludes counties that are located in out-of-state TV markets (i.e., only those counties are included whose TV markets lie to more than 90% in the county's state).

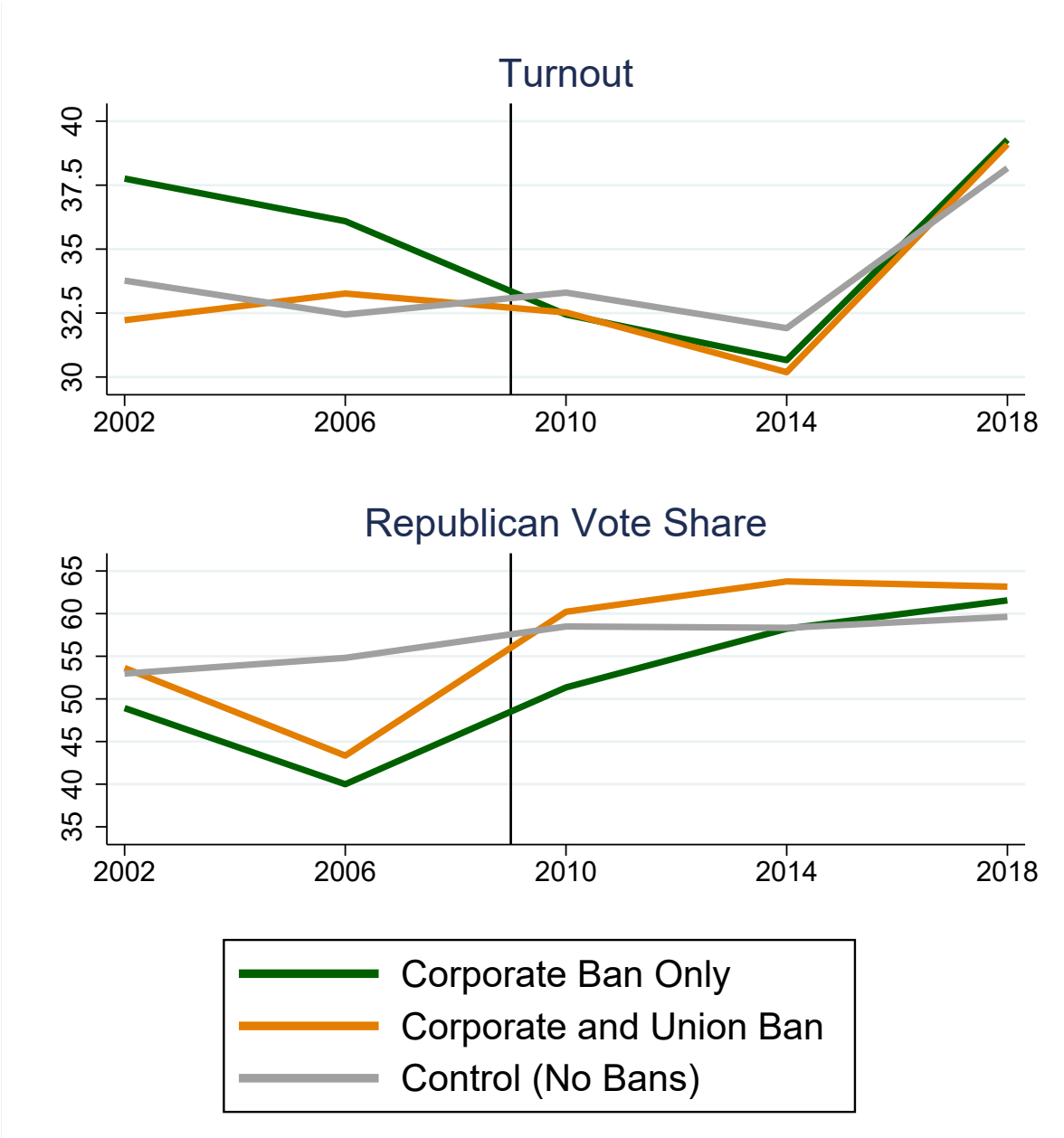
Figure 4 depicts the trends in voter turnout and Republican vote share over the observation period (with elections aggregated into the years when most states held them). The trends are shown separately for states that banned both corporate and union independent expenditures, states that had only corporate bans, and control states without any restrictions. The parallel trends assumption for voter turnout, when comparing states with only corporate bans to those in the control group, seems quite reasonable. Regarding Republican vote share trends, there is a noticeable decline in treated states relative to the control group even before 2010. This suggests that the true effect of lifting independent spending bans on Republican vote share might be underestimated.

Table 4 shows the related difference-in-differences estimates. For each outcome and treatment type (any bans on independent expenditures, or separate treatment indicators for states lifting both corporate and union bans versus only corporate bans), three specifications are estimated. In addition to a baseline specification employing county and election year fixed effects, a second specification includes demographic controls at the county level (share of white population, education level, and average per capita income). A third specification introduces state-specific trends, with the caveat that this may reduce statistical power. In this latter specification, the

[22] The data is accessible on Harvard Dataverse: https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/DGUMFI.

[23] Alaska's election results are not included in the dataset. Information on county population is sourced from the U.S. Census Bureau for the years 2000, 2010, and 2020, with the data for intervening years linearly interpolated.

Figure 4: Evolution of Turnout and GOP Vote Share in U.S. Gubernatorial Elections: Contrasting Counties in States with and without Pre-*Citizens United* Bans on Corporate and Union Independent Expenditures



Notes: The graph depicts the trends in election turnout and Republican vote share related to U.S. gubernatorial election across treated and control counties (simple averages per election year). The two treatments are: counties in states that banned both corporate and union independent expenditures before *Citizens United* (#588), and counties in states that only banned corporate spending (#219). Control counties are those in states without any pre-*Citizens United* bans on independent spending (#888). The analysis includes only those counties where more than 90% of the TV market lies within the county's state. Data from gubernatorial elections are aggregated into the years when most states held their elections.

identifying assumption is that the treatment group's outcomes would have evolved similarly to the control group's after adjusting for state-specific trends, with any differences after the treatment being ascribed to the treatment's impact.

The graphical visualization of the trends and the estimation results confirm what was previously found from the analysis of CES surveys. Voter turnout in gubernatorial elections decreases as a result of lifting independent expenditure bans, with the effect primarily driven by the removal of corporate bans. The estimated effect size ranges from a 3.5-5 percentage point decline in voter turnout in counties from states that lifted corporate independent expenditure bans, compared to counties in the control group. Only in the specification that includes state-specific trends is the demobilizing effect also significant for states that have lifted both corporate and union bans. Regarding pro-Republican voting effects, the estimated increases in Republican vote shares range from 7-11 percentage points in states lifting independent expenditure bans. The lower number of treated observations in the group of states that lifted corporate bans only explains why the corresponding effects are less precisely estimated.

Combining the evidence on voter behavior with the prior results on aired TV campaign advertising, the findings are consistent with the persuasive impact of campaign ads (Spenkuch and Toniatti 2018; Sides et al. 2022): an increase in the share of Republican ad airings corresponds with a rise in Republican vote shares.

Concluding Remarks

This paper provides an analysis of the impact of lifting bans on independent expenditures by corporations and unions following the U.S. Supreme Court's 2010 decision in *Citizens United v. FEC*. It examines both changes in TV campaign advertising patterns and voter behavior, focusing on U.S. gubernatorial elections. Differences in state-level campaign finance regulations before the *Citizens United* decision allow for a difference-in-difference research design, using states that never banned independent expenditures as a control group.

While previous research has identified increasing Republican vote shares and re-election probabilities in state legislative elections as a result of lifting independent spending bans (Klumpp et al. 2016; Abdul-Razzak et al. 2020), this paper documents even larger shifts in favor of Republican gubernatorial candidates using both survey data and official election returns. Estimates derived from official election returns

Table 4: Difference-in-Differences Estimation Results: Impact of *Citizens United* on Official Election Returns in U.S. Gubernatorial Elections, 2000-2020

	Turnout					
	(1)	(2)	(3)	(4)	(5)	(6)
Indep. Expenditure Ban (Any) x Post-CU	-0.813	-0.867	-3.180**			
	(0.963)	(0.967)	(1.179)			
Corporate and Union Ban x Post-CU				0.281	0.225	-2.453*
				(0.940)	(0.949)	(1.219)
Corporate Ban Only x Post-CU				-3.520***	-3.587***	-4.982***
				(1.059)	(1.078)	(1.681)
County Controls		X	X		X	X
State Trends			X			X
Observations	8,718	8,718	8,718	8,718	8,718	8,718
Adjusted R^2	0.895	0.896	0.921	0.900	0.900	0.922
	Republican Vote Share					
	(7)	(8)	(9)	(10)	(11)	(12)
Indep. Expenditure Ban (Any) x Post-CU	7.649**	6.946**	11.38**			
	(2.962)	(2.886)	(5.502)			
Corporate and Union Ban x Post-CU				7.806**	7.161**	13.10**
				(2.925)	(3.009)	(5.071)
Corporate Ban Only x Post-CU				7.262	6.408	7.105
				(6.706)	(6.148)	(10.90)
County Controls		X	X		X	X
State Trends			X			X
Observations	8,718	8,718	8,718	8,718	8,718	8,718
Adjusted R^2	0.666	0.682	0.732	0.666	0.682	0.733

Notes: OLS regressions with robust standard errors clustered at the state level. Observations denote U.S. counties' election turnout and Republican vote shares in gubernatorial elections. The sample includes only counties within TV markets that cover more than 90% of the county's state. Treatment status is determined by whether the county's state had restrictions on independent expenditures prior to *Citizens United*. Two types of specifications are used: the first identifies treatment for states with any ban on independent expenditures, while the second distinguishes between states with bans on both corporate and union spending and those that only banned corporate independent spending. Election return outcomes are normalized to a 0-100% scale. All regressions include fixed effects at the county and election year level. County controls include the share of the white population, the share of those attending college or higher, and per capita income. The mean values of the dependent variables are 33.92 (turnout) and 56.09 (Republican vote share). *** p<0.01, ** p<0.05, * p<0.1.

indicate that Republican gubernatorial candidates experienced an average increase of 7–11 percentage points in their vote shares in states where independent spending bans were lifted, compared to control states.[24]

Importantly, the estimates also show a significant decline in voter turnout in U.S. gubernatorial elections as a result of lifting bans on independent expenditures. This effect is particularly evident in states that lifted corporate bans only, with an average reduction of 3.5-5 percentage points in county turnout rates (with an average turnout rate of 34% across the sample). In contrast, the evidence for demobilization is weaker and less robust in states that lifted both corporate and union bans on independent spending. An analysis of voter party affiliations in the survey data reveals that demobilization is observed across all groups – Democrats, Republicans, and Independents. Among Independents, the effects are particularly pronounced, with respondents in states that lifted corporate independent expenditure bans being over 9% less likely (based on their mean turnout rate) to report voting in U.S. gubernatorial elections – compared to roughly 5% for Democrats and Republicans. Therefore, similar to Besley and Case 2003, who document that restrictions on direct corporate campaign donations are associated with increased turnout, this paper suggests that restricting independent expenditures by corporations may also increase turnout levels.

As a driving mechanism for these results, the paper analyzes information on broadcast campaign advertising in local U.S. TV markets. One might expect that corporations, with their greater financial resources, would benefit more from the lifting of independent expenditure bans compared to unions. Increased corporate spending on Republican TV campaign ads could, in turn, help explain the Republican Party's success following the removal of independent spending bans. Indeed, in TV markets located in states that lifted corporate independent expenditure bans, a significant increase in overall Republican advertising is observed, with a less pronounced increase in Democratic ad airings. This translates to an increase of roughly 16 percentage points in the share of ad airings supporting Republican candidates. Regarding total ad exposure, viewers in these TV markets are exposed to 3,560 more ad airings related to gubernatorial campaigns, on average. This is equivalent to over 29 additional hours of ad time. In the group of states that lifted both corporate and union bans on independent spending, a higher share of ads supporting Republican candidates is also observed (around 9 percentage points), although there are no significant changes in total ad exposure. The findings of this

[24] In comparable estimates, Abdul-Razzak et al. (2020) documents an increase in vote shares for Republican state House and Senate candidates of around 3-4 percentage points.

paper are thus consistent with the persuasive impact of TV campaign ads (Spenkuch and Toniatti 2018; Sides et al. 2022), as more Republican advertising is observed alongside increased Republican vote shares.

The increased involvement of outside groups financing political TV ads is associated with a rise in the use of attack ads, as opposed to promotional and contrasting ads. In states that only lifted corporate bans on independent spending, the share of airings involving attack ads increased by approximately 11 percentage points on average. This rise is substantial given an average share of around 25% over the sample period. Previous research has linked increased negativity in campaigns to voter demobilization (Ansolabehere et al. 1994, 1999). The findings of this study support this claim: voters experiencing more negative campaigns as a result of *Citizens United* are less likely to turn out to vote.

Future research could further investigate the exact mechanisms behind the documented demobilization effects related to increased negativity in campaigns. For example, it might be promising to examine how exposure to negative campaigns interacts with voters' perceived self-efficacy, cynicism, and potential disillusionment. Additionally, it would be valuable to explore whether demobilization effects are particularly pronounced when the attacks involve messages perceived as uncivil or unfair by voters, such as those highlighting prior personal problems (Lau and Rovner 2009).

Another avenue worth investigating is the evolving perception of money's role in politics, which may be connected to declining turnout levels. Since *Citizens United*, voters are exposed to a higher proportion of ads financed by outside groups, rather than party or candidate-funded ads.[25] In this context, advertising by groups that are not required to disclose their donors – so-called 'dark money' from 501(c)(4) social welfare organizations (Cox 2022) – could be seen as particularly problematic.

[25]In a recent survey by the Pew Research Center, 73% of U.S. citizens say that lobbyists and special interest groups have too much influence over decisions made by members of Congress. Additionally, 72% support limits on the amount of money individuals and organizations can spend in elections (https://www.pewresearch.org/short-reads/2023/10/23/7-facts-about-americans-views-of-money-in-politics).

References

Abdul-Razzak, N., C. Prato, and S. Wolton (2020). After Citizens United: How outside spending shapes American democracy. *Electoral Studies 67*, 102190.

Akey, P., T. Babina, G. Buchak, and A.-M. Tenekedjieva (2023). The Impact of Money in Politics on Labor and Capital: Evidence from Citizens United v. FEC. *NBER Working Paper 31481*.

Albuquerque, R., Z. Lei, J. Rocholl, and C. Zhang (2020). Citizens United vs. FEC and corporate political activism. *Journal of Corporate Finance 60*, 101547.

Amlani, S. and C. Algara (2021). Partisanship & nationalization in American elections: Evidence from presidential, senatorial, & gubernatorial elections in the U.S. counties, 1872–2020. *Electoral Studies 73*, 102387.

Ansolabehere, S., S. Iyengar, A. Simon, and N. Valentino (1994). Does attack advertising demobilize the electorate? *American Political Science Review*, 829–838.

Ansolabehere, S. D., S. Iyengar, and A. Simon (1999). Replicating experiments using aggregate and survey data: The case of negative advertising and turnout. *American Political Science Review*, 901–909.

Besley, T. and A. Case (2003). Political institutions and policy choices: Evidence from the United States. *Journal of Economic Literature 41*(1), 7–73.

Bonica, A. (2014). Mapping the ideological marketplace. *American Journal of Political Science 58*(2), 367–386.

Brooks, D. J. and M. Murov (2012). Assessing accountability in a post-Citizens United era: The effects of attack ad sponsorship by unknown independent groups. *American Politics Research 40*(3), 383–418.

Carraro, L. and L. Castelli (2010). The implicit and explicit effects of negative political campaigns: Is the source really blamed? *Political Psychology 31*(4), 617–645.

Cox, C. (2022). Dark money in congressional House elections. *Economics Letters 216*, 110590.

Dowling, C. M. and A. Wichowsky (2015). Attacks without consequence? Candidates, parties, groups, and the changing face of negative advertising. *American Journal of Political Science 59*(1), 19–36.

Galasso, V., T. Nannicini, and S. Nunnari (2023). Positive spillovers from negative campaigning. *American Journal of Political Science 67*(1), 5–21.

Gilens, M., S. Patterson, and P. Haines (2021). Campaign finance regulations and public policy. *American Political Science Review 115*(3), 1074–1081.

Gordon, B. R., M. J. Lovett, B. Luo, and J. C. Reeder III (2023). Disentangling the effects of ad tone on voter turnout and candidate choice in presidential elections. *Management Science 69*(1), 220–243.

Hall, A. B. (2016). Systemic effects of campaign spending: Evidence from corporate contribution bans in US state legislatures. *Political Science Research and Methods 4*(2), 343.

Hansen, W. L., M. S. Rocca, and B. L. Ortiz (2015). The effects of Citizens United on corporate spending in the 2012 presidential election. *Journal of Politics 77*(2), 535–545.

Klumpp, T., H. M. Mialon, and M. A. Williams (2016). The business of American democracy: Citizens United, independent spending, and elections. *Journal of Law and Economics 59*(1), 1–43.

Kuriwaki, S. (2020). Cumulative CCES Common Content. *Available on the Harvard Dataverse at* https://doi.org/10.7910/DVN/II2DB6.

Lau, R. R. and I. B. Rovner (2009). Negative campaigning. *Annual Review of Political Science 12*(1), 285–306.

Powell, L. W., C. Wilcox, P. L. Francia, P. S. Herrnson, and J. C. Green (2003). *The financiers of congressional elections: Investors, ideologues, and intimates*. Columbia University Press.

Rhodes, S. C., M. M. Franz, E. F. Fowler, and T. N. Ridout (2019). The role of dark money disclosure on candidate evaluations and viability. *Election Law Journal: Rules, Politics, and Policy 18*(2), 175–190.

Sides, J., L. Vavreck, and C. Warshaw (2022). The effect of television advertising in United States elections. *American Political Science Review 116*(2), 702–718.

Spencer, D. M. and A. K. Wood (2014). Citizens United, states divided: An empirical analysis of independent political spending. *Ind. LJ 89*, 315.

Spenkuch, J. L. and D. Toniatti (2018). Political advertising and election results. *Quarterly Journal of Economics 133*(4), 1981–2036.

Stratmann, T. and J. W. Verret (2015). How does corporate political activity allowed by Citizens United v. Federal Election Commission affect shareholder wealth? *Journal of Law and Economics 58*(3), 545–559.

Timpone, R. J. (1998). Structure, behavior, and voter turnout in the United States. *American Political Science Review 92*(1), 145–158.

Wood, A. K. (2020). Learning from campaign finance information. *Emory Law Journal 70*, 1091.

The Impact of *Citizens United*: How the Removal of Independent Expenditure Bans Shaped U.S. Gubernatorial Elections

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Supplementary Materials

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Table A1: States with Bans on Independent Expenditures Before *Citizens United*

Category	**States**
Corporate and Union Ban	Alaska (1996), Arizona (1978), Colorado (2002), Michigan (1976), North Carolina (1973), North Dakota (1981), Ohio (1995), Oklahoma (1994), Pennsylvania (1937), Rhode Island (1998), South Dakota (2007), Texas (1987), Wisconsin (1973), Wyoming (1977)
Corporate Ban Only	Connecticut (2000), Iowa (2003), Kentucky (1974), Massachusetts (1975), Minnesota (1988), Montana (1912), Tennessee (1972), West Virginia (1908)
Union Ban Only	New Hampshire (1979)

Notes: The information is taken from Hall (2016), augmented by data from the National Conference of State Legislatures (NCSL) (available at https://www.ncsl.org/elections-and-campaigns/citizens-united-and-the-states). The years in parentheses indicate when the respective bans were introduced.

Table A2: Descriptive Statistics of Variables in U.S. Gubernatorial Election Ad Analysis

Variable	Mean	Std. Dev.	Min.	Max.	N
Total Ad Exposure	7854	7374	0	51598	562
Republican Ad Exposure	4146	4508	0	33240	562
Democratic Ad Exposure	3604	3946	0	32631	562
Pct. Republican	55.47	26.20	0	100	547
Pct. Outside Groups	13.21	17.51	0	92.58	547
Pct. Negative	25.33	18.30	0	82.38	547
Indep. Expenditure Ban (Any)	0.468	0.499	0	1	562
Corporate and Union Ban	0.359	0.480	0	1	562
Corporate Ban Only	0.109	0.311	0	1	562

Notes: The unit of observation is TV market-year.

Table A3: Robustness Check: Alternative Survey Question on Intended Voting Behavior in U.S. Gubernatorial Elections, 2006-2022

	Likely Vote		Republican Vote	
	(1)	(2)	(3)	(4)
Indep. Expenditure Ban (Any) x Post-CU	-2.872		14.36**	
	(1.879)		(5.350)	
Corporate and Union Ban x Post-CU		-2.786		14.97***
		(2.118)		(5.323)
Corporate Ban Only x Post-CU		-3.386*		10.73
		(1.902)		(10.45)
Mean DV	82.66		44.28	
Observations	137,227	137,227	113,432	113,432
Adjusted R^2	0.100	0.100	0.128	0.128

Notes: OLS regressions with robust standard errors clustered at the state level. Observations denote individual survey respondents of particular U.S. states. The dependent variable *Likely Vote* is based on intended voting behavior reported before the elections. It is coded with 100 if the respondent indicates a preference for any of the listed candidates, and 0 if answering with 'Not Sure', 'No One', or 'I Won't Vote in this Election'. The variable *Republican Vote* is coded with 100 if the respondent intends to vote for the Republican gubernatorial candidate, and 0 if the intention is to vote for the Democratic (or another) candidate. The sample only includes respondents residing in TV markets that are predominantly (more than 90%) located within their respective states. Treatment status is determined by whether the respondent's state had restrictions on independent expenditures prior to *Citizens United*. Two types of specifications are used: the first identifies treatment for states with any ban on independent expenditures, while the second distinguishes between states with bans on both corporate and union spending and those that only banned corporate independent spending. Outcomes are scaled 0-100%. All regressions include fixed effects at the county and election year level, along with controls at the individual survey respondent level (age, gender, income, education, ethnicity). *** p<0.01, ** p<0.05, * p<0.1.