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Help Me Help You? Populism and Distributive Politics in Ecuador

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Help me help you? Populism and distributive politics in Ecuador

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Abstract

Populist regimes manage to dismantle checks and balances on the executive with the help of popular support. What does a distributive politics model predicts under a populist regime? In this paper I use a particular setting: The (very) first election of former Ecuadorean President Rafael Correa in 2006. This election is relevant since the political candidate was an unknown figure in politics and won with a new political party, no congressmen, and no local candidates. Due to this reason, the vote share of this election provides a reasonably good proxy of initial affinity for a populist politician. Between 2006 and 2010 several institutional reforms, that dismantled checks and balances on the executive, were implemented and supported via direct referendums. I estimate an empirical model using the vote share in 2006 and the number of bureaucrats at the municipal level in 2010. I also use the growth rate between 2001 and 2010 of the number of bureaucrats as an alternative outcome. To mitigate endogeneity, I construct a broad measure of intrastate conflict and use it as an instrument. To construct this measure, I use geographical distances to episodes of conflict in the period 1984-1988 between the government of that time and subversive groups. Moreover, I control for several pre-1984 characteristics. Municipalities closer to conflict episodes voted more for Correa and have more bureaucratic jobs. Results are driven by the municipalities with the strongest initial affinity (highest vote share in 2006), hence pointing to a patronage story.

JEL classification: P16, P48, D72
Keywords: Populism, tactical redistribution, state, conflict, Ecuador

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1. Introduction

Understanding populism has become increasingly relevant within economics (Acemoglu et al., 2013a; Guriev and Papaioannou, 2020; Funke et al., 2021). However, studies that analyze different dimensions of populism within countries remain scarce, especially for developing countries. Populist do not rise randomly; their acceptance usually stem from some underlying factor such as inequality or state capacity. Moreover, they figure out ways of maintaining power through elections while jeopardizing political institutions. Theoretical models of political economy present different electoral strategies in which politicians maximize the probability of winning elections by using patronage or clientelism (Dixit and Londregan, 1996; Keefer and Vlaicu, 2008; Robinson and Verdier, 2013), even if that means to weaken checks and balances (Acemoglu et al., 2013b). Most of this theoretical literature has not been tested empirically within developing countries. An important challenge is that populism has been normally studied through national instead of local regimes. Empirically, this is challenging since isolating the effects of a national policy is not trivial.

In this paper, I estimate a distributive politics model during a populist spell in a developing country. I causally identify the model by using historical political violence and intrastate conflict episodes as plausible determinants of the surge of a populist politician. The setting is the first years (2006-2010) of the regime of Rafael Correa in Ecuador[1] in which radical institutional changes were proposed, popularly supported and executed. These reforms included a new constitution and several changes that dismantled checks and balances on the executive. Furthermore, in the same period, there was a massive increase in the size of the public sector. The growth of the public sector responded to the austerity and right-wing policies that prevailed since the 1980s (Ayala Mora, 2008). Additionally, as expected, this expansion came with more bureaucracy. The reason for using bureaucracy comes from the view that it is a credible way of redistribution within the political-commitment problem framework (Robinson and Verdier, 2013), hence it is an attractive way to maintain and increase voters. What makes this setting attractive is that the political candidate was an unknown figure in politics and won with a new political party, no congressmen, and no local candidates. For this reason, the vote share of this election provides a reasonably good proxy of initial affinity for a populist politician.

The principal finding is that there is a positive relation between Correa's vote share in 2006 and the number of bureaucrats in 2010 at the municipal level. I find the same with the growth rate of bureaucracy between 2001 and 2010. These results are economically significant since a conservative interpretation is: On average, a 1-percentage point increase in Correa's vote share increased growth of the number of bureaucrats by almost 2% across municipalities. Results are driven by the municipalities with the strongest initial affinity (highest vote share in 2006), hence pointing to a patronage story. My estimations are robust to different specifications including the removal of the largest cities and the Amazon region from the sample. Moreover, the main conclusions remain when using a different data set on bureaucracy, but indicate that the main estimations are plausibly lower-bound.

This article proposes studying vote share as an explanatory variable instead of using it as an

[1] This regime is commonly used as an example of populism, see for instance Acemoglu et al. (2013a,b); Guriev and Papaioannou (2020); Funke et al. (2021).

outcome. Voting is an endogeneous variable, even if it has a considerable lag, and bureaucracy allocation may also obey a large battery of determinants. Moreover, voting is not random since a person considers their preferences in order to decide for whom to vote. In the case of strategic voting, Ecuadorean national elections have the feature of having two rounds among presidential candidates: The first round is a general election with all candidates (from multiple parties) that comply with certain set of rules imposed by the electoral authority; the second round is a ballot between the two most-voted candidates in the first round. Every administrative level has the same weight in the voting, hence the voting system is a majority-win type election. Even if strategic voting can not be totally discarded, taking voting information from the first round is safer for interpreting this as "initial supporters."

To tackle endogeneity, I propose an identification strategy normally used in the literature on repression and political economy (Rozenas et al., 2017; Bautista et al., 2021). I construct an instrumental variable (IV) model, in which as an instrument, I use geographic distances to conflict locations. My instrument will not refer to repression *per se*, instead it will use episodes in which the state was threatened and the government responded fiercely. One of the most criticized traditional political parties by Correa was the Partido Social Cristiano (PSC), which held the presidential office in the period 1984-1988. In this period, there were episodes in which subversive groups threatened citizens' security, and others where the government responded aggressively. Correa with his motto "it is forbidden to forget" recapitulated, in several occasions, how badly the government of that time reacted and that the blame should go to the whole system which was controlled by traditional political parties. Though conflict is not randomly driven, I control for predetermined characteristics (prior to 1984) that can correlate with conflict episodes. Furthermore, I also show that the instrument does not work when using vote share of other politicians from different elections and periods, hence arguing in favour that the IV only works through Correa's vote share in 2006.

My instrumental variable reflects important considerations when used both in the reduced form and in the first stage: First, it shows that locations closer to conflict episodes have more bureaucracy after controlling for several characteristics, including distance to the capital city and public sector workers prior to conflict episodes happened (reduced form). Second, the closer a municipality is to a conflict location, the larger is its vote share for Correa, thus reflecting that voters in those places were looking for more (and different) state presence, which was Correa's announced platform (first stage). Overall, demand for state presence was channeled through politics and granted via tactical redistribution using public sector jobs.

I use several data sources to quantify all required variables including: Two national censuses, electoral data and reports from Comisión de la verdad (2010), which was the commission established in 2008 that investigated the aforementioned conflict cases. Since the commission was established during Correa's regime, it may be argued that it had a bias towards favoring official discourse. I argue that this may be the case if using information about the number of victims, but since I use locations and distances, I am using the reports for measuring *exposure* to conflict and not intensity. For this reason, my instrument should be interpreted as: As locations were more exposed to episodes of conflict in the period 1984-1988, they demanded more state presence. This demand was capitalized politically by a populist leader years later.

This article challenges, in part, the view of the populist as the "outsider" of the political

spectrum and considers the fact that citizens' preferences are aligned with the populist platform. To the best of my knowledge there is no empirical study on the implications of Correa's government which uses historical explanations to understand his electoral victories. The episodes that happened in 1984-1988 increase citizens' demand for more state in essentially two dimensions: First, the assaults of the subversive groups generated a perception of insecurity. Second, among the actions performed by the government was the pressure on judicial courts leading to judiciary malpractice, which increased the lack of citizens' confidence towards access to justice. Correa's government improved, momentarily, citizen's perception towards security and courts. I use data from *Latinobarometro* (Latinobarometro, 2021) to show this.

The theoretical background for this paper are the political-economy models of tactical redistribution. Politicians' interests in winning elections may result in misallocation that jeopardizes overall economic performance (Persson and Tabellini, 2000; Robinson and Verdier, 2013). Misallocation may come in different forms (Robinson and Torvik, 2005). In this article I consider geographical misallocation between municipalities. Furthermore, the alignment between citizens' preference for state presence and the populist platform is essential and voters may see the populist as a committed delegate rather than a competent policymaker (Morelli et al., 2021).

This paper contributes to a large literature on tactical redistribution and its empirics (Alesina et al., 2000, 2001). Specifically, I contribute to a dimension in which tactical redistribution meets populism. In essence, I test theoretical predictions from the literature (Persson and Tabellini, 2000; Acemoglu et al., 2013b; Robinson and Verdier, 2013) using an empirically identified model in the context of Ecuador. Furthermore, I match several data sets at the municipality level for several years and propose an econometric technique in order to identify causality within the tactical redistribution framework. Another contribution is giving a historical explanation of the rise of a contemporary populist leader and using it to leverage my identification strategy using data from Ecuador on a distributive politics model.

Finally, this article does not pretend to study the specificities of bureaucracies, but to study the geographic allocation of them as a redistributive policy used to protect electoral support. In other words, the selection of bureaucracy as dependent variable relies on using it as a *proxy* for rent transfers. In this sense, the use of bureaucracy in this paper relates more to Alesina et al. (2000, 2001) than Colonnelli et al. (2020) which uses more detailed data to study deep underlying factors of bureaucracy in Brazil. Moreover, it is considered the empirical counterpart of theoretical models such as the ones presented in Acemoglu et al. (2013b) and Robinson and Verdier (2013), hence its contribution lies in adding evidence to populists' electoral strategies and how they use tactical redistribution to dismantle checks and balances. Additionally, this article reflects on the effects of populists at the national level, but discusses the indirect effect on local transfers motivated from the fact that Correa won his first election, not only as an outsider politician, but with an outsider party as well. His party did not have any local representation until three years later. For this reason, I also show that there were strategic allocation of resources to municipalities in which there was strong initial support but no party connections. An important question that remained unanswered is whether an increase in the number of bureaucrats may have a positive effect on state capacity, hence a positive net effect on welfare.

The paper is organized as follows. Section 2 presents a brief summary of the institutional context of Ecuador. Section 3 provides the main sources of data used. Section 4 analyzes the

available data in a descriptive sense and presents the most important relations to be tested. Section 5 discusses the empirical strategy to be used along with the models and its main considerations. Section 6 shows the estimations from the models. Section 7 perform several robustness checks and discusses the stability of the results. Section 8 concludes.

2. Institutional context

2.1. Trying to rebuild democracy

In 1979 Ecuador returned to democracy after a military dictatorship. By 1984, the presidential election was won by the businessman León Febres-Cordero. Febres-Cordero led a right-wing government that confronted certain political and economic challenges. The government had a very autocratic style since the confrontational attitude of the president is one of his most remembered features (Moncagatta and Espinosa, 2019). An example of that is when Febres-Cordero ordered a physical blockade of the congress, because of judge selections that he was not in favor of. Febres-Cordero's government confronted a variety of difficult episodes, among them, a very powerful earthquake that demanded a great amount of resources from the state.

The most important confrontation that the government had to face was the insurrection of a subversive group called *"Alfaro Vive Carajo" (AVC)* which was a a violent guerilla which was in favor of Marxists ideas through revolution. Because of the difficult situation that Ecuador's neighbor, Colombia, confronted with their own guerilla, Febres-Cordero's government decided to fight in a strong and fearless manner. AVC was also responsible for a series of vandal acts including kidnapping, terrorism, and threats against citizens' security.

Conflict also came from different groups. A military insubordination in 1987 ended with the kidnapping of the president for several hours. The episode known as the "Taura case" involved a counter-response from the government after the president was liberated. Several military involved were illegally deprived of liberty and tortured (Comisión de la verdad, 2010).

In general, the confrontations led to a number of human rights violations in terms of unfair trials, torture, disappearances, and kidnappings (Ayala Mora, 2008; Comisión de la verdad, 2010). In 2008, a commission of truth was formed and reopened most of these cases in order to document them for public knowledge. Furthermore, several cases were covered by the media over years and became part of the "Voz populi" in certain areas of the country.

By the end of his government, Febres-Cordero's party, PSC, ended up politically weak after four years in government. By 1988, PSC political rivals, Izquierda Democrática, got an overwhelming victory at the national and sub-national electoral levels. The government led by the left-wing politician Rodrigo Borja initiated a peace process with insurgent groups, such as AVC, in order to end the conflict.

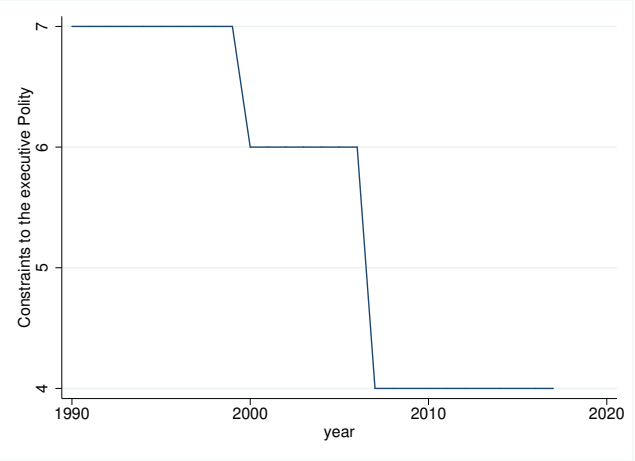
2.2. Ecuador during *Correísmo*

During the 1990s and the first half of the 2000s, Ecuador faced long periods of political instability. In this context, Rafael Correa's electoral victory in 2006 was particular. He won the presidential election without having any experience in politics, with a recently created political party, no congressmen, and no municipal major from his party. One of the most important

campaign offers was to dissolve congress and establish a National Constitutional Assembly, which was going to substitute the parliament and be in charge on writing a new constitution. The new Assembly was approved via national referendum and its members through popular vote, where Correa's party (Alianza País) had a majority. After the new constitution was finished, its text went through a national referendum process and new presidential elections were held in order to ratify or remove the current president. Correa won everything. A simple counting shows that in three years, Correa (and his proposals) won five different electoral processes.

The new constitution brought some caveats of which the most important for this paper is that it dismantled checks and balances on the executive. Figure 1 shows Ecuador's score on "constraints to the executive" from Polity V since 1990 and the abrupt political changes in the country in a relative short period of time.

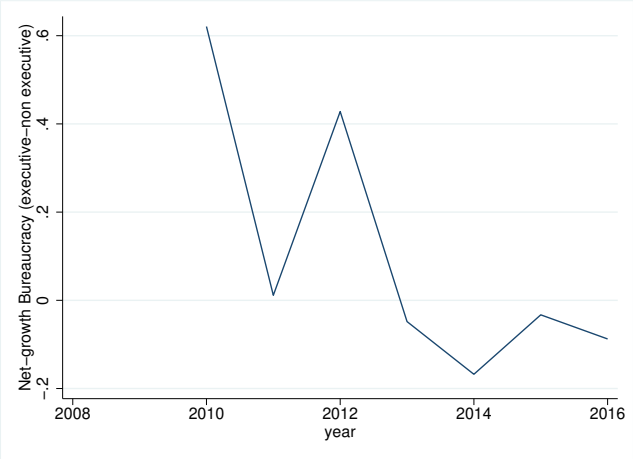
Figure 1: Checks and balances on the executive



Consequently, it became easier to hire public servants since the vision of the government moved diametrically from a "small government" view to a more welfare-state type. In Figure 2, I use data from Brugues et al. (2022) to plot the growth rate of *new* public sector contracts between 2010-2016[2]. This growth rate is calculated as the net between executive-dependent and non-executive-dependent agencies. It can be seen that the growth rate in 2010 (relative to 2009) was the highest compared to future years during Correísmo.

[2] The data comes from the Ecuadorian comptroller. From 2008 it became mandatory that all public servants declare their patrimony when hired. Data was consolidated in 2009, and 2010 became the first year to reliably calculate the growth rate of new contracts. Brugues et al. (2022) uses web scrapping to extract the information.

Figure 2: Net growth rate of new contracts in ministries and related public agencies

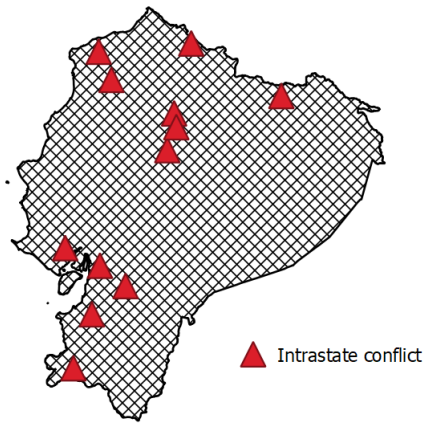


Note: Figure shows the net growth rate of new contracts in executive-dependent agencies relative to the growth rate of new contract of non-executive-dependent agencies.

2.3. Connecting the events: Commission of Truth

A common characteristic of Correa's regime was agitating people to look at third parties as "enemies" (Conaghan, 2011; Guriev and Treisman, 2019). Furthermore, keeping enemies alive is politically fruitful (Fergusson et al., 2016). During the election campaign, the insinuation that old political parties were repressive was a cornerstone in Correa's discourse. Once in power, a Commission of Truth was created in order to review human rights violations, specially from the 1980s. The final report listed all cases from 1984 till 2008, where 1984-1988 was the period with the highest number of events. Figure 3 presents geolocations of all cases during 1984-1988, where subversive groups initiated the event or when the government reacted with repressive actions.

Figure 3: Geo reference conflict locations according to Commission of Truth



Note: Red triangles mark the geo-reference of a conflict episode according to Comisión de la verdad (2010)

Even though the election of Correa came in a moment of political instability, the conditions for voters to prefer a dismantling of checks and balances came from a persistent system of political inequality (Acemoglu et al., 2013b). Furthermore, the demand for more state presence came from the fact that a lack of public institutions permitted cases such as judiciary malpractice or

repression. Security threats from subversive groups also fueled the demand from people to have more (and different) state presence. These elements create fertile ground for campaign platforms that proposed to increase the size of the public sector to be electorally fruitful.

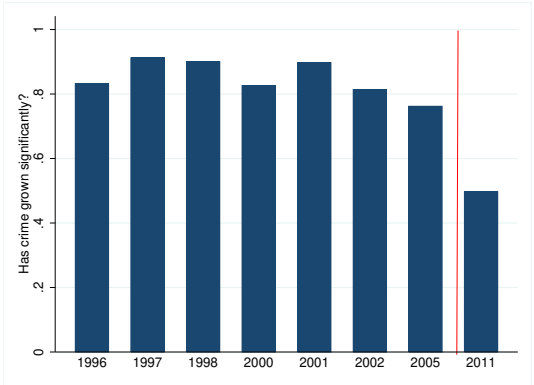
2.4. Demand for state presence

There were two main sources that channeled more state presence. First, the insecurity that people felt due to the subversive groups' actions. Kidnapping and vandal acts increased the necessity of people to feel more secure, hence demanding more presence in the form of security provision. Second, several cases documented in the Commission of Truth reports point to judiciary malpractice as a way in which Febres-Cordero's government retaliated the actions of the subversive groups. Various testimonies point to unfair trials that ended up accusing people without sufficient evidence. Because of this, people may have felt mistrust for the judiciary, since judges seemed to be influenced by political power.

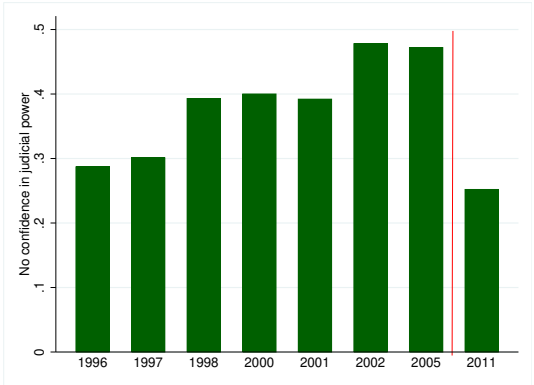
Figure 4 shows result from *Latinobarometro* from questions related to perception of insecurity and mistrusts in courts. This data goes back to 1996 (in the case of Ecuador) but several questions only repeat in specific years. Panel (a) of Figure 4 presents the percentage of surveyed people who answer to the question "Has crime gone up?" with "Crime has grown a lot." Panel (b) shows the percentage of surveyed people who answered to the question "How much confidence do you have in the judiciary system?" with "No confidence at all." Levels for insecurity perception and mistrust in the judiciary power hare high, but after Correa came into power (denoted by a red line) both indicators get better. One possible explanation is that Correa was committed to both objectives (reducing insecurity and modify the judiciary power) and that reflects in people's perceptions.[3] However, the populist's commitments may be fragile and not necessarily long-lasting. Furthermore, perception is highly influenced by media, which was an important strategy used in Correa's regime (Guriev and Treisman, 2019).

Figure 4: Insecurity and mistrust in judicial power

(a) Perception of insecurity



(b) Mistrust in judicial power



Note: Panel (a) shows the percentage of people who agree that crime in the country is at high levels. Panel (b) shows the percentage of people who answered that they have mistrust in the judicial power. The red line indicate Correa winning his first election.

[3] Whether these levels of confidence are maintained over time is not a relevant topic for this paper. 2011 is the last year available for the indicator on citizens' perception of insecurity and the only one available after 2006.

3. Data

The most relevant source of information for this paper comes from the following sources: The national censuses for the years 2001 and 2010 collected by the National Statistics Institute of Ecuador (INEC), and electoral data from the National Electoral Council of Ecuador. In Appendix section A I provide a complete explanation of the data handling process. Furthermore, table B1 presents the summary statistics for all variables used.

3.1. Data construction

The process of merging census and electoral data was the most important task for constructing the final data set. Raw census and electoral data differ on the identification of parishes and municipalities. Since the focus of this paper is on the municipality, I aggregated both data sets at that administrative level. Next, I match both data sets using the name of each municipality. While electoral data has the name of each municipality, the census does not. Therefore, I did this process manually following the guidance from INEC's administrative classification.[4]

3.2. Bureaucracy data

I extract data on public sector jobs from the National Census. In order to do this I intersect observations using the International Standard Industrial Classification and the International Standard Occupation Classification. I combine the category "Public Administration" (for the industry classification) and "bureaucratic job" (from the occupation classification). I homologate the classifications on both census used (2001 and 2010) in order to make them comparable. Finally I collapse everything to the municipal level.

3.3. Electoral data

The National Electoral Council from Ecuador make publicly available data on voting since 2002. However, data from certain referendums between the years 2006-2017 are not available.[5] Vote shares are calculated relative to "valid votes" (following guidance from the Ecuadorean electoral authority) meaning that the numbers of votes for a candidate is divided by the number of votes for all candidates together without taking into account nulls and blank votes.

In Ecuador, there are two rounds in each presidential election: The first one has all subscribed candidates compete with each other. The first and second place go to a ballot one month later and the candidate with more (valid) votes is proclaimed winner. Because of this structure, voters in the first round are more prone to be possible "core" voters. For this reason my main variable on vote share is based on the first round of elections in 2006, which was the year that Correa ran for political office for the first time for any political office.

[4] Each administrative zone has a code which helps to track each parish, municipality, and province (in order of aggregation) within the same stratum. Is important to mention that some municipalities may have the same name, so is important to match each municipality with the correct province. In Appendix A I provide an example of this.

[5] This include data from the constitutional referendum which asked people to approve the establishment of a constitutional assembly and the referendum that asked people if they are in favor of the new constitution.

3.4. Conflict locations

Distances are defined as the smallest distance between the centroid of a municipality and a location (at the parish level) where a conflict episode was documented by the Commission of Truth. Report number three from the Commission gives specific details of each case and the location where each happened (Comisión de la verdad, 2010). I revise each case and geocode the specific location when possible.[6] If the specific location was not in the text, I opted for locating the episode in the principal parish within that municipality.[7] Cases ranged from torture to judicial malpractice in the case of the government, and from kidnapping to various forms of terrorism when subversive groups were the initiators.

Several political and civil society actors attacked the conclusions of these reports calling them "politically biased" since it was argued that Correa's regime wanted to discredit the traditional political parties. It can be argued that this was part of an informational strategy quite common in these type of regimes (Guriev and Treisman, 2019).[8] I use the reports for measuring *exposure* to conflict and not intensity. For this reason, my instrument should be interpreted as: The more locations were exposed to episodes of conflict in the period 1984-1988, the more they demanded state presence.

4. Descriptive analysis

4.1. Bureaucracy

Correa's regime is characterized by the expansion of the public sector. Most of his policies were dependent on increasing public investment and increasing state intervention. By following the reasoning on tactical redistribution theory, the political-economy solution to an optimization problem on resource allocation will be unequal between groups relative to a social planner that does not care about elections. Public sector bureaucratic jobs between 2001 and 2010 are shown in Figure 5: panel (a) displays the increase on average between 2001 and 2010, while panel (b) classifies this by municipalities in which Correa obtained the first place versus the ones where he did not. In relative terms, while bureaucracy increased by 36% between 2001-2010 overall, it grew 41% in the cantons where Correa won his first election.

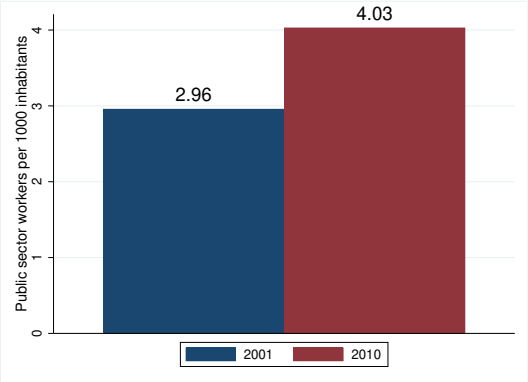
[6] For example in Quito and Guayaquil (major cities), the common places where repression episodes happened were in Servicio de Investigacion Criminal de Pichincha (SIC-P) and Cuartel Modelo, respectively. Moreover, in the case of Quito the geo coder did not recognize the address for Conocoto so I opted lo leave one specific location per "treated" municipality.

[7] Since the analysis is at the municipality level, this gave me variation within a municipality. Later I discuss the repercussion of this when calculating Conley's spatial models.

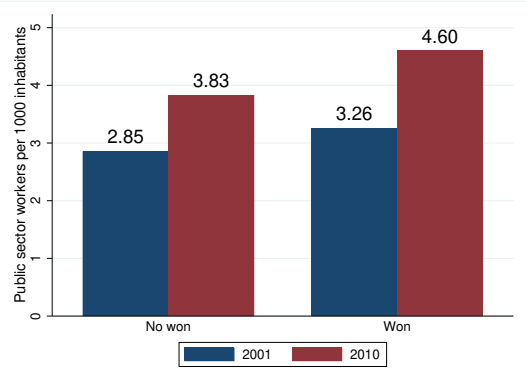
[8] The value of the source is to group the locations of the cases in a single report. Moreover, these cases were also covered by the media at different moments in time.

Figure 5: Allocation of bureaucracy (per 1,000 inhabitants)

(a) Increase in bureaucracy



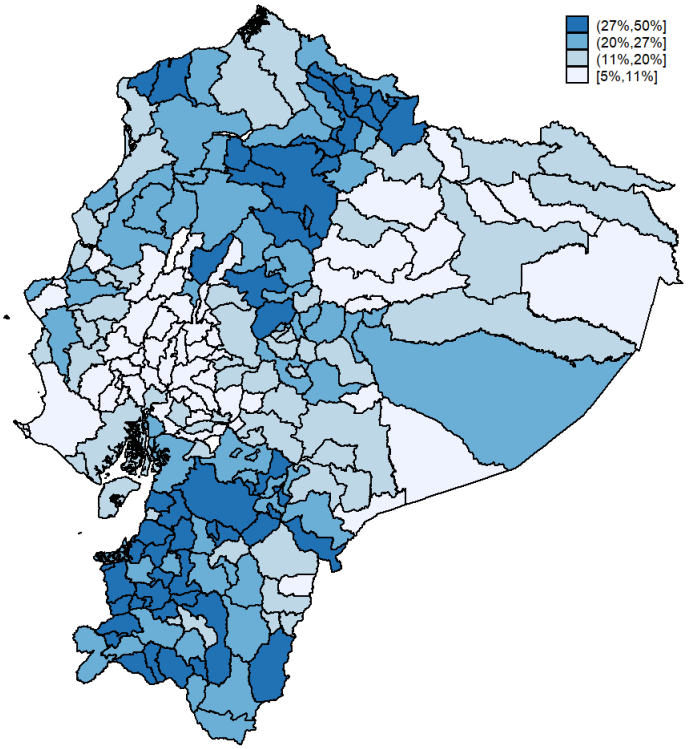
(b) Increase in bureaucracy by municipalities where Correa won/did not won



4.2. Vote share

Ecuador is officially divided into four natural regions: Coast, Highlands, Amazon, and Insular. Historically, population density is higher in the two main regions, Coast and Highlands. Furthermore, both regions have competed for political power since the beginning of the Republic (Ayala Mora, 2008; Hurtado, 2010). Every administrative level has the same weight in the voting, hence is a general majority-win type election. Therefore, it is logical that a political candidate must win in the municipalities within these regions. In the case of Correa, the majority of his voters in 2006 were located in the Highland region (Figure 6).

Figure 6: Vote share for Correa 2006



As mentioned above, this paper tries to understand why aggregated municipality political support was maintained during years of radical institutional change. Figure 7 compares the vote margin of 2006 with the one in 2009. Essentially, a positive number in the margin represents the fact that a candidate ended up in the first place in that municipality. In 2009, Correa evolved into a popular leader, while in 2006 he was new to politics. Quadrant I represents municipalities where Correa ended up in first place in the presidential elections in 2006 and kept that status in 2009. The number of municipalities going from a negative margin in 2006 to a positive one in 2009 (quadrant II) reflects the growing popularity of Correa. An interesting fact is that quadrant IV is, virtually, empty which can be interpreted as initial voters who do not question their vote for Correa and keep supporting him.

Figure 7: Relation in vote margin for Correa in 2006 and 2009

Note: Margin is defined as the difference between Correa's votes and the candidate that was either after him or that ended up in the first place in a given municipality. Positive margin means that Correa won in that municipality, the opposite happening with negative margin. Each dot represents a municipality.

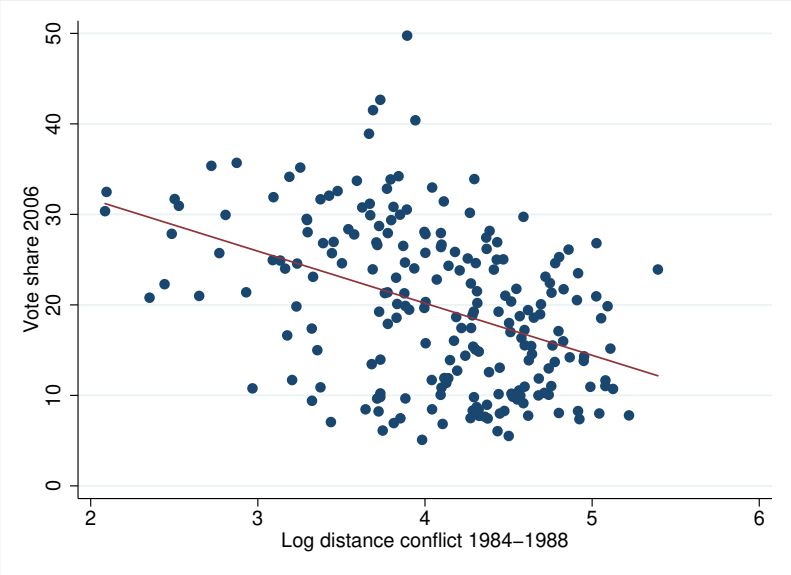
4.3. Distance to conflict locations

In the period 1984-1988 the government from the traditional political party PSC had numerous episodes of conflict. The most important ones were against subversive groups such as AVC. AVC performed terrorist acts and the counter-response from the government was controversial. The subversive group tried to mimic their Colombian counterpart and defined themselves as left-wing. Most of the cases where this group was a protagonist (antagonist) happened in major cities or close to international borders. Moreover, the Febres-Cordero government faced another type of conflicts such as the subordination of officers in a military air base, known as the "Taura case." In summary, the government had to face numerous episodes and collide with society in different ways.

Figure 8 shows the relation between the vote share for Correa in 2006 and the distances to conflict locations. The relation is negative, meaning that the closer a municipality is from a conflict location the more it supported Correa in his first election in 2006. The interpretation of this relation is the anti-establishment vote that a populist need at the beginning of his political

life. In this context an anti-establishment vote was to increase the size of the public sector due to poor state presence.

Figure 8: Vote share for Correa in 2006 and distance to conflict locations



From the descriptive analysis it is clear that the increase in public sector bureaucratic jobs grew in different magnitudes among municipalities. In the next section, I use the variables shown here in an econometric setting in order to establish if the geographical allocation of bureaucratic jobs can be interpreted as tactical redistribution.

5. Empirical strategy

The research design that I propose exploits the location of episodes of conflict between the government and subversive groups in the period 1984-1988. In this section I present the main models and the parameters to be estimated. Furthermore, I provide historical and quantitative evidence of the validity of my instrument by discussing the exclusion restriction and the conditional independence assumption.

5.1. Ordinary Least Squares (OLS)

The baseline regression is estimated by OLS and it has the following form,

$$Bureaucracy_{i,2010} = \alpha + \beta_{OLS} VoteShare_{i,2006} + \delta X_{i,j} + \gamma_r + \epsilon_i \tag{1}$$

where $Bureaucracy_{i,2010}$ stands for number of bureaucrats per 1,000 inhabitants in municipality i in the year 2010. $X_{i,j}$ summarizes a set of parsimonious controls (discussed in detail in the next subsection), γ_r are fixed effects for each natural region r, and ϵ_i is the error term. Model (1) is a cross-section regression with fixed effects at an aggregate level, $X_{i,j}$ have two sub-indices because some controls may refer to different years in the set $j = \{1974, 1982, 2001, 2009\}$ depending on the model specification.

Additionally, I estimate the following model,

$$log(\frac{Bureaucracy_{i,2010}}{Bureaucracy_{i,2001}}) = \alpha + \beta_{OLS} VoteShare_{i,2006} + \delta H_{i,j} + \gamma_r + \epsilon_i \quad (2)$$

where $log(\frac{Bureaucracy_{i,2010}}{Bureaucracy_{i,2001}})$ represents the log of the growth in bureaucracy between 2001-2010 taken from both national censuses. Moreover, $H_{i,j}$ represent the same set of controls as in model (1) with the addition of the logarithm of bureaucracy in 2001 as an additional control.[9] Model (2) will try to evaluate if the change of vote share at the municipal level captures the change in bureaucracy. The pitfall of this model is that the dependent variable includes an effect that may have happened between 2001-2006. However, the period 2001-2006 is known as one of austerity in the economic history of Ecuador (Conaghan, 2011), so having the prior that most of the growth in bureaucracy happened during 2006-2010 is not unreasonable.

5.2. The instrument: Conflict in the 1980s

After a "soft" military dictatorial period, Ecuador had a moderate and calm return to democracy relative to other Latin American countries such as Chile (Hurtado, 2010; Bautista et al., 2021). The first years of this new democratic period were intense, having to confront territorial disputes with Peru and facing the death of the President Jaime Roldós. By 1984, the second government in winning elections was led by right-wing politician Febres-Cordero. Febres-Cordero was known as a powerful businessman from the Coastal region and a promoter of austerity-type policies as well as a fierce enemy of left-wing politicians. During the period from 1984 until 1988, the regime faced various challenges; among them, an increase in social conflict which was fueled by the confrontational style of the President.

The generation of tension is a widely accepted characteristic of Febres-Cordero's government among researchers (Ayala Mora, 2008; Freidenberg and Pachano, 2016; Hurtado, 2010). Episodes such as an order of sending military tanks to the congress to stop the election of judges for the Supreme Court; or the kidnapping of the President for several hours (during the "Taura case"), are examples of the kind of political tension where the government was a protagonist. Additionally, there were cases related to human rights violations (generated from repression from the government), an extreme example of one of these cases is the "Restrepo case" where two young men were taken by the police, never to be seen again. Their corpses were never found and there has been no clarification of the events until recently.

The formation of subversive groups that challenged the government grew in number and membership during the turbulent 1984-1988 period. The most important and dangerous group was AVC which was responsible for different kinds of robbery and cases of kidnapping and killings. AVC had links with the Colombian guerilla, but it never became as big and dangerous as their Colombian counterparts. In general, two explanations have been offered for AVC not becoming as relevant as Colombian FARC or M19: AVC was an urban group and was funded by middle-income people who did not necessarily connect with the population in the poorest parts of the country. Even though this was an important characteristic of AVC, it grew in membership quite rapidly and their operations expanded throughout the Highlands and the Coastal region. The

[9] I do this in order to control for the initial level.

second explanation points to the repression that subversive groups had under the Febres-Cordero government, and that this strong counter-response to the groups was necessary to eliminate any guerilla threat.

The controversies in Febres-Cordero's regime, gave Correa examples on how "old" politics was repressive and promoted non-transparent governments. The Commission of Truth established under Correa's regime became handy to promote the idea that the problem of the country was the traditional political leaders and parties. Febres-Cordero's party, the PSC, confronted critiques and the political attacks of Correa's government. This was useful in order to position his government as humanitarian and anti-establishment. Furthermore, the discourse was empowered by hiring former members of AVC in his government as an act of including them into the state decision-making process.[10]

5.3. Municipalities characteristics before 1984

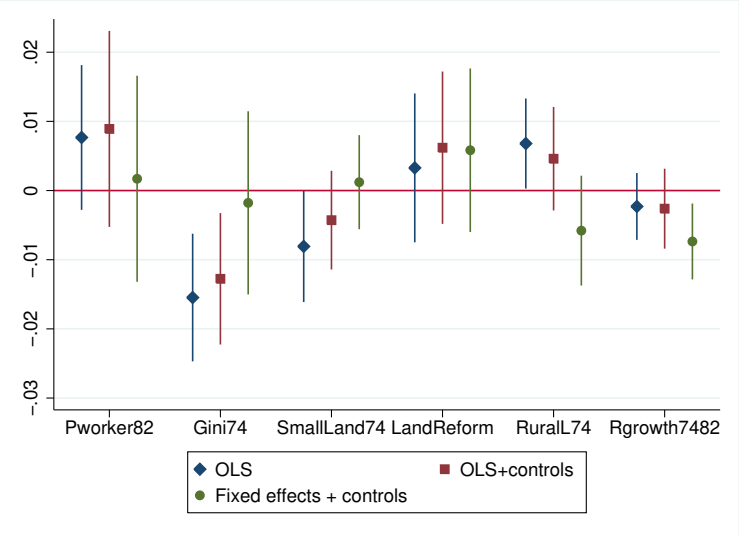
In order to ensure the conditional independence assumption of the instrument, I have to explore characteristics of the municipalities before 1984. To do this, I rely on data from the national census of 1982 and the agrarian census of 1974 which was processed in Larrea (1992)[11] for several variables at the municipal level. There are some considerations to take into account: First is that the Amazon region was just being populated as a result of the process of land reform and colonization, hence most municipalities there are considered rural and are new for data collection purposes. Because of this, Larrea (1992) calculated certain variables only for urban municipalities (e.g., public sector workers). Second, several municipalities did not exist at the time; most of them (especially in the Amazon region), were recognized years later.

I use the following pre-1984 variables since they are the ones available that may explain conflict insurrection, nonconformity, or state presence: Public sector workers in 1982 as percentage of economically active population, land Gini in 1974, percentage of holdings smaller than one hectare relative to total number of holdings in 1974, percentage of land affected by land reform between 1974 and 1984, available land per rural worker in 1974, and growth in rural population between 1974 and 1982. Figure 9 shows the result of different models applied using the log of distances to conflict as a dependent variable and the pre-1984 characteristics as independent variables. Municipalities where conflict episodes happened are not expected to be random (Bautista et al., 2021) and as such some variables have some significance depending on the model. I do the same for a dummy variable for each conflict location instead of distances (results are available in the Appendix in Figure B2).

[10] Additionally, Correa's government was receptive of transnational insurgents coming from Colombia's FARC (Martínez, 2017).

[11] To the best of my knowledge, the only file available of the original census in INEC is the summary of results at the provincial level.

Figure 9: Pre-1984 characteristics and conflict locations



Note: Figure shows the estimates for OLS without controls, OLS with controls (geographic ones) and regional fixed effects between the log distance to conflict in the period 1984-1988 and pre-1984 characteristics taken from Larrea (1992). Descriptions for each variable are in the main text.

The Gini index for land in 1974, owners of small fraction of land and land per rural worker in 1974 are factors that may have conditioned the location for conflict. Other factors do not seem statistically important. Furthermore, in the case of Figure B2 no variable shows significance. In addition to this, in table B2 (in the Appendix) I present a classification of all the municipalities where conflict occurred, sorted by its value-added production in 2010[12] (as a measure of aggregate income) and population in 2010. What can be seen is that the municipalities where conflict happened are not either "only rich" or "only the poor," but is a mixture between the wealthiest, poorest, and middle-income cities. So, by using a set of controls from this period, the conditional independence assumption holds.

5.4. Instrumental variable (IV) model

The (just-identified) instrumental variable model will be estimated in the following manner via 2SLS,

$$\hat{VoteShare}_{i,2006} = \theta + \pi DistanceConflict_i + \delta X_{i,j} + \gamma_r + \tau_i \tag{3}$$

$$Bureaucracy_{i,2010} = \alpha + \beta_{IV} \hat{VoteShare}_{i,2006} + \delta X_{i,j} + \gamma_r + \epsilon_i \tag{4}$$

where the first stage regresses the vote share in 2006 on the geographical distance to conflict locations. The model is analogous when applying the IV to the case of having the growth of bureaucracy as dependent variable.

All results are presented using cluster standard errors at the municipality level. Additionally, I include the estimation of all models using Conley (1999) procedure for correcting standard errors that are likely to be affected by spatial auto correlation, those result are consistent with the

[12] This is calculated in the regional accounts from the Central Bank of Ecuador.

ones presented in the main text and are available in the Appendix. Furthermore, I add in the Appendix the IV model calculated with bootstrap cluster standard errors due to consideration of small sample size. The conclusions do not change.

5.5. Set of controls

For controls, the selection was based on variables that reflect heterogeneity among municipalities and may condition the effect of vote share in 2006 on bureaucracy. I list the set of chosen controls along with its description and justification.

Geographic variables: I calculate distances to major cities using GIS and the official geographical information from INEC. In particular, I calculate distances to Ecuador's capital Quito and the country's major port Guayaquil. Additionally, these cities are the most important ones (politically and economically) in the Highland (Quito) and Coastal (Guayaquil) region. These variables are in logs. Being closer to major cities may have importance on state presence (Fergusson et al., 2020). Besides distances to major cities I also control for latitude and longitude of every municipality. These variables are highly used in the literature when geographic considerations are introduced.

Population growth 2001-2010: As a measure of economic progress at the municipal level, I use population growth using data from the 2001 and 2010 National Census. This variable is in logs. This gives a measure of relative importance of certain cities' economic prosperity within the country.

Vote share in 2009 local elections: Correa's regime did not have representatives at the local level (i.e., no mayoralty was from the government's party) since his party was new and he was the only politician running for office. In 2009, there were general elections at all administrative levels where the support for Correa increased but his party also achieved important victories at the local level. This may condition bureaucracy in 2010 so I control for the vote share for Correa's party in local elections due to some favoritism to majors from the same party. I do not consider Correa's national vote share in 2009 since it can be considered an outcome (when vote share in 2006 is the independent variable). When controlling for this variable, sample size equals 205 (from a total of 218) since Correa's party did not present candidates in all municipalities.[13]

Number of bureaucrats in 2001: I include the log of the number of bureaucrats in 2001 as a control for the regressions in which the dependent variable is the growth rate in the number of bureaucrats in the period 2001-2010 in order to control for the "initial level" of the outcome variable.

Region fixed effects: When considering historical explanations in the context of Ecuador, its regions are particular. The history involving the three natural regions[14] of the country (coast, midlands, and Amazon) led to different ways of interaction between political and economic actors. The Amazon region, for instance, is relatively new since it began to be populated as the result of the land reform process started in the 1960s. Furthermore, climate characteristics are also different among regions leading to different social processes throughout history, that possibly affected a persistence mechanism in political preferences. The notion of regions in Ecuador has been constant over time, making it more stable than provinces when trying to capture aggregate

[13] I include candidates who were in an electoral alliance with Correa's party as well.

[14] There is also the insular region (the Galápagos islands). This region does not form part of the paper due to the use of geographical distances, and its small population; hence becoming an outlier.

heterogeneity with data from different periods.

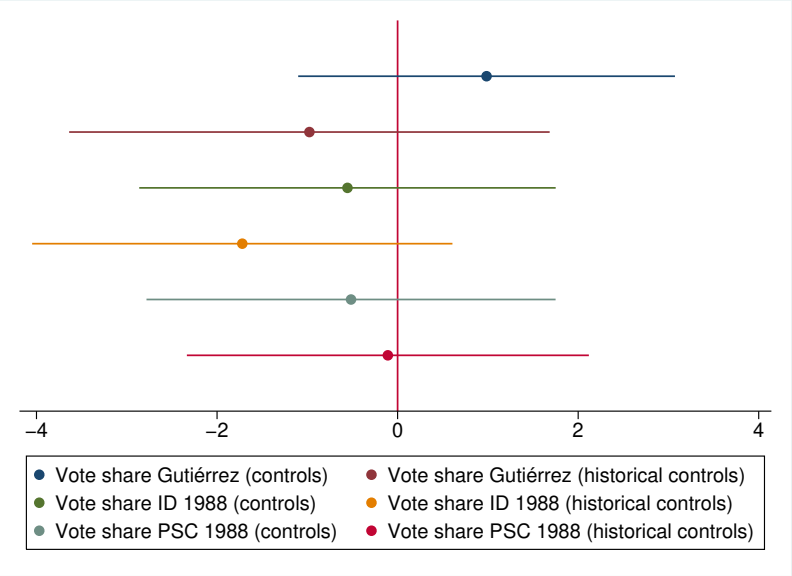
Pre-1984 controls: As discussed above, pre-1984 controls are used to comply with the conditional independence assumption of the instrumental variable. Larrea (1992) collected this data from the 1982 census and the 1974 agrarian census from the available municipalities at the time. Additionally, the variable public sector workers as share of economically active population in 1982, is calculated only for the urban centers within each municipality. When using these controls, the sample size is 120. If these variables are included in the model with the confounder "vote share in 2009 local elections," the sample size is 115.[15] The specific set of variables that I use are: The Gini index for land in 1974, percentage of holdings smaller than one hectare relative to total number of holdings in 1974, available land per rural worker in 1974 and public sector workers as a share of economically active population in 1982.

5.6. Does the instrument work through other's vote share?

The previous subsection dealt with one specific part of the exclusion restriction: Conditional on certain pre-characteristics, the instrument can be considered *as good as random*. There is another part that is indispensable in order to argue that the exclusion restrictions holds. Essentially, one should argue that the instrument only works *through* the endogenous variable, and discard other possible channels. Figure 10 shows the first-stage equation estimated using other politicians' / political parties' vote share. TThe last election before Correa was elected in 2006 was in 2002 and the winner was the ex-military Lucio Gutiérrez. I took the vote share for Gutiérrez in the first round and replaced it in Equation 3. Furthermore, I present the estimates of the model with controls and adding historical (pre-1984) covariates separately. In order to account for plausible short-term effects, I also include results from local elections in 1988 (This data comes from Darlić (1987)). I hand-typed the vote shares for the two most important parties of that time, Partido Social Cristiano (PSC) and Izquierda Democrática (ID). The instrument is low-correlated and/or does not have statistical significance for all of these elections.

[15] This happened because the intersection with the variable of the vote share in 2009 local elections, were, as explained in the main text, reduced observations since Correa's party did not present candidates in all of the available municipalities.

Figure 10: IV first stage using different vote shares



6. Estimates: Initial electoral support and public sector jobs after institutional reform

In this section I present the results estimated using the proposed models. All the estimations presented here have their counterparts in the Appendix using Conley instead of cluster standard errors at the municipality level. Furthermore, for the IV models I also include a version with bootstrap cluster standard errors in the Appendix.

6.1. Vote share in 2006 and bureaucracy in 2010

Table 1 provides the results from Models (1) and (2), including and excluding different sets of controls. Column 1 shows the case with no controls, column 2 adds geographical, electoral, and economic controls (described in the previous section); it can be seen that bias is corrected upward for both outcome variables. Column 3 includes only pre-1984 controls and column 4 includes all sets of covariates. Again the bias is corrected by making the coefficient larger in both cases. Moreover, in Figure B3 (Appendix) all these relations are summarized using bin scatters.

Table 1: OLS Regressions

Panel A	(1)	(2)	(3)	(4)
	Bureaucracy 2010	Bureaucracy 2010	Bureaucracy 2010	Bureaucracy 2010
Vote share 2006	0.058***	0.043**	0.101***	0.099***
	(0.016)	(0.018)	(0.022)	(0.021)
Panel B				
	GB 2001-2010	GB 2001-2010	GB 2001-2010	GB 2001-2010
Vote share 2006	0.009***	0.010***	0.015***	0.015***
	(0.003)	(0.003)	(0.004)	(0.004)
N (Panel A)	218	205	120	115
N (Panel B)	214	205	120	115
R^2 (Panel A)	0.04	0.33	0.62	0.64
R^2 (Panel B)	0.24	0.37	0.33	0.32
Controls	NO	YES	NO	YES
Pre-1984 Controls	NO	NO	YES	YES
Region FE	NO	NO	YES	YES
Mean outcome var (Panel A)	4.03	3.96	4.35	4.25
Mean outcome var (Panel B)	0.35	0.35	0.32	0.31

Cluster standard errors at the municipality level in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Note: Dependent variable in Panel A is the number of bureaucrats per 1,000 inhabitants. Dependent variable in Panel B is the log of the growth of bureaucracy in the period 2001-2010 (GB 2001-2010). Control variables are divided into two categories: Controls refers to contemporaneous and pre-1984 refers to historical ones. All controls are discussed in section 5.

Endogeneity in the OLS model arises because voting is not random and there might be potential omitted variables bias. One way to address the latter might be the inclusion of fixed effects at the provincial level (the next administrative aggregation). This type of within-estimator is not suitable in this case since, when using the pre-1984 controls, some provinces have few municipalities (between 1 and 3) generating a bias. Furthermore, since several municipalities were created between the 1980s and early 2000s, this bias may come from not considering increases in bureaucracy in municipalities founded during those years. In order to capture aggregate heterogeneity in the main models, I include regional fixed effects. Next, I present the estimations for the instrumental variables model.

6.2. Conflict, state presence and the 2006 vote share

Results for the first stage of the IV model are presented in Table 2. While the relevant endogeneous variable is the vote share in 2006, I have added a second column for a dummy that takes the value of 1 if Correa obtained the first place in a particular municipality during the

elections. Both types of measure are relevant and do not conflict with each other. Each column represent different specifications with different sets of control variables, including the case were all covariates are included.

Table 2: First stage

	(1) Vote share 2006	(2) Vote share 2006	(3) Winner06	(4) Winner06
Log distance to conflict 1984-1988	-5.050***	-4.550***	-0.193***	-0.192***
	(0.830)	(1.032)	(0.049)	(0.072)
N	205	115	205	115
R^2	0.48	0.46	0.35	0.40
Controls	YES	YES	YES	YES
Pre-1984 Controls	NO	YES	NO	YES
Region FE	YES	YES	YES	YES
Mean outcome var.	19.88	21.33	0.27	0.30

Cluster standard errors at the municipality level in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Note: Dependent variable in columns (1) and (2) is the vote share for Correa in 2006 on each municipality. Dependent variable in columns (3) and (4) is a dummy that takes the value 1 if Correa ended up in first place on each municipality. Control variables are divided into two categories: Controls refers to contemporaneous and pre-1984 refers to historical ones. All controls are discussed in section 5.

The main results of the paper are presented in Table 3, where panel A shows the reduced-form specification of the IV model, and panel B the estimates of the second stage of the 2SLS procedure. Each column represents a different outcome variable with a combination of controls. Columns (1) and (2) show as dependent variable bureaucracy in 2010 while column 3 and 4 do the same for growth in bureaucracy between 2001-2010. Panel A displays a negative sign in its parameter's estimates, hence providing empirical evidence that being closer to places where conflict happened increased the demand for state presence.

Panel B shows a positive relation between the vote share of Correa's first election in 2006 and bureaucracy in 2010 using the 2SLS, same for bureaucracy growth between 2001-2010. The parameter's estimates are larger relative to the OLS models. The bias is corrected in the same direction than when adding controls to the OLS models. Furthermore, the effective F-statistic of the first stage, proposed by Olea and Pflueger (2013), is above the threshold suggested[16], hence suggesting that the instrument is relevant and not weak. Additionally, I have included the P-value of the Anderson-Rubin statistic which gives more confidence on the validity of the instrument in terms of inference.

[16] The threshold is an F-value of 10, similar to Stock et al. (2002).

Table 3: Instrumental variable estimation

	(1) Bureaucracy 2010	(2) Bureaucracy 2010	(3) GB 2001-2010	(4) GB 2001-2010
Panel A: Reduced form				
Log distance to conflict				
1984-1988	-0.568**	-0.530*	-0.072**	-0.083**
	(0.230)	(0.269)	(0.032)	(0.040)
Panel B: 2SLS estimation				
Vote share 2006	0.113**	0.116**	0.015**	0.019**
	(0.044)	(0.054)	(0.006)	(0.008)
N	205	115	205	115
R^2 (Panel A)	0.48	0.58	0.34	0.22
R^2 (Panel B)	0.19	0.29	0.39	0.28
Effective F-stat	37.00	19.42	33.39	16.77
Anderson-Rubin p-value	0.02	0.06	0.03	0.03
Controls	YES	YES	YES	YES
Pre-1984 Controls	NO	YES	NO	YES
Region FE	YES	YES	YES	YES
Mean outcome var.	3.96	4.25	0.35	0.31

Cluster standard errors at the municipality level in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Note: The dependent variable in columns (1) and (2) is the number of bureaucrats per 1,000 inhabitants. In columns (3) and (4) the dependent variable is the log of the growth of bureaucracy in the period 2001-2010. Control variables are divided into two categories: Controls refers to contemporaneous and pre-1984 refers to historical ones. All controls are discussed in section 5.

The presence of heterogeneous effects makes IV estimates to recover average treatment effects (LATE), i.e., the effect of belonging to a municipality where Correa had a high voting share in 2006 on compliers. In other words, the effect is only being captured in those municipalities highly exposed to conflict in the 1980's, hence more prone to demand state presence. Additionally, the control that I use for the Amazon region suggest that this LATE is concentrated on compliers in the Coast and Highland region. This interpretation is logical since both regions are the most important ones in terms of voters and political targets (Moncagatta and Espinosa, 2019). Adding everything, results suggest that in the most important regions of the country, a populist politician, who is committed to increasing the size of the public sector, tactically increased state presence via public sector jobs during a period of radical institutional change.

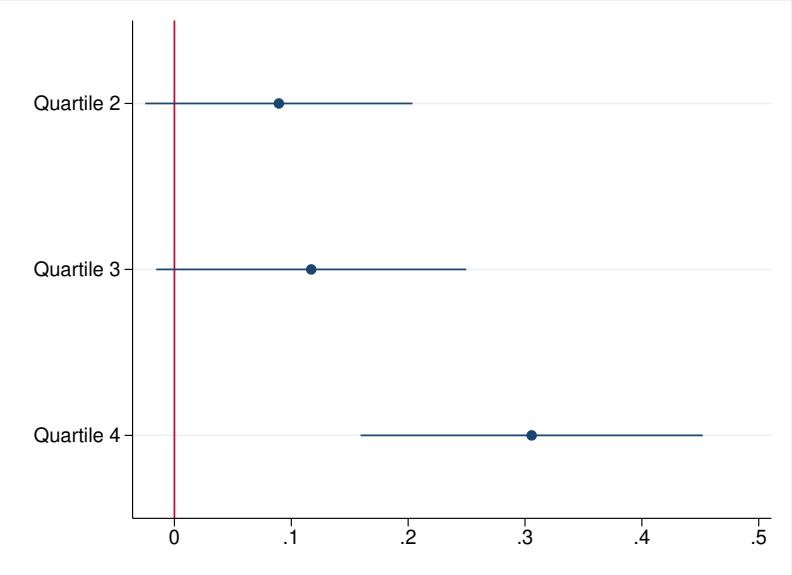
A conservative interpretation of the most important result reads as follows: On average, a 1-percentage point increase in Correa's vote share increased bureaucracy growth, in the decade 2001-2010, by almost 2% between municipalities among the Coast and Highland regions. These results are economically significant since the expansion of public sector jobs may had produced distortions in local labor markets. The lack of decentralization provides extra weight to the

political decision made by the central government. Mejia Acosta and Meneses (2019) documents how the executive had a major role in sub-national elections through inter-government spending decisions affecting electoral and economic outcomes. Furthermore, Conaghan (2011) and de la Torre (2013) emphasize the importance of Correa's decisions for the subsequent massive increase of the public sector in Ecuador, something that did not happened before his regime. The demand for state presence was channeled through politics and granted via tactical redistribution.

6.3. Which municipalities drive the results?

One important consideration within distributive politics is to discern patterns between swing-voter and patronage dynamics (Golden and Min, 2013). I divide my main explanatory variable into four quartiles, and run the OLS specification on this new categorical variable. Figure 11 shows the results of the coefficient of interest on each one of the quartiles (relative to quartile 1). Quartile 4, i.e., the group that holds the highest 25% of the vote shares for Correa in 2006, have a significant and large effect relative to the others. In other words, the largest part of the effect comes from the municipalities that voted the most for Correa, hence corroborating the patronage version within the distributive politics model.

Figure 11: Quartiles of vote share in 2006 in the OLS model



6.4. Additional evidence on the political mechanism

Overall results suggest a positive relation between initial vote share for Correa and subsequent bureaucratic jobs during years of intense institutional change. However, the interpretation goes deeper in the sense of identifying the fact that people may have demanded more state presence due to episodes of conflict. The increment in state presence, in the form of more public sector workers, happened through a political channel since it is the one that decides on bureaucracy allocation. Following Alesina et al. (2000, 2001), increasing the number of public sector workers can be thought of as a redistribute policy that politicians opt for in order not to deal with tax hikes. In this case, the interest of the politician is to use this to increase their popular support and achieve a dismantling of checks and balances. Other ways of redistribution may have been

possible, such as strategic allocation of resources in the municipalities which give initial support to the populist regime.

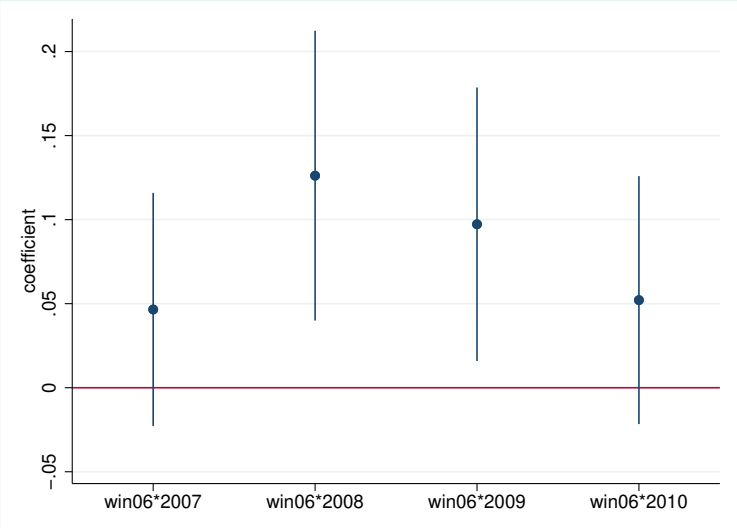
The nature of some topics discussed in this paper may bring the curiosity of analyzing what happened during this period with municipal local governments. One important feature of the institutional change promoted by Correa was that during the initial part of his government, his party did not have any representatives in any mayoralty in the country. Because of that, it became even more important to guarantee the support of the regime's initial voters. The allocation of municipal transfer may be used by the central government to induce some kind of approval and political support: Mejia Acosta and Meneses (2019) studied this using data on transfers from the central government to local ones. I use their data in order to test whether the central government allocated funds tactically during the period of study.

To test this hypothesis, I estimate the following fixed effects model,

$$log(CapitalTransfers)_{i,t} = \eta_i + \lambda_t + \beta_{i,t} win06_i \times year_t + \epsilon_{i,t} \tag{5}$$

where the dependent variable refers to transfers made by the central government to local ones. I use the transfers that are classified as "capital," i.e., money that is used for investment such as infrastructure. According to Mejia Acosta and Meneses (2019), these type of transfers are the ones in which the central government is more likely to be arbitrary. Sub-index i represents municipalities and t year, the interaction term gives the coefficient of interest, standard errors are clustered at the municipal level. Win06 is a dummy that equals 1 if Correa ended up in first place in municipality i in the 2006 presidential election and *year* is a dummy for each year from 2007 to 2010. The results of this estimation are presented graphically in Figure 12. It can be seen that the time coefficients belonging to the interaction term become significant in the years where the new constitution was being promoted, confirmed, and approved via popular referendum.

Figure 12: Capital transfer to municipalities during institutional change



Note: Figure shows the estimates from Model (5). *Win06* is a dummy variable that takes the value of 1 when Correa ended in first place in a given municipality. Each dot represent the interaction effect between *win06* and a year dummy.

This additional caveat provides support for the tactical redistribution used in Ecuador in the

period 2006-2010 to the locations where initial support was given to the populist regime. This strategy was apparently highly used in a period where there was the necessity of guaranteeing popular support in order to perform a radical institutional change. These have been common objectives of several populist governments that tried to established autocratic systems (Guriev and Treisman, 2019; Guriev and Papaioannou, 2020; Funke et al., 2021).

6.5. Results using bureaucracy administrative data

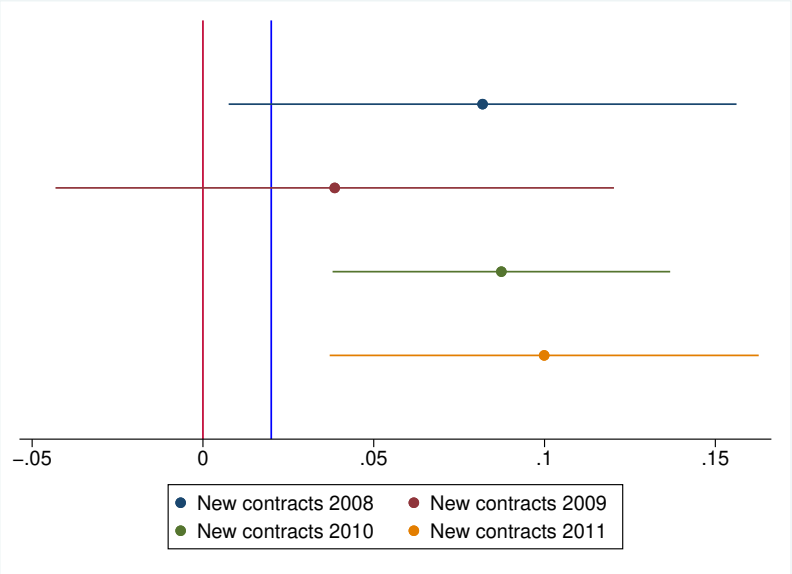
Are the results presented so far lower bound? To answer this question one should contrast the results with an alternative data set. Brugues et al. (2022) scrapped publicly available information on bureaucrats from the Ecuadorean comptroller in order to study the political connections in the allocation of procurement contracts. From 2008 it became mandatory for *all* public sector workers to present a sworn declaration and the comptroller made publicly available information on the bureaucrats' national ID, name, specific government agency, starting year, and position held (Brugues et al., 2022). Furthermore, it is important to mention that this administrative data only captures *new* contracts since the termination year is not part of what the comptroller makes available.

I filter the information by agency's name in order to keep the ones that are dependent of the presidential office/executive power[17], and focus exclusively on bureaucrats on those agencies. The major limitation of using this data on this paper is that the only geographic variation available is at the provincial level, which is one level of aggregation above the municipality one. Ecuador has 24 provinces; since I am not considering the insular region (Galápagos islands), I am left with 23 observations for each year. Another limitation comes from the fact that it took time for bureaucrats to comply with the mandate to present their declaration, as well as the comptroller to register their information. Because of this, the sample stabilizes around 2009-2010.[18]

Figure 13 summarizes the results of four regressions estimated for the period 2008-2011. Each regression holds the same structure as Equation 1 and uses the same set of controls at the provincial level.[19] Furthermore, I use the log of new contracts as the dependent variable. The red line indicates a predicted effect of zero between Correa's vote share in 2006 and the amount of bureaucrats' new contracts. The blue line represents the estimate calculated in this paper of 0.019 logarithm points (table 3) between Correa's vote share in 2006 and bureaucracy growth. As stated above, this data stabilizes with certainty in 2010, which is why I also add the year 2011 for comparison. The point-estimate for each regression are systematically above the blue line but with different degrees of precision (as expected due to the small number of observations). In the years where the sample stabilizes (2010 and 2011), point-estimates are statistically different from zero and higher than the effect estimated in the IV model. Taking into consideration its limitations, these results suggest that the effect found in the results section may be lower-bound estimates due to the type of data source used for measuring bureaucrats (census).

[17] Essentially ministries and various so-called secretaries that have *defacto* rank of ministries.
[18] In 2008 there are only 20 provinces represented in this data set.
[19] I don't use the pre-1984 controls since they represent only a smaller fraction of municipalities which may not be representative at the provincial level.

Figure 13: Results using Brugues et al. (2022)'s data



7. Robustness checks

7.1. Dropping the Major cities and the Amazon region

The hosts for bureaucrats are normally large cities. In Table 4 I drop the two major cities of Ecuador: Quito and Guayaquil, to show that the effect is not driven by any outlier effect coming from those locations. Conclusions does not change.

Table 4: Instrumental variable estimation-Excluding Major Cities

	(1) Bureaucracy 2010	(2) GB 2001-2010
Panel A: Reduced form		
Log distance to conflict		
1984-1988	-0.529**	-0.085**
	(0.265)	(0.041)
Panel B: 2SLS estimation		
Vote share 2006	0.118**	0.020**
	(0.055)	(0.008)
N	113	113
R^2 (Panel A)	0.58	0.22
R^2 (Panel B)	0.27	0.30
Effective F-stat	18.23	16.14
Anderson-Rubin P-value	0.05	0.03
Controls	YES	YES
Pre-1984 controls	YES	YES
Region FE	YES	YES
Mean outcome var.	4.23	0.31

Cluster standard errors at the municipal level in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Note: Dependent variable in column (1) is the number of bureaucrats per 1,000 inhabitants. Dependent variable in column (2) is the log of the growth of bureaucracy in the period 2001-2010. Control variables are divided into two categories: Controls refers to contemporaneous and pre-1984 refers to historical ones. All controls are discussed in section 5.

The next robustness check I provide is investigating what happens if I completely drop the Amazon region from my sample. The Amazon region may be particular since it began to be populated in the 1980s and 1990s following indigenous protests, hence may be consider as a "new" zone for the Ecuadorean history. The results of doing this are presented in Table 5 along with the specification in which I add both contemporaneous and pre-1984 controls which I consider to be the most relevant since it includes historical covariates and guarantees the conditional independence assumption for the IV model. The exclusion of the Amazon region does not change results in this specification. In terms of inference, the Olea and Pflueger (2013)'s F-statistic remains above the suggested threshold. On the other hand, the Anderson-Rubin statistic is significant only for the case in which the outcome variable is the growth rate of the number of bureaucrats in the period 2001-2010. The non-significance for the case when the outcome is the number of bureaucrats in 2010 (which is not extreme - P-value=0.12-), may come from the small sample size due to the pre-1984 controls. In the case when the pre-1984 controls are not included (but the other "contemporaneous" controls are) the Anderson-Rubin P-value is 0.08 with a point-estimate of 0.075 and a sample size of 170 municipalities (instead of 97).

Table 5: Instrumental variable estimation-Excluding the Amazon region

	(1) Bureaucracy 2010	(2) GB 2001-2010
Panel A: Reduced form		
Log distance to conflict		
1984-1988	-0.396*	-0.095**
	(0.237)	(0.047)
Panel B: 2SLS estimation		
Vote share 2006	0.085*	0.021**
	(0.047)	(0.009)
N	97	97
R^2 (Panel A)	0.37	0.20
R^2 (Panel B)	0.38	0.31
Effective F-stat	19.82	18.68
Anderson-Rubin P-value	0.12	0.04
Controls	YES	YES
Pre-1984 controls	YES	YES
Region FE	YES	YES
Mean outcome var.	3.53	0.33

Cluster standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Note: Dependent variable in column (1) is the number of bureaucrats per 1,000 inhabitants. Dependent variable in column (2) is the log of the growth of bureaucracy in the period 2001-2010. Control variables are divided into two categories: Controls refers to contemporaneous and pre-1984 refers to historical ones. All controls are discussed in section 5.

7.2. Changing outcome

Table 6 shows the results from the IV model but changing the outcome to bureaucracy in 2001. Result are not statistically significant, with a p-value above 0.20 (Anderson-Rubin P-value of 0.30). This suggests that the effect appears by introducing bureaucracy in 2010 and is not driven by some sort of chance, "natural" or strong correlation between vote share in 2006 and bureaucracy *per se*.

Table 6: Different outcome

	(1) Bureaucracy 2001
Vote share 2006	0.058 (0.054)
N	115
R^2	0.28
Effective F-stat	19.42
Anderson-Rubin P-value	0.30
Controls	YES
Pre-1984 controls	YES
Region FE	YES
Mean outcome var.	3.19

Cluster standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Note: Dependent variable is the number of bureaucrats in 2001 per 1,000 inhabitants. Control variables are divided into two categories: Controls refers to contemporaneous and pre-1984 refers to historical ones. All controls are discussed in section 5.

7.3. Placebo

The placebo test that I propose is to replace the instrumental variable with something similar. In this paper I have emphasized on the exposure to conflict as the condition to be considered "treated" by the IV. However, as emphasized throughout the article, the effect came through exposure and not necessarily by the extremism of the number of victims. In fact, relative to other Latin American countries, Ecuador did not suffer the level of repression that for example Chile did under Pinochet (Bautista et al., 2021). Instead, the real effect of the type of conflict experienced in Ecuador was that of misuse of state force, negligence and lack of confidence to receive protection. Furthermore, the fact that the commission was established during Correa's regime may have shown some sort of bias in number of victims. Table 7 shows that there is no relation between the number of victims per 10,000 inhabitants (a measure of intensity) and the vote share for Correa in 2006. This represents the uniqueness of the instrument in terms of capturing exposure to conflict instead of the intensity of conflict.

Table 7: Placebo first stage

	(1) Vote share 2006	(2) Vote share 2006	(3) Winner06	(4) Winner06
VictimsPC	0.073	0.073	-0.016	-0.016
	(0.322)	(0.294)	(0.013)	(0.014)
N	205	115	205	115
R^2	0.38	0.35	0.30	0.35
Controls	YES	YES	YES	YES
Pre-1984 Controls	NO	YES	NO	YES
Region FE	YES	YES	YES	YES
Mean outcome var.	19.88	21.33	0.27	0.30

Cluster standard errors at the municipal level in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Note: Dependent variable in columns (1) and (2) is the vote share for Correa in 2006 on each municipality. Dependent variable in columns (3) and (4) is a dummy that takes the value 1 if Correa ended up in first place in each municipality. VictimsPC refers to number of victims per 10,000 inhabitants. Control variables are divided into two categories: Controls refers to contemporaneous and pre-1984 refers to historical ones. All controls are discussed in section 5.

8. Conclusions

In this article, I study the relation between initial vote shares and geographical bureaucracy allocation. I use the setting of a populist government, during its initial years in office, in which popular support was needed to approve radical institutional change in favor of dismantling checks and balances on the executive. The findings indicate a positive relation between initial vote share of former Ecuadorean President, Rafael Correa, in 2006 and bureaucracy in 2010 and bureaucracy growth.

As identification strategy, I use the exposure to intrastate conflict during the political spell of a government controlled by a traditional political party twenty years earlier. The distance to those locations is highly correlated with Correa's vote share in 2006. Furthermore, these locations were in the need of more (and different) state presence which was Correa's campaign platform. I argue that demand for state presence was channeled through politics and granted via tactical redistribution using public sector jobs.

This article contributes to the study of within-country repercussion of populist governments on its initial years. Additionally, it provides evidence for a particular electoral strategy used in order to consolidate a populist regime in a developing country. Further research can be done on analyzing the general equilibrium repercussions of providing, tactically, public sector jobs on local labor markets. An important question that remained unanswered is whether an increase in the number of bureaucrats may have a positive effect on state capacity, hence a positive net effect on welfare. There is an intriguing unexplored space in which populist policies may be unexpectedly or unintentionally beneficial.

References

Acemoglu, D., Egorov, G., and Sonin, K. (2013a). A political theory of populism. *Quarterly Journal of Economics*, 128(2):771–805.

Acemoglu, D., Robinson, J. A., and Torvik, R. (2013b). Why do voters dismantle checks and balances? *Review of Economic Studies*, 80(3):845–875.

Alesina, A., Baqir, R., and Easterly, W. (2000). Redistributive Public Employment. *Journal of Urban Economics*, 48:219–241.

Alesina, A., Danninger, S., and Rostagno, M. (2001). Redistribution through Public Employment : The Case of Italy. *IMF Staff Papers*, 48(3):447–473.

Ayala Mora, E. (2008). *Breve historia del Ecuador*. Corporacion editora nacional, Quito, third edition.

Bautista, M. A., González, F., Martínez, L. R., Muñoz, P., and Prem, M. (2021). The Geography of Repression and Opposition to Autocracy. *American Journal of Political Science*, 00(0):1–18.

Brugues, F., Brugues, J., and Giambra, S. (2022). Political Connections and Misallocation of Procurement Contracts: Evidence from Ecuador.

Colonnelli, E., Prem, M., and Teso, E. (2020). Patronage and selection in public sector organizations. *American Economic Review*, 110(10):3071–3099.

Comisión de la verdad (2010). Informe de la comision de la verdad Ecuador 2010. Technical report, Quito.

Conaghan, C. M. (2011). Ecuador: Rafael Correa and the citizens' revolution. In *The Resurgence of the Latin American Left*, pages 260–282.

Conley, T. G. (1999). GMM estimation with cross sectional dependence. *Journal of Econometrics*, 92(1):1–45.

Darlić, V. (1987). *Estadísticas electorales del Ecuador 1978-1989*. ILDIS, Quito, 2nd edition edition.

de la Torre, C. (2013). Latin America's Authoritarian Drift: Technocratic Populism in Ecuador. *Journal of Democracy*, 24(3):33–46.

Dixit, A. and Londregan, J. (1996). The Determinants of Success of Special Interests in Redistributive Politics. *Journal of Politics*, 58(4):1132–1155.

Fergusson, L., Larreguy Arbesu, H., and Riaño, J. (2020). Political Competition and State Capacity Evidence from a Land Allocation Program in Mexico.

Fergusson, L., Robinson, J. A., Torvik, R., and Vargas, J. F. (2016). The Need for Enemies. *Economic Journal*, 126(593):1018–1054.

Freidenberg, F. and Pachano, S. (2016). *El sistema político ecuatoriano*. FLACSO, Quito.

Funke, M., Schularick, M., and Trebesch, C. (2021). Populist Leaders and the Economy.

Golden, M. and Min, B. (2013). Distributive politics around the world. *Annual Review of Political Science*, 16:73–99.

Guriev, S. and Papaioannou, E. (2020). The Political Economy of Populism. *Journal of Economic Literature (Forthcoming)*.

Guriev, S. and Treisman, D. (2019). Informational autocrats. *Journal of Economic Perspectives*, 33(4):100–127.

Hurtado, O. (2010). *Portrait of a nation : Culture and progress in ecuador*. Madison Books, 2010.

Keefer, P. and Vlaicu, R. (2008). Democracy, credibility, and clientelism. *Journal of Law, Economics, and Organization*, 24(2):371–406.

Larrea, C. (1992). *The Mirage of Development: Oil, Employment and Poverty in Ecuador (1972-1990)*. Ph.d. dissertation, York University.

Latinobarometro, C. (2021). Latinobarometro.

Martínez, L. R. (2017). Transnational insurgents: Evidence from Colombia's FARC at the border with Chávez's Venezuela. *Journal of Development Economics*, 126(January):138–153.

Mejia Acosta, A. and Meneses, K. (2019). Who benefits? Intergovernmental transfers, subnational politics and local spending in Ecuador. *Regional and Federal Studies*, 29(2):219–247.

Moncagatta, P. and Espinosa, C. (2019). No country for the right wing? Actors, trajectory, supply and demand for the right in Ecuador. *Colombia Internacional*, (99):121–150.

Morelli, M., Nicolò, A., and Roberti, P. (2021). A Commitment Theory of Populism. *Ssrn*, pages 1–49.

Olea, J. L. M. and Pflueger, C. (2013). A Robust Test for Weak Instruments. *Journal of Business and Economic Statistics*, 31(3):358–369.

Persson, T. and Tabellini, G. (2000). *Political Economics. Explaining Economic Policy*. MIT Press, Cambridge, first edition.

Robinson, J. A. and Torvik, R. (2005). White elephants. *Journal of Public Economics*, 89(2-3):197–210.

Robinson, J. A. and Verdier, T. (2013). The political economy of clientelism. *The scandinavian journal of economics*, 115(2):260–291.

Rozenas, A., Schutte, S., and Zhukov, Y. (2017). The political legacy of violence: The long-term impact of Stalin's repression in Ukraine. *Journal of Politics*, 79(4):1147–1161.

Stock, J. H., Wright, J. H., and Yogo, M. (2002). A survey of weak instruments and weak identification in generalized method of moments. *Journal of Business and Economic Statistics*, 20(4):518–529.

Appendix

A. Data sources and variables creation

A.1. Merging process between census and electoral data

As mentioned in the main text the identifiers between the census and the electoral data are not compatible, hence a manual process was necessary in order to compile information from both data sets into a single one.

INEC makes publicly available the coding for each administrative unit in Ecuador. They follow a sequence between province, municipality and parish. It is important to notice that several municipalities changed their codes since from 2006 to 2010 since two new provinces were included: Santa Elena and Santo Domingo.

Each municipality used in the paper was matched with the most updated identifier (2010) using its name. Several municipalities are named alike or even the same so there was an additional cross check with the relevant province. In this paper I did not take into consideration municipalities from the insular region (Galápagos islands) since its population is the smallest in the country and the distance from the continental territory is large.

Example:

Ecuador has 24 provinces and 221 municipalities. In the case of province "Azuay" its census code, according to INEC, is "01". A municipality within Azuay, Cuenca say, have the code "50". When merging electoral and census data I construct the indicator in the form "province + municipality". From the example above Cuenca will have the following code: "0150".

This allows for municipalities that have the same name but are in different provinces. There is no such case in which two municipalities have the same name and are within the same province.

B. Additional tables and figures

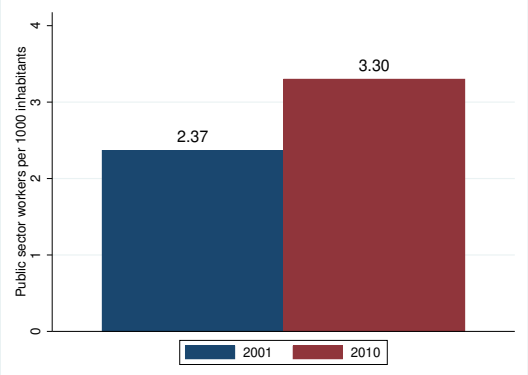
In this section I include: summary statistics, regression tables using Conley and bootstrap standard errors and additional figures mentioned in the main text.

Table B1: Summary statistics

	mean	sd	min	max	count
Bureaucracy 2010	4.03	2.49	0.63	15.78	218
Bureaucracy 2001	2.96	2.13	0.63	13.35	214
Growth Bureaucracy 2001-2010	0.36	0.37	-0.43	1.90	214
Vote share 2006	19.76	8.87	5.09	49.75	218
Vote share AP mayoralty 2009	28.97	14.24	3.57	85.33	209
Population growth 2001-2010	0.18	0.13	-0.66	0.56	214
Correa 1st place 2006(dummy)	0.26	0.44	0.00	1.00	218
Conflict (dummy)	0.06	0.23	0.00	1.00	218
Log distance Quito	5.35	0.68	0.00	6.28	218
Log distance conflict	4.07	0.64	2.09	5.39	218
Log distance Guayaquil	5.21	0.55	2.88	6.29	218
log population 2001	10.02	1.15	7.08	14.53	214
Bureaucracy 1982	26.67	12.53	6.89	71.52	120
Land Gini 1974	0.71	0.15	0.17	0.93	123
Small land owner 1974	20.45	17.98	0.00	95.06	123
Land per rural worker 1974	13.46	14.76	0.02	95.95	123
Land affected land reform	9.39	10.00	0.00	52.32	123
Growth rural pop 74-82	1.08	2.47	-3.93	15.36	121
log capital transfer 2006	15.02	0.79	12.85	19.07	214
log capital transfer 2007	15.26	0.77	13.85	19.17	216
log capital transfer 2008	15.39	0.76	14.00	19.18	217
log capital transfer 2009	15.21	0.78	13.81	19.31	217
log capital transfer 2010	15.37	0.81	13.71	19.35	218

Figure B1: Allocation of bureaucracy (per 1,000 inhabitants)-Excluding the Amazon region

(a) Increase in bureaucracy



(b) Increase in bureaucracy by municipalities where Correa won (1)/did not win (0)

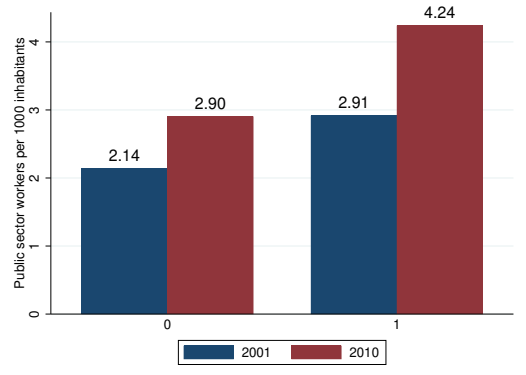


Figure B2: Characteristics pre 1984 and conflict locations-Dummy-

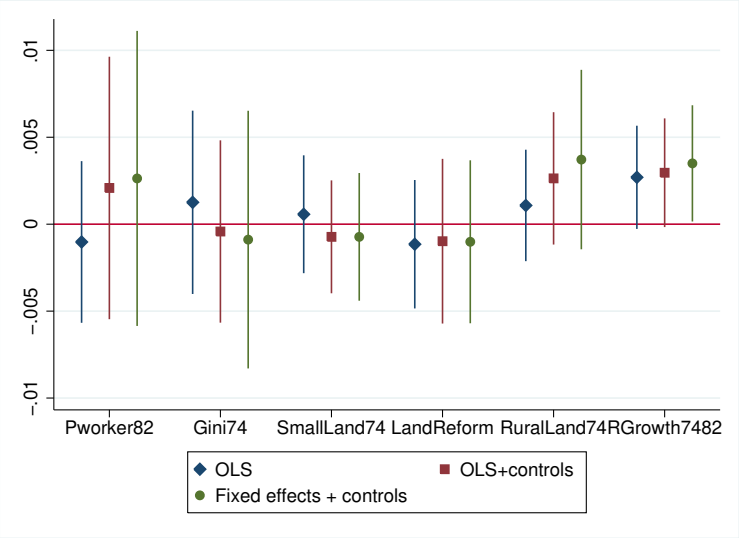
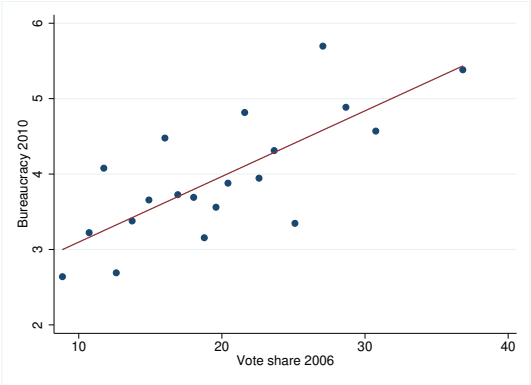


Table B2: Production and population ranking HRV municipalities

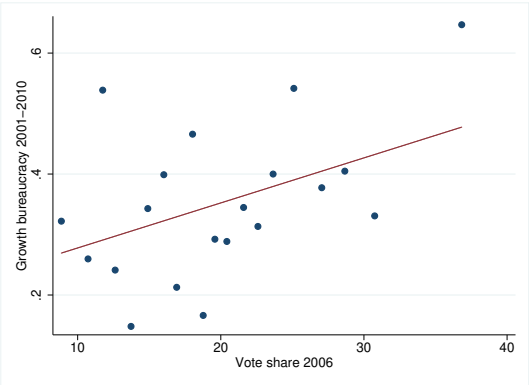
Production (2010) ranking	Population (2010) ranking	Municipality
2	1	Guayaquil
1	2	Quito
3	3	Cuenca
19	12	Esmeraldas
11	15	Latacunga
20	20	Quininde
33	25	Lago Agrio
26	27	Tulcan
16	29	Ruminahui
37	32	Pasaje
29	40	Naranjal
151	145	Celica

Figure B3: Binscatter vote share 2006 and bureaucracy 2010

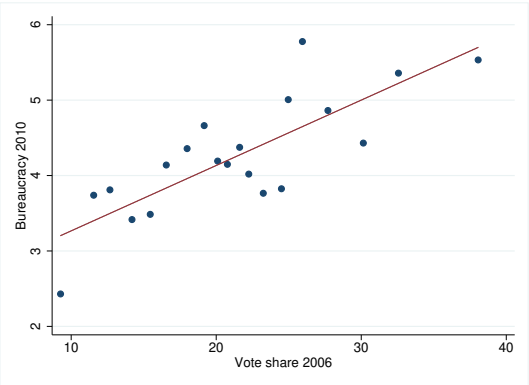
(a) Bureaucracy 2010-Controls



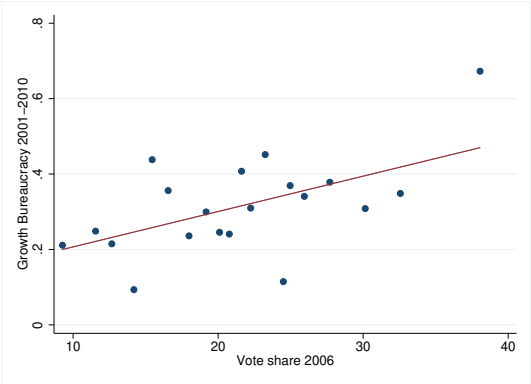
(b) Growth bureaucracy 2001-2010-Controls



(c) Bureaucracy 2010-All controls



(d) Growth bureaucracy 2001-2010-All controls



Note: The figures provide graphical representation of estimations presented in table B3.

Table B3: OLS Regressions Conley SE

Panel A	(1)	(2)	(3)	(4)
	Bureaucracy 2010	Bureaucracy 2010	Bureaucracy 2010	Bureaucracy 2010
Vote share 2006	0.058***	0.042***	0.101***	0.098***
	(0.020)	(0.017)	(0.020)	(0.018)
Panel B				
	GB 2001-2010	GB 2001-2010	GB 2001-2010	GB 2001-2010
Vote share 2006	0.008***	0.010***	0.015***	0.015***
	(0.003)	(0.003)	(0.004)	(0.004)
N	218	205	120	115
R^2 (Panel A)	0.04	0.52	0.62	0.63
R^2 (Panel B)	0.24	0.37	0.32	0.30
Controls	NO	YES	NO	YES
Pre-1984 Controls	NO	NO	YES	YES
Region FE	NO	NO	YES	YES
Mean outcome var (Panel A)	4.03	3.96	4.35	4.25
Mean outcome var (Panel B)	0.35	0.35	0.32	0.31

Cluster standard errors at the municipality level in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Note: Dependent variable in Panel A is the number of bureaucrats per 1,000 inhabitants. Dependent variable in Panel B is the log of the growth of bureaucracy in the period 2001-2010 (GB 2001-2010). Control variables are divided into two categories: Controls refers to contemporaneous and pre-1984 refers to historical ones. All controls are discussed in section 5.Conley standard errors are defined with a distance of 50km.

Table B4: First stage Conley SE

	(1) Vote share 2006	(2) Vote share 2006	(3) Winner06	(4) Winner06
Log distance conflict 1984-1988	-5.050***	-4.550***	-0.193***	-0.192***
	(0.988)	(1.076)	(0.047)	(0.068)
N	205	115	205	115
R^2	0.45	0.44	0.35	0.40
Controls	YES	YES	YES	YES
Pre-1984 Controls	NO	YES	NO	YES
Region FE	YES	YES	YES	YES
Mean outcome var.	19.88	21.33	0.27	0.30

Conley standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Note: Dependent variable in columns (1) and (2) is the vote share for Correa in 2006 in each municipality. Dependent variable in columns (3) and (4) is a dummy that takes the value 1 if Correa ended up in first place in each municipality. Control variables are divided in two categories: Controls refers to contemporaneous and pre-1984 refers to historical ones. All controls are discussed in section 5. Conley standard errors are defined within a distance of 50km.

Table B5: IV estimation Conley standard errors

	(1) Bureaucracy 2010	(2) Bureaucracy 2010	(3) GB 2001-2010	(4) GB 2001-2010
Panel A: Reduced form				
Log distance to conflict				
1984-1988	-0.568*	-0.530**	-0.072*	-0.083*
	(0.230)	(0.260)	(0.037)	(0.043)
Panel B: 2SLS estimation				
Vote share 2006	0.113**	0.116**	0.015**	0.019**
	(0.045)	(0.052)	(0.007)	(0.008)
N	205	115	205	115
R^2 (Panel A)	0.48	0.58	0.34	0.22
R^2 (Panel B)	0.19	0.29	0.39	0.28
Effective F stat	32.40	18.45	29.16	15.98
Controls	YES	YES	YES	YES
Pre-1984 Controls	NO	YES	NO	YES
Region FE	YES	YES	YES	YES
Mean outcome var.	3.96	4.25	0.35	0.31

Conley standard errors in parenthesis

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Note: The dependent variable in columns (1) and (2) is the number of bureaucrats per 1,000 inhabitants. In columns (3) and (4) the dependent variable is the log of the growth of bureaucracy in the period 2001-2010. Control variables are divided into two categories: Controls refers to contemporaneous and pre-1984 refers to historical ones. All controls are discussed in section 5.

Table B6: Instrumental variable estimation Bootstrap

	(1) Bureaucracy 2010	(2) Bureaucracy 2010	(3) GB 2001-2010	(4) GB 2001-2010
Panel A: Reduced form				
Log distance conflict				
1984-1988	-0.568**	-0.530*	-0.072**	-0.083*
	(0.234)	(0.285)	(0.033)	(0.044)
Panel B: 2SLS estimation				
Vote share 2006	0.113**	0.116*	0.015**	0.019**
	(0.046)	(0.065)	(0.007)	(0.009)
N	205	115	205	115
R^2 (Panel A)	0.48	0.58	0.34	0.22
R^2 (Panel B)	0.53	0.63	0.40	0.31
Effective F stat	37.00	19.42	33.39	16.77
Controls	YES	YES	YES	YES
Pre-1984 Controls	NO	YES	NO	YES
Region FE	YES	YES	YES	YES
Mean outcome var.	3.96	4.25	0.35	0.31

Bootstrap (1,000 reps) standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Note: The dependent variable in columns (1) and (2) is the number of bureaucrats per 1,000 inhabitants. In columns (3) and (4) the dependent variable is the log of the growth of bureaucracy in the period 2001-2010. Control variables are divided into two categories: Controls refers to contemporaneous and pre-1984 refers to historical ones. All controls are discussed in section 5.