Impact of Money in Politics on Labor and Capital: Evidence from *Citizens United vs. FEC*

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Abstract

The perceived increase in corporate political influence has raised concerns that corporations push to enact policies that benefit capital and harm labor. We examine the effect of corporate influence on economic outcomes using the surprise Supreme Court ruling in Citizen's United v. FEC (2010), which rendered bans on political spending unconstitutional. We compare political and economic outcomes after the ruling in states that had pre-existing bans (affected states) to those that did not in a difference-in-difference analysis. In affected states, political spending increases, and governorships experience significant turnover. Surprisingly, however, payments to labor increase, and there is some evidence of increases in payments to capital and overall output. Wage increases occur particularly among young firms. We find evidence of a more business-friendly enforcement environment: affected states enforce fewer labor and consumer protection laws. Together, our findings suggest that that the political changes from corporate money in politics result in increased economic output through less regulatory oversight, and that some of these economic gains are passed on to workers.

Keywords: Citizens United, money in politics, political spending, labor income, capital income, labor share, wages, earning, minimum wage

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The last several decades have witnessed two striking trends. First, firms have wielded substantially more political power and devoted increased resources to political engagement (Zingales, 2017). Second, there has been a marked increase in firm concentration and in the share of national output paid to capital as opposed to labor (e.g., Grullon et al., 2019; Autor et al., 2020). It is natural to conclude that these trends are connected: firms exercise political power to enact policies that benefit them at the expense of workers. To our knowledge, however, no research has attempted to make this link explicit. In this paper, we examine how payments to labor and capital respond to increased corporate political influence following *FEC v. Citizens United* (hereafter *Citizens United*), a landmark US Supreme Court case that increased the amount of money in politics and is often cited as a major catalyst to increased corporate political power.

Increased money in politics may be beneficial or detrimental to workers. On one hand, money in politics can lead to policies that increase overall economic output. For example, firm political activity may lead to the adoption of regulations aimed to increase competition (e.g., Kroszner and Strahan, 1999; Zingales and Faccio, 2021) or to reduce the likelihood of regulatory infractions (e.g., Akey et al., 2021; Heitz et al., 2021). To the extent that these regulations increase overall output and do not directly harm workers, the social surplus resulting from this political activity can accrue to both labor and capital. On the other hand, money in politics may primarily lead to transfers from one factor of production (labor) to another (capital) without expanding total output. In these cases, increased corporate political activity could be detrimental to workers.[1] Finally, unions have historically been a politically important constituency and it is possible that unions are able to benefit from an increased ability to spend money in politics to advocate successfully on behalf of their members.

We examine this important question in the context of *Citizens United*. This 2010 US Supreme Court decision represented one of the largest changes to election campaign finance rules in the post World War II era. In a surprise 5-4 decision, the court invalidated both federal and state-level regulations that restricted corporations and unions from directly engaging in politically motivated communication. This court decision led to a huge increase in political spending in elections. We use this event as a natural experiment in a difference-in-difference design to examine how the outcomes of workers and capital providers change in states that had a ban overturned (i.e., the treatment states) relative the outcomes of workers and capital providers in states that did not have a ban in place (i.e., the control states).

Using state-level economic data from the Bureau of Economic Analysis (BEA), we first

[1] Although most papers that study political activity and firm value find that the two are positively associated (e.g., Cooper et al., 2010; Akey, 2015; Borisov et al., 2016; Bertrand et al., 2020), a few papers suggest that corporate political activity may be indicative of agency problems (e.g., Aggarwal et al., 2012; Coates IV, 2012).

find that labor income *increased* by approximately four percent in states affected by *Citizens United* in the years following the court decision. The increase in labor income persists for up to six years after the event, is robust to using alternative data sources and is unlikely to be due to a preexisting trend in treatment states. We next examine how payments to capital providers changed in states affected by *Citizens United* and find more mixed results. More specifically, we find that capital income is 2.6% higher in treated states after *Citizens United*, but the increase is measured with substantial noise and is not statistically significant at conventional levels. These results suggest that labor outcomes improve when there is more money in politics and that this improvement does not come at the expense of capital providers.

We investigate two potential reasons why payments to labor increase when there is more money in politics. First, the increase in political spending caused by *Citizens United* may have changed the composition of politicians who win elections. For example, the increase in political spending could have helped to elect politicians that favor decreased regulation or other policies that favor economic growth. To the extent that such types of policy changes increase the economic surplus to be divided between labor and capital, both groups could benefit. Second, it is possible that unions or other pro-labor groups particularly benefited from *Citizens United*. About half of the treatment states banned both direct political spending from both corporations and unions, and it is possible that unions were better able to capitalize on the court ruling and enact a more pro-labor agenda through increased political engagement.

We examine the first mechanism in two ways. We first examine how the characteristics of legislative bodies change after *Citizens United*. We then examine whether newly-elected state governments are more business friendly by examining whether state-level regulatory enforcement actions decline in treatment states. We find that states affected by *Citizens United* were more likely to experience a change in the political party of its Governor and the party that controls its House of Representatives. We also find evidence that state legislatures in treatment states are less polarized after *Citizens United*. Moreover, we find that state regulators issue fewer enforcement actions against violations of labor and consumer protection laws in the affected states after *Citizens United*. Finally, we find that the wage increases are larger for younger firms, that typically pay low wages and are particularly sensitive to changes in economic policies (Babina et al. 2019). Collectively, these results suggest that politicians could be implementing more favorable policies for firms which benefit both labor and capital providers.

We find little evidence that the increase in wages is due to the implementation of policies that are specifically more pro-labor. We first use the fact that about two thirds of the treated states that were affected by *Citizens United* had enacted bans on both corporate and union political spending while one third had only banned corporate political spending and

re-estimate our main results in both sets of states. We find similar results in both sets of states, suggesting that an increase in the ability of the unions to spend money in political advertisements cannot explain our main results. We then examine whether our results on increased wages can be explained by increased minimum wages, but find no evidence that affected states were more likely to raise minimum wages after *Citizens United*.

1 Related Literature

Our results contribute to several areas of the literature. A large literature examines the value of political connections and studies the various ways in which political connections can benefit firms. One branch of the literature studies the market value of political connections and generally finds that political connections (measured in various ways) are associated with higher firm values (e.g., Fisman, 2001; Faccio, 2006; Faccio and Parsley, 2009; Goldman et al., 2009; Cooper et al., 2010; Agarwal et al., 2012; Akey, 2015; Borisov et al., 2016; Brown and Huang, 2020). Another branch of the literature studies the mechanisms through which political connections can benefit firms. Existing literature suggests that political connections can help firms secure bailouts (e.g., Brown and Dinc, 2005; Faccio et al., 2006; Duchin and Sosyura, 2012), enable firms to better access government resources (e.g., Claessens et al., 2008; Goldman et al., 2013; Brogaard et al., 2021), and weaken regulatory enforcement (e.g., Correia, 2014; Mehta and Zhao, 2020; Mehta et al., 2020; Tenekedjieva, 2021; Akey et al., 2021; Bourveau et al., 2021; Richard B. Baker and Hilt, 2021). A final area of the literature examines the federal campaign contributions of managers and conclude that managers use their personal contributions to advance the interests of shareholders (e.g., Fremeth et al., 2013; Bonica, 2016; Richter and Werner, 2017; Cohen et al., 2019) and in some cases pressure workers to contribute towards politicians that advance the interests shareholders' interests (Babenko et al., 2020). Our paper contributes to this literature by highlighting that increased corporate political activity does not necessarily only advance the interests of shareholders, but can also have positive effects on the wages of firm workers.

Our paper also contributes to the literature in law, economics, and political science that studies the various effects of *Citizens United* on political outcomes or firms' responses. A number of papers examine how *Citizens United* affected campaign contributions and electoral outcomes (e.g., Spencer and Wood, 2014; Klumpp et al., 2016). Yet other studies examine the stock price reactions of firms around the date that *Citizens United* was decided (e.g., Werner, 2011; Coates IV, 2012; Burns and Jindra, 2014; Stratmann and Verret, 2015; Albuquerque et al., 2020). Tenekedjieva (2020) suggests that firms decrease their opportunistic use of charitable contributions to influence politicians once they can more freely engage in political spending because of the *Citizens United* ruling. While there is not a consensus on the effect of *Citizens United* on equity returns, most papers find that abnormal returns around *Citizens*

United were negative for firms that had made large amounts of political contributions. Finally, a few studies have examined how the likelihood of specific policies being adopted by states has changed as a result of *Citizens United* (e.g., Werner and Coleman, 2015; Niczyporuk, 2020). Our paper contributes to this literature by examining how economic returns to workers and capital providers were affected by increase in political spending caused by *Citizens United*.

Finally, our paper contributes the ongoing research on the secular evolution of factor shares in the macroeconomic literature. Much research documents a decline in the share of GDP going to labor in many industries and nations over recent decades (e.g., Elsby et al. 2013; Karabarbounis and Neiman 2014; Elsby et al. 2013; Autor et al. 2020). However, there is less consensus on what are the causes of the decline in the labor share. A number of researchers have been sounding alarm about the growth of the monopoly power of large firms in the US economy (Philippon, 2019) as well as their political influence over the political process and policies being implemented that benefit those large, incumbent firms (Zingales, 2017). However, empirical evidence is scarce on whether money in politics allows incumbent firms to benefit at the expense of the labor. We contribute to this debate by examining whether the distribution of economic gains to labor versus capital was affected by increased money in politics due to the 2010 Supreme Court decision *Citizens United*, which represented one of the largest changes to election campaign finance rules in the post World War II era. We find that labor income actually increases following this case in the affected states, with more muted increases to capital income, and that this wage increase is particularly large among young firms.

2 Institutional Background, Data, and Empirical Methodology

2.1 Institutional Background

Money in politics in the United States is regulated at the federal, state and in some cases, the municipal level by a variety of government agencies. At the federal level the Federal Elections Commission (FEC) is responsible for the enforcement of campaign finance restrictions of candidates for federal elections, while the body or bodies responsible for enforcing state-level restrictions on candidates for state elections depend on the particular state. The federal government has limited ability to regulate state-level elections and individual state legislatures can implement restrictions on campaign financing in their states, provided that these laws do not infringe on rights that are articulated by their state constitutions or by the US Constitution.

Our empirical setting focuses on the effect of the *Citizens United v. Federal Election*

Commission decision by the US Supreme Court, which ruled that restrictions on independent political expenditures by corporations and labor unions are unconstitutional. The Federal Elections Commission defines independent political expenditure as that used for a communication (e.g., political advertisement) that expressly advocates the election or defeat of a clearly identified candidate and which is not made in coordination with any candidate or her authorized agents. Practically, this decision had two important consequences on the regulation of money in politics. The court decision directly directly struck down two provisions of the Bipartisan Campaign Reform Act of 2002 (BCRA), a federal campaign finance law, and indirectly rendered 23 individual state-level campaign finance restrictions unconstitutional because of the broadness of the the court ruling.[2] The empirical design of this paper focuses on the second of these consequences, the unexpected removal of individual state restrictions on political independent spending.

The question at the heart of *Citizens United v. FEC* was to determine whether Citizens United, a conservative non-profit, should have been allowed to advertise a political documentary against Hillary Clinton that it had created with the support of corporate donors without disclosing its donors. The BCRA prohibited corporations and unions from using funds from their general treasuries to fund "electioneering communication" (e.g., political advertisement) and required that donors who funded this type of advertisement be disclosed.[3] Citizens United had been prevented from advertising the documentary as it wished due to these provisions of the BCRA, so Citizens United sued the Federal Elections Commission and the case was eventually heard by the Supreme Court of the United States. In a unanticipated 5-4 decision that was unexpectedly broad, the justices determined that electioneering communication was protected under the First Amendment of the US Constitution and that the BCRA provisions that prohibited corporations from using funds to fund these types of advertisements and the requirement that "social welfare" non-profits, like Citizens United, disclose their donors were unconstitutional.[4] Since many states had enacted state-level restrictions that were similar to these provisions of the BCRA the *Citizens United* decision effectively ruled that these bans were also unconstitutional. It is worth noting that most states had enacted these bans a long time prior to *Citizens United*. The median year of passage was 1978, thus the enactment of individual bans were not caused or affected by the BCRA rules themselves.

This ruling had the immediate effect of establishing a new vehicle for political spending in federal elections and in those states that had bans overturned, the "Super PAC" or

[2] There still exist a number of restrictions on the ability of individuals or corporations to make campaign contributions directly to politicians. Rules about *direct* contributions (i.e., not independent) either to federal politicians or to state politicians were not affected by the *Citizens United* decision.

[3] Electioneering communication was defined as (1) a broadcast advertisement on television or radio that (2) refers to a federal candidate that (3) airs within thirty days of a primary election or 60 days of a general election and that (4) can reach an audience of 50,000 or more (Spencer and Wood, 2014).

[4] "Social welfare" non profits are typically organized as an IRS 501(c)4 organization.

independent-expenditure-only political action committee (PAC). Super PACs are entities that can received unlimited amounts of money from individuals, corporations, or unions and can spend this money advocating for or against specific political candidates but which must remain independent of PAC of the politician that it supports. Politicians can endorse a specific PAC as their preferred PAC, and such preferred PACs are often run by former advisors of the politician that they support. Super PACs must disclose their donors since they advocate for or against specific individuals. *Citizens United* also led the emergence of non-profit political activism by "social welfare" non-profits. While non-profits are prohibited from engaging in political activity as a "substantial" portion of their activities, they have become an important force in "issue"-based advertising on topics that are politically charged. Social welfare organizations (as with all other non-profits) are not required to disclose their donors or members. As we will show later, *Citizens United* led to a dramatic increase in political spending of both types.

Our research question focuses on the differential affect of *Citizens United* on economic outcomes in states that had a ban on independent spending overturned compared to those that did not have such a ban. We identify those states that had bans on corporate and/or union independent expenditures that were overturned by *Citizens United* using the information provided by the National Conference of State Legislatures.[5] Panel A of Figure 1 presents a map that shows which states had bans in place that restricted corporations and/or unions from making independent political campaign expenditures.[6] Those states that have had a ban on independent expenditures were "treated" by the *Citizens United* decision, while those states that did not have a ban serve as control states. We present the states that had Republican governors at the time of *Citizens United* in Panel B of Figure 1 for comparison. As we will discuss in greater detail below, there do not seem to be any obvious political patterns to the states that did or did not have a ban, and many of the bans were passed many years before *Citizens United*. Indeed, the median age of a ban that was overturned by *Citizens United* was 32 years old, suggesting that their passage was unrelated to current economic conditions or other potential confounding factors.

2.2 Data

We combine data from a variety of sources for our analysis.

[5] Klumpp et al. (2016) use the same information source. It can be accessed at https://www.ncsl.org/research/elections-and-campaigns/citizens-united-and-the-states.aspx. As in Klumpp et al. (2016), we do not classify Alabama as treated because the ban only applied to state referenda.

[6] These states are Alaska, Arizona, Colorado, Connecticut, Iowa, Kentucky, Massachusetts, Michigan, Minnesota, Montana, New Hampshire, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Dakota, Tennessee, Texas, West Virginia, Wisconsin and Wyoming.

2.2.1 Political Variables:

Party control and elections. We collect state-year level data on the party which controls the gubernatorial and the attorney general seat, as well as the state house and senate. Data was hand collected from several sources: National Conference of State Legislatures, states' election websites and Wikipedia. We measure the turnover in party control at the governor, house and senate level in panel A of Table 1. In a given state-year, the likelihood that republicans control the governor seat is 56%, the attorney general seat is 46%, and the upper/lower legislative chamber is 55%/52%. In our main analysis, we control for the cycle year-governor's party in 2008, the year of the last major 2-year election cycle, which was unaffected by *Citizens United*. 28 states had a Republican Governor, while 22 states had a Democratic Governor.

Polarization: We use political polarization measures of state's legislative chambers estimated by Shor and McCarty (2011). Their estimates are constructed by using a combination of legislators answer of a survey and ideal points (how often legislators vote together). This allows us to compare polarization across states and years. The closer a legislative chamber's polarization measure is to 0, the more bipartisan the ideology of its members. Positive values are reflective of conservative ideology, while negative ones of liberal ideology. We present summary statistics in panel B of Table 1. Values for individual legislators are between -3.7 and 4.7, with 95% of legislators having scores between -1.6 and 1.5. At the aggregate legislative chamber level which we use, the average state house and senate in the period has slightly republican tilt, but not significantly so. However, within parties, the average democrat score in both chambers is slightly more partisan.

Independent Expenditures: Many states do not have disclosure requirements, so to show that *Citizens United* affected independent expenditures we collect data on independent expenditures in federal elections from OpenSecrets, a non-profit organization that provides data about money in federal politics.[7]

2.2.2 Economic Variables

BEA: Our main economic outcomes come from the Bureau of Economic Analysis's Regional Economic Accounts. The BEA provides, at the state year level, data on state gross domestic product, further disaggregated into compensation and gross operating surplus.[8] We take compensation as our measure of labor income and gross operating surplus as our measure of capital income. The chief advantage of the BEA data for our purposes is that income is apportioned according to where the underlying economic activity took place.

[7] www.opensecrets.org.

[8] The BEA's calculation methodology is described here: https://www.bea.gov/sites/default/files/methodologies/0417_GDP_by_State_Methodology.pdf.

QWI: For robustness, we supplement the BEA data with the US Census's Quarterly Workforce Indicators (QWI), which is itself a publicly available aggregation of the longitudinal employer-household dynamics dataset, which is employee-employer-linked microdata covering roughly 95% of US private sector jobs. The QWI reports, among other things, employment counts, average monthly earnings, and total payrolls at the state-quarter level. Additionally, the QWI shows heterogeneity by firm and employee characteristics, such as employer size and age, and employee education, race, age, and sex. Thus, the QWI provides a year-state-firm/employee heterogeneity panel reporting employment and payments to employees that supplements our main BEA dataset.

IRS: As additional robustness, we further use the IRS's published Statistics of Income (SOI) between 2005 and 2016. The SOI reports, at the aggregated zip-year level, various components of taxable income, including among other categories, adjusted gross income (AGI), salary and wage income, interest income, dividend income (ordinary and qualified), business income, and capital gains. We aggregate the data to the state-year level. The total personal income, labor income, and capital income analogs for the IRS data are adjusted gross income, salary and wage income, and the sum of interest income, dividend income, and business income, respectively. There are two chief drawbacks of the IRS income relative to other measures: First, the tax base is generally smaller than the actual income earned by various factors of production. This is due to, for example, carried forward losses and other exemptions. Second—and this is particularly true for capital income—income is apportioned according to where the taxpayer lives rather than where the economic activity leading to the income occurs.

Ad$pender: Ad$pender tracks advertising expenditures across media (e.g., TV, Magazines, Internet advertising, and others)[9], topics, media markets, and years. We examine money spent on political advertisements across all media types from 2004 to 2018. Ad$pender reports data at the media market level, which corresponds approximately to a city or MSA. We aggregate market-level ad spending to the state level. Note that not all states contain a media market, and so advertising data are missing for some states.

Miminum wage data: In Gopalan et al. (2021), the authors hand collect data on each state's minimum wage in a given year. The authors shared this data with us. The average level of state minimum wage in the period was $6.70, and the average annual growth was 2.8%

[9]Television, including network, cable, spot, Spanish-language network, and syndicated; Radio, including network, national spot, and local; Magazines, including consumer, business-to-business, local, Sunday, and Spanish-language; Newspapers, including national, local, and Spanish-language; Internet; Outdoor (e.g., billboards).

2.3 Empirical Methodology

2.3.1 Main Specification

We implement a standard differences-in-differences estimation using the following equation:

$$Outcome_{st} = \beta Post_t \times Treated_s + \gamma_{tp} + \gamma_s + \epsilon_{st}. \quad (1)$$

where s indexes state and t indexes time; $Outcome_{st}$ represents an economic or political outcome for state s in time period t. $Post_t$ is an indicator variable that takes the value of one for periods following the *Citizens United* case and is zero otherwise. $Treated_s$ is an indicator that takes the value of one for the 23 states that had previously adopted a ban on independent expenditures that was overturned by the court decision and is zero otherwise. γ_{tp} is a year-party fixed effect that allows states that had governors of different political parties in the election cycle prior to *Citizens United* to follow different time trends, which also absorbs standard time fixed effects. γ_s is a state fixed effect.

We also use standard event-study analysis to estimate the effect of *Citizens United* case dynamically over time as follows:

$$Outcome_{st} = \sum_{\tau=2004}^{2016} \beta_\tau (I_{t,\tau} \times Treated_s) + \gamma_{tp} + \gamma_s + \epsilon_{st}. \quad (2)$$

In this estimation, β_τ measures the changes in the outcome in treated and control states year by year, where $\tau > 2010$ corresponds to the individual annual treatment effects. The omitted time period is the period just before *Citizens United* goes in effect.[10] Compared to Equation 1, this specification allows us to examine both the possible existence of pre-trends as well as the timing of the changes changes after the *Citizens United* decision. We cluster standard errors by state in all of our analysis.

The underlying assumption of our specification is that the treated and the control states would have been on similar trends after the court case in the absence of this treatment. While this assumption is fundamentally unstable, we will show with our dynamic analysis, that the treatment and the control states plausibly follow parallel trends before the treatment. However, one key concern is that the treated and the control states might have some other characteristics that could send these states on differential trends following the treatment. To examine this, we compare the characteristics of states that had bans overturned by *Citizens United* to those that did not at the time of the court decision to alleviate concerns that the two groups of states are fundamentally different or have low covariate balance (as

[10] Since *Citizens United* affected political spending in the 2010 election cycle, the excluded cycle is 2008 for regressions that examine political spending. For regressions that measure economic outcomes or indicate which political party was in control of a given branch of state government, the excluded time period is 2010.

suggested by Atanasov and Black, 2021). Probably the biggest concern was that the bans of independent expenditures may predominately have been found in strongly Democratic states that favor such regulations, which may have very different economic fundamentals or demographic characteristics causing them to evolve on different paths following the case. To address this concern, we control in all specifications dynamically for the party of the state's governor holding this position right before the Supreme Court case. While we cannot fully refute this potential concern, we provide evidence that the two groups of states are fairly comparable.

Table 2 compares political, economic and demographic characteristics of the two groups of states around the time when *Citizens United* was decided. Political orientation seem to be relatively similar. The average share of the 2008 Presidential election that was won by Barak Obama was 49.0% in treated states and 51.8% in control states, while 30.4% of treated states and 55.6% of control states had a Republican governor at the time of the Supreme Court decision. The average demographic characteristics are similar between the two states. Indeed, on average, states have similar population sizes, median household incomes, and education levels. Unemployment rates do not significantly differ between the two groups. Credit conditions and housing prices are modestly different between the two groups. Housing prices had a higher runup prior to the Financial Crisis (and a correspondingly higher crash) in control states, along with a higher probability for households to be delinquent on loan repayments. However, these differential effects are driven by Florida and Nevada, which were hardest hit by the Subprime Crisis. Our results are robust to removing these two states. As we show in Appendix Table A1 our main results are robust to controlling for these crisis proxies dynamically and so do not affect our results.

3 State-Level Political Consequences of *Citizens United*

3.1 Political Spending

We first show that *Citizens United* was an important shock to both the campaign finance landscape and to the outcomes of state-level elections.[11] We begin by showing that *Citizens United* led to an increase in political spending. We begin by plotting the number of Super PACS, along with the amounts that they spent by election cycles in panels A and B of Figure 2. The number of Super PACs increased from zero in the 2008 election cycle to 2,392 in the 2016 election cycle, while their combined spending increased from zero to $2.86 billion over the same time period (panel C), which mainly came from corporate donors. This increase

[11] We are not the first to study the political consequences of *Citizens United*, authors in several fields have examined similar questions (e.g., Burns and Jindra, 2014; Spencer and Wood, 2014; Klumpp et al., 2016). To our knowledge there is less work on the economic effects of *Citizens United* and none that examines our main research question of how this event effected economic outcomes for labor and capital.

in spending came from both conservative and liberal sources (panel D). Indeed, of the $5.4 billion spent by Super PACs over our entire sample period, 62.1% was from conservative Super PACs, while the balance came from liberal Super PACs.

In addition to prompting the rise of Super PACs, *Citizens United* explicitly allowed non-profit advocacy groups to raise and spend unlimited amounts of money on political advertisements that did not expressly advocate for or against specific candidates, and as we described above, invalidated the state laws prohibiting such advertisement for state-level elections in 23 states. We therefore examine how political advertising changed in those states compared to states that did not have such a ban in place using our differences-in-differences framework. As Figure 3 shows, political advertising increased in states treated by *Citizens United* compared to the control states. More specifically, political advertising in treated states increased by 30% in the first year after the court ruling compared to political advertising in control states.

3.2 Electoral Outcomes

We next examine the effect of *Citizens United* on the outcomes of both executive and legislative elections. Specifically, we examine whether there is an increased probability that a different party controls the governorship, state Senate, or state House of Representatives in states that were directly affected by *Citizens United* compared to those that were not.[12] We present the results of this analysis in Figure A2. Panels A and B examine gubernatorial elections. We find that there is an increased probability that the governor was from a different party in states that were treated by *Citizens United* compared to those that were not. Panel B estimates this effect separately for states that had a Democratic or Republican governor when *Citizens United* was decided. We find that the increased turnover in gubernatorial party is found for both states that had Democratic and Republican governors. Panels C and D examine turnover in the state House of Representatives. We find some evidence that the political party that controlled a majority of the seats changed was somewhat higher after *Citizens United* in treated states. However, as can be seen in panel D, this effect is driven by changes in control from Democrats to Republicans. We find no evidence that control of the state Senates was affected by *Citizens United* in panels E and F, although as with federal legislative elections, state Senate terms are staggered and as a result control of the chamber is less likely to be affected by one-time events such as *Citizens United* than state House of Representatives.

[12] We refer to the lower legislative chamber as the state House of Representatives for consistency, although in some states this chamber is called the state Assembly.

4 Economic Outcomes

4.1 Baseline Results

We now turn to our main question of interest: how does increased political spending affect economic outcomes for capital and labor? The net effect of *Citizens United* on the economic outcomes could be more favorable to capital providers (i.e., business owners) or labor (i.e., workers). For example, it is possible that capital benefited more than labor from *Citizens United*. As we discuss in Section 3.1, we find that, while liberal and conservative Super PAC spending both increased, conservative spending increased more. To the extent that conservative spending is more likely to represent the interests of capital than those of labor, this could cause economic gains to capital providers to increase at the expense of labor. Alternatively, *Citizens United* overturned restrictions on unions' ability to engage in political advertising and it is possible that unions were better able to advocate for more favorable labor policies, which could result in larger gains to labor. Finally, it is possible that *Citizens United* increased political competition more generally, which could lead to the election of more competent politicians and/or more effective policy, leading to gains for both capital and labor, through higher economic growth.

We examine how economic outcomes to labor and capital change after *Citizens United* in Table 3 and Figure 4. Panel A of the figure shows how labor income changed in treatment and control states after the court ruling. We find that (log) labor income increased in the years immediately after *Citizens United* and remained at a higher level through the end of our sample period, although the effect is measured with less precision as the time since the event grows. There do not seem to be substantial pre-trends in labor income, suggesting that the change can be attributed to the *Citizens United* ruling, rather than a latent trend that happened to effect states that had enacted political spending bans and coincided with *Citizens United*. As column (2) of the table shows, labor income increased by approximately four percent more in states that were affected by *Citizens United* after the event, an increase that is statistically significant at the five-percent level.

Panel B of the figure shows how capital income changed in treatment and control states. Looking at the period-by-period estimates, we find that (log) capital income increased following the treatment year, although the standard errors of the estimation are high. Indeed, as shown in in column (3) of the table, the point estimate of a pooled estimation is 0.019, but is statistically insignificant at conventional levels. We find a similar pattern for state-level GDP as for capital income. Year-by-year changes in log GDP are higher in treated states after *Citizens United*, but these coefficients are estimated with substantial noise, as can be seen in panel C of the figure and column (1) of the table. Finally, we find little evidence that labor share changed. There are no obvious patterns in panel D of Figure 4 and the

coefficient in column (4) of Table 3 is 0.005, which is insignificantly different from zero at conventional levels. Collectively these results suggest that payments to labor increase when political spending is less regulated and while we cannot conclude that payments to capital increased with precision, we find no evidence that the increase in labor income comes at the expense of returns to capital providers.

We examine the robustness of our main economic results to using different databases of payments to capital and labor. More specifically, we repeat the analysis from Section 4.1 using salary and wage data, personal income data, and business income data from the IRS. We report these results in Figure 5 and Table 4. Our results on payments to labor are very similar to what we obtain using BEA data, both in economic magnitude and statistical significance. We find that overall adjusted gross income, the closest analogue to GDP in the IRS dataset, increases by 3.7%, which is statistically significant at the five-percent level (panel B of the figure and column (1) of the table, respectively). Measuring the payments to capital is more complicated using IRS data than using BEA data because there can be substantial differences in what is earned in a time period and what is taxable in the same time period. Our preferred way to measure payments to capital providers is to assume that all income that is not paid out to labor providers are effective payments to capital providers. Panel C of the figure and column (5) of the table show that this measure of payments to capital providers also increased modestly in states affected by *Citizens United* after the court ruling, although the the standard errors of the estimate are high. If we instead examine business income as reported by the IRS, we find that there is little change around *Citizens United* (panel D of the figure and column (3) of the table). As before, we do not detect a change in labor share ratio around *Citizens United*.

Finally, we examine whether our conclusions about payments to labor are similar if we use data from the US Census' QWI database. Figure A1 and Table A2 examine how total payroll, average earnings and total employment change in treated states after *Citizens United*. We find that payroll and earnings increase by 4.9% and 2.6%, respectively after the court ruling, although the pooled estimates are only statistically significant at the ten-percent level (panels A and B of Figure A1 and columns (2) and (3) of Table A2, respectively). We find that employment was modestly higher immediately after *Citizens United* (panel C of the figure, although the effect is not statistically significant at conventional levels in the pooled post-event period (column (1) of the table).

Figure 6 and Table 5 further examines how payments to labor change for older and larger firms. If political spending increases most by larger, incumbent firms, who might also benefit most in terms of returns to capital from these political spending via new state policy regimes following the *Citizens United* (which we cannot measure in our data), then we would observe that the wage income would also likely rise more for workers at larger or older firms. However, we do not find this to be the case in our data. Panels (E) and (F) of Figure

6 shows that both employment and payroll increase similarly across firms with above and below 50 employees, which is a commonly-used cut-off to define smaller and larger firms. We also examine whether labor income changes differently across firms that are younger versus older—as another proxy for the political influence of incumbent corporations. Surprisingly, we find that average earning increase more for younger firms (Panel (A) of Figure 6 and column 2 of Panel (A) of Table 5). However, this differential is not driven by young firms hiring more workers as we find that younger and older firms increase employment in a similar manner. Given young firms are generally more financially constrained and given that young firms tend to pay worker much less (Babina et al. 2019), our findings suggest that changes in state policies following *Citizens United* might benefit young firms more.

5 Potential Mechanisms

Our results so far have shown that *Citizens United* had both political and economic consequences. Indeed, our main results suggest that payments to labor increased in states that were affected by the court ruling compared to those that were not while increase in payments to capital were generally more muted. We consider several possible explanations for this finding. First, did *Citizens United* cause politicians of a different "type" to be elected, who in turned changed the economic or regulatory environment? Second, since *Citizens United* also removed restrictions on unions ability to engage in political advocacy, can the improved worker outcomes be attributed to unions' increased political advocacy? We examine each possibility in turn.

5.1 More Favorable Economic or Regulatory Environment

We first examine whether business conditions became "easier" for firms, expanding the surplus available to split between labor and capital. We examine this possibility in two ways. First we study there is a difference in the political orientation of the politicians that come to power after *Citizens United*, with a focus on the political polarization of the state legislatures. Then, we examine whether regulatory enforcement changes in states that were affected by *Citizens United* to see whether firms may benefit from fewer government constraints.

We begin by examining whether there different "types" of legislators are elected after *Citizens United*. In Section 3.2 we found that the lower chambers of the state legislatures were more likely to become controlled by Republicans and that states' governors were more likely to change parties (changing both from Democrat to Republican and vice versa). However, these results do not shed light on how different the legislative preferences are of the newly elected politicians. For example, newly elected members of the state legislators could be more or less extreme than the opponents that they replaced, which could have an im-

pact on the ease of passing new legislation or on the types of bills that are introduced. In particular, given that there was an average change that favored the Republican Party one could imagine that the legislative agenda of a newly Republican legislature composed of more ideologically extreme politicians could be different than the legislative agenda of more ideologically moderate politicians. Alternatively, if the newly elected Republicans were more centrist in nature, policy making could be more focused on issues that are less partisan in nature, such as reducing the burden on small businesses.

We measure polarization of a state legislative chamber using the data provided by Shor and McCarty (2011)[13] The authors construct ideology scores for individual state legislators using data on politicians' votes on bills and their responses to surveys about political ideology using an "ideal point" estimation to capture each legislator's political preferences. Each politician is given a numerical score that that indicates how far to the "left" or "right" they are given their observed voting behavior. We use the numerical distance in ideology score between the median Democrat and Republican in each legislature-year as our measure of polarization, which is the preferred measurement of polarization by the authors. An larger distance between the median politician in each party indicates higher polarization in that legislative chamber. Figure 7 examines how state-level political polarization changes after *Citizens United*. Panel A presents results for the state Houses while Panel B presents results for state Senates. We find that states that were affected by *Citizens United* have less ideological distance between the median members of the Democratic and Republican parties, suggesting that political polarization decreased in the state Houses, although the effect is estimated with increased noise in years further away from the event. Specifically, we find that the distance between the median legislators decreased by approximately 0.04 units, which corresponds to 8.2% of a standard deviation. We find less evidence that polarization changed in the state Senates, which is unsurprising given our earlier finding that state Senate elections were not strongly affected by *Citizens United*, potentially because state Senate elections are more staggered.

Next, we examine whether regulatory enforcement changed in states affected by *Citizens United*. We use data from the Violation Tracker database compiled by Good Jobs First, a non-profit advocacy group that compiles a number of databases related to corporate and government activities. The database aggregates enforcement actions from both federal and state enforcement agencies on topics related primarily to banking, consumer protection, environmental, wage and hour violations, unfair labor practice, health and safety, and workplace discrimination. We examine whether the number of state-level and federal enforcements

[13] A long tradition in political science has used ideal point estimation. Seminar papers include Poole and Rosenthal (1985), Poole and Rosenthal (1991), and Poole and Rosenthal (2000). Recent research in financial economics has adopted the methods that underlie the approach to estimate the voting ideology of institutional investors (Bolton et al., 2020).

changes after *Citizens United*. If government regulation of economic activity became more favorable, we would expect that the number of state-level enforcement actions decreased, particularly those actions that are related to consumers, environment, or employees. We use the number of federal level enforcement actions for similar types of regulated activity as a placebo test to verify that a lower number of enforcement actions does not reflect an underlying change in the behavior of firms, which itself could independently lead to a change in the number of enforcement actions that they received. More specifically, there are many areas of regulation in which there is an overlap in federal and state jurisdiction. State-level executive agencies such as a state Attorney General in states with bans on corporate spending would have been differentially affected by *Citizens United*, whereas federal regulators would not have changed their regulatory scrutiny of firms in different states before or after *Citizens United*.

Panels A and B of Figure 8 present the results of our analysis. Panel A shows the total number of state-level enforcement actions whose primary offense type is relating to violations against labor or consumers (red) and capital (blue).[14] We find that enforcement actions against labor fall significantly in treated states following Citizens United. In contrast, Panel B, which examines enforcement actions at the federal level, shows that federal enforcement activity did not exhibit any sort of change before or after *Citizens United* in treatment states relative to control states. Moreover, when examining enforcement actions that are related to capital protection, we find no consistent patterns for either state or federal enforcement actions related to capital protection. Table 7 quantifies these result in the difference in difference framework and shows that state-level enforcement actions decreased by roughly 50% following *Citizens United*, while enforcement actions related to capital protection, and federal enforcement actions, did not change. These tests suggest that while firms did not change their overall behavior, the state regulatory environment became more favorable to firms following *Citizens United*.

We examine whether adverse labor outcomes change directly following *Citizens United* using data from the Center from Disease Control. Specifically, we study whether work-associated death or cancer death rates change in treated states. Panels C and D of Figure 8 present the results of our analysis. In short, we find no evidence that workers had worse non-monetary outcomes in states affected by *Citizens United*. Collectively, these results suggest that the state-level regulatory environment became more favorable for firms located in states that were affected by *Citizens United*. They received fewer enforcement actions from

[14] We define cases whose primary offense type is defined as investor protection violation or accounting fraud or deficiencies as capital protection cases. We define cases whose primary offense type is defined as wage and hour violation, employment discrimination, workplace safety or health violation, labor relations violation, benefit plan administrator violation, employment screening violation, consumer protection violation, environmental violation, privacy violation, price-fixing or anti-competitive practices, mortgage abuses, or off-label or unapproved promotion of medical products as consumer or labor protection cases.

state regulators but not from federal regulators, suggesting that their underlying behavior was unchanged. Furthermore, we find that work-associated death rates or cancer rates did not change substantially, workplace hazards did not change, which suggests that increased payments to workers did not come as a form of compensation for poorer work conditions. These results, combined with our results on reduced polarization suggest that our main results of increased payments to labor may come through a more favorable operating environment that happened to benefit labor.

5.2 Pro-Labor Policies

We next examine whether *Citizens United* led there being more favorable policy changes for workers. We consider this possibility in two ways. First, we examine whether the increase in salaries is stronger in the set of states that had previously banned political advertising by unions in addition to banning political advertising by corporations. Indeed, if unions were suddenly able to exert more influence in policy making, they could have helped enact pro-labor policies. Second, we examine whether the effective minimum wage increased in treated states after the court decision. Since *Citizen United* displaced a number of politicians, their replacements could have directly advocated pro-labor laws such as an increased minimum wage. An increase in minimum wages could have directly led to the increase in wages paid that we have shown.

We examine the effect of *Citizens United* on payments to labor and capital in states that had either banned only corporations from engaging in political advertising or had banned both corporations and unions from engaging in political advertising in Figure 9. We present results on labor income for states that only had bans on independent expenditures by corporations or bans on independent expenditures by both corporations and unions in panels A and B, respectively. Labor income increases after *Citizens United* in treated states in both groups, although the estimates are measured with less precision since we are roughly halving the number of treatment states for each analysis. Importantly, we are unable to reject the null hypothesis that the coefficients are the same. We present analogous results for capital payments in panels C and D of the figure. As before, the effect of *Citizens United* on payments to capital are measured with more noise than payments to labor and we are unable to reject the null hypothesis that the year-by-year coefficients are the same. Collectively, these results suggest that our main result, increased payments to labor in treated states after *Citizens United*, are unlikely to be attributable to increased political power of unions. This evidence is consistent with the evidence presented earlier in Panel (C) of Figure A2 that shows that labor contributes a relatively minor share to independent political expenditures that were affected by the court decision.

While it is unlikely that the increase in wages can be attributed to increased unions' po-

litical power, it is still possible that politicians enacted more pro-labor policies after *Citizens United*. While we cannot examine every possible change to policies that could benefit labor, we consider one specific type of policy that could explain our main findings: increased state-level minimum wages. We examine whether minimum wages increase in states that were affected by *Citizens United* in Table 6.[15] We examine potential changes in minimum wages using two different outcome variables: the dollar level of the minimum wage and the percent annual growth of the minimum wage over the last year. Across both measures, we find no evidence that minimum wages changed differentially in states affected by *Citizens United*. Collectively, our results in this section suggest that our main finding that payments to labor increased when money in politics became less regulated cannot be attributed to changes in policy that would directly benefit labor.

6 Conclusion

We examine how payments to labor and capital providers changed in states affected by the 2010 Supreme Court decision *Citizens United*, which prompted the largest increase in political spending in the post World War II era. We exploit the fact that the *Citizens United* ruling overturned bans on independent expenditures in some states but not others and use the event as a natural experiment to identify the causal effect of increased money in politics on the economic outcomes of labor and capital. Using state-level economic data from the Bureau of Economic Analysis (BEA), we first find that labor income *increased* by approximately four percent in states affected by *Citizens United* in the years following the court decision. The increase in labor income persists for up to six years after the event, is robust to using alternative data sources and is unlikely to be due to a preexisting trend in treatment states. We next examine how payments to capital providers changed in states affected by *Citizens United* and find more mixed results. More specifically, we find that capital income is 2.6% higher in treated states after *Citizens United*, but the increase is measured with substantial noise and is not statistically significant at conventional levels. These results suggest that labor outcomes improve when there is more money in politics and that this improvement does not come at the expense of capital providers.

We investigate two potential reasons why payments to labor increase when there is more money in politics. First, the increase in political spending caused by *Citizens United* may have changed the the change the composition of politicians who win elections. Second, it is possible that unions or other pro-labor groups particularly benefited from *Citizens United*. We find that the "type" of legislator that is elected after *Citizens United* in treated states seems to be different, suggesting that state governments might have enacted different types

[15] Minimum wage data come from Gopalan et al. (2021).

of policies, including those that might be more business friendly. Consistent with the idea of business conditions becoming more friendly, we find that state-level enforcments decline in states affected by *Citizens United*, although federal enforcments of similar statutes are not enforced less often. We find little evidence that the increase in wages is due to the implementation of policies that are more pro-labor. We first use the fact that about two thirds of the treated states that were affected by *Citizens United* had enacted bans on both corporate and union political spending while one third had only banned corporate political spending and re-estimate our main results in both sets of states. We find similar results in both sets of states, suggesting that an increase in the ability of the unions to spend money in political advertisements cannot explain our main results. We then examine whether our results on increased wages can be explained by increased minimum wages, but find no evidence that treated states were more likely to raise minimum wages after *Citizens United*.

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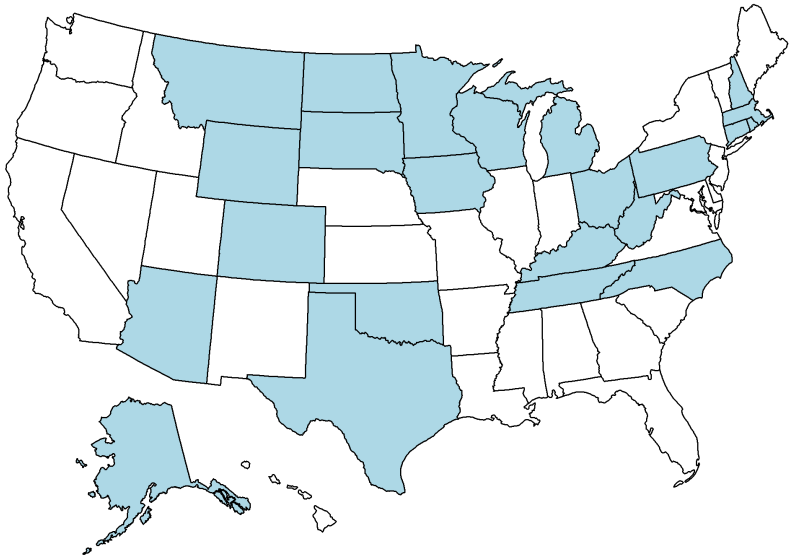
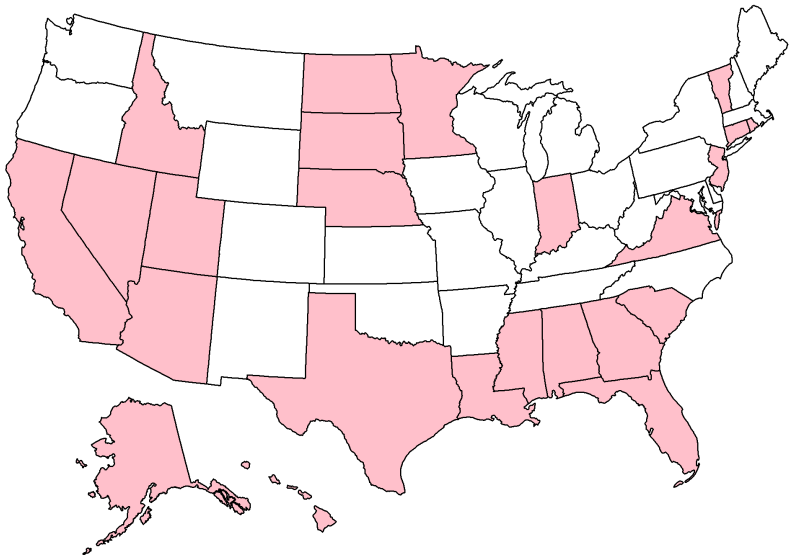
Figure 1: Citizens United at the State Level

Note: This figure which states were affected by the Citizens United decision as well as ex-ante party control. Specifically, Panel (a) shows in blue which states banned corporate only or corporate and union donations to political campaigns before the Citizens United decision. Panel (b) shows in red which states had a Republican governor as of 2010.



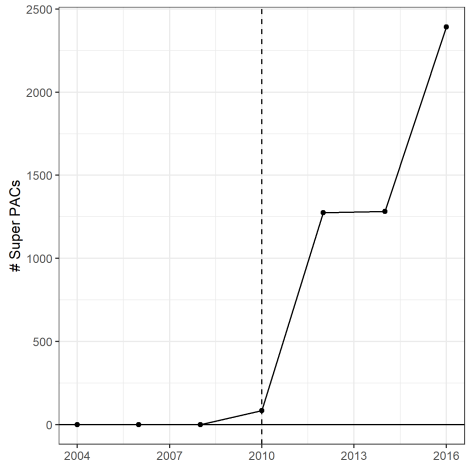
(a) States with corporate only or corporare and union donation bans pre-citizens United



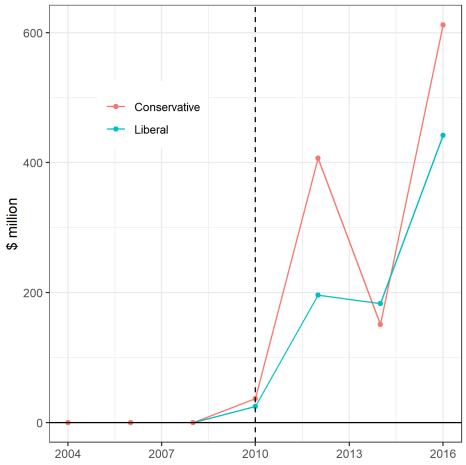
(b) States with republican governors as of 2010

Figure 2: Political donations

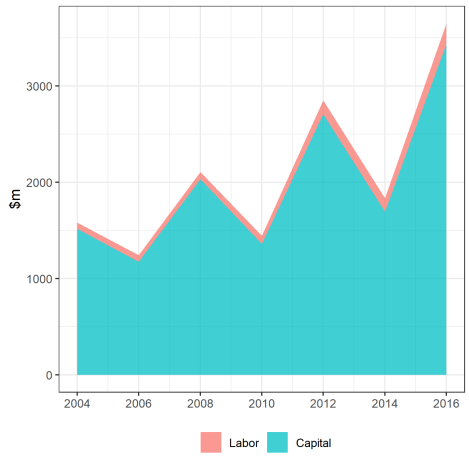
Note: This figure shows political organizations and spending around the Citizens United decision. Panel (a) shows the total number of Super PACs. Panel (b) shows total Super PAC spending, in millions of dollars in two-year increments on conservative versus liberal policies. Panel (c) shows total political spending by labor unions (red) and businesses (blue). Panel (d) shows the source and destination of political spending, with red shades denoting spending on Republican causes, blue shades denoting spending on Democrat causes, dark shades denoting spending by businesses, and light shades denoting spending by labor unions. Data are from OpenSecrets.



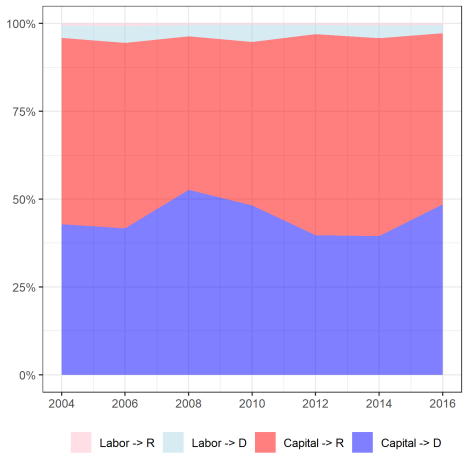
(a) Total Super PACs



(b) Super PAC Spending



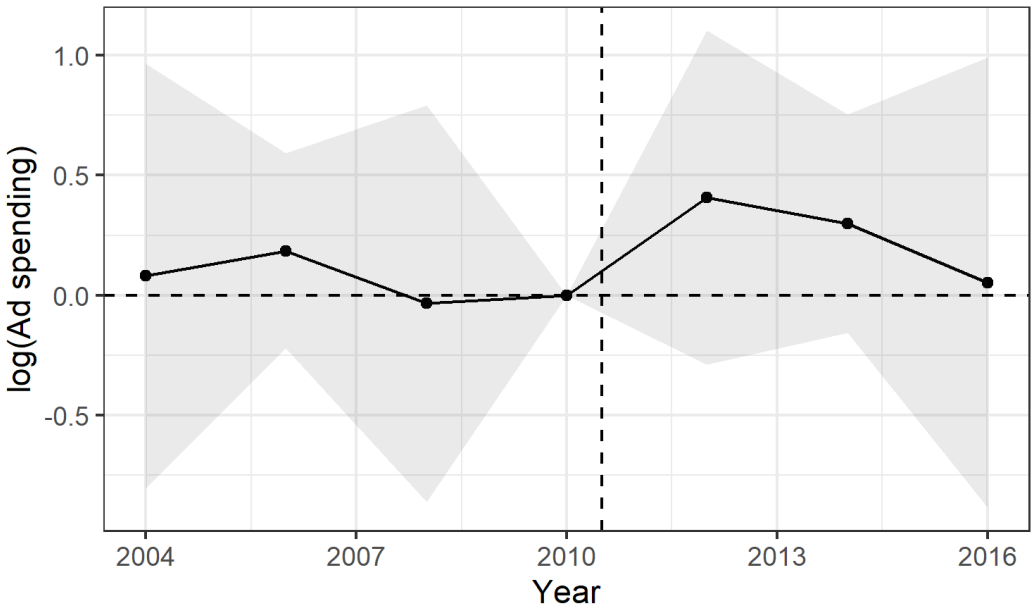
(c) Total political spending



(d) Spending by source/destination

Figure 3: Advertising expenditures

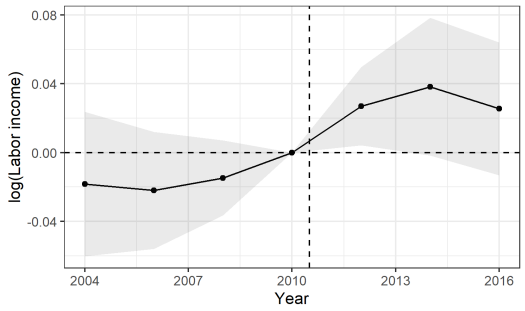
Note: This figure shows the time series coefficient of from Equation (2) on log political ad spending around Citizens United. The line and dots represent the coefficient estimate and the shaded region the 95% confidence interval. Data are from Ad$pender; standard errors are clustered at the state level.



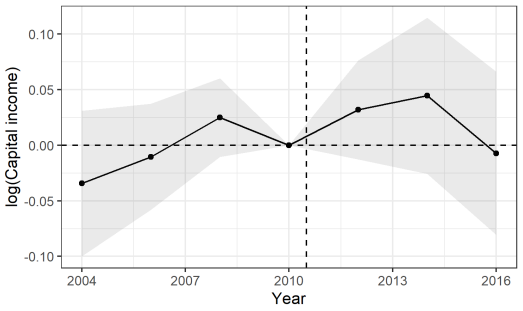
(a) Advertising expenditures

Figure 4: Labor and capital outcomes: BEA data

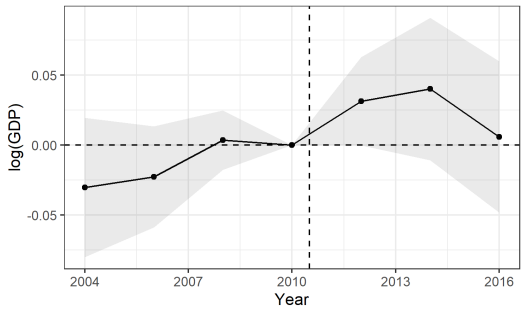
Note: This figure shows changes in state-level economic outcomes around Citizens United. The figures show the coefficients and 95% confidence errors of Equation (2) where the outcome is economic data from the BEA. Panel (a) shows log labor income. Panel (b) shows log capital income. Panel (c) shows log GDP. Panel (d) shows the labor share of income. Standard errors are clustered at the state level.



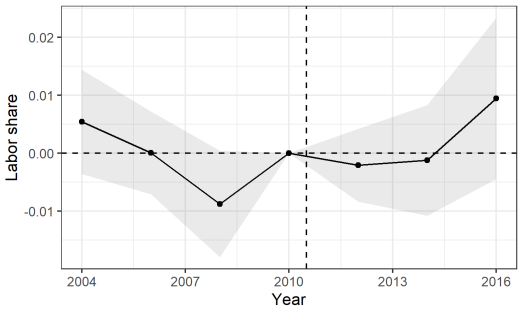
(a) Labor income



(b) Capital income



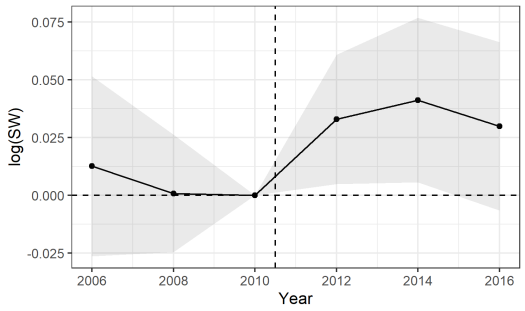
(c) GDP



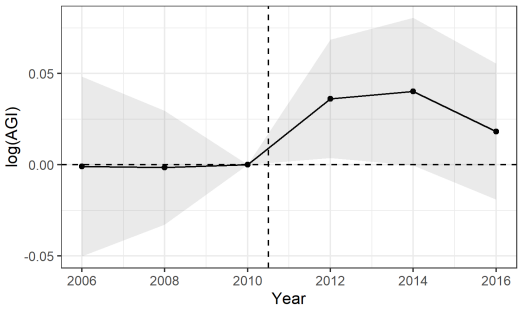
(d) Labor share

Figure 5: Labor and capital outcomes: IRS data

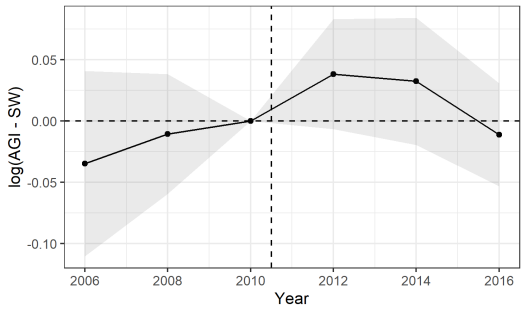
Note: This figure shows changes in state-level economic outcomes around Citizens United. The figures show the coefficients and 95% confidence errors of Equation (2) where the outcome is economic data from the IRS Summary of Income. Panel (a) shows log salaries and wages. Panel (b) shows log adjusted gross income. Panel (c) shows log adjusted gross income less salaries and wages. Panel (d) shows log business income. Panel (e) shows the labor share, defined as salaries and wages divided by adjusted gross income. Standard errors are clustered at the state level.



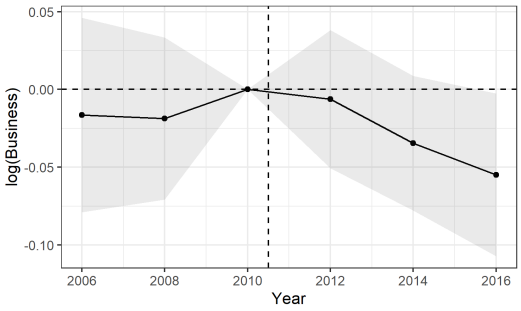
(a) Salaries and wages



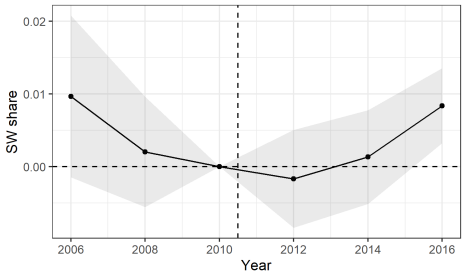
(b) Adjusted gross income



(c) Gross income minus salaries and wages



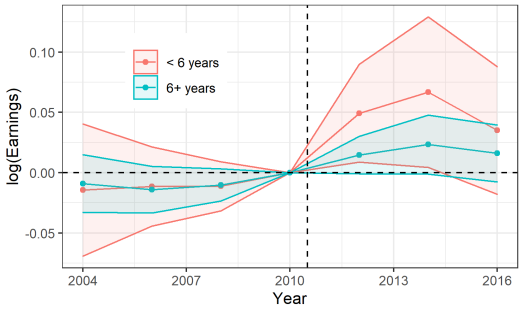
(d) Business income



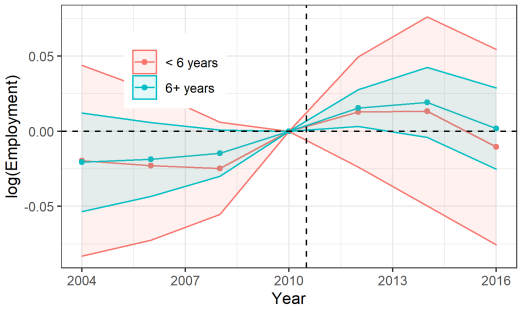
(e) Labor share

Figure 6: Labor and capital outcomes by firm type

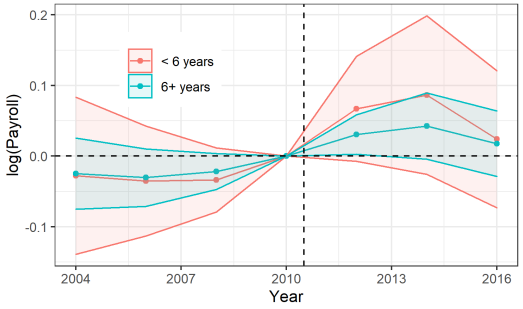
Note: This figure shows changes in worker earnings, firm employment, and firm payrolls around Citizens United. The figures show the coefficients and 95% confidence errors of Equation (2) where the outcome is firm data from the QWI. Panels (a) and (d) show log worker monthly earnings; (b) and (e) show log employment, and (c) and (f) show log payrolls. Panels (a)–(c) show heterogeneity by firm age, with the red corresponding to firms less than six years old and the blue corresponding to firms six or more years old. Panels (d)–(e) show outcomes by firm size, with the red corresponding to firms with fewer than 50 employees and the blue corresponding to firms with more than 50 employees. Standard errors are clustered at the state level.



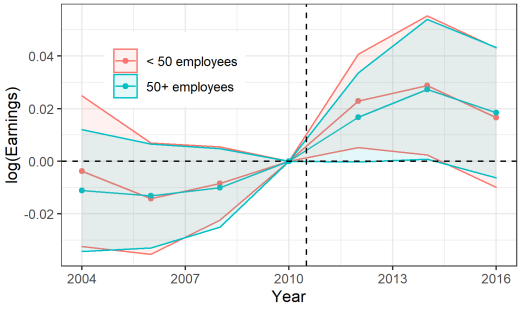
(a) Earnings by firm age



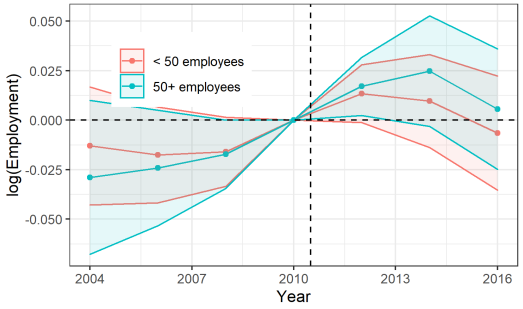
(b) Employment by firm age



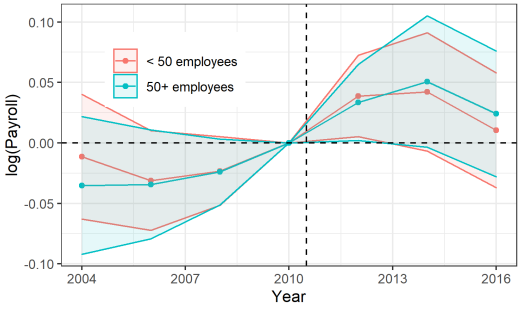
(c) Payroll by firm age



(d) Earnings by firm size



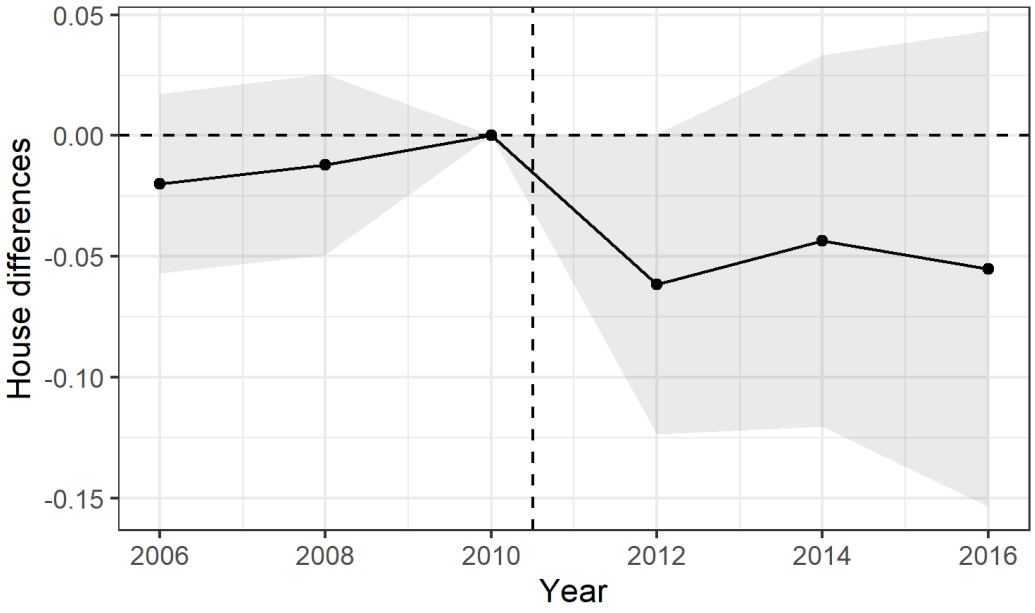
(e) Employment by firm size



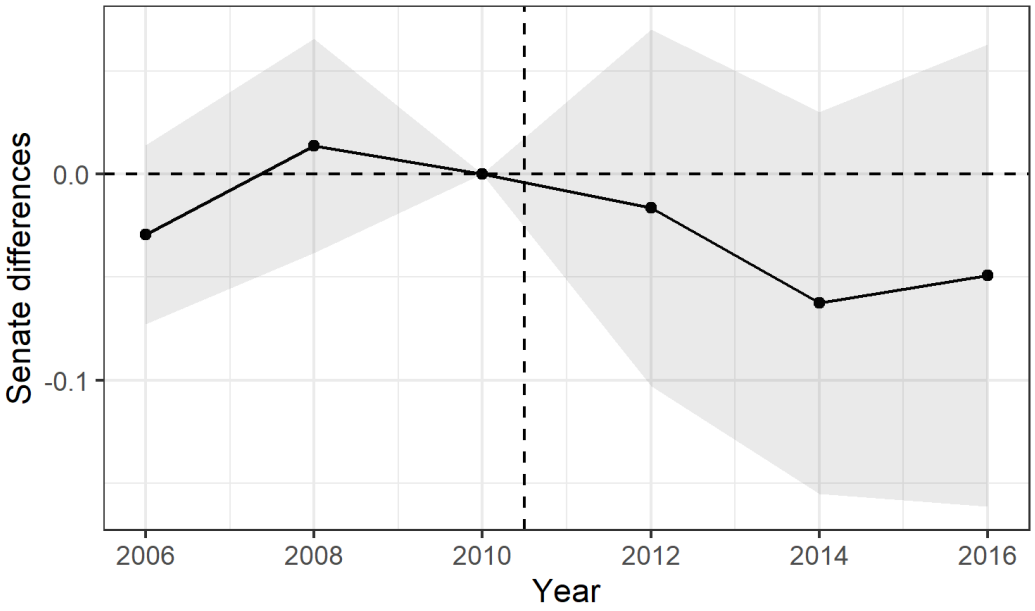
(f) Payroll by firm size

Figure 7: Political polarization

Note: This figure shows changes in political polarization around Citizens United. The figures show the coefficients and 95% confidence errors of Equation (2) where the outcome is the mean political distance in the lower state house (Panel (a)) and the upper state house or senate (Panel (b)). Standard errors are clustered at the state level.



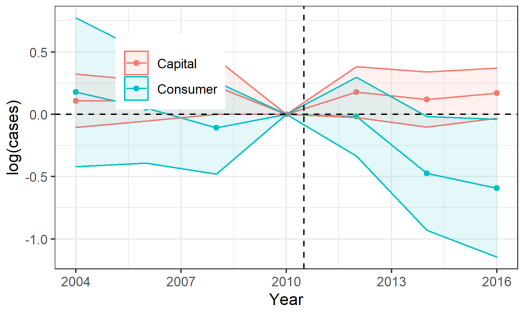
(a) Median House distance



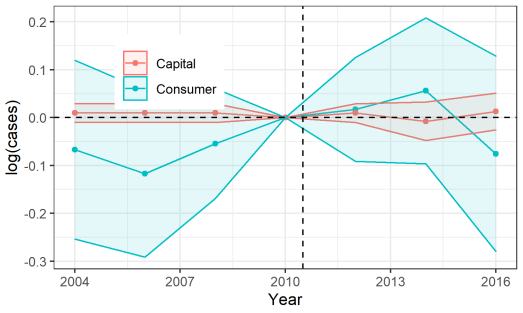
(b) Median Senate distance

Figure 8: Legal enforcement and worker protection

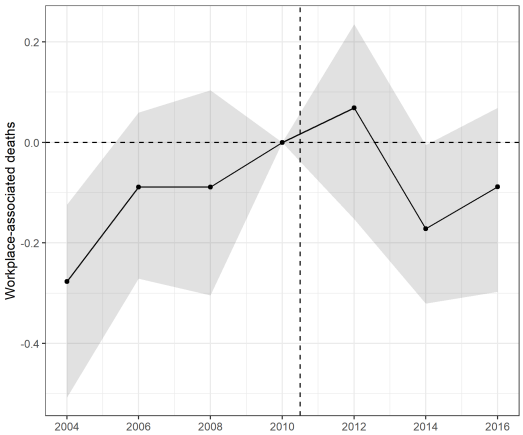
Note: This figure shows non-economic outcomes around Citizens United. The figures show the coefficients and 95% confidence errors of Equation (2) where the outcome is enforcement actions and worker health outcomes. Panel (a) shows the log of the number of state-level enforcement actions of worker and consumer protection laws (blue) and capital protection laws (red). Panel (b) shows the equivalent for federal enforcement. Panel (c) shows the log of number of deaths from work-associated injuries, and panel (c) shows the log of the number of cancer deaths. Enforcement action data comes from Good Jobs First. Health data comes from the CDC. Standard errors are clustered at the state level.



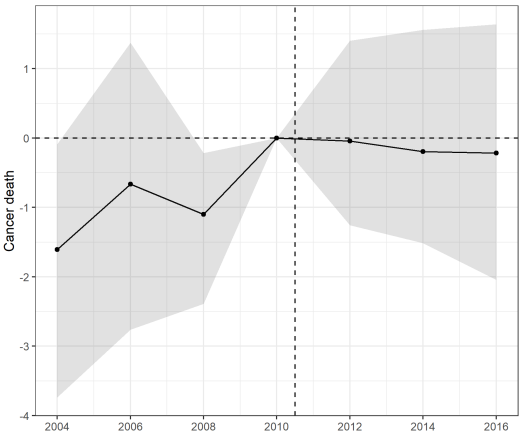
(a) State enforcement



(b) Federal enforcement



(c) Work-assoc. death rate

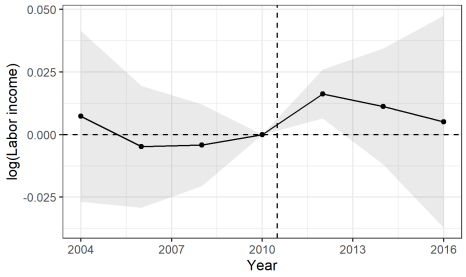


(d) Cancer death rate

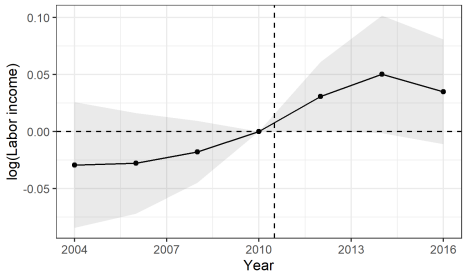
Figure 9: Labor and capital outcomes by ban type

Note: This figure shows economic outcomes around Citizens United by the type of pre-Citizens United donation ban. The figures show the coefficients and 95% confidence errors of Equation (2) where the outcomes are log labor income (panels (a) and (b)) and log capital income (panels (c) and (d)). Panels (a) and (c) assign treatment based on whether the state had a corporate donation ban only compared to states with no ban. Panels (b) and (d) assign treatment based on whether the state had a corporate and union donation ban compared to states with no ban. Standard errors are clustered at the state level.

Labor income

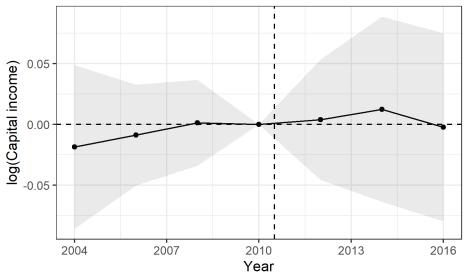


(a) Corporate ban only

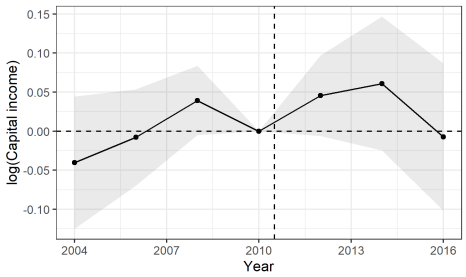


(b) Corporate and union bans

Capital income



(c) Corporate ban only



(d) Corporate and union bans

Table 1: Summary Statistics

Note: This table shows summary statistics for the main datasets used in the analysis. Panel A shows data regarding republican control across state governors, legislative chambers, and attorneys general. Panel B shows data regarding partisanship. Panel C shows the data used in the main event studies, including economic outcomes, political outcomes, ad spending, and legal enforcement.

Panel A: Proportion of state-years in Republican control

Office	Mean	St. Dev.
Governor	0.56	0.5
State upper chamber	0.55	0.5
State lower chamber	0.52	0.5
State attorney general	0.46	0.5

Panel B: Polarization variables

	N	Mean	St. Dev.	Pctl(10)	Pctl(25)	Median	Pctl(75)	Pctl(90)
House								
Distance b/n party medians	466	1.57	0.49	1.08	1.23	1.51	1.88	2.18
Chamber median	466	0.05	0.72	-1.01	-0.69	0.33	0.67	0.80
Majority party median	466	0.02	0.94	-1.17	-0.98	0.59	0.87	1.07
House by Party								
Democrat mean	466	-0.83	0.36	-1.24	-1.10	-0.87	-0.59	-0.33
Republican mean	466	0.75	0.34	0.17	0.63	0.82	0.96	1.15
Senate								
Distance b/n party medians	467	1.54	0.49	0.92	1.16	1.54	1.84	2.15
Chamber median	467	0.07	0.68	-0.90	-0.57	0.31	0.68	0.80
Majority party median	467	0.05	0.89	-1.11	-0.89	0.50	0.86	1.01
Senate by Party								
Democrat mean	467	-0.82	0.38	-1.28	-1.09	-0.84	-0.53	-0.33
Republican mean	467	0.74	0.32	0.18	0.54	0.79	0.98	1.10

Panel C: Economic variables

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
GDP ($B, BEA)	650	304.685	377.253	22.658	71.903	382.460	2,671.101
Labor income ($B, BEA)	650	163.578	197.008	10.627	38.450	210.907	1,371.619
Capital income ($B, BEA)	650	120.393	155.436	7.525	29.515	140.814	1,140.692
Labor share (BEA)	650	0.536	0.036	0.381	0.519	0.560	0.602
Employment (m, QWI)	624	2.581	2.841	0.242	0.668	3.170	16.363
Earnings ($, QWI)	624	3,668.811	612.735	2,426.000	3,258.562	3,986.875	5,829.750
Payroll ($B, QWI)	624	301.260	381.093	19.536	66.953	372.671	2,572.146
AGI ($B, IRS)	600	172.607	209.349	12.826	40.326	217.641	1,430.203
Salary/wage income ($B, IRS)	600	120.144	142.984	8.291	28.552	157.339	974.772
Business income ($B, IRS)	600	14.171	19.211	0.845	3.075	16.173	125.057
Alignment (House dem)	613	−0.814	0.363	−1.670	−1.088	−0.571	0.095
Alignment (House rep)	613	0.732	0.341	−0.205	0.618	0.943	1.549
Alignment (Sen dem)	617	−0.800	0.384	−1.618	−1.074	−0.513	0.122
Alignment (Sen rep)	617	0.729	0.313	−0.009	0.537	0.950	1.581
House differences	613	1.534	0.485	0.468	1.206	1.839	3.041
Senate differences	617	1.501	0.482	0.381	1.143	1.805	3.032
Ad spending (m)	494	14.461	22.517	0.0001	0.847	17.053	156.391
Violations (aggregate)	650	25.111	85.675	1	1	11	888
Violations (consumer)	650	22.566	84.655	1	1	9	887
Violations (capital)	650	1.218	0.901	1	1	1	10

Table 2: Characteristics of treatment and control states

Note: This table compares characteristics of treatment and control states, showing the variable mean for states with a pre-Citizens United ban, without a pre-Citizens United ban, and the p-value for their difference.

Variable	Mean (ban)	Mean (no ban)	P
Republican governor	0.30	0.56	0.08
2008 Obama vote share	0.49	0.52	0.29
Population	5,512,725.00	6,716,709.00	0.54
Median household income	49,639.13	49,859.26	0.92
Fraction with bachelors	0.31	0.30	0.49
Unemployment (2010)	0.08	0.09	0.28
90+ days mortgage delinquency (2010)	0.03	0.04	0.04
House price change 2002-2006	0.28	0.43	0.01
House price change 2007-2010	-0.09	-0.16	0.02

Table 3: Economic outcomes using BEA data

Note: This table shows the result of Equation (1) where the outcomes are economic outcomes at the state level. Data are from the BEA and run from 2007 through 2015. Labor income is compensation income. Capital income is gross operating surplus. Labor share is labor income divided by GDP. Post is a zero-one indicator for whether the year is 2012 or later. Treated is a zero-one indicator for whether the state had a pre-Citizens United donation ban. All specifications include state and year times 2010 governor party fixed effects. Standard errors, in parentheses, are clustered at the state level.

	Dependent variable:			
	Log GDP	Log labor income	Log capital income	Labor share
	(1)	(2)	(3)	(4)
Post × Treated	0.030	0.040**	0.019	0.005
	(0.025)	(0.020)	(0.033)	(0.005)
State FE	Y	Y	Y	Y
Year × Gov. Party FE	Y	Y	Y	Y
Observations	450	450	450	450
Adjusted R^2	0.998	0.999	0.996	0.887
Note:				*p<0.1; **p<0.05; ***p<0.01

Table 4: Economic outcomes using IRS data

Note: This table shows the result of Equation (1) where the outcomes are economic outcomes at the state level. Data are from the IRS and run from 2007 through 2015. AGI is adjusted gross income. SW is salary and wage income. Business is the sum of interest, dividend, and business income. SW share is the labor share measured as salary and wage income divided by AGI. All specifications include state and year times 2010 governor party fixed effects. Standard errors, in parentheses, are clustered at the state level.

	Dependent variable:				
	log(AGI)	log(SW)	log(Business)	SW share	log(AGI - SW)
	(1)	(2)	(3)	(4)	(5)
Post × Treated	0.037*	0.037**	−0.016	−0.00003	0.035
	(0.019)	(0.017)	(0.024)	(0.003)	(0.024)
State FE	Y	Y	Y	Y	Y
Year × Gov. Party FE	Y	Y	Y	Y	Y
Observations	450	450	450	450	450
Adjusted R^2	0.999	0.999	0.997	0.933	0.997
Note:					*p<0.1; **p<0.05; ***p<0.01

Table 5: QWI ECONOMIC OUTCOMES BY FIRM AGE AND SIZE

Note: This table shows the result of Equation (1) where the outcomes are economic outcomes at the state level interacted with firm characteristics. Data are from the QWI and run from 2007 through 2015. Employment is beginning-of-quarter number of employees. Earnings is average monthly employee earnings. Payroll is total payroll. Post is a zero-one indicator for whether the year is 2012 or later. Treated is a zero-one indicator for whether the state had a pre-Citizens United donation ban. Panel A shows the effect by firm size, where Young is an indicator for whether the firm is five or fewer years old. Panel B shows the effect by firm age, where Small is an indicator for whether the firm has fewer than 50 employees. All specifications include state time firm type and year times 2010 governor party times firm type fixed effects. Standard errors, in parentheses, are clustered at the state level.

Panel A: Effects by firm age

	Dependent variable:		
	log(Employment)	log(Earnings)	log(Payroll)
	(1)	(2)	(3)
Post × Treated	0.028*	0.025*	0.049*
	(0.014)	(0.014)	(0.027)
Post × Treated × Young	−0.006	0.034*	0.032
	(0.028)	(0.019)	(0.040)
State × Young FE	Y	Y	Y
Year × Gov. Party FE × Young	Y	Y	Y
Observations	686	686	686
R^2	0.999	0.970	0.998
Note:			*p<0.1; **p<0.05; ***p<0.01

Panel B: Effects by firm size

	Dependent variable:		
	log(Employment)	log(Earnings)	log(Payroll)
	(1)	(2)	(3)
Post × Treated	0.035**	0.028*	0.058*
	(0.017)	(0.014)	(0.030)
Post × Treated × Small	−0.018*	−0.0001	−0.014
	(0.010)	(0.007)	(0.010)
State × Small FE	Y	Y	Y
Year × Gov. Party FE × Small	Y	Y	Y
Observations	686	686	686
R^2	0.999	0.986	0.998
Note:			*p<0.1; **p<0.05; ***p<0.01

Table 6: Minimum wage changes

Note: This state-year level regression is assessing the effect of *Citizens United* on the state's minimum wage between 2007 and 2015. The dependent variables in column (1) is state wages and in column (2) - its percent change from year to year. The indicator Post_s is 1 in all years t after 2010. The indicator Treated_s is 1 for states where a ban on corporate and union bans was invalidated. The regressions include state fixed effects and year-party of governor in 2010 fixed effects. Standards errors are clustered at the state level

	Dependent variable:	
	$w_{s,t}$	$\Delta w_{s,t}$
	(1)	(2)
$\text{Post}_t \times \text{Treated}_s$	−0.006	−0.564
	(0.080)	(1.141)
State FE	Y	Y
Year × Gov. Party FE	Y	Y
Observations	450	450
Adjusted R^2	0.837	0.233
Note:	*p<0.1; **p<0.05; ***p<0.01	

Table 7: Enforcement actions

Note: This table shows the result of Equation (1) where the outcomes are enforcement actions brought against corporations. Columns (1)–(3) are violations at the state level. Columns (4)–(6) are violations at the federal level. Columns (1) and (4) are all types of enforcement actions; (2) and (5) are enforcement actions brought to enforce labor rights; (3) and (6) are enforcement actions to enforce capital rights. Data are from the Good Jobs First's Violations Tracker and run from 2007 through 2015. Standard errors, in parentheses, are clustered at the state level.

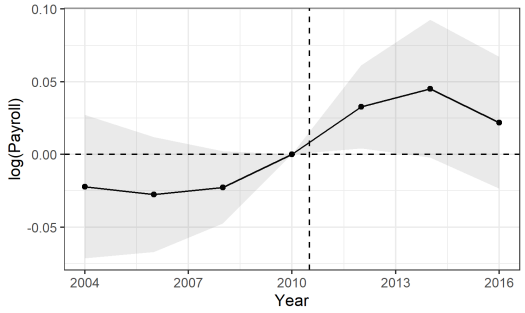
	Dependent variable:					
	Log enforcement actions					
	State			*Federal*		
	All	Labor	Capital	All	Labor	Capital
	(1)	(2)	(3)	(4)	(5)	(6)
Post × Treated	−0.352	−0.539**	0.032	0.001	0.001	−0.003
	(0.223)	(0.215)	(0.052)	(0.069)	(0.073)	(0.013)
State FE	Y	Y	Y	Y	Y	Y
Year × Gov. Party FE	Y	Y	Y	Y	Y	Y
Observations	450	450	450	450	450	450
Adjusted R^2	0.837	0.856	0.511	0.955	0.953	−0.014
Note:						*p<0.1; **p<0.05; ***p<0.01

Appendix

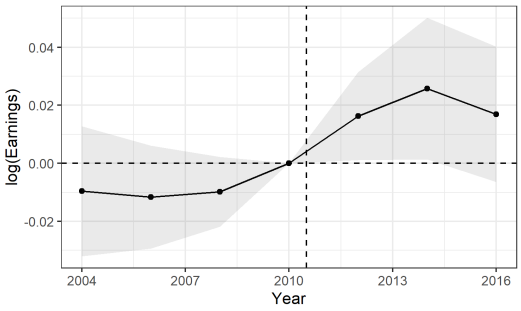
A Additional Tables and Figures

Figure A1: Labor and capital outcomes: QWI data

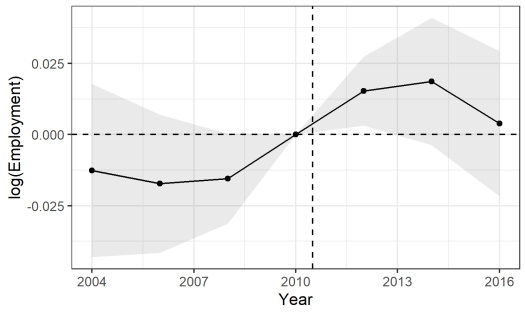
Note: This figure shows changes in state-level economic outcomes around Citizens United. The figures show the coefficients and 95% confidence errors of Equation (2) where the outcome is economic data from the QWI. Panel (a) shows log payrolls. Panel (b) shows log average monthly earnings. Panel (c) shows log employment. Standard errors are clustered at the state level.



(a) Payroll



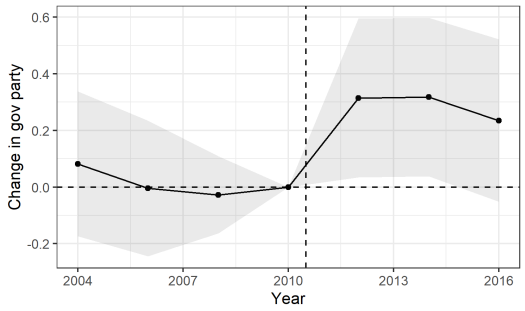
(b) Earnings



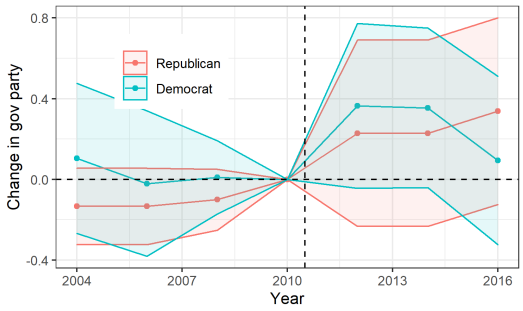
(c) Employment

Figure A2: Political outcomes

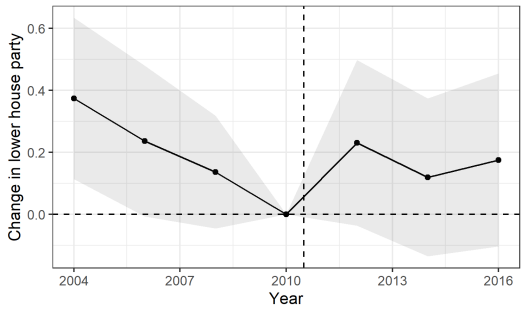
Note: This figure shows governor turnover around Citizens United. Each figure shows whether the party in control is different from the party in control as of 2010, with Panels (a) and (b) examining the governor, (c) and (d) examining the state lower house, and (e) and (f) examining the state upper house or senate. Panels (a), (c), and (e) examine all states; Panels (b), (d), and (f) separately consider states with Republican or Democrat governors as of 2010. Shaded regions represent 95% confidence intervals. Standard errors are clustered at the state level.



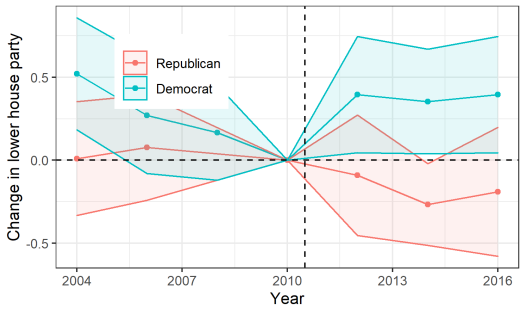
(a) Governor party



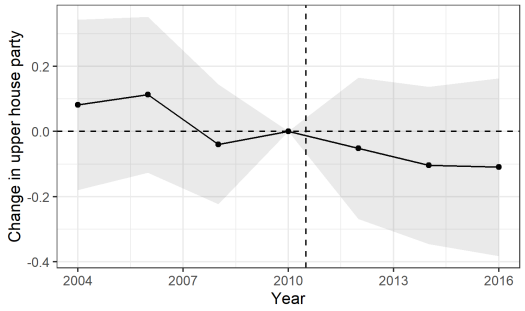
(b) Governor by ex-ante party



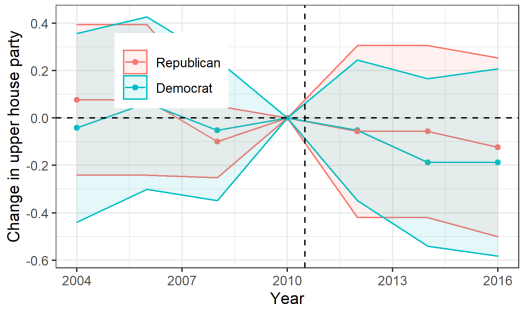
(c) House party



(d) House by ex-ante party



(e) Senate party



(f) Senate by ex-ante party

Table A1: BEA Outcomes with Dynamic Controls

Note: This table shows the result of Equation (1) where the outcomes are economic outcomes at the state level. Data are from the BEA and run from 2007 through 2015. Labor income is compensation income. Capital income is gross operating surplus. Labor share is labor income divided by GDP. Post is a zero-one indicator for whether the year is 2012 or later. Treated is a zero-one indicator for whether the state had a pre-Citizens United donation ban. All specifications include state and year times 2010 governor party times quartiles of house price changes between 2002 and 2006 fixed effects. Standard errors, in parentheses, are clustered at the state level.

	Dependent variable:			
	Log GDP	Log labor income	Log capital income	Labor share
	(1)	(2)	(3)	(4)
Post × Treated	0.021	0.040**	−0.0003	0.009
	(0.027)	(0.020)	(0.038)	(0.006)
State FE	Y	Y	Y	Y
Year FE × Gov. Party FE × $\Delta HP_{2002,2006}$	Y	Y	Y	Y
Observations	450	450	450	450
Adjusted R^2	0.998	0.999	0.996	0.896
Note:				*p<0.1; **p<0.05; ***p<0.01

Table A2: Economic outcomes using QWI data

Note: This table shows the result of Equation (1) where the outcomes are economic outcomes at the state level. Data are from the QWI and run from 2007 through 2015. AGI is adjusted gross income. SW is salary and wage income. All specifications include state and year times 2010 governor party fixed effects. Standard errors, in parentheses, are clustered at the state level.

	Dependent variable:		
	log(Employment)	log(Earnings)	log(Payroll)
	(1)	(2)	(3)
Post × Treated	0.024**	0.026**	0.049**
	(0.012)	(0.012)	(0.025)
State FE	Y	Y	Y
Year × Gov. Party FE	Y	Y	Y
Observations	432	432	432
Adjusted R^2	1.000	0.983	0.999
Note:			*p<0.1; **p<0.05; ***p<0.01

Table A3: Political outcomes after *Citizens United*

Note: This table shows the result of Equation (1) where the outcomes are political turnover and republican control. Panel A shows the results for political turnover, comparing whether the party of the governor, attorney general, upper house, and lower house differ from that in 2010. Panel B shows the results for whether the governor or attorney general is a republican, or whether republicans control the upper or lower house. Data run from 2007 through 2015. Post is a zero-one indicator for whether the year is 2012 or later. Treated is a zero-one indicator for whether the state had a pre-Citizens United donation ban. All specifications include state and year fixed effects. Standard errors, in parentheses, are clustered at the state level.

Panel A: Political turnover

	Dependent variable:			
	Δ Gov party	Δ Atty party	Δ Upper house party	Δ Lower house party
	(1)	(2)	(3)	(4)
Post × Treated	0.313**	0.005	−0.064	0.107
	(0.154)	(0.122)	(0.112)	(0.121)
State FE	Y	Y	Y	Y
Year FE	Y	Y	Y	Y
Observations	450	450	450	450
Adjusted R^2	0.456	0.382	0.381	0.463
Note:				*p<0.1; **p<0.05; ***p<0.01

Panel B: Republican control

	Dependent variable:			
	Republican governor	Republican atty	Republican upper house	Republican lower house
	(1)	(2)	(3)	(4)
Post × Treated	0.201	0.100	0.070	0.165
	(0.184)	(0.134)	(0.103)	(0.115)
State FE	Y	Y	Y	Y
Year	Y	Y	Y	Y
Observations	450	450	450	450
Adjusted R^2	0.488	0.637	0.695	0.703
Note:				*p<0.1; **p<0.05; ***p<0.01