The Political Cost of Public-Private Partnerships: Theory and Evidence from Colombian Infrastructure Development

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Abstract: Infrastructure public-private partnerships (PPPs) eschew traditional public management to provide distributive goods worldwide. Yet, in Colombia, the context of our study, both the promise of and voters’ experience with PPPs hinder incumbent parties in elections when theories of distributive politics expect otherwise. We argue that negative experiences with PPPs introduce a sociotropic turn in individual voting: bad experience crowds out the possibility that promising a new project will improve a voter’s own welfare. Studying what are to our knowledge all 109 Colombian PPP projects between 1998-2014, and over 8,700 individual survey responses, our evidence shows that vote intention for the incumbent executive or his party decreases as experience with more PPPs in respondents’ districts increases. Our analysis and results introduce an important agenda for research into the political significance of these legacies of New Public Management.
An emerging literature suggests that a wide variety of distributive goods—from land (Albertus 2013) to foreign programs (Cruz and Schneider 2017)—can be used in “pork-barrel” strategies by incumbent politicians who expect positive electoral outcomes from their distribution across political geography. Public Private Partnerships (PPPs) in both developed and developing countries allow governments to provide public goods by leveraging private investments and risk-sharing (Hodge and Greve 2007). This makes them a centerpiece of the “hollowing” of states, or the replacement of traditional public management with contracts and partnerships with non-state actors (Milward and Provan 2000). Recent work contends that the contractual nature of PPPs (Bertelli 2019) and the involvement of private firms from abroad (Woodhouse, 2018) can undermine their value in a strategy of pork-barrel politics, consistent with arguments about other service improvements (de Kadt and Lieberman forthcoming). We continue this line of inquiry by considering whether the past performance of infrastructure PPPs influences domestic distributive politics. Can negative experiences with prior projects affect the incumbent support expected from their development? We examine how experience with infrastructure partnerships influences incumbents’ electoral fortunes, disaggregating the impact that the promise of and experience with these projects have on individual voting intention to resolve a puzzle in aggregate electoral outcomes. This strategy helps us to understand whether pocketbook and sociotropic voting play divergent roles in how individuals support or sanction incumbents given experience with PPPs.

Our setting is the Latin American nation of Colombia. According to the World Bank’s Private Participation in Infrastructure Projects Database (World Bank, 2017), the ten departments in Colombia with the highest number of PPPs have all experienced delays, corruption, and infrastructure failures related to these partnerships. Such problems have been experienced throughout Latin

\[2\] Antioquia, Cauca, Cundinamarca, Atlántico, Magdalena, Bolivar, Santander, Sucre and Bogotá D.C.. The remaining Colombian electoral districts are presented in Table A2 of the Supplementary Material.
America, leading to renegotiation of contracts by public officials under popular protest (Guasch, Laffont and Straub 2007). Evaluation research frequently reveals that PPPs do not produce the results envisioned, and argues that policy expectations are in need of re-evaluation (Hodge and Greve 2009; Teisman and Kljin 2002). Scholars of public administration criticize PPPs as impenetrably complex (Kickert et al. 1997) and “less publicly designed and authorized instruments of public service delivery and more market encroachments into the public sector” (Peters and Pierre 2010, 50). Such negative assessments compel some to argue that PPPs are only appropriate when they can ensure cost effectiveness (Reeves 2013).

Yet the incentives of distributive politics work against such policy advice (see generally Golden and Min 2013). Re-election seeking incumbents who must bargain for policies with fragmented legislatures may see PPPs as an attractive means of providing public goods and services they cannot get through the conventional budgetary process (see Reyes-Tagle and Garbacik 2016). Private sector participation is expected to bring efficiency and technical knowledge to the provision of public goods and services that otherwise would be low quality, have low coverage or high costs, or not exist at all (Engel, Fischer and Galetovic 2014). Infrastructure increases citizens’ well-being both directly through services and indirectly through economic competitiveness; electoral rewards for the incumbent are anticipated for launching such projects (cf. Lewis-Beck 1988; Key 1966).

To address the question of whether voter experience with PPPs influences electoral fortunes of incumbent politicians, we study the 109 new infrastructure PPPs that are to our knowledge the full number that were legally executed (closed) between 1998-2014. At the electoral district level, two empirical correlations motivate the puzzle we seek to explain: the promise of a new PPP in a district—that is, a closed contract to launch a project—has no statistical effect on the proportion of the legislative vote the incumbent president’s party received in elections between 2002-2014. Contradicting theories of distributive politics, our data suggest that within districts, the promise of a new project is associated with a 10% reduction of the vote share of the winning party in the last
legislative election.\textsuperscript{3} Furthermore, when considering voters’ experience with such projects as the number launched in district since 1998, increasing this experience measure from the fifth to 95\textsuperscript{th} percentile of its distribution relates to a reduction in the predicted incumbent executive’s party vote share of almost 5%.\textsuperscript{4} Voters’ experience with PPPs does not help incumbents in Colombia, where these aggregate patterns suggest a willingness to change parties where a new PPP is promised. Beyond Colombia, evidence reveals that the visibility—or “attributability” (de Kadt and Lieberman forthcoming)—of projects makes them more likely to influence vote shares.\textsuperscript{5} These patterns motivate our claim that negative experiences with PPPs introduce a \textit{sociotropic turn} in individual voting (Kinder and Kiewiet 1979; 1981), namely that poorly perceived experience crowds out the possibility that promising a new project will improve a voter’s own welfare.

To evaluate our argument, we spatially match—at the electoral district level—the aforementioned 109 projects to more than 8,700 individual survey responses to the question of whether they intend to vote for the incumbent executive or his party in the next election drawn from the Latin American Public Opinion Project (LAPOP). Logistic regression models reveal systematic evidence that voters in districts with PPPs are less likely to vote for the presidential incumbent and that such voting intention also \textit{decreases} as the number of past PPP projects in a respondent’s district \textit{increases}. The control variables we use in our models predict various other important relationships precisely as one would expect, suggesting that our results are not artifacts of the data we study. To further explore our argument, we present a brief case study of the \textit{Ruta del Sol} highway project, which

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\textsuperscript{3} See Supplementary Material, Section 3 “District-Level Analysis”, Tables A3 and A4.

\textsuperscript{4} See Supplementary Material, Section 3 “District-Level Analysis”, Table A4.

\textsuperscript{5} Traditionally poorly performing sectors such as water are associated with \textit{greater} incumbent vote shares than those which have generally performed well, such as telecommunications, further contradicting expectations (Estache 2016). See Supplementary Material, Section “Project-Level Analysis”, Tables A6 and A7.
is a particularly visible PPP with a problematic history. As experience with PPPs increases, the intention to vote for the incumbent decreases more in those districts through which the Ruta del Sol runs than other districts in the country. Overall, our analysis supports our claim that in Colombia, experience with PPPs leads to the rejection of claims of credit, and opens an important agenda for research into the political importance of these partnerships for infrastructure development.

**The Setting: Infrastructure PPPs in Colombia**

The Colombian economy relies heavily on energy and mining exports, while being hampered by inadequate infrastructure. This makes it cheaper to move a 40-foot container from England to Cartagena than from Cartagena to Bogotá (Ping Chan 2015). For two decades, Colombia has sought to attract private capital and improve its infrastructure through PPPs, and legal reforms made this easier to do (Rodriguez and Pinto 2016). Colombia and Chile are now the most attractive countries for PPPs in Latin America (SIG 2017) and Colombia is the third most competitive worldwide (Guevara Benavides 2018). President Santos’s government claims that ambitious plans for the construction and modernization of infrastructure are central to its policies for economic competitiveness (SIG 2017; Presidencia de la República de Colombia 2018).

Colombians elect their president and representatives in nationwide and multi-seat constituencies, respectively, by open-list proportional representation vote. Elections, particularly presidential and local ones, involve the participation of candidates with ad hoc political parties or discredited traditional parties, and are characterized by a lack of party control over candidates. This favors personal over partisan voting and does not allow the emergence of a straightforward relationship between voters, parties, and partisanship (Angulo Amaya 2016). Blame avoidance when development projects go wrong is aided by personalistic politics, as personal reputation is key to electoral success, particularly in contexts of open-party lists and geographic vote concentration, such as the Colombian context (Ingall and Crisp 2001; Crisp and Ingall 2002; Ames 1995). Particularistic politics and blame avoidance strategies are important when electoral institutional configurations lead to geographical vote concentration. While representatives rely on targeted goods to maintain electoral
bailiwicks, credit claiming over a project in an environment where many go wrong can be electorally harmful if not addressed strategically. Two examples of widely known PPPs with disastrous consequences are instructive.

**Hidroituango**

The Hidroituango hydroelectric dam could eventually provide 17% of the country’s power capacity (La Pulla 2018b). The project consortium, *Sociedad Hidroituango*, has 73 partners; the Governorship of Antioquia, the Institute for the Development of Antioquia, and the *Empresas Públicas de Medellin* (EPM) are its biggest shareholders. An EPM subsidiary received a 50-year build, own, operate, maintain and transfer contract (El Espectador 2018; Múnera Lopez 2012; EPM 2003). In 2011, EPM looked to raise US$500-US$600m (World Bank 2017) by opening a contentious competitive bidding process. Of 21 competing firms, 14 abandoned the competition due to unjustified changes in the bidding process and lack of transparency. The winner was led by a vehicle (CCC Ituango) of Camargo Correa, which was involved in the widely publicized Odebrecht corruption scandal and had previous contracts in Colombia for PPPs that had experienced severe delays and cost overruns. By January 2018, the construction deadline for the plant approached and only 85% of the dam had been built (La Pulla 2018a), two river diversion tunnels were closed with concrete to quicken construction pace and avoid fines for delays.

In April 2018, the Cauca River surged, carrying with it detritus that blocked the only functioning tunnel. EPM and CCC Ituango decided to use an access tunnel to divert the water and damaged equipment at the hydroelectric plant. On May 16, a pressure surge opened the tunnel, but also destroyed three bridges and displaced 600 people only for the tunnel to be blocked again by the end of the night. (Petley 2018; El Espectador 2018). EPM and CCC Ituango instructed 1,500 engineers to finish the construction of the dam (Atkinson 2018, CNN 2018) and by June, 113,000 people evacuated to shelters, including one built for 2,000 evacuees with investment from EPM (RCN Radio 2018; El Tiempo 2018b).
Experts suggested CCC Ituango was responsible for how events unfolded. It had incentives to accelerate construction, which led it to block two of the three diversion tunnels, and to save costs in construction, which potentially led to inappropriate design and execution. CCC Ituango claimed that orders to accelerate the rate of construction came directly from EPM (Holguin 2018; El Espectador 2018; Dinero 2018). EPM and local elected politicians disagreed about whose responsibility it was to manage the crisis while blaming each other for gross information mishandling. President Santos called for an end to the bickering after receiving a request for national government funds from local politicians, who argued that Hidroituango was a national project (Restrepo 2018a; Restrepo 2018b). The national government intervened and by June, CCC Ituango completed the spillway. EPM publicly thanked the national government, the UN and the US Army Corps of engineers for intervening and apologized to the communities affected by the contingencies (KienYKe 2018; Caracol Radio 2018).

Ruta del Sol

Captured in our quantitative dataset, the Ruta del Sol highway aims to connect the center of the country with its Caribbean coast, winding across the departments of Cundinamarca, Santander, Magdalena, Guajira, and Atlántico. Its construction was scheduled to begin in 1997, but the consortium of private partners did not perform on the contract and the Ministry of Transportation took legal action. By 2007, the unfinished project had cost the country between US$185-263 million, and it was not until 2009 that the government assigned new construction contracts (Correa Escobar 2018a; Semana n.d.). The government awarded a contract for the second phase of the motorway to a consortium led by the Brazilian firm Odebrecht, which had paid about US$3.3b in bribes in Latin America during a decade in exchange for infrastructure contracts (Reuters 2017a).

In December 2016, a court in New York published a judicial report indicating that Odebrecht had paid US$11.5m in bribes in Colombia between 2009-2011 to obtain the contract for the second phase of the Ruta del Sol. In 2017, the Attorney General of Colombia disclosed that Odebrecht had paid over four times the amount of money in bribes stated in the first report for contracts related to the Ruta del Sol and for the construction of an 82-kilometer road between the towns of Ocaña and
Gamarra. The Vice Minister of Transportation, about ten legislators, and the campaign managers of then reelected president Juan Manuel Santos and his competitor Oscar Ivan Zuluaga were some of the bribe recipients (Nodal 2017; RCN Radio 2017).

Caught in the scandal, Santos called for a thorough inquiry to establish who and which institutions were involved in the bribing scheme. Santos also stated that he was unaware of the funneling of a US$1 million bribe to his electoral campaign. His campaign manager denied these accusations, which had been made by legislators who confessed that they had taken only 10% of the bribes offered to them and transferred the remaining sums to the electoral campaigns. Corroborating Santos’ statement, the legislators also claimed that Santos was unaware of Odebrecht’s bribes in support of his reelection (El Pais 2017). New evidence suggesting that Santos’ 2010 and 2014 campaigns also received illegal funds from Odebrecht then emerged. Santos publicly acknowledged it, apologized to Colombian citizens, and asked the country’s forgiveness, stating that he had learned about these illegal payments as the evidence came to light and both rejected and condemned this activity (Reuters 2017b). As evidence accumulated, the government finally terminated its contracts with the Odebrecht-led consortia in early 2017. Almost 30 years after the project began, only about 300 of the 1,071 kilometers of highway has been completed. Construction will not resume until 2019 when the government awards contracts through bidding for the five unfinished segments of the second phase of the project. In 2020, the remaining phases of the project will be built once a new PPP is established for their development (Semana n.d.; Correa Escobar 2018b; Portafolio 2018).

In this environment, voters certainly have reason to be skeptical of the promise that more contracts with private consortia will produce effective infrastructure, if they produce it at all. In the next section, we develop a theory that new PPPs decrease incumbent support because of a sociotropic turn in individual voting decisions (Kinder and Kiewiet 1979). Essentially, we claim that negatively framed experiences with infrastructure PPPs can lead voters to deny the credit that incumbents might claim for yet another project partnership because potential negative consequences for the broader population outweigh the “pocketbook” benefits of a new project in the district.
A Sociotropic Turn from the Promise of Infrastructure Partnerships

Citizens may positively evaluate the presence of PPPs because they offer demanded public goods that the government and private contractors can only offer in partnership with one another. The construction of a new road, electricity plant, water treatment plant, or sewers, if done correctly, will positively affect individual well-being by reducing costs and time of transportation, or by providing electricity, clean water, and sanitation. These are visible benefits that citizens experience on a direct, personal level. According to pocketbook and retrospective voting theory (Fiorina 1981; Lewis-Beck 1988; Key 1966), for the foregoing reasons, individuals should assess the presence of PPPs positively in their evaluation of the incumbent’s performance. It is on this form of voting that the electoral value of PPP projects depends.

Yet as citizens’ experience with PPPs grows, these projects can indeed be associated with mermelada (pork-barrel), but also with embezzlement, white elephants and negative externalities. Therefore, the expected positive assessment of PPPs from a citizens’ pocketbook perspective may be washed out by such experiences. Sociotropic voting theory contends that voters respond to what is good or bad for their country as a whole (Kinder and Kiewiet 1979). Sociotropic information about the district’s experience with PPPs weighs more heavily in the minds of voters than the pocketbook value of another project. The difference between pocketbook and sociotropic voting turns on the type of information voters use to make an electoral decision. While pocketbook voting privileges information about individual circumstances, sociotropic voting considers national welfare more broadly (Kinder and Kiewiet 1981). Given the crucial role of information, sociotropic voting can be enhanced by the framing effect of frequent and negative media coverage of problematic PPPs. How news and events are presented can shape voters’ perceptions by persuasion (changing individuals’ beliefs) or their assessments of the information received (Nelson et al 1997).

Sociotropic voting, amplified by framing effects, is quite sensible in the political context of Colombia. Partisanship, which scholars view as the idiosyncratic factor with the strongest explanatory power for electoral behavior, is not strong in Colombia, and makes it possible for the sociotropic turn
we postulate to be observed when controlling for voters’ party and ideological preferences. From 2004-2014, more than 62% of the population reported not having any partisanship (LAPOP 2014). Furthermore, Colombia has a fractionalized party system with more than 15 different political parties. Because these parties are not clearly differentiated on policy—most are center-right—and are not disciplined, the party system does little to clarify choices for the voters. And also because votes are cast for individuals, the political system generates incentives for personalistic voting, weakening the influence of ideology and policy. Negative framing is also substantial in our context. The Odebrecht case—to which the Ruta del Sol is linked—overshadowed larger cases of corruption such as Reficar in the frequency and negativity of media coverage (Amorocho Becerra 2018). In this context, experiences with the outcomes of infrastructure PPPs, particularly celebrated negative experiences such as Hidroituango and the Ruta del Sol, can be expected to influence vote intentions.

The theory behind a sociotropic turn on PPPs admits two implications that we test in the following sections. First, our denied credit claiming hypothesis expects that a project committed to provide infrastructure in an electoral district via PPP has a null or negative impact on voters’ intention to endorse either the incumbent president or his party’s candidates in legislative elections. We argue that this is due to positive pocketbook value being crowded out by negative sociotropic implications. Second, our experience hypothesis anticipates that a longer history of projects in a district should be associated with a lower probability of intending to vote either for the incumbent president or his party’s candidates in legislative elections. Experience, we argue, is what generates the sociotropic turn in citizens’ voting considerations.

**Data and Methods**

Our data were collected from several sources. Individual-level survey responses are drawn from the Latin American Public Opinion Project (LAPOP). LAPOP surveys in Colombia offer data from 2004 to 2017 based on national samples with around 1,500 subjects and a margin of error of ±2.5%. Information about infrastructure projects is taken from the World Bank’s Private Participation in Infrastructure Projects Database (World Bank, 2017) and the SDC Platinum, Global Public Finance
Database (SDC Platinum 2018). These are the most comprehensive databases of infrastructure projects worldwide, allowing us to consider, to our knowledge, the total number of projects in Colombia during our study period. We identify 109 new projects launched between 1998-2014 from these sources.

**Dependent Variable**

Bringing PPPs to closure is an executive function (Bertelli 2019), so we focus on the evaluation of an incumbent president and his party. Our dependent variable captures voting intention, which is the outcome in both the denied credit claiming and experience hypotheses. The variable is constructed from responses to the LAPOP (2014) survey question (in its English translation): “If the next presidential elections were being held this week, what would you do?” with response options “Wouldn’t vote”, “Would vote for the current (incumbent) candidate or party”, “Would vote for a candidate or party different from the current administration”, “Would go to vote but would vote blank or would purposely cancel my vote”, “Don’t know” and “No response.” To construct our dependent variable, *Incumbent Executive Vote Intention*, we coded a response of “Would vote for the current (incumbent) candidate or party” (=1) and “Would vote for a candidate or party different from the current administration” (=0) to create a dichotomous indicator of vote intention.

**Project Variables**

Each infrastructure project is observed in its year of financial closure—when the agreement between public and private parties becomes binding—and in the electoral district in which its construction would take place. Financial closure is linked to the presidential term in which it took place to identify the government under which the project was launched. To link projects to electoral districts, we identify the projects’ longitude and latitude coordinates, which could be a variety of positions as in the case of roads or parts thereof, and then map these positions onto electoral districts for each legislative election in our sample. LAPOP survey data are then matched via the respondents’ stated municipality of residence. Municipalities in Colombia do not cross two electoral districts; they represent the second level of administrative division in the country and by their
aggregation they conform a department and each corresponds to an electoral district for the legislative elections.

We assess the denied credit claiming hypothesis through an indicator variable *Promised Project*, which takes a value of one if a project contract has been signed since the last election (i.e. during the same four-year presidential term). We assess the experience hypothesis using a *Project Experience* variable, which is a counts of all projects closed in a district from 1998, the first year of the presidential term preceding the first election (2002) in our sample. For instance, for a respondent revealing voting intention in 2006, a promised project would be recorded between 2002-2006 and project experience would count all projects closed since 1998 in that respondent’s district. All 109 projects are included in the experience variable, while 86 new promised projects are recorded between the elections of 1998, 2002, 2006, 2010 and 2014. Promised projects cover over half (20) of all districts, which exposes 58% of survey respondents to a promised PPP in their district.

**Control Variables**

At the district level, we control for the number of parties competing in the electoral race in a given district in a given election (*Number of Parties*) due to the fragmented nature of the party system, which can weaken a voter’s ability to identify an alternative to the incumbent (e.g. Carey and Hix 2011, 384-385; Kam, Bertelli and Held 2019). Our expectation in this case is that the higher the number of parties, the more likely a voter is to intend to endorse the incumbent.

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6 Promised projects are matched to a particular four-year government cycle and experience is cumulative, but relatively recent as projects are still in development by and after their year of financial closure and citizens engage with them through extended periods of time afterwards. This implies that citizens’ use and experience with the externalities from projects extend across time after a project’s closure and our cumulative operationalization of *Project Experience* captures this. Additionally, there are very few projects recorded before 1998 in our combined search of the World Bank (2017) and SDC Platinum (2018) databases.
At the individual level, voters’ support for an incumbent depends on their assessment of the incumbent’s performance and such assessment can be captured in terms of presidential popularity (Echegaray 1996), evaluation of the economy (Gélineau and Singer 2015; Duch and Stevenson 2008; Fiorina 1981, Conover, Feldman and Knight 2001), or the monitoring of performance in more specific areas such as security (Pérez 2015, Holmes and Gutiérrez de Piñeres 2012), and municipal services (Armesto 2017; Montalvo 2010). We thus include measures of Incumbent Evaluation and Municipal Satisfaction to capture support for the incumbent president and the provision of services. We expect that the voter’s intention to vote for the incumbent will increase as her evaluation of the incumbent or municipal services becomes more positive.

Partisanship and ideology are widely seen to influence incumbent vote intention (Campbell et al 1960, Bartels 2000, Lupu 2013, Lau and Redlawsk 2001, Dalton and Weldon 2007, Jackson 1975, Azpuru 2010), so we include Political Ideology as a control variable. In the case of Colombia, where the party system is so fractionalized and where most parties are from the center-right, we have no clear expectation. If anything, we might expect center-right and right leaning voters to be more likely to vote for the incumbent simply because, respectively, most of the parties are center-right (a statistical artifact) and a right-wing voter can be expected to be more conservative (averse to change) than an equivalent non-rightwing voter.

Sociodemographic variables also have been shown to exhibit explanatory power, such as Gender (Morgan 2015), Education, and Income (Zechmeister and Zizumbo-Colunga 2010; Layton and Smith 2011; Handlin 2013; Mainwaring, Torcal, Somma 2015; see also Murillo and Visconti 2017).⁷ We have no clear expectation here because the direction of these control variables would depend, on the political platform of the incumbent herself.

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⁷ Gender =1 for male and =0 for female respondents. Political Ideology ranges from left (1) to center-left, (2), to center (3), to center-right (4) to right (5). Education captures whether the respondent has no education (0), primary education (1), secondary education (2) or superior (high school and above)
Summary statistics and all questions from the LAPOP surveys we employ in our analysis are provided in full with corresponding English translations and appear in Tables A1a and Alb of the Supplementary Material, respectively.

**Statistical models**

Our dependent variable is dichotomous (mean = 0.29) and we estimate a logistic regression model that accounts for the survey weights provided by LAPOP.\(^8\) Survey respondents do not constitute a panel; we observe districts repeatedly over time, but not respondents. We thus include district indicator variables in our specifications, which allows us to focus on *within*-district variation in voting intentions. This strategy means that we hold historical and cultural features of districts constant, as these might affect voting patterns in ways not observed via the control variables discussed above. Given that our hypotheses concern the impacts of new promises and cumulating experience that occur at the district level, a within-district design is appropriate.

**Results**

Our estimation results are shown in Table 1 (results with all control coefficients are reported in the Supplementary Material, Table A8). Model 1 includes only the promise of a project and the number of parties, while Model 2 adds our measure of experience. These base models display results that are consistent with our expectations that a promised project does not positively influence vote intention for the incumbent executive and that more experience has a negative effect, *ceteris paribus.*

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\(^8\) Most LAPOP country samples are self-weighted and weights must be activated in order to produce statistical results that are representative at the national level. We reweight to give each country-year sample an identical weight to yield 1,500 observations for every year we study.
Model 3 (individual controls) includes all individual sociodemographic characteristics ($F = 13.06, p < 0.001$), while Model 4 (all controls) incorporates respondents’ political tendencies and service satisfaction ($F = 29.63, p < 0.001$). We prefer to compare the effects of Models 3 and 4 because of potential endogeneity concerns about some of the evaluation attitudes in Model 4, which are captured in the same survey questionnaire as our dependent variable. We believe the true impacts lie somewhere between the estimates from the individual controls and all controls models. In both specifications, we find support for the denied credit claiming and experience hypotheses, providing micro-foundational evidence for the negative impact that PPPs can have on executives’ electoral prospects.

The predicted outcome when a PPP is not promised in a district is 30% (individual controls, S.E.: 0.016) and 24% (all controls, S.E.: 0.009). Where a project is promised to a district, predicted incumbent vote share decreases to 26% (individual controls) and 21% (all controls), a within-district reduction of four and three percentage points, respectively. In the presence of a promised project and with all control variables are held at their means, the predicted within-district incumbent vote share is 40% (individual controls, S.E.: 0.027) and 25% (all controls, S.E.: 0.018) at the fifth percentile of the distribution of Project Experience, but this decreases dramatically to 8% (individual controls, S.E.: 0.018) and 13% (all controls, S.E.: 0.01) at the 95th percentile, a reduction of 32 and 12 percentage points, respectively. These effects are consistent with the sociotropic turn about which we theorized; we observe a significant reduction in incumbent executive vote intentions when they are promised a PPP and their cumulative experience with infrastructure PPPs grows. Figure 1 presents our findings graphically across all specifications. In all models, the effect of a promised project is non-positive and experience with PPPs is always negative.

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9 To capture the possibility that promised projects and experience with PPPs require a longer period for voters to notice and react, in unreported results, we lag each of the theoretical variables by one year and find that – despite reduced statistical power – our results are strengthened.
Results for the control variables (see the Supplementary Material, Table A8) generally behave as one would expect, thereby both providing some interesting insights into voters’ reactions to the presence of PPPs in their districts and offering evidence that our results are not mere artifacts of the data. In the all controls specification (Supplementary Material, Table A8, Model 4) an increasing number of parties present in a given electoral race within a district has a positive effect on the voter’s likelihood to vote for the presidential incumbent. Moving from the fifth to the 95th percentile of the distribution of Number of Parties doubles the likelihood of voting for the presidential incumbent from 16% (S.E.: 0.009) to 32% (S.E.: 0.024). Having more parties on the ballot is associated with more favorable incumbent evaluation, which is consistent with arguments that fragmentation yields a less identifiable opposition (Carey and Hix 2011, Kam, Bertelli and Held 2019). The result is an incumbency advantage of sorts.

Voter evaluation of the incumbent’s performance has a significant impact on incumbent vote intention in the direction one would expect: good (bad) performance translates into greater (lesser) likelihood of voting for the incumbent. However, evaluation of the services provided in a municipality has no influence on the likelihood of voting for the incumbent. This would suggest that voters do not necessarily attribute responsibility for service delivery in their districts to their representatives (De Kadt and Lieberman forthcoming) in the same way that they do for infrastructure PPPs, which may be easier to evaluate given the visibility of the infrastructure itself (Avellaneda 2013; Moynihan et al. 2015). More educated voters are less likely to vote for the incumbent, in a monotonically increasing fashion, while gender has no statistically significant effect, ceteris paribus. Income has a “U-shaped” effect on incumbent vote intention, with the poorest and richest voters being more likely to vote for the incumbent than those in the middle of the distribution. By way of illustration, voters who declare earning no income have a likelihood of 32% (S.E.: 0.04) of voting for the incumbent, for voters who earn the mean amount for the sample (the $361.000 - $720.000 bracket) the likelihood is 30% (S.E.: 0.01) and for voters who earn the most in the sample (the =>$4.000.001 bracket) the likelihood is
34% (S.E.: 0.04). Interestingly, voters on the right or center-right of the ideological continuum are associated with greater intention to support the incumbent executive, which is consistent with the executives being from more center-right parties and the association of the establishment with right-wing ideology.

For robustness and a more precise within-effects specification, we estimate linear probability models via ordinary least squares with district fixed effects for the specifications in Columns 4-7 of Table A5 in the Supplementary Material. We also employ an alternative measure of the Project Experience variable (Column 7, Table A5, Supplementary Material). Our results are robust to these tests, with Project Experience remaining the stronger of the two project exposure effects. Additionally, we consider the ministers’ party affiliation to control for increases in clarity of responsibility for the incumbent president when there is a greater share of ministers belonging to his party (Table A10, Supplementary Material). Our main results are also robust to these controls.

To further examine the sociotropic turn we hypothesize, we examine the influence of a single, poorly performing PPP on incumbent vote intention as a brief case study.

**The Ruta del Sol Project**

To quantitatively investigate the influence of the Ruta del Sol project on incumbent vote intention, we identify those districts in which these projects were promised. We interact an indicator variable capturing whether or not a district received a promised project relating to the Ruta del Sol with the variables used to test our hypotheses: Promised Project and Project Experience. The results of these models are presented in Table 2 (full results are reported in the Supplementary Material, Table A9).

As one might expect, voters from affected districts display a more negative effect of experience on incumbent vote intention than do voters from unaffected districts. In a district affected by the Ruta del Sol and where a new project has been promised since the last election, increasing the Project Experience measure from the fifth to the 95th percentile of its distribution relates to a within-
district incumbent executive party vote share that drops from 76% (S.E.: 0.09) to 11% (S.E.: 0.03), a reduction of 65 percentage points. In an analogous situation where the district was not affected by the Ruta del Sol, this drop is a far smaller 27 percentage points (from 35% (S.E.: 0.02) to 8% S.E.: 0.02).

Interestingly, the effect of a new promised project is positive (with statistical significance across all specifications except Model 5 with all controls) for Ruta del Sol districts when compared to those unaffected. Specifically, in a Ruta del Sol district, being promised a PPP relates to a within-district increase in incumbent executive party vote share of 5% (from 25% (S.E.: 0.05) to 30% (S.E.: 0.02)), whereas in a non-Ruta district, the promised project relates to a 4% decrease in incumbent vote intention (from 29% (S.E.: 0.02) to 25% (S.E.: 0.01)). This may be due to voters welcoming promises of improving the Ruta del Sol situation, and deserves further investigation by scholars. It is crucial to note, however, that the effect of a new promised project is dwarfed by the effect of experience with PPPs, which is four times as large in substantive terms.\footnote{More details about this are provided in the Supplementary Material, Section 5 “The relative effect size of Promised Project and Project Experience in the Ruta del Sol case” and Table A9.}

Conclusion

We have argued that bad experiences with PPP projects for infrastructure can be a menace for incumbent politicians, leading to a denial of credit for providing distributive goods and upending pork-barrel politics strategies. This is because, we claim, bad experiences with PPPs introduce a sociotropic turn in individual voting: bad experience crowds out the possibility that promising a new project will improve their own welfare. We offer statistical evidence in support of this argument in survey data across four electoral cycles and 109 infrastructure projects in Colombia, and offer a case study of a particularly problematic road construction project that likewise supports our core claims.
and introduces the possibility that truly bad experiences with such projects may lead voters to welcome attempts to finish what has been started.

Our work relates well to other articles in this special issue. Most directly, Ken Opalo’s findings that when voters have greater knowledge about the functions of government at subnational levels, they are more inclined to support incumbent politicians at those levels. He argues that this positive relationship between understanding governance and incumbent support benefits accountability. However, that same accountability enhancement may well be problematic for incumbents in our context. The more voters know about the failings of PPPs, the more they can direct their ire toward the incumbents that they believe to be responsible for those failings.

Because international organizations such as the World Bank have enabled and championed PPPs as a means for infrastructure development, they play a major role in any policy response to the kinds of problems we have described. Dan Honig’s contribution suggests that to change project outcomes, World Bank officials must not only be “on the ground” but have the decision-making capability to change the course of projects. Colombia is not on the list of “most fragile” states, and thus certainly requires more than a presence of senior staff for international organizations to help reverse the problems of infrastructure projects. But taking that minimal step could be detrimental to incumbent politicians.

A principal limitation of our research design is that we cannot know whether survey respondents are experiencing projects in their districts nor whether politicians are claiming credit for new project agreements. Future researchers of distributive politics should take this opportunity as it would further connect public administration and distributive politics in this important arena. And while Colombia is a particularly interesting place to consider the PPP experience, it is far from the only national context in which the kinds of problems we discuss have arisen. As is evident in other contributions to this special issue, developing countries provide a very rich context to do both the within and between country analysis that can unpack the mechanisms behind the sociotropic turn at the core of our theory.
Future research should consider competing mechanisms to the sociotropic turn we have described. In developing countries, a variety of factors could lead to alternative explanations. For instance, it would be useful to consider the impact of charismatic leaders on choices about public goods and services. It is possible that the political charisma of an incumbent mediates the extent to which voters punish the incumbent for poor performance. Additionally, factors such as political violence; explicit measures of media coverage and consumption; the visibility of goods and services across voters; voter demand for specific public services; and social mobilization against market reforms of the public sector can potentially affect distributive politics and hybrid provision of public goods and services.

Our work also has important implications for a broader theme in current public administration scholarship, namely, a significant interest in blame avoidance (e.g. Bertelli 2019; Mortensen 2012; 2013). The sociotropic turn we postulate suggests that an unsuccessful history with PPPs requires not just blame avoidance strategies, but also blame acceptance, as in the case of President Santos and the Ruta del Sol. Identifying a private partner who can be blamed is not enough to avoid accountability for a policy disaster when government and private interests are tangled in complex and corrupt ways (cf. Bertelli 2016; Hood 2010). If the pressures of electoral accountability result in a cancellation of contracts, a sociotropic turn by voters is another type of political risk that scholars of PPPs must explicitly consider. Delmon (2011, 99) contends that when firms consider entering into PPPs, their most important problem involves “the consideration of the host government’s (and other political actors’) interests and their implementation” of project requirements. Even blame acceptance by politicians can lead not to renegotiation (Guasch et al. 2007), but to contract cancellation, the ultimate form of failure for both public and private partners (Bertelli, Mele and Whitford forthcoming).
References


Table Legend

Table 1: Promised Project and Project Experience Effects on the Likelihood of Voting for the Incumbent President, Logistic Regression Results, 2002-2014

Table 2: Promised Project and Project Experience Effects on the Likelihood of Voting for the Incumbent President the Individual Level in Ruta del Sol Districts, Logistic Regression Results, 2002-2014
Figure Legend

Figure 1: Promised Project and Project Experience Effects on the Likelihood of Voting for the Incumbent President the Individual Level, Fractional Logistic Regression Results, 2002