The Political Economy of Redistribution in Developing Federal Democracies:

Empirical Results and Comparative Implications

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Abstract:

What is the role of presidents in the politics of redistribution in developing democracies? Do other political actors, such as legislators and governors, influence redistribution? Is redistribution shaped by political (that is, partisan) factors or do programmatic criteria play also a part? Redistribution in very unequal developing countries is a divisive issue. Most researchers recognize a crucial role of the state in redistributive politics. Despite this, there is little we know about the factors that shape government redistribution. This paper studies political and economic factors that affect the allocation of interregional redistributive transfers in Argentina and Brazil, two highly unequal countries in Latin America (the world's most unequal region). The focus is on funds with high redistributive impact and over which the central government may have large discretion: public infrastructure. Using original data on federal infrastructure spending for the 24 provinces in Argentina and the 27 states in Brazil (for the period 1999-2011), this paper shows that redistributive politics (in particular, the distribution of infrastructure funds) in developing federations is fundamentally determined by executive politics. The main claim is that presidents use redistributive transfers as a tool to build up sizeable and secure political support. We also found large variation in the relevance of Congress and programmatic criteria across cases, and that legislative overrepresentation is not always a relevant factor to explain redistribution, contrary to findings in the literature on the US and the European Union. We discuss some possible reasons for these results and the implications of these results for the broader comparative debate.

Introduction

What is the role of presidents in the politics of redistribution in developing democracies? Do other political actors, such as legislators and governors, influence redistribution? Is redistribution shaped by political (that is, partisan) factors or do programmatic criteria play also a part?

Redistribution in very unequal developing countries has historically been a sensitive and divisive issue. Although most researchers recognize a crucial role of the state in redistributive politics, there is still little we know about the factors that shape redistribution. In Lindbeck and Weibull (1987, p.273) words, "[t]he driving forces behind government-induced redistributions of income and wealth are still not well understood." In this work we provide new evidence on the role presidents and Congress play in shaping the politics of redistribution in developing democracies.

The government can redistribute resources to compensate the effects of an uneven distribution of wealth among individuals, economic or social groups, or across regions in the territory of a country. The mechanisms to reallocate wealth from one group in society or region in a country to others can take a variety of forms, from subsidies or tariffs to particular industries, to construction projects in some districts (Dixit and Londregan, 1996, p.1133). In almost every country, the central government transfers funds across regions. In federal countries (and in some unitary cases), revenue-sharing schemes regulate the distribution of some of these transfers. These institutions are relatively stable over the years and, for that reason, the total amount and regional share of these funds tend to remain reasonably fixed for large periods of time.

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Central government transfers or investment in sub-national units are also a by-product of general government programs or policies (Persson and Tabellini, 1996, p.980). Politicians usually have more discretion in the distribution of these programs or policies than in other legally mandated transfers. Infrastructure investment is a case in point. Politicians' discretion over the territorial allocation of infrastructure investment tends to be larger than in revenue-sharing schemes (Bonvecchi and Lodola, 2011). This is so because it is usually more straightforward to reallocate highway or road funds from one region to another than it is to redistribute wealth through public consumption or employment policies (Sollé Ollé, 2010, p.297).

Scholarship on redistribution has long studied how federal funds are allocated across regions. Most studies on the politics of distribution in American politics have concentrated almost exclusively on the role of the US Congress and its internal operations, such as committee composition and partisan configuration. Only more recently, some studies began paying more attention to the influence presidents have over the distribution of federal outlays (Larcinese et al., 2006, p.447; Berry et al., 2010, pp.783, 785). Along these studies, we contend that distributive politics is mainly a matter of presidential decision. Congressional committees, legislative delegations, and other politico-institutional variables, such as overrepresentation, play a less relevant role. That is also the case of programmatic factors, such as equity or efficiency criteria.

This work explores whether political factors affect the allocation of redistributive transfers. We concentrate on public infrastructure, a policy tool in hands of governments that most scholars in the literature consider crucial to stimulate growth and promote redistribution. This is a highly redistributive investment because it is labor intensive and it tends to generate large economic externalities in the districts where it is allocated. The regional distribution of infrastructure

investment is a way to redistribute money from some regions (those that pay taxes to finance these funds) to others (those in which the investment is actually made) (Sollé Ollé, 2010, p.299).

We study the politics of redistribution in two highly unequal Latin American cases; a region that is, in fact, the most unequal region in the world. Brazil has historically been among the most unequal countries in the world.[1] Argentina suffered the sharpest deterioration in income distribution of the region between the early 1970s (with a gini index of 34) and 2002 (53.3).[2]

The relevance of studying the allocation of infrastructure funds in these cases is twofold. On the one hand, these funds have increased substantially in the last decade in the two cases studied: from over a 100 percent in real terms in Brazil to over 400 percent in Argentina,[3] becoming one of the most important redistributive tools in the hands of the central government.

Second, the central government has discretionary power over its allocation.[4] Due to this discretion, we demonstrate that loyal districts are advantaged in the distribution of federal outlays: in Argentina, they receive almost 60 percent more funds than opposition districts; this

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[1] The highest gini value after its 1985 transition to democracy was 63.4 in 1989, being relatively stable during the 1990s and only decreasing to 56.4 in 2005 (WII Database 2). The 1985-2005 average is 59.

[2] Argentina partially recovered between 2003 and 2010. The latest value in the WII Database is 48.3 for 2006. The 1983-2006 gini average is 47.4 (WII Database 2).

[3] Federal grants in Argentina have historically been an important way to shifting a significant amount of resources from some regions to others (Porto and Sanguinetti, 2001, p.238), but their relevance seem to be larger nowadays. According to INDEC, the total amount of public infrastructure has soared from $384 million in 1993 to $5,975 million in 2009, a nominal increase of 1,555 percent during the period. In constant prices (controlling for the INDEC construction cost index), the 2009 values totaled $ 1,728 million, which represents a real increase of 429 percent. In US dollars, it increased from 384 million in 1993 to 1,594,000 in 2009, or a 415 percent. According to the National Budget Office data, the total amount of federal public works has increased in nominal terms from AR$1,044 million in 2000 to AR$11,500 million in 2009 (a nominal increase of 1,100 percent in the period) or AR$3,321 million in constant prices for the last year (a 309 percent increase). In dollars, the total increase is from $1,044 million in 2000 to $3,064 million in 2009 (an increase of 293 percent). We do not include in these figures the federal government subsidies to energy industries and transportation (see Variables and Data section), which represent significant amounts but deserve a specific study. In Brazil, federal spending in public works increased from R$3.7 billion in 2001 to R$16.2 billion in 2011, a nominal increase of 438 percent; or to R$6.9 billion in real terms in 2011 (controlling for the IBGE construction cost index), which represents a 108 percent increase in real terms. In US dollars, this increase was from 3.2 billion in 2001 to 12.3 billion in 2011, equivalent to a 377 percent increase during the period.

[4] Argentina is a clear case in this regard: the federal executive can re-allocate budget items approved by Congress, making use of the so-called executive "extraordinary-powers." Initially created as an extraordinary measure, president Kirchner reformed article 37 of the Financial Administration Law (24,156) in August 2006, to institutionalize this controversial law. But, as we will demonstrate, political factors are also crucial in both cases.

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share is 20 percent for Brazil. Both figures are much larger than what the literature found for general federal spending in the US (about 4-5 percent more in districts and counties represented by members of the president's party; Berry et al., 2010, p.783), and even for other comparative studies: Arulampalam et al. (2009, p.104) found that, in India, a state which is both aligned and swing in the last state election is estimated to receive 16 percent higher transfers than a state which is unaligned and non-swing. Hence, understanding the dynamics behind the allocation of these funds has, as it will be demonstrated, large implications for the politics of redistribution in these cases and other developing countries in general.

This paper is a two-folded empirical contribution to the literature on the politics of redistribution. First, it shows that political factors are crucial to understand distributive politics in developing democracies that have not yet been studied in the comparative literature. These factors are more relevant than other programmatic or economic determinants. Second, it reveals that distributive politics (particularly the distribution of infrastructure funds) in developing federations is fundamentally determined by executive politics. This finding is similar to what Berry et al. (2010) and Larcinese et al. (2006) obtained studying the US. However, we also discovered that there is variation in the relevance of Congress across cases and that institutional rules, mainly legislative overrepresentation, is not always a relevant factor to explain redistribution. This is contrary to what Atlas et al. (1995) and Lee (1998) as well as Rodden (2002, 2010) found for the US and the European Union respectively. We discuss some possible reasons for these results and the implications of these findings for the broader comparative debate.

This work is not only an empirical contribution but also a theoretical one, as it introduces more specification to the argument. The main claim in this study is that presidents use redistributive

transfers as a tool to build up sizeable and secure political support. When receiving electoral and legislative support, presidents compensate the size of the contribution a governor makes (in terms of the share of votes and seats) and how secure this contribution is (in terms of its potential stability over time). In other words, presidents tend to allocate more infrastructure grants to core districts in which governors have more political support and are more likely to continue in office. As far as we know, none of the studies in the topic has taken into consideration the role of these variables as critical factors to influence the outcome.

We organize the paper as follows. First, we discuss the theoretical literature on the topic and, based on this review, present the main theoretical claim. Second, we operationalize the variables and provide the data sources for the main and other competing hypotheses. Third, we introduce the methodological approach selected to analyze the data. In the fourth section, we put forward the empirical findings and discuss them in the last one.

Under which Conditions may Democracies Reduce Inequality?

We review recent scholarly works on the political economy of redistribution and the determinants of the allocation of federal redistributive grants: first, the political economy literature that studies the effects of programmatic determinants on the allocation of federal funds; second, the literature that explores whether politico-institutional variables (such as Congress committee composition, overrepresentation, or the electoral calendar) have an effect over the outcome; and third, the one that studies whether the districts' partisan configuration has an impact on the distribution of federal funds.

Does Equity or Efficiency Constrain Political Expediency?

The central government redistributes programmatically when it follows certain ideological beliefs about equality or efficiency. Redistributive programs are usually universal and they hand

out transfers to all members of some broad socioeconomic group, such as the old, the sick, or the unemployed (Persson and Tabellini, 2000, p.115). Under this type of redistribution, infrastructure investment would favor certain kinds of districts, for instance lower income provinces or the most populated districts, following fixed or "objective" criteria (such as income per capita, poverty levels or total population). According to those criteria, none of the qualifying districts can be excluded from the government allocation.

Some authors divide programmatic criteria for distribution into two main categories: efficiency-oriented and equity-oriented. In the first one, the most favored regions are those where projects have higher impact, that is, areas with more infrastructure users (measured in numbers of cars or urban density, for instance) or the more developed regions (in GDP terms); in the second group, the favored districts are those with low output levels or the less developed areas (Sollé Ollé, 2010, p.297). In this case, federal transfers are distributed to compensate the effects that an uneven distribution of wealth across a territory of a given country would generate on the geographical distribution of public services (Buchanan, 1950; Musgrave, 1959; Oates, 1972; quoted in Porto and Sanguinetti, 2001, p239). Under these schemes, a government committed to maximizing a nationwide social welfare function allocates grants among states to correct for interjurisdictional externalities or to provide for those that are especially in need (Grossman, 1992, p.295).

Do Political Institutions Affect the Outcome?

Several scholars have claimed that political institutions have an effect over redistribution. For analytic reasons, we can classify this literature in two main bodies of research: the literature that studies the effect of congressional delegations and committees over the distribution of federal

funding and those scholars analyzing the effects of overrepresentation (especially in federal countries).

The literature on the US Congress has long discussed whether delegations and committee composition have a significant effect over the distribution of federal funds. In a classic work, Ferejohn (1974) demonstrated that members of the Appropriation and Public Works committees directed more funds to their districts. But since then, the empirical evidence on the relevance of committees is mixed (Berry et al., 2010, p.784; Kriner and Reeves, 2012, p.349). One side of this literature found that larger delegations and committee membership affect the outcome. Holcombe and Zardkoohi (1981, p.397) found out that states with more representatives in core committees, those that have senior and influential congressmen, and those with the larger delegations from the president's party are more likely to receive more funds. Grossman (1992, p.299) also discovered that larger legislative majorities of the Democratic party (the party in government at the federal level) were empirically associated to larger grants. However, other research body found mixed results: Alvarez and Saving (1997) found that districts represented in the Armed Services or Small Businesses committees received more funds than others, but those with members in the Appropriations and Public Works did not. Knight (2005) also found mixed results: districts with members in the Transportation committee increase their share of transportation projects but not those with members in the Appropriations or the Surface Transportation subcommittee. Lee (2000) found no relationship between committee membership and federal transportation projects at the state-level; but in a later paper (Lee, 2003), he also demonstrated that representatives in the Transportation and Infrastructure committees allocated more transportation earmarks but not total funds. These variable results are supported by several other studies (Anzia and Berry, 2011; Atlas et al., 1995; Balla et al., 2002; Bickers and Stein

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2000; Levitt and Poterba 1999; Stein and Bickers, 1994). In this paper, we will study whether the institutional structure in Congress and its political composition have an influence over the distribution of funds, or whether national and provincial/state executives have more influence over the final outcome.

Bennett and Mayberry (1979) and Holcombe and Zardkoohi (1981) developed early studies claiming that more overrepresented states tend to receive more federal grants per capita. Atlas et al. (1995) and Lee (1998) found evidence that expenditures and net transfers per capita are significantly greater in smaller and overrepresented states. Rodden (2010, p.204) also found empirical evidence to support the claim that over-represented states receive disproportionate expenditures and intergovernmental grants per capita in Argentina, Brazil, the European Union, Germany, Australia, and the United States. His results demonstrate that legislative overrepresentation is a relevant factor to explain redistribution: more structural funds are allocated to overrepresented states in the European Union (Rodden, 2002, 2010). The literature on the topic found similar results for Latin America (Samuels and Snyder, 2001; Gibson et al., 2004; Calvo and Murillo, 2005). Gibson et al. (2004) claimed that the same finding has been supported for expenditures in Brazil and Argentina.[5]

Swing Voters and Core Supporters: Who Gets the Prize?

According to partisan arguments, party members will influence the budgetary process to allocate more funds in districts were they expect larger electoral benefits and returns. Those districts that are not expected to generate electoral or political returns will be excluded from this type of

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[5] Other scholars have also studied the role of other institutional determinants over the distribution of federal funding, particularly in the Argentine case. Lodola (2010), for instance, studied the institutional determinants and incentives for the delivery of public infrastructure in Argentina and Brazil. He analyzed the role of electoral rules favoring party-centered or candidate-centered political careers, governors' discretion in using these funds, and the concentration of funds at the provincial level. Other authors also explored the role of institutional factors influencing the distribution of federal social assistance programs in the provinces (Giraudy 2007; Lodola 2005) or school infrastructure spending by provincial governments in the municipalities (Nazareno et al., 2009).

investment. Dixit and Londregan (1996, pp.1133-34) called this "pork-barrel" or "machine politics".

Lindbeck and Weibull (1987, p.289) following Hotelling's (1929) principle, argue that in cases of voters with identical consumption preferences but with observed differences in party preferences between groups, parties in a two party system will favor groups with weak party preferences, i.e. "marginal voters." An implication of this claim is that, under the abovementioned conditions, parties will spend funds in swing districts (those with a high proportion of relatively unattached voters or in which the incumbent won or lost by a narrow margin) (Sollé Ollé, 2010, p.300). Similarly, for Persson and Tabellini (2000, ch.6), swing regions have larger electoral power than secure ones. Wallis (1987) and Wright (1974) found that during the New Deal, states with high volatility of presidential vote received more federal support. In the comparative politics literature, Magaloni et al. (2007, p.202) also show how more federal funds in Mexico (from PRONASOL) are allocated to municipalities in which the PRI faces more electoral competition. Dahlberg and Johansson (2002) discovered that swing regions in Sweden tend to receive a larger share of specific transfers during national elections. Hence, redistribution for them will be larger if the low income regions are swing regions.

For Cox and McCubbins (1986, pp.370, 385), by contrast, the optimal strategy for risk-averse candidates is to redistribute to their reelection constituency (that is, those districts in which their core voters are) and over-invest in their closest supporters to maintain existing political coalitions. In other words, "politicians will adopt strategies in which they invest little (if at all) in opposition groups, somewhat more in swing groups, and more still in their support groups" (Cox and McCubbins, 1986, p.373). Levitt and Snyder (1995) and Carsey and Rundquist (1999) found that districts in which the democratic vote was larger received more federal funds when Congress

was dominated by democratic majorities. Anderson and Tollison (1991) and Couch and Shugart (1998) found that states with a larger share of Roosevelt's vote in 1932 received more federal spending during the New Deal (contrary to the findings of Wallis (1987) and Wright (1974)).

From a comparative politics perspective, Arulampalam et al. (2009) also showed that allied state administrators received a larger share of federal funds in India, particularly if state governments have some discretion over spending the funds they receive.

This paper is an empirical contribution to this debate as it provides additional empirical evidence from cases not yet studied to support either claims of secure or pivotal redistribution. But it is also a theoretical contribution as it provides further specification in the theoretical argument. A limitation in the literature on distributive politics (both in the US and in comparative perspective) is that it has not paid sufficient attention to the political support presidents get from governors across time.[6] This paper claims that presidents may have different incentives depending on the territorial strength governors have and the contribution they can make to their party or coalition.

What Do Incumbents Buy?

A key assumption in this work is that politicians, in general, adopt redistributive strategies to serve their electoral objectives. Politicians will redistribute if that would help them staying in power (Lindbeck and Weibull, 1987; Cox and McCubbins, 1986). For Cox and McCubbins, (1986, p.383) "patronage is the most visible and obviously redistributive strategy employed by politicians."

We argue, in line with Larcinese et al. (2006) and Berry et al. (2010), that distributive politics is mainly decided at the executive level and that redistributive decisions are not based on

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[6] Larcinese et al. (2006, pp.448, 450) is an exception to this, since they look at the partisan alignment between presidents and state governors.

programmatic criteria but rather on political considerations. Following Cox and McCubbins (1986, p.373), we contend that presidents will allocate more funds to core districts to consolidate their electoral power and congressional support. Ceteris paribus, we anticipate that presidents will invest little or nothing in opposition provinces, somewhat more in swing districts, and more still in their support groups.

Despite this general argument, we attempt to further specify the dynamics under which the federal executive will be more likely to transfer more redistributive funds in a federal (or multi-level) system. We claim that presidents will distribute grants to get access to two main resources in a multi-level setting: the electoral support of state voters and the political capital of state politicians (Grossman, 1992, p.296). The political power of the governor is crucial in shaping the outcome: we expect presidents to invest more money in districts where the governors have strong political control (larger share of votes and seats in the state legislature) and their tenure potential is longer.[7] This is so, first, because powerful governors can exert strong pressures (or demands) on the central government (González, 2012). Second, governors (and sub-national leaders in general) may be more effective in mobilizing the electorate, especially in large developing federations where there can be a weak presence of the main federal parties in some regions. In several areas, presidents need support from territorial brokers who mobilize voters and build up support for presidents. Hence, some regions of the country may receive federal funds not only as a result of members of Congress doing constituency service. Presidents may also compensate governors for their territorial political support, especially when it is large and secure.

Hence, our main hypothesis (H1) posits that a given district will receive more funds in a certain year when the partisan power of the governor is larger and when her tenure potential is longer.

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[7] In Argentina, each province regulates reelection rules (some prohibiting it, others allowing one consecutive term, and others granting unlimited reelection). In Brazil, governors are elected for a four-year period and can be re-elected for one consecutive term only. State reelection was banned before the 1998 election.

These districts not only represent a safer and more significant electoral investment for the president than those where the governors face more competition and where they may even lose the next election.[8] Presidents also need to compensate those governors who deliver. In other words, presidents care not only about the *size* of the political support (share of votes and share of seats in Congress) they get in the nation as a whole as well as across states, but also about the *certainty* they can get from support districts. That is, presidents care about and reward the security governors can provide to build and sustain their political support basis. Certainty signals in federal (multi-level) systems take different forms, from the vote margins presidents get on each of the districts, the partisan powers of governors[9] (that is, the support governors get on their districts in terms of votes and seats and the number of seats they contribute to the president's delegation in congress), or the amount of time governors (and their electoral machines) can legally stay in power in their districts (tenure potential).

Competing Hypotheses

We are primarily interested in testing the role of presidential politics, but we also incorporate other relevant institutional players (Congress and committees), political parties, and programmatic determinants because excluding some explanatory variables in the regression may lead to omitted-variable bias (Larcinese et al, 2006, p.449).

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[8] This is also the case for governors who have to abandon their positions due to term restrictions (depending on their tenure potential).

[9] The index of partisan power of the governor is composed of two main dimensions: a) the power of governors in their districts (which includes the electoral support — share of votes — for the governor; whether the main party in the legislature is the party of the governor, coded as 1 in case they are the same, 0 otherwise; and the governor's party share of seats in the state legislature); and b) governors' influence over the federal government or how politically linked governors are to it (here, I include a dummy variable for cases in which presidents and governors are in the same governing coalition; coded as 1 in case they are politically allied, 0 otherwise). The index is a composed measure of all the aforementioned shares and dummies (which contribute .5 points to the index in case they are coded as 1, to balance the effect of each measure). The maximum possible value is 3; the minimum is 0 (González, 2010). We calculated the average value for each year and for all governors in Argentina and Brazil during the period under analysis.

Partisan Arguments: According to partisan arguments, more infrastructure investment will be allocated to those provinces that can help presidents stay in office and get more power in Congress; that is, districts in which governors are politically allied with the president (H2). Districts are classified into those belonging to the opposition (which are expected to receive few funds, if any), swing districts[10] (which are expected to receive somewhat more money), and support districts, or those aligned in partisan terms (which are expected to receive the largest share of funds). Partisan alignment is divided according to two criteria: *core* coalition if governors and presidents are in the same party, and *allied* if they are in the same electoral coalition but from different parties.[11]

Institutional Determinants of Redistribution: According to institutional arguments, we expect legislative politics to influence the outcome. Provinces or states with more representatives in core committees (*committee*)[12] and those with the larger delegations from the president's party (*delegation*)[13] in Congress would be more likely to receive more funds (H3). For institutional claims, districts will be also more likely to receive more funds the larger their overrepresentation. The reason is that the political benefits from a marginal dollar of increased grants to a small and overrepresented state are greater than a marginal dollar of increased grants to a large state in

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[10] The variable *swing* is calculated as the difference between the share of votes received by the incumbent and the share of votes of the main opposition party; the smaller the difference between the two, the more likely for the district to swing.

[11] This is a major difference with the US literature, where partisan alignment is coded along partisan (Democratic or Republican) lines.

[12] The variable "committee" reports the number of deputies a given province has in the Budget and Appropriations (*Presupuesto y Hacienda*) and in the Public Works (*Obras Públicas*) Committees in the Argentine Chamber of Deputies. In Brazil, the variable "committee" reports the number of deputies in the Urban Development Committee (*Comissão de Desenvolvimento Urbano*, CDU) and "joint committee" includes the number of deputies and senators in the Budget Joint Committee (*Comissão Mista de Planos, Orçamentos Públicos e Fiscalização*, or CMO). These are the relevant committees because they have authority over the decision to allocate of public works. The CMO is integrated by 31 deputies and 11 senators, and their composition is proportional to the composition of both chambers. Several authors agree that the CMO is the main locus of budgetary decision-making in the Brazilian Congress (Rocha, 1997; Castro Santos and Machado, 1995; Pereira and Mueller, 2002).

[13] The variable "delegation" is the percentage of congressmen in the Chamber of Deputies who are members of the majority party.

which the per capita impact is smaller (Grossman, 1992, p.298).[14] In addition, provinces will be more likely to receive more investment during election times (both executive –presidential and gubernatorial, and legislative elections).

Programmatic Determinants: In addition to institutional and partisan arguments, we also test the expectations of programmatic theories. According to equity-oriented arguments, relatively deprived districts will be more likely to receive more infrastructure funds. Hence, we expect that the lower the GDP per capita, and the higher the poverty level in the district, the more infrastructure funds the district will get. For efficiency-oriented claims, funds will flow to those districts in which infrastructure projects' relative impact is higher. Therefore, provinces with larger urbanization rate, population density, numbers of cars, and more developed (larger GGP), are more likely to receive more funds. In the same way, the economic structure of the district may also play a role: we can expect more infrastructure investment in those areas in which industrial production is larger (as this activity requires more infrastructure for its expansion) (H4).

Data and Method

We test the four hypothesis using different sources of data to track the geographic spending of infrastructure funds over a decade in the two cases. These are the largest panels of infrastructure spending ever assembled for the cases studied. For Argentina, we use original data on federal government infrastructure spending between 1999 and 2009 collected from the National Budget Office (ONP, Ministry of Economy). Total infrastructure funds include transfers from the central government to the provinces from eighteen budget programs of the Ministry of Federal Planning,

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[14] Samuels and Snyder (2001; see also Calvo and Murillo, 2005, p.216) calculate legislative overrepresentation using the Loosemore–Hanby index of electoral disproportionality: Overrepres = $(1/2) \Sigma |si–vi|$, where *si* is the percentage of all seats allocated to district *i*, and *vi* is the percentage of the overall population residing in district *I* (values range between .64 and 19.12, mean value 1.97 and standard deviation 2.20).

Public Works, and Services (See Variables and Data Sources in the Annex). All values are reported in thousand Argentine pesos (AR$), per capita, in constant values, and transformed into the natural logarithm to normalize the data.[15]

For Brazil, we use data from the Secretary of the Treasury and the federal Senate, for the years 2001-2011. We accessed our data on the dependent variable using *Siga Brasil*, an information system on public budget organized by the federal Senate. Total infrastructure in this case includes variables on housing, sanitation, roads, and urban works. The data are reported in thousand Brazilian Reais (R$) per capita, in constant values, and transformed using the natural logarithm to normalize the data.[16]

We test the effects of the different models using an OLS regression with panel corrected standard errors (PCSE, Beck and Katz 1995), which computes the variance-covariance estimates and the standard errors, assuming that the disturbances are heteroskedastic and correlated across panels. We also use two other estimation techniques: state-fixed effects to account for state-level unobserved heterogeneity (Larcinese et al., 2006, p.449); and a regression with robust standard errors for panel data with cross-sectional dependence, using Driscoll and Kraay (1998, pp.549-560) standard errors for coefficients estimated by pooled OLS/WLS or fixed-effects (within) regression (Hoechle, 2007). Results in the two other regressions are almost identical to PCSE (some standard errors were smaller and significance level for some coefficients larger in XTSCC), so we report PCSE results to simplify the presentation.

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[15] The original data in current pesos were deflated using the index of construction costs (ICC) reported by INDEC. The ICC base year base is 1993=100 and it measures the monthly changes in the private construction cost of buildings for housing in the City of Buenos Aires and in 24 districts of Greater Buenos Aires. The models were also calculated using the dependent variable in U.S. dollars and substantive results remain very similar to those reported.

[16] The original data in current Reais were deflated using the index of construction costs (*Índices da Construção Civil*, ICC) reported by IBGE. The ICC base year base is 1994=100 and it is a monthly survey of prices of construction materials and wages in the housing, sanitation, and infrastructure sectors. The geographic coverage includes all major regions and federative units in Brazil. As in the case of Argentina, the models were also calculated using the dependent variable in U.S. dollars and substantive results remain very similar.

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- Tables 1 to 3 about here -

Empirical Findings

We found empirical results that support our main theoretical expectations. Table 1 reports some basic descriptive statistics for the period under study, dividing districts into those belonging to the core presidential coalition and those in the opposition. In Argentina, opposition districts received, on average, 42 percent in per capita terms of the total infrastructure funds that districts in the core coalition received. In Brazil, differences are not that acute but the data reveal a similar trend: districts which are not part of the core coalition received on average 20.4 percent fewer infrastructure funds than core districts.

Getting into the regression results, the data seems to support the claim that the regional allocation of infrastructure funds is affected by presidential politics. In line with our theoretical expectations, more funds are allocated to those districts in which governors have more partisan powers. Holding constant other variables in the model, a one-point increase in the partisan power of the governor is associated to a 50.5 percent increase in the total infrastructure funds per capita the province receives in Argentina (See Table 2, Model 1) or a 43.1 percent increase in the per capita funds the state receives in Brazil (See Table 3, Model 1).

Argentine presidents also allocate more funds to provinces in which governors have larger tenure potentials; that is, districts in which the governor is expected to stay in office for longer periods of time. All else being equal, provinces get 0.3 percent more funds for each year the governor is expected to stay in office. This coefficient seems to be very modest, but it is not. If a governor is expected to stay two terms in office (which is a fairly common situation in many

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provinces), she will receive an average 2.4 percent more infrastructure funds than the average governor (See Table 2, Model 1). This variable may also contribute to robust results if the governor is electorally powerful (large partisan powers and large electoral margin) and is expected to be in office for a long time.

In another sign of the relevance of presidential politics, federal executives tend to allocate more infrastructure investment to districts controlled by close partisan allies. Both in Argentina and Brazil, these provinces and states received substantially more funds than swing or opposition districts. All else being equal, belonging to the core coalition in Argentina represents an average increase of 86.5 percent in the total amount of infrastructure funds per capita that the province receives in a given year. In Brazil, this value is 27.7 percent. Both coefficients are robust and statistically significant (See Model 2 in Tables 2 and 3).[17]

Provinces are more likely to get more funds if they are electorally secure and not swing districts when controlling for third variables. These districts tend to get more funds when the difference between the share of votes of the governor and the main party in the opposition is larger (that is, when the value of the variable *swing* increases). More specifically, a one point-increase in the difference between the first and the second party is associated to an average 87 percent increase in the dependent variable in Argentina, or a 66.7 percent increase in Brazil. Coefficients are robust and statistically significant for both cases (See Model 2 in Tables 2 and 3).[18] Larcinese et al. (2006, pp.452, 454) also found that presidents engage in tactical distribution of federal funds to the states in the US: their results show that there is a presidential ideological bias toward safe states and the alignment between the president and the governor is a substantial

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[17] Opposition provinces or states, on the contrary, received fewer infrastructure funds on average than the rest of the districts. The coefficient for opposition districts in Argentina is negative, robust (-.407), and statistically significant. The coefficient for Brazil has a negative sign, as expected, but it is not statistically significant.

[18] The standard errors are large for both cases, so results should also be also taken with care.

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factor in explaining the allocation of federal moneys. Berry et al. (2010, pp.791, 792) found a similar partisan bias in the allocation of federal spending at the district and county levels. Díaz-Cayeros (2006, p.139) discovered a similar pattern in his study on the distribution of federal resources (including infrastructure funds) by Mexico's PRI.

We also performed a PCSE regression with an interaction effect between gubernatorial power and allied districts (core districts). Results also confirm our expectations: presidents allocate more funds to core districts with the most powerful governors. In the data for Argentina, the interaction term is robust, has the expected sign, and it is statistically significant: when the governor is a key political ally in the core of the presidential coalition and she increases her gubernatorial power in one point, her district will be likely receive an average 164 percent more in per capita infrastructure funds.[19] In Brazil, the interaction term has the expected sign but it is not statistically significant. Interestingly, the index of gubernatorial power holds its statistical significance and robustness, indicating that Brazilian presidents have been more likely (or have been compelled) to support strong governors both in the coalition and outside it than their Argentine counterparts.

Results also indicate that infrastructure distribution in Argentina is mainly decided by the executive and not the legislative. The number of legislators from a province in the relevant congressional committees and the size of state legislative delegations of the governing party in the federal congress do not influence the amount of funds the provinces receive (See Table 2, Model 3).[20] These findings are consistent with those of Berry et al. (2010, p.795) for the US.

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[19] The other variables in the model also perform as expected. A major change is that the index of gubernatorial power has the expected sign and remains robust (.193) but lost statistical significance, indicating that presidents allocate more funds to powerful governors, but especially to those who are allied. Results are not reported due to space restrictions but are available upon request.

[20] The variable committee in Argentina is statistically significant, but moves in the opposite direction than expected. We report results for one of the relevant congressional committees, Public Works. Results for the Budget and

Regression outcomes for Brazil also indicate that congressional committees do not affect the outcome, but congressional delegations do matter, and they mater a lot. The coefficient for this variable is very robust and statistically significant: holding other variables constant, a one percent increase in the share of the legislative delegation of a given state in a given year is associated to a 616 percent increase in the amount of infrastructure funds the state receives per capita (See Table 3, Model 3).[21] We must interpret this coefficient bearing in mind that the average state contributes with a 3.4 percent of the deputies in the federal legislative coalition,[22] so a one percent change in this variable is not very simple. These results are similar to Grossman's (1992, p.299): larger legislative majorities of the Democratic party (the party in government at the federal level) were empirically associated to larger grants to Democratic districts. The relevance of congressional delegations in the allocation of public works has also been stressed by the literature on Brazilian legislative politics. Individual and collective amendments are the key negotiating tools with legislators and a mechanism through which the president crafts legislative support in exchange for pork barrel in both chambers (Altston y Mueller, 2005; Pereira y Mueller, 2002).[23]

Overrepresentation is the only static institutional variable that seems to be a robust and statistically significant predictor of infrastructure distribution in Brazil (See Table 3). Controlling for third variables, a one point increase in the overrepresentation index is associated to a 26

Appropriations committee are almost identical (β=-.041; p=.709). Including both variables in the same model does not change substantial conclusions either.

[21] The standard error for this variable is large. We also used the natural log of delegation and substantive results remain the same.

[22] São Paulo has the largest average delegation, with a 20 percent of the deputies. Some states (Alagoas and Tocantins) had no legislative delegation during the period we analyze, and others had very small shares (of 1 percent; such as Amazonas, Espiritu Santo, Maranhao, Paraiba, Piaui, Rio Grande do Norte, and Sergipe).

[23] According to Figueiredo and Limongi (2009, p.81), Congress was responsible for the allocation of more than 30 percent of federal investment in the period 1999-2001.

percent average increase in the per capita amount of infrastructure.[24] This finding is consistent to what several authors reported in their studies on the US (Atlas et al. 1995; Lee, 1998), and the European Union (Rodden, 2002). The coefficient is not statistically significant in half of the models for Argentina, so results remain inconclusive in this case (See Table 2).[25]

Other institutional variables do not receive empirical support in the regressions we run. Presidential election years do not seem to contribute explaining the allocation of infrastructure investment in neither of the two federations (See Model 3 in Tables 2 and 3).[26]

We also checked whether programmatic arguments received empirical support and we found that the territorial allocation of infrastructure funds does not seem to clearly follow equity or efficiency criteria. Ceteris paribus, the main predictors according to programmatic redistribution do not seem to get conclusive empirical support neither in Argentina nor in Brazil.

In relation to equity criteria, and controlling for third variables in the model, poverty does not seem to be a good determinant for infrastructure distribution. Argentine provinces or Brazilian states with the largest share of poor households do not appear to receive more investment. In Argentina, the coefficient has the expected sign but it is statistically insignificant in half of the models; while in Brazil, poorer districts received fewer funds, contrary to what redistributive arguments would expect (See Tables 2 and 3).

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[24] Several authors have studied how the budget process favors over-represented states, especially those in the government coalition. First, all legislators have the opportunity to submit an equal number of individual amendments so, in per capita terms, more overrepresented states put forward more individual amendments. For example, considering the R$ 3.5 million limit stipulated in the draft 2005 budget law, lawmakers in Roraima (with a total population of only 350,000 inhabitants) were granted R$ 38.5 million in amendments, against the R$ 255.5 million for members of Congress from São Paulo (with a population of 40 million; Carvalho, 2005, p.3). Second, over-represented States have greater bargaining power in the CMO, increasing the possibility that their amendments get approved on the floor.

[25] We found similar results in several other regression models (Prais-Winsten, GLS, and simple OLS) and in a previous version of this paper for Argentina (Gonzalez and Mamone, 2011).

[26] In Argentina, gubernatorial and state legislative elections may not coincide with federal executive and legislative elections (each province can fix its own electoral calendar). Therefore, we run different regressions for gubernatorial election years and for federal and provincial legislative election years. None of these regression coefficients reach the standards of statistical significance.

If we take into account income per capita, the regression analysis reveals mixed results in the two cases. In Argentina, all but one regression (in which the coefficient does not reach the standards of statistical significance) indicate that richer districts (those with larger average logs of income per capita) received more funds (See Table 2). These results are in line with those of Grossman (1992, p.301) who found that higher income states in the US tended to receive more money rather than the opposite. The author explains this by claiming that these states have greater influence on grant distribution. Díaz-Cayeros (2006, pp.139, 141) also found that Mexican "presidents targeted a disproportionate share of resources toward the richer states, notwithstanding that such a strategy increased regional inequality." In Brazil, results indicate exactly the opposite: districts with larger (logs of) GDP per capita received fewer funds for public works (See Table 3). Combined results for poverty and income in Brazil seem to indicate that more overrepresented, less populated, middle and lower income states with fewer average poor households received more public works. Northern and Center-West states are the ones that resemble those structural characteristics. In effect, basic descriptive statistics indicate that these are the states that have benefited the most during the period of analysis.[27]

More populated districts (in terms of the share of the total population or population density) received fewer public works per capita both in Argentina and Brazil (the standard errors for total population are large in both cases). Larcinese et al. (2006, p.451) discovered the same for the US. But very interestingly, the urbanization rate is a strong predictor, especially in Brazil where the coefficient is statistically significant: more urbanized states received more infrastructure funds, as the theory expected. Districts with larger industrial production and those with more cars

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[27] The yearly national average in Brazil is R$ 80.4 per capita. Northern states received, on average, R$ 159.1 per capita, while Center-West states received R$ 105.1 per capita. On the contrary, Northeastern states received R$ 48.4 per capita while Southeastern states got 32.5 per capita. That is, they got 79.6 percent fewer funds per capita than the average Northern state. Some possible reasons for these differences are explored in the conclusions.

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do not get more infrastructure investment. In Argentina the coefficient for the log of industrial GDP has the opposite sign than theoretically expected and the coefficient for number of cars is not statistically significant. In Brazil, the log of industrial GDP has the expected direction but it is not significant and the coefficient for cars has the expected direction but it is not robust (although it is statistically significant) (See Model 4 in Tables 2 and 3).

Out of the results presented here, neither efficiency nor equity criteria seem to get substantial empirical support as relevant factors to explain the allocation of infrastructure funds and when they are empirically relevant, they move in the opposite direction: poorer, more populated, and more industrialized districts received fewer funds. Only urbanization rate, income per capita, and number of cars in Brazil move as expected theoretically according to programmatic criteria, but only the first two coefficients are robust.

The R-Squares in the main models oscilate between .44 and .58, indicating that we still need better theories, data, and models to account for the factors that affect the distribution of the dependent variable beyond the variables we included in our study. Case studies may also contribute to a better understanding of idiosyncratic factors involved in the distribution.

Discussion

The results are evidence supporting the relevance of presidents in the distribution of federal outlays in the US (Larcinese et al., 2006; Berry et al., 2010). Presidents are crucial actors in the decisions to allocate funds, and they do that following electoral considerations: they distribute more funds to the most powerful (in partisan and electoral terms) allied governors, compared to swing or opposition districts. These provincial executives are key in contributing to their electoral fate and support. In Argentina, provincial executives also tend to receive more money when they are expected to stay longer in office; that is, when their tenure potential is longer.

The comparative analysis reveals some very interesting differences. While the legislative does not shape the outcome in Argentina, it seems to be important in Brazil. In this case, the share of the states in the president's congressional delegation is a significant factor influencing the allocation of federal public works. Furthermore, the distribution of infrastructure funds appears to be affected by the overrepresentation of the districts in Brazil (this finding goes in line with what scholars have found in the European Union), but it does not seem to be relevant in Argentina.

How can we explain the differences between Argentina and Brazil? Why congressional delegations influence redistributive politics in Brazil and not in Argentina? One possible answer could point to the degree of concentration of political power in hands of the president and the need to build up legislative coalitions. We could contend that when presidents get enough political support from their own parties (in terms of seats and discipline) to pass crucial legislation in Congress, they have fewer incentives to form broad legislative coalitions, especially under conditions of fiscal and economic urgency (O'Donnell, 1994). Under those circumstances, presidents will be more likely to determine redistribution and to minimize the role of Congress. On the contrary, when presidents need to build up legislative coalitions to get political support from other parties, Congress will be more likely to play a more relevant role. This is the crucial arena for inter-party bargaining. According to this reasoning, presidents in Argentina received enough support from their own parties and core allies in the period under study and hence they have been the main political actors in deciding the distribution of federal funds (with minimal influence from Congress). The Brazilian president, on the contrary, has been forced to give Congress a larger clout in this process.

Another major difference between the two cases is the clear predominance of political variables in Argentina, while these variables interact with some programmatic considerations in Brazil: Brazilian presidents are investing in political allies mainly in the North and Center-West states.[28] Most of these states are controlled by allied governors, but these are also the regions in which the federal government is expanding agriculture production and constructing infrastructure to take it to the main ports and from them to export markets. Why is Brazil more programmatic than Argentina? Although more research is clearly needed to give a satisfactory answer these questions, possible clues could point to some usual suspects: institutions, parties, or the state. It may be that in Argentina the president has institutional rules that allow her more discretion than in Brazil (the president has legal authority to reallocate budget transfers). The question would be, then, why Argentina has these rules and not other cases. It may well be that Brazil has now more programmatic parties in government (the PT) than Argentina (the PJ), and this obviously influences programmatic decisions in government. We can also point to the state and its bureaucracy, and claim that bureaucratic planning offices in Brazil have more say and influence over presidential decisions than in Argentina (following the idea of embedded autonomy developed by Evans, 1995), but clearly more research is needed to support all these clues.

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[28] The largest recipients in per capita terms in these regions are Roraima (R$334 average per capita during the period), Acre (R$259), Tocantins (R$208), Amapá (R$154), Mato Grosso do Sul (R$132), and Mato Grosso (R$119); while the least favored states are the Federal District (R$4 per capita), São Paulo (R$16), and Paraná (R$22). Out of the six most favored, five have been in the presidential coalition most of the time (only Roraima was under control of a coalition led by the PSL in which the PT was part of it and after 2005 under the control of the PSDB in coalition with the PFL; and Tocantins only after 2010 was controlled by the opposition PSDB), while among the least favored only the Federal District was controlled by the PMDB, the PFL, and the PT only after 2010. There are other several reasons why transfers per capita are large in these states (besides political coalition). Roraima is a new state (it was a federal territory until 1988). The large per capita transfers are largely a result of its very small population (only 450,000 inhabitants) and the coefficients that regulate individual amendments to the budget. Roraima has 3 senators and 8 deputies. Given the budget process legislation, each legislator can distribute R$12 million annually. Therefore, the legal framework grants Roraima a significant amount of resources, independent of political coalitions. This pattern is also visible in other small states that were also federal territories until 1988, such as Acre and Amapá. Tocantins and Rondônia, although similar in some aspects to the previous states, have developed a large agricultural economy and have been recipients of large logistical federal infrastructure projects.

All in all, we found that presidential politics and the politics of legislative coalition formation and maintenance are critical factors influencing the distribution of federal infrastructure. We believe this is an important finding that may have profound implications for development strategies and in terms of redistribution and inter-regional inequality. Infrastructure funds are one of the most important tools in hands of federal governments to redistribute wealth across regions in a country, but they do not seem to be used to diminish inequality, especially in Argentina. The key question is how these policies may have more redistributive impact. When are districts that need more investment more likely to receive it? In Argentina this is likely to occur when the key coalition partners presidents have predominantly ruled (and are expected to continue ruling) in the least developed districts. In Brazil, this is most probable to happen when core and politically powerful allies increase their legislative delegations and are located in regions of the country defined as strategic by the federal government. These are the moments in which presidential politics and redistribution coincide.

Variables and Data Sources

ARGENTINA			
Variables	**Description**	**Source**	**Years**
Public Works Investment (ONP)	Federal Government Investment in Public Works from eighteen budget programs of the Ministry of Federal Planning, Public Works, and Services,[29] per capita, in thousand Argentine pesos, deflated using INDEC's construction index prices (ICC).	"Consulta para el Ciudadano" website, National Budget Office (ONP), Ministry of Economy.	1999-2009
GGP per cápita (log)	Natural logarithm of per capita gross geographic (provincial) product, in constant 1993 Argentine pesos.	1983-1992: Consejo Federal de Inversiones (CFI); 1993-1997: SAREP, INDEC. 1998-2009: National Accounts, Ministry of Economy.	1983-2009
GGP industry output (ln)	Natural logarithm of gross geographic (provincial) industry output, in constant 1993 million Argentine pesos (producers' price).	National Accounts, Ministry of Economy.	1983-2009
Poverty level	Percentage of Households with Basic Needs Unsatisfied. Census Data (extrapolated for the series).	National Institute of Statistics and the Census (INDEC).	1980, 1991, 2001.
Urbanization rate	Urbanization rate by Province. Census Data (extrapolated for the series).	INDEC.	1980, 1991, 2001.
Population share	Share of national total population for each Province. Census Data (extrapolated for the series).	INDEC.	1980, 1991, 2001.
Population density	Inhabitants per squared kilometer. Census Data (extrapolated for the series).	INDEC.	1980, 1991, 2001.
Cars	Registered Cars by Province (data for December 31st 2007; extrapolated for the series).	National Register of Vehicle Ownership, Ministry of Justice and Human Rights.	2007
Core district	Dummy variable to account whether a provincial governor is from the same party of the President.	Authors' calculation based on data from the Ministry of Interior.	1983-2009
Allied district	Dummy variable to account whether a provincial governor's party is a member of the President's coalition.	Authors' calculation based on data from the Ministry of Interior.	1983-2009
Swing district	Difference between the incumbent's share of votes and that of his provincial runner up in the last election.	Authors' calculation based on data from the Ministry of Interior.	1983-2009
Opposition controlled district	Dummy variable to account whether a provincial governor is from an opposition party to the President.	Authors' calculation based on data from the Ministry of Interior.	1983-2009
Governor's Power	Index of Partisan Power of the Governor. See footnote number 8.	González, 2010.	1983-2008

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[29] The number of programs analyzed varies from year to year. We include all programs except subsidies to industries and public companies, as well as central government expenses. We grouped funds in housing, community services, public infrastructure, and economic services. Funding for housing and community services include capital transfers for housing development, urbanization, and sanitation.

Tenure Potential	Maximum number of years allowed by the Provincial Constitution to remain in the office of the Governor.	Authors' calculation based on data from Provincial Constitutions.	1983-2009
Committee (1) and (2)	Number of national deputies from a certain Province that are members of the Budget and Appropriations (1) and Public Works (2) Committees in the Chamber of Deputies.	*Oficina de Comisiones*, Chamber of Deputies.	1983-2009
Delegation	Share of national deputies from a certain Province that belong to the President's party.	Legislative Information Office, National Chamber of Deputies.	1983-2009
Overrepresentation	Proportion of national deputies from a certain province over the total provincial population.	Loosemore-Hanby Index of Electoral Malapportionment (Samuels y Snyder, 2001; Calvo y Murillo, 2005) and electoral data from the Ministry of the Interior.	1983-2008
Electoral Year	Dummy variable indicating whether presidential elections were held in a given year.	Authors' calculation based on data from the Ministry of Interior.	1983-2009

BRAZIL			
Variables	**Description**	**Source**	**Years**
Public Works Investment	State-level allocation of federal expenditures in housing, sanitation, roads, and urban works.	*Siga Brasil*: Public Budget Information System, Federal Senate.	2001-2011
GGP per cápita (log)	Natural logarithm of per capita gross geographic (state) product, in constant 2000 R$, deflated with the National GDP Implicit Deflator (IPEA).	2002-2005: Sistema de Contas Regionais. 1985-2001: Antigo Sistema de Contas Regionais.	1994-2008
GGP industry output (ln)	Natural logarithm of gross geographic (state) industry output, in constant thousand R$.	IBGE, Pesquisa Industrial.	1992-2010
Poverty	Number of people in households with income per capita below the poverty line. IPEA Data are in absolute values, converted to percentage compared with other countries.	IPEA Data	1980-2005
Urbanization rate	Urbanization rate by State. Census Data (extrapolated for the series).	IPEA Data	1980-2005
Population share	Share of national total population for each State. Census Data (extrapolated).	IPEA Data	1980-2005
Population density	Inhabitants per squared kilometer (extrapolated).	IPEA Data	1980-2005
Cars	Number of cars in each State (extrapolated).	IPEA Data	1999-2009
Core district	Dummy variable to account whether a state governor is from the same party of the President.	Authors' calculation based on data from Jairo Nicolau's database.	1985-2011
Allied district	Dummy variable to account whether a state governor's party is a member of the President's coalition.	Authors' calculation based on data from Jairo Nicolau's database.	1985-2011
Swing	Difference between the incumbent's share of votes	Authors' calculation based	1985-

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district	and that of his state runner up in the last election.	on data from Jairo Nicolau's database.	2011
Opposition controlled district	Dummy variable to account whether a state governor is from an opposition party to the President.	Authors' calculation based on data from Jairo Nicolau's database.	1985-2011
Governor's Power	Index of Partisan Power of the Governor. See footnote number 8.	González, 2010.	1985-2011
Committee	Number of national deputies from a certain State that are members of the Urban Development Committee (CDU).	Câmara dos Deputados	2000-2011
Joint Commitee	Number of national deputies and senators from a certain State that are members of the Budget Joint Committee (CMO).	Câmara dos Deputados	2000-2011
Delegation	Share of national deputies from a certain State that belong to the President's congressional party.	Câmara dos Deputados	2000-2011
Overrepre-sentation	Proportion of national deputies from a certain state over the total state population.	Loosemore-Hanby Index of Electoral Malapportionment (Samuels y Snyder, 2001; Calvo y Murillo, 2005) and electoral data from Jairo Nicolau's database.	1985-2011
Electoral Year	Dummy variable to account whether there are presidential elections held in a given year.	Authors' calculation based on data from Jairo Nicolau's database.	1985-2011

Table 1

Descriptive Statistics, Comparison of Core and Opposition Districts, Argentina 1999-2009

In Current Pesos

Core Districts	Mean	Std. Dev.	Min	Max
Public Works per capita	287	626	2	4,471
Opposition Districts				
Public Works per capita	120	121	2	551

Descriptive Statistics, Comparison of Core and Opposition Districts, Brazil 2001-2011

In Current Reais

Core Districts	Mean	Std. Dev.	Min	Max
Public Works per capita	98	138	6	620
Opposition Districts				
Public Works per capita	78	98	0.6	661

Table 2: PCSE Regression Results for Argentina

Data for ARGENTINA	Model 1: Governors' Power	Model 2: Core and Swing States	Model 3: Institutional Model	Model 4: Programmatic Arguments
Governor's Power	0.505*** (0.194)			
Tenure Potential	0.003** (0.001)			
Core district		0.865*** (0.286)		
Swing district		0.870*** (0.317)		
Presidential Election Year			0.454 (0.541)	
Committee			-0.375*** (0.104)	
Congressional delegation			-7.106 (6.682)	
Nat Log of Industrial GGP				-0.380*** (0.071)
Cars				-0.000 (0.000)
Population density				-0.000 (0.000)
Urbanization rate				0.617 (0.989)
Overrepresentation	0.166*** (0.036)	0.181*** (0.057)	0.209 (0.109)	0.075 (0.049)
Natural Log of per capita GGP	0.768** (0.332)	0.632 (0.510)	1.018* (0.525)	0.904** (0.459)
Poverty	0.058*** (0.020)	0.045 (0.031)	0.053** (0.025)	0.037 (0.029)
Population share	-5.912*** (0.923)	-6.738*** (0.828)	.	-2.953 (16.721)
Constant	-12.218*** (3.622)	-10.019* (5.216)	-13.017*** (5.022)	-10.167*** (3.847)
Observations	152	165	75	149
Adj R2	0.47	0.44	0.54	0.52

Note: PCSE regression results. Standard Errors reported in parenthesis.
*p<0.100; **p<0.050; ***p<0.010.
The dependent variable is the National Budget Office's original data for the natural logarithm of Federal Government Investment in Public Works per capita, in thousand Argentine pesos, deflated using INDEC's construction index prices (ICC).

Table 3: PCSE Regression Results for Brazil

Data for BRAZIL	Model 1: Governors' Power	Model 2: Core and Swing States	Model 3: Institutional Model	Model 4: Programmatic Arguments
Governors' Power	0.431*** (0.075)			
Core State		0.277* (0.147)		
Swing State		0.667** (0.328)		
Presidential Election Year			-0.050 (0.230)	
Committee			-0.015 (0.049)	
Joint Committee			-0.141*** (0.034)	
Congressional Delegation			6.157*** (2.071)	
Nat Log of Industrial GGP				0.134 (0.088)
Cars				0.000** (0.000)
Population density				-0.003*** (0.000)
Urbanization rate				3.007** (1.267)
Overrepresentation	0.260*** (0.044)	0.267*** (0.044)	0.276*** (0.021)	0.269*** (0.037)
Natural Log of per capita GGP	-1.691*** (0.247)	-1.716*** (0.241)	-2.045*** (0.346)	-1.585*** (0.325)
Poverty	-5.755*** (0.675)	-5.730*** (0.627)	-6.470*** (0.932)	-3.877*** (0.616)
Population share	-5.331*** (0.931)	-5.208*** (0.827)	-7.382*** (2.459)	-12.862*** (4.105)
Constant	0.071 (0.594)	0.494 (0.540)	1.785** (.772)	-4.140*** (1.243)
Observations	275	267	195	275
Adj R2	0.53	0.53	0.60	0.58

Note: PCSE regression results. Standard Errors reported in parenthesis.
*p<0.100; **p<0.050; ***p<0.010.
The dependent variable is the natural logarithm of Federal Government Investment in Public Works per capita, in thousand Reais, deflated using IBGE's construction index prices (ICC).

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