

# Can Political Alignment Be Costly?

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Research on the benefits of political alignment suggests that voters who elect governing party politicians are better off than those who elect other politicians. We examine this claim with regression discontinuity designs that isolate the effect of electing a governing party politician on an important publicly provided service in Pakistan: health. Consistent with existing research, governing party constituents receive a higher quantity of services; more doctors are assigned to work in governing party areas. However, despite many more assigned doctors, there is no increase in doctor attendance. These findings contrast with the literature on political alignment by showing that alignment to the governing party affects voters' welfare ambiguously: higher potential *quantity* of services may come at the cost of lower *quality*.

An extensive literature on political connections suggests that those with access to elected officials receive more favors (Albouy 2013; Ansolabehere and Snyder 2006; Brolo and Nannicini 2012; Fisman 2001). Voters who elect governing party politicians should receive more services than those who elect others.<sup>1</sup> This article contends that it is not obvious that this is always the case. It outlines a simple framework and presents empirical evidence to suggest that while more resources may be directed toward constituents of governing party politicians, there are costs that come from a corresponding decline in the quality of these services.

We begin by outlining two empirical predictions from a framework that distinguishes governing party politicians from politicians belonging to other parties. The first relates to the total amount of programmatic and nonprogrammatic goods

that a politician will deliver (Brusco et al. 2013).<sup>2</sup> Governing party politicians enjoy greater access to public resources, which eases their budget constraint. This easing should allow for a higher provision of both programmatic and nonprogrammatic goods. Second, for a given budget, politicians select the mix of programmatic and nonprogrammatic policies that maximizes their chance of reelection. Governing party politicians may employ more nonprogrammatic policies because greater access to state machinery makes doing so comparatively easier. This means that the relative share of nonprogrammatic policies could be higher in governing party areas.<sup>3</sup>

These predictions carry competing implications for citizen welfare: greater resources to governing party areas may be offset by a policy mix that contains more nonprogrammatic

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1. Governing party politicians are election winners who belong to the party that forms government in the state in the same election.

2. Shefter (1977) provides a helpful definition for these two types of policies: "A political party may employ one of two basic strategies in its efforts to attract voters, contributors, and activists to support its candidates. It may distribute divisible benefits—patronage of various sorts—to the individuals who support the party. Alternatively, it may distribute collective benefits or appeal to a collective interest in an effort to elicit contributions of money, labor or votes from its supporters." We term benefits of the latter sort as "programmatic" and of the former sort as "nonprogrammatic." The section governing party politicians and policy choice elaborates on these definitions.

3. We develop this idea formally in app. A.

spending, reducing the value of these services to citizens. Whether citizens are better or worse off overall will depend on which of these effects dominate.<sup>4</sup>

We test these predictions in the case of Punjab, a province of 100 million people in Pakistan. The bureaucratic infrastructure in the country is patterned on the British Northcote-Trevelyan model and as a consequence resembles many developing countries around the world (Bertrand et al. 2017). We examine public health services in the province using primary survey data on front-line public service providers—doctors—from a representative panel survey of 850 rural public clinics in Punjab. We combine these survey data with (i) data from the election prior to this survey, and (ii) georeferenced data on health facility locations and constituency boundaries, to estimate the effect of electing a governing party politician on service delivery.

We use two approaches to try to identify the effect of electing a governing party politician. First, we employ a regression discontinuity design based on close elections. Second, we use a regression discontinuity based on the proximity of a clinic to the boundary of a political constituency. We have relatively few close elections involving the governing party, creating some imprecision in our estimates. However, estimates from both approaches are broadly consistent.

If prediction 1 is true, then governing party areas should see an increase in both programmatic and nonprogrammatic goods. We present three results in support of this prediction. First, governing party areas have more doctors assigned to rural clinics. Our estimates are consistent with governing party politicians employing the full extent of resources available, assigning a doctor to almost all clinics in their constituency.<sup>5</sup>

According to prediction 2, governing party politicians should engage in relatively more nonprogrammatic policies. We find some evidence consistent with this prediction. First, there is no increase in the rate at which doctors are present in clinics during an unannounced audit, despite the substantial increase in assignment. Second, doctors report more direct connections to the winning politicians from the governing party, especially in competitive places, signaling the presence of political ties. Finally, interviews with the universe of senior health bureaucrats indicate that politicians routinely interfere in their jobs to prevent sanctions against shirking doctors. Anecdotal evidence suggests that doctors might return

the favor by acting as local-level political interlocutors. These results, while more speculative, are consistent with governing party politicians providing relatively more of a divisible benefit, namely, government jobs, to potential supporters.

Overall, these empirical results suggest that, consistent with our theoretical predictions, there is a potential cost of political alignment. In this case, the government of Punjab is spending more money and may be spending more political effort to get the same amount of services for citizens. While citizens do not necessarily see worse service delivery, there is an opportunity cost in that the government could have more productively spent these additional resources toward the welfare of its citizens.

Pakistan provides an important context for the study. First, democratic institutions in the country are relatively nascent. The government we study came to power in 2008. It was the first elected government in the history of the country to complete its tenure in office. Studying politicians' choices in a consolidating democracy and their implications for citizen welfare is therefore important. Second, public health is a critical service in developing countries. We leverage a representative panel survey of rural health clinics in the province. These clinics are small facilities that are spread across rural Punjab and provide the first stop for health-related issues for a poor population (see fig. 1). The context is therefore similar to that of much of the developing world, where rural bureaucrats provide critical services to the poor and are frequently absent from their jobs (Chaudhury et al. 2006). Finally, bureaucratic performance in public health in Punjab has recently experienced several large-scale failures that have resulted in the death of patients.<sup>6</sup> Understanding the extent to which weaknesses in political institutions explain variations in public health performance is important not just in this context but also more broadly in developing countries.

This article makes three contributions. First, it identifies margins on which there can be losses from political alignment. Second, it suggests a political economy reason for persistent and intractable public sector absence across a host of developing countries (Chaudhury et al. 2006). Finally, it shows that even in the presence of high-powered democratic incentives in the form of political competition, citizens can be worse off because of perverse political incentives. We discuss these contributions further in the context of the results in the conclusion.

The rest of this article is organized as follows: we present a theoretical framework, discuss background details on the

4. While our data do not allow a definitive statements on the net welfare impact of electing a governing party politician, they do indicate that both considerations may be relevant. See the conclusion for more discussion on welfare consequences.

5. In the first survey wave of 850 representative clinics, we find that 35% of clinics have no doctor assigned to them across Punjab.

6. These include the provision of bad medicine (Kharal and Usman 2012), inadequate preparedness for the spread of the dengue virus (*Express Tribune* 2011), and cases of polio (*Express Tribune* 2014).

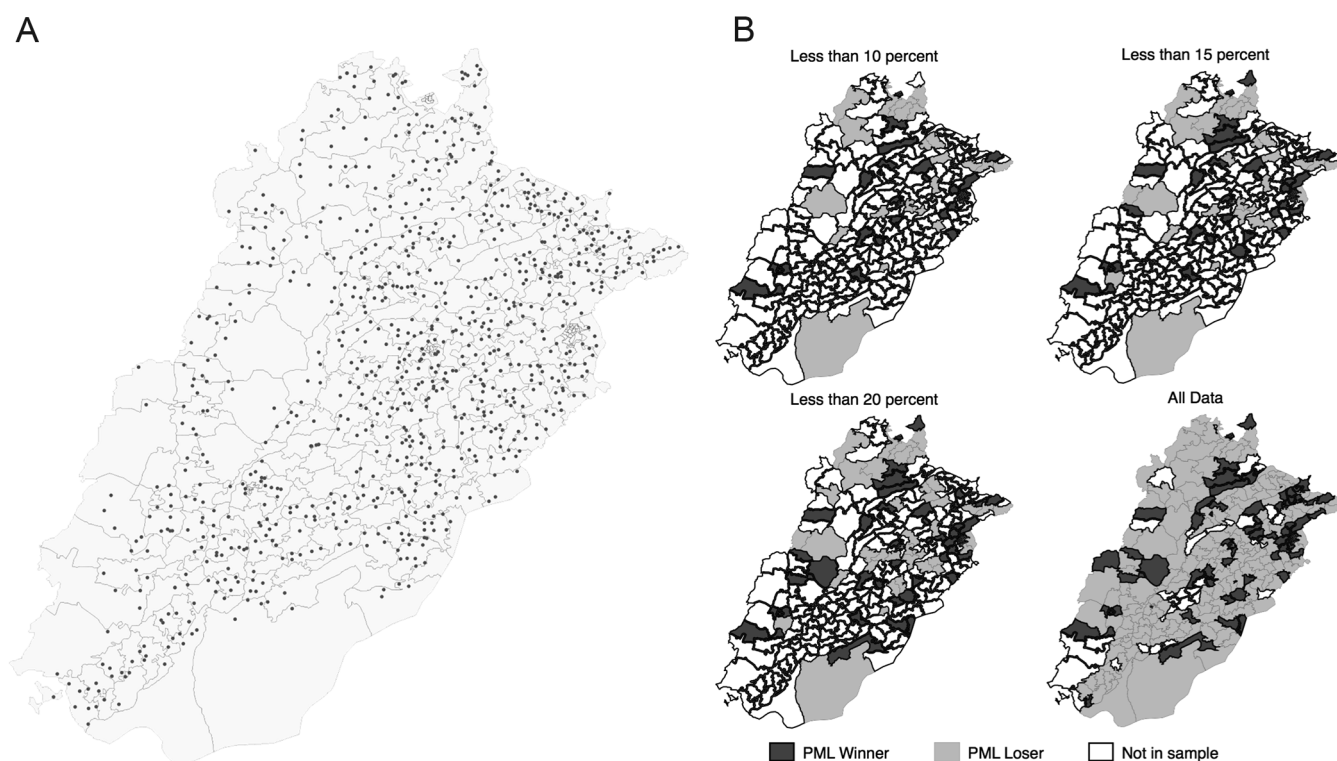


Figure 1. Distribution of clinics by margin of victory. Polygons represent provincial constituency boundaries. (A) Dots show location of 850 rural clinics in Punjab. (B) “Not in sample” category in the “all data” map are constituencies where a PML(N) candidate did not participate in the 2008 elections. The all data map in panel B is also the relevant sample for the geographic regression discontinuity design we discuss below. Color version available as an online enhancement.

historical and institutional setting, provide details of data and the empirical strategy, present the results, and, finally, conclude with a discussion of these results.

### GOVERNING PARTY POLITICIANS AND POLICY CHOICE

This article studies the impact of electing a politician who belongs to the governing party. This section first describes how governing party politicians may differ from nongoverning party politicians. Second, it presents service delivery strategies available to a politician. Finally, it outlines empirical predictions arising from this analysis. We develop some of these insights more formally in appendix A (apps. A–I are available online).

#### Governing party politicians

Governing party politicians have greater access to the machinery of the state once they are elected. There can also be differences along other dimensions. For instance, it is also the primary job of elected politicians to legislate on important matters of the state. Governing party politicians carry an advantage in this because a greater share of the legislature

belongs to their party. This helps in enacting legislation that suits the constituents of the party. Governing party members can also influence the implementation of state policy through the administrative function of the state, where cabinets are chosen by the governing party. These political appointees make policy-level decisions that can benefit party members. For instance, parties can tailor tax laws to help businesses in their constituencies. This article, however, examines local variations in service delivery that are explained by elected governing party politicians.

At least four aspects differentiate governing party politicians from others in developing countries: first, governing party politicians have more control over hiring of staff that deliver services at the local level. This is an easy way to divert resources to their constituents. Second, they retain influence over rewards and punishments of local level bureaucrats. This can allow for both effective monitoring of government programs, but also more opportunity for collusion between politicians and bureaucrats to extract resources from government programs (Gulzar and Pasquale 2017). Third, these politicians can also influence transfers of bureaucrats and wield this as a device to reward and punish local bureaucrats

(Wade 1985). Finally, governing party politicians can also exert pressure on senior bureaucrats, whose promotions are susceptible to political manipulation (Bertrand et al. 2017), to take their preferred policy action. Through these channels, governing party politicians enjoy a higher ability to influence service delivery at the local level.

### **Programmatic and nonprogrammatic politics**

An emerging literature points to two broad strategies that parties employ to improve the likelihood of reelection. Parties choose a mix of programmatic policies and nonprogrammatic policies, where the former is characterized by rules of distribution that are public and followed (Brusco et al. 2013).

Programmatic policies improve public goods provision that should be beneficial for a large group of constituents. These policies include construction of roads and other infrastructure like hospitals and schools, as well as the provision of personnel to provide services on a day-to-day basis, such as license issuing officers, doctors at clinics, and teachers at schools. Importantly, these policies are characterized by public knowledge of how resources will be distributed. In addition, the policies actually adhere to the stated distribution mechanisms. The focus of this article is on local level service providers, in particular doctors at rural health clinics, as a means of improving service delivery at the local level. The provision of trained doctors is an important public service in developing countries, with consequences for public health and human development (Chaudhury et al. 2006).

The other strategy employed by parties relates to nonprogrammatic spending, where either the rules of distribution are not known publicly or not followed even when known. One example of this is when resources are targeted to a subset of beneficiaries. For instance, benefits may be given out as rewards for a good outcome, such as the election of a governing party politician. They may also take the form of patronage, where a select few receive special benefits from the party, such as public sector jobs. Finally, parties may also give special favors to local level actors who can help raise votes for them (Hicken 2011). Overall, these policies relate to the provision of private and club goods, where some section of the electorate may be excluded. This article considers the political economy of local level service providers—public sector doctors—and examines how the allocation of public health can be made nonprogrammatic by providing jobs based on connections.

A politician can benefit from the first type of policy because its broad-based benefits are likely to increase the chances of reelection. This view is consistent with democratic accountability. In representative democracies, voters expect to receive benefits in exchange for keeping politicians

in office. However, employing this strategy can also be wasteful. Public goods are nonexclusionary and do a poor job of targeting services; they provide benefits to voters who are either never going to vote for the party or are always going to vote for the party regardless of benefits (Stokes 2005). In contrast, employing the second strategy can allow politicians to target the benefits to places most likely to get them elected, while using the excess for other reasons, including pilferage (Brierley 2020).

### **Empirical predictions**

A politician can provide either of these types of goods in order to get votes but is subject to a budget constraint. The budget constraint limits the politician's ability to indefinitely employ both strategies and can be thought of as the opportunity cost of the politician's time and resources. Members of the governing party enjoy greater political access to the state machinery. This can be viewed as a loosening of the budget constraint (we derive predictions from such a change formally in app. A). Governing party politicians can therefore employ more of both programmatic and nonprogrammatic strategies keeping resources fixed.

**Prediction 1 (extensive margin):** Areas that elect a governing party politician should receive a greater supply of programmatic and nonprogrammatic services.

The combination of programmatic and nonprogrammatic policies that politicians employ will be determined by the net marginal benefit from each. Politicians will employ a mix that equalizes this net marginal benefit from the two strategies, given their budget constraint. As explained above, governing party politicians have a higher ability to employ public sector resources and target them toward nonprogrammatic goals. In the extreme, we can think of nongoverning party politicians as having no access to public sector resources that they can channel in a nonprogrammatic manner in their constituency. In this case, all their effort will be directed toward programmatic policies. Starting from this baseline of no nonprogrammatic policies, we can state that the net marginal benefit from an additional unit of resource toward nonprogrammatic policies is much higher than from programmatic policies. This will be the situation for governing party politicians. We can think of this discontinuous move from no nonprogrammatic politics to allowance for some nonprogrammatic politics as the empirical comparison that we draw below.

That is, everything else equal, the net benefit of employing nonprogrammatic policies on the margin will push governing party politicians to employ more nonprogrammatic



policies. The observed mix of policies employed by governing party politicians should therefore be more skewed toward nonprogrammatic policies.<sup>7</sup>

**Prediction 2 (intensive margin):** All else being equal, areas that elect a governing party politician should receive more nonprogrammatic services than programmatic services.

## BACKGROUND

### Elections in Punjab

Our analysis focuses on the province of Punjab in Pakistan, home to roughly 100 million people. We consider the time period between the general elections of 2008 and 2013 in Punjab. The province follows a party-based single-member district electoral system. The focus here is on the Punjab Provincial Assembly, a legislative body comprising 371 members, including general and reserved seats.<sup>8</sup> The analysis is based on results from the general elections of 2008, when the incumbent party, Pakistan Muslim League (Quaid Group) was ousted by the Pakistan Muslim League (Nawaz Group; PML (N)). PML(N) won about 30% of the competitive seats and held about 37% of the overall seats in 2008. Below we focus on constituencies in Punjab where the PML(N) fielded a candidate in 2008. There were about three effective candidates contending in each of these elections on average.<sup>9</sup> Appendix B presents a brief history of electoral politics in Pakistan.

Provincial assembly elections offer the lowest elected political positions in Punjab as of October 2015, when a new local government system was introduced. Each political assembly member is elected to represent a relatively large population. In our sample of mostly rural constituencies, there were an average of 149,000 registered voters per constituency in 2008. Given that the demography of Pakistan is bottom-heavy in terms of age cohorts, this represents a large number of households who can routinely access public health services on a regular basis.

### Public health in Punjab

Health has been devolved to provincial control under the 18th amendment of the constitution. In the Punjab province,

public health care is managed by the department of health, which is based at the provincial headquarters in Lahore. The minister for health, part of the governing party's cabinet, oversees the health bureaucracy through the secretary and the director general for health. The budget for health is prepared under the provincial finance commission and leaves substantial control with the province to decide on health related disbursements and personnel management.

The minister and the chief minister of the province are anecdotally the primary conduits for members of Provincial Assembly (MPAs) to influence the bureaucracy in the provincial center. At the district level, it is easier for them to make calls themselves—indeed, as we show below, they frequently interfere in the bureaucracy at the local level. The precise mechanism for interference in resources, however, is unknown because it is not legal and therefore hard to observe.

### Public health at the local level

The province comprises 36 districts with three to four tehsils (counties) in each of them. Each district has on average eight provincial assembly constituencies. There are five major types of facilities: (1) basic health units (BHUs); (2) rural health centers (RHCs); (3) tehsil headquarter hospitals (THQs); (4) district headquarter hospitals (DHQs); (5) teaching hospitals. The focus here is on BHUs—used interchangeably with “clinic” and “facility” in the rest of the article—which are the most local-level public health care units in Pakistan. These are designed to be the first stop for patients seeking medical treatment in government facilities. Clinics are designed to have nonoverlapping jurisdictions; based on other research in Pakistan, it is safe to assume that patients typically visit clinics closest to them (Cheema et al. 2017). There are 2,496 of such clinics in Punjab, and almost all of them are situated in rural areas. These clinics provide several services, including out-patient services, antenatal and reproductive health care, and vaccinations against diseases—making them particularly important for a relatively young population.

Each facility is headed by a doctor, known as the medical officer, who is supported by a dispenser, a lady health care visitor, a school health and nutrition supervisor, a health/medical technician, a midwife, and other ancillary staff. Officially, clinics are open, and all staff are supposed to be present from 8 a.m. to 2 p.m. All doctors at clinics are certified medical practitioners who have gone through five years of medical school. Appendix C describes the procedure for hiring of doctors in Punjab. The procedure for transfers is more opaque. To the best of our knowledge, a specific transfer policy did not exist. Three pieces of information suggest that transfers in health are carried out on a more ad hoc basis. First, according to a government report, there are no human

7. This assumes that there are diminishing marginal returns to employ either of the two policies. This is a reasonable assumption because each additional public good that is provided should yield a lower number of voters for the politician, for instance.

8. “About assembly.” Provincial Assembly of the Punjab. <https://www.pap.gov.pk/> (accessed September 7, 2013).

9. This is calculated by taking the inverse of the party Herfindahl index for each constituency. The Herfindahl is a measure of dispersion. It is calculated as the sum of inverse squared vote shares for each candidate.

resource departments in the district health setup (Government of the Punjab 2015). Second, as we show below, there is considerable interference in the way the health bureaucracy is run. A doctor who had her position transferred closer to her hometown told us that while notification procedures exist for transfers, actual transfers are handled on a case-by-case ad hoc manner. Finally, official notifications for transfers are still issued at the provincial center and reported online.<sup>10</sup> This suggests that there is lot of scope for interference.

### Politicians and doctors in Punjab

Local-level bureaucrats, such as doctors and teachers, serve a critical role in developing democracies. They provide the first access to the state for important services. In a country like Pakistan, where infant mortality rates are still relatively high, and the threat of polio an important policy concern, the services provided by rural public sector doctors are critical.<sup>11</sup> A recent documentary on the state of rural public health system in India shows that, consistent with stories from our fieldwork, the absence of state infrastructure can allow private sector unlicensed “quacks” to proliferate (Banerjee, Banerjee, and Sen 2013). The provision of professional public sector doctors in rural areas is an important public good that the government can provide and that politicians can push for (Muralidharan and Prakash 2017).

Local level bureaucrats are also a cheap means of patronage in developing democracies. A continuous stream of payment in the form of a public sector salary makes public sector employment a sought after position in rural communities (Robinson and Verdier 2013). Governing party politicians can influence the process of public service human resource management in at least two ways: first, they can exert political influence to control the process of transfers of public employees. Second, once posted, health officials also appeal to politicians for protection against suspension, transfer, and other sanctions for underperformance.

Many public doctors belong to politically powerful clans and families. They can provide three types of favors to politicians. First, they can activate their networks to mobilize votes. Second, health staff are commonly recruited to assist the election commission with drawing up voter lists and overseeing polling on election day. Third, they can provide preferential care to supporters or condition care on support. In this

way, the public health service can also become an important source of nonprogrammatic policies by the politicians.

### Politicians exert influence to shield shirking doctors

As part of the fieldwork, we interviewed the group of senior level bureaucrats in the health department in Punjab. These include the executive district officers (EDOs and DOs), responsible for the overall health setup in each of their districts, as well as the deputy district officers (DDOs), who operate at the tehsil (county) level and serve as roving monitors for clinics. There are 36 districts in Punjab, a province of approximately 100 million citizens, and we were able to interview 34 EDOs and 149 DOs and DDOs.

These data allow us to establish some descriptive facts about the political landscape in Punjab. We present some summary statistics on how senior bureaucrats are influenced routinely by politicians in table 1. This speaks to the fact that bureaucrats operate in a highly politicized environment, where politicians look out for doctors. Importantly, however, we cannot estimate treatment effects with these data as outcomes because bureaucratic boundaries are larger than constituency boundaries, with several constituencies within the jurisdiction of these monitors.

The summary statistics in table 1 are on self-reported incidents of political interference experience by these officers. We asked the respondents to report the number of instances where a person of influence put pressure on the respondent for (a) taking action against doctors or other staff that were performing unsatisfactorily in their tehsil or district or (b) not assigning doctors or other staff to their preferred posting. The respondents were also asked to identify the type of people who tried to influence behavior. The results show that about 40% of bureaucrats experienced pressure from several kinds

Table 1. Senior Bureaucrats Face Routine Pressure

	Mean	SD	No. of Officers
Ever influenced by any powerful actor	.402	.492	184
Ever influenced by provincial assembly member	.322	.469	183
Instances of interference by provincial assembly member	15.344	50.399	183

Note. Frequency of interference by politicians in decisions of senior health bureaucrats. Data come from a survey of the universe of senior health bureaucrats and monitors in Punjab.

10. Transfer/posting/leave orders. <http://www.punjab.gov.pk/TransferPostingOrders.aspx> (accessed January 26, 2018).

11. In sum, 78 children in 1,000 live births in Pakistan die compared to 48 in Nepal, 57 in India, and 65 in Bangladesh. Only 47% of 12- to 23-month-olds have all required vaccinations in Pakistan, compared to 83 in Nepal, 73 in Bangladesh, and 44 in India (DHS Program 2008).

of powerful actors and about 32% of officers report being pressured by elected politicians in the provincial assembly. On average, they faced about 15 such incidents in the last two years.

## DATA

Our analysis relies on primary data on public clinics in Punjab and on election data for the 2002 and 2008 general elections.

### Primary health services data

We collect primary data on a representative sample of 850 (34%) of the 2,496 public rural clinics in Punjab. Enumerators made unannounced visits to these clinics three times, in November 2011, June 2012, and October 2012. All districts in Punjab except Khanewal are represented in the data. To our knowledge, this is the first representative panel survey of basic health units in Punjab. Figure 1A provides a map of all clinics in the data with provincial assembly constituency boundaries in Punjab. To bolster data in places where doctors were not found in all three waves, an additional fourth wave of data collection was conducted where the surveyors set a meeting with doctors so that they could be interviewed. We detail this process in appendix H.

### Election data

We also make use of results from the 2002 and 2008 Punjab provincial assembly elections. These data come from Fair et al. (2013) and provide candidate totals by Punjab provincial election constituencies for all candidates. We consider the margin of victory for races where PML(N) contested the election. Figure 1B shows PML(N) winners and runners-up in our data by their absolute margin of victory. We define candidates' party as that listed on the 2008 election ballot for the duration of the study period to avoid potential endogeneity due to party switching postelection.<sup>12</sup>

## EMPIRICAL STRATEGY

Our objective is to estimate the causal effect of having an aligned politician on service delivery. Doing so requires dealing with several confounds as constituencies where governing party politicians secure victory may differ, in many respects,

from those where they lose. For example, PML(N), which has a probusiness agenda, relies on the trader middle class as its base and thus does better in wealthier areas where this constituency is a larger part of the electorate, which may have direct implications for service delivery.

We use two empirical strategies. First, we leverage the occurrence of Punjab's 2008 provincial assembly elections, employing a close elections regression discontinuity. Second, we use a geographic regression discontinuity (RD) that uses constituency boundaries as a cutoff. Both approaches require some assumptions to deliver causal identification, which we discuss below.

### Close elections regression discontinuity

In an ideal experiment, we would compare politicians when they are in two different parties for the same constituency at the same point in time. This theoretical counterfactual of the causal impact of governing party incumbency can be estimated using a regression discontinuity design where the comparison is limited to constituencies that are similar in all ex ante aspects. We use the approach suggested by Imbens and Lemieux (2008) and Lee (2008) to study the effect of electing a governing party politician on several outcome variables. This strategy exploits a discontinuity in the assignment of party identity in close elections. We estimate equations of the following form:

$$Y_{ijt} = \beta \text{PML(N) Winner}_c + f(x_c) + \eta \text{PML(N) Winner}_c \times f(x_c) + \alpha_t + \gamma_j + \epsilon_{ijt} \quad \forall i \text{ such that } x_c \in (-h, h), \quad (1)$$

where  $Y_{ijt}$  refers to the outcome of interest at clinic  $i$  in constituency  $c$  in tehsil (county)  $j$  at survey wave  $t$ . Also,  $\text{PML(N) Winner}_c$  is an indicator variable that equals 1 if the winning politician that corresponds to clinic  $i$  belongs to the governing party, Pakistan Muslim League (Nawaz Group). This is a deterministic function of whether the PML(N) politician won the election in 2008;  $\gamma_j$  refers to tehsil fixed effects that take care of locational confounders. Similarly,  $\alpha_t$  refers to survey wave fixed effects that absorb time-varying confounds. The control function  $f(x_c)$  corresponds to a smooth function of the forcing variable  $x_{ij}$ , which in this context refers to the victory margin between the winner and the runner-up. The forcing variable takes on values between  $(-0.98, 0.48)$  in the data. The values are positive for PML(N) winners and negative for other winners. The interaction of the control function with  $\text{PML(N) Winner}_c$  estimates the control function separately for PML(N) winners and other winners on either side of the cutoff. The coefficient of interest is  $\beta$ , which estimates the local average treatment effect of governing party winners on  $Y_{ijt}$  when the margin of victory is zero. We get causal identification of our

12. Fig. A2 plots the vote share of the margin of victory for the governing party. There is substantial variation in both the share of the total votes that PML(N) secured (between 0% and 70%), as well as its victory margin. Victory margin is defined as a ratio of vote difference between the PML(N) candidate and the runner-up if PML(N) won, and between the PML(N) candidate and the winner if a candidate from another party won. It is positive if the PML(N) candidate won, and negative if that candidate was the runner-up.

estimate of  $\beta$  by using close elections as a mechanism for “as-if” random assignment of the winner’s party.

Approaches to estimating equation (1) rely on changing the control function  $f(x_c)$  and varying the bandwidth  $h$  to obtain a sample to estimate  $\beta$ . By restricting  $h$  to smaller values, that is restricting the analysis to very close elections, we are in a world closer to the ‘as-if’ randomization of treatment assignment through the reduction of bias in  $\beta$ . “This resembles more closely the empirical counterfactual but comes at the expense of efficiency due to small samples” (Querubin 2016, 13).

We adopt the following strategies to deal with this trade-off: first, we use a local linear control function as suggested by Hahn, Todd, and Klaauw (2001). This involves estimating a linear control function in margin of victory separately on both sides of the cutoff. Second, we show results over several bandwidths, including an “optimal bandwidth” determined by an algorithm proposed in Imbens and Kalyanaraman (2011).<sup>13</sup> Third, we weight observations by a triangular kernel in all specifications. This technique gives observations closer to the cutoff higher weights than observations farther away. This appropriately represents the ideal experiment we are trying to approximate.

As a PML(N) winner is assigned simultaneously to several clinics in a constituency, we cluster standard errors in all models at the constituency level. This clustering strategy should also account for spatial correlation within the constituency.

We also include tehsil (county) and survey wave fixed effects in our close election RD specifications. Including tehsil fixed effects should increase precision but should not meaningfully change estimates if the regression discontinuity is recovering the causal effect. If the party of the winner of a close election is “as-if” random, then it should not be correlated with any (potentially omitted) covariates. Contrary to this, our estimates are sensitive to the inclusion of tehsil fixed effects. Speculatively, this may be because we use data only from the 2008 general election, which had few close contests. The average victory margin was 12.8 percentage points. Our data are not sufficient to provide precise estimates when restricting to very close elections where the identifying assumption of the close election RD holds without additional controls (i.e., isolating variation within tehsils). At the same time, as shown in figure 1, political constituencies cover large geographic areas. Including tehsil fixed effects controls for any unobserved local confounds and estimates the treatment effects between clinics that receive and do not receive the

governing party treatment in a relatively small geographic area. However, this comes at the cost of potentially overfitting the data. Because of this potential issue, we use a second empirical approach that takes advantage of the fact that our data on health clinics and constituency boundaries are geocoded.

Finally, this approach estimates a local average treatment effect (LATE) that should be interpreted as being local to constituencies where the competition level is very high.

### Geographic regression discontinuity

We also estimate treatment effects by comparing clinics in PML(N) areas with other clinics that look similar on covariates but are located in non-PML(N) constituencies. We use the geographic RD approach developed by Dell (2010) to study the causal effect of politicians who belong to the governing party. We estimate equations of the following form:

$$Y_{ibt} = \alpha + \beta \text{PML(N) Winner}_{ib} + f(x_{ib}, y_{ib}) + \alpha_t + \eta_b + \epsilon_{ibt} \quad \forall i \text{ such that } x_{ib}, y_{ib} \in (-h, h), \quad (2)$$

where  $x_{ib}$  and  $y_{ib}$  are the latitude and longitude of clinic  $i$  that lies closest to border  $b$  between two provincial constituencies. In this case, the control function  $f(x_{ib}, y_{ib})$  is of the form  $x + y + x^2 + y^2 + xy + x^3 + y^3 + x^2y + xy^2$ , which follows Dell (2010). Adding these geographic controls in a flexible way helps the regression absorb spatial trends that might be superfluously driving the results:  $\alpha_t$  refers to survey wave fixed effects;  $h$  refers to some distance to the nearest border from a clinic;  $\eta_b$  refers to border fixed effects that allow us to compare clinics that are close to one another but on opposite side of the same border. Like before, we limit to clinics within a certain bandwidth that we vary, this time in terms of distance to the nearest provincial constituency border, using a triangular kernel that weighs clinics that are closer to the border more than clinics farther away.

Finally, this approach estimates a LATE that should be interpreted as being local to clinics that lie on the boundary of two constituencies.

### Summary statistics

Tables A1 and A2 (tables A1–A14 are available online) present summary statistics for the data by absolute margin of victory and by distance to the nearest provincial constituency border. The data contain 63 constituencies in a bandwidth of 0.1 margin of victory. Doctors are assigned to 66% of clinics in a victor margin bandwidth of 15%, while they are present in 29% of unannounced visits to clinics. For the geographic RD, there are 109 constituencies in a bandwidth of 1 kilometer

13. This algorithm selects bandwidths that are much too large to be meaningful in our case, but we report them for completeness.



from the nearest provincial constituency border, with doctors assigned 67% of the time and present 29% of the time.

### Identification and robustness checks

Appendix F provides five identification checks testing the validity of our close election regression discontinuity. First, we find no evidence of sorting around the close elections cutoff by using the conditional density test proposed by McCrary (2008). Second, we show that PML(N) winners of close elections in 2008 were no more likely to have been elected in 2002, and thus they do not seem to be able to systematically win elections. Third, using data from FAFEN from over 30,000 election observers for the 2013 national assembly (NA) elections, we show that PML(N) winners of close NA elections were no more likely to engage in observed unlawful practices on election day, including capturing polling stations. Fourth, we conduct placebo checks using pretreatment constituency data and do not find evidence of imbalance around the close elections threshold. And finally, we investigate the robustness of our main results with and without tehsil fixed effects.

We also conduct additional robustness checks that are not model-specific in appendix G. First, to account for potential small sample bias in inference, we carry out a randomization inference exercise based on the Fisher (1935) exact test. The  $p$ -values in this test do not rely on sample size considerations or normally distributed outcomes to be reliable (Gerber and Green 2012). We find that observed treatment effects are generally robust. Second, we check the results with various alternative forms of the control functions for both RDs and find that the results remain consistent.

## RESULTS

Figure 2 plots the main results. The top panel presents close elections RD results, while the bottom panel plots the results from the geographic RD. Appendixes D and G reproduce the results in tabular and RD plot form with the exact  $p$ -values as well as reproduces the results with several robustness checks.

### Doctor assignment

We first examine the impacts of having a governing party politician on the probability of a doctor assigned to clinics in a constituency. The total number of clinics has remained fixed for some time. New clinics typically get built as part of a special program, the last of which was several years before the analysis period for this article.

The health department has several measures of whether a doctor should be present at the clinic. These include “doctor sanctioned,” which corresponds to budgetary line item for the doctor, and “doctor filled,” which indicates if a doctor has been assigned to the position. Our measure relies on the

latter, where we simply note if a doctor should be at the clinic according to official records. This indicator variable of doctor assignment tells us if a doctor has been sanctioned by the health department and should be present at work. This information is recorded at the clinic during primary data collection.

If prediction 1 of the framework in the section governing party politicians and policy choice is correct, governing party areas should have more doctors assigned in their constituencies. Leaving fewer posts vacant improves service delivery by easing access to a doctor in closest clinics to rural citizens. At the same time, public health jobs are also a cheap means of providing patronage and building networks in rural areas, something the PML(N) would have wanted to do after resuming power in 2008. If these jobs are provided as patronage, we can expect the doctors to do a poorer job at work. In this way, greater assignment of staff in rural facilities can signal both programmatic and nonprogrammatic policy.

Figure 2 and the corresponding estimates in table A3 provide evidence that more doctors are assigned in governing party constituencies. This is true for estimates obtained both using close elections and a spatial regression discontinuity. These estimates range broadly but are uniformly large and positive and, in most cases, statistically significant. Against an unconstrained control mean of about 60%–70%, these results suggest that governing party politicians attempt to fully engage resources available to them by ensuring that doctors are assigned at every rural clinic in their constituency.

These results are supported by more substantive knowledge of the public health sector in Punjab. In our data only 65% of the available slots had a doctor assigned to them in wave 1 of data collection. This can be because of several factors, but important ones include delays in bureaucratic processing including budgetary issues and decrees by the country’s legal institutions against hiring of staff at various points of time. As a result, it is not possible in this context to make an impact on the extensive margin of service delivery simply by employing more doctors. Since there was a hiring freeze for doctors during our study period, a change in assignment can be interpreted as a transfer of doctors from nongoverning party areas to governing party areas. Additionally, as expenditure is a function of the number of doctors appointed, this result indicates that more resources may be spent in governing party areas.<sup>14</sup>

14. As public employees, there is no flexibility in the salary scale, so the relationship between the number of employees and outlay is mechanical.

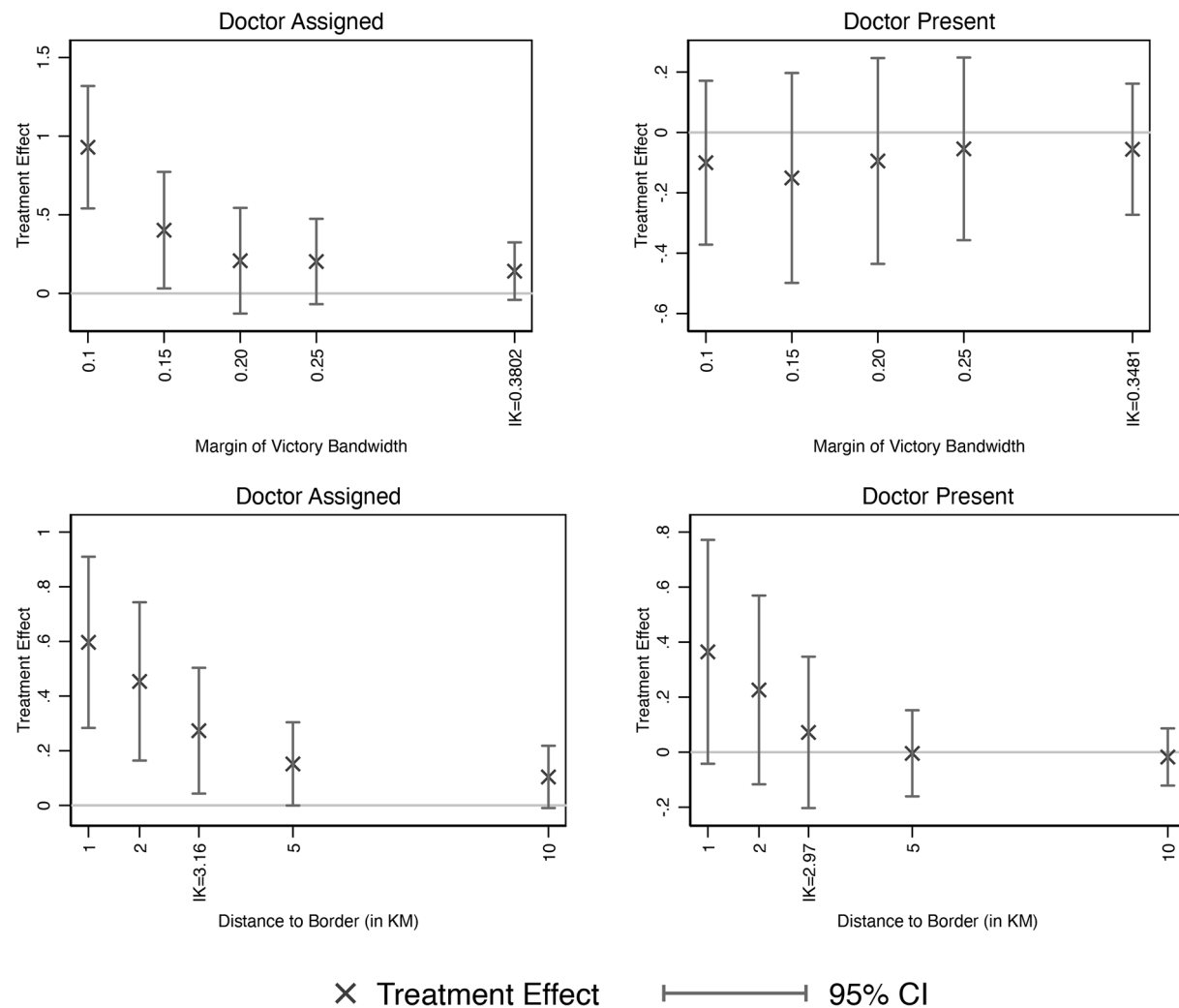


Figure 2. Main results from close elections regression discontinuity (RD) (top) and geographic RD (bottom). Color version available as an online enhancement.

### Doctor attendance

Next we study impacts on doctor attendance. Our surveys allows us to measure doctor attendance in three unannounced visits to the clinics in an unbiased manner that mimics how citizens access health care. Survey enumerators showed up at clinics during working hours with letters from the Punjab Health Sector Reform Program and requested to interview the staff at the clinic.<sup>15</sup> The enumerators were tasked to fill out an attendance sheet once the survey was complete and they had exited the clinic compound. If the doctor did not show up during the surveys, the enumerator was instructed to mark him or her as absent. All places with an absent doctor, including those where a doctor was not assigned, are coded as zero, while places where a doctor was present are coded as one.

15. This is an agency that reports directly to the secretary of the health department.

The estimated impact of electing an aligned politician on doctor attendance is negative for all bandwidths with the close elections RD, while the point estimate flips from positive to negative in the geographic RD. These estimates are imprecise, and we cannot reject the null of no effect on doctor attendance.<sup>16</sup> However, combined with the prior result, that governing party politicians are filling almost all available slots for doctors, this suggests, speculatively, that the increase in the number of doctors hired is having no effect on their availability. As more doctors are assigned to governing party areas, the probability of finding a doctor at a random visit should also be positive. However, not only do we not observe a significant positive effect, the point estimate that we do

16. There is one significant point estimate in a 1-km bandwidth, but we can see that the point estimate drops down by a factor of 4 in the IK bandwidth of 2.97 km, which suggests that the geographic RD in 1 km might be measuring a LATE specific to outlying areas.

observe is negative throughout. At a minimum, this suggests that the newly assigned doctors are going to work infrequently enough to draw down average attendance. It may also be that electing an aligned politician has a negative effect on the attendance of doctors assigned prior to the election as well.

From a citizen's perspective, absent doctors who are supposed to be at work signal poorer quality of service. This is because the citizen has to exert extra effort to figure out when the doctor might be available to receive services from them. For urgent cases, citizens may have no choice but to pay a higher price by seeking private care.

## DISCUSSION

Our results in the previous section show that while there is an increase in services on the extensive margin, we do not observe a corresponding increase on the intensive margin. There are several stories consistent with these results. It may be the case that doctors being assigned to governing party areas are of a lower quality, which is why they show up to work less often. Another explanation might be that in governing party constituencies, doctors are posted to more peripheral areas where they have fewer incentives to show up to work. Finally, it could be the case that doctors in governing party areas are less likely to show up to work because politicians protect them. Below we evaluate these three explanations.

### Do governing party areas have lower quality doctors?

While we do not have direct measures of doctor quality, we do know how long doctors have served in the health department. This can be a proxy for their experience in health. Alternatively, more experienced doctors may also make better political intermediaries. Field interviews suggest that experienced doctors may be more likely to command respect in rural areas because they are senior public sector bureaucrats who have gone to medical school. Previous work suggests that doctors, like other local public workers, can act as important political mediators in rural areas (Larreguy, Marshall, and Querubin 2016; Thachil 2011). They are influential people in the rural areas in which they operate. Formal education and government service affords them a considerably higher social status in rural areas where they serve. Additionally, if they are connected to politicians, they are more likely to act as interlocutors of demands for services to politicians. In the absence of local elected government in Pakistan during the study period, informal connections such as these may be particularly important for the articulation of local interests. Finally, doctors can also help on election day as polling station staff. Polling stations are often situated in public clinics and schools across Pakistan.

Looking at the results in table A5, we are unable to reject the null hypothesis that doctor tenure in governing party areas is the same as tenure in control areas.<sup>17</sup> Although doctor tenure in governing party areas is higher than in non-governing party areas across several bandwidths, it is not consistently statistically significantly different from the control mean.

One interpretation of these results is that doctors in governing party areas are not likely to be worse than doctors in control areas. This is consistent with the assignment results above that suggest that doctors are being transferred from nongoverning party areas to governing party areas. The selection of doctors seems to be positively or not correlated with their experience in the health department. The results on attendance are therefore probably explained by factors other than doctor quality.

Unfortunately, we cannot conclusively say whether the reason that appointing more doctors does not lead to more attendance is that the newly appointed doctors are essentially never attending work or whether the newly appointed doctors are attending some of the time and the preexisting doctors are compensating by attending less.<sup>18</sup>

### Do governing party areas have more doctors posted to peripheral areas?

Another explanation for the results may be that doctors in governing party areas are transferred to more remote areas. As a result they are less likely to show up to work less often, possibly because the probability of getting monitored by supervisors is lower. We do not find evidence to suggest that the increase in assignment is concentrated in more marginal areas.

Since we are by definition balanced on distance measures in the geographic RD design, we use the close elections RD specification to study if doctors in governing party areas are indeed transferred to peripheral areas. We also study if they are posted closer to their hometowns. In table A6 we do not find evidence to suggest that governing party areas have more doctors posted farther away from the county headquarters—the place where most government offices are located. In addition, we do not find evidence to suggest that

17. Tenure is trimmed at the 99th percentile and logged, counting unassigned doctors as zero and adding one month to tenure. The results are similar otherwise.

18. It is challenging to identify whether the reason that appointing more doctors does not lead to better attendance if the clinic operates through incentives or selection channel. Both the posting of doctors to clinics, and potentially the incentives they face to attend work, are potentially affected by whether a ruling party candidate is elected.



Figure 3. Doctors as political workers in 2013 elections. Color version available as an online enhancement.

doctors are posted closer to their hometown, an explanation that would be consistent with selective placement of doctors.

### Are governing party politicians more likely to protect doctors?

A final explanation for the main results is that governing party politicians are more likely to protect doctors from administrative sanctioning. As a result they are not likely to show up to work more even though there are more of them posted to governing party areas.

Evaluating this claim directly is hard as the direct observation of interference in the bureaucracy is difficult. While we show in table 1 that politicians routinely interfere in the bureaucracy, we are unable to directly measure impacts on this variable because bureaucratic areas are much larger, and intersect unevenly, with political constituencies.<sup>19</sup> Instead, we study treatment effects on doctor connections with politicians.

During the survey, doctors were asked if they knew the politician of the provincial assembly personally. We create a dummy variable equal to 1 for the doctors know who politicians directly or personally. We report results on these doctor connections with politicians in tables A7 and A8. First, we find no consistent effect on connectedness of doctors in the geographic RD model suggesting that in the overall sample, doctors are not more likely to be connected to politicians in governing party areas. Second, we find that doctors report more direct connections with politicians in governing party areas if we consider close elections. Although the point estimate becomes significantly different from 0 at a bandwidth of 0.15, it is similar in magnitude in the 0.1–0.2 range. Interestingly, we do not observe any effects on a broader definition of connectedness—those that also occur through family and friends. These results suggest that doctors are likely to be more connected with governing party politicians particularly in more competitive areas—the LATE for the close elections RD model.

19. This allows us to put county fixed effects in the close elections model.

These results can be interpreted at least four ways: first, governing party politicians may transfer doctors they already know to their constituencies (where it is easy for them to shield them when they are absent); second, they may bring in doctors and get to know them; and third, the newly transferred doctors may themselves make efforts to build connections with doctors; finally (and, in our view, less plausibly), doctors could be more inclined to misrepresent their connection when they are in a constituency with an aligned politician.<sup>20</sup>

One final piece of anecdotal data that we present here is from the subsequent elections of 2013. The Free and Fair Elections Network, an independent nongovernmental election monitoring organization tweeted infractions to the elections code prior to the general election of May 2013. Figure 3 shows evidence of doctors and health staff behavior during the 2013 election. These suggest that health staff in rural areas may provide a good avenue for political networks and vote mobilization. In figure A4 we show evidence on how government bureaucrats in general help may politicians during election season.

While we cannot show direct evidence of politicians protecting doctors, the three pieces of evidence presented here speculatively point to a patronage explanation of our results.

### CONCLUSION

Prior research, appropriately, focuses on the total quantity of favors and services when looking at the effects of political alignment. However, another potentially important aspect is the quality of the services given out as a consequence of alignment. We argue that, on balance, political alignment can carry some countervailing costs.

We examine this argument as it applies to public health in Punjab, Pakistan. We show that in areas where elected

20. We do not think this is a particularly plausible story for a number of reasons. First, for this to be an experimenter demand effect, doctors would have had to anticipate the purpose of our survey. We asked about many issues related to health service delivery and also about connections to a range of different actors. Second, the magnitude of the effect would imply that is highly socially desired to know a politician connected to the ruling party but not to other politicians.



representatives belong to the governing party, public doctors are more likely to be assigned and that this does not translate to a clear increase in doctor availability. The data also show that politicians routinely interfere in the health department to protect doctors, and anecdotal evidence indicates that doctors can act as political workers for parties. From a citizen's perspective, being in a governing party area can therefore carry a mixed blessing—more services may come at the cost of absent doctors who may be giving out services selectively.

### Discussion of main results

Making a definitive statement on how political alignment affects citizen welfare is hard. We have a more modest aim: to document that in addition to the benefits of political alignment documented in the literature, there are some potential costs. Citizens may be better off in terms of total services being delivered, but there is uncertainty with regard to whether the average quality of services falls. One test that speaks to the overall effect on citizens are the results on doctor attendance, where in spite of more doctors being assigned to a governing party areas, we see that the treatment has no statistically discernible effect on the doctor attendance. While the estimates are imprecise, in some cases they are even negative. This suggests that, at the very least, the positive effect of additional doctors are being washed out by more absence in governing party areas.

More generally, we can outline cases when citizens can be better off when electing governing party politicians. First, the availability of services can improve in areas previously unserved by the government. This is true in the present setting where governing party areas had more doctors transferred to them. In similar instances where the quality of services is less important than their mere availability, citizens in governing party areas stand to benefit. Second, many government services are provided through a one-off expenditure. These include roads, for instance, where maintenance costs and administration are often left to local communities. In such cases, the results from prediction 2 matter less in spite of potential pilferage during the provision of the service. We can say that citizen welfare improves by electing governing party politicians because the quantity dimension is significantly more important than quality.

However, there can also be cases where citizens end up worse off in electing governing party politicians. Doctors in governing party areas can exploit their connections with politicians to shirk more often. For instance, they can delegate their job to their subordinates, such as the clinic dispenser, without fear of sanction. During field visits to clinics, our survey team often encountered dispensers acting as official doctors. Third, emerging literature shows that issues of

access are of primary importance in take-up of services, particularly in South Asia.

Consistent with this, if doctors are only sporadically available, citizens may have to make several trips to the clinic to find a doctor, compete with increased demand when the doctor is available at his or her post, and potentially be forced to use more expensive private care. These costs can be significant. For instance, in the development literature, health outcomes that are seen to respond quickly to changes in service delivery are infant mortality and stunting (Fujiwara 2015). These variables are likely to be affected by the performance of the clinics in our sample, whose primary responsibilities include providing pre- and postnatal check-ups.

Finally, together with the results on patronage, it is possible that doctors in governing party areas are in fact targeting their services to a subset of people based on some political criteria. They may provide services to the weakly undecided voters in swing constituencies for example (Brusco et al. 2013). Targeting services based on political criteria will come at the cost of sacrificing overall welfare of citizens in governing party areas.

Whether political alignment is a net benefit hinges on a few questions. First, how many new areas are serviced? Second, is the service easily transferable from one area to another? Third, what are the impacts on the extent and quality of the service employed? Fourth, is the service given out in a more targeted manner at the expense of general welfare? Fifth, what are the opportunity costs of the extra resources channeled to governing party areas?

### Contributions and external validity

The findings in this article carry implications for several literatures. First, a large literature in political science and economics identifies the value and consequences of political connections (Albouy 2013; Ansolabehere and Snyder 2006; Brollo and Nannicini 2012; Fisman 2001). The literature overwhelmingly indicates that political connections are valuable. In contrast, the results in this article show that under certain conditions, citizens may be worse off when electing a governing party politician. At the very least, that research should consider the costs of alignment.

Second, this article connects a large development literature that identifies public worker absence as a key obstacle to delivering services to the poor with the literature on patronage jobs. During unannounced visits in our first wave of data collection, we find a 68.5% chance of a doctor being absent at a representative clinic. This compares with an average of 35% across Bangladesh, Ecuador, India, Indonesia, Peru, and Uganda (Chaudhury et al. 2006), arguably comparable developing countries. Governments jobs are ideal currency

for patronage; they can be targeted to individuals, provide a credible stream of benefits, and are reversible (Robinson and Verdier 2013). Historically, public sector jobs have been used in Italy (Chubb 1983; Golden 2003), West Germany (Mayntz and Derlien 1989), Hungary (Meyer-Sahling 2006), India (Wade 1985), and the United States (Johnston 1979; Sorauf 1956; Wilson 1989) to name a few. This article shows how pervasive public sector absence in many developing countries can in fact be a result of patronage jobs provided by ruling parties. Programs that aim to reduce corruption and improve government efficiency would benefit from understanding instances where the incentives of politicians and service providers align, such that they lead to a decline in service delivery and development outcomes.

Third, research suggests that, regardless of party affiliation, we should expect a higher provision of public goods in the presence of high-powered electability concerns (Baum and Lake 2003; Brierley 2020; Bueno de Mesquita et al. 2005; Dewan and Shepsle 2011; Harding and Stasavage 2014; Keefer 2007; Martinez-Bravo et al. 2014; Ross 2006; Stasavage 2005). If this is true, then conditional on competition, governing party politicians should pursue policies that deliver programmatic policies the same way as other politicians. However, the results here show that democratic accountability may not be enough to guarantee better services. Ruling parties may in fact prefer to employ nonprogrammatic policies in highly competitive places since the marginal return from these policies may be higher than adopting more programmatic policies. This is consistent with several recent papers that show how democratic incentives may in fact skew political behavior in favor of nonprogrammatic concerns (Bueno de Mesquita et al. 2005; Gonzalez-Ocantos et al. 2012; Nelson 2007; Stokes 2005; Vicente 2014). Higher access to the government's resources may allow governing party politicians the opportunity to engage in nonprogrammatic policies (such as patronage, or delivery of club goods). This article contends that the ambiguous effects of welfare may arise because of this trade-off.

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