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Politics and Entrepreneurship in the U.S.

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Abstract

There is a strong belief that Republicans are more pro-business than Democrats. In this paper, we investigate the causal impact of partisan allegiance of governors (Republican or Democratic) on entrepreneurial activity by exploiting random variation in close gubernatorial elections in 50 states over the last three decades in a Regression Discontinuity design. We find that Republican governors are not different than Democratic governors in either business creation or destruction. Our findings are robust to several sensitivity checks.

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Keywords: Entrepreneurship, Political Party, Self-employment, Regression Discontinuity

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1 Introduction

Many scholars have argued that entrepreneurship has been a pillar of economic growth by advancing technology, fostering competition, and creating new jobs. For instance, Foster et al. (2006) find that all of the labor productivity growth in the U.S. retail sector during the 1990s comes from replacing low productive establishments by relatively more productive *entering* establishments. In another study, Haltiwanger et al. (2013) find that firm start-ups created about 3.5 million net new jobs in the U.S. private sector in 2005. Given its essential role in the continued dynamism of market economies, policy makers around the world are interested in implementing policies that foster entrepreneurship.

The importance of entrepreneurial activity, in particular small business entrepreneurship, has been a vastly debated subject in the U.S. politics. The common viewpoint is that Republicans are more pro-business. For example, Fried (2008) reports that self-employed individuals are 50 percent more likely to be a Republican. In a 2014 survey conducted by the National Small Business Association, 46 percent of respondents chose the Republican Party as the best representative of their small business, while only 22 percent chose the Democratic Party.[1] In their platform (2012, p.4), Republicans state "[s]mall businesses are the leaders in the world's advances in technology and innovation, and we pledge to strengthen that role and foster small business entrepreneurship."[2] In addition, they criticize the high corporate tax rate now faced by American business and call for a reduction of the corporate rate to facilitate American business growth.[3] Naturally, one wonders how substantial the impact of Republicans (relative to Democrats) has been on entrepreneurial activity in the U.S.

In this paper, we investigate the causal impact of party affiliation of U.S. governors on entrepreneurial activity in the form of small business creation and destruction in the U.S. There are several channels through which governors may affect entrepreneurial activity. State gov-

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[1] Remaining 37 percent of small business owners chose neither party. In the 2012 survey, 62 percent of small business owners chose the Republican Party as their best representative. The survey results are available at http://nsba.biz/docs/Politics-Survey-2014.pdf.

[2] "We Believe in America: Republican Platform" is available at their website: www.gopconvention2012.com.

[3] In response to these criticisms, Democrats state "Democrats have continued to champion issues important to small businesses and have worked to expand access to resources that will enable greater success" on their official website (www.democrats.org/people/small-business-community). Some recent studies also have challenged the common viewpoint that Republicans are more pro-business (Deitrick and Godlfarb 2012).

ernments can potentially play a crucial role in entrepreneurship by amending regulations that directly affect business including labor and permitting laws (e.g., right-to-work laws). They can create and eliminate tax incentives, divert resources to major infrastructural activities to stimulate business, and even provide loans to facilitate business expansion (Kayne 1999). Using more than 300 gubernatorial elections in 50 states over the last three decades, we investigate the impact of Republican governors on entrepreneurial activity by exploiting random variation associated with *close* elections in a Regression Discontinuity (RD) design. To the extent that the variation in close elections is random, our estimation strategy yields causal effects of party affiliation on entrepreneurial activity.[4]

The identification of entrepreneurial activity at any level is challenging (Fairlie 2014), and in this paper we measure it by business creation or destruction at the individual-owner level. Since the bulk of entrepreneurial activity is done individually (Fairlie 2014) and individuals also vote in elections, this measure of entrepreneurship is more fitting into the present context. Previous studies measuring entrepreneurship at the individual level have considered all self-employed individuals as entrepreneur (Hamilton 2000, Fairlie 2014). However, in a recent paper, Levine and Rubinstein (2017) convincingly argue that this is not a good proxy, and they offer a better one: incorporated, self-employed individuals (see Section 3 for details). Following their lead, we also identify incorporated self-employed individuals as entrepreneurs. More specifically, using the matched data in the Current Population Survey Outgoing Rotation Group (CPS-ORG) files over the period 1979–2014, we identify each individual who becomes incorporated self-employed by starting a business as a *new* entrepreneur, and in a similar fashion, we identify each incorporated, self-employed individual who becomes a non-business owner as an *exiting* entrepreneur. The former one measures (small) business creation, whereas the latter business destruction.

To the best of our knowledge, this is the first paper analyzing the causal impact of party affiliation on entrepreneurship. We find that Republicans are *not* different than Democrats in business creation or destruction. However, we also find that the exit rate of unincorporated,

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[4]Lee (2008) convincingly argues that close elections may be used in a RD design under which causal inferences can be as credible as those from a randomized experiment.

low-skill, self-employed individuals is significantly lower under Republican governors. Consistent with recent findings (e.g., Beland 2015), the lower exit rate of unincorporated, low-skill, self-employed individuals suggests that this group has a better wage & salary job opportunities under Democratic governors. Our findings are robust to an extensive set of sensitivity analysis.

The plan of this paper is as follows. The next section reviews the previous studies and emphasizes our contribution to the existing literature. Section 3 describes the data and explains in detail how we measure entrepreneurial activity. Section 4 introduces the empirical strategy by describing our RD design and presents the main results. Section 5 conducts sensitivity analysis, and Section 6 concludes the paper.

2   Related Literature

This paper is related to a large literature on entrepreneurship. One strand of the literature, dating back to Schumpeter (1950), examines the role of entrepreneurship on economic growth and development.[5] In endogenous growth models, for example, growth is driven by profit seeking entrepreneurs who develop new products (Romer 1990, Grossman and Helpman 1991, Aghion and Howitt 1992). Several other studies have identified different channels through which entrepreneurs affect economic development. For example, Murphy et al. (1991) show how allocation of entrepreneurial ability determines firm size and economic growth (see also Ghatak et al. 2007), whereas Hausmann and Rodrik (2003) draw attention to the positive externality created by entrepreneurs through sharing information on the profitability of new activities.[6]

Another strand of the literature focuses on the determinants of becoming an entrepreneur. These factors include financial constraints (Holtz-Eakin et al. 1994, Cagetti and De Nardi 2006; Fairlie and Krashinsky 2012), taxes (Gentry and Hubbard 2000, Cullen and Gordon 2007), family background and race (Hout and Rosen 2000; Fairlie 2008), immigration status (Hunt 2010), entry

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[5]Schumpeter (1950) was one of the first economists emphasizing the necessity of entrepreneurs in continued dynamism of market economies. In his classic work, *Capitalism, Socialism and Democracy*, he states "the function of entrepreneurs is to reform or revolutionize the pattern of production by exploiting an invention or, more generally, an untried technological possibility for producing a new commodity or producing an old one in a new way, by opening up a new source of supply of materials or a new outlet for products, by reorganizing an industry and so on." (Schumpeter (1950), p.132)

[6]The literature on the impact of entrepreneurship on development and growth is vast, and its full rendering is beyond the scope of this paper. Naudeé (2013) provides a review of the recent studies in this literature.

regulations (Dajkov et al. 2002, Branstetter et al. 2014), risk attitudes (Blanchflower 1998, Skriabikova et al. 2014), and macroeconomic conditions (Fairlie 2013, Klapper et al. 2014). Our paper complements these studies by investigating whether politics has been a significant determinant of entrepreneurial activity in the U.S.

Relatedly, a few other studies look at measures and identification of entrepreneurial activity (Acs et al. 2008, Klapper et al. 2010, Fairlie 2014). For example, the Kauffman Index of Entrepreneurial Activity (KIEA) constructed by Fairlie (2014) is created using matched data from the CPS to measure business creation at the individual level in the U.S. covering 1996 to 2013, whereas the World Bank database constructed by Klapper et al. (2010) presents the number of newly registered firms with limited liability in private and formal sectors across about 140 countries over the period 2004–2012.[7] In measuring entrepreneurial activity at the individual-owner level, Levine and Rubinstein (2017), however, identify incorporated, self-employed individuals as entrepreneurs, and we also follow their lead.

State governments in the U.S. have executive and legislative branches, and the executive branch is headed by a governor who is directly elected by the state's registered U.S. citizens. Governors usually serve four-year terms (except those in New Hampshire and Vermont where tenures are two years long), and many states have limits on the number of terms a governor can serve. Governors have a significant degree of autonomy in exercising their power in several issues such as preparing and administering the budget, setting policies, recommending legislations, signing laws, etc. They even have veto power on state bills; consequently, one may expect that governors have a considerable impact on economic outcomes of their states. There is a growing literature in political economy that indeed investigates effects of elected officials' on economic outcomes, and out paper contributes to this literature as well.

In an influential paper, Besley and Case (1995 and 2003), using data from the U.S. for the time period 1950-1998, estimate the impact of the party affiliation of governors on state taxes and expenditures. They find that Democratic governors are associated with higher state taxes, spending per capita, and higher minimum wage (see also Reed 2006, Leigh 2008, Beland and

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[7]The Global Entrepreneurship Monitor is another research program that has collected data on self-employment (across more than 85 countries since 1999) to measure individuals' perceptions of entrepreneurship, their involvement in entrepreneurial activity (Acs eta al. 2015).

Oloomi 2016). Employing an RD design on gubernatorial elections in the U.S., Beland (2015) shows that Democratic governors increase the annual hours worked by blacks relative to whites, and Beland and Unel (2015) find that immigrants are more likely to be employed, work longer hours and more weeks, and have higher earnings under Democratic governors. In a recent paper, using the network of university classmates among corporate directors and politicians in the U.S. from 1999 to 2010, Do et al. (2013) find that firms connected to elected governors in the U.S. saw an average increase in stock-market value by 1.4 percent surrounding the election date.[8]

3   Data and Descriptive Statistics

The data used in this paper are drawn from several sources. As mentioned in the introduction, we use self-employed, incorporated individuals as our measure of entrepreneurial activity. The data on self-employed workers come from the Current Population Survey Outgoing Rotation Group (CPS-ORG) files from Unicon Research Corporation (2015) over the period 1979–2014. The CPS is a monthly household survey where each household is interviewed for four consecutive months in one year, followed by four consecutive months one year later (and then leaving the sample permanently); we use the CPS-ORG data which contain observations in the fourth or eighth month in the observation sample.

There are two groups of self-employed workers in the CPS: incorporated (those who work for themselves in corporate entities) and unincorporated (those who work for themselves in other entities), and the previous studies identified all selfemployed individuals as entrepreneurs (Borjas and Bronars 1989, Hamilton 2000, Fairlie 2014). Since entrepreneurial activity constitutes the hallmark of innovation and growth, one expects that their cognitive and non-cognitive traits are better than that of wage and salaries workers. However, some recent studies have shown that this is not the case. For example, Hamilton (2000) finds that the median selfemployed individual has lower initial earnings and slower earning growth than wage and salary workers, and Levine

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[8]Lee et al. (2004), using a RD design, find that the party affiliation has a large impact on a legislator's voting behavior. However, Ferreira and Gyourko (2009) investigate whether cities are as politically polarized as states. Using close U.S. municipal elections between 1950 and 2000, they find that whether the mayor is a Democrat or Republican has no impact on the size of local government, the composition of local public expenditure, or crime rate. Our paper, methodologically, is closely related to their work.

and Rubinstein show that their education level and aptitude tests scores are similar to the latter group.

Levine and Rubinstein (2017), however, convincingly suggest a better proxy: incorporated selfemployed individuals. Using the CPS March Annual Demographic Surveys over 1994–2010 together with the NLSY79 data, they find that incorporated selfemployed individuals earn much per hour and work many hours than the salary and unincorporated workers. In addition, they find that incorporated selfemployed individuals are more educated and tended to score higher on learning aptitude tests, exhibit greater self-esteem, and engage in more aggressive and risky activities when they were young. As we document below, we also confirm some of these findings with our own data. Therefore, following their lead, we also use incorporated selfemployed as a proxy for entrepreneurship.

The surveys provide detail employment information on individuals, and we record each individual's, worker class, industry, weekly hours as well as the age, gender, race, marital status, and education level. Our sample includes all people between 25 and 55 years old, but excludes individuals with imputed or missing worker class as in Levine and Rubinstein (2017).[9]

We identify *new* entrepreneurs in year t as those individuals who change their worker class to incorporated self-employed from time $t-1$ to t. Similarly, we identify *exiting* entrepreneurs in year t as those incorporated self-employed individuals who change their worker class to non-business owners or unincorporated self-employed from time $t-1$ to t. It is important to emphasize that the CPS is a household survey, and does not have individual identifiers. However, uniquely matched pairs were identified with identical household ID, household number, record lines, survey month, sex, and race (Card, 1996; Fairlie, 2014). We only consider individuals with age and schooling difference in two successive years less than two. All unmatched individuals are dropped from the sample.[10] Upon this cleaning and matching process, we have about 1.5 million observations

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[9]To ensure consistency over time, we aggregate 3-digit industries under the following 11 broad industries: Agriculture & Mining, Construction, Manufacturing, Transportation/Utility/Information, Wholesale, Retail, Finance & Insurance, Professional, Repair, and Personal & Entertainment. Following Levine and Rubinstein (2017), we exclude individuals working in Public Administration as well, because there is virtually no entrepreneurial activity in this sector.

[10]The matching rate in the above process across two *consecutive* years is usually around 60 percent (consistent with Ziliak et al., 2011). Household IDs assigned in 1985 and 1995 are problematic, and thus matching rates between 1984 and 1985, 1985 and 1986, 1994 and 1995, and 1995 and 1996 were around 30 percent. Excluding these years in the analysis does not have any significant effects on the results.

about 3.7 percent of them is incorporated, self-employed individuals. Since the CPS-ORG data begin in 1979 and the first entry cohort is identified in 1980, our analysis covers the 1980–2014 period.[11]

Table 1 reports key statistics about the main characteristics of entrepreneurs (incorporated, self-employed workers). For the sake of comparison, we also report the corresponding statistics for wage and salary workers. Column I in Table 1 presents the statistics related to all existing entrepreneurs, whereas columns II and III report the statistics for new and exiting entrepreneurs that we identify through our matching process. Consistent with Levine and Rubinstein (2007), a comparison of columns I and IV reveals that the majority of entrepreneurs are white, slightly older, male, and more educated. In addition, most of the entrepreneurs work in the private service sector: about 73 percent of entrepreneurs work in the private service sector, whereas the corresponding statistics for non-entrepreneurs is about 68 percent.[12]

Columns II and III report the corresponding statistics for new and exiting entrepreneurs, and these two columns show that the compositions of new and the exiting entrepreneurs in terms of gender, race, education, and industry are very similar to that of the existing entrepreneurs. It is also interesting to note that overwhelming majority of the entrepreneurial activity occurs in private service sector. Entrepreneurial activity in manufacturing sector (not shown in Table 1) is less than 10 percent.

Finally, the data that we use in our analysis are elections results recorded between 1980 and 2014. The data come from two main sources: for elections prior to 1990, we use ICPSR 7757 (1995) files; and for election outcomes since 1990, we use the "Atlas of U.S. Presidential Elections" (Leip, 2015). We also use data on state legislatures from Klarner (2013).[13] We drop all elections where a third-party candidate won. From 1980 to 2014, there are more than 1800 state-year observations, and over this period Republicans were in power 53 percent of the

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[11]Prior to 1994, incorporated self-employed individuals are classified as wage & salary workers in the publicly available CPS files. However, the CPS-ORG files from Unicon have additional supplementary files through which we are able to identify incorporated self-employed individuals over 1979–2014.

[12]Our set of non-entrepreneurs contains unincorporated self-employed workers as well. But their composition is very similar to those of wage & salary workers. We do not report statistics related to earnings, because reported earnings in the CPS are highly noisy (Acemoglu and Autor 2011). Levine and Rubinstein (2007) use earning data from the NLSY79.

[13]Data are available at www.indstate.edu/polisci/klarnerpolitics.htm

time. The margin of victory (MV) is defined as the proportion of votes cast for the winner minus the proportion of votes cast for the candidate who finished second. In our analysis, a positive (negative) MV indicates a Republican (Democratic) governor won. As discussed earlier, governors usually serve four-year terms (except those in New Hampshire and Vermont where tenures are two years long). We merge election results with individual-level data, and MV_{st} denotes the margin of victory in the most recent gubernatorial election prior to time t in state s. For example, in Louisiana we used the winner of the 2007 gubernatorial election (who was a Republican) and the corresponding margin of victory for all observations in 2008, 2009, 2010, and 2011 years.

4 Empirical Strategy and Main Results

4.1 Econometric Specifications

The identification strategy in this paper relies on the exogenous variation generated by close gubernatorial elections. As mentioned in the previous section, an incorporated, self-employed worker is identified as an entrepreneur, and in measuring entrepreneurial activity, we record both new and exiting entrepreneurs. More specifically, let E_{ist} be an indicator variable that equals one if individual i in state s at time t is an entrepreneur, and zero otherwise. We then define

$$E_{ist}^{+} = \begin{cases} 0 & \text{if } E_{ist-1} = 0,\ E_{ist} = 0 \\ 1 & \text{if } E_{ist-1} = 0,\ E_{ist} = 1 \end{cases}, \qquad E_{ist}^{-} = \begin{cases} 0 & \text{if } E_{ist-1} = 1,\ E_{ist} = 1 \\ 1 & \text{if } E_{ist-1} = 1,\ E_{ist} = 0 \end{cases} \tag{1}$$

and thus E^{+} (E^{-}) is also an indicator variable representing a new (exiting) entrepreneur. With the above specification, two points are worth emphasizing. First, an individual first interviewed in year $t-1$ will be interviewed in year t, but after that the individual will be dropped from the sample. Second, E_{ist}^{+} indicates that all entrepreneurs at time $t-1$ are excluded from the sample, whereas E_{ist}^{-} indicates that all non-entrepreneurs at time $t-1$ are excluded from the sample.

Using (1), we estimate the following equation:

$$Y_{ist} = \beta_0 + \beta_R Rep_{st} + f(MV_{st}) + X_{ist}'\delta + \alpha_s + \tau_t + \epsilon_{ist}, \tag{2}$$

where $Y_{ist} = \{E_{ist}, E_{ist}^{+}, E_{ist}^{-}\}$ and Rep_{st} is an indicator variable that takes on the value one if a Republican governor is in power in state s at time t, zero otherwise.[14] MV_{st} denotes the margin of victory in the most recent gubernatorial election prior to time t in state s and is given by the proportion of votes cast for the winner minus the proportion of votes cast for the candidate who finished second. The functional form between MV_{st} and entrepreneurial activity is described by the polynomial $f(\cdot)$. The variable X_{ist} is a vector of observed covariates including each individual's gender, race, age, marital status, and education.[15] The variables α_s and τ_t capture state and year fixed effects, respectively, and ϵ_{ist} is the error term.

The key identifying assumption underlying equation (2) is that the functional form $f(\cdot)$ is continuous through the election victory cutoff, i.e., unobserved state characteristics are smooth around the winning cutoff. Under this assumption, the coefficient estimate β_R can be interpreted as the causal effect of the Republican Party on entrepreneurial activity.

Before proceeding further, several remarks are worth emphasizing. First, in estimating specification (2), we use a cubic spline as the functional form between the outcomes of interest and the margin of victory. Second, we exclude elections won by more than 50 percent, following Ferreira and Guyourko (2009) and Beland (2015). We provide several sensitivity checks using different orders of polynomials and varying bandwidths, including local-linear analysis where the margin of victory is considerably smaller. Finally, to account for possible serial correlation, standard errors are clustered at the state level. Standard errors clustered at the margin of victory by state level yields mostly the same results.

4.2   Main Results

We begin our analysis with a graphical representation of the effect of the Republican Party on entrepreneurial activity. Following Lee and Lemieux (2014), Figures 1.a and 1.b display the impact of Republican governors on creation and destruction of entrepreneurs in close elections,

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[14]We also run regressions with longer time-leads (e.g., $E_{is,t+2}$) since decision to become or exit from a self-employed worker may take longer time. As shown in Section 4, the results qualitatively remain the same.

[15]Our regressions include dummies for sex, marital status, three race dummies (white, black, other), four education dummies (less than high school, high school, some college, college and above), and a quadratic in age.

respectively. We plot the unconditional means over a window of 25 percent of margin of victory.[16] Fitted values from a spline are superimposed over these averages. Looking at these figures, we do not observe any visible discontinuity at the cutoff, suggesting no effect of the Republican Party on entry and exit of entrepreneurs.

We now turn to our regression analysis, and Table 2 presents the results based on our RD design. Columns I-III report results based on regressions without any controls, whereas the last three columns show results when controls are included. Note that adding controls does not have any significant impact on estimates. In columns I and IV, the dependent variable is E_{ist}, i.e. whether an individual is an entrepreneur or not. The coefficient estimates on Rep are insignificant and small in magnitude. Other columns report the impact of party affiliation on the entry and exit of entrepreneurs (i.e., E_{ist}^+ and E_{ist}^-).[17] Consistent with Figure 1, we do not find any impact of Republican governors on the creation and destruction of business at the individual-owner level. In sum, the party affiliation of governors does not have any effects on the entrepreneurial activity in the US.[18]

We next examine any potential heterogeneity at various dimensions. To this end, we run the RD specifications by gender, race, education, and sectors, and Table 3 presents the results from this exercise. Investigating heterogeneity along different dimensions is important, because, for example, Beland (2015) finds that the Democratic governors have a positive and significant impact on blacks' labor market outcomes (e.g., week worked, being employed, etc). Column I considers only white males, Column II some college or more educated individuals, and Column III those who work in the private service sector.[19] According to Table 3, party affiliation has

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[16]To facilitate visualizing the discontinuities, we also present the same graphs over a window of 5 percent of margin of victory in Figure A.1 in the appendix.

[17]The sample size for the exit of entrepreneurs is substantially smaller, because we consider *only* individuals who were entrepreneurs in year $t-1$ but become non-business owners in year t. The average fraction of individuals who are entrepreneurs is about 3.7 percent of the sample population (Table 1).

[18]As a comparison with our RD design, we also run regression using the simple OLS approach. We find that $\hat{\beta}_R = -0.0005\,(0.0006)$ for the stock of entrepreneurs, and $\hat{\beta}_R = -0.0000,\,(0.0004)$ and $\hat{\beta}_R = 0.0059,\,(0.0071)$ for the entry and exit of entrepreneurs, respectively. Thes estimates, however, are likely to suffer from biases as there are many potential unobserved factors affecting the party affiliation and likelihood of entrepreneurial activity at the same time.

[19]We consider white males, because majority of entrepreneurs are white and male as shown in Table 1. However, RD analysis based on white or male only yields similar results. Our analysis based on less-educated individuals (those who have at most high-school degree) yields qualitatively the same results Private service sector includes (1) Transportation, Utility, and Information, (2) Wholesale Trade, (3) Retail Trade, (4) Finance, Insurance,

no impact on either entrepreneurial status or entry and exit of entrepreneurs in any of these dimensions.

Finally, we investigate how our results would change if we considered all self-employed individuals as entrepreneurs that the previous studies have assumed. Table 4 reports the results from this exercise, and a comparison with Table 2 reveals that the estimated coefficient on Rep for the exit rate of all self-employed individuals is negative and significant at the 5-percent level. Since the part affiliation has no impact on the exit rate of incorporated self-employed, this finding mainly comes from the exit decision of unincorporated self-employed individuals. Indeed our further analysis shows that the results are mainly driven by unincorporated self-employed who have high-school or less education. Panel B reports the results based on this groups, and note that unincorporated, less-educated individuals in states where Republicans barely won the elections are around 2.8 percentage points less likely to exit from their self-employed activity.[20] Unincorporated, less-educated self-employed individuals usually choose to become self-employed out of necessity to avoid unemployment. Consequently, the lower exit rate of these individuals under the Republican governors suggests that these individuals do not have good job alternatives. Or alternatively, their higher exit rate under the Democratic governors stems from the better wage & salary job opportunities in those states. This finding is consistent with Beland (2015) who shows that Blacks (a disadvantageous group) have better labor-market outcomes under Democratic governors.

5 Sensitivity Analysis

In this section, we undertake several sensitivity checks to examine the robustness of our RD design estimates. First, we begin our analysis by investigating the validity of a key assumption that candidates should not have any influence on election outcomes. Figure 2.a plots the distribution of the MRV (in the form of histograms), and as can be seen from the figure that there

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and Reals Estate, (4) Professional, Business Services, (5) Repair and Maintenance, (6) Personal Recreation and Entertainment. Results using data from other sectors (e.g., Construction or Manufacturing) are qualitatively similar to those reported in Column 3.

[20]Corresponding coefficients for unincorporated self-employed individuals who have some college or more education are highly insignificant.

are no unusual jumps around the zero cutoff point. A more formal way to test the validity of the aforementioned assumption is to use McCrary's (2008) density test. Figure 2.b plots the density of the MV based on the McCrary test, and again there are no unusual jumps around the cutoff point. These approaches suggest that candidates from either party have no influence on election outcomes.

Second, for our RD design to be valid, the states where Republicans barely won should be similar to the states where they barely lost elections. To examine this crucial assumption, we regress state characteristics (such as proportion of females, blacks, college graduates, and the employment rate in the year preceding the election) on the dummy variable Rep_{st}. If states are similar, the estimated coefficients on Rep should be statistically insignificant, and this is indeed what we find in our analysis (see Table 5).[21]

Third, we run placebo RD design, using outcomes in the previous term to minimize concerns on the persistence of election results. Specifically, one particular concern regarding the identification strategy is that Republican governors might be more likely to be elected, even in close elections, in state-years with relatively higher or lower business creation/destruction. Entrepreneurial activity could be state-specific, and thus RD designs may yield biased results even in the presence of state-fixed effects. To further explore this potential state-specific confounding effect, we use individual-level entrepreneurial activities (i.e., entry and exit) from the year prior to gubernatorial elections and run a placebo RD using equations (2). The results presented in Table 6 indicate that there are no discontinuities in the outcomes in the year prior to the election $(T - 1)$.

Fourth, we present the results from local-linear regression and polynomials with different order and bandwidths. Column I–IV in Table 7 present results using polynomials of different orders. The results presented in this table are in line with those in Table 2.

Fifth, one may argue that it may take some time before the influence of politics on entrepreneurial activity becomes evident. To address this potential lagged effect, we consider the

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[21]Using data on campaign spending by Republicans and Democrats from Jensen and Beyle (2003), we find that campaign spending by these parties across states with close elections are not statistically different. Finally, if close elections won by Republican candidates are more likely to be won under a Republican House or Senate, they cannot be considered random. However, the analysis using the data on House and Senate representatives shows that this is not the case either.

impact of elections in a given year on the entrepreneurial activities in later years separately. The first two columns of Table 8 represent the impact of party affiliation on entrepreneurial activity where we drop the first year of the governor in power, whereas the last two columns report the corresponding results when we drop the first two years of the governor in office.[22] A comparison of Table 8 with Table 2 shows that the impact of Republican governors on entrepreneurial activity in different lead years remain mostly the same.[23]

Sixth, another important point is to investigate the impact of party affiliation when legislatures and governors are from the same party. This is important, because one may argue that neither Democrat nor Republican governors are likely to make much of a difference unless they are matched with legislatures that are of the same party. For example, Wisconsin passed right-to-work laws only after the recent election of Republican legislatures and governors. To this end, pro-business policies may be more likely to be implemented when governors and legislatures are of the same party. However, the results based on the sample of states where governors and legislatures are of the same party are not qualitatively different from those in Table 2.[24]

Finally, we extend our baseline model by including additional controls. As discussed earlier, the literature finds political divergence between Democratic and Republican governors about several outcomes such as taxes, spending, workers' compensation benefits, working hours, minimum wage, and unemployment (Besley and Case, 2003; Leigh, 2008; Beland, 2015 among many others). For these reasons, we include several variables into our specification. Specifically, our additional controls are state-level unemployment rate, unionization rate in private sector, minimum wage, a composite labor-market index that measures the intensity of hiring and firing regulations, and working hours regulations, and a composite tax index that measures the intensity of takings and discriminatory taxes at state level into our model.[25] We acknowledge

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[22]For example, if a governor was elected in 2004, he would commence her job in 2005 and stay in the office until the end of 2008. Consequently, in the first two columns in Table 3, we consider the impact of this governor on entrepreneurial activity in years 2006, 2007, and 2008.

[23]We also investigate whether the 2008 financial crisis has had any significant impact on the results. For this purpose, we restricted the sample between 1980–2007. However, the results based on this shorter period were very similar to our main results.

[24]The estimated coefficients on Rep for Stock, Entry, and Exit are $-0.0029\,(0.0055)$, $-0.0019\,(0.0036)$, and $0.0031\,(0.0400)$, respectively.

[25]These composite indexes are obtained from Stansel et al. (2015) at Fraser Institute. The data on unemployment rate and minimum wages are from Bureau of Labor Statistics (BLS). Finally, state-level unionization rates

that including these variables may create endogeneity problem, but it is interesting to see how much our results change with this exercise. As shown in Table 9, results from this exercise are qualitatively the same as those in Table 2.

6 Conclusion

Fostering entrepreneurship and supporting business is a contentious issue in American politics. Both parties claim that they have policies that are more conducive for business activity. Republicans complain about high tax rates imposed on American firms, whereas Democrats claim that they have fought to remove barriers that stand in the way of businesses, especially helping small businesses. The common public perception is that Republicans are more pro-business. Are Republicans really more pro-business than Democrats?

In this paper, we addressed the above question by investigating the causal impact of Republican governors on entrepreneurial activity using micro-level data. Following Levine and Rubinstein (2017), we identify incorporated, self-employed individuals as entrepreneurs. More specifically, using data on gubernatorial elections across states over the last three decades, we investigate the impact of Republican governors on the entry of new entrepreneurs (business creation) and exit of existing entrepreneurs (business destruction) by exploiting the random variation in close election in a Regression Discontinuity (RD) design. We find that neither creation of new businesses nor closure of exiting ones at the individual-owner level under Republican governors is not different than that under Democratic governors. We also find that the exit rate of unincorporated, low-skill, self-employed is significantly less than that under Democratic governors, which suggests that this group find better wage& salary job opportunities under Democratic governors.

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are taken from Hirsch and Macpherson (2003), whose data are available at www.unionstats.com.

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Table 1. Summary Statistics on Entrepreneurs and Non-Entrepreneurs, 1980–2014

| | Entrepreneurs | | | Non-Entrps |
	Existing I	Entry II	Exit III	IV
Female	0.248	0.287	0.279	0.463
	(0.432)	(0.452)	(0.449)	(0.499)
Age	42.992	41.828	42.465	40.061
	(7.353)	(7.740)	(7.740)	(8.297)
White	0.913	0.896	0.893	0.846
	(0.279)	(0.306)	(0.309)	(0.360)
Some College or more	0.717	0.709	0.706	0.570
	(0.450)	(0.454)	(0.456)	(0.495)
Private Sector	0.731	0.743	0.750	0.676
	(0.443)	(0.437)	(0.433)	(0.468)
Sample Size	56,791	19,877	19,040	1,498,559

Notes: The data draw on the CPS-ORG Files from Unicon Corporation (2015). Numbers in parentheses are standard deviations, and in all calculations CPS weights are used.

Table 2. Impact of Party Affiliation on Entrepreneurship

| | Without Controls | | | With Controls | | |
Variable	Stock I	Entry II	Exit III	Stock IV	Entry V	Exit VI
Rep	−0.0008	−0.00004	−0.0046	−0.0019	−0.0006	−0.0063
	(0.0023)	(0.0010)	(0.0136)	(0.0016)	(0.0008)	(0.0138)
Entrp.	57,600	19,877	19,044	57,600	19,877	19,044
Obs.	1,478,102	1,388,090	55,757	1,478,102	1,388,090	55,757

Notes: The data draw on the CPS-ORG files from Unicon Corporation for 1980–2014. Regressions with controls include state fixed and time effects, and all other control variables specified in equation (2). CPS weights are used in all regressions. Numbers in parentheses are standard errors based on clustering data at the state level; ***, **, and * represent statistical significance at the 1%, 5%, and 10% level, respectively. The last two rows represent the sample sizes. For example, according to Column II, we have a sample of 1,388,090 non-entrepreneurs of whom 19,877 individuals become new entrepreneurs.

Table 3. Impact of Party Affiliation on Entrepreneurship at Different Dimensions

Variable	White Male I	College Educated II	Private Service III
	A. Stock of Entrepreneurs		
Rep	−0.0022	−0.0039	−0.0021
	(0.0142)	(0.0036)	(0.0018)
Entrp.	42,970	40,912	41,444
Obs.	788,950	452,734	1,053,285
	B. Entry of Entrepreneurs		
Rep	−0.0010	−0.0020	−0.0009
	(0.0013)	(0.0017)	(0.0009)
Entrp.	14,059	13,963	14,728
Obs.	739,380	420,066	985,160
	C. Exit of Entrepreneurs		
Rep	−0.0102	−0.0022	−0.0049
	(0.0142)	(0.0165)	(0.0148)
Entrp.	13,499	13,235	14,042
Obs.	42,246	25,566	40,280

Notes: The data draw on the CPS-ORG files from Unicon Corporation for 1980–2014. All regressions include state fixed and time effects, and all other control variables specified in equation (2). CPS weights are used in all regressions. 'Numbers in parentheses are standard errors based on clustering data at the state level; ***, **, and * represent statistical significance at the 1%, 5%, and 10% level, respectively.

Table 4. Impact of Party Affiliation on All Self-employed Individuals

Variable	Stock I	Entry II	Exit III
	A. All Self-employed		
Rep	−0.0018	−0.0015	−0.0112**
	(0.0025)	(0.0011)	(0.0053)
Obs.	1,478,102	1,260,864	182,983
	B. Unincorporated, Less-educated Self-employed		
Rep	0.0028	−0.0004	−0.0279**
	(0.0027)	(0.0014)	(0.0113)
Obs.	656,242	577,654	60,397

Notes: The data draw on the CPS-ORG files from Unicon Corporation for 1980–2014. All regressions include state fixed and time effects, and all other control variables specified in equation (2). CPS weights are used in all regressions. Numbers in parentheses are standard errors based on clustering data at the state level; ***, **, and * represent statistical significance at the 1%, 5%, and 10% level, respectively.

Table 5. RD Validity Test: Similarity of States in Close Elections

Variable	Proportion of Females	Proportion of Blacks	Proportion of Col Grad	Employment Rate
Rep	−0.0013	−0.0014	0.0006	0.0005
	(0.0020)	(0.0023)	(0.0048)	(0.0027)
Obs.	1,684	1,684	1,684	1,614

Notes: The data draw on the CPS-ORG files from Unicon Corporation for 1980–2014. All regressions include state fixed and time effects. CPS weights are used in all regressions. Numbers in parentheses are standard errors based on clustering data at the state level.

Table 6. RD Validation Test: Pre-Election Outcomes

Variable	Stock I	Entry II	Exit III
Rep	−0.0013	−0.0007	−0.0081
	(0.0151)	(0.0008)	(0.0151)
Obs.	1,474,163	1,384,393	55,303

Notes: The data draw on the CPS-ORG samples from Unicon Corporation (1980–2014). Numbers in parentheses are standard errors based on clustering data at the state level.

Table 7. RD Designs with Different Polynomial Orders and Bandwidths

Variable	Linear MV=5 I	Quadratic MV=20 II	Cubic MV=20 III	Quartic MV=30 IV
A. Stock				
Rep	−0.0003	−0.0017	−0.0025	−0.0026
	(0.0030)	(0.0020)	(0.0025)	(0.0024)
B. Entry				
Rep	−0.0010	−0.0009	−0.0009	−0.0004
	(0.0014)	(0.0008)	(0.0008)	(0.0008)
C. Exit				
Rep	−0.0202	−0.0028	−0.0144	−0.0123
	(0.0230)	(0.0149)	(0.0113)	(0.0114)

Notes: The data draw on the CPS-ORG samples from Unicon Corporation (1980–2014). Numbers in parentheses are standard errors based on clustering data at the state level; ***, **, and * represent statistical significance at the 1%, 5%, and 10% level, respectively.

Table 8. Impact of Party Affiliation on Entrepreneurship with Different Time Windows

| | Excluding the First Year | | | | Excluding the First Two Years | | |
| | Stock | Entry | Exit | | Stock | Entry | Exit |
Variable	I	II	III		IV	V	VI
Rep	−0.0021	−0.0005	−0.0046		−0.0032	−0.0013	0.0041
	(0.0018)	(0.0007)	(0.0162)		(0.0021)	(0.0008)	(0.0206)

Notes: The data draw on the CPS-ORG files from Unicon Corporation for 1980–2014. Numbers in parentheses are standard errors based on clustering data at the state level; ***, **, and * represent statistical significance at the 1%, 5%, and 10% level, respectively.

Table 9. Impact of Party Affiliation on Entrepreneurship with More Controls

| | Stock | Entry | Exit |
Variable	I	II	III
Rep	−0.0018	−0.0011	−0.0210
	(0.0015)	(0.0009)	(0.0170)

Notes: The data draw on the CPS-ORG files from Unicon Corporation for 1980–2014. CPS weights are used in all regressions. Numbers in parentheses are standard errors based on clustering data at the state level; ***, **, and * represent statistical significance at the 1%, 5%, and 10% level, respectively.
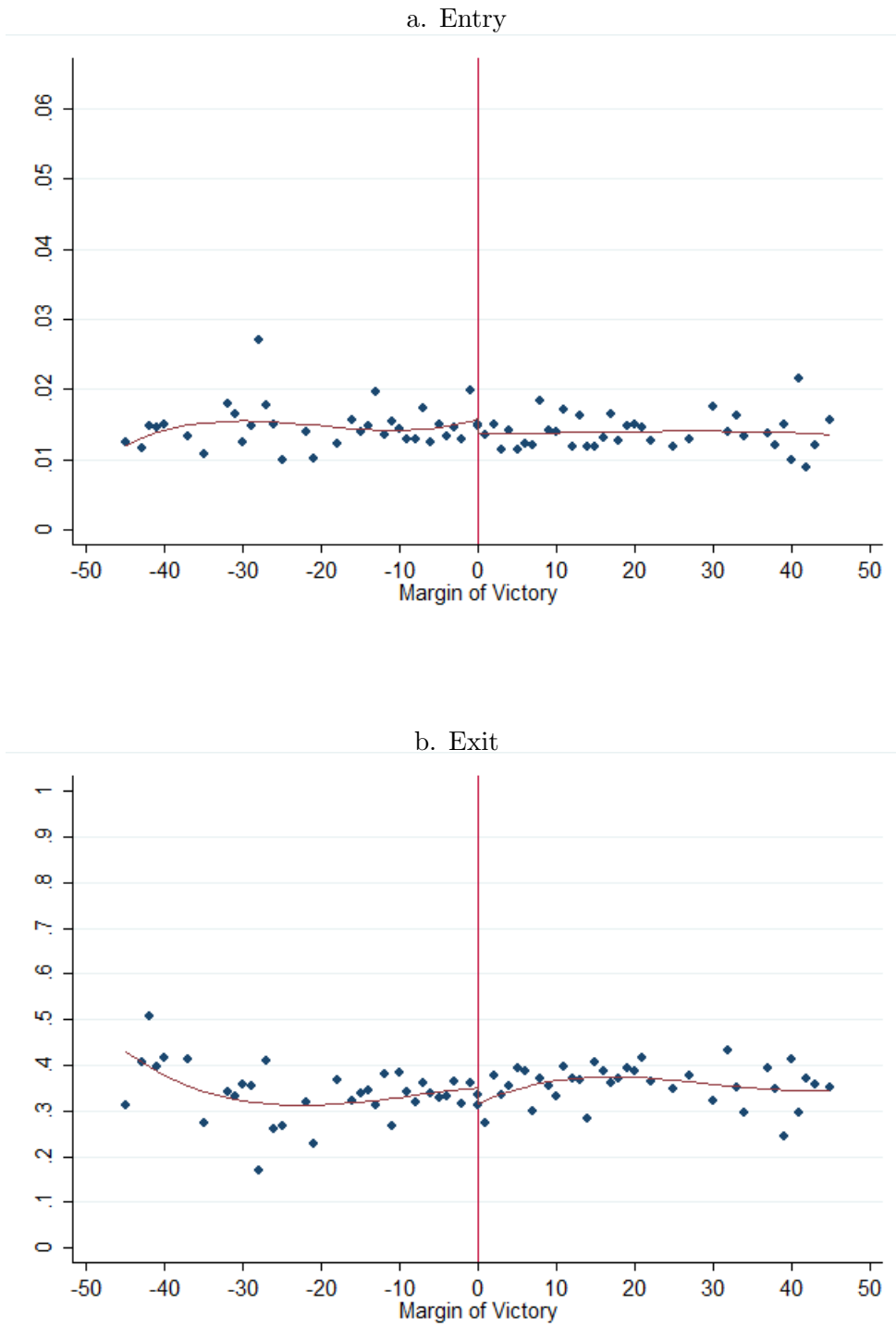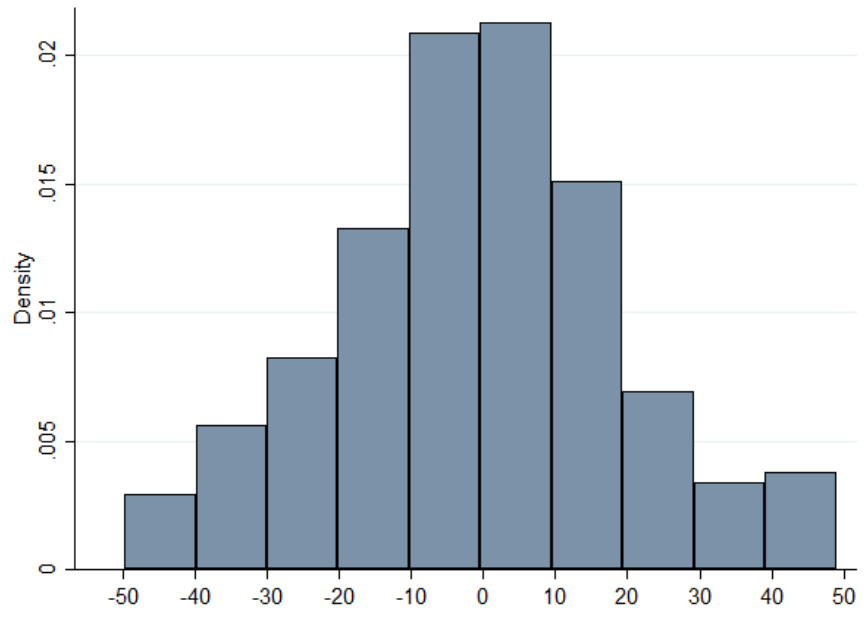
a. Entry

b. Exit

Figure 1: The Impact of Republican Governors on Entrepreneurial Activities

a. Histograms

b. McCrary Density Plots

Figure 2: Distribution of the Margin of Victory
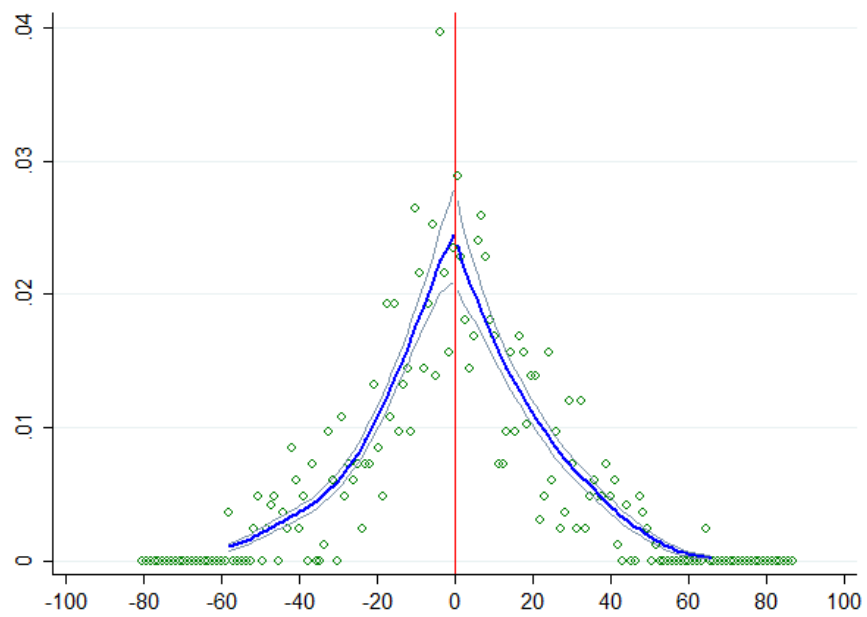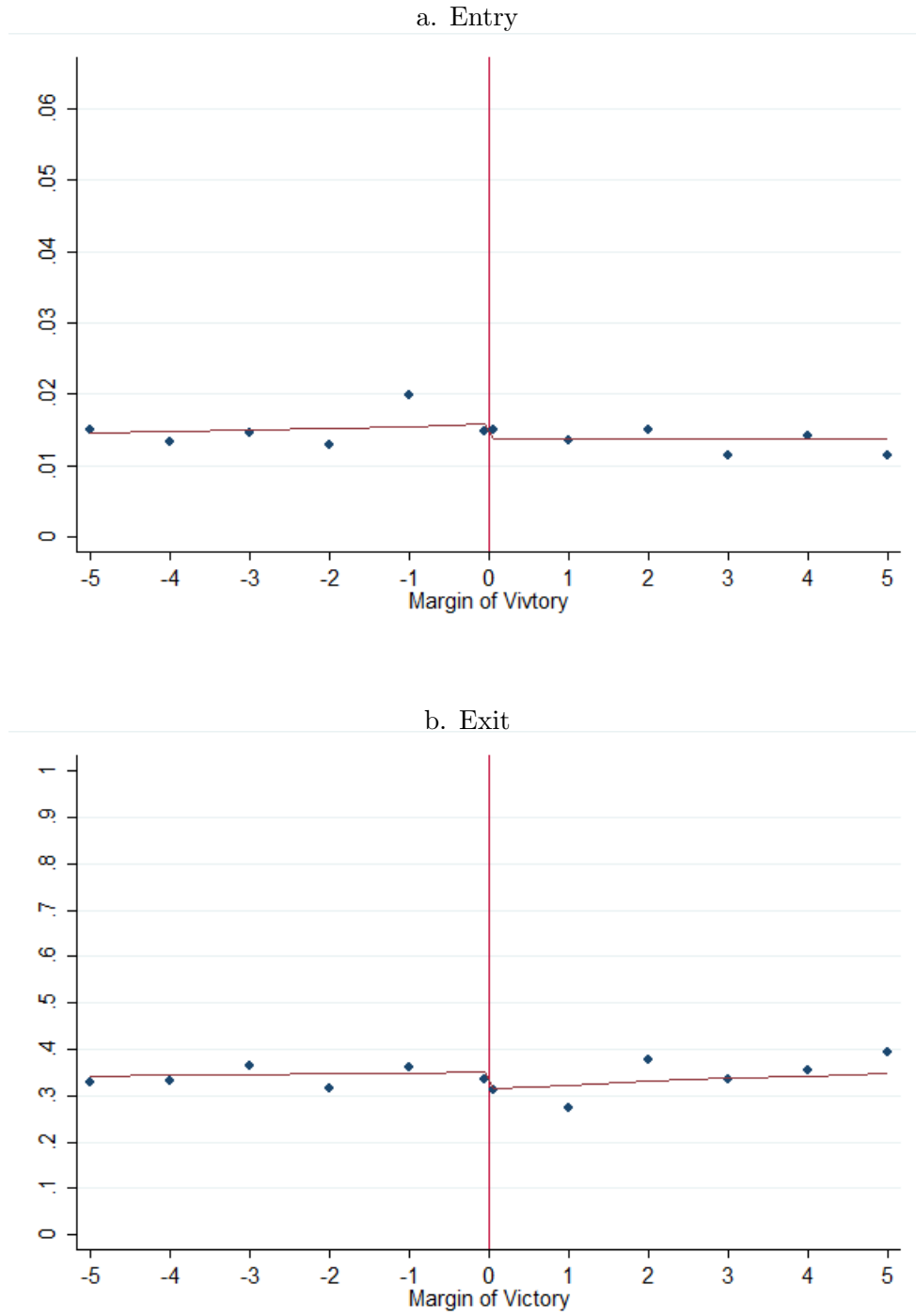
Appendix

a. Entry

b. Exit

Figure A.1: The Impact of Republican Governors on Entrepreneurial Activities