## Populism and distributive politics

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#### **Abstract**

Populists may use past repression events to consolidate their core voters. Regions exposed to these events can gain more public sector jobs by voting for populists. I test this idea using the first election of former Ecuadorian President Rafael Correa in 2006. This election is relevant as Correa was an unknown figure in politics who won with a new political party, without congressmen or local candidates. Between 2006 and 2010, the regime implemented aggressive changes in political institutions and rapid fiscal expansion. By exploiting differences in distances between repression episodes from 1984-1988 and local schools, and using this as an instrument for Correa's 2006 vote share, I find that the geographic allocation of bureaucrats in 2010 is explained by Correa's 2006 vote share. This result is relevant given the massive political changes occurring in the country during this period. Exposure at a young age to repression episodes appears to consolidate the populist vote share. I demonstrate that the instrument does not work through the previous election winner's vote share. Additionally, I document that central government transfers increased to municipalities with the largest vote share for Correa in 2006, indicating that this was indeed the distributive politics strategy followed during this period.

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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. Furthermore, repression episodes from the past can help shape political behaviors for the future (Henn and Huff, 2023). However, most of the literature concentrates on episodes of "strong" political repression, while populists might be able to amplify "less intense" cases of political repression to use them in their anti-elite discourse<sup>1</sup>.

Two of the main contributions to understanding populism in Latin America, Dornbusch and Edwards (1991) and Sachs (1989), provide a panoramic view of the populist cycle. Essentially, populists come to power amid a pessimistic societal sentiment towards the elite. They implement unorthodox macroeconomic policies, such as unfunded fiscal expansions. While these expansions may initially signal prosperity in the short term, they lead to economic deterioration, ultimately resulting in inflation eroding the supposed prosperity. Eventually, the populist regime is replaced, and a stabilization program is implemented to restore economic order, once again fostering a pessimistic environment (Edwards, 2019; Dornbusch and Edwards, 1991). While this theory have been tested on the aggregate level by descriptive, narrative (Edwards, 2019, 2010), and empirical (Funke et al., 2021) ways, there is scarce emphasis on analyzing the local repercussions of these large expansionary policies during populists spells.

Populist regimes are often associated with negative economic performance (Funke et al., 2021). Specifically, evidence suggests that left-wing populist regimes in Latin America generally have adverse effects on economic growth (Absher et al., 2020). However, the impact is not uniform across all cases. For instance, Absher et al. (2020) found that while Bolivia and Nicaragua experienced negative effects on real per capita GDP during their populist periods, Ecuador's GDP remained comparable to its synthetic counterfactual (the method used by the authors in the study)<sup>2</sup>. Country-specific studies can sometimes contradict broader, aggregate findings. For example, Brzezinski and Sałach-Dróżdż (2024) found that Poland's populist period, analyzed using synthetic control methods, actually boosted GDP per capita. These variations among populist

Guriev and Treisman (2019) discusses how "informational autocrats" use communication strategies to convince voters

<sup>&</sup>lt;sup>2</sup> Furthermore, the authors found that Ecuador under its left-wing populist regime slightly underperformed compared to the synthetic counterfactual in terms of infant mortality.

regimes highlight the importance of studying each regime in the context of its unique political and economic history.

In this research I look to expand our knowledge of the populist cycle and in understanding its consequences at the local level. In this paper, I estimate an empirical model during the peak of a populist spell in a developing economy. I identify the model by using historical political violence and intrastate repression 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. This regime is commonly used as an example of populism and a case in which a politician successfully reduced checks and balances with the help of popular support, see for instance: Funke et al. (2021); Guriev and Papaioannou (2020); Acemoglu et al. (2013a,b); de la Torre (2013), among others. During these years radical institutional changes were proposed, popularly supported (via direct referendums) 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. As expected, this expansion came with more bureaucracy, which was fiscally unstable in the long-run (Edwards, 2019). The reason for using bureaucracy comes from the view that it is a credible way of redistribution within the politicalcommitment 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.

I mainly use data from the country's national electoral body, population censuses, and publicly available reports. The main result is that there is a positive relationship between Correa's vote share in 2006 and the growth rate of the number of bureaucrats between 2001 (the last comparable census) and 2010 (just after the referendums that approved the constitutional change). These results are economically significant because a conservative interpretation is: On average, a 1 percentage point increase in Correa's vote share increased the growth in the number of bureaucrats across municipalities by almost 6%. I also test whether this behavior can be observed in a different analysis. To this end, I document that central government transfers to municipalities with the highest vote share for Correa increase during the years of institutional change (2008 and 2009), further supporting the argued distributive policy strategy.

Voting is an endogeneous variable, even if it has a considerable lag, and bureaucracy allo-

cation may also obey a large battery of determinants.<sup>3</sup> 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 similar to one 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 from repression locations to public schools as a measure of information spreading. 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 the government repressed members of different subversive groups. 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. I show a strong first stage correlation between this variable and Correa's vote share in 2006 which complies with the relevance assumption in the IV framework.

For the exclusion restriction, I argue that the IV is independent from the outcome variables and only influences them through the endogenous variable (Correa's vote share in 2006) because part of Correa's strategy was to create enemies. Even if these repression episodes are documented by historians, they are not comparable to cases in other countries such as Chile or Argentina, where repression was experienced for many years with thousands of victims (Bautista et al., 2021). Due to this reason, only a strategic use of the information can transform different cases of repression into being relevant for politics. I use data from Google Trends to show descriptively that the most emblematic cases were relatively highly searched before 2008 (the year in which the constitution referendum happened), but afterwards searches fall. This might be interpreted as a strategic use of the information which was not replicated by previous politicians. Additionally, I use data from Latinobarometro (nd) to show that the potential voters were younger cohorts,

<sup>&</sup>lt;sup>3</sup> Another paper that uses vote share as independent variable is Maurer (2018) which also looks for bureacracy allocation, but in the context of Nazi Germany.

which aligns with an information spreading story through schools. I further show that the instrument does not work when using vote share of the previous presidential election in 2002 in which Lucio Gutiérrez was elected. Gutiérrez had a similar discourse against elites, hence arguing in favor that the IV only works through Correa's vote share in 2006. I provide a number of robustness checks, including: Removing capital from the analysis, switching to the outcome variable - to show that the relationship does not hold when using pre-Correa bureaucracy data, controlling for pre-1984 characteristics - this reduces the sample size but yields similar results, and changing the methodological approach by using Correa's vote share margin in 2006 to compare municipalities just above and below the margin to show that the main result of the paper hold.

This paper contributes to a large literature on tactical redistribution and its empirics (Alesina et al., 2000, 2001; Golden and Min, 2013). The research contributes in two dimensions in which tactical redistribution meets populism. First, recent papers have addressed the impact of populist regimes in Latin America on macroeconomic and development outcomes (Campos and Casas, 2021; Absher et al., 2020) on an aggregate (regional) level. This paper contributes on making an in-depth analysis of one particular country and using micro data and historical narrative to merge populism and the standard distributive politics model. Additionally, and 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 during his first years in power.

The second dimension is in the domain in which I partially test theoretical predictions from the literature (Persson and Tabellini, 2000; Acemoglu et al., 2013b; Robinson and Verdier, 2013; Forteza and Pereyra, 2019) using an empirically identified model in the context of Ecuador. In particular, I empirically study the case of Ecuador which has been discussed in theoretical research in the context of exploring why voters support weakening checks and balances (Acemoglu et al., 2013b; Forteza and Pereyra, 2019). Moreover, I contribute by examining some of the predictions of the classic populist cycle theory within a specific case study, utilizing micro data to analyze the distributive political outcomes of expanding the public sector during a populist regime.

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 discusses the empirical strategy to be used along with the models and its main considerations. Section 5 shows the estimations and results from the models. In section 6 I present suggestive evidence of similar

behavior by using central government transfers to municipalities. Section 7 concludes.

## 2. Institutional context

## 2.1. Ecuador before Correísmo

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 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.

Repression also came from various groups. A military mutiny in 1987 ended with the kidnapping of the president for several hours. The episode, known as the "Taura case," involved a government retaliation after the president was released. Several military personnel involved were illegally detained and faced mistrials (Comisión de la verdad, 2010). Other cases involved people falsely detained by the police or ad hoc "special forces", the most controversial episode was the disappearance of two brothers who were not seen again. This case, known as the "Restrepo case" (the surname of the victims), was widely covered by the media and became one of the emblematic cases of the 1984-1988 period.

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, and maintained

the memory that the Febres-Cordero government was repressive.

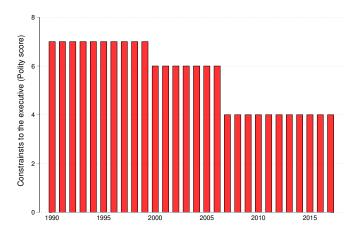
By the end of his government, Febres-Cordero's party, PSC, ended up politically weak after four years in government. By 1988, PSC political rivals, Izquierda Democrática, got an overwhelming victory at the national and sub-national electoral levels. The government led by the left-wing politician Rodrigo Borja initiated a peace process with insurgent groups, such as AVC, in order to end the repression. After Borja's successor, Sixto Durán Ballén, ended his term in 1996, the country entered an unstable situation, which saw 7 presidents in 10 years, along with a deep financial crisis in 1999.

## 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.

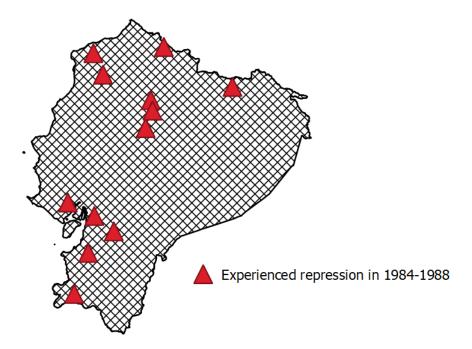
Figure 1: Checks and balances on the executive



## 2.3. Commission of Truth of 2008

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 2 presents geolocations of all cases during 1984-1988, where subversive groups initiated the event or when the government reacted with repressive actions.

Figure 2: Geo reference repression locations according to the Commission of Truth



**Note:** Red triangles mark the geo-reference of a repression 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). Since the strategy required popular support, important investments were made in the communication strategy along with the messages allocated to voters (Cerbino et al., 2016). Part of this strategy was to confront voters with traditional political parties, especially PSC, since they represented the most important adversaries from the traditional political party spectrum<sup>4</sup>.

The role of schools. What is the precise mechanism through which information passes from repression episodes to influence certain areas? Ajzenman and Durante (2022) demonstrates the significant role that school infrastructure can play when individuals decide whom to vote for on election day. Furthermore, Berger et al. (2008) shows that this relation can be even deeper than pure perception and that situational context plays a powerful role on shaping voters preferences. I propose that schools may also serve as environments where individuals: 1) engage with the community, and 2) are more susceptible to influence from repression episodes, particularly if these events have occurred in *close* proximity to them. Moreover, these areas are the most likely

<sup>&</sup>lt;sup>4</sup> Table B1 in the appendix present a ranking of municipalities using population and production (value added index calculated by the Central Bank of Ecuador) showing that the places were repression episodes happened were not only in rich municipalities.

to react when a politician "reminds" particular repression episodes.

## 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 1 presents the summary statistics for all variables used.<sup>5</sup>

#### 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.<sup>6</sup>

## 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 and divide each cell by municipality population in 2010. The outcome is the number of bureaucrats per capita at the municipal level.

<sup>&</sup>lt;sup>5</sup> A first version of this data set was constructed in Gachet (2020). The version used in this paper correct, update, and add new variables.

<sup>&</sup>lt;sup>6</sup> 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.

<sup>&</sup>lt;sup>7</sup> For the 2010 census, I used the industry category "public administration" together with the occupation category "office clerk." For 2001, the classifications are slightly different. For industry, I used the category "public administration and application," and for occupation, "other office clerks."

#### 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.<sup>8</sup> 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.

## 3.4. Repression and school locations

Distances are defined as the smallest distance between a school in a municipality and a location (at the parish level) where a repression 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. If the specific location was not in the text, I opted for locating the episode in the principal parish within that municipality. Cases were documented (in broad terms) as: Torture, kidnapping, and judiciary malpractice. These cases might overlap with each other (e.g. a person that was tortured could also be part of a bias trial according to the commission). While one desirable exercise would be to disentangle the effect of different types of repression from the government, this is not possible with this data.

These episodes were not broadly discussed in the country in general, except for the emblematic ones, until they were revisited by Correa 20 years later, which helped him build a human rights platform. However, I argue that certain 'stocks' of memory could be better preserved in places like schools, where the community interacts and influences future generations. Consequently, I create a continuous variable representing the proximity of repression areas to the

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.

<sup>&</sup>lt;sup>9</sup> 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.

<sup>&</sup>lt;sup>10</sup> Since the analysis is at the municipality level, this gave me variation within a municipality.

nearest school<sup>11</sup>. The locations of schools are sourced from the administrative records of the Ministry of Education for the year 2014, which offer the most comprehensive and geographically precise data for public schools. To ensure the inclusion of schools that existed before the Correa administration, I exclude schools created during that period<sup>12</sup>.

## 3.5. Municipal transfers

I utilize data on central government transfers to municipalities from Mejia Acosta and Meneses (2019). As the cited paper observes, I employ data on capital transfers, which are more susceptible to political control. I include this because my preferred dataset encompasses bureaucracy at the municipal level, thus it is pertinent to examine whether this strategic allocation of resources is evident in a distinct dataset with a different specification.

## 3.6. Additional variables

I use additional variables to complement the analysis. Specifically, I rely on data from Larrea (1992) to obtain historical indicators at the municipal level. This data is available for only 123 municipalities. The specific variables are: public sector workers in 1982 as a percentage of the economically active population, land Gini in 1974, percentage of holdings smaller than one hectare relative to the 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. Furthermore, I use data from Latinobarometro (nd) for political perceptions information.

#### 3.7. Final data set

The final dataset is contingent upon the availability of all utilized variables, including controls. In essence, this research excludes municipalities located in the insular region. Owing to municipality creation or annexation to other administrative boundaries within the country, not all variables are accessible for the entire set of municipalities as of 2010. Since this study primarily focuses on comparing data between 2001 and 2010, I utilized the municipalities listed until 2001 as my base sample. This yields a final count of 213 municipalities 13. Descriptive statistics

<sup>&</sup>lt;sup>11</sup> Essentially, I calculate distances from each available school in the registry to the closest repression episode. I collapse everything to the municipality level.

<sup>&</sup>lt;sup>12</sup> To achieve this, I employ text analysis to identify and exclude schools with names containing "replica" and "del milenio", which were the two most significant educational projects in the country.

<sup>&</sup>lt;sup>13</sup> In addition to the insular region municipalities, the areas excluded from this research are: Camilo Ponce Enríquez, Paquisha, Quinsaloma, Tiwintza, and La Concordia.

are presented in Table 1.

Table 1: Descriptive statistics

	mean	sd	min	max	count
Bureaucracy 2010 per 1,000 inhabitants	4.06	2.50	0.63	15.78	213
Bureaucracy 2001 per 1,000 inhabitants	2.97	2.13	0.63	13.35	213
Growth of bureaucracy 2001-2010	54.13	75.53	-35.21	567.38	213
Vote share	19.81	8.86	5.09	49.75	213
Log distance. Repression to nearest school	4.14	0.61	2.06	5.30	213
Log distance to Quito	5.35	0.69	0.00	6.28	213
Log distance to Guayaquil	5.20	0.64	0.00	6.29	213
Log distance to Cuenca	5.08	0.72	0.00	6.18	213
Population growth 2001-2010	0.21	0.15	-0.48	0.74	213
Vote share in local elections	27.82	15.19	0.00	85.33	213
Migration in 2001	0.96	0.89	0.00	5.33	213
Night lights 2001	0.09	0.12	0.00	1.00	213
Latitude	-1.78	1.41	-4.85	1.00	213
Longitude	-79.09	0.95	-80.92	-75.88	213
Log of bureaucracy in 2001	0.88	0.64	-0.47	2.59	213
Gini in 1974	0.71	0.15	0.17	0.93	123
Buraucracy in 1982	2.67	1.25	0.69	7.15	120
log capital transfers 2006	14.69	0.79	12.51	18.73	211
log capital transfers 2007	14.96	0.77	13.54	18.87	213
log capital transfers 2008	15.18	0.76	13.77	18.96	213
log capital transfers 2009	15.04	0.78	13.63	19.12	212
log capital transfers 2010	15.38	0.81	13.71	19.35	213

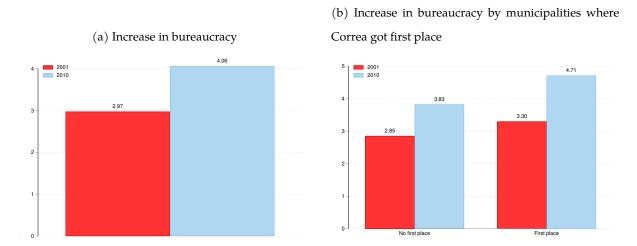
## 3.8. Descriptive overview of the main outcome and independent variables

## 3.8.1. Bureaucracy

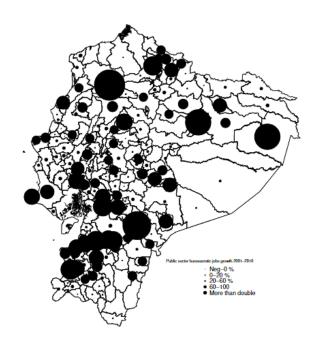
Correa's regime is characterized by the expansion of the public sector. Most of his policies were dependent on increasing public investment and increasing state intervention. By following

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 3: 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. Panel C shows the spatial distribution of the growth rate of bureaucracy per 1,000 inhabitants. The largest circles indicate where bureaucracy grew the most. The southern part of the Midlands and the north-west of the Amazon region present significant growth in public bureaucratic jobs.

Figure 3: Allocation of bureaucracy (per 1,000 inhabitants)



(c) Spatial distribution of bureaucracy growth (2001-2010)



**Note:** Bureaucracy refers to the number of bureaucrats divided by the population in each municipality and multiplied by 1,000

## 3.8.2. 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 can-

didate 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 4).

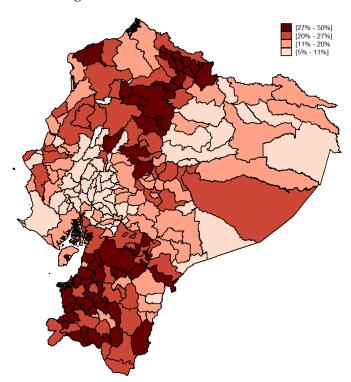


Figure 4: Vote share for Correa 2006

## 4. Empirical strategy

The research design that I propose exploits the location of episodes of repression 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.

## 4.1. Ordinary Least Squares (OLS)

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

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

$$BureaucracyGrowth_{i,2001-2010} = \alpha + \beta_{OLS}VoteShare_{i,2006} + \delta X_{i,j} + \gamma_r + \epsilon_i$$
(1)

where  $Bureaucracy_{i,2010}$  stands for number of bureaucrats divided by the population of municipality i in 2010 per 1,000 inhabitants.  $BureaucracyGrowth_{i,2001-2010}$  refers to the growth rate of bureaucracy between 2001 and 2010 according to the national census.  $X_{i,j}$  summarizes a set of parsimonious controls (discussed in detail in the next subsection),  $\gamma_r$  are fixed effects for each natural region r, and  $\epsilon_i$  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  $j=\{2001,2009\}$  depending on the model specification. The pitfall of this model is that the dependent variable includes (for the case of the growth rate) 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.

## 4.2. 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, the country's major port Guayaquil, and Cuenca which is another major hub in the highlands. 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 to account for spatial autocorrelation concerns. 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). <sup>14</sup>

*Number of bureaucrats in 2001:* I include the log of the number of bureaucrats in 2001 as a control for all regressions.

*Migration in 1998:* From the 2001 census it is possible to obtain the number of people that migrate from a certain household and in which year. In 1998, after a financial crisis, people mostly in urban areas migrate out of the country. I explicitly control by the share of people relative by the total labor force.

Region fixed effects: When considering historical explanations in the context of Ecuador, its regions are particular. The history involving the three natural regions<sup>15</sup> 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 heterogeneity with data from different periods.

## 4.3. The instrument: Distance from repression episodes to nearest school

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 repression which was fueled by the

<sup>&</sup>lt;sup>14</sup> I include candidates who were in an electoral alliance with Correa's party as well.

<sup>&</sup>lt;sup>15</sup> 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.

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 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.<sup>16</sup>

<sup>&</sup>lt;sup>16</sup> Additionally, Correa's government was receptive of transnational insurgents coming from Colombia's FARC (Martínez, 2017).

## 4.4. Instrumental variable (IV) model

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

$$Vote \hat{Share}_{i,2006} = \theta + \pi Distance repression_i + \delta X_{i,j} + \gamma_r + \tau_i$$
 (2)

$$Bureaucracy_{i,2010} = \alpha + \beta_{IV} Vote \hat{S}hare_{i,2006} + \delta X_{i,j} + \gamma_r + \epsilon_i$$

$$BureaucracyGrowth_{i,2001-2010} = \alpha + \beta_{IV} Vote \hat{S}hare_{i,2006} + \delta X_{i,j} + \gamma_r + \epsilon_i$$
(3)

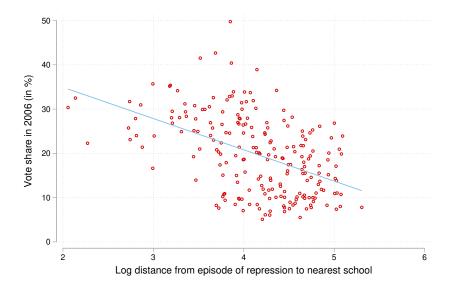
where the first stage regresses the vote share in 2006 on the geographical distance to repression locations. The model is analogous when applying the IV to the case of having the growth of bureaucracy as dependent variable.

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 ones presented in the main text and are available in the Appendix.

## 4.5. Relevance and exclusion conditions

There are two main conditions that need to be fulfilled on a IV strategy: Relevance and exclusion. The relevance condition refers to how strongly the instrument is correlated with the endogenous regressor. This condition can be tested statistically. Figure 5 shows the unconditional correlation between the instrument and the vote share for Correa in 2006. In the estimation results I will use the Kleibergen-Paap F statistic to show that my model specification are over the threshold proposed by Stock et al. (2002).

Figure 5: Vote share for Correa in 2006 and distance to repression locations



On the other side, the exclusion restriction implies that the instrument only affects the outcome through the endogenous variable. In this case, the distance from repression localities to schools must affect bureaucracy allocation only through Correa's vote share in 2006. While direct testing for this is not plausible, I provide evidence that this condition is likely to hold. Figure 6 shows Google Trends data on the searches that people made about the emblematic cases of human rights violations during Febres-Cordero's administration from 1984-1988. Additionally, I plot the same Google Trends score for the word "constitution" during the same period, I use this as a proxy for institutional reform. According to this information, there were spikes in the search for cases before the implementation of the new constitution. After the referendum, it can be seen that the searches for cases fell rapidly. This descriptive relation provide suggestive evidence of the strategic use of the repression cases as a platform. In other words, the mentioning of the cases and their importance activates in the Correa regime for strategic needs. 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. Furthermore, in the robustness section, I provide a placebo test exchanging the vote share of Correa for the vote share received by former president Lucio Gutiérrez in the previous election. Gutiérrez win his election using a similar ant-elite discourse. When using Gutiérrez's vote share, the instrument is not correlated with it and provide non-significant results.

Before institutional change

After institutional change

-- restrepo
-- taura
-- alfaro
constituyente

01jan2006 01jan2007 01jan2008 01jan2009 01jan2010

Figure 6: Google trends- selected cases-Before after institutional change

Note: This Figure plots the Google trends score for the topics in the shown in the legend.

If schools were a source of information diffusion, people in younger cohorts relative to 2006 (the election year) should be the ones potentially more attracted to Correa's discourse. I use data from Latinobarometro (nd) for the year 2006 to analyze if younger cohorts were prone to fall into anti-traditional political party discourse. Specifically, I use information from the question related to "trust in political parties" where Latinobarometro (nd) categorizes levels of trust. I recode the variable to make it an indicator variable where zero indicates no confidence in political parties and one represents all levels from low to high degrees of confidence in political parties. Figure 7 estimates a model where the dependent variable is the dichotomous measure of confidence in political parties. The independent variables are the age cohort of each respondent, and I also control for region and region by cohort decade fixed effects. The comparison cohort is 1979, the year Ecuador returned to democracy, as cohorts born after that year may be more willing to advocate for democracy (Acemoglu et al., 2023). The vertical solid line is in 1970, indicating the initial cohort that was potentially in school during the 1980s. The results indicate that while trust in political parties is generally low for all cohorts, younger cohorts are suggestively more pessimistic about political parties.

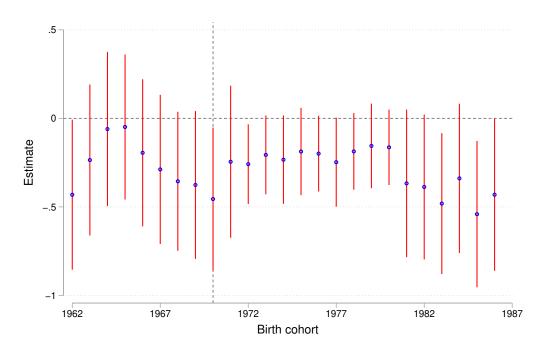


Figure 7: Estimation of year cohort and confidence in political parties

**Note:** This Figure shows the results of a model where the independent variable is the level of confidence in political parties where zero indicates no confidence and one refers to any level of between low and high confidence. Robust standard errors with 90% confidence intervals are plotted.

Which were the local conditions before the repression episodes took place? I use data from Larrea (1992), which processes census data from 1974 and 1982<sup>17</sup> at the municipality level on several characteristics to evaluate preconditions for the available municipalities, which are 123 out of the 213 used in this paper. The variables are: Public sector workers in 1982 as a percentage of the economically active population, land Gini in 1974, percentage of holdings smaller than one hectare relative to the 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. Even with this limited number of observations, it can provide a reasonable comprehension if some of these characteristics predict strongly the IV.

Figure 8 summarizes the results of three models applied to each of the variables found in Larrea (1992). When using controls and region fixed effects, most of these characteristics are non-significant, hence not different from zero. Small land holdings in 1974 (smallland74) and rural growth from 1974-1982 (Rural G.74-82) show some significance levels. In the robustness section, I estimate a model including these variables as controls. When doing this, observations reduce from 213 to 123, but it is useful to provide convincing evidence of the correct estimation

 $<sup>^{17}</sup>$  1974 is an agricultural census and 1982 is a population census.

of the model.

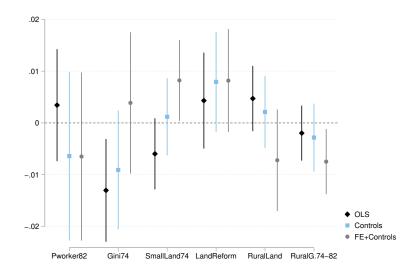


Figure 8: Characteristics pre 1984 and IV

**Note:** This Figure tests if any of the available pre-1984 characterisites is related with the IV.

# 5. Estimates: Initial electoral support to populism and bureaucracy 2001-2010

The first set of estimates comes from an OLS model. Table 2 shows the two main outcomes: the number of bureaucrats in 2010 and the growth rate of bureaucrats between 2001 and 2010. Only the vote share of Correa in 2006 has explanatory power over the outcomes; the vote share in 2009 doesn't seem to explain any of the variation for the number of bureaucrats in 2010, but it yields a significant, but modest in magnitude, result (at the 90% confidence level). This first set of results starts to show that the target voters were the initial supporters of the regime, hence indicating a conservative strategy, i.e., targeting the initial constituency.

Moving forward and applying the identification strategy, Table 3 shows the results of the estimation. In panel A, the reduced form captures a negative variation with the outcomes, meaning that bureaucracy is negatively linked with the instrument. More bureaucracy is allocated farther away from the locations in which repression happened and from its geographic connection towards schools. Panel B shows the IV estimates, indicating that the vote share for Correa explains 1.3% of the variation with respect to the mean of the number of bureaucrats in 2010 and almost 6% of the growth rate between 2001 and 2010. I provide the same set of results using Conley standard errors in Appendix B2. The presence of heterogeneous effects makes IV estimates to

Table 2: OLS model

	(1)	(2)	(3)	(4)
	N.Bureaucrats 2010	G.Bureaucrats 01-10	N.Bureaucrats 2010	G.Bureaucrats 01-10
Vote share in 2006	0.053	2.675		
	(0.012)***	(0.723)***		
Vote share in 2009			0.014 (0.011)	1.052 (0.568)*
Observations	213	213	213	213
Controls	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes
Mean Dep.Var	4.06	54.13	4.06	54.13
Variation w.r.t mean	1.30	4.94	0.34	1.94

Robust standard errors in parentheses

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 <sup>18</sup>. In other words, the effect is only being captured in those municipalities highly exposed to repression in the 1980's, hence more prone to demand state presence and to be fragile to the remembering of such episodes.

Table 3: Instrumental variables model

	(1)	(2)
	N.Bureaucrats 2010	G.Bureaucrats 01-10
Panel A: Re	duced form	
Distance repression to nearest school (log)	-0.269	-16.713
	(0.159)*	(8.181)**
Panel B: IV	<sup>7</sup> Estimates	
Vote share in 2006	0.050	3.134
	$(0.029)^*$	(1.486)**
Observations	213	213
Controls	Yes	Yes
Region FE	Yes	Yes
K-P F-stat	38.37	38.37
Mean Dep.Var	4.06	54.13
Variation w.r.t mean	1.24	5.79

Robust standard errors in parentheses

18

<sup>\*</sup> p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

<sup>\*</sup> p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

<sup>&</sup>lt;sup>18</sup> Another assumption comes from monotonicity, here I am assuming that the likelihood of being exposed to these type of repressions decays linearly, i.e., being farther away from repression areas makes those areas lees prone of being exposed. This assumption looks like it is fulfilled from the reduced form estimates.

#### 5.1. Robustness checks

Placebo election: Lucio Gutiérrez. As a first robustness check, I show that if I use a placebo election, neither the IV nor the results hold. The election before Correa's was in 2002, in which Lucio Gutiérrez won with a not so different story from the Correa one. Gutiérrez was a military officer who led a coup against the government of 1998 and became known because of that. His announced platform was one in which he promoted himself as a new option different from the traditional political parties. If the repression episodes from the 1980s were used by any other government than Correa's, at least the significance of the instrument with the vote share should be strong. This is not the case, as shown in Table 4.

Table 4: Place election-Lucio Gutiérrez-

	(1)	(2)
	N.Bureaucrats 2010	G.Bureaucrats 01-10
vote share in 2002	-0.890	-55.348
	(3.593)	(223.199)
Observations	213	213
Controls	Yes	Yes
Region FE	Yes	Yes
K-P F-stat	0.06	0.06
Mean Dep.Var	4.06	54.13
Variation w.r.t mean	-21.95	-102.26

Robust standard errors in parentheses

**Dropping capital city.** A second test would be to drop the capital city, since it is where the majority of the bureaucracy is going to be allocated. First, in my main specification, I already control for distance to Quito; however, in this robustness test, I show that the results do not change even when removing the capital city from the sample. Results are shown in Table B3.

**Changing outcome.** Table B4 shows the results from the IV model, but changing the outcome to bureaucracy in 2001. Results are not significant. The main idea with this robustness test is to check if the variable "bureaucracy" has some underlying reason for its significance. In other words, I want to show that it's not simply that bureaucracy in general has a significant effect driven by some underlying nature of the variable.

Historical controls. Additionally, and following the suggestion from Figure 8, I estimate

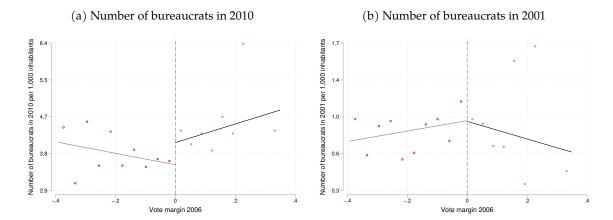
<sup>\*</sup> p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

the model using the pre-1984 controls that resulted in significance even when using the control variables. Essentially, I include small land holdings in 1974 and rural growth from 1974-1982. Observations drop to 121 since current municipalities did not exist in this period and sample depends on the processed data found in Larrea (1992). Table B5 shows the results: the growth in the number of bureaucrats between 2001 and 2010 remains significant and aligns with the paper's results. In the case of the number of bureaucrats in 2010, statistical significance is lost, but the direction and interpretation of coefficients do not contradict the main conclusions.

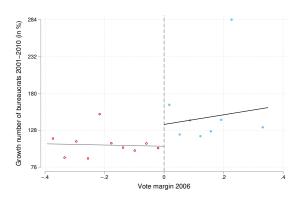
## 5.1.1. Different empirical methodology

As an additional check, I compare a smaller set of municipalities based on vote margin. In this analysis, I use vote margin as the running variable and conduct a regression discontinuity exercise, applying the same set of controls and outcomes as in the main models. By focusing on municipalities near a specific threshold-in this case, the vote margin for Correa in 2006- we can compare observations where Correa either lost or won by a small margin. Figure 9 presents a graphical representation of the results.

Figure 9: Discontinuities



(c) Growth in the number of bureaucrats 2001 - 2010



**Note:** This figure displays various discontinuities, using Correa's margin share in 2006 as the running variable. All graphs incorporate the same controls as those used in the main OLS and IV models.

The number of bureaucrats in 2010 and their growth rate from 2001 to 2010 exhibit a noticeable jump, especially in the latter case. Furthermore, the number of bureaucrats in 2001 doesn't show any discrete jump, hence validating the argument that there were no differences in the number of bureaucrats before the Correa administration. Table 5 presents the results using the bias-corrected robust estimator from Calonico et al. (2017). These findings align with the rest of the paper, though the effects are notably larger, likely due to the analysis focusing on 97 municipalities near a specific threshold. While the estimate for the number of bureaucrats is positive but insignificant, the coefficient for their growth rate is significantly larger than in the main model. These results suggest that the increase in the number of bureaucrats is likely a result of a political decision rather than other unobserved factors<sup>19</sup>.

<sup>&</sup>lt;sup>19</sup> Table B6 shows the same exercise but removing the capital city Quito.

Table 5: Bias-corrected robust RD results

	(1)	(2)
	N.of Bureaucrats 2010	Growth N.Bureaucrats 2001-2010
Robust BC estimate	0.765	103.240
	(1.494)	(61.454)*
Observations	97	97
Bandwidth	0.15	0.15
Mean	4.226	51.613
Variation w.r.t mean	18.1	200.0

Robust standard errors at the parish level in parentheses

## 6. Municipal transfers

Overall results suggest a clear distributive politics strategy during a populist spell in Ecuador. From 2006 to 2010, while institutional changes were happening, an expansionary fiscal policy was also occurring. When analyzing the geographic allocation of bureaucracy, a clear strategy can be seen that follows the populists' initial vote share. In this section, I complement this finding by showing suggestive evidence of the strategic allocation of central government transfers to municipalities. Thus, reinforcing that the distributive politics strategy was present. I rely on data used in Mejia Acosta and Meneses (2019)<sup>20</sup> and follow their strategy using data on capital investment transfers, which, according to the authors, are more prone to be influenced by political decisions.

Figure 10 plots the amount of transfers (in per capita terms) received by municipalities where Correa ended in first place (win06=1) and second place or lower (win06=0) in the first round of the 2006 presidential elections. During 2008-2009 transfers to municipalities increased substantially in municipalities where Correa won even when his party did not have local candidates of their own.

29

<sup>\*</sup> p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

 $<sup>^{\</sup>rm 20}\,\rm I$  thank Andrés Mejía Acosta for sharing the data.

Turnsfers Den Capita (Using 2010 pobulation)

100

win06 = 0

win06 = 1

year

Figure 10: Capital transfers per capita

**Note:** This figure plots transfers made by the central government to local ones. Transfers are the ones classified as "capital" (for investment purposes) and is on per capita terms (using 2001 population). win06=1 refers to municipalities where Correa ended in first place and win06=0 refers to municipalities where Correa ended in second place or lower in the first round of the 2006 presidential elections

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

$$log(CapitalTransfersPC + 1)_{i,t} = \eta_i + \lambda_t + \beta_{i,t}win06_i \times year_t + \epsilon_{i,t}$$
(4)

where the dependent variable refers to nominal<sup>21</sup> transfers per capita 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 2003 to 2010. The reference year is 2006. The results of this estimation are presented graphically in Figure 11. 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, e.g., 2008 and 2009.

<sup>&</sup>lt;sup>21</sup> Since Ecuador is a dollarized economy, nominal and real values are almost identical.

Figure 11: Capital transfer to municipalities during institutional change

**Note:** Figure shows the estimates from Model (4). *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).

## 7. 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 repression 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.

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## **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

Table B1: Production and population ranking HRV municipalities

Production	Population	Municipality
(2010)	(2010)	
ranking	ranking	
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

Table B2: Instrumental variables model-Conley standard errors-

	(1)	(2)
	N.Bureaucrats 2010	G.Bureaucrats 01-10
Panel A: Re	duced form	
Distance repression to nearest school (log)	-0.269	-16.713
	(0.159)*	(8.390)**
Panel B: IV	' Estimates	
Vote share in 2006	0.050	3.134
	(0.028)*	(1.446)**
Observations	213	213
Controls	Yes	Yes
Region FE	Yes	Yes
K-P F-stat	26.45	26.45
Mean Dep.Var	4.06	54.13
Variation w.r.t mean	1.24	5.79

Robust standard errors in parentheses

Table B3: Estimation without capital city

	(1)	(2)
	N.Bureaucrats 2010	G.Bureaucrats 01-10
Vote share in 2006	0.050	3.104
	$(0.029)^*$	(1.505)**
Observations	212	212
Controls	Yes	Yes
Region FE	Yes	Yes
K-P F-stat	38.21	38.21
Mean Dep.Var	4.04	54.07
Variation w.r.t mean	1.24	5.74

Robust standard errors in parentheses

<sup>\*</sup> p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

<sup>\*</sup> p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

Table B4: Change outcome

	(1)
	N.Bureaucrats 2001
Vote share in 2006	0.061
	(0.040)
Observations	213
Controls	Yes
Region FE	Yes
K-P F-stat	43.82
Mean Dep.Var	2.97
Variation w.r.t mean	2.05

Table B5: Including historical controls

	(1)	(2)
	N.Bureaucrats 2010	G.Bureaucrats 01-10
Panel A: Re	duced form	
Distance repression to nearest school (log)	-0.252	-12.205
	(0.185)	(6.033)**
Panel B: IV	<sup>7</sup> Estimates	
Vote share in 2006	0.049	2.354
	(0.036)	(1.178)**
Observations	121	121
Controls	Yes	Yes
Region FE	Yes	Yes
K-P F-stat	21.18	21.18
Mean Dep.Var	4.33	44.09
Variation w.r.t mean	1.12	5.34

Robust standard errors in parentheses

Robust standard errors in parentheses \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

<sup>\*</sup> p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

Table B6: Bias-corrected robust RD results-No capital city

	(1)	(2)
	N.of Bureaucrats 2010	Growth N.Bureaucrats 2001-2010
Robust	0.908	108.778
	(1.492)	(61.746)*
Observations	96	96
Bandwidth	0.15	0.15
Mean	4.226	51.613
Variation w.r.t mean	21.5	210.8

Robust standard errors at the parish level in parentheses

 $<sup>^{\</sup>ast}$  p<0.10 ,  $^{\ast\ast}$  p<0.05 ,  $^{\ast\ast\ast}$  p<0.01