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Constituent Demand and District-focused Legislative Representation

Abstract

Legislative responsiveness to constituent demands is integral to the concept of representation. Yet, research on district-focused legislative behavior and priorities, such as allocating resources to districts, has largely ignored constituent demand as an explanatory variable. In this article, we propose a demand-based theory of district-targeted legislative resource allocation. The theoretical model suggests that district demand for legislative resources is determined by the districts' relative deprivation of such resources and that legislators have an electoral incentive to respond to district demand due to the credit claiming opportunities that are associated with doing so. These possibilities are tested with regionwide mass and elite survey data from Latin America, and the results suggest that constituent demand is not only a normatively but also an empirically important predictor of district-focused legislative behavior.

Keywords: Latin America, legislative attitudes, legislative behavior, representation, constituents, surveys

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Representative democracy is rooted in the relationship between constituents and their elected officials. According to perhaps the most common vision of representative democracy, those elected are supposed to *be responsive to* the concerns and preferences of constituents (Miller and Stokes 1963; Pitkin 1969; Wahlke 1971; Eulau and Karps 1977; Fenno 1978; Page and Shapiro 1983; Glazer and Robbins 1985; Powell 2000; McDonald and Budge 2005; Lax and Phillips 2009). A prominent line of research in this area has focused on what motivates elected representatives to focus attention on their districts, and more specifically, prioritize and engage in the provision of public goods and resources to their districts. Yet, most of this work has examined the ways in which electoral and other political institutions shape legislators' district-focused behavior (Carey and Shugart 1995; Crisp et al. 2004; Stratmann and Baur 2002; Ingall and Crisp 2001; Chang and Golden 2007; Carey 2009; Morgenstern 2004; Heitshusen et al. 2005) rather than considering the influence of constituent preferences on legislators' priorities and actions.

We argue that, if representation is rooted in representatives being responsive to their constituents, then constituent *demand* for district-focused legislative representation may be a critically important, but often overlooked, explanation for that representation.¹ Existing research has often implicitly assumed that demand for district-focused legislative behavior is constant, in other words, that all constituents in all electoral districts have the same level of demand for district-focused representation. Yet, that is unlikely to be the case. Demand for different types of representation is likely to vary across districts and have different impacts on representative

¹ We define *demand* as what a citizen wants from his or her incumbent representative(s) at the individual level. Variation in demand at the district level refers to variation in the distribution of citizen demands across districts.

behavior. Therefore, in this paper, we bring constituents to the forefront and articulate a demand-based theory of district-focused legislative representation.

Our theory focuses specifically on one type of district-focused representation—the allocation of legislative resources (money, goods, and/or services) to districts.² We begin with the observation that individuals live in districts with varying levels of resources. Some districts have lower levels of public and private resources than others, which can create feelings of relative deprivation among citizens in those districts. This, in turn, spurs citizens to demand more public resources from their elected representatives to improve their conditions. Legislators and parties recognize the credit claiming and vote getting opportunities that are generated by voter demands in their constituencies and thus have incentives to prioritize being responsive to the needs of their districts through locally-targeted public goods and resources. As a result, district representatives are more likely to prioritize district-targeted resource allocation when their constituents are relatively deprived of such resources.

We test this theory with a regionwide analysis in Latin America, using data from the Latinobarómetro mass survey and the Parliamentary Elites of Latin America (PELA) elite survey. We find empirical support for all parts of the theory. First, we find that rural citizens are more dissatisfied with their local services and more likely to contact their elected legislators about the problems in their communities than urban citizens. Then, focusing on a subset of data

² “District-focused” representation encompasses a range of behaviors including position taking, resource provision, and constituency service (Carey 2009; Carey and Shugart 2004; Cain et al. 1987; Crisp et al. 2004; Fenno 1978; Mayhew 1974; Morgenstern 2004) that occur through a wide variety of specific legislative activities—voting, sponsoring bills, proposing amendments, visiting the district, and casework, to name a few. We view the provision of public resources to the district as one type of district-focused representation, and it is the type of representation that we focus on in this paper. In the conclusion we discuss how our findings could apply to other forms of district-focused representation too.

where we can aggregate to the district level, we show that this occurs at the district level as well. We then provide evidence that legislators who represent more rural districts are more likely to prioritize the provision of public resources to their districts, and we show with a two-stage least squares model that the likely mechanism linking district urbanization and this legislative behavior is voter demand. Overall, these findings suggest that constituent demand is a key component of legislators' district-focused priorities and an important piece of the representation puzzle.

Existing research on district-focused representation

Comparative research on district-focused legislative attitudes and behavior developed into a systematic enterprise in the late 1980s when scholars began to consider whether elected representatives in countries other than the United States also engage in political activities aimed at cultivating electoral support for individual legislators rather than just parties. Cain et al. (1987) offered the first such comparison of the U.S. and Great Britain, finding that British MPs also engage in personalistic behaviors such as constituency service, although they do so to a lesser degree than in the United States. Later studies expanded this research to other countries, and over the years, scholarship began to identify electoral institutions as the primary explanation for the level of district-focused representation that elected representatives engage in (Lancaster and Patterson 1990; Crisp et al. 2004; Morgenstern 2004; Heitshusen et al. 2005; Carey 2009).

Yet, existing studies in the comparative literature have not focused much on the role of constituent preferences in determining district-focused legislative behavior. The studies that have drawn attention to constituents in this research area have either not studied constituent *demand* or have not allowed it to vary in its impact on district-focused legislative representation. Calvo and

Murillo's (2004) study of patronage spending in Argentina comes closest to studying constituent demand because it highlights that low skilled workers have a higher demand for patronage than other voters, and, accordingly, that the Peronist party, which has close ties to the working class, is rewarded more for patronage spending than other parties. The focus of their paper, however, is on testing how Argentine federal and electoral institutions influence that patronage spending rather than how exactly constituent demand matters. Desposato (2006a) also suggests that constituents are important and points out that legislators' decisions about party switching can depend, in part, on needs to provide public goods to their districts, which in turn depends on constituent demands. However, the demand and public goods relationship itself is not tested in the paper.

The view of representation as responsiveness, however, is longstanding and widespread (Pitkin 1969; Eulau and Karps 1977). In this view constituent preferences should be an important part of any explanation for legislators' preferences, priorities, and behavior. Many studies have made precisely this point. Fenno (1978) famously argued that important linkages exist between home and hill styles in the United States, with home-style activities getting legislators committed to ideas and actions before they have to go to the office and engage in them. Legislators' work on the "hill" (in the capitol) reflects what they hear and learn back "home" (in the district). Accordingly, American legislators often take the policy positions that their constituents prefer (Miller and Stokes, 1963; Bartels, 1991). The comparative literature on ideological congruence emphasizes responsiveness as well, though at the national instead of district level (Powell 2000; McDonald and Budge 2005; Blais and Bodet, 2006; Soroka and Wlezien, 2015; Hobolt and Klemmensen, 2008). The literature on clientelism also emphasizes demand, but in a more endogenous way—representatives and constituents are responsive to each other (Taylor-

Robinson 2006, 2010; Desposato 2006a; Kitschelt and Wilkinson 2007; Stokes et al. 2013).

If representation is about responsiveness, then theories of district-focused legislative representation must incorporate constituent preferences and demands into their models. In the next section, we develop a theory of how demand influences one specific type of district-focused representation—the provision of public resources, such as money, goods, and services, to the district.

A theory of constituent demand and resource provision

Our theory starts with the observation that different districts have systematically different public and private resources available to citizens. Some districts have many wealthy citizens living in them whereas poor citizens dominate others. Likewise, public services provided by the government are more accessible for citizens in some districts than others. We argue that districts with lower levels of public and private resources are likely to have greater citizen demand for improvements in their communities. This is because of “relative deprivation”—citizens perceive that they have less of what they feel entitled to than others. Citizens in districts with fewer resources are likely to feel they are relatively deprived when they compare their circumstances to those of citizens in districts with a higher level of resources.³ If this happens,

³ Our focus is comparison across districts rather than within districts, but citizens likely also compare their resources to those of other citizens within districts and even within localities Córdova and Layton (2016), which could have important implications for legislative behavior. We cannot address this possibility with the data we use for this paper, but we encourage future research to explore it with other data sources. Yet, we also think that citizens are likely to compare the resources in their state/department/province to other states/departments/provinces, and our focus here is how citizens in a district, on average, may compare their resources to other districts. Regional differences within countries are often touted as indicators of inequality within countries as some provinces/regions have more resources than others. The northeastern states of Brazil are notoriously seen by Brazilians as lacking many resources and services, on average,

then those feelings of dissatisfaction and discontent are likely to translate into a greater demand for government resources. This demand can be expressed through the formal political process with citizens writing letters to their representatives, attending representative office hours, venting frustrations at public meetings in their districts, etc. It can also be expressed outside of the formal political process through demonstrations and protests.

If citizen demand for resources varies across districts, then the extent to which legislators allocate and prioritize allocating resources to their districts should vary as well. We argue that elected representatives are likely to be influenced by citizen demands for two reasons. First, as noted in the last section, representation is about responsiveness, and thus, we should expect responsive legislators to allocate resources to their districts when constituents demand them. Where there is less demand for resources, legislators may spend their limited time on other types of representation. Second, legislators should recognize the greater opportunities for credit claiming (and the electoral spoils available) when citizens in their districts demand resources. Rational legislators will prioritize allocating government resources to their districts when doing so has the fewest costs and largest potential benefits; i.e., when citizens demand those resources. Paying attention to constituent demand provides important cues for legislators about how best to spend their time and money.

Figure 1 summarizes our argument. Citizens in electoral districts have systematically different public and private resources available to them, and where the level of resources is low,

whereas Rio de Janeiro, Brasília, and São Paulo have many more, on average (even if favelas suffer more than wealthier parts of town). In another example, Bogotá is thought by those in neighboring departments of Colombia to be better served by public resources than former FARC-dominated departments. While within district perceptions of relative deprivation may indeed exist, we argue that across district comparisons also happen and shape constituents' feelings of relative deprivation.

it generates feelings of relative deprivation. This relative deprivation translates into district demand for more resources, which motivates elected representatives to prioritize the allocation of government resources to their constituents.

Figure 1: A Theory of Constituent Demand

An Empirical Analysis of Constituent Demand and Resource Allocation

We test the empirical implications of the theoretical model with the first regionwide analysis of legislators' district resource priorities in Latin America, using mass and elite survey data.⁴ Latin America has been a popular region for the study of legislative behavior because Latin American countries share many cultural and socioeconomic similarities while having varying electoral rules. Yet, most studies of constituency-oriented legislative resource allocations from Latin

⁴ The countries included are: Argentina, Brazil, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Paraguay, Peru and Uruguay. Our dataset does not include all 18 Latin American democracies because we exclude countries with mixed electoral systems as the elite survey dataset does not distinguish under which rules the legislator respondent was elected. This means that we cannot determine what district the legislator represents. Thus, the dataset does not include Bolivia, Mexico, or Venezuela. Panama is excluded because the elite survey district code does not distinguish *electoral* districts, and Chile is excluded because we do not have district-level data on population density and GDP for this country, which are key independent variables in the analyses. Additionally, we exclude legislators who were elected on a national list because they do not have a local electoral district.

America have focused on single countries such as Brazil (Ames 1995a; 1995b; Samuels, 2002), Colombia (Ingall and Crisp, 2001), Costa Rica (Taylor, 1992), and Mexico (Costa-i-Font et al. 2003; Kerevel, 2015). The focus on individual countries likely reflects that it is difficult to obtain cross-nationally comparable measures of legislative resource priorities and allocations, but collectively these studies suggest that the tendency for legislators to focus on district-targeted resource allocation is widespread in different Latin American countries with varying electoral rules.

Our theory suggests that constituent demand plays a key role in generating incentives for legislators to prioritize the allocation of national resources to their districts. Yet, measuring constituent demand and assessing its relationship with elite behavior is a challenge. First, while mass survey data are useful for measuring voter preferences across a large number of countries, they are rarely stratified to be representative at the electoral district level within countries.⁵ Second, a raw measure of demand introduces an endogeneity problem in the dataset: District demand for national resources may influence the supply of such resources, and conversely.

To reduce these empirical problems, we do two things. First, we develop district urbanization as a proxy measure of constituent demand both theoretically (in this subsection) and empirically (in the next subsection). Theoretically, urbanization is a useful proxy because the comparative policy literature has shown that citizens from population sparse districts (i.e. rural districts) are not only relatively deprived of private resources (i.e. have a lower income than

⁵ In Latin America, the Latin Barometer and the Latin American Public Opinion Project's (LAPOP) Americas Barometer are the two large-scale mass surveys. The former does not stratify at the district level at all, and the latter is not stratified at the district level in all countries. LAPOP also does not include as many relevant questions to measure constituent demand for district resource allocations.

citizens in urban areas on average), but that they also have lower accessibility to, and quality of, government provided resources such as transportation and sanitation systems, hospitals, and schools (Barkley, 1974; Bull et al., 2001; Fay and Morrison, 2006; Moseley, 1979). Latin American legislators receive a disproportionate number of requests for these types of resources (Ingall and Crisp, 2001), and citizens in rural districts tend to have less access to them – even if their representatives disproportionately prioritize them – because the per capita costs for services that require large forms of capital that are fixed in space get higher as population density decreases. Furthermore, since rural areas tend to have a lower tax base (on average) it is more difficult for them to fund these types of services.⁶

District urbanization is also a useful proxy for methodological reasons. One, we can measure district urbanization using data on district population density without being concerned about the sampling issues associated with the mass survey data. In other words, our measure of district demand is no longer contingent upon the survey being representative within districts. Two, we can evaluate the relationship between district population density and legislators' resource allocation priorities with fewer endogeneity concerns because legislators' resource priorities are unlikely to exert much of an influence on a district's population density.

The second thing we do to address the challenge of assessing the relationship between demand and resource allocation is to complement the urbanization analyses with reduced-sample models that use direct survey measures of demand in those districts where the survey has enough respondents to allow us to measure aggregate district demand. This still has the problem of not

⁶ There are, of course, also citizens in poor urban areas who are relatively deprived of resources. Likewise, some rich citizens live in rural areas. However, our argument is that rural citizens *on average* are, and feel, relatively deprived for the reasons specified above.

necessarily being a representative sample at the district level and inducing possible endogeneity (which we address using a two-stage least-squares model), but we think that these results combined with the urbanization measure results provide sufficient evidence to evaluate support for our theory.

To proceed, we divide the empirical analysis into two parts. First, we analyze data from the 2008 Latinobarómetro mass survey to explore the relationship between urbanization and constituent demand. We show that citizens who live in a rural context are less satisfied with their local services than those who live in more urban contexts and that they are also more likely to reach out to their legislators to resolve the problems that affect them in their communities. Furthermore, we show that the urbanization and demand relationship holds at the district level in reduced-sample analyses. Second, we use elite survey data from the Latin American Parliamentary Elites (PELA) survey to examine whether legislators from rural districts are more likely to place value on procuring resources for their districts than those from urban districts. We show that they are. We also offer a reduced-sample two-stage least-squares model analysis that shows a direct relationship between constituent demand and priority for directing government resources to a legislator's district.

Part I: A cross-national analysis of the urbanization of districts and demand

We use the 2008 Latinobarómetro survey to test whether rural citizens are more likely than urban citizens to demand resource allocation from their representatives at the individual level. We use this particular survey and year because it included questions on (1) how satisfied citizens are with local public resources (or “services”) in their districts, specifically local sanitation and transportation (1 to 5 scale of increasing dissatisfaction), and (2) whether citizens

would contact their member of the legislature to resolve the problems that affect their communities (1 to 3 scale of increasing likelihood of contacting).⁷ In terms of resources, the survey asked specifically about satisfaction with (1) roads and paving, (2) public transportation, (3) garbage, and (4) sewerage.⁸ The responses to these questions are the dependent variables in ordered probit analyses where the unit of analysis is the individual respondent. We thus analyze whether citizens who live in rural areas feel relatively deprived of local sanitation and transportation resources and whether they are more likely to contact their incumbent legislators to resolve problems with these resources in their community.

We measure urbanization at the individual level with a survey question that asks about the size of the town or city that a respondent lives in. There were 7 response categories ranging from 5,000 or less to 100,001 or more.⁹ Furthermore, some models control for individual income levels in

⁷ The exact question translations are (1) “would you say you feel very satisfied, rather satisfied, not very satisfied or not at all satisfied with [NAME OF SERVICE] or do not have access to those services where you live?” 1=very satisfied; 2=rather satisfied; 3=not very satisfied; 4=not at all satisfied; 5=do not have access to those services, and (2) “Changing the subject, have you ever done one of the following things [CONTACT MEMBER OF PARLIAMENT] to resolve problems that affect your community?” 1=has done, 2=would do, 3=would never do. For the second question, we reverse the scale so that higher values correspond to more contact with a legislator. We code responses of “no answer” and “don’t know” as missing for both questions.

⁸ The survey also asked about satisfaction with green and public spaces as well as general municipal services. However, access to green spaces is, almost by definition, going to be more abundant for citizens who live in rural communities than urban ones for reasons completely unrelated to legislative resource allocations. Likewise, city authorities, not national legislators, allocate municipal services so analyzing this service is not very relevant. To be sure, the four service areas that we study are also relevant to subnational politicians, such as the mayor and local legislature. However, they are also issues that national legislators can address directly or indirectly by securing discretionary spending and earmarks from the central government. Accordingly, in an analysis of Colombian national legislators, Ingall and Crisp (2001) find that roads and sanitation services are among the most common types of cases that legislators said they receive.

⁹ There was also an additional “capitol” category, which we recoded to be included the “100,001 or more” category.

order to make sure that the relationship between urbanization and satisfaction with local services is not merely a function of citizens who live in rural areas having fewer private resources. This is important to do because if the mechanism linking urbanization to service satisfaction is simply private resources then this variable should be a better indicator of demand than urbanization. We measure this individual income with a question that asked respondents to place themselves on a 1-10 ordered income scale where “1” corresponds to “very poor” and “10” corresponds to “very rich.” The models also control for government partisanship because such partisanship may help explain who expresses need and demand for local resources. The government partisanship variable takes a “1” for respondents who identify with the governing party or parties (“0” otherwise). Finally, we are interested in the relationship between urbanization and demand *within* countries rather than between them so we estimate all models with country fixed effects.

Table 1 shows results for the analysis of satisfaction with local resources. We present two models for each type of resource—the first model excludes the measures of personal income and government partisanship whereas the second model includes these variables. The results of both models for all types of local resources reveal evidence that citizens in more rural areas are more dissatisfied with their local resources. Specifically, the coefficient for size of one’s home town/city is negative across all eight models, and it is statistically significant at the .01 level in seven of the eight models ($p = 0.11$ in Model 1.4). Income also has a significant and negative relationship with all four types of resources, meaning that wealthier people are less dissatisfied, as we would expect. Likewise, people who identify with the governing party tend to be less dissatisfied with their public resources, which is consistent with the possibility that these citizens have more access to such resources because of their relationship with the governing party. Most importantly, the urbanization findings hold even when income and partisanship are controlled for

– citizens who live in rural areas are more dissatisfied with their local resources on average, even if they have the same private income and regardless of whether they identify with the governing party.

Table 1: Determinants of dissatisfaction with local resources

Variable	Model 1.1: Roads and paving	Model 1.2: Roads and paving	Model 1.3: Public transportation	Model 1.4: Public transportation
Size of home town/city	-0.022*** (0.005)	-0.015*** (0.005)	-0.014*** (0.005)	-0.008 (0.005)
Income	-	-0.044*** (0.005)	-	-0.044*** (0.005)
Govt. partisanship	-	-0.122*** (0.022)	-	-0.107*** (0.022)
Cut point 1	-1.034 (0.040)	-1.258 (0.046)	-0.913 (0.040)	-1.137 (0.046)
Cut point 2	-0.014 (0.039)	-0.227 (0.045)	0.171 (0.040)	-0.046 (0.045)
Cut point 3	0.874 (0.040)	0.669 (0.045)	1.025 (0.040)	0.816 (0.045)
Cut point 4	2.164 (0.044)	1.979 (0.049)	2.24 (0.044)	2.041 (0.049)
<i>N</i>	14,227	13,915	14,141	13,831
Variable	Model 1.5: Garbage	Model 1.6: Garbage	Model 1.7: Sewerage	Model 1.8: Sewerage
Size of home town/city	-0.063*** (0.005)	-0.057*** (0.005)	-0.076*** (0.005)	-0.068*** (0.005)
Income	-	-0.047*** (0.005)	-	-0.062*** (0.005)
Govt. partisanship	-	-0.107*** (0.022)	-	-0.123*** (0.022)
Cut point 1	-0.972 (0.040)	-1.202 (0.046)	-1.333 (0.041)	-1.647 (0.047)
Cut point 2	0.209 (0.040)	-0.010 (0.046)	-0.248 (0.040)	-0.538 (0.046)
Cut point 3	0.948 (0.040)	0.734 (0.046)	0.476 (0.040)	0.184 (0.046)
Cut point 4	1.783*** (0.042)	1.581 (0.048)	1.383 (0.041)	1.108 (0.047)
<i>N</i>	14,172	13,864	14,002	13,699

Notes: ***p<.01, **p<.05, *p<.1. Standard errors are in parentheses. All coefficients are from ordered probit models. The unit of analysis is the individual respondent in the 2008 Latin Barometer dataset. Country dummy variables are included, but not shown.

To assess the substantive relationship between urbanization and dissatisfaction with local resources, Figure 2 shows the cumulative probability distribution for each of the odd-numbered models over different levels of urbanization. The substantive relationship between urbanization and satisfaction with local resources is clearly small for transportation, but substantively meaningful for sanitation. For sewerage, for example, the predicted probability of being either “rather” or “very” satisfied with sewerage in the most rural town is 0.43, but it increases to 0.61 in the most urban cities. Collectively, these findings illustrate that citizens who live in rural areas are on average less satisfied with public resources than citizens who live in urban areas, though the substantive strength of this relationship varies by type of resource.

Figure 2: Urbanization and satisfaction with resources

Note: This figure uses parameter estimates from Models 1.1, 1.3, 1.5, and 1.7.

Next, we test whether rural citizens also have a higher *demand* for legislators to resolve issues with local resources. We do this with two measures of demand. First, we use the Latinobarómetro question we described earlier (see footnote 7 for exact question wording) that asked respondents whether they had contacted, or would contact, a legislator to resolve the problems that affect them in their community (1=has done, 2=would do, 3=would never do, but we reverse this scale such that a “3” corresponds to more contact).¹⁰ Second, we create a more nuanced measure of demand that combines this “contact” question with the “service satisfaction” question just analyzed. We do this because of two potential problems with simply measuring demand as contacting a member of parliament. First, contacting a legislator is not the only possible way that citizens express their demands—individual citizens could have a high demand for (and thus electorally reward) district-targeted resource provision without ever contacting a legislator directly about it. In fact, a large literature suggests that political participation such as contacting a legislator is more common for individuals with a higher socio-economic status, not because they have a higher demand, but because they are better able to bear the costs of participation (Verba and Nie 1972; Verba et al. 1993; Brady et al. 1995). The second problem is that a citizen’s contact with a legislator may be related to community problems that have nothing to do with resource allocation at all—crime, for example. Consequently, our second measure is a variable that takes a “1” for respondents who were highly dissatisfied with, or did not have

¹⁰ The policy responsibilities of different levels of government is often unclear to voters (Caplan et al. 2013). The services we study in this paper are relevant both to national and local levels of government, but given the lack of clarity (or lower costs) it is possible that some citizens contact their local legislator instead of their national legislator to express their demand for more public services. Consequently, we have replicated the analyses below (Table 2 and Figure 3) in Appendix C by pooling responses of contacting legislators at both local and national levels of government. The results for all variables are similar to those presented in the main paper in terms of both substance and significance.

access to, at least one of the four local resources just analyzed and who also said they would (or had) contact(ed) an incumbent legislator to resolve community problems. This demand variable takes a “0” otherwise.

Table 2 shows the parameter estimates that we obtain when we regress contact (Models 2.1 and 2.2) and demand (Models 2.3 and 2.4) on urbanization, income, and government with country fixed effects (we use ordered probit when the dependent variable is “contact” and probit when the dependent variable is the dichotomous “demand” variable). The results reveal that citizens in more urban areas are less likely to contact their representatives about local problems in all four models, with the latter three producing statistically significant negative coefficients. Model 2.2 shows that urbanization reduces the probability of contact with a legislator when income and government partisanship are held constant and also that wealthier citizens and government co-partisan identifiers are more likely to contact their representatives. Furthermore, urbanization is negatively associated with the probability that a citizen is simultaneously highly dissatisfied with a resource in the community *and* would contact (or had contacted) the district representative to resolve such concerns (Models 2.3 and 2.4). In model 2.4, income and government partisanship are not significantly associated with this measure of demand, contrasting with the positive and significant coefficient in the contact dependent variable model (Model 2.2). This means that wealthier citizens and government co-partisans do contact their elected officials more, but not because they are dissatisfied with local services or because they have greater “demand.” This is exactly what the existing literature argues and increases our confidence in the validity of combining contact and dissatisfaction as a measure of constituent demand.

Table 2: Determinants of Demand at the Individual Level

Variable	Model 2.1: Contact	Model 2.2: Contact	Model 2.3: Demand	Model 2.4: Demand
Size of home town/city	-0.001 (0.006)	-0.010* (0.006)	-0.032*** (0.007)	-0.034*** (0.007)
Income	-	0.050*** (0.006)	-	-0.002 (0.008)
Govt. Partisanship	-	0.122*** (0.027)	-	0.009 (0.035)
Constant	-	-	-0.810*** (0.057)	-0.793*** (0.066)
Cut point 1	0.118 (0.046)	0.352 (0.053)	-	-
Cut point 2	1.450 (0.048)	1.696 (0.055)	-	-
<i>N</i>	13,870	13,577	13,575	13,296

Notes: ***p<.01, **p<.05, *p<.1. Standard errors are in parentheses. Coefficients in Model 2.1 and Model 2.2 are from ordered probit models. Coefficients in Model 2.3 and Model 2.4 are from probit models. The unit of analysis in all models is the individual respondent in the 2008 Latin Barometer dataset. Country dummy variables are included, but not shown.

Figure 3 shows the substantive relationship between urbanization and demand (using the parameter estimates from Model 2.3). The figure shows that the probability of individuals being dissatisfied with local resources *and* contacting their legislator about this type of dissatisfaction is 0.20 in the most rural setting and 0.15 in the most urban setting. Although this difference may not appear large, it is a decrease of 25% from small towns to large cities in an activity that only a small percentage of people participate in. A twenty-five percent difference in the proportion of citizens contacting public officials in rural and urban areas would very likely correspond to elected officials paying different amounts of attention to demands for resource provision in those areas. It is important to keep in mind too that contacting public officials is only one way that citizens can express their demands and a method that often involves only a small number of people. The difference between an estimated 20% of citizens demanding solutions to local problems compared to 15% is notable.

Figure 3: Urbanization and Demand at the Individual Level

Note: Dashed lines represent 95 percent confidence intervals.
The figure uses parameter estimates from Model 2.3.

The results so far thus suggest that urbanization can capture some degree of constituent demand *at the individual level*. However, we have not shown any indication of this *at the district level* yet. Consequently, we present results from reduced-sample models at the district level in Table 3.¹¹ To measure district-level demand, we calculated the percentage of respondents who were coded as a “1” on the demand variable from the earlier analysis that was presented in Table 2 (i.e. the percentage of respondents in a district who were highly dissatisfied with, or did not

¹¹ We do not use districts that had less than 40 respondents in order to make sure that the estimates are reasonably reliable. Furthermore, respondents from Colombia and Brazil are omitted from this part of the analysis because these countries did not have district identifiers in the Latinobarómetro survey.

have access to, at least one of the four local resources *and* who would simultaneously contact a district representative to resolve these problems). For district urbanization, we use census data from *Statoids* to measure the district's population density. Specifically, district urbanization is measured as the log of citizens per square kilometer in the district.¹² Model 3.2 adds a control variable for (the log of) district GDP per capita (Gennaioli et al., 2013) and the percentage of government party voters in the election closest in time to the mass survey (Adam Carr's Election Archive, 2018) to ensure that it is district urbanization and not merely district wealth or district partisanship that drives district-level variation in demand.¹³

Table 3: Determinants of Demand at the District Level

Parameters	Model 3.1	Model 3.2
Log district population density	-2.593*** (0.821)	-2.624** (1.163)
Log district GDP per capita	-	-2.892 (3.314)
Percentage government voters	-	-0.124 (0.143)
Constant	40.604*** (5.575)	59.402 (30.125)
R-squared	0.67	0.73
N	98	68

Notes: ***p<.01, **p<.05, *p<.1. Standard errors are in parentheses.

The models are linear, and the unit of analysis in all models is the individual district.

Country dummy variables are included, but not shown

The results in Table 3 provide evidence that population density and aggregate district demands for improvements in local services are related *at the district level*, even at a constant

¹² We use the log of population density because the data were highly skewed with some significant outliers and because a marginal increase in population density matters less for demand in a more urbanized district.

¹³ We do not have district GDP per capita for Costa Rica, Nicaragua, and the Dominican Republic, so this further reduces the sample size in the model that includes district income (Model 3.2).

level of GDP wealth and district partisanship. In terms of substantive effects, Figure 4 shows that moving from the 10th to the 90th percentile of the logged district population density variable (from 12 to 343 average citizens per square kilometer in the district) corresponds to a predicted 9 percent reduction in demand (the estimated level of demand in rural districts is 21 percent, and the predicted level of demand in urban districts is 12 percent).¹⁴

Figure 4: Urbanization and Demand at the district level

Note: Dashed lines represent 95 percent confidence intervals.

The figure uses parameter estimates from Model 3.1.

The range of the figure represents the 10th and 90th percentile of the district population density variable (de-logged).

¹⁴ This figure is based on the parameter estimates from Model 3.1. Furthermore, each country contains an average of approximately 10 districts in these models, which results in a great deal of variation in the size of the country specific intercepts. Consequently, this figure uses the average intercept (similar to the “grand intercept” in a random effects model) across all countries, which is calculated as the constant plus the average country dummy coefficient value.

The empirical analysis so far has shown that rural citizens are more dissatisfied with local public resources and more likely to contact their elected representatives about these concerns. This relationship is robust to the inclusion of control variables that measure citizen income levels and partisan support for the governing coalition. It also holds in a reduced sample where we measure demand directly at the district level. All of this evidence combined suggests a meaningful relationship between urbanization and demand for improvements in local resources at the district-level. Next, we explore whether and how representatives respond to such demands from their constituents.

Part II: A Cross-national analysis of demand and district resource allocation

Measuring district resource allocation across multiple countries and multiple points in time is challenging. Archival data on bill sponsorship patterns or pork spending is the most common way to do this for country-specific studies, but we aim to analyze our theory regionwide rather than focus on one specific case. As an alternative to directly measuring legislator behavior, we measure the self-reported priority that legislators place on allocating resources to their district with the PELA survey.¹⁵ The PELA survey has been conducted in the lower houses of Latin American national legislatures across five waves since the early 1990s. Our dataset includes 13 Latin American countries, each of which was surveyed two to four times between 1996 and 2011.¹⁶

¹⁵ The PELA data are available by country wave at http://americo.usal.es/oir/elites/bases_de_datos.htm. We used the Alles and Schwindt-Bayer (2015) merged dataset.

¹⁶ These countries are: Argentina, Brazil, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Paraguay, Peru and Uruguay.

The PELA survey asks a variety of questions about legislators' attitudes and behaviors, but one question asks specifically about the allocation of resources to the district in the following way: "How important to your legislative work is securing resources for your region/district/province/department?" The response categories are 1=not at all important, 2=a little important, 3=fairly important, 4=very important.¹⁷ We use these answers as our dependent variable with the unit of analysis being the respondent (i.e., legislator) in a survey-wave.¹⁸

Measuring citizen demand with the urbanization proxy previously introduced, our theoretical expectation is that legislators from more rural districts prioritize district-targeted resource provision more. Consequently, we regress the priority legislators assign to providing district resources on district population density. We use an ordered probit estimator because of the ordinal nature of the dependent variable. We also include fixed effects for country-waves because we care about the relationship between urbanization and district resource provision *within* countries at a particular point in time, and we use random intercepts for districts in each wave since district resource provision may be more prevalent in some districts than others for reasons unaccounted for by our covariates.¹⁹

¹⁷ The question number in the PELA survey is q.24.01. Response options include 8="don't know" and 9="didn't answer," but we code those as missing.

¹⁸ A measure of the amount of resource provision is not available through the survey and it is challenging to measure even with archival data. We use this question of priority placed on resource allocation to the district instead. As theorized, we expect citizen demand to affect both attitudes about priority and actual resource provision behavior. Furthermore, our analyses of the PELA data suggest that the responses are substantively meaningful (Appendix B). Specifically, the Appendix B shows that 1) legislators do not say that all legislative activities are important, 2) that the emphasis legislators place on various legislative activities vary conditional on the district, and 3) that this district level variation in legislative priorities is only systematically related to district population density for legislative behaviors where the theoretical model has a clear empirical implication.

¹⁹ We do not control for any individual-level legislator characteristics. As mentioned previously, the literature has identified characteristics of individual legislators that affect their constituency-

Table 4 shows the results. The first model examines how population density is related to the value that legislators place on district-targeted resource provision without controlling for district wealth, whereas the second model controls for district GDP per capita. This second model has a smaller sample size because we do not have per capita GDP data by district for Nicaragua, the Dominican Republic, and Costa Rica. Both models control for district magnitude because district magnitude correlates with district population density, and a higher district magnitude gives each representative less incentive to prioritize the allocation of resources to the district (Lancaster, 1986).²⁰ Both models also include a dummy variable for shared government partisanship based on DPI (2016) data. It takes a “1” for legislators who were members of a governing party (“0” otherwise). We include this variable to distinguish to some degree between clientelistic and non-clientelistic motivations to target resources to districts (the latter being the focus of our theory and paper). If clientelism is the reason that district-based allocation of resources is prioritized, then the demand-allocation relationship should not exist once membership in a governing party (or coalition) is controlled because the resources would entirely be allocated by those in the governing party (or coalition). Accounting for clientelism in at least

focused behavior, such as seniority, prior political experience, political ambition, being in the governing party, and having local roots. However, the PELA questions that measure many of these were only asked in a small sample of countries, and since we do not have reasons to think that these factors would confound the relationship between our independent and dependent variables, we do not include them in our models.

²⁰ Carey and Shugart (1995) suggest that district magnitude has a negative effect on district-focused representation in closed list systems, but a positive effect in open list systems. Yet, much research raises questions about this empirically (e.g. Desposato 2006b; Morgenstern and Swindle 2005; Selb and Lutz, 2015), and in fact, our own analyses that split out open and closed list systems find no difference across the two (see Table 3a in online Appendix A). Instead, the relationship between district magnitude and priority for resource allocation is negative and significant in both contexts, which is consistent with the expectations from Lancaster’s (1986) theoretical model of comparative pork barrel politics.

a minimal way like this is important in a study of Latin America because of the prevalence of clientelism among some parties and in some countries in the region.

Table 4: District urbanization and resource allocation priority among legislators

Variable	Model 4.1	Model 4.2
District population density	-0.077*** (0.025)	-0.098*** (0.026)
District magnitude	-0.232*** (0.051)	-0.238*** (0.052)
Government party	0.177*** (0.049)	0.170*** (0.054)
District GDP PC	-	-0.115* (0.063)
Cut point 1	-2.923 (0.186)	-4.003 (0.555)
Cut point 2	-2.090 (0.181)	-3.215 (0.553)
Cut point 3	-1.184 (0.179)	-2.278 (0.552)
Random intercept variance: Districts	0.053 (0.017)	0.029 (0.015)
<i>N</i>	3,106	2,541

Notes: *** $p < .01$, ** $p < .05$, * $p < .1$. Standard errors are in parentheses. Coefficients are from ordered probit models. The unit of analysis in all models is the PELA survey wave-legislator. The number of observations is larger when district GDP per capita is not included because we do not have data on this variable for Nicaragua, the Dominican Republic, and Costa Rica. Dummy variables for country-waves are included, but not shown.

The covariate parameters for both population density and district magnitude in Table 4 are negatively associated with the priority legislators assign to district-targeted resource provision and distinguishable from zero. Consistent with our theoretical expectations, Latin American legislators are thus more likely to prioritize allocating district resources when they represent more rural districts, even at a constant level of district magnitude and district GDP.²¹

²¹ The fact that the relationship between district urbanization and legislative resource allocation priorities holds after controlling for district magnitude also means that the relationship is not an

Figure 5 shows the substantive relationship between urbanization and district resource priority using the parameter estimates from Model 4.1. It presents the cumulative predicted probabilities for the importance that legislators place on providing resources for the district at different levels of urbanization. The relationship is clearly substantively meaningful—when district population density is at its most population-sparse value in the dataset (the Alto Paraguay district in Paraguay, which has roughly one person per seven square kilometers living in the district, on average), there is a 0.82 probability that the district representative(s) will consider providing district resources “very important,” whereas there is a 0.51 probability that a legislator from the most population dense district in the sample (the federal capital district in Argentina with roughly 14,000 citizens per square kilometer) considers district resource provision “very important.” This finding—that legislators who represent more rural districts prioritize district resource provision more—provides the third piece of evidence that, combined with the previous analyses, supports our theoretical model.

artifact of the “variance” effect of district magnitude identified by Monroe and Rose (2002), whereby rural interests are institutionally advantaged over urban interests.

Figure 5: District urbanization and district resource priority among legislators

Note: This figure uses parameter estimates from Model 4.1.

For those who still may not be convinced that urbanization is a reasonable proxy for constituent demand or may have concerns about endogeneity, we present a final set of reduced-sample analyses that include a more direct measure of constituent demand. Specifically, we use a two-stage least-squares model that allows us to estimate the causal and direct relationship between urbanization, constituent demand, and legislators' resource allocation priorities. In the first stage, we regress our district-level demand variable from earlier (the dependent variable in Table 3) on urbanization for each legislator who was interviewed within five years of the 2008 Latinobarómetro survey. In the second stage, we regress legislators' district resource allocation priority on the predicted values from the first stage. We also bootstrap the standard errors from the first and second stage together.

It is important to be clear that this model specification still has some potential drawbacks. Most importantly, the model assumes that the only mechanism that links urbanization and legislative resource priorities is demand, and we cannot test this exclusion restriction. Yet, we are unaware of any theoretical arguments or empirical analyses that show that district population density has an effect on legislative resource priorities or allocations via anything except demand.²²

Table 5 presents the results of this analysis. Model 5.1 presents the results from the first stage, which shows the expected negative relationship between district population density and demand. Model 5.2 shows the results from the second stage. The empirical expectation is that predicted demand should be positively associated with the value that legislators assign to district resource provision in their legislative work. The demand coefficient is in the expected direction and statistically significant at the $p < 0.05$ level, which suggests that the relationship between district urbanization and legislators' district resource priorities exists *because* rural districts demand district resources more than urban districts.

²² Furthermore, the model assumes that district demand was constant within districts from 2003 to 2013 in the first stage (when estimating the relationship between demand and district population density) and it drops data from any other year. The district estimates of demand also rely on samples that may not be representative at the district level because, as mentioned previously, the Latinbarometer survey is not stratified at the district level.

Table 5: Urbanization, Demand and Legislators' District Resource Priority

Variable	Model 5.1 First stage: Predicting demand	Model 5.2 Second stage: Predicting district resource priority among legislators
District population density	-4.291*** (0.386)	-
Predicted demand from 1 st stage	-	0.034** (0.015)
District magnitude	2.977*** (0.530)	-0.263*** (0.058)
Government party	-0.506 (0.481)	0.077 (0.093)
Constant	38.503*** (2.057)	-
Cut point 1	-	-1.747 (0.429)
Cut point 2	-	-1.015 (0.422)
Cut point 3	-	-0.148 (0.421)
R-squared	0.57	-
<i>N</i>	992	992

Notes: ***p<.01, **p<.05, *p<.1. Bootstrapped standard errors are in parentheses. The unit of analysis is individual legislator in a survey. Country dummy variables are included in all models, but not shown.

The substantive effects of demand (as a function of district population density) are shown in Figure 6. The figure illustrates that moving from the 10th to the 90th percentile of the demand distribution (from districts with an estimated 5 to 22 percent level of demand) results in a 0.22 increase in the probability that district representatives will consider district resource provision “very important” in their legislative work. The effect that urbanization has on legislative priorities through demand is thus substantively large, which again suggests that demand is an important piece of the representation puzzle.

Figure 6: District demands and district resource priority among legislators

Note: This figure uses parameter estimates from Model 5.2.

Conclusion

Research on representation has long studied the elite side of the representational relationship. It has not explored as thoroughly the relationship between constituent demand and the district-focused behavior of elected representatives. In this paper, we address this gap by developing a theoretical model of district-targeted resource provision as a function of a district's relative deprivation of – and hence demand for – such resources. Accordingly, we have also presented statistical evidence that demand for district resources is higher in rural than in urban areas (Tables 1 and 2) and that legislators who represent rural districts are more likely to prioritize the provision of district resources in their legislative work (Table 3) because of the relationship between district urbanization and demand (Table 4).

This paper raises a previously overlooked argument about the importance of constituent demand for representative behavior. Testing the role of constituent demand for representation is challenging, and we do not think that this paper provides the ultimate empirical test or closes the book on how constituent demand matters. That was not our goal. Instead, we hope to raise what we think is a critically important and often overlooked point about responsive representation involving citizen preferences and demands, to argue why it should matter for district-focused representation, and to provide some initial evidence that it does matter. We also hope to suggest ways in which future research can contribute to a larger body of evidence on when and how citizen demand influences district-focused representation.

First, we use a regionwide analysis of Latin America for the empirics in this paper, but we think that the theory should apply to democracies in other parts of the world, as well. All representative democracies have districts or regions with different socio-demographic compositions and thus with different credit claiming opportunities for representatives. We think that our theoretical model is widely applicable, but more research is needed to explore where it works and why. Some of this research should be regionwide or cross-regional, as ours was, because that provides more breadth and generalizability of findings. This may mean less-than-perfect measures of constituent demand or legislator behavior, however. Country-specific studies that sacrifice generalizability for better measurement are needed to complement this.

Second, we need more studies exploring what demand looks like and how and why it varies. We focus here on urbanization as a proxy for constituent demand, but studies are needed that measure demand in other, more direct, ways and explore how it varies across constituents within districts. We measure demand at the district level in our aggregate level analyses, but it is important to note that there is likely to be variation in demand within districts as well because of

intra-district variation in citizen need for resource provision. Such variation may influence legislative behavior in systematic ways. Previous research from Latin America, for example, shows that parties often divide districts into smaller geographical units (i.e. bailiwicks), essentially generating several sub-districts within each district (Ames, 1995b). An interesting possibility is thus that some legislators in population dense districts (i.e. those who focus on less developed bailiwicks) may prioritize resource provision disproportionately. It is not possible for us to examine this possibility empirically because of the anonymity of the elite survey data, but we encourage future studies to do so with other data sources. Such research will likely lead to a more nuanced understanding of the relationship between voter demand and legislative behavior.²³

Third, our study was based on survey measures of *priorities* for district resource provision, but it will be important to assess its validity with research using archival measures of realized district resource provision. Without extensive resources to fund data collection, this will require country-specific analysis, but that type of research coupled with large-n analyses such as ours can work together to build a body of evidence for the role of constituent demand in legislative representation. Related to this, we need additional research that explores how applicable the theory is to other dimensions of legislative behavior that involve catering to district interests and concerns, such as position-taking activities and constituency service. We focused on resource provision but other forms of district-focused representation exist.

²³ It is also possible that legislators are more likely to respond to district demands when they are more electorally vulnerable. We cannot measure electoral vulnerability with the anonymous elite survey, but we also encourage future research to study this possibility using alternative data sources.

Examining the relationship between constituent demand and representative behavior is important because, as we have shown here, representation *is* about responsiveness. Elected officials are responsive to the demands of their constituents and so understanding demand and its effects on legislative representation is critical. But, understanding the relationship is also important for normative reasons—representatives providing more resources to districts that demand them is a desirable feature of a representative democracy. Cultivating this relationship further can have positive implications for democracy.

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