Impact of Gubernatorial Partisanship on The Pursuit of the American Dream

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Abstract:

Using Current Population Survey (CPS) data matched to gubernatorial election data from 1978 to 2015, I estimate the causal impact of political partisanship under a Democratic or Republican governor on the pursuit of the American Dream. Specifically, I estimate how the partisanship of these parties impacts home ownership, having a job, not being in poverty, having some level of higher education, and being covered under a healthcare plan. Although these outcomes are often related, each of them are considered individually for this research. Furthermore, I estimate heterogeneous effects for different subsets of the population including blacks, whites, females and males by comparing across these groups. I utilize a regression discontinuity (RD) design with state and year fixed-effects, and find that under a Democratic governor: Employment rates are flat to slightly decreasing for white individuals and increase for black individuals. Poverty rates are relatively flat for white individuals and decrease for blacks. When comparing women to men, college education rates decrease for men but increase for women. Employment rates are flat to slightly decreasing for men and increase for women. Poverty rates decrease for women relative to no change for men. Under a Republican governor, there is evidence of a large disadvantage for both blacks and women, so the impact of having a Democratic governor appears to narrow this gap.

I. INTRODUCTION

One of the notions that differentiates America culturally is that of the American Dream, or the pursuit thereof. Although it has changed relatively dramatically over the last century, from one of political liberty and escape from tyranny, to one of various inherent freedoms and economic opportunity, it is still a set of ideals which many Americans strive for. In my research, I identify the American Dream closely to that of Franklin Delano Roosevelt (FDR) in his 2nd Bill of Rights, or "Economic Bill of Rights." FDR's vision of the American Dream was delivered January 11, 1944 in a message to the US Congress on the State of the Union:

"In our day these economic truths have become accepted as self-evident. We have accepted, so to speak, a second Bill of Rights under which a new basis of security and prosperity can be established for all—regardless of station, race, or creed.

Among these are:

The right to a useful and remunerative job in the industries or shops or farms or mines of the nation; The right to earn enough to provide adequate food and clothing and recreation; The right of every farmer to raise and sell his products at a return which will give him and his family a decent living; The right of every businessman, large and small, to trade in an atmosphere of freedom from unfair competition and domination by monopolies at home or abroad; The right of every family to a decent home; The right to adequate medical care and the opportunity to achieve and enjoy good health; The right to adequate protection from the economic fears of old age, sickness, accident, and unemployment; The right to a good education." Nichols (2015)

The specific variables utilized in my analysis are noted in the Abstract, and include home ownership, employment, education, healthcare, and poverty. Social Security and farming rights which were part of FDR's vision are omitted because they are either protected benefits or too narrow in scope to be useful for this research. My aim is to be able to make a broad statement as to the efficacy of Democratic and Republican policies at the gubernatorial level. I first discuss the motivation for this question and what a governor does.

In pursuit of the American Dream, we elect public representatives at a national, state and local level. These include the President, congressmen and women, governors, local legislators and others. Part of the reason for electing these leaders is so they will enact changes which will benefit their constituents through a political platform. However, the debate regarding who or which set of parties is better suited to help us pursue this path is a contentious one, and rife with bias and fallacy. Between the countless media outlets, social networking, academia and peers, the volume of information is substantial, with little research to filter out the noise and determine what is true (or at least supported by data) and what is not. It is an important aim to quantify which party and their respective policies help and who they help specifically, which is the intent of this research paper.

The governor acts as the executive power within a state, and there is a tradition written into the Constitution and other governing documents that any power not specifically reserved by the federal government will be held by the states. States have their own fiscal policy, with a tax code written to generate revenue, and their own budget and spending policies. Furthermore, like the President in the Executive Branch of the federal government, governors have a certain degree of policy-setting power, with the authority in most cases to veto legislation, and in other

cases to significantly amend legislation. Although they do not have all the same powers that the President maintains, there is a similar system of checks and balances and multiple branches of government in each state that the governor is at the center of.

Gubernatorial elections are most often held every four years, other than the states of Vermont and New Hampshire, where they occur every two years. Elections take place in November, and the governor elect takes up their position the following January. In most elections, the two parties receiving most the votes are the Democratic and Republican party. However, there are a small minority of elections within various states where the winning party was the independent or "other" party. Because of the limited number of elections where a third party is elected, I omit them from this analysis and focus specifically on comparing outcomes under Democratic and Republican governors. Following is a discussion around the purpose for my methodology and then how the analysis was conducted.

One of the challenges of estimating the causal impact of a Democratic or Republican governor on a set of outcomes is these regimes are not randomly assigned to govern. They are elected by a state full of constituents in what is often a convoluted, district driven process, and these constituents can differ from state to state in the way they pursue home ownership, education, healthcare, employment opportunities and poverty avoidance. Additionally, if a state's citizens can accurately predict that there will be economic uncertainty in the future, they may be more likely to elect the party that would be better suited to help the state deal with that volatility. In that case, the governor who is elected is not "random." Many economic, social and other influences directly impact who people will vote for. This issue reflects one of "endogeneity," or variation from within (not random). To produce unbiased estimates of a

governor's policies, the variation in governor must be exogeneous. In the case of this research, the variation will be considered "as good as exogenous."

To deal with this endogeneity issue, a regression discontinuity design can be utilized focusing on states and years that have elections decided by small margins on either the Democratic or Republican side, and then comparing the economic outcomes of those states when they had Democratic governors versus Republican governors. The discontinuity exploited in election results exists at the 0% threshold. That is, when a candidate for governor gets more votes, even one more vote than the other, they win. This threshold is unlikely to be manipulated precisely except in issues of election fraud. If no such corruption or manipulation exists, the advantage is those states who narrowly elected a Democrat or Republican governor should be relatively similar. Furthermore, each individual state that changes frequently between the two political parties should serve as a suitable treatment and control group in and of itself. Per Louis Philipe Beland (2015), a regression discontinuity design "allows for the estimation of the local average treatment effect in cases where randomization is infeasible." A table or graph comparing the observable explanatory variables of the states that had these narrow margins of victory for their elections provides a good indication of whether they are indeed comparable. The primary differences between them are the policy changes that result based the election, and this is the variation that leads to our outcomes of interest. Economic theory suggests that without manipulation of the treatment (election fraud or one side being able to manipulate the outcome), the treatment in a regression discontinuity is as good as randomly assigned.

Theory suggests that we are likely to see a few things in the data. One is that Republican governors prefer smaller government, lower taxes and lower public spending. If this is true, it

could benefit each of the outcomes of interest through the retention of more disposable income at the individual level. However, this could also harm the Government's revenue stream, which would inhibit their ability to subsidize benefits surrounding education or healthcare. Democrats pursue issues of equality, access, and often some form of redistribution of income. Certain demographics may benefit and others may be harmed by these policies. However, it's entirely possible that people perceive governors to have more power than they do, so results may not show any statistical significance. This would lend itself to the idea that politicians either do not actively pursue the policies for which they advocate or that the median voter hypothesis is mitigating their impact. The median voter hypothesis suggests that because governors are trying to win the vote of the person in the middle, there is a policy convergence toward that "median voter," suggesting that policy shift during a politician's tenure would be minimal by design.

II. LITERATURE REVIEW

One of the most recent papers published in this area of research is entitled "Political Parties and Labor-Market Outcomes: Evidence from U.S. States," by Louis-Phillipe Beland (2015). This paper uses CPS data from 1977 to 2008 to estimate the causal impact of partisanship (called "party allegiance" in the paper) on several labor-market outcomes. Some of the outcomes considered are annual hours worked, weeks worked, usual hours worked and whether somebody is in the labor force. Furthermore, the paper compares these outcomes for black and white workers to understand the magnitude of the impact across these groups. The research finds that white workers are not impacted to a significant degree based on which party holds the governor's office. However, for black workers, it finds that "Democratic governors have a statistically

significant impact on blacks' labor-force participation and the likelihood of being employed (2.48 percent and 2.59 percent, respectively)" Beland (2015).

The paper uses the same basic regression discontinuity design I utilize for my research. The regression includes the stated dependent variables as indicators for labor-market outcomes, an indicator for whether there was a Democratic governor (then interacted with a dummy variable for whether the individual being observed is black), the margin of victory, a vector of individual control variables such as education, marital status, age, gender, and state and year fixed-effects. Aside from the interaction between Democratic governor and black, this is a very similar approach to a previous paper by Andrew Leigh published in 2007.

Andrew Leigh's research paper, entitled "Estimating the Impact of Gubernatorial Partisanship on Policy Settings and Economic Outcomes: A Regression Discontinuity Approach," looks at various economic outcomes and policy settings resulting from gubernatorial partisanship. He performs many regressions estimating 32 different outcomes on whether there was a Democratic governor (along with a set of control variables). The study uses panel data from 1941 to 2002, and finds that generally, there is not a large impact of either set of policies. However, there are a few individual regressions that do show statistically significant relationships. Specifically, the study finds that under a Republican regime, there are "higher incarceration rates, lower welfare caseloads, and lower minimum wages, and Democratic governors had their constituents see 'higher post-tax income, lower post-tax inequality, and lower unemployment rates.'" Leigh (2007). Of the 32 indicators analyzed, these six are the only to show statistically significant relationships with the party in office at the time.

Leigh's research added to the existing literature by using panel data, and controlling for state and year fixed-effects. He looked at a much wider array of policy and economic outcomes than any of the previous literature. Lastly, there is explicit modeling of the impact of voter ideology on political outcomes. The general model is a regression discontinuity, using the discontinuity that occurs at the 50% vote share. There are then alternative specifications which include variables for whether Republicans control both houses of the state legislature (as this may have an impact on efficacy of policy-making by the governor), a variable representing the Poole-Rosenthal score for that state's House of Representatives members in each year, and "V," the vote share of the Democratic candidate for governor in the most recent election.

Although this is a telling study in terms of its scope, it has a very significant drawback. It appears to be an exercise in data mining, and then has been positioned with a causal lens. Because of the large number of regressions run, and the limited number of statistically significant results, it is possible that some Type 1 error (false positive) is being exhibited. This is despite the statistically significant outcomes making sense logically. The author Leigh admits this potential threat to validity of his results, and makes two separate conservative adjustments to his statistical relevance, called the Bonferroni adjustment and the Sidak adjustment. Once these adjustments to the p-values are made, he admits that none of the coefficients can stand up to such strict standards.

An article entitled "Do Parties Matter for Economic Outcomes? A Regression Discontinuity Approach," by Per Petterson-Lidbom was published in 2008. It examines the impact of left-wing and right-wing parties on a set of fiscal and political outcomes, including taxes and unemployment rates in Sweden. The study finds that left-wing governments spend and tax more,

but have lower unemployment, with one reason being that a larger number of people are employed by the government under a left-wing regime. The empirical strategy utilized is comparable to those which the other literature used, lending credit to this model for estimation of effects of election outcomes. Some of the specific outcomes explored in Petterson-Lidbom's paper include total expenditures per capita, total expenditures as a share of income, current expenditures per capita, current expenditures as a share of income, total revenue per capita, total revenue as a share of income, proportional income tax rate, unemployment rate, and number of local government employees per capita. Many of these outcomes suggest a statistically significant relationship, although the author admits that not all the results are intuitive. Ultimately, the conclusion is that party control does have a causal effect on economic outcomes.

Three previous papers have been presented, each having at least some indication that political parties matter. Generally, the results fit what is suggested by theory. Almost all this previous research provides results that are important to policy makers and academics. However, one of the gaps in the literature is that there has not been research produced that is geared toward helping voters determine which party is going to improve their livelihood.

My research makes two specific contributions to the previous literature to help fill this gap. One contribution is that I estimate some outcome variables which have not been estimated before. Although income and employment have been studied, education, healthcare, and home ownership have not. The outcome variables chosen for this research were selected based on being arguably more relatable than previous literature. These are all outcomes which are highly contentious in their provision and allocation, but almost universally, they are important. This

leads to my second contribution, which is to provide research which can be a resource across an audience that both inside and outside of academia and politics.

III. Empirical Strategy:

The identification strategy/ regression utilized for this research is a regression discontinuity. This design is utilized to deal with the potential endogeneity issues associated with election outcomes. Some of the sources of this endogeneity, as stated in Beland (2015), surround "labor-market conditions, voter characteristics, the quality of candidates, which party is the incumbent, the resources available for campaigns, and other unmeasured characteristics of states and candidates that would bias estimates of the impact of the party allegiance of governors." In other words, there are many things that could potentially bias the results in estimating this model using a typical linear regression. A regression discontinuity design helps deal with many of these issues by examining what is considered "plausibly random" variation in the independent variable of interest, the party that is acting in the gubernatorial capacity. States that have narrowly elected governors, Democrat or Republican, are likely to have very similar characteristics. For example, in these "swing states," average age, racial characteristics and political ideologies are likely not far from one another. Comparing one to the other can serve as a sort of counter-factual, a "what if a particular state would have elected the other candidate" estimation. Additionally, when state fixed-effects are included, this takes the level of comparability a step further by comparing a state to itself under each governing regime.

The effect estimated by the regression discontinuity design is called the local average treatment effect, because of the exploration of the relationship close to the discontinuity.

Examining only states with close elections or a state to itself in years where it narrowly elected their governor gives some confidence that the state/s being compared are similar. I explain more on the use of fixed-effects later in this section.

The primary regressions of interest appear as follows:

(1) $Y_{ijt} = \beta_0 + \beta_1 D_{jt} + \beta_2 Black_{jt} + \beta_3 D_{jt} Black_{jt} + \beta_4 Margin_{jt} + \beta_5 D_{jt} Marg_{jt} + \beta_6 MarginBlack_{jt} + FE_{jt} + \varepsilon_{jt}$

and

(2) $Y_{ijt} = \beta_0 + \beta_1 D_{jt} + \beta_2 Female_{jt} + \beta_3 D_{jt} Female_{jt} + \beta_4 Margin_{jt} + \beta_5 D_{jt} Marg_{jt} + \beta_6 MarginFemale_{jt} + FE_{jt} + \varepsilon_{jt}$

Y_{ijt} represents the outcomes of interest, which are indicators for whether the individual has a job, their income, poverty status, whether they own a home, whether they have a college education or are attending college, and whether they have health care coverage for individual i in state j at time t.

It is meaningful in the context of these results to understand exactly what each of the outcomes of interest represent. To that end, the outcomes and their interpretations are outlined below.

- Variable for home ownership called “owner.”
    - Takes on value of 1 if individual owns home, 0 otherwise
    - Interpreted as the percentage of individuals in population of interest who own homes, whether they have a mortgage or not.

- Variable for college education is called “college.”
    - Takes on value of 1 if individual has at least one year of college, 0 otherwise
    - Interpreted as percentage of individuals who have at least one year of higher education in the population of interest
- Variable for whether individual has healthcare coverage is called “covered.”
    - Takes on value of 1 if individual has any healthcare coverage, whether public or private, 0 otherwise
    - Interpreted as percentage of individuals in population of interest who have some form of healthcare coverage
- Variable for whether individual has a job is called “employed.”
    - Takes on value of 1 if individual is employed, 0 otherwise
    - Interpreted as the percentage of the population of interest who are participating in the labor market.
- Variable for whether somebody is in poverty is called “poverty.”
    - Takes on value of 1 if individual is considered impoverished based on the IPUMS constructed measure, 0 otherwise.
    - Interpreted as the percentage of individuals in the population of interest in poverty.
    - This is the only measure that is considered a “better” outcome when the coefficient is lower.

Next, I move on to a discussion of my independent / “right-hand side” variables.

β_0 represents the intercept for the respective outcome variables of interest.

D_{jt} is a binary variable that is equal to 1 if there is a Democratic governor in state j in year t, and 0 if the governor was Republican.

$Margin_{jt}$ is a running and continuous variable representing the Democratic vote share in each year and state. For purposes of the RD design, two separate thresholds of election victory margin are utilized, which are five percent and ten percent. These small bandwidths allow for the greatest plausible comparability between the treatment and control groups, namely, the states with narrowly elected Democratic and Republican governors.

$D_{jt}Marg_{jt}$ is an interaction between the Democratic governor indicator and the margin of victory which allows each side of the discontinuity to have its own trend (slope of each can differ).

$Black_{jt}$ represents the difference in outcomes between black and white individuals under a Republican governor. Only these two races are included.

$D_{jt}Black_{jt}$ represents the additional difference between white and black individuals under a Democratic governor. In other words, it is the increase or decrease in the $Black_{jt}$ coefficient under a Democratic governor.

$MarginBlack_{jt}$ is the running variable for black, allowing the $Margin_{jt}$ coefficient to be different for blacks than whites.

$Female_{jt}$ represents the difference in the outcome between women and men under a Republican governor.

$D_{jt}Female_{jt}$ represents the additional difference between women and men under a Democratic governor. In other words, it is the increase or decrease in the $Female_{jt}$ coefficient under a Democratic governor.

$MarginFemale_{jt}$ is the running variable for females, allowing the $Margin_{jt}$ coefficient to be different for females than males.

FE_{jt} represents the state and year fixed-effects for the regressions. The model is run with both fixed-effects included, and then is run in a series of regressions with only the year fixed-effects as a robustness check. This is primarily done to ensure that the results bare some consistency whether the state fixed-effects are included or not. Only the results from the model with both fixed-effects is included in the text, and all other regressions are contained in the appendix. Standard errors are clustered at the state level to handle serial correlation.

Expanding on the model using state and year fixed-effects, this is the more conservative approach which I rely on in reporting outcomes. This model is looking only at variation within a state when the state switches between Republican and Democratic governors over time. In other words, the model controls for the state in which the variation occurs. Because of the state fixed-effects, if a state switched from a Republican to a Democratic governor, the outcomes represent the impact for people in that state when they had a Democrat compared to when they had a Republican. This eliminates a lot of variation, as there are far fewer switches within a state than changes across states over time. In the appendix, I present a table that illustrates how much variation the model exhibits utilizing the 10% bandwidth and the 5% bandwidth. The reason for the inclusion of both fixed-effects is important. This gets as close as possible to being a counter-

factual in the context of a natural experiment. As such, when we do find a statistically significant outcome, there is increased confidence in the estimate.

The other way to run this model is to include only year fixed-effects. This allows comparison across states and removes the average difference in the outcome variable for that given year. In other words, if there was a year where the job market was particularly strong nationwide, allowing people the opportunity to purchase homes and find employment, the increased home ownership and employment averages are removed from the estimate. Although states are being compared that narrowly elect their governors, there is a possibility that these states are different in some characteristic that is not being captured. This has the potential to bias the results.

Lastly, I ran alternative specifications that had squared terms for the running variable and associated interactions. Analyzing the results of these regressions, most of the squared terms were not statistically significant, indicating that the results do not strongly follow a quadratic form. Also, the results are relatively consistent with the linear model. Due to the increased complication of adding the squared terms without much added benefit in accuracy of the estimations, the final model of interest did not include them.

IV. Data and Descriptive Statistics

The data is obtained from several sources. The data on all the dependent variables comes from the U.S. CPS data, on an annual basis from 1978 to 2015. The data on the variables related to gubernatorial elections come from "Dave Leip's Atlas of U.S. Presidential Elections," which has election statistics for gubernatorial elections going back to the year 1990. I have also matched

on data from the previous published paper by Beland (2015) for those years from 1978 to 1989, because Leip's (2016) data did not include these earlier years. I utilize the party that won the election and the vote share for each year of interest.

There are a couple important things to note with regards to utilization of the data. One is that I'm considering a governor's policies to not have an impact the year they are elected, so the outcomes of interest are measured so that the year of the election will be an outcome for the previous governor. For states who have gubernatorial elections every two years, only one year of outcomes is measured, which is year two. Furthermore, the first year the governor is in office has also been omitted, as this year is most likely to experience spillover effects from the prior governor's term. The estimates produced can be considered the average individual impact for years two through four. It's possible that a year by year analysis would produce a variety of results, but that is outside the scope of this study. Lastly, any election cycles that had a governor impeached or otherwise replaced are omitted.

One important consideration whenever utilizing a regression discontinuity design in empirical research is to establish that your observations on both sides of the discontinuity are comparable. In fact, this is a key assumption of a regression discontinuity. Although you are unable by nature to observe "unobservable characteristics," the researcher can establish comparability along the observable characteristics. Some variables that may impact the outcomes of interest include age, sex/gender, race and marital status. Table 1 illustrates the level of comparability across these domains. There is also a margin variable indicating the typical Democratic or Republican margin of victory under different bandwidths.

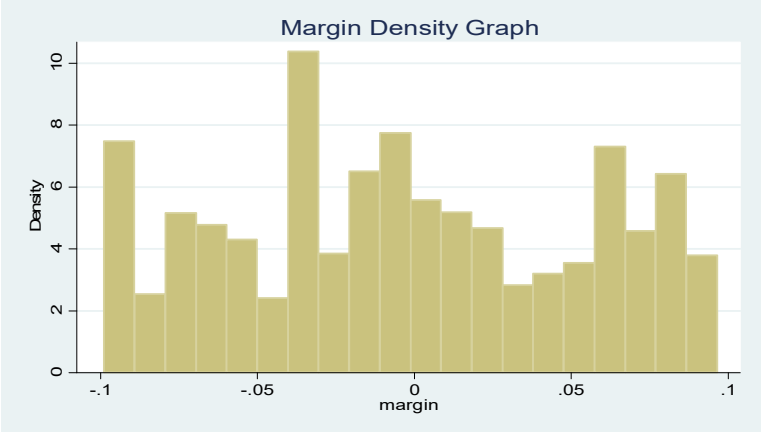
TABLE I – SUMMARY STATISTICS FOR STATES CLOSE TO THE DISCONTINUITY

Variable	Dem 10 %	Rep 10%	Population 10%	Dem 5%	Rep 5%
age	39.40	39.37	39.38	39.59	39.26
female	.52	.52	.52	.52	.52
black	.10	.10	.10	.09	.11
married	.62	.61	.61	.62	.60
margin	.053	-.046	-.003	.021	-.023

Notes: Table 1 is run for the population of interest including individuals 18 to 65 years old in all included states. These summary statistics include both the 10% threshold and the 5% threshold. The table reports the average age of each individual, the percentage of the population that is female, the percentage of the population who is black, and the percentage of the population who is married. Variables "female," "black," and "married" are binary variables representing whether the individual has that characteristic. The average margin of victory for the associated threshold is also presented.

Table 1 shows that across the variables age, female, black, marital status, and margin, there is strong evidence that those states who narrowly elected a Democratic or Republican governor are similar in their observable characteristics. It does appear that there is a slightly larger density of black individuals in states that elected a Republican governor within a 5% margin, but a two percentage-point difference is not likely to have an impact on outcomes. This table helps tell the story of the variation in Republican vs Democrat being plausibly random and reduces the likelihood that there are factors other than the variation in the governor that are impacting the outcomes of interest. The margin variable represents the margin of victory of each party within the associated threshold. Because it appears that within the 5% and 10% threshold, the margin of victory for each party is similar, this provides some evidence that neither party is manipulating election outcomes to a large degree. Figure 1 is a histogram showing the number of elections that fell within each 1% margin of victory. A McCrary test has been included in the appendix for reader edification.

FIGURE I – HISTOGRAM OF ELECTION MARGIN OF VICTORY



The estimates for margin being comparable under each of the bandwidths, as well as the graph above, are good indicators that there is no selective sorting around the threshold. There does appear to be slightly higher density of votes on the Republican side just below the discontinuity but the magnitude of the difference appears to be small. There also appears to be a larger number of instances where the Republican won by between three and four percent, but it is highly unlikely that election outcomes are being manipulated around the 4% threshold. Because there is not substantial evidence that the outcome of the election is being manipulated near the cutoff, this provides reasonable confidence that neither party has an unfair advantage in deciding electoral victory.

V. Main Results

This section outlines and explains the results of the regressions. I start with the model including the 10% bandwidth and then discuss the 5% bandwidth. Tables are included in this section along with the discussion of the results. Graphical representations of these relationships are included where appropriate to help illustrate the gubernatorial impact.

Considering economic theory and the regression results, there are several important outcomes. Comparing black individuals to whites, it appears that Democratic policies can be helpful to black individuals and either not impactful or slightly harmful for white individuals. Table 2 below provides estimates from the regression comparing black individuals to white individuals, with further discussion following.

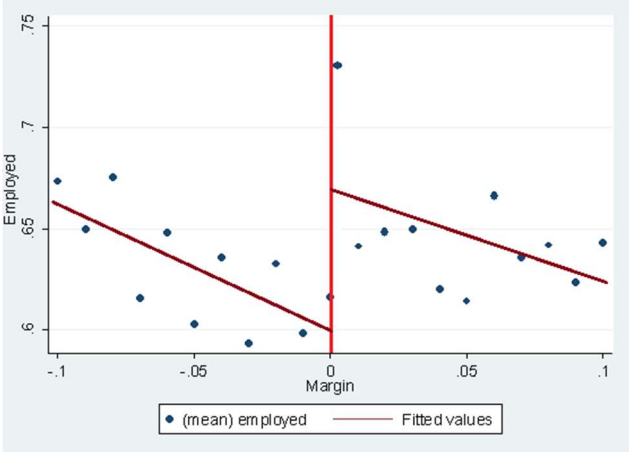
TABLE 2 - RD ESTIMATES FOR BLACK AND WHITE OUTCOMES WITH 10% BANDWIDTH

Outcome Variable	Democrat	Democrat*Black	Black
Home Ownership	0.007	-0.001	-0.219***
	(0.007)	(0.022)	(0.017)
College Education	-0.007	0.014	-0.097***
	(0.008)	(0.028)	(0.015)
Healthcare Coverage	-0.003	-0.005	-0.051***
	(0.011)	(0.022)	(0.010)
Employment Rates	-0.001	0.025*	-0.106***
	(0.005)	(0.013)	(0.010)
Poverty Rates	0.001	-0.040**	0.149***
	(0.004)	(0.019)	(0.012)

Notes: Table 2 represents the impact of a Democratic governor on the outcomes of interest comparing blacks to whites. Ages 18 to 65 are included in the analysis. Only black and white individuals are included in the analysis. Elections within a 10% margin of victory are included. This model includes state and year fixed-effects. Standard errors are clustered at the state level.

From Table 2, evidence is provided indicating outcomes for black individuals are typically much lower (other than poverty which is higher) than white individuals. When a Democratic governor is elected, there is very little impact for employment rates of whites, but employment rates for blacks goes up by 2.5%. Figure 2 graphically displays the change in employment for black individuals under a Democratic governor.

FIGURE 2 - ELECTION MARGINS AND PERCENTAGE OF BLACKS EMPLOYED

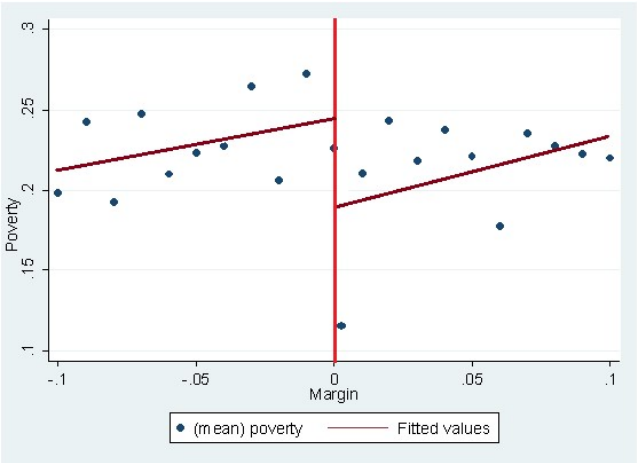


Notes: This graph represents the mean employment rate for blacks collapsed by bin. Each bin represents a 1% margin of victory. Graph was altered slightly with photo editing program for display purposes, although outcomes have not been manipulated.

In Figure 2, there appears to be a noticeable jump in employment rates for blacks when a Democratic governor is elected.

Continuing the comparison of black and white outcomes, poverty rates stay relatively stable for whites under a Democratic governor, but decrease for blacks by 4%. Figure 3 is a graphical representation of the impact of a Democratic governor on percentage of blacks who are in poverty.

FIGURE 3: ELECTION MARGINS AND PERCENTAGE OF BLACKS IN POVERTY



Notes: This graph represents the mean poverty rate for blacks collapsed by bin. Each bin represents a 1% margin of victory. Graph was altered slightly with photo editing program for display purposes, although outcomes have not been manipulated.

Upon examination of Figure 3, looking at the area near the discontinuity, there is a decrease in poverty rates for blacks under a Democratic governor. This is supportive of the results presented in Table 2. However, it's worth pointing out that in the actual regression of interest (represented in the tables), the impact for blacks is considered relative to whites. The graphical form illustrates the net change specifically for blacks, and whites are not considered.

Similarly, I present the same set of results at the 5% threshold in Table 3. At this threshold, the results are comparable despite some nuances. Note two new outcomes that present themselves in terms of education rates and healthcare.

TABLE 3 – RD ESTIMATES FOR BLACK AND WHITE OUTCOMES WITH 5% BANDWIDTH

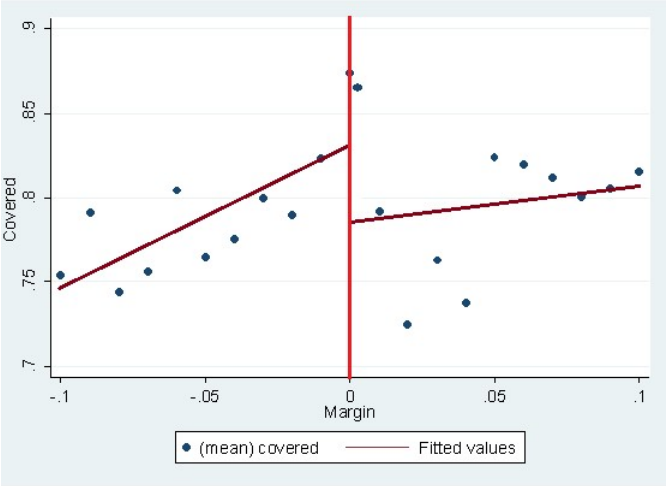
Outcome Variable	Democrat	Democrat*Black	Black
Home Ownership	0.008	-0.026	-0.216***
	(0.010)	(0.031)	(0.019)
College Education	-0.021**	-0.006	-0.091***
	(0.009)	(0.026)	(0.016)
Healthcare Coverage	-0.008	-0.034**	-0.044***
	(0.012)	(0.017)	(0.012)
Employment Rates	-0.010*	0.006	-0.104***
	(0.006)	(0.017)	(0.013)
Poverty Rates	0.007	-0.034	0.153***
	(0.005)	(0.024)	(0.017)

Notes: Table 3 represents the impact of a Democratic governor on the outcomes of interest comparing blacks to whites. Ages 18 to 65 are included in the analysis. Only black and white individuals are included in the analysis. Elections within a 5% margin of victory are included. This model includes state and year fixed-effects. Standard errors are clustered at the state level.

With this model, college education decreases for whites by 2.1% under a Democratic governor and appears a similar result for blacks if not a slightly larger decrease. Healthcare coverage appears to decrease for both groups, although the impact for whites is not statistically significant, and blacks decrease by 3.4% relative to whites. This result shows up as being highly statistically significant utilizing the 5% threshold.

Figure 4 provides a graphical representation of the healthcare impact for blacks.

FIGURE 4: ELECTION MARGINS AND PERCENTAGE OF BLACKS WITH HEALTHCARE COVERAGE



Notes: This graph represents the mean healthcare coverage rate for blacks collapsed by bin. Each bin represents a 1% margin of victory. Graph was altered slightly with photo editing program for display purposes, although outcomes have not been manipulated.

Examining Figure 4 above, there is a drop in healthcare coverage for blacks near the discontinuity, although at the 10% threshold the impact is more nebulous. This is likely the reason for this result when using a 5% threshold but no such statistically significant result when including the 10% threshold. Considering the mounting evidence that under a Democratic governor, the margin between black and white narrows for employment and poverty rates, this is a counter-intuitive result. It is outside the scope of this study to determine the reason for this result, although this could be a useful extension in future research.

Analyzing other outcomes, employment rates decrease for whites and appear to slightly increase for blacks although not at a statistically significant level. Poverty rates drop for blacks relative to whites by 3.4% although this result is not quite statistically significant. The direction of the impact of a Democratic governor for employment and poverty are the same as those reported at the 10% bandwidth, although magnitudes and levels of statistical significance do change. These results are continued evidence using the 5% threshold that the employment gap and poverty gap between blacks and whites narrows under a Democratic governor.

The primary results, indicating a relatively higher employment rate and relatively lower poverty rate for blacks compared to whites under a Democratic governor, are robust to several specifications. The appendix provides evidence of consistency of these results when you omit the state fixed-effects. Additionally, estimations are provided from a model which includes squared terms for the running variable and its interactions with the dummy variables. I also experiment with triangular weighting of the observations which provides comparable results, although these estimations have not been included in this paper. Next, I explore the outcomes of the model comparing females to males.

When comparing females to males, Democratic policies appear to be generally helpful for women while either not impactful or slightly harmful for men. Like the comparison between black and white individuals, I first present the results utilizing the 10% threshold and then the 5% threshold. Table 4 below provides tabular results of this regression model.

TABLE 4 – RD ESTIMATES FOR FEMALE AND MALE OUTCOMES WITH 10% BANDWIDTH

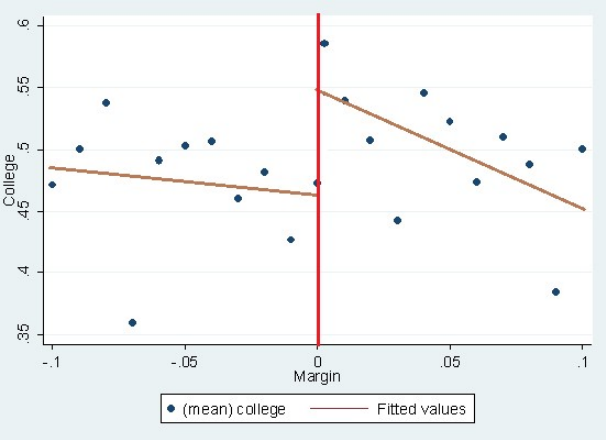
Outcome	Democrat	Democrat*Female	Female
Home Ownership	0.004	0.003	-0.012**
	(0.006)	(0.006)	(0.005)
College Education	-0.024**	0.038***	-0.021**
	(0.010)	(0.013)	(0.010)
Healthcare Coverage	0.001	-0.009	0.034***
	(0.010)	(0.006)	(0.004)
Employment Rates	-0.012	0.029*	-0.168***
	(0.010)	(0.015)	(0.013)
Poverty Rates	0.001	-0.009**	0.044***
	(0.003)	(0.004)	(0.003)

Notes: Table 4 represents the impact of a Democratic governor on the outcomes of interest comparing females to males. Ages 18 to 65 are included in the analysis. Elections within a 10% margin of victory are included. This model includes state and year fixed-effects. Standard errors are clustered at the state level.

The results in Table 4 indicate that under a Democratic governor, the college education rate for men decreases by 2.4% and increases for women by 3.8% relative to men (net effect for

women of +1.4%). Figure 5 shows graphically the change in college education below and above the threshold, including the slight increase for women under a Democratic governor.

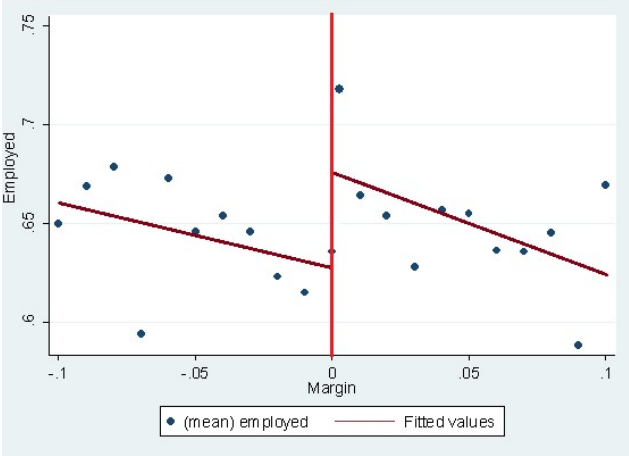
FIGURE 5: ELECTION MARGINS AND PERCENTAGE OF FEMALES WITH COLLEGE EDUCATION



Notes: This graph represents the mean college education rate for females collapsed by bin. Each bin represents a 1% margin of victory. Graph was altered slightly with photo editing program for display purposes, although outcomes have not been manipulated.

In similar fashion to the college education impact of a Democratic governor, employment rates for men decrease by 1.2% under a Democratic governor with a relative increase for women of 2.9% (net effect for women of +1.7%). Figure 6 graphically represents this increase in employment rates for females under a Democratic governor.

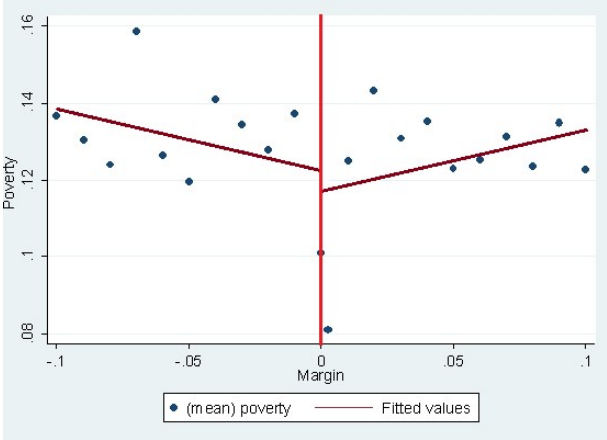
FIGURE 6: ELECTION MARGINS AND PERCENTAGE OF FEMALES EMPLOYED



Notes: This graph represents the mean employment rate for females collapsed by bin. Each bin represents a 1% margin of victory. Graph was altered slightly with photo editing program for display purposes, although outcomes have not been manipulated.

Lastly, poverty rates for men under a Democratic governor are relatively flat and decrease by a little less than 1% for women. Figure 7 below displays this result.

FIGURE 7: ELECTION MARGINS AND PERCENTAGE OF FEMALES IN POVERTY



Notes: This graph represents the mean poverty rate for females collapsed by bin. Each bin represents a 1% margin of victory. Graph was altered slightly with photo editing program for display purposes, although outcomes have not been manipulated.

The results comparing female and male outcomes under a Democratic governor are consistent with those comparing blacks and whites. Ultimately, the gap between men and women across these measures narrows slightly when a state switches from a Republican governor to a Democratic governor.

I next present the same set of results using the 5% bandwidth. I find college education rates decrease for men, this time at a 4.6% magnitude under a Democratic governor, while that rate for women increases relative to men by 5.4%. Employment rates drop for men by 3.9% and increase for women relative to men by 6.3%. Lastly, poverty rates move in the same direction as at the 10% threshold, but the result lacks statistical significance. The results appear to be robust to this change in bandwidth. Table 5 represents estimates for females compared to males at the 5% margin.

TABLE 5 – RD ESTIMATES FOR FEMALE AND MALE OUTCOMES WITH 5% BANDWIDTH

Outcome	Democrat	Democrat*Female	Female
Home Ownership	0.009	-0.007	-0.007
	(0.009)	(0.008)	(0.005)
College Education	-0.046***	0.054**	-0.029*
	(0.013)	(0.021)	(0.014)
Healthcare Coverage	-0.009	-0.005	0.032***
	(0.010)	(0.007)	(0.005)
Employment Rates	-0.039**	0.063**	-0.183***
	(0.016)	(0.027)	(0.019)
Poverty Rates	0.004	-0.008	0.043***
	(0.005)	(0.005)	(0.003)

Notes: Table 5 represents the impact of a Democratic governor on the outcomes of interest comparing females to males. Ages 18 to 65 are included in the analysis. Elections within a 5% margin of victory are included. This model includes state and year fixed-effects. Standard errors are clustered at the state level.

To recap the results at a high level, I include Table 6 of general results. I consider each outcome individually and their overall effect for each demographic characteristic. I only report on those outcomes where there is a consistent impact. If not included below, it can be presumed that the effect is either indistinguishable statistically from zero or the results are not robust to both bandwidths.

TABLE 6 – HIGH LEVEL RESULTS FOR EACH OUTCOME AND DEMOGRAPHIC GROUP

Outcome of Interest	General impact under Democratic governor
Home ownership	No notable impact
College Education	Lower for white and males, higher for black and females
Healthcare Coverage	Lower for blacks relative to whites
Employment Rates	Lower for white and males, higher for black and females
Poverty Rates	Comparable for white and males, lower for black and females

Notes: This table considers both the 10% and 5% threshold and provides a high-level summary of the results.

As you can see from the table above, the analyses suggest that the effects occur most often for those people in the population that were black or female. These results are consistent

with the theory that during a Democratic regime, there is a focus on women and minorities, and narrowing existing gaps between these groups and their counterparts.

VI. Conclusion and Limitations

This paper provides a look at several key economic outcomes that are important to many American families, and how they are impacted for different demographic groups under a Democratic and Republican governor. A regression discontinuity design is utilized to provide estimates resulting from narrow elections, where the treatment is considered as good as randomly assigned. The results indicate that states with a narrowly elected Democratic governor exhibit more equality in outcomes between different demographics. This includes decreasing gaps in employment, college education, and poverty between blacks and whites as well as women and men. These results are robust to different bandwidths and different specifications including inclusion of only year fixed-effects.

This research serves as a good starting point in determining how certain demographics may be impacted by the election of either a Republican or Democratic governor. However, there are some limitations. One key limitation is determining the chain of events leading from the election outcome to the measured result. For example, if the percentage of college educated individuals under a Democratic governor decreases for a subset of the population, is this because less people are starting college, or because those who have already graduated are migrating away from the state in pursuit of lower tax rates elsewhere?

Another limitation is understanding the extent spillover plays a role in the results. Even though I have omitted the first-year outcomes for each governor, it is possible that the previous

governor's policies impact outcomes in the next governor's term beyond the first year. It would be difficult to determine exactly how much spillover exists, but something that might be worth exploring would be the impacts on outcomes on a year by year basis. This would provide evidence of whether a governor's policies have an impact later in their term or throughout.

Another potential issue that could bias the results is migration. For example, if individuals move to a state based on the policies enacted by that state's government, those people can impact regression outcome estimates. If those people are different than the local/ incumbent population in how they pursue the outcomes of interest, this would produce bias. Therefore, future research could find a means to control for migration.

This research could also be expanded to examine the impact of the state legislature, federal legislature, or the President being aligned politically with the governor. Previous literature suggests that alignment across different roles and levels of political leadership allow for a greater impact on outcomes due to the increased policy-setting power.

The appendix provides additional information and alternative specifications which serve as robustness checks.

I want to thank Michael Campbell for refereeing my paper. I want to thank Dr. Daniel Rees for serving as my thesis advisor and for his contributions and support, and Dr. Brian Duncan for his assistance. Lastly, I want to thank the CU Denver Economics Class of 2016 for the support throughout this journey, and wish everyone the best of luck in future endeavors.

VII. APPENDIX

The tables below illustrate how much switching between Democratic and Republican governors exists at the 5% and 10% threshold (respectively) within each state. Fortunately, many states exhibit at least some variation in governor within these thresholds. At the 5% level, there are 34 states with between one and three switches and 15 with no switches. At the 10% level, there are 45 states with between one and six switches and four states with no switches.

Number of Switches w/ 5% Threshold

totalC05	Freq.	Percent	Cum.
0	15	30.61	30.61
1	18	36.73	67.35
2	13	26.53	93.88
3	3	6.12	100.00
Total	49	100.00	

Number of Switches w/ 10% Threshold

totalC10	Freq.	Percent	Cum.
0	4	8.16	8.16
1	14	28.57	36.73
2	14	28.57	65.31
3	10	20.41	85.71
4	5	10.20	95.92
5	1	2.04	97.96
6	1	2.04	100.00
Total	49	100.00	

The first set of robustness checks outlined below provide evidence supporting the primarily model of interest comparing blacks to whites (which has no squared terms, rectangular weighting, and the 10% threshold).

reg outcome D black Dblack margin Dmarg margblack i.year, cluster(state)
w/ 10% Threshold

VARIABLES	(1) owner	(2) college	(3) covered	(4) employed	(5) poverty
D	0.000	-0.007	-0.030	0.007	0.011
	(0.017)	(0.008)	(0.021)	(0.010)	(0.008)
Dblack	-0.004	0.014	-0.005	0.030*	-0.044**
	(0.031)	(0.028)	(0.026)	(0.015)	(0.020)
black	-0.205***	-0.097***	-0.057***	-0.111***	0.148***
	(0.024)	(0.015)	(0.014)	(0.010)	(0.013)
Constant	0.713***	0.296***	0.921***	0.675***	0.070***
	(0.043)	(0.016)	(0.013)	(0.008)	(0.006)
Observations	1,168,660	1,168,660	998,300	1,168,660	1,168,660

The above model is the same as the model of interest, but excluding the state fixed-effects. The results indicate that under a Democratic governor, employment rates increase for blacks relative to whites by 3%. Poverty rates decrease by 4.4% for blacks relative to whites. Another alternative specification is outlined below.

reg outcome D margin margin2 Dmarg Dmarg2 black Dblack margblack Dmargblack margblack2 Dmargblack2 i.state1 i.year, cluster(state) w/ 10% Threshold

VARIABLES	(1) owner	(2) college	(3) covered	(4) employed	(5) poverty
D	0.014	-0.010	-0.009	-0.009	0.005
	(0.009)	(0.010)	(0.011)	(0.007)	(0.005)
Dblack	-0.033	-0.028	-0.034*	-0.003	-0.025
	(0.031)	(0.025)	(0.017)	(0.017)	(0.023)
black	-0.231***	-0.096***	-0.043***	-0.107***	0.159***
	(0.024)	(0.019)	(0.014)	(0.014)	(0.019)
Constant	0.822***	0.300***	0.917***	0.671***	0.066***
	(0.010)	(0.018)	(0.007)	(0.012)	(0.008)
Observations	1,168,660	1,168,660	998,300	1,168,660	1,168,660
R-squared	0.042	0.047	0.026	0.013	0.023

This model is the same as the model of interest, but squares the running variables and associated interactions to allow for non-linearity of the relationship on either side of the discontinuity. The squared-term coefficients have no statistical significance (these terms are not displayed to save space). Employment rates in this regression have the opposite sign of the model without squared terms, but the estimate is extremely small. The estimate for poverty rates is in the same direction as the model without squared terms. The estimates in this model are generally supportive of the model of interest.

I also ensure that my model of interest is robust to utilization of the 5% threshold omitting state fixed-effects, and the regression results are displayed below.

reg outcome D black Dblack margin Dmarg margblack i.year, cluster(state)
w/ 5% Threshold

VARIABLES	(1) owner	(2) college	(3) covered	(4) employed	(5) poverty
D	0.001	0.011	-0.005	0.016	0.007
	(0.026)	(0.017)	(0.023)	(0.013)	(0.010)
Dblack	-0.010	0.004	-0.030	0.019	-0.046*
	(0.040)	(0.027)	(0.021)	(0.021)	(0.026)
black	-0.204***	-0.106***	-0.050***	-0.114***	0.157***
	(0.022)	(0.017)	(0.015)	(0.013)	(0.017)
Constant	0.713***	0.357***	0.897***	0.686***	0.065***
	(0.048)	(0.033)	(0.022)	(0.010)	(0.008)
Observations	596,566	596,566	498,776	596,566	596,566
R-squared	0.026	0.039	0.008	0.008	0.020

At the 5% threshold, the only notable impact is for poverty rates, which decrease under a Democratic governor by 4.6% for blacks relative to whites. However, the direction of the impact of a Democratic governor on employment and poverty are the same as the primary model of interest.

Next, I perform the same robustness checks for my relationships comparing females to males. The first regression run as a robustness check is the model of interest without state fixed-effects, as displayed at the top of the next page.

reg outcome D female Dfem margin Dmarg margfem i.year, cluster(state)
w/ 10% Threshold

VARIABLES	(1) owner	(2) college	(3) covered	(4) employed	(5) poverty
D	0.007	-0.014	-0.024	-0.002	0.008
	(0.017)	(0.015)	(0.020)	(0.012)	(0.008)
Dfem	0.003	0.038***	-0.010	0.028*	-0.009**
	(0.006)	(0.013)	(0.007)	(0.015)	(0.004)
female	-0.012**	-0.021**	0.035***	-0.169***	0.044***
	(0.005)	(0.010)	(0.004)	(0.012)	(0.003)
Constant	0.694***	0.349***	0.897***	0.751***	0.062***
	(0.042)	(0.029)	(0.013)	(0.011)	(0.006)
Observations	1,237,957	1,237,957	1,060,410	1,237,957	1,237,957
R-squared	0.005	0.036	0.009	0.033	0.006

This model provides evidence that the impact of a Democratic governor on outcomes for women relative to men are practically identical to the model of interest (upon closer examination, the only difference appears to be in fractions of a percent).

Next, I present the results including the 10% threshold with the inclusion of squared terms for the running variable which appears below:

reg Outcome D margin margin2 Dmarg Dmarg2 female Dfem margfem Dmargfem margfem2 Dmargfem2 i.state1 i.year, cluster(state) 10 % Threshold

VARIABLES	(1) owner	(2) college	(3) covered	(4) employed	(5) poverty
D	0.010	-0.037**	-0.007	-0.038**	0.005
	(0.009)	(0.015)	(0.012)	(0.016)	(0.005)
Dfem	-0.001	0.053***	-0.009	0.065***	-0.011**
	(0.008)	(0.020)	(0.007)	(0.024)	(0.005)
female	-0.005	-0.037**	0.034***	-0.194***	0.044***
	(0.006)	(0.015)	(0.006)	(0.020)	(0.003)
Constant	0.762***	0.293***	0.888***	0.748***	0.083***
	(0.008)	(0.022)	(0.007)	(0.019)	(0.008)

Observations	1,237,957	1,237,957	1,060,410	1,237,957	1,237,957
R-squared	0.021	0.044	0.026	0.038	0.012

In the table above, there is evidence that under a Democratic governor, college educational outcomes increase for women relative to men by 5.3%, employment rates increase for women relative to men by 6.5% and poverty levels drop by 1.1% relative to men. Although the magnitude of these results changes slightly, the direction of the impact is the same as the primary model of interest.

Next, I explore the outcomes for females relative to males under a Democratic governor at the 5% threshold.

reg Outcome D female Dfem margin Dmarg margfem i.state1 i.year, cluster(state) 5% threshold

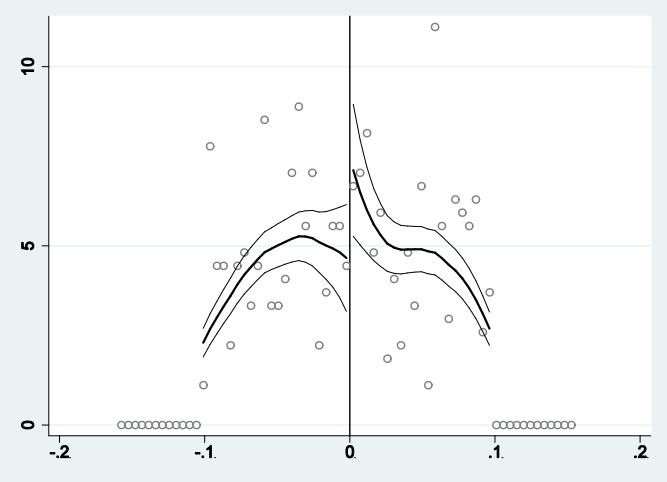
VARIABLES	(1) owner	(2) college	(3) covered	(4) employed	(5) poverty
D	0.009	-0.046***	-0.009	-0.039**	0.004
	(0.009)	(0.013)	(0.010)	(0.016)	(0.005)
Dfem	-0.007	0.054**	-0.005	0.063**	-0.008
	(0.008)	(0.021)	(0.007)	(0.027)	(0.005)
female	-0.007	-0.029*	0.032***	-0.183***	0.043***
	(0.005)	(0.014)	(0.005)	(0.019)	(0.003)
Constant	0.767***	0.303***	0.895***	0.755***	0.076***
	(0.010)	(0.024)	(0.009)	(0.017)	(0.008)
Observations	638,798	638,798	536,411	638,798	638,798
R-squared	0.024	0.044	0.023	0.037	0.012

I provide evidence in the table above that again, the results in general are robust to those presented based on the primary model of interest. There is a 5.4% increase in educational

outcomes for women relative to men, a 6.3% increase in employment for women relative to men, and poverty rates appear to decrease, but this result is not statistically significant.

These three alternative models, run as robustness checks for my main specification of interest, all support the results presented in the body of the paper. Furthermore, although not included, when I run these models with triangular weighting, the results that are statistically significant also support my general results.

Lastly, I present a McCrary test run based on the ado file provided by Justin McCrary online at http://eml.berkeley.edu/~jmccrary/DCdensity/ and the output is shown below:



The McCrary test presented above appears to show that there is a slight jump around the discontinuity of Democratic governors winning more frequently, although it appears that the confidence intervals represented on each side do overlap. This suggests that the difference is not likely to exhibit statistical significance. Furthermore, this paper establishes the comparability of groups on each side of the discontinuity, so this graphic is not of paramount concern.

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