DOCUMENTOS DE TRABAJO SOBRE

ECONOMÍA REGIONAL Y URBANA

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Núm. 260
Septiembre, 2017

BANCO DE LA REPÚBLICA
CENTRO DE ESTUDIOS ECONÓMICOS REGIONALES (CEER) - CARTAGENA

The working paper series **Documentos de Trabajo sobre Economía Regional y Urbana** is published by Banco de la República (Central Bank of Colombia). The findings and opinions expressed are those of the authors and do not reflect the views of Banco de la República or its Board of Directors.

Political Alignment in the Time of Weak Parties: Electoral Advantages and Subnational Transfers in Colombia ‡

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‡The authors would like to thank Eduard Fernando Martínez for his excellent research assistance. This version benefited from useful comments by Jaime Bonet, Javier Perez, Julio Romero, Juan S. Morales, Héctor Galindo, Juan Tomás Sayago, Luis Armando Galvis, Lucas Hahn, and participants at various seminars and conferences.

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Abstract

This paper explores the effect of alignment between local and national politics in a context of weak parties. Based on a regression discontinuity design in close elections, we find that, in absence of strong parties, presidential coalitions become the focal point of political alignment in Colombia. In fact, while parties provide almost no electoral advantages to their members, candidates aspiring to national positions get significantly more votes in municipalities governed by mayors aligned with the incoming presidential coalitions. In turn, aligned mayors receive additional discretionary transfers from the National Government to finance road investments. These discretionary transfers, however, do not translate into local economic growth.

Key words: Political alignment, elections, subnational transfers, regression discontinuity
JEL classification: D72, H72, H77, R11

Resumen

Este documento explora el efecto de alineación entre politicos locales y nacionales en un contexto de partidos débiles. Utilizando métodos de regresión discontinua en elecciones reñidas, encontramos que en ausencia de partidos fuertes, las coaliciones presidenciales se convierten en los ejes de la alineación política en Colombia. De hecho, mientras que los partidos políticos proveen muy pocas ventajas electorales a sus miembros, los candidatos de la coalición a posiciones nacionales obtienen muchos más votos en municipios gobernados por alcaldes alineados. A su vez, los alcaldes alineados reciben más transferencias discrecionales para financiar carreteras por parte del gobierno nacional. Estas transferencias, sin embargo, no se traducen en mayor crecimiento económico en los municipios.

Palabras clave: Alineación política, elcciones, transferencias subnacionales, regresión discontinua
Clasificaciión JEL: D72, H72, H77, R11

1 Introduction

Local and national politics are deeply integrated, and understanding the nature and strength of the connections is paramount to the design of policies that improve the functioning of democracy. Gibson (2005) provides a clear example of the importance of this problem. In most developing countries, democratic national governments coexist with subnational authoritarian leaders. This can happen because local and national officers have a symbiotic relationship, in which they exchange transfers and control over local policy for votes and legislative support. In a broader context, abundant evidence has shown that political alignment siginficantly affects subnational transfers and electoral results in both developed and developing countries (Ade and Freier, 2013; Arulampalam et al., 2009; Borcan, 2016; Bracco et al., 2015; Brollo and Nannicini, 2012; Dey and Sen, 2016; Levitt and Snyder Jr., 1997; Solé-Ollé and Sorribas-Navarro, 2008). While most of these studies are based on countries in which the center-periphery negotiation is mediated by relatively strong parties, less is known about alignment effects when the party system is weak.

This paper addresses this question by studying the effect of alignment between local politicians and presidential coalitions in Colombia. This is an interesting case study since the political reforms that took place during the 1990's severely fragmented and weakened the party system (Dargent and Muñoz, 2011; Galindo-Silva, 2015; Pizarro Leongómez, 2006). Since 1991, traditional parties have persistently declined and numerous new parties have emerged, most of which personalist and short-lived. We argue that in a context like this, presidential coalitions become the focal point of political alignment. To support this claim, we evaluate the effect of party and coalition alignment between local and national politicians on subsequent elections and subnational transfers. We address the potential endogeneity of mayoral elections using a regression discontinuity design around close elections.

Our main results indicate that parties provide almost no electoral advantages to their members. In contrast, House representatives and presidential candidates of the incoming presidential coalition get substantially more votes in municipalities governed by aligned mayors. The estimated effects can be as large as 9.4 pp for presidential candidates in final-round elections. In turn, coalition alignment significantly increases road investments financed with discretionary subnational transfers. In fact, mayors aligned with the current presidential coalition receive approximately 117% more

co-financing funds during the mayoral term. Overall, these results confirm that presidential coalitions are able to assign discretionary transfers to aligned mayors and to create electoral advantages for their candidates in national elections.

We then assess whether politically motivated transfers translate into local economic growth. To this purpose, we estimate the effect of political alignment on two sets of measures of economic growth based on night-time lights and agricultural loans data. We find statistically insignificant effects for all outcomes. There are two possible explanation to this result. On the one hand, subnational transfers may erode the quality of local institutions. We test this by estimating the effect on alternative measures of government performance, law enforcement, and disciplinary prosecutions, finding no significant effects. On the other hand, discretionary transfers are relatively small compared to other sources of revenue, which may limit their potential to generate economic growth.

The paper contributes to the growing literature on political alignment between different layers of government. The main results are in line with previous literature showing that political alignment influences subnational transfers and subsequent elections (Ade and Freier, 2013; Arulampalam et al., 2009; Borcan, 2016; Bracco et al., 2015; Brollo and Nannicini, 2012; Dey and Sen, 2016; Levitt and Snyder Jr., 1997; Solé-Ollé and Sorribas-Navarro, 2008). This is one of the few papers focusing in a context of weak parties. Our main findings indicate that in absence of a strong party system, presidential coalitions become the focal point of alignment and this create particularly large advantages in national elections. The only other paper studying alignment effects on national elections under a weak party system is Brollo and Nannicini (2012). Interestingly, the estimated effects on presidential elections are smaller in magnitude and significance for Brazil, indicating that presidential candidates have less electoral advantages in this country. This might reflect important differences in the level of decentralization and the fragmentation of the party system.

The paper also relates to the dis-incumbency effect literature (Klašnja, 2015; Klašnja and Titiunik, 2017; Uppal, 2009). Our party alignment results for mayoral elections are consistent with Klašnja and Titiunik (2017) in that party incumbency is likely to be a disadvantage when running for reelection when the party system is weak. However, once we take into consideration the presidential coalitions, we find positive alignment effects on subsequent national elections. This implies that even though

mayors are not actively contributing to re-elect their parties at the local level, they do provide electoral advantages to the higher-rank member of their coalition running for national positions.

Finally, our results show that politically driven transfers have no impact on local economic development, contributing to a growing literature on the efficiency of subnational transfers (Bonet et al., 2014; Borrella, 2015; Das, 2017; Faguet and Sánchez, 2014; Lozano and Julio, 2015; Martínez, 2017; Ramírez et al., 2017; Sánchez and Pachón, 2017). We test whether this could be due to institutional factors, finding no evidence that political alignment affects different measures of government performance, law enforcement, and disciplinary prosecutions. While these results do not rule out that discretionary transfers increase procurement corruption and clientelism, they indicate that the effects are not large enough to reflect on the government performance and law enforcement measures, and that watchdog agencies may not be effectively detecting corruption practices related to subnational transfers.

The remaining of the paper is organized as follows. Section 2 describes the institutional context, emphasizing on the political reforms and the fiscal and administrative decentralization. Section 3 present the data and the empirical strategy. The main results, presented in section 4, are divided into three parts: electoral advantages, subnational transfers, and the local aftermath. The last section concludes.

2 Institutional Context

Colombia is a presidential representative democracy with a relatively long tradition of free elections and deep and persistent regional inequalities, both in terms of political institutions and economic development (Bushnell, 1993; Fergusson et al., 2017; Galvis and Meisel, 2013; Mcgreevey, 1971; Robinson, 2016). The Constitution of 1991, along with key amendments introduced before and after its enactment, introduced major reforms intended to address some of these issues. These reforms have deeply reshaped the political and administrative system of the country over the last decades. This section briefly describes the current institutional context, highlighting the political reforms and the fiscal and administrative decentralization.

2.1 Weak-Party System

The President is both Head of State and Head of Government, which grants him considerable powers. The presidential term is usually 4 years. However, a one-time presidential reelection was introduced in 2002 and abolished in 2014. The two presidents elected during this period, Mr. Uribe and Mr. Santos, were reelected. The first-round Presidential election takes place in May. When no presidential candidate obtains an absolute majority, the two leading candidates run for a second-round election in June. This is the case of most of the recent elections, with the exception of Mr. Uribe who won the first-round elections votes in 2002 and 2006, with 53.0% and 62.4% of the votes, respectively.

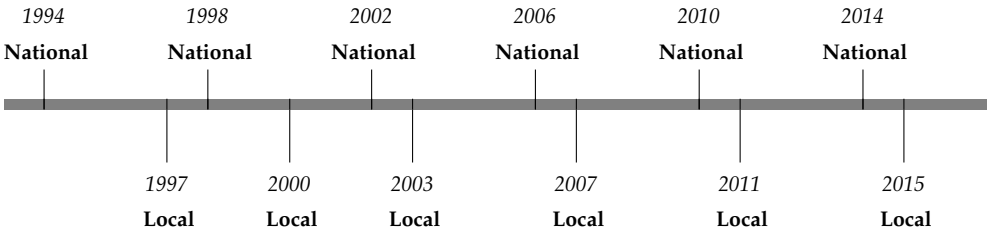
The legislative power is invested in a bicameral Congress. Since 1991, Senators are elected from a single national constituency, while the House constituencies correspond to the departments (states) and the national capital. The number of seats in the House of Representatives is proportional to the population, and there are also special constituencies in both Senate and House for ethnic minorities and Colombian citizens living abroad. Legislative elections are held approximately two months before the first-round presidential elections, every 4 years. All seats are open, but Congressmen can be reelected indefinitely. The new Congress is installed in July and the Presidential inauguration takes place in August.

Mayors and governors are democratically elected since 1988 and 1992, respectively. Before that, citizens would only elect their City and Department councils, while mayors were appointed by Governors, who in turn were designated by the President. Unlike the President, mayors and governors are elected by simple majority. Local elections are simultaneously held in October and the newly elected officials are sworn in January. The local elections cycle changed from 3 to 4 years in 2003. Since then, local officials begin their terms 27 months before the national elections (Figure 1).

In addition to the Congress constituency reforms and the democratic election of local officers, the new Constitution also allowed political movements and independent candidates to run for office and receive public campaign funding. Together, these reforms significantly opened the political system. The two traditional parties, Liberal and Conservative, lost a significant part of their political power, while new parties proliferated. In fact, elected mayors from the two traditional parties felt from 88.4% in 1990 to 33.5% in 2015 (Figure 2). Similar trends were observed in all layers of

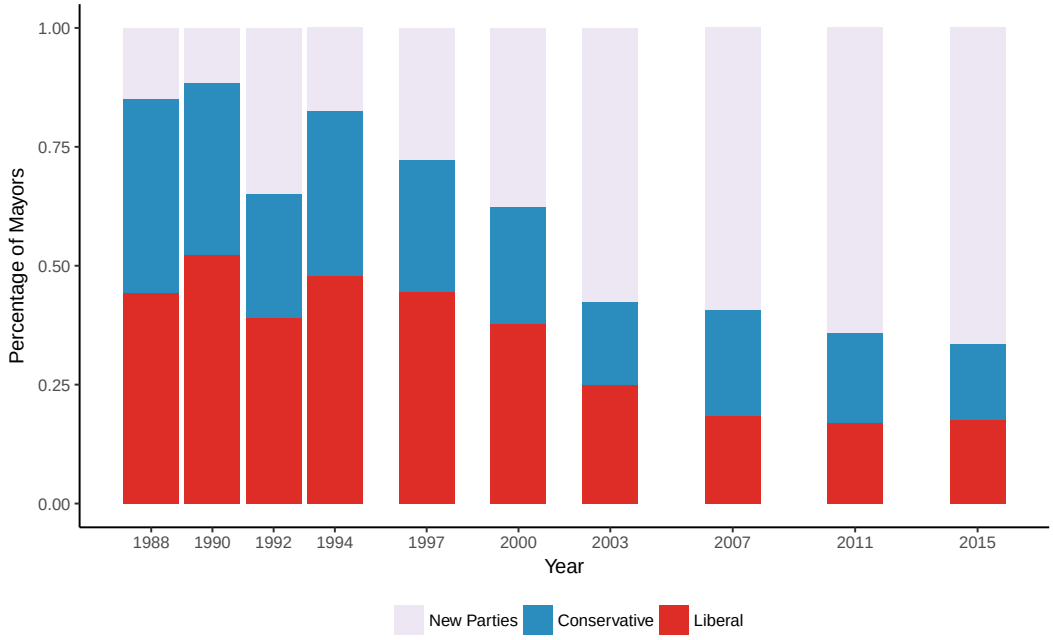
government, and the last president from a traditional party was elected in 1998.

Figure 1
Local and National Elections Timeline



Note: National elections include House, Senate, and Presidency (first and second-rounds). Local elections include municipal and state level executive (mayors and governors) and legislative (council) positions.

Figure 2
Elected Mayors from Traditional Parties



Source: Own calculations based on CEDE and National Registry.

The transition to a multi-party system was characterized by the emergence of a very large number of new parties. While some of the parties that emerged from Liberal

and Conservative factions or from organized social movements are stable and have national representation, in most cases the new parties are personalistic and disappear after one election. In our sample, the number of parties with candidates running for mayor increased from 48 in 1997 to 280 in 2015, and only 12% participated in more than one election. The emergence of these electoral micro-enterprises granted political and financial autonomy to local politicians, in detriment of the parties that lost the capacity to discipline their members (Dargent and Muñoz, 2011; Pizarro Leongómez, 2006). This has severely deinstitutionalized and weakened the party system and created perverse incentives for local politicians. Galindo-Silva (2015) shows that new parties in Colombia collect more taxes and spend more, but this does not translate into significant improvements in public good provision. The author argues that this is the result of short-term rent-seeking behavior. Similarly, Klašnja and Titiunik (2017) find that lame-duck mayors provide public goods less efficiently, which translates into party dis-incumbency effects in countries with a weak party system such as Brazil and Colombia.

2.2 Subnational Transfers

Parallel to the political reforms, the Constitution of 1991 and subsequent legislation also decentralized the government by assigning more responsibilities to local governments in the provision of public goods. Specifically, Departments and Municipalities became responsible for the provisions of education, health, sanitation, local transportation infrastructure, and additional social programs.[1] In return, the national governments raised subnational transfers and granted more fiscal autonomy to local governments.

There are three main types of subnational transfers in Colombia. The first and most important one is the General Participation System (SGP). Approximately 90% of the SGP transfers are earmarked for investments in education, health, sanitation, and pensions. Most of these transfers are used to finance recurrent expenditures of the education and health sector, such as teachers wages and health care. The remaining funds are allocated based on population, poverty, and fiscal and administrative performance, and can be used to finance investments in other sectors such as roads.[2]

[1] Education and health services are provided by departments and municipalities, when they are larger than 100.000 or certified.

[2] While it was originally established that SGP funds would attain 46% of the national current public revenue by 2001, subsequent reforms led to a progressive decline in the participation, reaching 28% in 2012 (Bonet et al., 2016).

The second source is the royalties from the extraction of oil and minerals. Initially, only producing regions benefited from these resources and even though a large fraction was earmarked for education, health, and sanitation, they also funded infrastructure projects. However, given the evidence of inefficient spending in producing regions and the intention to better distribute the resources, a major reform took place in 2011. Since then, all department and municipalities are eligible to apply for royalties funds.[3] While the reform successfully increased the number of beneficiaries of royalties funds across the country, it has also increased the risk of discretionary spending.

The third largest source of subnational transfers are the co-financing funds. Unlike SGP and royalties, which are mostly distributed based on formulas, co-financing funds are assigned on a discretionary basis, and therefore are more likely to be affected by political alignment. These type of funds have been historically used to form majorities in congress (Archer, 1990; Brun and Diamond, 2014; Cárdenas et al., 2006).[4] The mechanism is relatively simple. Congressmen endorse projects and negotiate the funding with the national government in exchange of legislative support. These projects are then executed by aligned local officers. Numerous corruption scandals and abundant qualitative evidence indicate that this exchange is at the heart of one the most common forms of clientelism in Colombia, in which congressmen receive bribes from the procurement contracts and use part of these funds to finance political campaigns and buy votes (La Silla Vacía, 2014a,b; Revista Semana, 2014; Robinson, 2016).

Since the 1980's, the national governments also granted additional fiscal autonomy to Departments and Municipalities. Reforms included standardizing the Department's cigarettes and liquor taxes, ceding the vehicles taxes to the Municipalities, and allowing the municipal authorities to choose between different property and business taxes rates. Even though local tax revenue increased with these measures, the Colombian decentralization process was far from achieving revenue autonomy (Alesina et al., 2005; Dillinger and Webb, 1999). Between 1996 and 2014, subnational transfers still account for approximately 33.2% of the total municipal revenue, and 84.7% of the

[3]The Regional Development and Regional Compensation Funds account for at least 40% of the royalties and prioritizes high impact projects in the poorest regions. Resources are allocated by regional committees, *Órganos Colegiados de Administración y Decisión* (OCAD), in which national and local officers evaluate and select the projects.

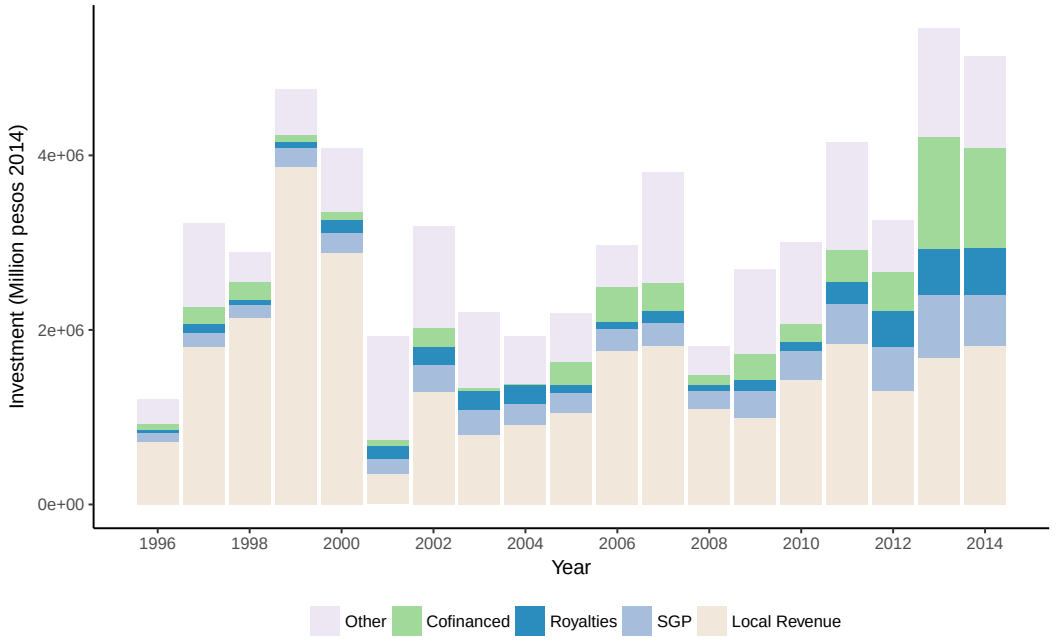
[4]There is a long tradition of discretionary transfers in Colombia. Co-financing funds are among the most recent ones, replacing the *Auxilios Parlamentarios*, parliamentary funds that were eliminated in 1991 in an attempt to eradicate pork-barrel politics Brun and Diamond (2014); Cárdenas et al. (2006).

investment budget.

The key idea behind the political reforms and the decentralization is that accountability incentivizes local officers to provide public goods more efficiently. In Colombia, the effects are ambiguous. Even though the provision of public goods improved almost everywhere in the country, evidence consistently shows that some regions benefited more than others, and decentralization increased regional inequality (Bonet et al., 2014). The most successful regions were those that increased local revenue. In fact, investments funded with local taxes have significantly larger impacts on public good provision, economic growth and poverty reduction, than those funded with subnational transfers (Faguet and Sánchez, 2014; Lozano and Julio, 2015; Martínez, 2017; Ramírez et al., 2017; Sánchez and Pachón, 2017). This is particularly true for royalties, which have consistently reduced fiscal effort (Bonet et al., 2014; Ramírez and Bedoya, 2014) and promoted rent-seeking behavior in mining regions (Martínez, 2017).

This paper estimates the effect of political alignment on municipal road investments financed with subnational transfers. We focus on roads for two main reasons. First, discretionary transfers are one of the main sources of financing for local roads. In fact, even though co-financing funds account for only 3.2% of the total municipal investment, approximately 45.5% of these funds were invested in roads. This makes co-financing funds the second largest source of financing for local roads, after local revenue that account for 49.4%. Moreover, co-financing funds grew faster than royalties during the last years of study, when the country experienced a commodity boom (Figure 3).

Figure 3
Municipal Road Investments by Source of Financing



Source: Own calculations based on DNP.
Note: Others include credit, department transfers, and unclassified sources of revenue. All values are expressed in millions of 2014 Colombian pesos.

Second, roads are particularly prone to pork-barrel spending, procurement corruption, and clientelism. This is partly due to the voter's strong preferences for targetable and visible investments (Brender, 2003; Cadot et al., 2006; Drazen and Eslava, 2010; Gonzalez, 2002; Leigh, 2008). Infrastructure contracts are also vulnerable to corruption and clientelistic practices (Robinson, 2016). The Odebrecht corruption scandal, in which hundreds local and national officers from Latin America took millions of dollars in bribes in exchange for contracts, illustrates well this practice (The Economist, 2017; The New York Times, 2017). In the case of Colombia, qualitative and quantitative evidence suggests that local roads investments are strongly determined by political, rather than technical criteria. For instance, Mejía-Guinand et al. (2008) show that, between 2002 and 2006, road investment were targeted by the *Consejos Comunales*, populist meetings held by the President in which resources were assigned on a discretionary basis. Since then, there have been numerous corruption and clientelism scandals involving local road investments financed with subnational tranfers. In most of the cases, congressmen exchanged legislative support for funding for roads and receive bribes from the procurement contracts. Part of the money was used to finance

political campaigns, significantly increasing the vote share of coalition candidates in subsequent national elections (La Silla Vacía, 2014a,b).

3 Data and Empirical Strategy

This paper uses regression discontinuity methods to estimate the effect of party and coalition alignment on a number of outcomes, including vote share in local and national elections, subnational transfers, and different measures of institutional capacity, public good provision, and economic development. This section briefly presents the data sources and describes the identification strategy.

3.1 Data

We obtain local and national electoral outcomes from the CEDE Electoral Database (Pachón and Sánchez, 2014) and the Civil Registry Office, *Registraduría Nacional del Estado Civíl*. Our study focuses on the 6 mayoral elections that took place between 1997 and 2015 in 1,123 municipalities.[5] Official records provide the number of votes by candidate aggregated at the municipal level. The sample has over 6,113 races between 1997 and 2015, in which over 23,395 candidates, affiliated to 520 parties, run for mayor. We also collect detailed information on three national elections House, Senate, and President (first and second-round), between 1994 and 2014 (Figure 1).

We estimate the effect of electing an aligned mayor on a number of outcomes, including subsequent local and national results. Electoral results are therefore used both as running variable and outcome. For the running variable, we only consider mayoral elections between 1997 and 2011 with at least two candidates from identified parties. We discard elections in which the runner-up candidate is defeated by null or blank votes. We focus on the two most voted candidates of each race to identify close elections. On average, the winner and runner-up mayoral candidates account for 82% of the votes. The victory margin between the two leading candidates is calculated as the ratio of the vote difference to the sum of the votes. By construction, this measure is positive for winners and negative for runners-up. The average victory margin of the winners is 19%. The outcomes are the vote share of the party or coalition candidates running for all four types of elections, calculated as the ratios of the candidates votes to the total non-null votes.

[5] Although the CEDE Electoral Database has information on previous mayoral elections, it does not report the runner-up candidates votes which is why we discard them.

There are two main types of alignment between local and national politics: *parties* and *presidential coalitions*. While most of the literature focuses on party alignment, we argue that in a context of weak parties, presidential coalitions are the focal point of political alignment. Mayors can be aligned with the *current* President, the *incoming* one, or both. Since the presidential coalitions incorporate new members for the second-round election, we analyze each round separately. More specifically, we focus on first and final-round coalitions. The final-round coalition correspond to the the second-round, except for the two elections in which the president was elected in first-round, 2002 and 2006. In these cases we use the first-round coalition instead. It is worth noting that the first-round coalitions and the vote share were particularly large in these periods, and therefore they are comparable to those of the second-round of the other elections in our sample.

While classifying candidates by party affiliation is straightforward, identifying their position with respect to the presidential coalitions is more challenging. We use three main sources of information to do this. First, the Civil Registry Office. Since 2011, their records allow identifying parties that officially adhered to any political campaign. Second, the press and the parties and candidates public profiles or press releases referring to political endorsements. Third, academic research that explicitly refer to a specif party or candidate. While most of the classification is based on the parties official position, it may be necessary to identify the individual stance of the candidates when large parties are divided. This is the case of the Conservative party during the 2014 second-round presidential campaign, in which a number of high-rank officials supported President Santos's reelection while the party leader and 11 congressmen endorsed the opposition candidate. More details on the classification of mayors aligned with the presidential coalitions are provided in the Appendix Section A.1.

Municipal road investments are provided by the National Planning Department (DNP). We collect detailed information on road investment between 1996 and 2014, financed with three types of subnational transfers: SGP and royalties, which are formula-based, and co-financing funds, which are assigned on a discretionary basis. For each mayoral term and source of revenue, we calculate the annual average road investment before and after national elections. Values are expressed in constant 2014 millions of Colombian pesos. In order to stabilize the variance, and given that numerous municipalities register zero transfers from a specific source, our estimates

are based on a logarithmic transformation of the form $log(1 + y)$.

We also assess the effect of political alignment on economic growth. Since there are no annual statistics of municipal GDP, we use two alternative measures of municipal economic development based on night-time lights and bank loans. Night-time lights data is provided by the National Oceanic and Atmospheric Administration (NOAA) from 1992 to 2013. Extensive literature has shown that night-time lights are a reliable proxy for population and economic density (e.g. Chen and Nordhaus, 2011; Doll et al., 2006; Henderson et al., 2012). We calculate for each year the illuminated surface and the total intensity of light of each municipality. Regressions are based on the last available year of each mayoral term. Loan data is provided by the national agricultural bank, *Banco Agrario de Colombia*. This is a publicly owned bank that was created to finance agricultural activities. It has the largest network of branches in remote rural areas, and holds most of the formal agricultural loans to small farmers, which is why it is considered a good measure of economic activity. We focus on total loans, and small-business loans, available at the CEDE municipal panel from 2000 to 2013, and calculate the average for each mayoral term. Values are expressed in constant 2014 millions of Colombian pesos. Regressions are based on a logarithmic transformation of night-time lights and agricultural credits of the form $log(1 + y)$.

We measure the quality of local institutions using three sets of measures: government performance, law enforcement, and disciplinary prosecutions. We focus on two government performance measures reflecting fiscal and administrative capacity that are published annually by DNP since 2000. The fiscal performance index is a synthetic measure that captures both fiscal autonomy (local revenue, dependence to transfers, and self-financed current expenditures) and fiscal discipline (saving and debt repaying capacity). The administrative performance index combines fiscal performance with development plan accomplishment, cost-effectiveness of investments, and compliance with legal requirements. Since these measures tend to be persistent, we focus on the fiscal and administrative performance of the last year in office of each mayor. Law enforcement is measured using homicide rate and illegal crops. The annual municipal homicide rate is calculated between 1990 and 2014 using administrative records from the National Police and population projections from the National Department of Statistics (DANE). Illegal crops are based on the United Nations Office on Drugs and Crime (UNODC) coca cultivation surveys. The number of cultivated hectares per municipality is available from 2000 to 2013. Given that illegal crops are concentrated

in relatively few municipalities, we use a logarithmic transformation of the form $log(1 + y)$. The disciplinary prosecutions data was collected by Martínez (2017) using publicly available reports from the watchdog agency, *Procuraduría General de la Nación*. Over 677 mayors and 204 top members of staff who were in office between 2001 and 2015 have been prosecuted, and approximately 63% of them were found guilty. For homicide rates, illegal crops, and disciplinary prosecutions, regressions are based on the annual average for each mayoral term.

As a complementary analysis, we assess the effect of political alignment on an additional set of outcomes reflecting public goods provision. Specifically, we collect information on infant mortality, primary and secondary school gross enrollment, exit exam scores, and teenage pregnancy.[6] Finally, all regressions control for the election-year population, provided by the National Department of Statistics (DANE), and a set of baseline municipal characteristics that includes altitude, linear distances to the Department's capital and Bogotá, and poverty rate of 1993. These variables are taken from the CEDE municipal panel. A more detailed description of the electoral results, the main outcomes, and the baseline municipal characteristics is presented in Table 1. Descriptive statistics are presented in the Appendix Table A.3.

[6]Pregnancy rates for girls aged 10 to 18 and infant mortality rate are calculated using vital statistics and population projections from DANE. Gross enrollment rates are calculated using official enrollment statistics from the Ministry of Education and age-specific population projections from DANE. Exit exam scores correspond to the municipal public schools' average score on the SABER 11 test, administered by the *Instituto Colombiano para la Educación Superior* (ICFES). Scores are standardized with respect to the national mean of every year. In all cases, we calculate the annual average for each mayoral term.

Table 1
Descriptive Statistics of the Main Variables

	Mean	SD	Median	Min	Max
		a. Mayoral Elections			
Candidates	3.83	1.75	3	2	17
Vote Share	0.25	0.20	0.24	0.00	1.00
Vote Share of Top-2	0.82	0.14	0.85	0.33	1.00
Victory Margin	0.19	0.18	0.15	0.00	1.00
		b. National Elections			
House: Parties	69.20	9.59	66	56	84
House: Vote Share	0.01	0.06	0.00	0.00	1.00
Senate: Parties	37.28	20.79	23	17	64
Senate: Vote Share	0.02	0.07	0.001	0.00	0.96
President (First Round): Candidates	13.35	3.66	14	8	26
President (First Round): Vote Share	0.07	0.16	0.01	0.00	1.00
President (Second Round): Candidates	2.00	0.00	2	2	2
President (Second Round): Vote Share	0.48	0.26	0.48	0.00	1.00
		c. Municipal Road Investments			
Total	5,265.73	69,199.93	711.42	0.00	2,468,249.00
Financed with SGP	342.19	740.18	182.03	0.00	13,386.84
Financed with Royalties	199.85	1,063.80	0.00	0.00	42,013.27
Financed with Co-financing	408.20	3,624.90	43.49	0.00	148,491.40
		d. Economic Growth			
Night-time Lights: Surface	83.67	122.71	45.62	0.00	1,253.00
Night-time Lights: Intensity	1,495.68	3,035.31	607.50	0.00	41,542.50
Agricultural Bank Loans: Total	1,662.54	3,118.57	823.03	0.00	69,762.90
Agricultural Bank Loans: Small-Business	783.29	1,267.71	331.39	0.00	17,531.81
		e. Quality of Institutions			
Fiscal Performance	62.84	10.55	63.21	12.81	92.24
Administrative Performance	64.54	14.83	67.08	3.67	94.50
Homicide rate	43.75	49.04	28.11	0.00	728.24
Illicit Crops	58.25	338.92	0.00	0.00	9,843.67
Mayor Prosecuted	0.17	0.37	0	0	1
Mayor Guilty	0.10	0.30	0	0	1
Top Staff Prosecuted	0.05	0.22	0	0	1
Top Staff Guilty	0.03	0.18	0	0	1
		f. Public Good Provision			
Infant Mortality Rate	28.36	91.66	10.83	0.00	2,000.00
School Enrollment: Primary	115.76	24.87	114.57	1.19	311.37
School Enrollment: Secondary	51.17	16.63	52.21	0.00	168.55
Exit Exam: Mathematics	−0.14	0.23	−0.15	−1.01	3.83
Exit Exam: Language	−0.20	0.28	−0.18	−1.66	1.99
Teenage Pregnancy Rate (10-19)	2.81	2.41	2.16	0.04	26.05
		g. Baseline Municipal Characteristics			
Population (election year)	55,095.05	332,377.60	14,188	700	7,467,804
Altitude	1,153.15	1,164.50	1,115	2	25,221
Distance to Department Capital	77.07	55.57	65.31	0.00	376.12
Distance to Bogotá	312.69	189.43	270.30	0.00	1,270.85
Poverty rate (1993)	51.69	19.13	50.03	9.15	100.00

Note: Descriptive statistics are based on all municipalities that held mayoral elections between 1997 and 2011. Vote shares are the ratio of the candidate votes to the total non-null votes. The victory margin between the two leading candidates is calculated as the ratio of the vote difference to the sum of the votes. Average annual road investments and agricultural loans are expressed in millions of 2014 Colombian pesos. The illuminated surface is measured in pixels of 30m resolution, and the intensity measure corresponds the sum of the pixels' light density, measured in a range between 0 and 63. Exit exam scores are standardized with respect to each year's national average. Altitude is expressed in meters and distances in kilometers. For more details on the variables, see the Appendix Table A.3.

3.2 Empirical Strategy

The main empirical challenge in estimating the effects of political alignment is that local elections are likely to be endogenously determined by unobserved characteristics that also affect subsequent election outcomes and transfers. For instance, there are municipalities in which a specific party has hegemonic control. In this case, historic and cultural unobserved factors determine present and future electoral outcomes. We address this potential source of bias by using a regression discontinuity design in close elections. The key idea is to compare municipalities in which the aligned candidate wins by a small margin (treatment) to those in which they are runner-up and lose by a small margin (control).

Aligning with current and incoming coalitions may have different implications in terms of electoral advantages and subnational transfers. On the one hand, mayoral candidates who are aligned with the current President may have electoral advantages with respect to non-aligned peers. In turn, those who win may receive additional transfers from the national government. On the other hand, mayors can provide electoral advantages to members of their party, or the incoming Presidents' coalition in subsequent local and national elections. The new President and Congress can also assign additional transfers to aligned mayors.

Table 2 reports the number of races in which exactly one of the two leading candidates is aligned with the presidential coalitions. Races are organized by type of alignment and victory margin. There are 1,848 races in which exactly one of the two leading mayoral candidates is aligned with the current Presidential coalition (938 as runners-up and 910 as winner). The number of observations is slightly smaller for the first and final-round incoming coalitions, reflecting that incoming coalitions tend to be larger and therefore there are more discarded municipalities because both the winner and the runner-up are aligned.

Table 2
Competitive Elections by Type of Coalition and Victory Margin

	Full Sample		*Victory Margin* < 20%		*Victory Margin* < 10%	
	Runner-up	*Winner*	*Runner-up*	*Winner*	*Runner-up*	*Winner*
Current	938	910	602	610	353	358
Incoming: First-Round	884	860	567	579	338	344
Incoming: Final-Round	741	754	481	519	287	296

Note: The sample includes all municipalities in which the two leading candidates are classified and exactly one of them is aligned and the other one is not. The final round corresponds to the second round, except for the two elections in which the president was elected in first round, 2002 and 2006. In these cases, we use the first-round coalition. The victory margin between the two leading candidates is calculated as the ratio of the vote difference to the sum of the votes.

We estimate the effect of electing an aligned mayor using a RDD sharp model. For any outcome Y, the local effects is given by the treatment-control conditional mean difference τ, defined as follows:

$$\tau = \mathbf{E}[Y_{i(T=1)} - Y_{i(T=0)} \mid X = \bar{x}] \tag{1}$$

Where conditional means Y are estimated non-parametrically following Calonico et al. (2014). We assume a triangular kernel-weighted local polynomial and estimate residuals with the nearest-neighbor approach. We reported the estimations based on the Calonico et al. (2014) optimal bandwidths.[7] All regressions control for election-year population, altitude, distance to the Department's capital and Bogotá, and poverty rate in 1993.[8]

The estimated effect is unbiased as long as there is no systematic manipulation of the mayoral elections. A violation of this assumption would lead to a bunching in the probability density function of the victory margin around the cut-off and an unbalanced sample in observable characteristics. A visual inspection of the probability density function indicates no sign of discontinuity in the density function (Appendix Figure A.2). Consistently, the McCrary (2008) tests are statistically insignificant in all cases, with p-values oscilating between 0.267 and 0.953.[9] Moreover, the baseline

[7]The main equations and the bias correction term are estimated with first and second order polynomials, respectively. Residuals are estimated using the 3 nearest neighbors. Results are robust to different specifications of the model.

[8]Under minimal assumptions, controlling for covariates yields consistent estimates and can achieve substantial efficiency gains relative to the standard RDD (Calonico et al., 2016).

[9]The McCrary (2008) test is based on the continuity of the running variable density function. The

characteristics are similar across treatment groups (Appendix Table A.4). In fact, the mean differences t-tests fail to reject the null in all cases, confirming that samples are balanced. Overall, there is no evidence of manipulation in mayoral elections, which implies that the identification strategy holds.

4 Results

The main results of the paper are presented in 3 parts. First, we estimate the effect of party and coalition alignment on the subsequent local and national elections. Then, we assess whether political alignment increases road investments financed with subnational transfers, with a particular emphasis on discretionary funds. Finally, we evaluate the extent to which alignment affects local economic growth and the quality of institutions.

4.1 Electoral Advantages

The first and most natural form of political alignment in modern democracies is through parties. Thus, we begin our analysis by assessing the effect of party alignment on subsequent elections. Specifically, we estimate whether candidates running for local and national positions have electoral advantages in municipalities governed by co-partisans in Table 3. The outcome is the vote share of the party candidates in subsequent elections. For national elections, we only consider parties that have at least one registered candidate in the respective election. Consistent with previous evidence (Klašnja, 2015; Klašnja and Titiunik, 2017; Uppal, 2009), party alignment has a negative, although statistically insignificant effect, on the vote-share in mayoral elections. In contrast, the effect on national elections is consistently positive, and significant for House, with an estimated effect of 3.1 pp. Overall, party alignment has small or no effects on subsequent elections.

null hypothesis of no manipulation is rejected when there is a statistically significant difference in the density function around the cutoff.

Table 3
Effect of Party Alignment on Subsequent Elections

		Congress		*President*	
	Mayor	*House*	*Senate*	*First round*	*Second round*
Aligned Mayor Elected	-0.026	0.031*	0.017	0.009	0.025
	(0.016)	(0.018)	(0.014)	(0.021)	(0.035)
Average outcome	0.184	0.251	0.181	0.258	0.441
Bandwidth	0.171	0.208	0.168	0.233	0.177
Observations	4,245	2,487	3,298	2,598	1,219

Note: * is signicant at 10%, ** at 5%, and *** at 1% level. The dependent variable is the vote share of the party candidate. Each column corresponds to a separate Calonico et al. (2014) RDD estimates with optimal bandwidth and robust bias-correction. All regressions control for baseline municipal characteristics described in Section 3.1. Standard errors in parenthesis are based on a nearest neighbor variance estimator.

While parties provide few electoral advantages to their members, presidential coalitions significantly increase the vote share of the aligned candidates in house and final-round presidential elections. The presidential coalition alignment estimates are presented in Table 4. The running variable is the vote share of mayoral candidates who are aligned with the incoming Presidents' first and final-round coalitions, respectively. The outcome is the vote share of the coalition candidates in the respective election. While aligning with the first-round coalition has no effects on subsequent elections, final-round presidential coalitions provide important electoral advantages to their candidates aspiring to national positions. In fact, we find positive and statistically significant effects for House and final-round presidential elections, with estimated effects of 9 pp and 9.4 pp, respectively. These results reflect that final-round coalitions are far more important than first-round coalitions or parties when it comes to providing electoral advantages in national elections.

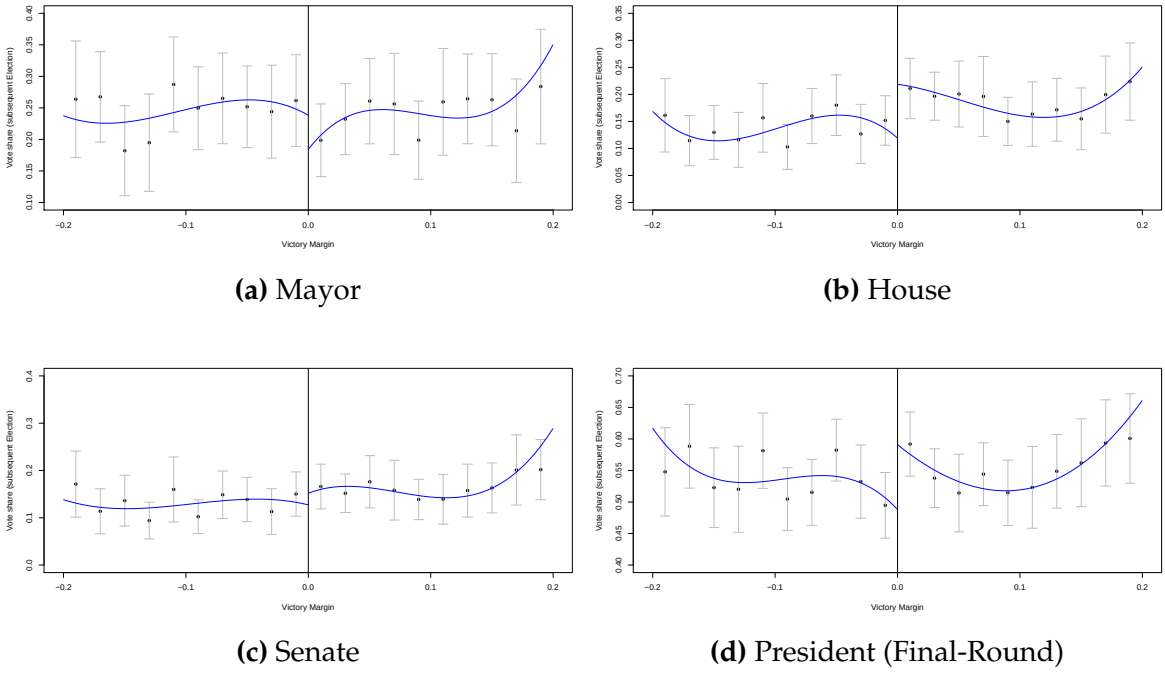
Table 4
Effect of Alignment with the Incoming Presidential Coalitions on Subsequent Elections

		Congress		*President*	
	Mayor	*House*	*Senate*	*First round*	*Final round*
	a. Incoming Coalition: First-Round				
Aligned Mayor Elected	-0.038	0.028	0.005	-0.007	
	(0.040)	(0.026)	(0.021)	(0.032)	
Average outcome	0.216	0.182	0.145	0.486	
Bandwidth	0.150	0.201	0.243	0.164	
Observations	907	1,108	1,244	965	
	b. Incoming Coalition: Final-Round				
Aligned Mayor Elected	-0.049	0.090**	0.039		0.094**
	(0.041)	(0.037)	(0.031)		(0.043)
Average outcome	0.238	0.162	0.142		0.548
Bandwidth	0.175	0.125	0.156		0.106
Observations	872	663	802		596

Note: * is signicant at 10%, ** at 5%, and *** at 1% level. The dependent variable is the total vote share of coalition candidates. The final-round corresponds to the second round, except for the two elections in which the president was elected in first round, 2002 and 2006. In these cases, we use the first-round coalition and vote share. Each column corresponds to a separate Calonico et al. (2014) RDD estimates with optimal bandwidth and robust bias-correction. All regressions control for baseline municipal characteristics described in Section 3.1. Standard errors in parenthesis are based on a nearest neighbor variance estimator.

Figure 4 illustrates the main electoral advantages results. The horizontal axis represents the victory margin of candidates aligned with the final-round incoming presidential coalitions. The vertical axis corresponds to the vote share of coalition candidates in subsequent elections. Each point represents the average vote share in bins of 0.5 pp. The solid line is the local polynomial regression, and the vertical lines are the 95% confidence intervals. For House and President elections (Panels b and d), there is a significant jump in votes share at the cut-off, indicating that aligned mayors provide electoral advantages to the coalition candidates. These estimates are robust to different bandwidths. Appendix Figure A.3 shows that the effects on final-round presidential election are statistically significant for bandwidths oscillating between 0.08 and 0.28. In the case of house elections, they are significant for all bandwidths between 0.05 and 0.25.

Figure 4
Effect of Alignment with the Final-Round Incoming Presidential Coalition on Subsequent Elections



(a) Mayor **(b)** House

(c) Senate **(d)** President (Final-Round)

Notes: The final-round corresponds to the second round, except for the two elections in which the president was elected in first round, 2002 and 2006. In these cases, we use the first-round coalition and vote share. Each point represents the average vote share in bins of width 0.5 pp. The solid line is the triangular kernel local polynomial regression estimated with optimal bandwidths. Vertical lines correspond to the 95% confidence intervals.

Mayors who are aligned with both the current and the incoming coalitions may provide additional electoral advantages. To test this, we estimate the effect of alignment with a restricted sample of municipalities in which one of the two leading candidates is part of both coalitions and the other is not part of any. Results are presented in the Appendix Table A.5. The coefficients are similar in magnitude and direction, although statistically insignificant. Estimates may be less precise because the sample is considerably smaller.

4.2 Subnational Transfers

Political alignment can also determine subnational transfers, especially when they are assigned on a discretionary basis. We test this hypothesis by estimating the effect of aligning with the current and the incoming presidential coalition on road investments

financed with subnational transfers. We focus on three types of subnational transfers: SGP and royalties, which are formula-based, and co-financing funds, which are assigned on a discretionary basis. For incoming coalitions, we focus on the final-rounds, which are the ones that govern once the new presidents takes office.

Table 5
Effect of Alignment with Current Presidential Coalition on Road Investments Financed with Subnational Transfers

	Total	SGP	Royalties	Co-financing Funds
		a. Full Term		
Aligned Mayor Elected	0.198	-0.129	-0.073	0.779*
	(0.172)	(0.198)	(0.348)	(0.417)
Average outcome	6.653	5.095	1.661	3.421
Bandwidth	0.200	0.199	0.169	0.169
Observations	1,129	1,126	1,003	1,001
		b. Before National Elections		
Aligned Mayor Elected	0.406*	-0.011	0.007	1.391***
	(0.213)	(0.211)	(0.366)	(0.503)
Average outcome	6.409	4.907	1.458	2.883
Bandwidth	0.162	0.224	0.163	0.128
Observations	950	1,196	957	774
		c. After National Elections		
Aligned Mayor Elected	0.189	0.021	-0.149	-0.276
	(0.309)	(0.373)	(0.326)	(0.519)
Average outcome	6.491	4.708	0.993	2.097
Bandwidth	0.171	0.154	0.176	0.143
Observations	731	671	745	638

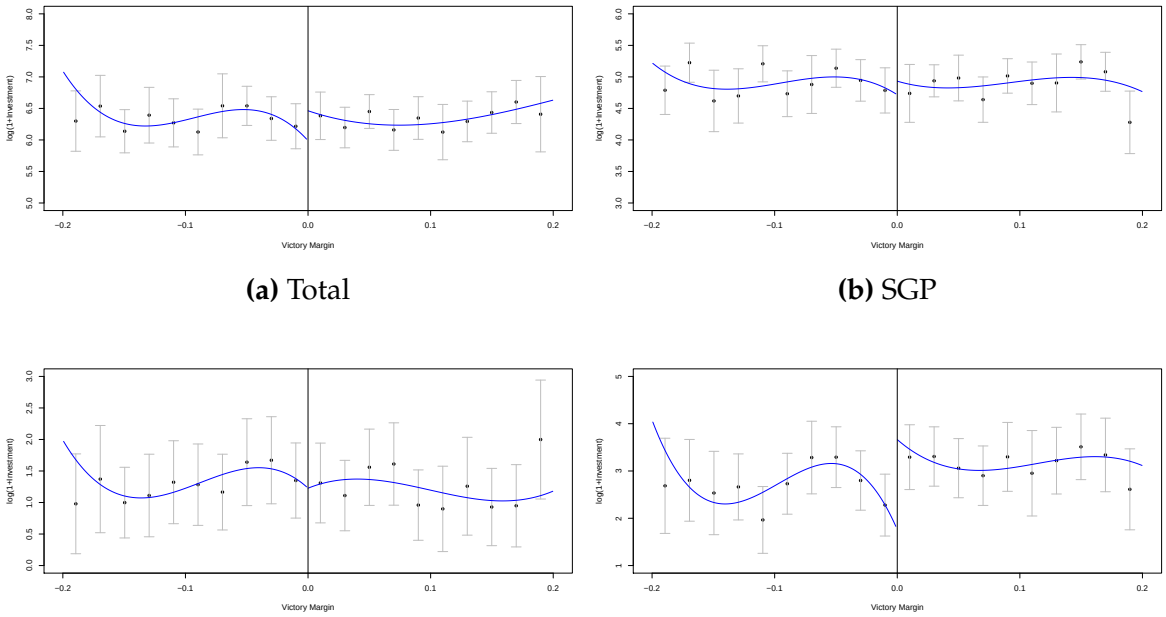
Note: * is signicant at 10%, ** at 5%, and *** at 1% level. The dependent variable is $log(1+y)$ of the annual average investment. Each column corresponds to a separate Calonico et al. (2014) RDD estimates with optimal bandwidth and robust bias-correction. All regressions control for baseline municipal characteristics described in Section 3.1. Standard errors in parenthesis are based on a nearest neighbor variance estimator.

Table 5 presents the effect of alignment between mayors and current presidential coalitions on road investments. We estimate the effect on the full mayoral term investment (Panel a), as well as before and after national elections (Panels b and c). Results indicate that alignment significantly increases discretionary transfers (co-financing funds), while formula-based transfers are unaltered. The estimated coefficient for the full term co-financing funds is 0.779, equivalent to a 117% increase in municipalities governed by aligned mayors. The effects are even larger before national elections and small and insignificant afterward, consistent with the fact that current

coalitions have no longer control of the budget once the new governments take office. In contrast, the effects on investments funded with SGP and royalties are always statistically insignificant, reflecting that formula based transfers are indeed harder to manipulate. The shift in co-financing funds transferred before national elections translates into a significant increase in total road investment of approximately 50%.

The effect of alignment between mayors and current presidential coalitions on road investments is illustrated in Figure 5. The vertical axis corresponds to $log(1 + y)$ of the road investments during the full mayoral terms. While there are no discontinuities in formula-based transfers and total investment, there is a significant positive break in co-financing funds. These estimates are robust to different bandwidths. While the effects on total road investment and the formulated transfers are consistently equal to zero, the effects on co-financing funds are statistically significant for all bandwidths between 0.05 and 0.25 (Appendix Figure A.4). It is worth noting that the point estimates tend to decrease as the bandwidth grows, indicating that closer elections represent larger differences in discretionary transfers.

Figure 5
Effect of Alignment with the *Current* Presidential Coalition on Road Investments Financed with Subnational Transfers (Full Term)



(a) Total **(b)** SGP

(c) Royalties **(d)** Co-financing Funds

Notes: Each point represents the average vote share in bins of width 0.5 pp. The solid line is the triangular kernel local polynomial regression estimated with optimal Bandwidths. Vertical lines correspond to the 95% confidence intervals.

The commodity boom that took place since 2011 and the royalties system reform, that introduced discretionality in the distribution of resources, could be distorting the effect of alignment on road investments. To discard this, we replicate the regressions excluding the last mayoral election in Table Appendix A.6. Estimates are similar in magnitude and significance, confirming that these factors are not driving our main results.

We estimate the effect of alignment between mayors and incoming presidential coalitions is presented in Appendix Table A.7. We would expect positive effects after elections, when the new government takes office. Instead, we find that most of the coefficients are not statistically significant. The only exception is royalties before national elections, for which we find a negative and significant coefficient. This is probably the results of the Royalties reform of 2011 and the commodity boom. In fact,

when we replicate the regressions without the 2011 election, the effect is smaller and no longer significant (Appendix Table A.8). We also estimate the effects of alignment with both the current and the incoming coalition in the Appendix Table A.9. Estimates are similar in magnitude and direction to those of current coalition, although less precise. The only coefficient that is statistically significant corresponds to co-financing funds before national elections.

4.3 Local Growth and Quality of Institutions

Finally, we evaluate the extent to which the politically motivated transfers translate into economic growth. Table 6 present the effect of alignment with the current coalition on two sets of measures of local economic growth based on night-time lights and agricultural loans. The estimated effects are statistically insignificant for all the variables, which implies that political alignment has no effect on economic growth. As a complementary analysis, we assess the effect of alignment on a set of outcomes reflecting public good provision in the Appendix Table A.10. The estimated coefficients are all statistically insignificant. Overall, results indicate that even though municipalities governed by aligned mayors receive more transfers, they do not grow faster or provide more public goods. These findings are consistent with previous literature indicating that subnational transfers, notably royalties, have a limited impact on local development (Faguet and Sánchez, 2014; Lozano and Julio, 2015; Martínez, 2017; Ramírez et al., 2017; Sánchez and Pachón, 2017).

Table 6
Effect of Alignment with Current Presidential Coalition on Economic Growth

	Night-Time Lights		Agricultural Bank Loans	
	Surface	Intensity	Total	Small-Business
Aligned Mayor Elected	0.021	-0.034	-0.142	-0.094
	(0.210)	(0.22)0	(0.260)	(0.262)
Average outcome	3.526	6.213	6.260	5.430
Bandwidth	0.171	0.171	0.152	0.164
Observations	868	868	779	838

Note: * is signicant at 10%, ** at 5%, and *** at 1% level. The dependent variables are described in Section 3.1. Each column corresponds to a separate Calonico et al. (2014) RDD estimates with optimal bandwidth and robust bias-correction. All regressions control for baseline municipal characteristics described in Section 3.1. Standard errors in parenthesis are based on a nearest neighbor variance estimator.

Discretionary transfers may fail to translate into economic growth for two reasons. First, pork-barrel transfers may affect the quality of local institutions (Borcan, 2016; Borrella, 2015; Das, 2017). Previous literature has shown that royalties have done this in Colombia by reducing fiscal effort, increasing rent-seeking behavior, and escalating conflict (Bonet et al., 2014; Martínez, 2017; Ramírez and Bedoya, 2014; Sanchez and Chacón, 2005). We test this hypothesis by estimating the effect of political alignment on a set of variables reflecting government performance, law enforcement, and disciplinary prosecutions in Table 7. All estimates are statistically insignificant, implying that alignment has no detectable effects on these measures of institutional quality. This does not necessarily rule out that discretionary transfers increase procurement corruption or clientelist schemes. After all, there is substantial qualitative evidence showing that such practices do take place (La Silla Vacía, 2014a,b; Revista Semana, 2014; Robinson, 2016). However, results indicate that alignment effects are not large enough to affect the government performance and law enforcement measures. As for the disciplinary prosecutions of local officers, results might also reflect that watchdog agencies have a limited capacity to detect corruption and clientelism practices. It is worth noting that even in cases such as Odebrecht's, that involved numerous national and local officers and millions of dollars in bribes, it took an international scandal for the Colombian watchdog agencies to start prosecuting the main suspects. Second, discretionary transfers are small compared to other sources of local revenue in Colombia, and therefore have a small potential to impact growth. In fact, co-financing funds account for only 3.2% of the total municipal investment, and less than 10% of the road investment. Consistently, the large positive impacts on co-financing funds rarely translate into significant shifts in total road investment.

Table 7
Effect of Alignment with the Current Presidential Coalition on the Quality of Local Institutions

	Government Performance		Law Enforcement		Disciplinary Prosecutions			
	Fiscal	Administrative	Homicide Rate	Illicit Crops	Mayor Prosecuted	Mayor Guilty	Top Staff Prosecuted	Top Staff Guilty
Aligned Mayor Elected	-0.483	1.542	8.553	0.016	0.018	-0.004	0.029	0.033
	(1.470)	(2.191)	(6.243)	(0.231)	(0.058)	(0.053)	(0.040)	(0.034)
Average outcome	63.894	63.568	39.414	0.791	0.185	0.117	0.060	0.040
Bandwidth	0.162	0.178	0.110	0.233	0.221	0.147	0.158	0.158
Observations	817	806	602	1,064	1,030	758	811	811

Note: * is signicant at 10%, ** at 5%, and *** at 1% level. The dependent variables are described in Section 3.1. Each column corresponds to a separate Calonico et al. (2014) RDD estimates with optimal bandwidth and robust bias-correction. All regressions control for baseline municipal characteristics described in Section 3.1. Standard errors in parenthesis are based on a nearest neighbor variance estimator.

5 Conclusions

This paper explores the effect of alignment between local and national politics in a context of weak parties. We study the case of Colombia, where the political reforms of the 1980's and 1990's deepened the political and administrative decentralization, and also led to a severe deinstitutionalization of the party system. We first estimate the effect of party alignment on subsequent elections, finding that parties provide few electoral advantages to their members. In contrast, House representatives and presidential candidates get significantly more votes in municipalities governed by mayors aligned with the final-round presidential coalitions. In parallel, we study the effect of political alignment on discretionary and formula-based subnational transfers. Results indicate that mayors aligned with the current coalition receive significantly more discretionary funds, while formula-based transfers are unaltered.

Overall, our results confirm that in a context of weak parties, presidential coalitions become the focal point of political alignment, by assigning discretionary transfers to aligned mayors and creating important electoral advantages for coalition candidates running for national positions. The advantages for presidential elections are particularly large compared to Brazil (Brollo and Nannicini, 2012). This may reflect critical differences in the political and administrative system of the countries. In fact, Brazil is a Federal State and Local administrations have considerably more power than in Colombia. Moreover, the party system is less fragmented in Brazil, which may increase the negotiation costs. Future research should further study the reasons

why coalition alignment is more electorally rewarding to presidents in some countries than in others.

We also estimate the effect of political alignment on local economic growth, finding no effect on any of the alternative outcomes. Moreover, we find no evidence that subnational transfers translate into improvements in public goods provision. These results are consistent with previous literature on the limited impact of subnational transfers on local development. This could be the results of poor local institutions, however, we find no evidence that political alignment affects different measures of government performance, law enforcement, or disciplinary prosecutions. An alternative explanation is that discretionary transfers are small compared to other sources of revenue, and therefore have limited capacity to affect the local government performance and law the enforcement measures, or boost growth.

The relationship between discretionary transfers, corruption, and clientelism remains an open question. In fact, abundant qualitative evidence has shown that discretionary transfers have been involved in procurement corruption and clientelism practices over the years, and yet we find no significant alignment effect on disciplinary prosecutions. Rather than discarding this channel, results may reflect the watchdog agencies' limited capacity. Moreover, there are other channels through which the government allocates resources to aligned officers in exchange of legislative and electoral support. For instance, recent investigations suggest that coalition representatives and senators also received bribes from large-scale infrastructure projects executed by national agencies (El Tiempo, 2017; La Silla Vacía, 2017). More and better measures of corruption and different form of clientelism, including patronage and vote-buying, are therefore required to conclude on this matter.

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Appendix

A.1 Classifying Mayoral Candidates Aligned with Presidential Coalitions

Candidates running for mayor between 1997 and 2015 are classified as aligned or not-aligned with the current presidential coalitions, and the first and second-round incoming presidential coalitions. The classification is mostly based on the party position. However, when large parties are divided, candidates are classified based on their individual stance. This is the case of the Conservative party during the 2014 second-round presidential elections. While a large number of high-rank supported President Santos's reelection, the party leader and 11 congressmen endorsed the opposition candidate. To address this problem we classified mayoral candidates based on information of each one of them, or that of the closest high-rank party official. There were also divisions in some of the non-traditional parties, such as *Polo Democratico Alternativo* during the 2014 elections. However, these parties had relatively few competitive mayoral candidates, and most of them were aligned with the party's official position.

We use three main sources of information to classify parties and candidates. The first one is the Civil Registry Office (*Registraduría Nacional del Estado Civil*), whose administrative records allow identifying the party of most candidates running for local and national positions in our sample. Since the 2011 Political and Electoral Reform, parties are also required to report all party endorsements and to print the different party logos in the ballot (see Figure A.1). A mayoral candidate is considered aligned if she is a member of a party that is officially part of the presidential coalition. The second source of information are the local and national press and the parties and candidates public profiles and press releases. We classify a party or a candidate as aligned with the presidential coalition if there is a written document supporting that they have been publicly endorsed by a high-rank officer of any of the coalition parties, or if they have explicitly expressed their support to president (or the presidential candidate). The third source of information is academic research. There are numerous research papers, most of which from political science departments, documenting different aspects of the local and national political process. In this case, a party or a candidate is classified when there is an explicit allusion to them allowing to infer their stance with respect to the presidential coalitions. The main sources of information used to classify the candidates are listed in Table A.1. While most of large parties can be classified using administrative records from the Civil Registry Office,

national media reports, or academic papers, when it comes to small parties, most of the information comes from the local press.

Figure A.1
Ballots for the 2014 First and Second-Round Presidential Elections

(a) First-Round

(b) Second-Round

Source: Civil Registry Office.

Table A.2 presents the number of candidates classified as part of the coalition or not part of the coalition by mayoral term. When no information is retrieved, or the information available is not concluding, we classify the candidates as *undefined*. Even though the number of small parties grows over the years, making classification increasingly difficult, there is also more information available for the last terms. The share of undefined candidates is particularly large in year 2000 because the Civil Registry Office did not report the parties of all candidates in this particular year. It is worth noting that the number of candidates aligned with the president coalition is considerably larger in the second-round elections, reflecting that parties adhere after the first-round to the leading campaigns.

Table A.1
Main Data Sources to Classify Mayoral Candidates

Source	Frequency
Press	
El Tiempo	88
La Silla Vacía	34
Colombia.com	16
Semana	15
El País	12
Caracol Radio	6
Vanguardia	6
Cronica del Quindío	6
El Universal	5
Donde Votar	5
Diario La Patria	4
El Heraldo	3
El Espectador	3
Minuto 30	3
El Diario	2
Eje 21	2
El nuevo día	2
El Tabloide	2
Radio Santafé	2
hsbnoticias.com	2
Noticias Uno	1
El Mundo	1
El Diario del Llano	1
verdadabierta.com	1
Diario del Sur	1
Parties and Candidates	
Wikipedia	14
Partido Liberal	6
Cambio Radical	4
Moir	2
Academic Research	
Pontificia Universidad Javeriana	7
Universidad del Rosario	7
Universidad Libre	6
Georgetown Universirty	3
Congreso Visible	2
Universidad de los Andes	1

Note: The table reports the number of parties or candidates that were classified with each source.

Table A.2
Mayoral Candidates Alignment with Presidential Coalition by Type of Alignment and Election

	Coalition	*Not Coalition*	*Undefined*
	1997		
Current	1,860	1,351	0
Incoming: First-Round	990	2,240	0
Incoming: Second-Round	1,195	2,027	0
	2000		
Current	872	1,395	597
Incoming: First-Round	946	1,360	597
Incoming: Second-Round	-	-	-
	2003		
Current	1,983	1,127	5
Incoming: First-Round	1,997	938	5
Incoming: Second-Round	-	-	-
	2007		
Current	3,008	1,481	61
Incoming: First-Round	1,280	3,163	114
Incoming: Second-Round	3,233	1,210	114
	2011		
Current	2,431	1,506	187
Incoming: First-Round	2,988	1,095	1
Incoming: Second-Round	3,739	345	3

Note: There were no second-round presidential elections in 2002 and 2006.

A.2 Appendix Tables and Figures

Table A.3
Variables Description and Sources

Electoral Results (1994 - 2015)	The electoral databases report the vote cast by municipality, office, election year, and candidate. We focus on four types of elections: mayor, House representatives, senate, and presidency. (first and second-round). Since there is not enough information on runner-up candidates previous to 1997, we restrict the sample to mayoral elections between 1997 and 2015. The running variable is the victory margin between the two leading candidates of each mayoral election, calculated as the ratio of the vote difference to the sum of the votes. The outcomes are the vote share of the party or coalition candidates running for all four types of elections, calculated as the ratios of the candidates votes to the total non-null votes.	Civil Registry Office (*RegistradurÃa Nacional del Estado Civil*) and CEDE Electoral Database (Pachón and Sánchez, 2014).
Municipal Road Investments (1996 - 2014)	Total local road investment, and local road investments financed with three types of subnational transfers: SGP and royalties, which are formula-based, and co-financing funds, which are assigned on a discretionary basis. Values are expressed in of 2014 millions of Colombian pesos. Regressions are based on the $log(1 + y)$ transformation of the annual average investment of each mayoral term.	Budget execution system - National Planning Department (DNP).
Night-time Lights (1992 - 2013)	The illuminated surface is given by the number of pixels of a 30m resolution that are illuminated in each municipality. The intensity measure is equivalent to the sum of the pixels' light density, measured in a range between 0 and 63, in each municipality. Regressions are based on the $log(1 + y)$ transformation of the illuminated surface and light intensity of the last available year of each mayoral term.	DMSP Program - National Oceanic and Atmospheric Administration (NOAA).
Agricultural Bank Loans (2000 - 2014)	Total and small-business loans. Values are expressed in of 2014 millions of Colombian pesos. Regressions are based on the $log(1 + y)$ transformation of the annual average loans of each mayoral term.	*Banco Agrario de Colombia* and CEDE Municipal Panel.
Fiscal and Administrative Performance (2000 - 2015)	The fiscal performance index is a synthetic measure that captures both fiscal autonomy (local revenue, dependence to transfers, and self-financed current expenditures) and fiscal discipline (saving and debt repaying capacity). The administrative performance index combines fiscal performance with development plan accomplishment, cost-effectiveness of investments, and compliance with legal requirements. Both scores take values between 0 and 100. Regressions are based on the score of the last available year of each mayoral term.	National Planning Department (DNP).
Homicide Rate (1990 - 2014)	Homicide rate per 100.000 inhabitants. Regressions are based on the annual average homicide rate of each mayoral term.	National Police and National Population Projections - National Department of Statistics (DANE).

Table A.3
Variables sources (Continues)

Illicit Crops (2000 - 2013)	Hectares of coca crops. Regressions are based on the $log(1 + y)$ transformation of the annual average hectares of each mayoral term.	Coca Cultivation Surveys - United Nations Office on Drugs and Crime (UNODC.)
Disciplinary Prosecutions (2001 - 2015)	Number of mayors and top-staff members of each administration prosecuted and found guilty.	(Martínez, 2017) based on administrative records from *Procuraduría General de la Nación*.
Infant Mortality Rate (1998 - 2014)	Number of children who die by the age of one, per hundred live births per year. Regressions are based on the annual average infant mortality rate of each mayoral term.	Vital Statistics - National Department of Statistics (DANE).
School enrollment Rate (1996 - 2013)	Gross enrollment rates are calculated as the ratio of total school enrollment to the age-specific population. Regressions are based on the annual average enrollment rate of each mayoral term.	Ministry of Education and Population Projections - National Department of Statistics (DANE).
Exit Exam Scores (2000 - 2014)	Average mathematics and language exit exam score (SABER 11) of public schools students. Scores are standardized with respect to the national mean of every year. Regressions are based on the annual average score of each mayoral term.	Instituto Colombiano para la Educación Superior (ICFES).
Teenage Pregnancy Rate (2000 - 2014)	Number of live births with mothers between 10 and 19 per 100 females in this age group. Regressions are based on the annual teenage pregnancy rate of each mayoral term.	Vital Statistics and Population Projections - National Department of Statistics (DANE).
Population (1985 - 2020)	Municipal population projections based on National Census.	Population Projections - National Department of Statistics (DANE).
Altitude	Altitude of the municipal urban area. Expressed in meters.	CEDE Municipal Panel.
Distance to Department and National Capital	Linear distance between the municipal urban area and the department and national capital. Expressed in kilometers.	CEDE Municipal Panel.
Poverty Rate (1993)	Multidimensional poverty index based on the 1993 population Census.	National Department of Statistics (DANE).

Table A.4
Baseline Characteristics by Type of Presidential Coalition

	Control		Treatment		Difference
	Mean	S.D.	Mean	S.D	p-value
a. Current					
Population (election year)	51276.57	384623.48	27120.74	57314.86	0.28
Altitude	1118.35	928.26	1130.42	930.96	0.87
Distance to Department Capital	70.12	52.59	72.63	51.32	0.55
Distance to Bogotá	335.13	190.89	339.49	186.98	0.77
Poverty rate (1993)	52.59	19.46	55.05	18.70	0.12
b. Incoming: First-Round					
Population (election year)	51493.02	395305.69	31865.62	121108.24	0.42
Altitude	1160.05	913.79	1129.84	903.13	0.69
Distance to Department Capital	71.78	50.04	74.00	52.68	0.60
Distance to Bogotá	326.60	199.89	330.40	186.59	0.81
Poverty rate (1993)	51.92	19.42	54.06	18.89	0.19
c. Incoming: Final-Round					
Population (election year)	56728.27	435359.98	32138.40	130368.05	0.41
Altitude	1197.01	896.65	1136.04	916.55	0.46
Distance to Department Capital	65.49	45.75	71.43	51.13	0.18
Distance to Bogotá	327.58	197.31	331.30	179.93	0.83
Poverty rate (1993)	50.95	18.97	53.76	18.65	0.11

Note: Descriptive statistics are based on municipalities in which aligned candidates end-up first or second in mayoral elections between 1997 and 2011, and the victory margin is under 10%. Baseline characteristics are described in section 3.1. The last column presents the *p-value* of a group mean difference test.

Table A.5
Effect of Alignment with the Current and the Incoming Presidential Coalitions on Subsequent Elections

		Congress		*President*	
	Mayor	*House*	*Senate*	*First round*	*Final round*
	a. Incoming Coalition: First-Round				
Aligned Mayor Elected	-0.019	-0.003	0.022	0.021	
	(0.051)	(0.038)	(0.029)	(0.045)	
Average outcome	0.198	0.176	0.137	0.457	
Bandwidth	0.135	0.134	0.176	0.148	
Observations	495	492	613	528	
	b. Incoming Coalition: Final-Round				
Aligned Mayor Elected	-0.018	0.048	0.033		0.073
	(0.054)	(0.043)	(0.032)		(0.055)
Average outcome	0.207	0.100	0.091		0.519
Bandwidth	0.150	0.151	0.195		0.131
Observations	461	462	563		412

Note: * is signicant at 10%, ** at 5%, and *** at 1% level. The dependent variable is the total vote share of coalition candidates. The final-round corresponds to the second round, except for the two elections in which the president was elected in first round, 2002 and 2006. In these cases, we use the first-round coalition and vote share. Each column corresponds to a separate Calonico et al. (2014) RDD estimates with optimal bandwidth and robust bias-correction. All regressions control for baseline municipal characteristics described in Section 3.1. Standard errors in parenthesis are based on a nearest neighbor variance estimator.

Table A.6
Effect of Alignment with the Current Presidential Coalition on Road Investments Financed with Subnational Transfers (Without 2011)

	Total	SGP	Royalties	Co-financing Funds
	a. Full Term			
Aligned Mayor Elected	0.327	-0.062	-0.059	0.100**
	(0.225)	(0.240)	(0.298)	(0.428)
Average outcome	6.370	4.922	1.263	2.903
Bandwidth	0.152	0.204	0.251	0.159
Observations	678	848	960	702
	b. Before National Elections			
Aligned Mayor Elected	0.566**	0.064	0.179	1.858***
	(0.249)	(0.268)	(0.337)	(0.492)
Average outcome	6.034	4.664	0.979	2.165
Bandwidth	0.150	0.213	0.186	0.118
Observations	653	860	771	539
	c. After National Elections			
Aligned Mayor Elected	0.189	0.021	-0.149	-0.276
	(0.309)	(0.373)	(0.326)	(0.519)
Average outcome	6.491	4.708	0.993	2.097
Bandwidth	0.171	0.154	0.176	0.143
Observations	731	671	745	638

Note: * is signicant at 10%, ** at 5%, and *** at 1% level. The dependent variable is $log(1+y)$ of the annual average investment. Each column corresponds to a separate Calonico et al. (2014) RDD estimates with optimal bandwidth and robust bias-correction. All regressions control for baseline municipal characteristics described in Section 3.1. Standard errors in parenthesis are based on a nearest neighbor variance estimator.

Table A.7
Effect of Alignment with the Final-Round Incoming Presidential Coalition on Road Investments Financed with Subnational Transfers

	Total	SGP	Royalties	Co-financing Funds
	a. Full Term			
Aligned Mayor Elected	-0.318	-0.111	-0.648	0.180
	(0.223)	(0.217)	(0.442)	(0.431)
Average outcome	6.499	5.047	1.470	3.124
Bandwidth	0.127	0.198	0.128	0.174
Observations	652	930	657	848
	b. Before National Elections			
Aligned Mayor Elected	-0.446	-0.307	-0.770*	0.302
	(0.271)	(0.261)	(0.453)	(0.506)
Average outcome	6.215	4.838	1.277	2.553
Bandwidth	0.125	0.196	0.125	0.143
Observations	630	900	628	716
	c. After National Elections			
Aligned Mayor Elected	0.103	0.453	-0.198	0.321
	(0.311)	(0.388)	(0.398)	(0.570)
Average outcome	6.370	4.712	0.896	1.971
Bandwidth	0.196	0.136	0.187	0.124
Observations	708	534	690	490

Note: * is signicant at 10%, ** at 5%, and *** at 1% level. The dependent variable is $log(1 + y)$ of the annual average investment. The final-round corresponds to the second round, except for the two elections in which the president was elected in first round, 2002 and 2006. In these cases, we use the first-round coalition and vote share. Each column corresponds to a separate Calonico et al. (2014) RDD estimates with optimal bandwidth and robust bias-correction. All regressions control for baseline municipal characteristics described in Section 3.1. Standard errors in parenthesis are based on a nearest neighbor variance estimator.

Table A.8
Effect of Alignment with the Final-Round Incoming Presidential Coalition on Road Investments Financed with Subnational Transfers (Without 2011)

	Total	SGP	Royalties	Co-financing Funds
	a. Full Term			
Aligned Mayor Elected	-0.073	0.138	-0.254	0.689
	(0.233)	(0.249)	(0.447)	(0.490)
Average outcome	6.249	4.895	1.172	2.668
Bandwidth	0.171	0.216	0.166	0.158
Observations	648	766	634	610
	b. Before National Elections			
Aligned Mayor Elected	-0.069	0.015	-0.347	1.104**
	(0.283)	(0.330)	(0.458)	(0.527)
Average outcome	5.887	4.622	0.915	1.916
Bandwidth	0.153	0.187	0.160	0.137
Observations	575	678	596	526
	c. After National Elections			
Aligned Mayor Elected	0.103	0.453	-0.198	0.321
	(0.311)	(0.388)	(0.398)	(0.570)
Average outcome	6.370	4.712	0.896	1.971
Bandwidth	0.196	0.136	0.187	0.124
Observations	708	534	690	490

Note: * is signicant at 10%, ** at 5%, and *** at 1% level. The dependent variable is $log(1 + y)$ of the annual average investment. The final-round corresponds to the second round, except for the two elections in which the president was elected in first round, 2002 and 2006. In these cases, we use the first-round coalition and vote share. Each column corresponds to a separate Calonico et al. (2014) RDD estimates with optimal bandwidth and robust bias-correction. All regressions control for baseline municipal characteristics described in Section 3.1. Standard errors in parenthesis are based on a nearest neighbor variance estimator.

Table A.9
Effect of Alignment with the Current and the Final-Round Incoming Presidential Coalition on Road Investments Financed with Subnational Transfers

	Total	SGP	Royalties	Co-financing Funds
		a. Full Term		
Aligned Mayor Elected	-0.089	0.105	-0.976	0.752
	(0.194)	(0.257)	(0.671)	(0.556)
Average outcome	6.749	5.209	1.660	3.413
Bandwidth	0.177	0.160	0.109	0.180
Observations	515	478	350	524
		b. Before National Elections		
Aligned Mayor Elected	-0.111	-0.008	-0.911	1.169*
	(0.253)	(0.264)	(0.648)	(0.646)
Average outcome	6.541	5.086	1.473	2.500
Bandwidth	0.137	0.185	0.114	0.136
Observations	420	532	356	417
		c. After National Elections		
Aligned Mayor Elected	0.137	0.385	-0.584	0.163
	(0.371)	(0.465)	(0.587)	(0.818)
Average outcome	6.680	4.795	0.978	2.512
Bandwidth	0.210	0.124	0.125	0.129
Observations	418	266	272	281

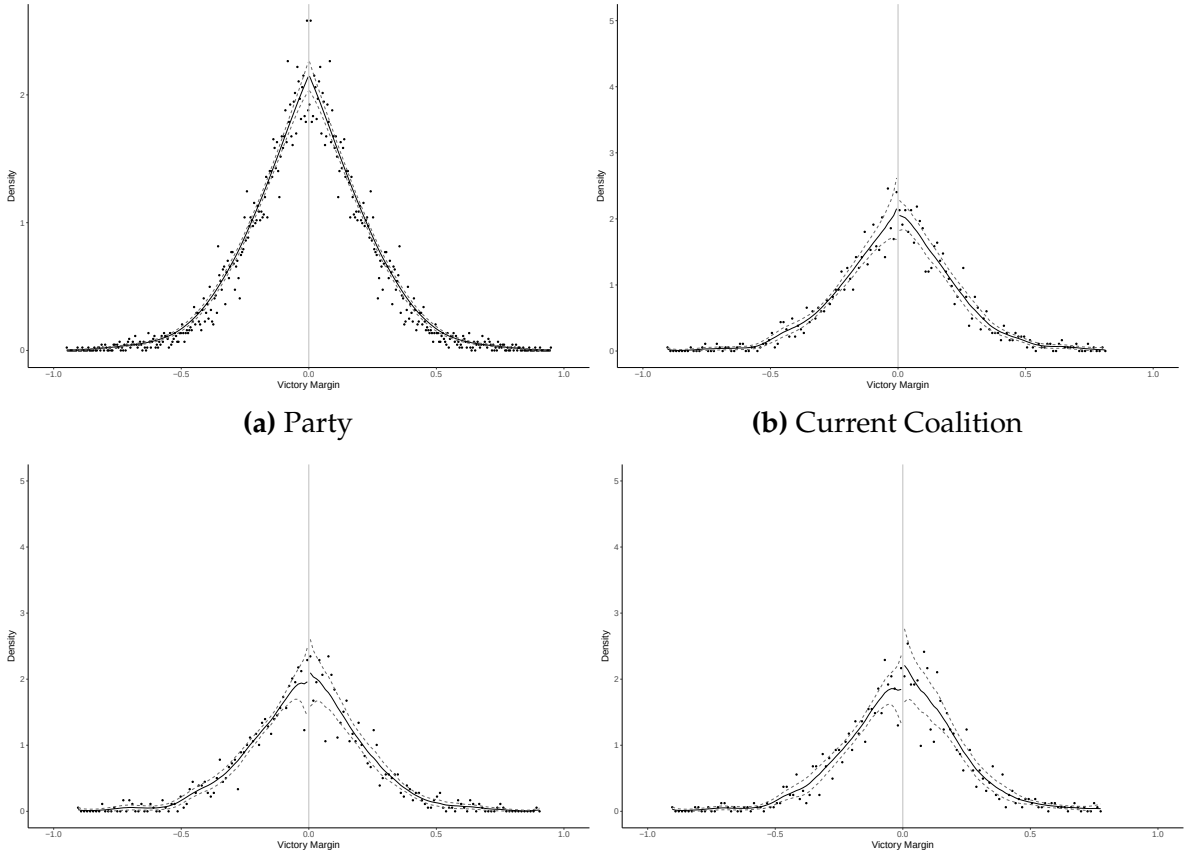
Note: * is signicant at 10%, ** at 5%, and *** at 1% level. The dependent variable is $log(1 + y)$ of the annual average investment. The final-round corresponds to the second round, except for the two elections in which the president was elected in first round, 2002 and 2006. In these cases, we use the first-round coalition and vote share. Each column corresponds to a separate Calonico et al. (2014) RDD estimates with optimal bandwidth and robust bias-correction. All regressions control for baseline municipal characteristics described in Section 3.1. Standard errors in parenthesis are based on a nearest neighbor variance estimator.

Table A.10
Effect of Alignment with the Current Presidential Coalition on Public Good Provision

	Infant	School Enrollment		Exit Exam Score		Teenage
	Mortality	Primary	Secondary	Mathematics	Language	Pregnancy
Aligned Mayor Elected	-8.638	5.553	2.041	-0.011	-0.007	0.255
	(11.890)	(3.928)	(2.148)	(0.035)	(0.036)	(0.444)
Average outcome	30.621	113.713	51.585	-0.140	-0.198	2.722
Bandwidth	0.123	0.149	0.217	0.167	0.169	0.177
Observations	751	807	1,020	814	827	713

Note: * is signicant at 10%, ** at 5%, and *** at 1% level. The dependent variables are described in Section 3.1. Each column corresponds to a separate Calonico et al. (2014) RDD estimates with optimal bandwidth and robust bias-correction. All regressions control for baseline municipal characteristics described in Section 3.1. Standard errors in parenthesis are based on a nearest neighbor variance estimator.

Figure A.2
Manipulation Test of Mayoral Elections by Type of Alignment



(a) Party

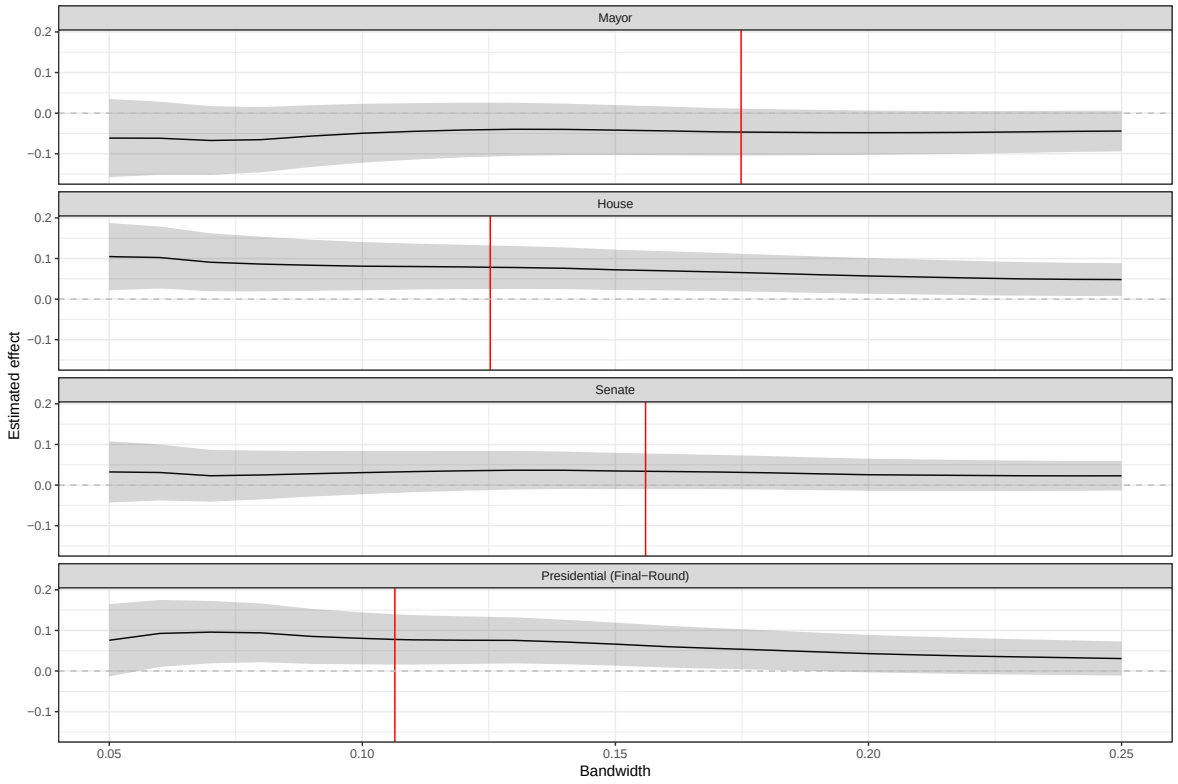
(b) Current Coalition

(c) Incoming Coalition: First-Round

(d) Incoming Coalition: Final-Round

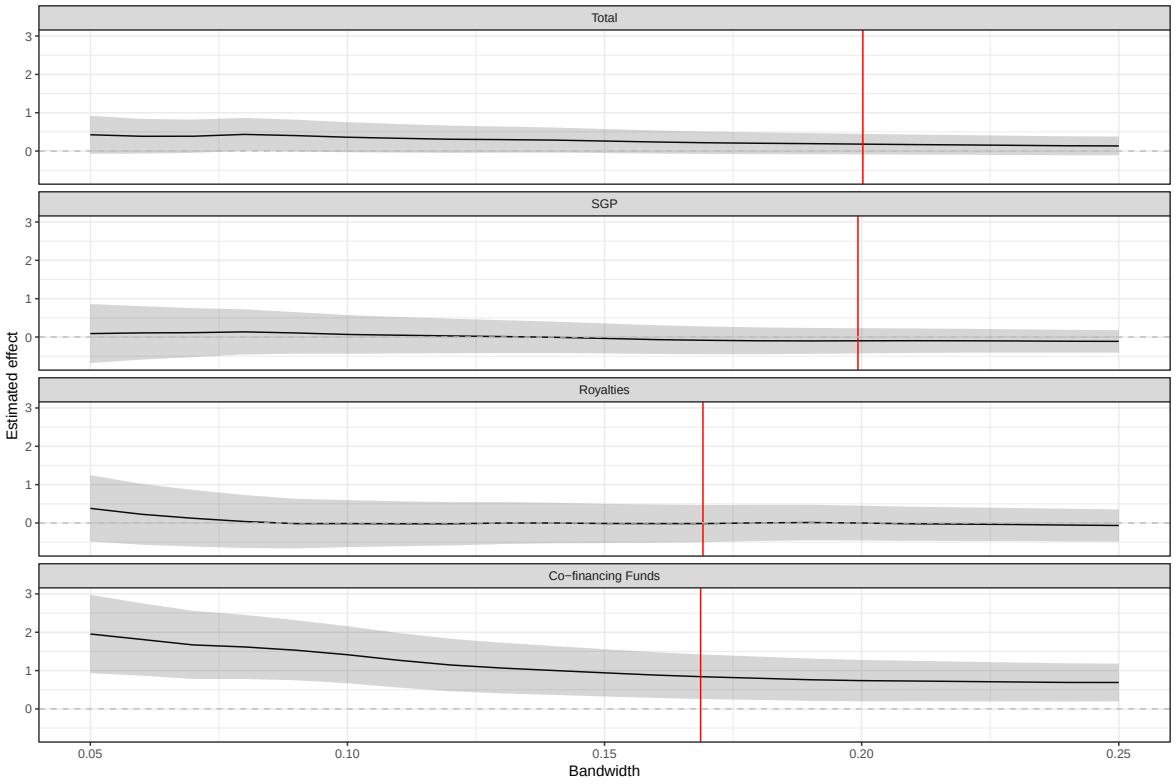
Note: The Figure displays the McCrary (2008) density discontinuity test of manipulation for party alignment, and three alternative definitions of coalition alignment. All density discontinuity tests are statistically insignificant, with p-values of 0.953, 0.702, 0.624, and 0.267, respectively.

Figure A.3
Effect of Alignment with the Final-Round Incoming Presidential Coalition on Subsequent Elections: Bandwidth Sensibility Test



Note: The solid line represents the RDD estimates with robust bias-correction for arbitrary bandwidths between 0.05 and 0.25, and increments of 0.01. The grey area corresponds to the 10% confidence interval, based on a nearest neighbor variance estimator. The red line indicates the Calonico et al. (2014) optimal bandwidth. The dependent variable is the total vote share of coalition candidates. The final-round corresponds to the second round, except for the two elections in which the president was elected in first round, 2002 and 2006. In these cases, we use the first-round coalition and vote share. All regressions control for baseline municipal characteristics described in Section 3.1.

Figure A.4
Effect of Alignment with the Current Presidential Coalition on Road Investment Financed with Subnational Transfers: Bandwidth Sensibility Test



Note: The solid line represents the RDD estimates with robust bias-correction for arbitrary bandwidths between 0.05 and 0.25, and increments of 0.01. The grey area corresponds to the 10% confidence interval, based on a nearest neighbor variance estimator. The red line indicates the Calonico et al. (2014) optimal bandwidth. The dependent variable is $log(1 + y)$ of the annual average investment. All regressions control for baseline municipal characteristics described in Section 3.1. area level.

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