Campaign Finance and Working Class Representation in State Legislatures

Jack Hoyt Landry*

March 6, 2021

Abstract

Elected officials in the U.S are predominately wealthy, and the working class is severely underrepresented. One potential obstacle to working class representation is the need to raise large sums of money to run a viable campaign. I show that even successful working-class state legislative candidates raise 10% less than their professional class counterparts after controlling for a district's typical fundraising level and a race's competitiveness. I then test if reducing the fundraising burden of running for office via a public campaign finance system increases working class representation using a difference in difference design. I find that public financing causes a large increase in working class state legislators in relative terms (a 22 percent increase), but a small increase in absolute terms (1.5 percentage points) due to the working class's low baseline representation in state legislatures.

*Rutgers University-New Brunswick, jack.landry@rutgers.edu

1 Introduction

Elected officials in the U.S are much wealthier than the constituents they represent.[1] While it is theoretically possible that the over-representation of the wealthy is a product of electoral selection, research has found that voters have no bias against working class candidates (Sadin 2012; Carnes 2013; Carnes and Lupu 2016; Kevins 2019). Therefore, the under-representation of the working class must be caused by other factors.

In this paper, I study one important part of the American political system that may hold back working class representation—campaign finance. While few candidates relish the fundraising commitment that comes with running for office, structural inequalities make it likely that raising money is particularly difficult for working class candidates.

The basic problem for the working class is that political giving is concentrated among the wealthy. While higher income people generally participate more in politics, the income-participation gradient is strongest for donating money to political causes. Not only do wealthier people donate more often, they donate higher sums, which compounds their campaign fiance power. Due to social homophily (e.g. McPherson, Smith-Lovin and Cook 2001), potential working class candidates' immediate networks are likely to be similar to themselves and not financially positioned to contribute a significant sum of money for a campaign. In contrast, professional class candidates have large and wealthy networks which serve as an essential ingredient in fundraising (Bonica 2017).

Surprisingly, the current scholarly literature argues campaign financing is not a barrier to working class advancement in politics (Carnes 2018). Surveys of potential candidates show that professionals and workers both worry a lot about raising money. In contrast, workers worry more than professionals about giving up income and free time to run for office.

I bring new evidence on the connection between working class representation and campaign

[1] While I focus on the U.S, the same representation imbalances are present in many other countries (Carnes and Lupu 2016, pg.836).

finance by using a newly available individual level dataset on state legislators' occupational backgrounds (Makse 2019). I first link the occupational data to legislators' fundraising. Prior literature has shown that there is more working class representation in states where average fundraising levels are lower. However, to the extent fundraising is indicative of the general burdensomeness of running for office in a state, it does not mean that fundraising is what holds back working-class representation (Carnes 2018). This aggregate analysis cannot even tell if working-class legislators raise less money than their professional class counterparts. By linking individual legislators' occupations and total campaign receipts, I can see if working-class legislators raise less money than other legislators, and test if working class legislators raise less money when comparing them to legislators running in similar races. My results show that within a given state-house election cycle, working-class legislators raise 10% less than professional class legislators. This disparity is remarkably robust after adjusting for a district's typical fundraising level for candidates of a given party, a race's competitiveness, a legislator's experience, and other factors. It provides the systematic evidence that working class legislators may be uniquely disadvantaged in fundraising.

Next, I test if reducing the fundraising burden of running for office via a public financing system increases working-class representation. Instead of raising large sums of money for a campaign, public financing gives candidates the option of using a grant from the state government to use on their campaign. To qualify for a grant, candidates need to demonstrate "viability," which still involves raising a certain amount of money from a set number of unique donors. However, the viability threshold for public financing is much lower than the implicit viability threshold for the amount of money candidates must raise to have a shot of winning without public financing.[2] Even if public financing makes running for office more attractive to professional candidates (Carnes 2018), it should have a disproportionate impact on working class candidates if fundraising barriers are more binding

[2]Even in state legislative elections, most winning candidates raise large sums of money—an average of almost $140 thousand dollars in 2012. (Calculated using data from the DIME database, excluding states with public financing (Bonica 2016).)

for them. By directly manipulating candidates' needs to raise large sums of money, public financing provides an ideal test for whether the need to raise money reduces working class representation.

Advocates have long argued that public financing increases the economic diversity of state legislators (Johansen 2019; Lau 2019). However, the little empirical research on how public financing effects working class representation suggests it has little effect (Carnes 2018) or even reduces working class representation (Kilborn 2018). Using the new comprehensive state legislator occupational data and a difference in difference research design, I can provide a more convincing test if public funding affects working class representation.

I estimate that public funding causes a 1.8 percentage point increase in working class state legislators. Relative to the typical variation in working class representation within states, this is a large change; the within state-chamber standard deviation in working class representation is 2.4 percent. It is also large in relative terms: 1.8 percentage points translates to a 26 percent increase in working class representation. Public financing's effect is very similar to the effect of New Jersey's labor candidates school, which Carnes' highlights as a promising reform to increase working class representation (Carnes 2018). However, even in states that adopt public financing, working class representation remains a small fraction of the working class as a percentage of the population.

My analysis of public funding provides important, causally identified evidence that campaign finance regulations effect who is elected to office. Other research on campaign spending limits in the U.K and Brazil have found lower limits decrease the wealth of winning candidates (Avis et al. 2017; Fouirnaies 2020). I provide U.S based evidence on how campaign finance effects the opposite end of the economic spectrum.

I also study how campaign finance affects "pink collar" legislators. While my definition of working class legislatures comes directly from the Makse (2019) occupation data and follows previous literature, recent research argues that the traditional definition of working class is implicitly gen-

dered and omits predominately female low-income occupations (Barnes, Beall and Holman 2020). Repeating my analysis on pink collar legislators, I find a similar 10% campaign fundraising penalty, but find no increase in pink collar legislators from public financing. This suggests that working-class women are particularly disadvantaged in the electoral process and require more intensive or targeted interventions to increase their representation.

The rest of the paper is structured as follows. I begin by reviewing the literature on the underrepresentation of the working class among elected officials and its consequences, as well as research that investigates if campaign finance is a determinant of working class underrepresentation. Next, I review the some of the reasons why campaign financing should disadvantage the working class using survey data on political participation by income and class. The next section reviews the data I use to assess working class campaign financing and the effect of public funding. The results sections are broken up into three parts. The first compares the fundraising of working class state legislators to professional class legislators. The second examines how public funding effects working class fundraising and representation. The last section applies these tests to pink collar legislators. Finally, I conclude by integrating my results into the broader literature on the causes of working class underrepresentation.

2 Background on Working Class Representation

At all levels of American politics, the economically privileged dominate elected office. No U.S President since World War II or governors (as of 2014) have come from the working class (Carnes 2018). Approximately two-thirds of members of Congress are millionaires (Eggers and Klasnja 2019). And while comprehensive data on local officials are harder to come by, the data that does exist tells the same story. For instance, almost all local elected officials in California own houses that are worth more than their average homeowner constituent (Yoder 2020).

The over-representation of the rich and the under-representation of the working class is important for substantive and symbolic reasons. Substantively, working class politicians behave differently than their professional class counterparts. A significant literature shows that working class politicians are more liberal than other politicians, particularly for economic issues (Carnes 2013; O'Grady 2019), which mirrors class-based differences in opinion among the mass public (McCall and Manza 2011; Lyon 2020). This effect is not purely because working class candidates are more likely to be Democrats or elected in more liberal districts; controlling for district preferences, working class politicians are more liberal than the professional-class counterfactual (Carnes 2012).[3] And the influence of class on politicians is not limited to roll call votes.[4] Working class legislators sponsor more economic bills in Congress, and states and cities where more workers govern spend more money on welfare and social programs (Carnes 2013).[5]

There is also a symbolic value to having a political class that is economically representative of their constituents. A large body of research has documented that descriptive representation of women and minorities improves these groups attitudes toward government (Fridkin and Kenney 2014; West 2017; Clayton, O'Brien and Piscopo 2019; Hinojosa and Kittilson 2020). While the literature on the symbolic effects of working class representation is less developed, the research that does exist supports the same conclusion (Barnes and Saxton 2019).

Why is the working class so underrepresented? One potential explanation starts with voters. If voters prefer wealthy, professional class politicians (perhaps believing they are more qualified), the under-representation of the working class may be a natural consequence of democratic electoral selection (Galasso and Nannicini 2011). However, a significant body of research examining voter's

[3]Other literature shows the influence of candidate wealth on roll call votes (Griffin and Anewalt-Remsburg 2013; Kraus and Callaghan 2014; Eggers and Klasnja 2019) and that mayors with business backgrounds reduce redistributive spending (Kirkland 2020).

[4]It is also not limited to the American context (Carnes and Lupu 2015).

[5]This dynamic consistent with a broader literature showing politicians experience and identity can affect their politics (e.g. Anzia and Berry 2011; Broockman 2013; Chattopadhyay and Duflo 2004; Washington 2008; Volden, Wiseman and Wittmer 2018).

preferences has found no penalty for being a working class candidate. Survey experiments that randomly vary candidates class background have found that workers face no significant disadvantage in voter preferences (Sadin 2012; Carnes and Lupu 2016; Kevins 2019).[6]

The lack of voter biases against working class candidates means that explanations for working class underrepresentation must defer to other institutional features of the American political system. In this article, I study the campaign finance system. Given the large sums of money candidates need to raise to be competitive and the comparative lack of wealth in working class communities, campaign finance is a natural place to turn to as a cause of working class under-representation. It is also an area that is directly manipulable via policy. However, it is far from being the only possible factor holding back the working class. For a comprehensive, book-length assessment of the barriers to working class representation in politics, see Carnes (2018).

3 Prior Literature on Campaign Finance and Working Class Representation

Nick Carnes' seminal work on working class representation argues that the time commitment of running for office is a uniquely challenging obstacle for prospective working class candidates, while the need is equally difficult for working and professional class candidates (Carnes 2018). The time commitment of running for office does have a financial component, as candidates may need to take time off work and weather the financial hit that entails. However, the constraining element is personal finances, rather than campaign finances.

Surveys of potential candidates support Carnes' argument. Respondents to a nationally representative survey were defined as potential candidates if they self-reported meeting at least 4 of the

[6]These findings have parallels with the literature on women's representation, where, despite widespread underrepresentation in office, there appears to be no bias against female candidates on average (Teele, Kalla and Rosenbluth 2018; Schwarz and Coppock 2020).

following six qualifications: honesty, assertiveness, outgoingness, work ethic, public speaking skills, and party loyalty. The survey showed potential candidates of any class worry about fundraising, but the working class worries more than the professional class about giving up income or free time to run for office. When working class potential candidates were asked to project why workers are underrepresented in office, they thought they would be harder to convince to run more than any other reason, including fundraising.

Further evidence for the lack of connection between campaign finance and working class representation comes from analysis of public funding systems. Public funding dramatically reduces the need for state legislative candidates to raise large sums of money. Other campaign finance regulations have a more marginal effect on overall fundraising, by limiting specific groups of donors. If working class candidates are disproportionately burdened by campaign financing, they should disproportionately benefit from public funding. However, both Nick Carnes and Mitchell Kilborn have independently analyzed public financing's effect on working class representation and found evidence that public funding has no effect or even reduces working class representation (Carnes 2018; Kilborn 2018).

Carnes uses aggregate data on state legislatures' occupational composition from the NCSL and the Insurance Information Institute to track the representation of working class state legislators before and after public financing implementation in Arizona and Maine. In this analysis, he finds the share of workers declines in these states. In a second analysis, he uses data from a survey of state legislative candidates to compares states with and without public financing, controlling for a variety of potentially confounding variables, and finds states with public financing do not elect a significantly different proportion of working class candidates.[7] The survey also shows that working class candidates worry more about fundraising than their professional class counterparts and that

[7]Specifically, he controls for legislative compensation, staff size, session length, term limit laws, the share of Democrats in the legislatures, the poverty rate, unionization rate, racial makeup, Republican two-party vote share, top 1 percent income share, and per-capita personal income.

gap reverses (professional class candidates end up worrying more) in states with public funding. However, working class candidates worry just as much about the general difficulty of running a campaign and spend about the same amount of time on campaign activities in states with and without public funding.[8]

Mitchell Kilborn collected candidate level data from Connecticut, Rhode Island, and Massachusetts to analyze the impact of Connecticut's public financing reform. Unlike Carnes, he has data on candidates as well as winners over time. Kilborn also uses a difference in differences design that controls for both regional trends and fixed propensities to elect working class legislators, which better identifies the causal effect of public funding than Carnes' selection on observables and time-series designs. He finds that Connecticut's Public Financing program reduced the number of working class candidates in primaries and general elections but did not have a statistically distinguishable impact on the probability a working class candidate won their election. However, using an alternative synthetic control design, he finds suggestive evidence that public financing reduced working class representation in Connecticut.

Other work that focuses on candidate's wealth rather than class provides some suggestive evidence that wealthy candidate's over-representation in politics is linked to advantages in campaign finance. Andrew Eggers and Marko Klašnja show that wealthier members of Congresses raise more money, both from self-contributions and more total contributions (Eggers and Klasnja 2019). Jesse Yodler shows that wealth (measured from home-ownership) is correlated with more campaign finance donations, and that after controlling for fundraising, the wealthy candidate electoral advantage disappears (Yoder 2020). And Alan Gerber has shown that independently wealthy challengers raise more money in U.S senate elections and earn more votes (Gerber 1998).

I improve on the literature on campaign finance and working class representation by taking

[8]Carnes also finds that public funding does not seem to increase working class candidate recruitment.

advantage of a new comprehensive dataset of state legislators' occupations (Makse 2019). First, by linking individual legislators to their campaign funding, I can show that working class legislators raise less money than professional class candidates running in a comparable race. This fact provides direct evidence that in practice, even successful working class candidates struggle to raise as much money as other legislators, despite the fact that potential candidates of any class worry about money.

Second, my analysis of public funding combines comprehensive data with a difference in difference research design that isolates the causal effect of public funding from other factors. Carnes uses either a time series design with data that does not include retired or full-time politicians from the working class, or a cross-sectional selection on observables design from a survey of candidates (Carnes 2018).

Kilborn uses the same difference in difference design that I employ, but has data on only three states (Kilborn 2018). When analyzing the effect of public financing, the treatment is applied across entire states, and standard errors should be clustered at the state level (Primo, Jacobsmeier and Milyo 2007; Abadie et al. 2017). Kilborn's analysis clusters at the district level, severely overstating the statistical precision of the findings. Similarly, using synthetic controls with just two control units cannot infer a significant negative effect of public financing.[9]

4 Why Working Class Candidates Are Disadvantaged by Campaign Finance

Working class candidates are uniquely disadvantaged when trying to raise money because political giving is concentrated among the wealthy. Since potential working class candidates' personal networks are likely similar to themselves (lower income), it is more difficult for them to fundraise

[9]The traditional inference method for synthetic controls is randomization inference, running the same specification and randomly selecting one unit for treatment and comparing the estimated treatment effect for these units to the estimated treatment effect for the actually treated unit. It takes at least 20 total units (or states, in this case) for statistical significance at the .05 level (Abadie, Diamond and Hainmueller 2010, pg. 503).

than their higher income professional class counterparts. The mere fact that income is correlated with political giving is neither surprising nor novel (e.g. Hill and Leighley 1992; Brady, Verba and Schlozman 1995). However, the scale of low income and working class underrepresentation in giving may not be fully appreciated.

Table 1 shows the results of regressing family income and an indicator for working class on different types of political participation. Each type of political participation correlates with income, but the income-participation relationship is strongest for donating money.[10] Moving up one income bin increases the probability of donating money by an average of 3 percentage points, while the gradients for other forms of participation are all below 1.5 percentage points per income bin. The second row shows that conditional on income, people with working class jobs are less likely to participate in politics. They are 2-3 percentage points less likely to vote, attend a political meeting, put up a political sign, or work for some political cause. However, the working class is especially less likely to donate money for some kind of political cause (-5.7 p.p) compared to other forms of participation.[11]

Table 1. Effect of Income on And Class on Political Participation

	Vote	Political Meeting	Political Sign	Political Work	Donate Money
Family Income	0.010***	0.012***	0.014***	0.005***	0.031***
	(0.001)	(0.001)	(0.001)	(0.000)	(0.001)
Working Class	-0.044***	-0.033***	-0.020***	-0.035***	-0.057***
	(0.007)	(0.005)	(0.006)	(0.004)	(0.006)
Sample Mean	0.76	0.15	0.24	0.10	0.32
R^2	0.01	0.02	0.01	0.01	0.06
N	32,999	34,598	34,598	34,598	34,598

Notes: $*p < 0.05, **p < 0.01, ***p < .005$. Source: CCES 2012, Sample Weights Applied

A.1), they donate more money than lower-income people (appendix figure A.2). That produces the relationship in figure 1. High-income people do not just donate more often—they donate an

[10] A model without an indicator for working class yields very similar results, shown in appendix table A.1.
[11] This is true in absolute, but not relative terms.

order of magnitude more money than lower-income groups.[12]

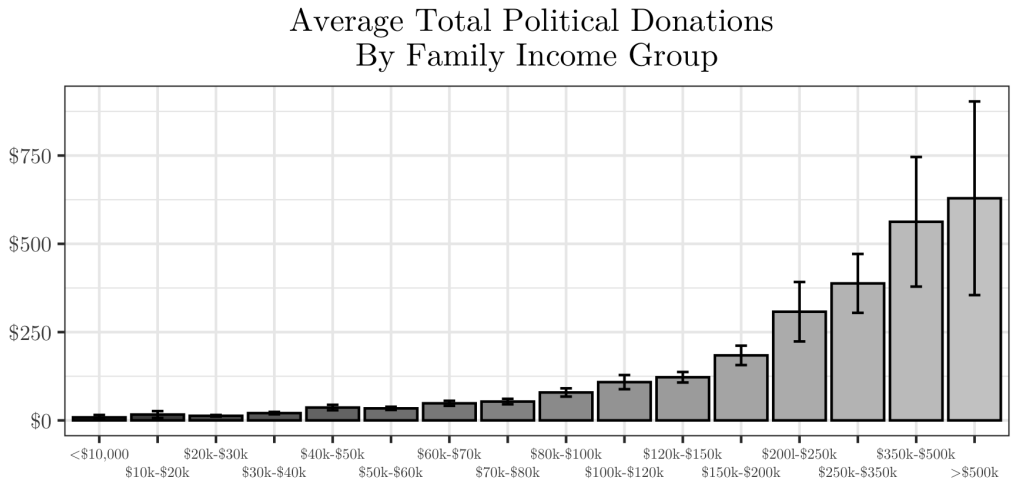

Figure 1: Average total donations to a candidate, campaign, or political organization by income group. People who do not report donating are imputed as zeros. Donations are winsorized at the 99th percentile conditional on donating (>$5000) for precision. Source: 2012 CCES

Overall, analysis of donation behavior by income groups shows how compounding disadvantages hold back the working class. There is a general income-participation gradient in politics, which disadvantages the relatively lower-income working class. The gradient is strongest for donation behavior. Conditional on income, the working class participate in politics less, and are especially less likely to donate to political causes. Compounding the disadvantage even further, higher-income people do not just donate more often, they donate larger amounts, which makes their campaign finance power even stronger. These facts show that potential working class candidates likely have a more difficult path to raising money than higher-income, professional class candidates.

[12]See Barber, Canes-Wrone and Thrower (2017) and Hill and Huber (2017) for similar results drawing on administrative records of donors.

5 Data

5.1 Occupation Data

I use data on state legislator's occupations originally collected by Todd Makse (2019). It includes occupations for state legislators in 98 of the 99 state-house chambers from 1993 to 2012 and has a missing data rate below 0.5%. One important aspect of Maske's dataset is that it does not input occupational designations of full time legislator or retired. Instead, he uses the legislators' last profession before they were initially elected to the legislature.[13] Almost no one has been an elected official their entire life. Thus, capturing legislator's pre-political occupations greatly increases the amount of substantive information in the dataset relative to the commonly used National Conference of State Legislators data (e.g. Carnes 2018). This is especially important for identifying working class legislators, as most working class legislators identify as retired.[14]

I use Maske's definition of what occupations are working class: contractors and construction professions, public safety professions, office workers and clerical, retail and service professions, skilled trades, semiskilled operatives, unskilled laborers, and transportation professions (Makse 2019, pg. 316). This mirrors the definition used by Carnes (2013).[15] Figure 2 shows working class representation has increased over time, but remains below 10% in the average state-house.

5.2 Campaign Finance Data

I use campaign finance data from the Database on Ideology, Money in Politics, and Elections (Bonica 2016).[16] I merge occupation data to election return data (Klarner 2018) and the DIME data

[13] Carnes uses the same methodology for his analysis of the working class on the national candidate survey.

[14] For the 2011–2012 biennium, Makske collected official designations of retired, along with a more thoroughly research occupation classification. For these years, there were a total of 86 working class legislators, 54 of whom self identified as retired.

[15] Carnes uses the more course classification of manual laborer, service industry worker, and union employee/official in original data collection.

[16] DIME draws of the National Institute on Money in State Politics (NIMSP) for state legislative data.

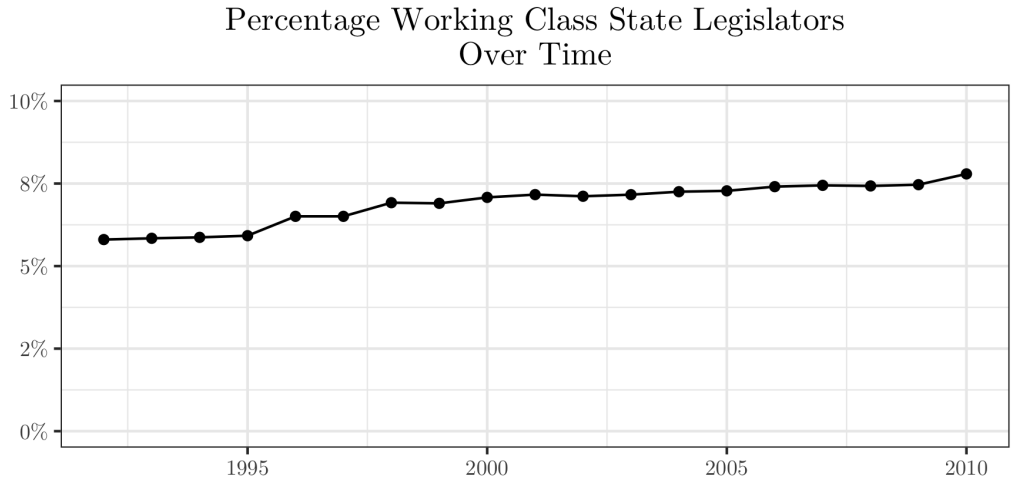

Figure 2: Average Working Class Representation Across State Legislative Chambers, 1993-2011

using fuzzy name matching, finding the best possible name match within state-house and election year.

5.3 Public Funding of Elections

Public funding means that state legislative candidates are given money by the state to use on their campaign. This money is not given to any self-declared candidate—candidates have to raise enough money from enough unique donors to demonstrate viability. However, in most states, the viability threshold is much smaller than what it would typically take to run a typical campaign without public funding, and a small fraction of total public funding awarded.

Participation in public funding systems is voluntary, but participation rates are usually high (Hall 2014; Malbin 2015). Even if a candidate believes they could raise more money outside of the public financing system, they may be dissuaded from doing so to avoid claims of corruption from publicly funded opponents. If candidates do participate, they are not allowed to raise further funds from private sources. This means that after meeting the viability threshold, candidates are

essentially done fundraising.[17]

My analysis is identified off of policy changes in three states: Arizona, Connecticut, and Maine. Arizona and Maine's programs both started in 2000, while Connecticut's started in 2008. Arizona and Maine's public funding programs were passed by initiative, while Connecticut was passed by the legislature in the wake of a scandal involving the Governor (Malhotra 2008; Kilborn 2018). This helps assure that any effects I identify were not parts of preexisting trends, as the legislature didn't pass them strategically.

6 Working Class Campaign Financing

6.1 Methodology

I want to assess whether working class state legislators raise less money than their professional class counterparts. However, an average fundraising difference between professional and working class legislators does not automatically mean working class legislators struggle to raise money. Working class legislators may happen to run for office in races where high levels of fundraising are unnecessary. Therefore, I want to compare working and professional class fundraising given the same election circumstances.

Many factors influence a candidates fundraising. I begin with time-varying state-house level factors. The overall level of fundraising for a state can vary based on political competitiveness or business-cycle factors. It can also vary by party over time—for instance, when a party is in the majority it might get more access oriented donations because it has more power to affect legislation. I use statehouse by party by year fixed effects to control for these dynamics over time.

Next, I turn to district level factors. Even within a specific state-legislative chamber, fundraising

[17]Some states would increase candidates' grant sizes if their opponent opted out of public financing and raised more money. However, this practice was struck down by the Supreme Court in *Arizona Free Enterprise Club v. Bennett* (Dowling et al. 2012).

can vary between districts due to demographics, underlying partisanship, the distribution of donor networks, and other factors. Rather than attempting to measure the contributions of all of these measures directly, I use district by party fixed effects to control for the average level of fundraising for a given district by party. In other words, I control for the average level of fundraising for Democratic and Republican legislators in a district over time.

Next, there is the issue of candidate experience. Incumbents have well-documented advantage against challengers, including financially (Fouirnaies and Hall 2014). I control for incumbency and allow the incumbency financial advantage to vary by state-house, party, and time, with incumbent by state house by party by year fixed effects.

Finally, I address the competitiveness of the race itself. For each legislator, I calculate their margin of victory in each race using the state legislative election data from Klarner (2018). I then break this margin into 10 quartiles and control for it with a factor variable.

6.2 Results

Figure 3 shows the overall difference in fundraising between working class and professional class legislators. The average professional class legislator raises almost $100,000, while the average working class legislator raises less than $75,000. However, this difference could be explained by working class legislators running in races that require less fundraising.

Table 2 tests if there is a fundraising gap between working class and professional class legislators by controlling for factors that may influence their fundraising. Column 1 reproduces figure 3 in regression form, showing that working class legislators raise 24% less than professional class legislators (The outcome is the log of total fundraising). Column 2 begins to control for state-house by year fixed effects, comparing working class legislators to their professional class counterparts running for election at the same time in the same statehouse. The working class coefficient shrinks to .094, which

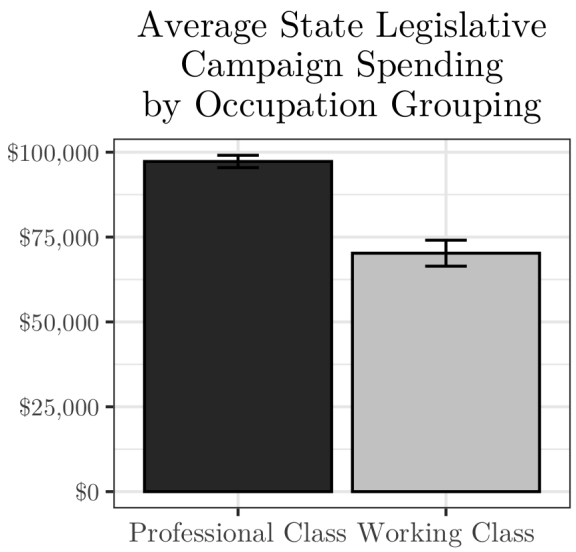

Figure 3: Money Raised by Legislator Class

shows that working class legislators are more prevalent in state-houses and times when there is less total fundraising. However, even comparing state-houses within the same election cycle, working class legislators still raise about 10% less every year.

Columns 3-5 add increasingly granular fixed effects.[18] Column 3 adds district by party fixed effects, adjusting for the average level of fundraising for a party in a specific district.[19] Column 4 add more layers to the state-house by year fixed effects, comparing legislators fundraising with the same party, incumbency status, competing for election in the same year. Finally, column 5 controls for win margin by binning it into 10 quartiles.

After adjusting the state-house by year fixed effects, there appears to be little to no sorting of working class legislators into races where they would need to raise less money (Columns 3-5 are very similar). While it is not possible to perfectly control for all factors that may influence a candidates'

[18]N's vary slightly due to dropping singletons (Correia 2015).

[19]This is akin to a difference in difference design, comparing the change fundraising in districts "treated" by a working class legislator to the parallel change in districts that do not elect a working class legislator. District by party fixed effects are the unit fixed effects and state-house by year fixed effects are the time fixed effects.

need for fundraising, the stability of the estimates to applying controls suggests that even better controls would not substantially change the conclusion.

Table 2. Working Class Legislators and Fundraising

	(1)	(2)	(3)	(4)	(5)
Working Class Legislator	-0.242***	-0.094***	-0.102***	-0.100***	-0.101***
	(0.044)	(0.022)	(0.027)	(0.027)	(0.026)
State-house X Year FE		X	X		
District X Party FE			X	X	X
Inc. X Party X State-house X Year FE				X	X
Competitiveness Percentiles					X
R^2	0.00	0.67	0.81	0.84	0.85
N	41,427	41,427	40,363	40,169	40,168

Notes: $*p < 0.05, **p < 0.01, ***p < .005$. Standard errors clustered at the district level.

The stability of the estimates to controls besides statehouse by year fixed effects also has a substantive interpretation; working class legislators do not appear to sort into races that are less expensive within a given state-chamber.[20] As for the increase in working class candidates in states with lower average fundraising totals, there are multiple potential explanations. Working class candidates could be more prevalent in these states because they need to raise less money to have a shot at winning. If working class candidates were forced to run in a representative sample of districts across the country, they might raise even less money than the 10% penalty documented in table 2. Alternatively, they may be deterred from running by an amalgam of other factors correlated with higher campaign spending. Regardless, the 10% fundraising disparity for writing class candidates in comparable races strongly suggests that working class legislators struggle to raise money.

6.3 Robustness Analysis

Appendix table A.2 shows the results are robust to different operationalizations of competitiveness. Dummy variables for races decided by 5 percentage points or less, 5-10 percentage points,

[20]It is possible that working class candidates sort into races that seem like they would need less money, but face greater competition because they are working class candidates thus need to raise more money.

and uncontested races; the quartiles specification as in table 2; and a control for contentious win margin and win merged squared all yield very similar results. Similarly, appendix table A.3 shows the results are robust to eliminating outliers in the data. I eliminate total campaign receipts above the 99th and below the 1st percentile both overall (in the second column) and separately by state (the third column).

7 Public Funding and Working Class Representation

The fact that working class legislators raise less money than their professional class counterparts suggests the need to raise money uniquely disadvantages working class candidates. However, there are other potential explanations. For instance, it is possible working class candidates prefer to put more effort into parts of campaigning besides fundraising and that raising less money does not disadvantage them. In this section, I test the effect of public financing, which drastically reduces the need for candidates to fundraise. If fundraising is a unique disadvantage for working class candidates, they should disproportionately benefit from public funding, even if professional class candidates also receive benefits.

7.1 Methodology

To assess the effect of public financing on working class representation in state legislatures I use a difference in differences research design. The design tracks the difference in working class representation in treated states before and after implementing the reform (first difference) compared to the same period in states that did not adopt a reform (second difference). This accounts for time-varying national-level phenomena that affect the probability of electing working class state legislators in all states, as well as a states' average propensity to elect working class legislators. Specifically, I use state-house and year fixed effects, and cluster standard errors at the state level.

If states that adopt public financing and states that do not adopt public financing have the same trend of electing working class legislatures over time besides the change caused by adopting the policy, my estimates can be interpreted causally. This "parallel trends" assumption is standard in difference in difference analysis, and cannot be tested directly. However, I can probe the robustness of the parallel trends assumption in several ways.

One way to ensure parallel trends between treated and control states is to control for other time-varying factors besides public financing that could impact working class representation. I use a similar set of controls as Carnes (2018): an indicator for term limits, the New Jersey labor candidate school, legislative salaries, legislative session length, and the squire index of legislative professionalism; indicators for other campaign finance policies: limits on corporate campaign contributions, limits on independent expenditures, and a ban on independent expenditures;[21] as well as a battery of state demographic variables: unemployment, percentage black, and average income.

Another way I ensure parallel trends is narrowing the counterfactural comparison groups to states in the same region who may have more similar underlying trends in working class representation. Specifically, I substitute year fixed effects for census division by year fixed effects. This is conceptually similar to running separate difference in difference regressions for each census division, then averaging them together. It limits the comparison group for each treated state to other states in the same census division. If there are region-level shocks to working class representation that are correlated with the adoption of either public financing, this specification will adjust for these shocks.

Finally, I test for parallel trends by estimating event studies. Event studies track the trend in working class representation before and after public financing is adopted. If the parallel trends assumption is violated, the trend in working class representation over time in treated states should diverge from the trend in untreated states before the policy is enacted. If there is no difference in

[21] Campaign finance data comes from Fouirnaies and Fowler (2021).

trends before the policy is enacted, it is likely that the parallel trends assumption holds. In this case, the confounding trend would have to be almost perfectly colinear with policy adoption to go undetected.

7.2 Results

Before testing the effect of public financing on the election of working class legislators, I explore how public financing effects working class candidates fundraising. Results are shown in table 3. Since public funding is a state-level policy (I cluster standard errors at the state rather than the district level), and I only have data on campaign funding for most states since 2000, the estimates are relatively imprecise. However, after adjusting for the average amount of money raised for each party in each district (columns 2-4), the estimates imply that public funding reduces almost all of the working class penalty for campaign funding. In other words, public funding puts working class legislators on an even footing with other legislators—at least when it comes to the financing of their campaigns.

Table 3. Working Class Legislators and Fundraising under Public Financing

	(1)	(2)	(3)	(4)
Working Class Legislator	-0.092**	-0.117***	-0.112***	-0.114***
	(0.033)	(0.030)	(0.031)	(0.029)
Working Class Legislator × Public Funding	-0.019	0.116*	0.091	0.097
	(0.047)	(0.054)	(0.061)	(0.060)
State-house X Year FE	X	X		
District X Party FE		X	X	X
Inc. X Party X State-house X Year FE			X	X
Competitiveness Percentiles				X
R^2	0.67	0.81	0.84	0.85
N	41,427	40,363	40,169	40,168

Notes: $*p < 0.05, **p < 0.01, ***p < .005$. Standard errors clustered at the state level.

Table 4 shows the effect of public funding on the percentage of working class state legislators elected. The baseline model in column one uses all of the data with state and year fixed effects and

shows public financing increases working class representation by 1.5%. Column 2 add a variety of time-varying covariates: term limits, other campaign finance policies (limits on corporate donations, limits on the expenditures of independent groups, a ban on contributions from independent groups), legislative salary, session length, the squire index of legislative professionalism, the unemployment rate, black fraction of the state population, fraction of the population in poverty, and average income. Column 3 omits states that repealed public funding so that identification is based solely on treatment adoption rather than repeal (in practice, this only drops Wisconsin). Finally, column 4 uses census division by year fixed effects. This limits the comparison to states within the same census region, controlling for region-specific trends rather than the more course national-level trends with year fixed effects.[22] These alternative specifications retain statistical significance at the .01 level and show that public funding of election increases working class representation in state legislatures between 1.2 and 1.6 percentage points.

Table 4. Effects of Public Financing On Working Class Representation in State Legislatures

	(1)	(2)	(3)
Public Funding	0.018***	0.014***	0.015*
	(0.006)	(0.004)	(0.006)
Time-Varying Controls		X	X
Year FE	X	X	
Census Region by Year FE			X
R^2	0.74	0.76	0.54
N	1,862	1,843	1,843

Notes: $*p < 0.05, **p < 0.01, ***p < .005$. Standard errors clustered at the state level.

Figure 4 shows how public financing affects the probability of electing working class state legislators over time, an "event study". The year before public financing starts serves as the reference period. Before implementing public financing, states have very similar trends in electing working class state legislators as states with no policy change. Immediately after implementing public

[22] Arizona is compared to other states in the west, Connecticut and Maine to states in the Northeast, and Wisconsin to states in the Midwest.

financing, working class representation increases 2%, and increases to almost 4% two years after implementation. After 6 years, the point estimate decreases to about 1%, but the uncertainty increases substantially.

Before public financing is implemented, there is a very weak downward trend in working class representation compared to states that never adopted public funding. The lack of any preexisting positive trend in working class representation before passing public financing and the immediate sharp increase after public financing is implemented suggest that public financing causally increases working class representation.

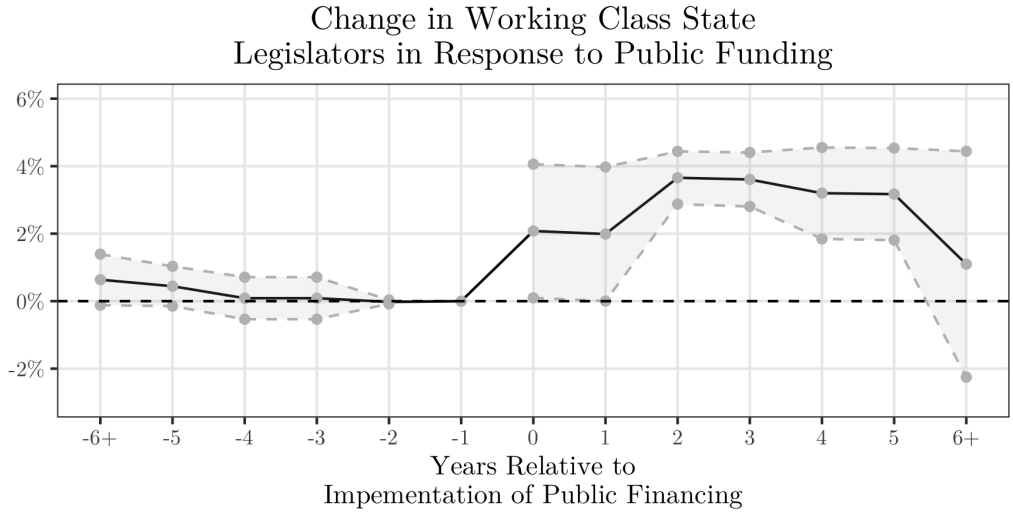

Figure 4: Event study for public financing. Dashed lines represent 95% confidence intervals, dark lines represent point estimates. The year before public financing begins is the reference period. The sample is limited to states with 6+ years of pre-policy data and 6+ years of post-policy data as well as states with no policy change. Standard errors are clustered at the state level.

7.3 Robustness Analysis

The difference in difference analysis in table 4 compares all states that adopt public financing to all the states with no policy change. To gauge my results' robustness, I narrow the comparison states to those that are most similar to the states that adopt treatment using matching. The motivation

for this test is that narrowing the comparison group to similar states helps ensure the comparison group would of followed the same trend as treated states in the absence of public funding.

I match on either pre-treatment working class shares or a vector of pre-treatment covariates.[23] Each newly treated state-chamber is matched to a state-chamber without a policy change, and I use matched pair by year fixed effects so identification comes from policy changes within each pair (Nowacki and Thompson 2020). The results are shown in table A.4. Across specifications, the results show a slightly stronger response to public funding (2-3% increasing in working class representation) than in table 4, but standard errors sometimes increase due to the reduction in sample size.

In appendix table A.5, I show my results are relatively insensitive to removing any individual treated state. Point estimates in the basic two-way fixed effects specification after removing any individual state range from 1.2% to 1.9%.

Next, I test the robustness of my results to the specific issues that arise by staggered rollout difference in difference designs (Strezhnev 2018). Different states adopted public funding for state legislative elections at different time periods. Evaluating this kind of staggered rollout with a difference in differences research design can sometimes include problematic comparisons of late treated states to early treated states, rather than treated states to never treated states (Goodman-Bacon 2018). If there are heterogeneous treatment effects over time, early treated states will not be good counterfactuals for late treated states. I use the Bacon-Goodman methodology for evaluating both the estimate and weight for each comparison type[24] that contributes to the overall difference in differences estimate. More than 90% of the weight is on the unproblematic treated vs. never treated comparison, and the point estimates of each comparison type are positive. This shows that the unique issues with two-way fixed effect estimators for staggered treatment timing do not cause a

[23] Specifically, I match on state demographic covariates (percent unemployed, in poverty, black, and average income) and legislative characteristic covariates (term limits, legislative salary, session length, and the squire index of legislative professionalism.

[24] Early treated vs. later control, late treated vs. early control, treated vs. never treated, and treated vs. already treated.

significant bias in this context, likely because there are a small number of treated states compared to the number of control states.

Finally, appendix figure A.3 addresses inference. Since few states switch treatment, clustering standard errors at the state level may result in downwardly biased standard errors, as large sample approximations no longer hold. I use randomization inference to compare my results to results using the same regression specification, but with randomly treated states. Appendix figure A.3 shows the distribution of t-statistics from one-thousand regressions that randomly permutate the treatment indicator, keeping the same treatment structure.[25] The vertical line represents the t-statistic from the regression on the actual treatment data. The two-sided p value comes from the fraction of t-statistics that are more extreme than the t-statistic from the real data. The p values are much higher than those produced with traditionally clustered standard errors, but most specifications remain below the p <.05 level.

8 Pink Collar Representation

Recent research has argued that the definition of "working class" used in previous studies is implicitly gendered, and that "pink collar" representation in government has important effects on education and social service policy (Barnes, Beall and Holman 2020). Consistent with a gendered dimension of working class legislators, just 10% of working class legislators in the Makse (2019) data are women. This is not simply a result of a male-biased political class—working class legislators are about 12 percentage points more likely to be male than professional class legislators. The male bias of working class state legislators holds when adjusting for state and party fixed effects, shown

[25]Two states are randomly chosen to be treated in 2000, and one state is randomly chosen to be treated in 2006. The randomization inference procedure does not restrict choosing the actually treated states, so in practice, so of the randomization include the actually treated states.

in appendix table A.7.[26]

To test if campaign finance holds back pink collar representation, I adopt the occupation data from Makse (2019) to code pink collar jobs following the categorization in Barnes, Beall and Holman (2020).[27]. Unsurprisingly, this group has far more female representation (43%) than the traditional working class grouping (10%). Given the underrepresentation of women in American Politics, pink collar legislators are far more likely to be women than the average legislator (just 22% of legislators in my data are women), even when adjusting for political party and state. (Results shown in appendix table A.8)

I begin by testing if pink collar legislators face the same campaign finance burdens as the traditionally defined blue collar working class legislators by repeating my analysis in table 2. Appendix table A.9 shows the results, which are very similar to table 2. On average, pink collar legislatures raise 33% less than other legislators, and the gap hovers around 9-10% after adjusting for various factors that could affect fundraising. Pink collar legislators seem just as disadvantaged as the traditionally defined working class legislators in fundraising.

Next, I test the effects of public financing on pink collar representation. Similar to traditionally defined working class, appendix table A.10 shows that public funding eliminates the funding gap between pink collar legislators and other legislators. Appendix table A.11 shows the public financing effects on the number of working class women elected.

In sharp contrast with the results for total money raised, all of the models show no statistically significant public financing effect.

Why might public funding increase representation for blue collar working class jobs, but not pink collar ones? One explanation lies with the data. It is not clear that legislators I coded as having

[26]Carnes raises questions about the Barnes, Beall and Holman (2020) coding of pink collar legislators and, in a survey of all the literature on working class legislators, finds that on average, the fraction of working class legislators who are women is about the same as the fraction of professional class legislators who are women, at least for datasets where it was possible to calculate (Carnes 2020).

[27]Coding details are in Appendix section A.4

"pink collar" occupations are low income—the Makse (2019) data does not neatly comport with the categorizations used in (Barnes, Beall and Holman 2020). For instance, the closest analogue to "healthcare support" in the Bares, Beal, and Holeman coding is "medical professions" in the Makse (2019) data. While some legislators in this category might be relatively low-paid healthcare support workers, others could be highly paid and prestigious administrative positions.[28] However, even using this potentially flawed definition, pink collar legislatures seem disadvantaged by campaign finance since they raise considerably less money than other legislators.

Alternatively, it is possible that women who worked in pink collar jobs are helped less by public financing than men in blue collar jobs. Both the working class and women face many barriers to elected office. When these identities are combined, the barriers could be even larger than the sum of their parts.[29] While female working class candidates struggle to raise money,[30] they may face so many other obstacles to elected office that public funding must be combined with other policies to have a meaningful impact.

9 Conclusion

The fundraising burden of running for office contributes to the underrepresentation of working class elected officials. Even successful working-class candidates for state legislature raise less money than professional class candidates running in comparable races. When a state implements a public funding system, the funding gap is eliminated and more working class legislators are elected. Legislators from predominately female "pink collar" jobs are similarly disadvantaged by campaign finance (raising less money than other candidates), but do not see a significant increase in representation

[28]The traditional working class coding does not suffer from the same level of ambiguity. That said, it would be useful for future research to explore the connection between legislators' occupations and their incomes or net worth using financial disclosures.

[29]While a significant body of research has found that voters do not have a bias against working class candidates in general, research has not explored the possibility of a bias against working class women candidates.

[30]There is a gender gap in campaign finance regardless of class (Barber, Butler and Preece 2016).

from public funding. Working class women face intersecting burdens of sex and class when running for office, which may require more intensive interventions to increase their representation.

While I study state legislatures, my results have important implications for all levels of government.[31] State legislative experience creates a path to higher office; most of members of Congress were state legislators before making it to Washington (Behlke 2017; Mccrain and O'connell 2020). Moreover, public financing is a potential policy lever at both the local and federal level.

Naturally, my results come with limitations. I only have data on the the occupations of state legislative candidates that won office, which limits my ability to examine how public funding affects the decision to run. Similarly, I study the fundraising of sitting working class legislators. Working class candidates who did not win office likely raise even less money. Future research studying the margin of candidate entry would provide a richer understanding of how campaign finance affects working class representation.

While my results overturn previous literature on working class representation and campaign finance (Carnes 2018; Kilborn 2018), they do not imply that there are no other causes of working class underrepresentation. In particular, the time and personal financial sacrifice that come with running for office (highlighted by Carnes (2018)) are likely additional factors that hold back workers from running and winning elected office. This can also help rationalize my results. The fact that candidates in states with public funding report spending just as much time campaigning as states without it (Carnes 2018) may explain why there is not a sharper increase in working class representation in response to public funding. This may be especially true for women pink collar legislators, for whom work-life balance issues are especially acute (Silbermann 2015; Teele, Kalla and Rosenbluth 2018; Bernhard, Shames and Teele 2020; Folke and Rickne 2020). Working class candidates face many disadvantages, and removing just one in isolation may not produce transformative changes in

[31] The small number of working class members of Congress and the lack of variation in campaign finance laws makes Congress unsuitable to study.

representation.

A program to help working class candidates should provide assistance on many dimensions, including campaign finance. While public funding programs are one way to address working class's campaign finance disadvantage, targeted financing of working class candidates in the current campaign finance legal paradigm can also help. Programs to assist women candidates can serve as a model. There are 106 different PAC's that support women candidates (Hill 2021). Research has found that women running for Congress without the support of women's donor networks raise less then men, but women candidates whom these groups support raise more (Crespin and Deitz 2010). Only recently have a few groups appeared that provide financial support to working class candidates (Chavez 2019; Walsh 2020). More of these groups, combined with programs that explicitly recruit and train working class candidates to run for office, should make a big dent in the working class's underrepresentation.

Finally, campaign finance regulations can be changed to help ameliorate the personal financial cost of campaigning. In 2002, the Federal Election Commission adopted a rule that allowed challenger candidates in congressional races to pay themselves with campaign funds. The rule was explicitly designed to help blue collar workers run for office (Seelye 2002) and addresses a key disadvantage for the working class, according to Carnes (2018).[32] At least at 22 candidates running in the 2017-2018 election cycle paid themselves a salary out of campaign funds, including noted working class candidate (and now Congresswomen) Alexandria Ocasio-Cortez (Balcerzak 2018). However, it is unclear if many states allow this practice, or if candidates and potential candidates are even aware of it (Gomez 2020). The FEC rule could also be improved: candidates cannot pay themselves until the primary filing deadline is passed, which is months after serious candidates need to start campaigning to have a chance to win (Cohen 2020). Future research should try to evaluate how

[32]Carnes (2018) does not discuss this FEC rule. Also note that the rule prohibits candidates from paying themselves more than their Congressional salary would be, limiting the potential for wealthy candidates to take advantage of this provision.

these rules impact workers' ability to run for a win office.

References

Abadie, Alberto, Alexis Diamond and Jens Hainmueller. 2010. "Synthetic control methods for comparative case studies: Estimating the effect of California's Tobacco control program." Journal of the American Statistical Association 105(490):493–505.

Abadie, Alberto, Susan Athey, Guido Imbens and Jeffrey Wooldridge. 2017. When Should You Adjust Standard Errors for Clustering? Technical report National Bureau of Economic Research Cambridge, MA: .
URL: *http://www.nber.org/papers/w24003.pdf*

Anzia, Sarah F. and Christopher R. Berry. 2011. "The Jackie (and Jill) Robinson Effect: Why Do Congresswomen Outperform Congressmen?" American Journal of Political Science 55(3):478–493.

Avis, Eric, Claudio do Amaral, Frederico Finan and Carlos Varjão. 2017. "Money and Politics: The Effects of Campaign Spending Limits on Political Competition and Incumbency Advantage.".
URL: *https://www.nber.org/papers/w23508*

Balcerzak, Ashley. 2018. "You're young and broke. Here's how to still win a congressional seat. – Center for Public Integrity.".
URL: *https://publicintegrity.org/politics/young-broke-money-win-congress-election/*

Barber, Michael, Daniel M. Butler and Jessica Preece. 2016. "Gender inequalities in Campaign Finance." Quarterly Journal of Political Science 11(2):219–248.

Barber, Michael J., Brandice Canes-Wrone and Sharece Thrower. 2017. "Ideologically Sophisticated Donors: Which Candidates Do Individual Contributors Finance?" American Journal of Political Science 61(2):271–288.

Barnes, Tiffany D. and Gregory W. Saxton. 2019. "Working-Class Legislators and Perceptions of Representation in Latin America." Political Research Quarterly 72(4):910–928.

Barnes, Tiffany D., Victoria D. Beall and Mirya R. Holman. 2020. "Pink-Collar Representation and Budgetary Outcomes in US States." Legislative Studies Quarterly p. lsq.12286.

Behlke, Max. 2017. "Majority of U.S. Congress is Former State Legislators.".
URL: *https://www.ncsl.org/blog/2017/01/05/majority-of-us-congress-is-former-state-legislators.aspx*

Bernhard, Rachel, Shauna Shames and Dawn Langan Teele. 2020. "To Emerge? Breadwinning, Motherhood, and Women's Decisions to Run for Office." American Political Science Review pp. 1–16.

Bonica, Adam. 2016. "Database on Ideology, Money in Politics, and Elections.".
URL: *https://data.stanford.edu/dime*

Bonica, Adam. 2017. "Professional Networks, Early Fundraising, and Electoral Success." Election Law Journal: Rules, Politics, and Policy 16(1):153–171.

Brady, Henry E., Sidney Verba and Kay Lehman Schlozman. 1995. "Beyond SES: A Resource Model of Political Participation." American Political Science Review 89(2):271–294.

Broockman, David E. 2013. "Black Politicians Are More Intrinsically Motivated to Advance Blacks' Interests: A Field Experiment Manipulating Political Incentives." American Journal of Political Science 57(3):521–536.

Carnes, Nicholas. 2012. "Does the numerical underrepresentation of the working class in congress matter?" Legislative Studies Quarterly 37(1):5–34.

Carnes, Nicholas. 2013. White-Collar Government: The Hidden Role of Class in Economic Policy Making . Chicago: University of Chicago Press.

Carnes, Nicholas. 2018. The Cash Ceiling. Princeton: Princeton University Press.

Carnes, Nicholas. 2020. "Has Research on Working-Class Politicians Excluded Women? A Response to Barnes, Beall, and Holman.".
URL: *http://people.duke.edu/ nwc8/Carnes_Response.pdf*

Carnes, Nicholas and Noam Lupu. 2015. "Rethinking the Comparative Perspective on Class and Representation: Evidence from Latin America." American Journal of Political Science 59(1):1–18.

Carnes, Nicholas and Noam Lupu. 2016. "Do voters dislike working-class candidates? Voter biases and the descriptive underrepresentation of the working class." American Political Science Review 110(4):832–844.

Chattopadhyay, Raghabendra and Esther Duflo. 2004. "Women as policy makers: Evidence from a randomized policy experiment in India." Econometrica 72(5):1409–1443.

Chavez, Aida. 2019. "Progressive Women Launch Working-Class Version of EMILY's List.".
URL: *https://theintercept.com/2019/11/03/emilys-list-working-class-women-pac-matriarch/*

Clayton, Amanda, Diana Z. O'Brien and Jennifer M. Piscopo. 2019. "All Male Panels? Representation and Democratic Legitimacy." American Journal of Political Science 63(1):113–129.

Cohen, Rachel M. 2020. "An FEC Rule Makes Life Harder for Working-Class Challengers.".
URL: *https://theintercept.com/2020/01/16/campaign-finance-law-wealthy-working-class-candidates/*

Correia, Sergio. 2015. "Singletons, Cluster-Robust Standard Errors and Fixed Effects: A Bad Mix.".

Crespin, Michael H. and Janna L. Deitz. 2010. "If You Can't Join 'Em, Beat 'Em: The Gender Gap in Individual Donations to Congressional Candidates." Political Research Quarterly 63(3):581–593.
URL: *http://journals.sagepub.com/doi/10.1177/1065912909333131*

Dowling, Conor M., Ryan D. Enos, Anthony Fowler and Costas Panagopoulos. 2012. "Does Public Financing Chill Political Speech? Exploiting a Court Injunction as a Natural Experiment." Election Law Journal: Rules, Politics, and Policy 11(3):302–315.

Eggers, Andrew C. and Marko Klasnja. 2019. "Wealth, Voting, and Fundraising in the U.S. Congress.".
URL: *https://www.dropbox.com/s/39b23xpqx9qug9y/wealth_finance_voting_short_v3.pdf?dl=0*

Folke, Olle and Johanna Rickne. 2020. "All the single ladies: Job promotions and the durability of marriage." American Economic Journal: Applied Economics 12(1):260–287.

Fouirnaies, Alexander. 2020. "How Do Campaign Spending Limits Affect Elections? Evidence from the United Kingdom 1885-2019." American Political Science Review pp. 1–17.

Fouirnaies, Alexander and Andrew B. Hall. 2014. "The financial incumbency advantage: Causes and consequences." Journal of Politics 76(3):711–724.

Fouirnaies, Alexander and Anthony Fowler. 2021. "Do campaign contributions buy favorable policies? Evidence from the insurance industry." Political Science Research and Methods pp. 1–15.

Fridkin, Kim L. and Patrick J. Kenney. 2014. "How the Gender of U.S. Senators Influences People's Understanding and Engagement in Politics." The Journal of Politics 76(4):1017–1031.

Galasso, Vincenzo and Tommaso Nannicini. 2011. "Competing on good politicians." American Political Science Review 105(1):79–99.

Gerber, Alan. 1998. "Estimating the Effect of Campaign Spending on Senate Election Outcomes Using Instrumental Variables." American Political Science Review 92(2):401–411.

Gomez, Laura. 2020. "One candidate is paying herself a salary, a small price for 'working class' candidates, she says.".
URL: *https://www.azmirror.com/blog/one-candidate-is-paying-herself-a-salary-a-small-price-for-working-class-candidates-she-says/*

Goodman-Bacon, Andrew. 2018. "Difference-in-Differences with Variation in Treatment Timing.".
URL: *http://www.nber.org/papers/w25018.pdf*

Griffin, John D. and Claudia Anewalt-Remsburg. 2013. "Legislator Wealth and the Effort to Repeal the Estate Tax." American Politics Research 41(4):599–622.

Hall, Andrew B. 2014. "How The Public Funding Of Elections Increases Candidate Polarization.".
URL: *https://stanforddpl.org/papers/hall_public_funding_2014/*

Hill, Chelsea. 2021. "Women's Political Power Map.".
URL: *https://cawp.rutgers.edu/education/leadership-resources?combine=&field_category_tid=202&field_party_tid=A*

Hill, Kim Quaile and Jan E. Leighley. 1992. "The Policy Consequences of Class Bias in State Electorates." American Journal of Political Science 36(2):351.

Hill, Seth J. and Gregory A. Huber. 2017. "Representativeness and Motivations of the Contemporary Donorate: Results from Merged Survey and Administrative Records." Political Behavior 39(1):3–29.

Hinojosa, Magda and Miki Caul Kittilson. 2020. Seeing Women, Strengthening Democracy: How Women in Politics Fos Oxford: Oxford University Press.

Johansen, Llyr. 2019. "Massachusetts government is stubbornly unrepresentative - MassINC.".
URL: *https://massinc.org/2019/11/13/massachusetts-government-is-stubbornly-unrepresentative/*

Kevins, Anthony. 2019. "Race, class, or both? Responses to candidate characteristics in Canada, the UK, and the US." Politics, Groups, and Identities pp. 1–22.

Kilborn, Mitchell. 2018. "Public Campaign Financing, Candidate Socioeconomic Diversity, and Representational Inequality at the U.S. State Level: Evidence from Connecticut." State Politics & Policy Quarterly 18(3):296–323.

Kirkland, Patricia A. 2020. "Business Owners and Executives as Politicians: The Effect on Public Policy." The Journal of Politics .

Klarner, Carl. 2018. "State Legislative Election Returns, 1967-2016.".

Kraus, Michael W. and Bennett Callaghan. 2014. "Noblesse oblige? Social status and economic inequality maintenance among politicians." PLoS ONE 9(1):e85293.

Lau, Tim. 2019. "A Bid to Counter Big Money in Politics Is Gaining Steam .".
URL: *https://www.brennancenter.org/our-work/analysis-opinion/bid-counter-big-money-politics-gaining-steam*

Lyon, Gregory. 2020. "Intraparty Cleavages and Partisan Attitudes Toward Labor Policy." Political Behavior 42(2):385–413.

Makse, Todd. 2019. "Professional Backgrounds in State Legislatures, 1993–2012." State Politics & Policy Quarterly 19(3):312–333.

Malbin, Michael J. 2015. Citizen Funding for Elections. Technical report Campaign Finance Institute.
URL: *http://www.cfinst.org/pdf/books-reports/CFI_CitizenFundingforElections.pdf*

Malhotra, Neil. 2008. "The Impact of Public Financing on Electoral Competition: Evidence from Arizona and Maine." State Politics & Policy Quarterly 8(3):263–281.

McCall, Leslie and Jeff Manza. 2011. Class differences in social and political attitudes in the United States. In The Oxford handbook of American public opinion and the media. Oxford: Oxford University Press chapter 34, pp. 552–570.

Mccrain, Joshua and Stephen D O'connell. 2020. "Experience, institutions, and candidate emergence: The political career returns to state legislative service.".
URL: *http://joshuamccrain.com/wp-content/uploads/2020/08/LegislativeCareers.pdf*

McPherson, Miller, Lynn Smith-Lovin and James M Cook. 2001. "Birds of a Feather: Homophily in Social Networks." Annual Review of Sociology 27(1):415–444.
URL: *http://www.annualreviews.org/doi/10.1146/annurev.soc.27.1.415*

Nowacki, Tobias and Daniel M Thompson. 2020. "How Much Do Elections Increase Police Responsiveness? Evidence from Elected Police Commissioners.".
URL: *https://dthompson.scholar.ss.ucla.edu/wp-content/uploads/sites/19/2020/10/Nowacki_Thompson_Commissio*

O'Grady, Tom. 2019. "Careerists Versus Coal-Miners: Welfare Reforms and the Substantive Representation of Social Groups in the British Labour Party." Comparative Political Studies 52(4):544–578.

Primo, David M., Matthew L. Jacobsmeier and Jeffrey Milyo. 2007. "Estimating the Impact of State Policies and Institutions with Mixed-Level Data." State Politics & Policy Quarterly 7(4):446–459.

Sadin, Meredith L. 2012. "Campaigning with Class: The Effect of Canidate Wealth on Voters' Evaluations.".

Schwarz, Susanne and Alexander Coppock. 2020. "What Have We Learned About Gender From Candidate Choice Experiments? A Meta-analysis of 67 Factorial Survey Experiments." Journal of Politics .
URL: *https://alexandercoppock.com/schwarz_coppock_2020.html*

Seelye, Katharine Q. 2002. "Candidates Allowed to Have Salaries From Campaigns.".
URL: *https://www.nytimes.com/2002/11/26/us/candidates-allowed-to-have-salaries-from-campaigns.html*

Silbermann, Rachel. 2015. "Gender roles, work-life balance, and running for office." Quarterly Journal of Political Science 10(2):123–153.

Strezhnev, Anton. 2018. Semiparametric weighting estimators for multi-period difference-in-differences designs. Technical report.
URL: *https://static1.squarespace.com/static/5931baca440243906ef65ca3/t/5b807c5d0ebbe8b9b8c75878/1535147102*

Teele, Dawn Langan, Joshua Kalla and Frances Rosenbluth. 2018. "The ties that double bind: Social roles and women's underrepresentation in politics." American Political Science Review 112(3):525–541.

Volden, Craig, Alan E. Wiseman and Dana E. Wittmer. 2018. "Women's Issues and Their Fates in the US Congress." Political Science Research and Methods 6(4):679–696.

Walsh, Deirdre. 2020. "AOC Launches PAC To Boost Progressive 2020 Challengers.".
URL: *https://www.npr.org/2020/02/21/808234797/rep-ocasio-cortez-launches-political-group-to-boost-progressive-candidates*

Washington, Ebonya L. 2008. "Female socialization: How daughters affect their legislator fathers' voting on women's issues." American Economic Review 98(1):311–332.

West, Emily A. 2017. "Descriptive Representation and Political Efficacy: Evidence from Obama and Clinton." The Journal of Politics 79(1):351–355.

Yoder, Jesse. 2020. "How Wealthy Are Local Elected Officials? Evidence from Candidates' Housing Wealth.".
URL: *http://stanford.edu/ yoderj/candidate_home_values.pdf*

A Appendix

A.1 Additional Statistics on Family Income, Political Participation, and Political Donations

Table A.1. Effect of Income Political Participation

	Vote	Political Meeting	Political Sign	Political Work	Donate Money
Family Income	0.011***	0.013***	0.015***	0.006***	0.032***
	(0.001)	(0.001)	(0.001)	(0.000)	(0.001)
Sample Mean	0.76	0.15	0.24	0.10	0.32
R^2	0.01	0.02	0.01	0.01	0.06
N	37,199	39,281	39,281	39,281	39,281

Notes: $*p < 0.05, **p < 0.01, ***p < .005$. Source: CCES 2012, Sample Weights Applied

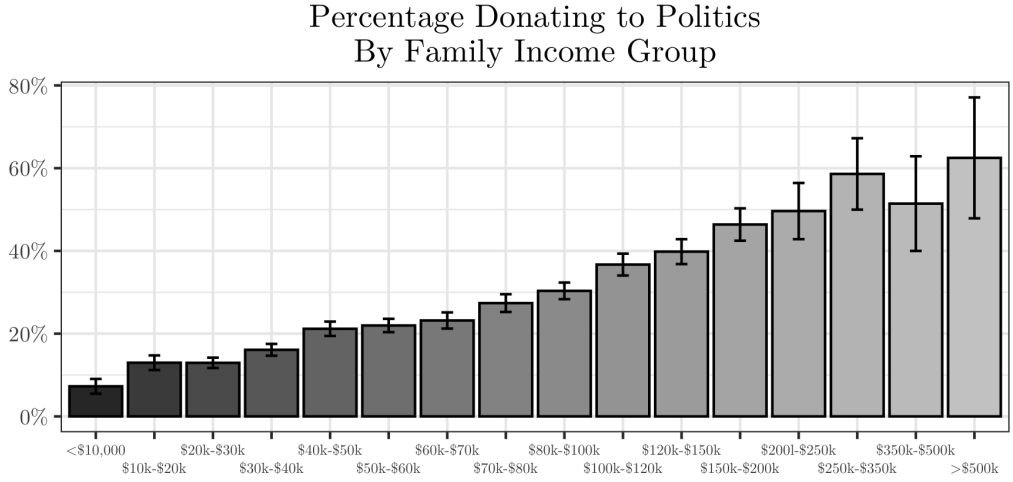

Figure A.1: Donations to a candidate, campaign, or political organization by income. Source: 2012 CCES

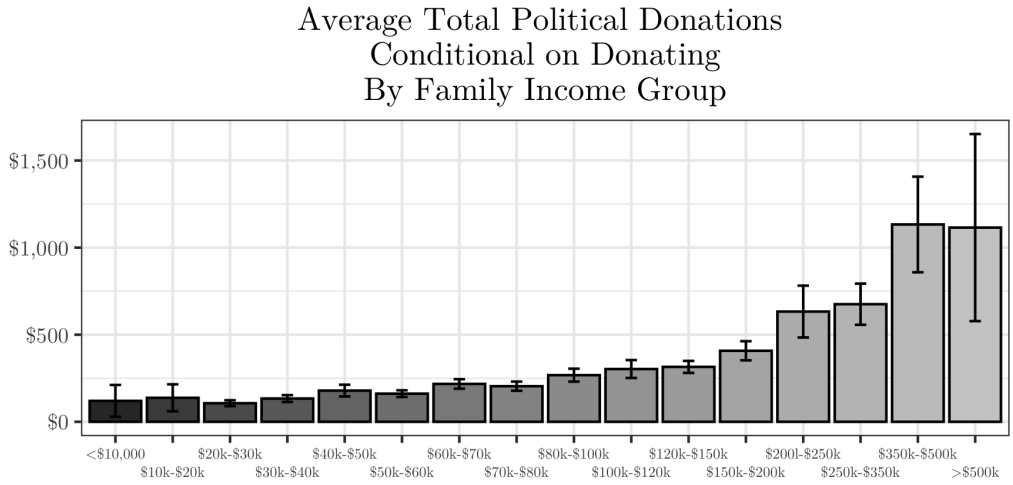

Figure A.2: Average total donations to a candidate, campaign, or political organization by income, conditional on donating. Donations are winsorized at the 99th percentile (>$5000) for precision. Source: 2012 CCES

A.2 Robustness Analysis: Working Class Campaign Finance

Table A.2. Working Class Legislators and Fundraising: Robustness to Different Competitiveness Controls

	(1)	(2)	(3)	(4)
Working Class	-0.100***	-0.101***	-0.101***	-0.101***
	(0.027)	(0.026)	(0.026)	(0.026)
Win Margin Dummies		X		
Margin Percentiles			X	
Margin Continuous				X
R^2	0.84	0.85	0.85	0.85
N	40,169	40,169	40,168	40,168

Notes: $*p < 0.05, **p < 0.01, ***p < .005$. Standard errors clustered at the district level. All columns include incumbent by state house by party by year fixed effects and district by party fixed effects.

Table A.3. Working Class Legislators and Fundraising: Robustness to Winzorizing

	(1)	(2)	(3)
Working Class	-0.101***	-0.115***	-0.107***
	(0.026)	(0.025)	(0.024)
Winsorize Overall		X	
Winzorize by State			X
R^2	0.85	0.86	0.87
N	40,168	39,360	39,277

Notes: $*p < 0.05, **p < 0.01, ***p < .005$. Standard errors clustered at the state level.

A.3 Robustness Analysis: Public Finance

Table A.4. Effect of Public Finaincing on Working Class Representation: Matching Robustness

	(1)	(2)	(3)	(4)
Public Funding	0.029	0.029***	0.020*	0.030***
	(0.016)	(0.003)	(0.008)	(0.003)
Matching Covariates	X	X		
Matching Pre-Treatment Working Class Fraction			X	X
Time-Varying Controls		X		X
R^2	0.70	0.78	0.87	0.90
N	228	228	228	228

Notes: $*p < 0.05, **p < 0.01, ***p < .005$. Standard errors clustered at the state level. Time varying controls include the same controls that were matched on, plus term limits

Table A.5. Effects of Public Financing Removing Certain States

	Remove AZ	Remove CT	Remove ME
Public Funding	0.012**	0.018*	0.024***
	(0.004)	(0.007)	(0.004)
R^2	0.75	0.74	0.73
N	1,824	1,824	1,824

Notes: $*p < 0.05, **p < 0.01, ***p < .005$. Standard errors clustered at the state level.

Table A.6. Effects of Public Financing On Working Class Representation in State Legislatures

	(1)	(2)	(3)
Public Funding	0.018***	0.014***	0.015*
	(0.006)	(0.004)	(0.006)
Wild Cluster P Value	0.09	0.09	0.10
Time-Varying Controls		X	X
Year FE			
Census Region by Year FE	X	X	
R^2			X
N	.7443757	.7606164	.7670835
N	1,862	1,843	1,843

Notes: $*p < 0.05, **p < 0.01, ***p < .005$. Standard errors clustered at the state level.

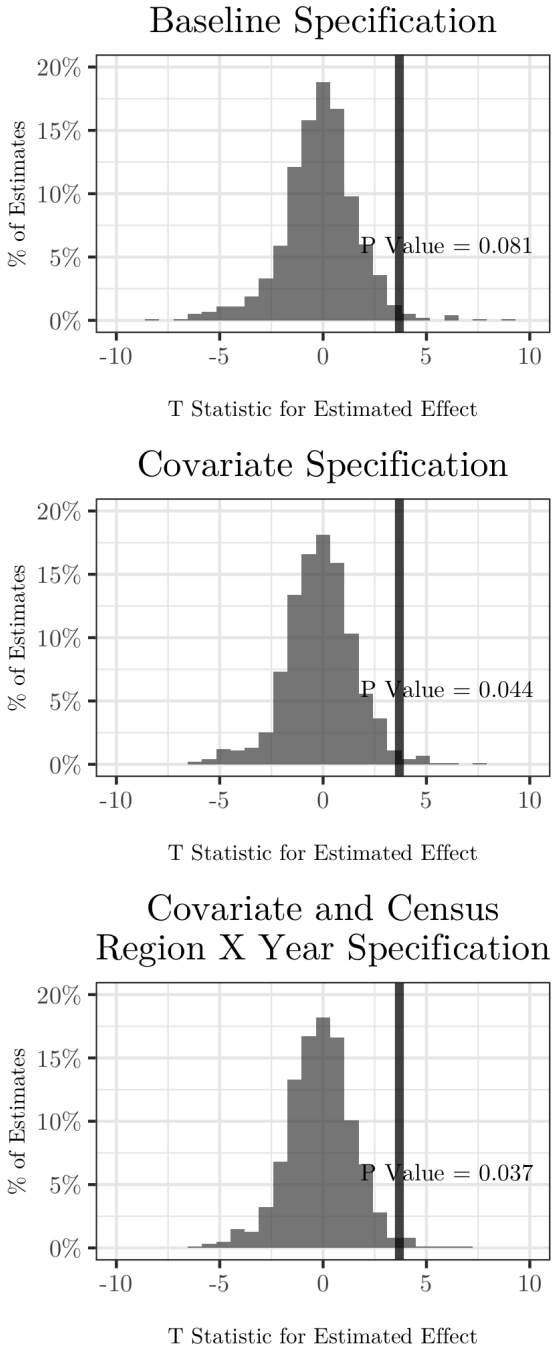

Figure A.3: Solid line represents t statistics from regression on actual treatment data, histogram is distribution of t-statistics from randomly assigned treatments

A.4 Pink Collar Jobs Coding

The broad categories coded as pink collar in Barnes, Beall and Holman (2020) include the following:

- Healthcare Support
- Personal Care and Service
- Education
- Office Administration and Support
- Social Services

Using the occupational categorizations in the Makse (2019) occupation data, I coded the following occupations as pink collar:

- Medical professions
- Educator
- Education staff
- Office workers and clerical
- Social worker

A.5 Public Financing and Pink Collar Representation

Table A.7. Female Representation Among Working Class Legislators

	(1)	(2)	(3)	(4)
Working Class Legislator	-0.116***	-0.117***	-0.120***	-0.123***
	(0.006)	(0.006)	(0.006)	(0.006)
State FE		X		X
Party FE			X	X
R^2	0.01	0.03	0.02	0.04
N	65,555	65,555	65,555	65,555

Notes: $*p < 0.05, **p < 0.01, ***p < .005$. Each column estimates the probability working class legislators are female compared to professional class legislators

Table A.8. Female Representation Among Pink Collar Legislators

	(1)	(2)	(3)	(4)
Pink Collar Legislator	0.248***	0.243***	0.237***	0.232***
	(0.005)	(0.005)	(0.005)	(0.005)
State FE		X		X
Party FE			X	X
R^2	0.04	0.06	0.05	0.07
N	65,555	65,555	65,555	65,555

Notes: $*p < 0.05, **p < 0.01, ***p < .005$. Each column estimates the probability pink collar legislators are female compared to other legislators

Table A.9. Pink Collar Legislators and Fundraising

	(1)	(2)	(3)	(4)	(5)
Pink Collar Legislator	-0.326***	-0.109***	-0.091***	-0.085***	-0.091***
	(0.035)	(0.018)	(0.023)	(0.023)	(0.023)
State-house X Year FE		X	X		
District X Party FE			X	X	X
Inc. X Party X State-house X Year FE				X	X
Competitiveness Percentiles					X
R^2	0.01	0.67	0.81	0.84	0.85
N	41,427	41,427	40,363	40,169	40,168

Notes: $*p < 0.05, **p < 0.01, ***p < .005$. Standard errors clustered at the district level.

Table ??. Pink Collar Legislators and Fundraising under Public Financing

	(1)	(2)	(3)	(4)
Pink Collar Legislator	-0.123***	-0.106***	-0.100***	-0.106***
	(0.017)	(0.018)	(0.018)	(0.017)
Pink Collar Legislator × Public Funding	0.110***	0.101**	0.110***	0.102***
	(0.024)	(0.035)	(0.028)	(0.030)
State-house X Year FE	X	X		
District X Party FE		X	X	X
Inc. X Party X State-house X Year FE			X	X
Competitiveness Percentiles				X
R^2	0.67	0.81	0.84	0.85
N	41,427	40,363	40,169	40,168

Notes: $*p < 0.05, **p < 0.01, ***p < .005$. Standard errors clustered at the state level.

Table A.11. Effects of Public Financing On Pink Collar Representation in State Legislatures

	(1)	(2)	(3)
Public Funding	-0.021	-0.024	0.002
	(0.015)	(0.018)	(0.004)
Time-Varying Controls		X	X
Year FE	X	X	
Census Region by Year FE			X
R^2	0.71	0.71	0.35
N	1,862	1,843	1,843

Notes: $*p < 0.05, **p < 0.01, ***p < .005$. Standard errors clustered at the state level.