Political Connections and Vote Choice: Evidence from Pakistan*

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Abstract

Do voters care about how connected their candidates are? We investigate this question in the 2015 local government elections in Pakistan combining: (i) data on ties between candidates, higher level politicians, and bureaucrats; (ii) a large-scale field experiment; and (iii) election outcomes. Before the election, voters considered local candidates' connections important and expected local politicians to help them access services provided by other levels of government. Providing voters information on connections increased support for more connected candidates, but information on past party performance did not. More connected candidates received more votes and were more likely to win office, but there was no electoral benefit to past service provision. The results provide novel evidence of the importance of political connections for electoral outcomes and show that forward-looking expectations based on candidate characteristics and an understanding of higher-level political process play an important role in vote choice.

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Introduction

How people decide whom to vote for is a key question in political science. Classical arguments focus on the role of retrospective voting in which citizens look to past performance as evidence of politician competence and therefore favor politicians who have performed well in the past.[1] Such voting behavior is broadly understood to create incentives for effort by politicians who know citizens will reward good performance (see e.g. Ferejohn, 1986), though these incentives are weakened when citizens have even small preferences for ascriptive characteristics such as ethnicity (Fearon, 1999). Consistent with the idea that retrospection is a powerful force, a broad literature suggests politicians respond to voters, and thus citizens' expected decisions can influence policy.[2]

What is retrospective voting based on? Theoretical arguments such as Ferejohn (1986) posit that retrospection is based on the signal received from the performance of an incumbent politician. To test this argument an expanding literature on information and electoral accountability examines how information about politician performance influences voter assessment of candidates and voting behavior. The evidence is mixed. Among the earlier studies, Banerjee et al. (2011) find that providing information on incumbent spending and legislative activities in Indian slums leads to higher turnout, a reduction in vote buying, and higher vote share for both high performing and more qualified candidates. Providing information on corruption or malfeasance leads to reduced re-election rates for incumbents in Brazil (Ferraz and Finan, 2008) and Mexico (Larreguy, Marshall and Snyder Jr, 2014). Such information can also, however, lead to diminished attachment to parties and decreased turnout for challenger parties (Chong et al., 2014). Whether voters respond to such informa-

[1] For recent reviews see Ashworth (2012) and Healy and Malhotra (2013)

[2] Recent examples include: Fujiwara (2015) who provides evidence that politicians respond to voters, demonstrating a shift in the allocation of public goods towards the poor in response to changes in voting technology which differentially enfranchise low income voters; and Cascio and Washington (2014) who show that civil rights legislation in the United States which effectively extended the franchise to Southern blacks led to an increase in blacks' share of public spending.

tion appears to depend on their prior views about the politician, with relatively high degrees of malfeasance going unpunished due to negative priors (Arias et al., 2017).

If the core logic of retrospection is correct, then voters should look to other signals of future performance. In particular, voters in local elections should take account of candidates' connections to higher levels of government in countries where such ties are critical for getting services provided at the local level.

To test this claim we study vote choice in the 2015 local government elections in Punjab province, Pakistan, a setting where candidates' connections are unambiguously important for getting services to their constituents. The election brought in the first local government in 10 years and saw a very high turnout of 61%. We combine a survey experiment (n=2,969) with original data on the political connections, assets, and electoral fortunes of 405 candidates in 164 union council (UC) seats in Sargodha district, as well as information on local development spending over the five years before the election and extensive pre-election field work. We specifically study two factors that could impact vote choice: party performance along the lines of typical studies in the political agency literature and candidates' political connections.[3]

Our first finding is a simple observational one. Three weeks before the election a representative sample of voters were looking for their soon-to-be elected UC chairmen to provide services which are outside the jurisdiction of local governments. Three of the top four government functions voters were hoping their UC chairmen could provide do not fall under the purview of the UC. And two of the top four—local roads and the supply of natural gas—are commonly understood by Pakistanis to see a great degree of differential provision based on political connections or favoritism at the provincial level. Consistent with those goals, voters expressed great concern with the incoming local politicians' connections to higher-level

[3]Evidence that the first factor matters is pervasive in developed democracies (see e.g. Huckfeldt et al., 1999; Bartels, 2000; Basinger and Lavine, 2005; Kam, 2005). But, whether voters are looking for party cues in developing democratic polities is an open question and there is a sizable literature suggesting that party cues play a smaller role in voter choice in emerging democracies than in developed ones (see e.g. Keefer and Vlaicu, 2008; Ferree, 2011; Samuels and Zucco Jr., 2014).

politicians.

Turning to our survey experiment for evidence regarding the causal impact of connections, we find that providing true information about candidates' connections shifted voters views in the way one would expect given their self-reported interests. Specifically, providing voters true information on the connections of all candidates in their UC increases expressed support for fully connected candidates by 4.2 percentage points. Providing information about government spending, on the other hand, led to a shift in citizen satisfaction with the government's past performance, but had no statistically significant impact on expressed support for ruling party candidates.

Observational results on actual voting in the election three weeks after the experiment are consistent with these results. Candidates at the top of our connectedness index had a 9.5 percentage point higher vote share, and were 26% more likely to win.[4] By contrast, spending by the ruling party in the five years prior to the election does not appear to correlate with the electoral prospects of ruling-party candidates.

In summary, voters care a lot about what their UCs can provide by working with the national and provincial governments, respond to new information in ways suggesting they believe connections are important for their UC politicians to be effective, and vote more for better connected politicians.

To our knowledge this is the first study to examine candidates' political connections as such. Connections have been explored indirectly as they are implicit in e.g. dynastic voting (see e.g. Cheema, Javid and Naseer, 2013; George and Ponattu, 2017), familial connections (Cruz, Labonne and Querubin, 2017), and ethnic voting (see e.g. Chandra, 2007). The latter in particular has generated a large literature aimed at understanding when voters in developing countries focus on ascriptive characteristics.[5] Baldwin (2013), for example, shows

[4]This finding is unlikely to be driven by other candidate or party characteristics as it remains substantive and statistically similar after controlling for candidates' wealth and constituency-party fixed effects.

[5]An important nuance in this literature is that which ethnicity is focal clearly varies depending on local

that in Zambia, where traditional local unelected chiefdoms exert significant influence, voters reward candidates with ethnic connections to unelected chiefs.

But these papers do not isolate the extent to which voters make choices because they want to get things that require connections and hence value connections independent of any ascriptive characteristics. Our primary contribution is thus to show that connections matter as such.[6] Evidence that voters recognize the value in connections (which allow politicians to bargain for them at higher tiers) shows up in focus groups, in voter responses in a survey experiment, and in election results. This finding had broad relevance in settings where ethnicity is a weak marker of ability to access higher-level political power, and where rigid traditional structures similar to chiefdoms no longer exist.

Our secondary contribution is to provide evidence on what happens when retrospection based on incumbent politician performance is not possible and to show that, at least in our setting, voters recognize past performance but do not look to it as an informative signal. This is important because most of the existing literature focuses on contexts where retrospection based on incumbent performance is possible. But settings where past actions have little informational content are common: when policy responsibility is diffuse it is hard to extract information on past performance, which is one reason for the central role of parties (Popkin, 1991); term limits reduce voters' opportunities to learn about candidates (Alt, Bueno de Mesquita and Rose, 2011); and the proliferation of new administrative units in democracies regularly requires voting in the absence of past performance (Grossman and Lewis, 2014). Moreover, a subset of voters may be focused on policy areas in which the desirable

conditions (see eg. Posner, 2005; Huber, 2012) and markers of cross-cutting cleavages that vary independently from ethnicity can clearly be important in some contexts (Dunning and Harrison, 2010).

[6]As a simple way of quantifying the novelty of the finding we reviewed all papers in AJPS, APSR, and JOP since 2012 that have constituency level vote shares as an outcome. Of 27 such papers only 1 included candidate connections as a key control or treatment variable, and that paper focused on how connections influenced candidates' fundraising prospects. Even if scholars are not studying the impact of connections on vote choice, if their importance was widely known we would expect to have found more than one paper in these journals which controlled for candidates' connections when predicting voting outcomes.

actions are not observable, which gives politicians incentives to over-invest in inefficient-but-observable actions, making it hard to assess performance.[7] Knowing what voters look to in such situations is valuable.

The remainder of this paper proceeds as follows. Section 1 describes our institutional setting. Section 2 introduces our observational data on candidates' connections, assets, electoral fortunes, and public goods spending from 2010-2015. Section 3 describes our survey experiment. Section 4 reports the experimental results. Section 5 reports the observational results on actual voting. Section 6 concludes with a focus on the implications of our results for democratic accountability in weakly institutionalized settings and for future research on voter choice in emerging democracies.

1 Institutional Context

1.1 The 2015 Local Government Elections

The history of democratically elected local governments in Pakistan has been uneven. Military governments have periodically empowered elected local government institutions, which have in every prior case been held in abeyance by subsequent civilian provincial governments (Cheema, Khwaja and Khan, 2006).[8] The 2015 Local Government Elections, held after a gap of ten years, are a historical departure from this pattern as local governments were created during a period of civilian rule. The departure is the result of continuous pressure from Pakistan's courts, which forced the federal and provincial governments to comply with the Constitutional requirement to hold local elections.

The pressure of the courts led all four provincial legislatures to enact local government leg-

[7]Examples of such policy areas include counterterrorism (Bueno de Mesquita, 2007) and disaster preparedness (Healy and Malhotra, 2009).

[8]Constitutionally local governments in Pakistan owe their origin to and derive their powers from provincial legislatures.

islation after the 2013 General Elections.[9] The 2013 General Elections gave large majorities to the Pakistan Muslim League Nawaz (PML-N) in the federal and the Punjab Assemblies,[10] which allowed it to form governments at the centre and in Punjab.[11] The Pakistan Tehreek-i-Insaaf (PTI) emerged as PML-N's biggest competitor in Pakistan and in Punjab winning the second largest share of votes in these areas. PML-N's 2013 victory marked its second consecutive five-year term in Punjab Government as it had already won the 2008 Punjab Assembly Election. The 2013 victory also made it the provincial government in power when local government elections were held in Punjab in 2015.

Punjab's Local Government Act (PLGA) (2013) enacted partisan elections at the local level.[12] Consistent with the electoral rules of the provincial and national assemblies, PLGA (2013) also allows candidates without a party affiliation to compete as independents. It also does not preclude independent candidates from joining political parties after the local elections. This is an important element of institutional design and as a result the main electoral competition in the 2015 Local Government Elections in the Punjab, and in Sargodha, was between the PML-N, the independents, and the PTI.

The structure of political parties in rural Punjab appears to have been affected by their disjunction from local electoral bases. The organizational structure of political parties is very centralized, and their leadership caucuses at the district level retain disproportionate control over the process of allocating electoral seats to party candidates at the national, provincial, and local levels (Cheema, Khan and B. Myerson, 2015; Kitschelt, 2009).[13] The relationship

[9]Pakistan is a federation that consists of four provinces: Balochistan, Khyber Pakhtunkhwa, Punjab, and Sindh.

[10]Punjab is Pakistan's most populous province. It accounts for over fifty percent of Pakistan's population and over fifty percent of seats in the National Assembly of Pakistan. The district of Sargodha lies in the Punjab province. It has a total population of 8.1 million, 6.2 million of which reside in rural areas that form the District Council

[11]PML-N won a simple majority in the National Assembly and over three-fourths of the seats in the Punjab Assembly. The National Assembly is the lower house of Pakistan's federal legislature. Provincial assemblies are provincial legislatures that elect provincial governments.

[12]Local elections held under military regimes had excluded political parties from sponsoring candidates.

[13]District level caucuses consist of a faction of party candidates who have contested the seats of the

between these party caucuses and voters in districts of rural Punjab such as Sargodha is weak and is mediated by local political entrepreneurs who use kinship, caste networks, and landlordism to organize voters into vote blocks (Mohmand, 2014, 2011; Keefer, Narayan and Vishwanath, 2006). Historically these entrepreneurs have not been party activists and the alliance between them and the district caucuses of parties has not been based on party, ethnic or caste affiliation. Mohmand (2011)'s survey of rural politics in Sargodha, for example, finds that just over 10 percent of the entrepreneurs in her sample reported political party, ethnic, familial, or caste affiliation as the basis of alignment with political party caucuses in general elections. In contrast, over 60% reported strategic electoral alliances as the basis of alignment. Overall the 2015 Local Government Elections in Sargodha were held in a setting where ethnicity and caste were weak markers of ability to access higher-levels of political power.

1.2 The Structure of Local Governance and Service Delivery in Rural Punjab

PLGA (2013) established a two-tier local government system for Punjab's rural areas. The lower tier is called the union council, which consists of approximately 15,000 voters. The main functions of union councils include: (a) providing and improving public pathways, public streets, public open spaces and graveyards, lighting of public places, rural water supply, open drains, and cattle ponds; (b) arranging the registration of births, deaths, marriages and divorces; (c) managing and maintaining village common property and (c) nominating the members of and overseeing local dispute resolution. The union council is headed by a chairperson who is directly elected by voters in the union council.

The elected chairpersons of the union councils automatically become members of the

Members of Provincial (MPA) and National Assemblies (MNA) from a district. Pakistan's provinces consist of administrative units called districts, which are subdivided into multiple constituencies which elect their MNA or MPA on the basis of the first-past-the-post system.

legislative council of the higher tier local government, the district council. In this role, they elect the head of the district council and act as a legislative check on the district executive branch. In addition to the provision and maintenance of municipal goods (rural water supply and provision of drinking water), the district councils are assigned functions related to the construction of small-scale infrastructure (culverts, bridges, and public buildings) as well as control over land sub-division, development, and zoning.

A wide range of functions that matter for citizens remain centralized at the provincial and federal levels, including the provision, improvement, and maintenance of roads, sewage, irrigation, electricity, gas, education, health services, and social welfare programs, as well as policing and security. There is considerable evidence that "...in a global comparison, Pakistani parties rely quite heavily upon clientelistic inducements while offering few programmatic inducements to voters ... [and] average voters respond more readily to targeted material inducements than to programmatic policy appeals..." (Kitschelt, 2009, pp. 22-23). The role played by Pakistan's provincial and federal legislators in this process is well documented (Keefer, Narayan and Vishwanath, 2006; Wilder, 1999; Mohmand, 2014).[14] The most explicit example of the direct involvement of MNAs and MPAs in the provision of targeted development schemes (roads, electricity connections, sanitation etc.) in Pakistan is the institutionalization of the MPA and MNA local area development schemes in the eighties.[15]

In this setting where higher-level politicians are directly engaged in the delivery of patronage goods, it is rational for voters to attempt to choose local politicians with strong connections to higher tier incumbent politicians who can enhance the local politicians' prospects and deliver services to their areas in dramatic ways.

[14]Interviews with national legislators, for example, revealed that "People now think that the job of a MNA and MPA is to fix their gutters, get their children enrolled in schools, arrange for jobs transfers....[these tasks] consume your whole day." (Wilder, 1999, p.196).

[15]These schemes give federal (MNAs) and provincial(MPAs) legislators funds for development spending in their constituencies. Keefer and Khemani (2009) document the impact of a similar program on legislator effort in the Indian context.

1.3 Citizen Preference Formation

Electoral accountability is generally understood to work through citizens having preferences over policies, which they convey to politicians via public public signals (i.e. their votes). Following elections, the victorious politicians adopt policies whose outcomes are evaluated by citizens who decide on whether or not to retain the incumbent politician (Przeworski, Stokes and Manin, 1999). Since voters have limited knowledge of a candidate's attributes and the policies they support, candidates and political parties have long used advertising and party labels to provide information for vote choice. Political advertising is not always honest, but it can be directly informative when it conveys verifiable information about candidates and their parties (Prat, 2006). Campaign material is thus informative about the strategies of political candidates and their beliefs about citizens' preferences over policies and public goods.

Our first clues about the significance of connections in Pakistani local elections therefore come from the most visible form of electioneering in this setting: campaign posters. Figure 1 shows a sample of campaign materials from the 2015 local government elections. These images are exemplars of the broader set of materials used in the election. Looking across parties, there are consistent differences in the content of campaign posters.

Campaign material for PML-N candidates emphasized party identification. We believe this reflects the incumbency advantage of the PML-N government, both in typically rural and underdeveloped areas as well as more developed areas. All advertisements observed for PML-N candidates displayed pictures of the party leadership, especially Prime Minister Nawaz Sharif and his brother Chief Minister of Punjab, Shahbaz Sharif. In constituencies with a PML-N MNA and/or MPA those individuals' images were also displayed depending on whether the MNA or MPA supported the candidate. PML-N candidates emphasized political connectedness to local party leadership and to the party high command. In some cases, PML-N candidates also displayed other high-level politicians and office bearers on

their posters.

Materials for PTI candidates suggest that party identification was not an important part of the campaign, especially in rural and underdeveloped areas. Pictures of PTI leader Imran Khan were not consistently included in candidates' posters and the party symbol was often omitted as well. Moreover, many high-level PTI politicians supported candidates contesting this election as independents. Indeed, one PTI politician expressed concerns that running on the party tickets actually hurt candidates' chances of winning because PTI was the main opposition to the provincial incumbent party and PTI voters would fear retribution after the election.

Campaign literature for independent candidates looked more like that for PML-N candidate materials, often featuring multiple high-level politicians from other parties. In some cases, candidates ran as independents exactly because they enjoyed the support of high-level politicians belonging to different political parties. Instead of contesting the election on the ticket of one of these parties, these individuals sought to maximize their chances by highlighting connections across parties. In other cases, no high-level politicians were displayed in the advertisement for independent candidates, typically when the candidate enjoyed the support of a high-level PML-N politician but the PML-N's ticket for that UC was awarded to another candidate. When that happened high-level politicians belonging to PML-N could not openly pledge support for the candidate. And, of course, a few independent candidates contested the elections on the basis of support from their vote bloc.

[FIGURE 1 ABOUT HERE]

1.3.1 Focus Group Findings

To better understand preference formation we conducted focus groups with voters in 18 randomly-selected villages in Sargodha district from 31 August to 2 September 2015. In each locality, we arranged groups of four or more voters by choosing a random starting

point in the village and employing a right-hand rule to select households. At each stop we introduced ourselves as researchers and explained our intention of speaking to them in a group setting about the upcoming elections. We stopped the recruitment process once respondents from four households had agreed to participate.[16] Focus groups were held on the same day in a space where our discussions would not be interrupted by onlookers, which was typically the *baithak* (sitting room) of a respondent's house. Respondents were typically very engaged and welcomed the opportunity to have a discussion about their party and candidate preferences as well as their views and preferences regarding service delivery. We did not face any resistance to having these focus group discussions in any of the localities.

Despite the PML-N having a clear majority in both the provincial and national assemblies, our focus groups did not reveal a clear support for PML-N. Approximately 50% of focus group respondents were undecided about who to vote for weeks before the election and only about 25% indicated a clear preference for PML-N. There was a striking emphasis on connections forged by local candidates and little discussion of service delivery. The most commonly cited reason for supporting a candidate in rural areas was the candidates' connection with higher-tier ruling party politicians. Nearly three-fourths of focus groups declared this to be an extremely important reason to support a local candidate. As one respondent said "Pakistan is Pakistan, here the allocation of government resources is based on relations and not on rules. I would be stupid to vote for someone in the upcoming elections without knowing how connected they are to those who are in power."

Respondents believed there was considerable variation among PML-N candidates in the strength of connections they have with higher-tier PML-N legislators. In their views the allocation of a PML-N ticket for local elections did not automatically imply strong connections and better delivery in the future. They also understood that some opposition candidates

[16]Since refusals were rare, we did not need to employ a rule to limit the number of doors we knocked on before stopping recruitment.

and independent candidates have strong connections with sitting MNAs and MPAs. Almost 50% of focus groups acknowledged this possibility and were willing to vote for non-PML-N local candidates provided they had strong connections with higher-tier politicians and were willing to use these to deal with state machinery on their behalf. As one respondent said, "in our *mulk* (nation) the party symbol does not really reveal who is connected with whom." The respondents reported that factionalism within higher-tier politicians from PML-N was an important reason why non-PML-N local candidates ended up being backed by higher-tier politicians and why PML-N local candidates might even get undermined by the higher-tier leaders.

1.4 Citizen Concerns

Many respondents in our focus groups cited government functions that are not a UC responsibility as key things they were expecting their UC chairmen to help with, such as ensuring natural gas delivery (which is used as vehicle fuel and for cooking), infrastructure maintenance, and health service provision. To investigate these expectations more systematically, we included questions about which services voters wanted the UC chairmen to help with in a large-scale pre-election survey ($n = 2,969$).

Three of the top four government functions which voters were looking to get help on from their UC chairmen do not fall under the legal purview of the UC. These are local roads, natural gas supply, and hospitals, which were cited by 64 percent, 59 percent and 45 percent of respondents respectively as services they would seek help from the UC chairman on.[17] Roads are, depending on the kind of road, a district or provincial subject, the distribution of gas supply is a provincial subject, and health services (including hospitals) fall under the provincial government's jurisdiction with district governments playing administrative roles. The UC does not play an official role in any of these functions. Despite this structure,

[17] See Table 1 Panel B.

voters believed that the UC chairman elect should solve their problems with respect to these functions.

The most frequently cited service was water logging and drainage (69 percent) which is indeed legally a UC subject. Waste removal and sanitation, which were the fifth and sixth most cited service respectively, also fall under the purview of the UC. It is clear that while voters are looking to the UC chairman to solve a variety of issues, they care deeply about services which are not UC functions.

This raises the question of how voters thought UC chairman would be able to get them access to, or ensure good maintenance of, these services. We asked them how important they thought each of four different types of connections were for a UC chairman candidate. These included personal connections with sitting members of the provincial and national parliaments, political connections with the same, connections with the local petty bureaucracy (police and local courts), as well as connections with the incumbent party. Voters thought all were above "Average importance" (3) on a Likert scale ranging from "Extremely Unimportant" (1) to "Extremely Important" (5), as Table 1 Panel A shows (appendix figure B2 shows the distribution of responses regarding the importance of connections). The level of importance assigned to these connections ranges from 3.77 for political connections to 4.13 for petty bureaucracy connections.

Overall, it appears that voters are looking to their UC chairmen to get services that they are not explicitly responsible for, and they assign a high degree of importance to UC chairmen's connections with those who do have responsibility for these services.

[TABLE 1 ABOUT HERE]

2 Data

This section describes our data on candidate characteristics, prior government service delivery, and election results. We use these for observational analysis as well as to design the information treatments in our experiment.

2.1 Candidate Characteristics

We collected data on the connections and assets of local government candidates. The former is our key independent variable of interest and is measured through key informant interviews as described below. Evidence on the latter is available from candidates' own nomination forms submitted to the District Election Commission. Assets listed on nomination forms provide a rough proxy for wealth, a key potential omitted variable in our observational analysis. Wealth could well be correlated both with candidates' attractiveness to voters—either as a marker of skill or through wealthy candidates' differential ability to spend on their campaign—and with candidates' connections because political and economic elites are tightly linked in Pakistan (as they are in many places). Controlling directly for wealth can thus help separate the direct impact of connections on support from the correlation that runs through the impact of wealth on both connections and support.

2.1.1 Connections

Candidates' connections with upper-tier politicians and influentials were measured by contacting 'aggregators' for each cluster of UCs. Aggregators were people who have detailed firsthand information about political affairs in their region and could provide information for a large number of candidates; typically senior police officials and retired politicians. This 'aggregator survey' was run in the second and third week of October 2015 after piloting of protocols in the first week of the same month. We identified the aggregators by contacting

prominent local politicians, administrative officials, and other notables.

We measure three primary kinds of connections: personal connections with current members of the national and provincial assemblies, political connections with the same individuals, and connections with the petty state machinery. Personal connections include familial and *biraderi* (extended kinship network) relationships, as well as friendships with the sitting MNA and MPA. Political connections refer to the UC Chairman candidate's support for upper tier politicians in the last general elections, which was often public knowledge and created an expectation of reciprocal support from upper tier politicians.

For personal (political) connections, a candidate gets a score of 2 if he or she is connected to both the sitting MNA and MPA of in their constituency, a score of 1 if they are connected to only one of those officials, and a score of 0 if they have no personal (political) connection with either of the upper tier politicians. Connections to the the petty state machinery were not measured in binary terms, since almost every candidate had some such connection. Instead, the aggregators assessed how easily the candidate could resolve basic issues with the bureaucracy. If a chairman candidate was assessed to be able to resolve petty state machinery issues with little to no effort, they got a score of 2 on this component, if a chairman candidate was thought to be unable to resolve any issues then they received a score of 0, and otherwise the candidate received a 1.

In our observational analysis, we use these components separately as well as in an overall connectedness score that varies from 0 to 6 with each of the three components receiving an equal weight. In our experiment, respondents were shown values on all three components at once. The distribution of these connections is shown in Figure 2.

[FIGURE 2 ABOUT HERE]

2.1.2 Assets

The total assets owned by candidates for UC chairmen were reported by the candidates in their nomination forms. These forms, submitted to the Election Commission of Pakistan (ECP) through the District Election Commission of Sargodha, contain candidates personal details, party affiliation, signatures on oath statements, and official declarations of assets. Candidates cannot contest the election without submitting this form and receiving approval from the ECP. The asset categories included in this form include: (i) real estate, including residential/commercial plots and buildings, (ii) agricultural land, (iii) investments including enterprises and equity owned, (iv) vehicles, (v) household jewelry, (vi) bank deposits and (vii) cash. The candidates financial liabilities are listed separately and include loans from banks, and liabilities on properties held in trust for orphans, etc.

The distribution of declared assets is shown in Figure 2. We see that the vast majority of assets are composed of real estate, with agricultural land taking the lion's share. The distribution is skewed, with the mean candidate declaring Rs. 6.0 million and the median candidate declaring Rs. 13.7 million.

2.2 Prior Performance

Performance of the incumbent party at the UC level was measured through the reported spending data from 2011-2015 collected through the Water-Sanitation, Building and Health Departments of District Sargodha. These departments are run by civil servants appointed by the provincial government. Spending per capita per UC was calculated by aggregating the spending by the government on water filtration plants, water pipes, sanitation, drainage and construction (Schools, Graveyards, Health Facilities) at the UC level. Performance quintiles were then created on the basis of spending per capita where 1 represents the lowest performing quintile and 5 being the highest performing quintile. As Table 2 shows, the

government spent Rs. 354 per capita on average on UCs in the bottom quintile, with 3 UCs having no spending per capita at all). On the other hand, the government spent Rs. 5,269/- per capita on average in the top quintile with the most generously funded UC receiving Rs. 16,512 per capita.

[TABLE 2 ABOUT HERE]

2.3 Election Results

Official results for the local body elections are reported in the 'Form 14' that we obtained from the District Election Commission in District Sargodha. In contrast to gazetted election results, which provide only the vote counts for the winner and runner up, 'Form 14' provides details of all candidates contesting the election including their vote shares, total number of votes cast for each candidate and the total number of registered voters in the UC. Table 3 shows the average number of votes polled against candidate rank. Only the top two candidates were competitive in most UCs (76%).

[TABLE 3 ABOUT HERE]

3 Experiment

Given the highly endogenous process through which connections arise and the impossibility of randomly assigning credible connections with higher tier politicians to local politicians, randomly varying the information voters possess about connections is the cleanest way to causally estimate the value that voters place on connections. We therefore conducted a survey experiment with a representative stratified random sample of 2,969 registered voters in 84 Union Councils in rural Sargodha district.[18] After collecting information on prior

[18]Full details on the sampling procedure are in the appendix.

government, as described above, we developed separate information treatments for each UC and used this in a survey experiment fielded in the first two weeks of November.

The experiment varied the provision of true information about candidate connections and government performance in three stages:

1. Elicit beliefs around candidates' connections, government service provision, voter satisfaction with government performance to date, and support for candidates running in that UC.

2. Randomly assigned voters into three information treatments: (i) candidate connectedness for the candidates in the UC, (ii) government performance measured by spending in that UC as compared to others in Sargodha, and (iii) a neutral 'placebo' giving UC-specific information about the local government election.

3. Re-measure views about candidate connectedness, government performance and, most importantly, voters' support for various candidates.

The treatments provided true information specific to each UC, yielding $252 = 84 \times 3$ different forms. Importantly, the variation here comes from randomly revealing accurate information, not from conveying any inaccurate information. The connectedness treatment involved telling voters how connected the Union Council chairman candidates in their Union Council were in terms of (i) personal connections, (ii) political connections, and (iii) connections with the local police and courts, i.e. the petty state bureaucracy. As described above, we provided voters specific information for each candidate in their UC on the candidate's name, party, each kind of connection, and an overall 'score' ranging from 0-6, as well as a ranking of the candidates based on this score. The performance treatment involved telling voters how much the government had allocated to their Union Council for various projects in the past five years, both in absolute terms and in relation to other Union Councils in rural Sargodha. The placebo treatment provided UC-specific information (number of villages in

the UC, etc.) in a script of comparable length to the other treatments, but did not convey any information regarding candidates or past performance. Examples of the connections, performance and placebo treatments are provided in the appendix in Figures B3, B4 and B5 respectively.

Treatment assignment was stratified by both Union Council and gender. We chose union councils by simple random sample. Within each union council, a sample of 18 males and 18 females were randomly selected with 6 voters of each gender placed in each of the three experimental arms. To select a respondent within a sample household, we drew a list of all registered female or male voters in the household (depending on whether we needed a female or male respondent) and randomly picked one individual using a kish grid. Randomization achieved a well-balanced sample, as shown in Table 4. To formally assess balance we provide p-values from t-tests for equality of means between the indicated treatment groups on pre-treatment measurements at the individual level.

[TABLE 4 ABOUT HERE]

4 Experimental Results

This section outlines the results of our experiment. We begin with manipulation checks and then report on treatment effects. In the results below, we estimate the effects of our connectedness and performance treatments using three different specifications. Firstly, for outcomes hypothesized to vary with treatment regardless of the actual measure of connections or performance we use fixed-effect regressions with a treatment dummy. Secondly, for outcomes where we expect treatment effects to vary along the actual measure of connections or performance, we interact the treatment dummies with the level of connections or performance to estimate how the treatment effect varies by the 'intensity' of treatment. Finally,

where we expect heterogenous effects of treatment for ruling party candidates vs. others, we use a triple interaction of the treatment dummy with the level of spending and a dummy for ruling party candidates.[19]

4.1 Manipulation checks

Our connectedness and performance treatments led to the intended changes in knowledge of and beliefs regarding connections and performance respectively, as table 5 illustrates.

We first test whether the connectedness treatment increased respondents' propensity to answer questions about candidate connections. Baseline knowledge of connections is high: approximately 45 percent of questions about candidate connections were answered before any treatment was delivered. Compared to the placebo group, voters in the treatment group were 9 percentage points more likely to show an increase between pre- and post-treatment knowledge of candidate connections, as Column 1 of Panel A shows. The difference in the number of questions answered was statistically significant as well. Those in the placebo treatment answered on average 1.38 out of 3 questions before treatment and 1.42 after treatment. Those in the connectedness treatment answered 1.34 questions on average before treatment and 1.57 after treatment. We thus have a difference in difference estimate of 0.19 more questions answered by the treatment group after treatment, as Column 2 of Panel A shows.

Among those who answered all questions about connections both before and after the treatment, those in the treatment group are 9 percentage points more likely to update their beliefs about candidate connections in the correct direction, as Column 3 of Panel A shows. This updating of beliefs about connections was in the right direction in terms of magnitudes as well, as shown by Column 4 of Panel A. For those receiving treatment, beliefs about a fully connected candidate's connections increased on average by 13 percentage points compared

[19]Detailed estimation strategy is included in Appendix E.

to the placebo group. This is a 0.38 standard deviations increase on prior beliefs about connections and is about half of the difference in connections between the average ruling party (PML-N) candidate and the average main opposition party (PTI) candidate which, given the dominance of the PML-N in Punjab, is considered a huge difference. Beliefs about an unconnected candidate's connections decreased by 0.06 on a 1 point scale compared to the placebo group. We thus have treatment effects in the expected direction both for those candidates who are connected and those who are not connected; our treatment moves beliefs in the right direction.

Similar manipulation checks for the performance treatment show that it also led to updating in the right direction, as Panel B shows. Those in the performance treatment were 3 percentage points more likely to answer a question about how much the government has spent in their UC, as Column 1 shows. This is a 7 percent increase over baseline knowledge levels and is one-fourth of the baseline knowledge difference between males and females, making this a substantial effect given that gender differences in political knowledge in Pakistan are widely considered to be large. Among those who answered, the updating was 6 percentage points more likely to be correct, as Column 2 shows.

Respondents' beliefs about which spending quintile their Union Council fell in were 5 percentage points more likely to be updated in the correct direction in the performance treatment group compared to placebo, as Column 3 shows. Those living in UC's with the highest spending who received the performance treatment increased their spending beliefs by 4 percentage points on a 0-1 scale, where the lowest spending quintile is 0 and the highest spending quintile is 1. This is a 0.2 standard deviation effect, and is equal to 57 percent of the difference between the average in the highest spending quintile and the average in the lowest spending quintile in terms of how much respondents thought the government spent in their Union Council.

[TABLE 5 ABOUT HERE]

4.2 Connections, Performance and Support for Candidates

Respondents in our connectedness treatment update their support for candidates in line with information on candidate's connections while those in the performance treatment do not update their support for candidates in line with performance information, as shown in Table 6.

Simply receiving the connectedness treatment made individuals 2 percentage points more likely to increase their support for the candidate, as column 1 of Panel A shows. The magnitude of these changes was modest, but given the high baseline knowledge of connections, a significant proportion of respondents are giving us baseline assessments of candidates that already incorporate the value placed on connections. Those in the treatment group increased their support by approximately 1 point on a 0-100 scale controlling for prior support, as column 2 shows. The magnitude of this effect is modest. Changes in support were unusual, the average change from pre-treatment support to post-treatment support was approximately .28 with a standard deviation of 11. Among those who changed, however, the average change was 9 points. This change thus represents a 0.1 standard deviation treatment effect on the full sample.

Importantly this effect is driven by the treatment effect for more-connected candidates. For a fully connected candidate the treatment would increase the probability that support for them would increase by 3 percentage points ($p < .01$), while for an unconnected candidate the treatment made no statistically significant difference, as column 3 shows. Turning to levels of support we see that for a fully connected candidate treatment would increase support by 2 points on the 0-100 feeling thermometer scale, which is a 4.2 percentage point change and constitutes more than 20% of the average change.[20]

[20]Unfortunately, about a third of our sample did not report connection beliefs pre-treatment, so separating the sample into under-predictors and over-predictors is problematic. When we do look within the sample who did report, treatment moves support up for under-predictors by approximately 1.6 ($p < .1$) on the 0-100 feeling thermometer but does not move support in a statistically significant way for over-estimators or those whose priors were accurate. These results are shown in the appendix in Table A2.

[TABLE 6 ABOUT HERE]

While these effect sizes are modest, they become quite probative when considered alongside the impact of the performance treatment on two outcomes. First, there was no effect of the performance treatment on expressed support, as Table 6 Panel B shows. Second, the performance treatment did move self-expressed satisfaction with government services in the expected direction, as Table 7 shows. In particular, the performance treatment made it 4.5 percentage points more likely that expressed satisfaction would increase from pre-treatment to post-treatment measurement (column 1) and increased perceptions of the UC's performance by just under .01 on a 0-1 scale (column 2). Both of these effects were driven by high-performance UCs. For respondents in top performing UCs the treatment increased the chance that expressed satisfaction would increase by 7.1 percentage points, as column 3 shows. More importantly, the effects on satisfaction were asymmetric by performance. Treatment decreased satisfaction in the lowest performing UC by approximately 2 percentage points compared to the placebo group and it increased satisfaction by 5 percentage points in the highest performing UC, a 0.2 standard deviation increase.

While performance information causally increased satisfaction with government in areas where the government has spent more money in the past 5 years, it is not the case that spending information leads to higher support for government party (PML-N) candidates. Instead, support for both government and non-government candidates moves weakly in the direction opposite to spending in the performance treatment condition. If PML-N candidates were rewarded for high performance by their party's government, then we would expect support for them to rise with government spending in the performance treatment compared to the placebo treatment. We see no such effect.

[TABLE 7 ABOUT HERE]

In summary, both the connectedness and performance treatments move knowledge of and

beliefs about candidate connections and government performance in the expected direction. But only the connectedness treatment has a clear causal impact on support for candidates, and that movement is in the expected direction. These findings are consistent with the hypothesis that future performance as proxied by connections weighs more heavily in voters' minds than past performance, a pattern we will see in the observational results as well.

5 Observational Findings

To examine the relationship between connections, performance and electoral outcomes, we run regressions at the candidate level, using provincial constituency $\times$ party fixed effects to partial out the party-specific impact of being in a given constituency. Details on the estimation strategy are provided in appendix E.

5.1 Connections and Electoral Outcomes

Political connections with sitting national and provincial parliamentarians and connections with local petty bureaucracy have strong positive correlations with voting outcomes for UC chairmen candidates, as shown in Table 8. Panel A shows the relationship between different kinds of connections and the vote share received by a candidate, while Panel B shows the relationship between connections and the probability of winning in a linear probability model.

Candidates with personal connections to the sitting MNA or MPA seem to do slightly better on average than their unconnected peers, as Column 1 shows, but the results never rise to traditional levels of statistical significance.

Candidates who are politically connected to both the sitting MNA and the sitting MPA had a 4.2 percentage point higher vote share on average compared to candidates without political connections (Panel A, Column 2). They were also 8.4 percent more likely to win (Panel B, Column 2), although this relationship is not statistically significant owing to lower

variation in the outcome variable. Police/court connections were also a robust predictor of vote share, those with very strong connections had a 3.1 percentage points higher vote share than those with no political connections (Panel A, Column 3), and were 9 percent more likely to win (Panel B, Column 3), though again this last result is statistically quite weak.

Since political and personal connections are correlated, it is arguably more instructive to look at the aggregate index that we used in our connectedness treatment, as shown in Column 4. This aggregate index is the observational analogue to our connectedness treatment. Candidates at the top of the index have a 9.5 percentage points higher vote share (Panel A, Column 4), and are 26 percentage points more likely to win (Panel B, Column 4). Importantly, all specifications include provincial assembly constituency $\times$ party fixed effects to rule out the possibility that variation across constituencies in the average connections of a party's candidates are driving this result.

Finally, the results accrue to those ranked highest within a UC, and are not simply a function of across-UC variation within a PA constituency. To show this, Column 5 repeats the analysis from Column 4 using relative level of connections within the UC as the key treatment variable instead of an absolute measure. For this measure the most connected person in the UC receives the highest rank, the second most connected the second highest, and so on. All results are robust to this specification. The most connected person receives 4.2 percentage points more vote share than the least connected on average (Panel A, Column 5) and is almost 12 percentage points more likely to win (Panel B, Column 5). We take these findings as strong evidence that local candidates with strong connections with parliamentarians and local petty bureaucracy do much better in local elections.

[TABLE 8 ABOUT HERE]

A natural concern with these results is that wealthier candidates would be both more likely to have connections and more likely to win. While candidate assets have a strong

positive correlation with voting outcomes, Table 9 shows that adding assets as a control does not significantly change the correlation between connections and voting outcomes. The table reports a range of alternative specifications on the regressions from Table 8 (Column 4) using the 285 candidates with at least 1,000 votes for whom we have been able to obtain nomination forms (and thus are able to measure assets). The simple OLS specification is upwards biased, as we see by comparing Column 1 which has no controls with Column 2 which adds in the same fixed effects as in Table 8. Within this sample the main effects are slightly larger; candidates at the top of the aggregate index have a 13% higher vote share and are 38% more likely to win. Controlling for assets attenuates the results by 10-20%, but all effects remain strongly substantively and statistically significant: candidates at the top of the aggregate index have an 11% higher vote share and are 33% more likely to win. Another concern is that the results could be driven by the fact that more connected candidates run in places that saw greater prior service delivery. To show this is not the case Column (4) includes UC fixed effects to isolate the impact of within-UC variation in connections conditional on assets. Doing so makes the relationship even stronger, as we see in Column 4. The results are unlikely to be driven by either UC-level factors, such as prior spending, or candidate-level traits that correlate with assets.

[TABLE 9 ABOUT HERE]

The strong correlation between political connections and vote share makes sense to the extent that voters believe connections allow candidates to get access to services and other benefits for their constituents that they are not legally responsible for. The same is true of police / court connections which could allow candidates to advocate for their constituents in front of the district government bureaucracy. These observational results are consistent with our experimental results, where we show that respondents move their preferences in line with information about the connections of UC chairmen candidates.

5.2 Performance and Electoral Outcomes

If voters use past performance of the government as a signal of the ability of the ruling party, then we would expect the electoral outcomes of the ruling party (PML-N) candidates to correlate with government spending at the UC level. This is not the case, as Table 10 shows for three measures of performance: log spending on development schemes in the UC (Panel A), spending rank of the UC within Sargodha (Panel B), and spending quintile among UCs in Sargodha (Panel C). On the contrary, we observe that in high spending UCs, the PML-N is not more likely to field candidates (Column 1), and in UCs where PML-N fields candidates, the candidates are not more likely to get higher vote shares (Column 2), to win (Column 3) or to achieve a higher rank by votes (Column 4).

[TABLE 10 ABOUT HERE]

Consistent with our experimental results, we see this as evidence that voters are not looking at past spending as credible signals of the ability of UC chairmen candidates from the PML-N to deliver. Instead, on the basis of observational results on connectedness, we claim that voters look at the candidate's political connections with sitting parliamentarians and local petty bureaucracy as signals of their ability to deliver services, many of which do not fall within the legal responsibility of the UC.

6 Conclusion

We provide new evidence on the debate about what voters are thinking about when they evaluate candidates. Studying vote choice in the 2015 local government elections in Punjab province, Pakistan, our analysis combines focus groups, original data collection on candidates, a large-scale survey experiment, and observational analysis of actual election returns.

Extensive pre-election focus grouping showed that voters understood pre-election spending to be cheap talk and thus were looking for observable markers of future performance. One key marker they identified to us was candidate connections to higher level politicians. Consistent with those claims, a representative sample of several thousand voters surveyed three weeks before the election indicated they were looking for their soon-to-be elected local government chairmen to ensure delivery of services which are not local government functions, but are instead the responsibility of the provincial government.

To assess the causal impacts of connections and past performance on support, our experiment provided a representative sample of voters with true information about the political connections of candidates and the past performance of the ruling party in providing services in their locality. We found that providing true information about candidates' connections shifted voters views in the way one would expect given their self-reported interests. Specifically, voters provided true information on the connections of all candidates in their UC increased support for candidates who were more connected than they previously believed and reduced support for those less connected than their priors. Providing information about government spending led to a shift in citizen satisfaction with the government's past performance, but had no clear impact on expressed support for ruling party candidates, which was consistent with the findings from pre-election focus groups.

Turning to actual voting (three weeks after the experiment), we find connections correlated with actual voting in ways that were fully consistent with the survey experiment and focus group results. Candidates at the top of our connectedness index earned approximately 560 more votes than those at the bottom in our preferred specification, had a 9.5 percentage point higher vote share, and were 26% more likely to win. Spending by the ruling party in the five years before the election was uncorrelated with the performance of ruling party candidates, which was again consistent with the pre-election experiment.

In summary, voters believed connections were important for their UC politicians to be

effective, providing information about connections to national and provincial government officials shifted support in the logical direction, and citizens voted more for more connected politicians.

Our results speak to several literatures. Firstly, we contribute to the large literature on political agency by showing that voters in our setting behave much more like the retrospective actors posited by political economy models than the emotionally-driven actors in the political psychology literature.[21] Voters in our focus groups told us they felt that past connections were informative about future performance and expressed a nuanced view of what they could learn from past service provision, both of which were fully consistent with how voters responded to our survey experiment and with how they voted. In our experiment voters ignored arguably irrelevant information, i.e. government spending in a different institutional environment, in favor of verifiable information that would logically be correlated with future performance, i.e. politicians' connections to officials at the next higher level of government. Critically, this was not a generalized response in favor of generically well-connected or wealthy candidates. Rather, in our observational results the benefits accrued specifically to candidates with connections to provincial politicians who could be expected to influence resource allocation in the future (and the estimated benefits were not attenuated by controlling for candidates' assets).[22]

Second, our results provide evidence on what kinds of cues voters look to in settings

[21] A distinct tradition in political psychology focuses on affective motivations for voting. In particular, voters shift their assessments of the economy depending on whether their preferred party is in power (Gerber and Huber, 2010) and demonstrate other forms of arguably suboptimal reasoning including responding to irrelevant events such as shark attacks, simplistically accounting for labor market conditions such that when the economy seems good they vote for incumbent but when it is bad they vote for the challenger, and discounting factual information inconsistent with their partisan views (see e.g. Achen and Bartels, 2016, ch. 5-7 and 9).

[22] In this sense our results are consistent with recent work suggesting that much of what was interpreted as partisan-based information filtering is actually an expressive benefit in that small financial rewards for providing factually correct answers appear to remove most of the bias (Bullock et al., 2015; Prior, Sood and Khanna, 2015). Given the evidence base across many studies we suspect that both affective and performance oriented motivations can play a role in vote choice, our contribution is to focus on a novel source of information on prospective performance.

where retrospection is not feasible. Where it is hard for citizens to learn about politician competence from observing past behavior retrospective voting makes little sense.[23] More generally, for retrospective voting to work a number of supporting conditions must be in place: there must be meaningful competition among politicians; citizens' judgments must not be too badly clouded by irrelevant factors (Healy, Malhotra and Mo, 2010); and people must be able to learn about politician's competence by observing them in office. If past actions have little informational content, then electoral incentives for performance will be weaker and democratic accountability will suffer.[24] Our work suggests that instead of looking to past actions in such contexts, voters may extract signals about future performance from other available clues, such a candidate's connections.

Third, our findings suggest that models which assume that citizens value government programs proportionally to the amount of money spent may require revision,[25] and they contradicts other work that shows voters respond to spending.[26] The heterogeneity in findings across studies suggests that whether voters reward spending likely depends critically on what it provides evidence of. In our setting, evidence from pre-election focus groups and our quantitative tests suggest that citizens viewed localized pre-election spending by the provincial government as uninformative about how those being elected would perform in the future.

Our research suggests two specific directions for future work. First, in future local government elections we will examine the persistence of the connection effect. One possibility is

[23]It is the information inherent in past actions about future behavior that makes retrospective voting rational (Besley, 2006, p.106).

[24]For a recent theoretical development of this point see Meirowitz and Tucker (2013) who show that when citizens learn about both government competence and the nature of the problem environment by observing past performance then repeated poor performance may reduce participation as citizens learn that the environment is so hard that no government can help much and voting is no longer worth the effort.

[25]This assumption is inherent in papers which use OLS to estimate conditional correlations between political outcomes and the amount of spending at the constituency level (see e.g. Levitt and Snyder, 1997).

[26]Chen (2012), for example, shows there is a substantial political response to disaster-related spending in Florida, with aid distributions driving up vote share among voters identifying with the governor's party and providing an incumbency advantage to all politicians.

that once voters have concrete evidence of politicians' performance connection-related voting will become less important. Another possibility is that in this setting signals of competence will be noisy and thus citizens will continue to rely on ascriptive cues. Second, using ongoing monitoring we will examine how candidates elected on the basis of connections perform. In this setting an open question is whether connections will actually contribute to the performance of local governments or if provincial parties will differentially allocate resources on the basis of which constituencies offer the most electoral benefit, rendering connections moot.

Figures

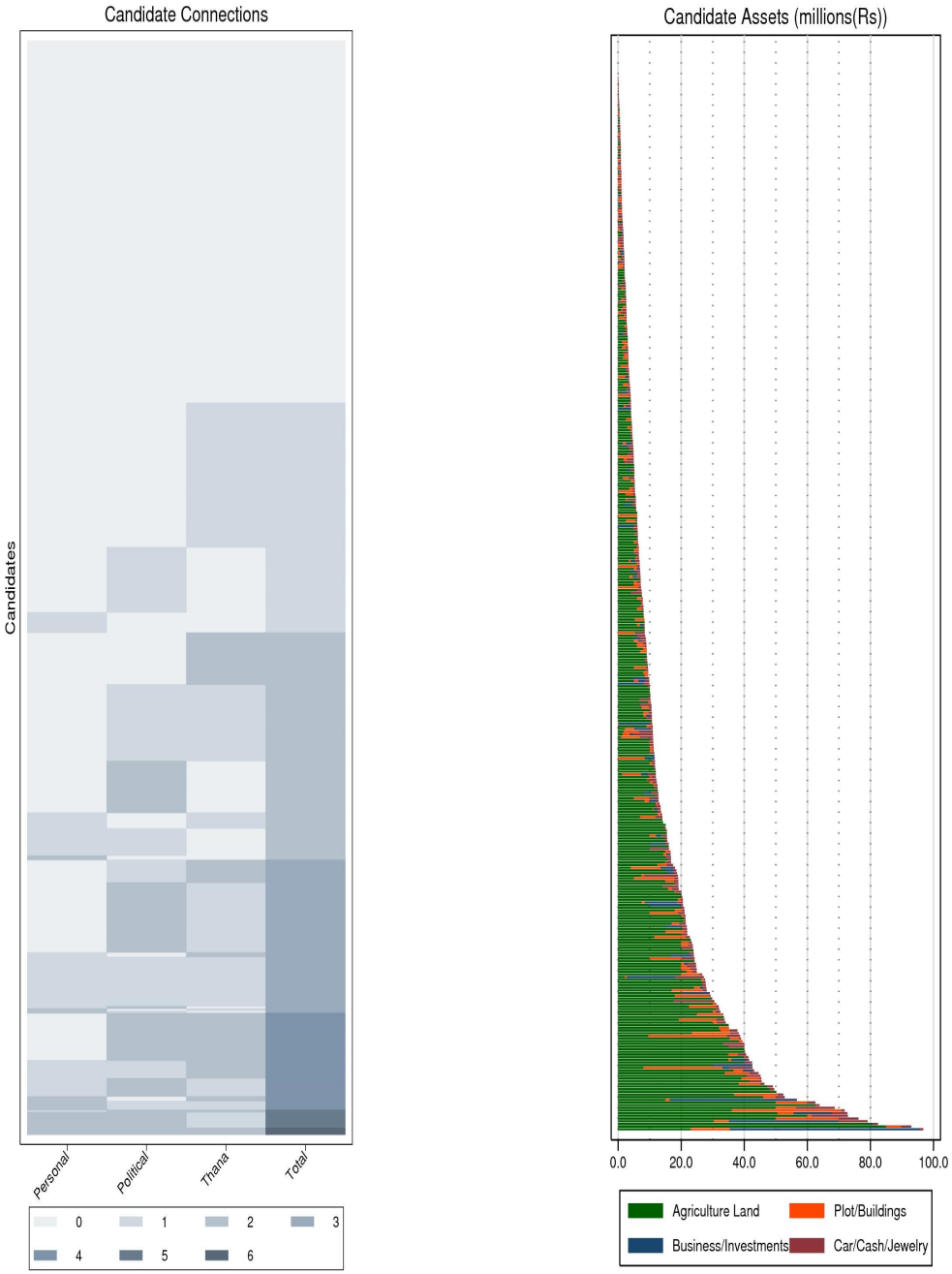
Ad for independent chairman candidate (far-right) and vice-chairman candidate far-left) in Sargodha UC No. 54 (Doda). Center two images are a high-level PTI politician and high-level PPP politician who decided to collaborate and have candidates of their backing contest as independents rather than relying on their party affiliations.

Ad for PMLN chairman candidate (center-left) and vice chairman candidate (center-right) in Sargodha UC No. 132 (Dera). Ad includes pictures of the high-level leadership of PMLN, i.e. Prime Minister and Chief Minister of Punjab , as well as the party symbol (tiger), local MNA and MPA who are both PMLN, and two local notables intended to show that the chairman candidate has strong support among members of his own *biraderi* (caste).

Ad for PTI chairman candidate (bottom-right) and vice chairman candidate (bottom-left) in Sargodha UC No. 39 (Kot Raja). Ad includes high-Level PTI politician (top-left) and a prominent deceased PTI politician in the center. Ad does not display the pictures of PTI leader or the party symbol (bat). Ad does not even mention the name of the party, the only clue that reveals it to be a PTI advertisement is the party flag in the background.

Figure 1: Typical campaign ads for Independent, PMLN, and PTI candidates, Sargodha.

Figure 2: Candidate Connections and Assets



Variation in connections (left panel) and total assets (right panel) by candidate in the 2015 local government elections in Sargodha Pakistan.

Tables

Table 1: **Voter Preferences**

	Panel A: Important Connections as a UC Chairman?					
Panel A: Important Connections as a UC Chairman?	Connectedness	Performance	Placebo	p-value	p-value	p-value
	(1)	(2)	(3)	(1)=(2)	(1)=(3)	(2)=(3)
Personal Connection	3.84	3.88	3.84	0.50	1.00	0.50
	(1.26)	(1.25)	(1.29)			
Political Connection	3.78	3.78	3.76	0.94	0.77	0.71
	(1.24)	(1.21)	(1.24)			
Thana/Katcheri	4.12	4.15	4.12	0.58	0.97	0.55
	(1.13)	(1.07)	(1.13)			
Incumbant Party	4.11	4.11	4.11	0.88	0.98	0.86
	(1.13)	(1.11)	(1.14)			
	Panel B: Preferences of Voters					
Waste Removal	0.35	0.35	0.32	0.87	0.18	0.24
	(0.48)	(0.48)	(0.47)			
Sanitation	0.32	0.32	0.32	0.78	0.86	0.92
	(0.46)	(0.47)	(0.47)			
Local Roads	0.64	0.62	0.65	0.37	0.80	0.25
	(0.48)	(0.49)	(0.48)			
Water Logging and Drainage	0.70	0.67	0.70	0.27	1.00	0.26
	(0.46)	(0.47)	(0.46)			
Gas Supply	0.58	0.59	0.61	0.60	0.25	0.53
	(0.49)	(0.49)	(0.49)			
Hospital	0.45	0.45	0.45	0.71	0.86	0.85
	(0.50)	(0.50)	(0.50)			
N	983	996	990			

Notes: Panel A displays mean and standard deviations of survey questions asked about the importance of various kinds of connections, in the form "To work as a Union Council chairman, how important is it to have X connection?" In Panel B, the percentage column shows the percentage of respondents who cited each service as one they would expect help from the UC chairman on. The mean and standard deviation statistics are calculated on the importance rank assigned to that service by respondents who said they would expect help from the UC chairman on that service.

Table 2: **UC Spending Per Capita by Performance Quintiles**

Performance Quintiles	No. Union Councils	Mean	St. Dev.	Min	Max
Lowest Performer	36	354	208	0	664
Low Performer	32	924	147	666	1146
Medium Performer	32	1421	198	1155	1769
High Performer	32	2245	325	1806	2817
Highest Performer	32	5269	3043	2905	16512
Total	164	2001	2192	0	16512

Notes: This table shows variation in spending across the 164 Union Councils in Sargodha, broken down into quintiles by spending between 2010 and 2015.

Table 3: **Election Results - Votes Polled by Rank**

Election Results Ranking	Candidates	Mean	St. Dev.	Min	Max
Rank-1 (Winner)	154	2955	682	1235	5523
Rank-2 (Runner)	154	2335	556	1128	4257
Rank-3	74	1092	551	11	2291
Rank-4	20	487	362	6	1109
Rank-5	3	133	191	9	353
Total	405	2236	990	6	5523

Notes: This table shows statistics pertaining to election results in the Union Council chairman elections held in Sargodha in November 2016. 'Rank' refers to a candidate's election results rank in their Union Council. Out of the 164 Union Councils in Sargodha, 154 were contested whereas there was only one candidate in 10 Union Councils.

Table 4: **Household Demographics**

	Connectedness (1)	Performance (2)	Placebo (3)	p-value (1)=(2)	p-value (1)=(3)	p-value (2)=(3)
Age	38.90	40.02	39.94	0.06	0.08	0.89
	(13.10)	(13.29)	(12.86)			
Education	4.43	4.13	4.28	0.17	0.50	0.49
	(4.73)	(4.82)	(4.81)			
Cultivative Land	3.03	3.45	3.42	0.27	0.36	0.96
	(8.05)	(8.73)	(10.80)			
Can Sell House?	0.34	0.35	0.35	0.76	0.72	0.96
	(0.48)	(0.48)	(0.48)			
No. of Rooms	3.10	3.09	3.19	0.88	0.25	0.16
	(1.78)	(1.54)	(1.78)			
No. of Bathrooms	0.77	0.77	0.77	0.88	0.90	0.98
	(0.40)	(0.40)	(0.40)			
Collective Voter	0.51	0.48	0.48	0.27	0.23	0.93
	(0.50)	(0.50)	(0.50)			
Likelihood to Vote	4.65	4.59	4.64	0.12	0.65	0.26
	(0.80)	(0.91)	(0.83)			
No. of Male HH Members	3.63	3.45	3.69	0.05	0.49	0.01
	(2.10)	(1.85)	(2.22)			
No. of Female HH Members	3.41	3.24	3.24	0.05	0.05	1.00
	(1.95)	(1.84)	(1.93)			
No. of Male Voters	2.42	2.28	2.41	0.03	0.84	0.05
	(1.57)	(1.39)	(1.57)			
No. of Female Voters	1.93	1.90	1.92	0.61	0.90	0.70
	(1.34)	(1.29)	(1.36)			
N	983	996	990			

Notes: All co-variates shown are pre-treatment. P-values shown for difference in means test for each of the three possible treatment condition pairs. 'Education' is measured in years of education. 'Cultivable Land' is measured in acres. 'Can sell house' refers to a dummy for whether the respondent's household has property rights over the house they live in. 'Rooms' and 'bathrooms' are count variables. 'Individual Voters' is 2 for those who claim to make their own voting decisions and 1 for those who claim to make these decisions as part of a collective. 'Likelihood to vote' is a 1-5 scale of how likely it is according to the respondent that they would vote in the upcoming election.

Table 5: **Manipulation Checks**

	Panel A: Connectedness Treatment			
	(1) **Knowledge Increase Dummy**	(2) **No. of Questions Answered**	(3) **Count Updating is Correct**	(4) **Count Magnitude**
Treatment	0.09***	0.19***	0.09***	-0.06***
	(0.01)	(0.03)	(0.03)	(0.02)
Candidate Connectedness				0.04
				(0.02)
Treat * Connectedness				0.13***
				(0.04)
Prior		0.84***		0.86***
		(0.02)		(0.03)
R-Squared	0.03	0.68	0.01	0.79
# Observations	4791	4791	1329	1329

Notes: All specifications control for UC-Gender fixed effects. Standard errors clustered at the UC-Gender level reported in parenthesis. Panel A: Regressions are run at the level of a respondent's response about a particular candidate. 'Candidate Connectedness' is an index composed of three items measured through key informant surveys: (i) personal connections with a current MNA or MPA, including direct family, *biraderi* caste and close non-family connections, (ii) political connections with a current MNA or MPA, including the MNA/MPA having publicly endorsed the candidate and the candidate having campaigned for the MNA/MPA in the past, and (iii) connections with the local petty state bureaucracy. Exact question wordings are listed in Appendix B. The outcomes are as follows: (1) Dummy for whether respondent's propensity to answer questions about candidate connectedness increases relative to prior, (2) Number of questions about candidate connectedness answered post treatment, out of 3, (3) Dummy for whether the respondent updates their count of the candidate's connectedness in the correct direction, (4) Respondent's count of the candidate's connectedness post-treatment. 'Prior' in (2) & (4) refer to pre-treatment values of the outcome variable. Panel B: 'Rank' refers to the respondent's UC's rank in terms of spending per capita, rescaled to 0-1 with the highest spending UC ranked as 1. Outcomes are as follows: (1) Dummy for whether respondent's propensity to answer question about spending increases relative to prior,(2) Whether respondent's stated spending in their UC increases in the correct direction, (3) Whether respondent's belief about which spending quintile their UC falls into increases correctly, (4) Respondent's posterior belief about which spending quintile their UC falls in (with quintile scaled from 1-5 to 0-1). 'Prior' in (2) & (4) refer to pre-treatment values of the relevant outcome variable.* p<0.10, ** p<0.05, *** p<0.01.

Table 6: **Experimental Results**

	Panel A: Connectedness Treatment			
	(1) **Support Increase Dummy**	(2) **Support**	(3) **Support Increase Dummy**	(4) **Support**
Treatment	0.02***	0.97***	0.01	0.15
	(0.01)	(0.29)	(0.01)	(0.47)
Candidate Connectedness			0.01	1.74*
			(0.01)	(0.98)
Treat * Connectedness			0.03*	1.99**
			(0.02)	(0.96)
Prior Support		0.97***		0.97***
		(0.01)		(0.01)
R-Squared	0.005	0.934	0.006	0.935
# Observations	4847	4847	4847	4847
	Panel B: Performance Treatment			
	(1) **Support Increase Dummy**	(2) **Support**	(3) **Support**	(4) **Support**
Performance Treatment	-0.001	-0.167	0.415	0.511
	(0.005)	(0.283)	(0.569)	(0.752)
PML-N				0.368
				(1.031)
Treat * Spend			-1.098	-1.150
			(0.854)	(1.195)
Treat * PML-N				-0.277
				(1.223)
Spend * PML-N				-0.596
				(1.856)
Treat * Spend * PML-N				0.143
				(2.462)
Prior Support		0.973***	0.973***	0.973***
		(0.004)	(0.004)	(0.004)
R-Squared	0.000	0.939	0.939	0.939
# Observations	4911	4911	4911	4911

Notes: All regressions are at the respondent-candidate level. Standard errors clustered at the UC*Gender level reported in parentheses. The outcome labeled "Support Increase Dummy' is a dummy for whether the respondent's support for a candidate increased between prior and posterior. The outcome labeled 'Support' is respondent's support for a candidate, on a 0-100 scale. Exact question wording is listed in Appendix B. All specifications control for UC-Gender fixed effects. * p<0.10, ** p<0.05, *** p<0.01

Table 7: **Experimental Results on Satisfaction**

	Performance Treatment			
	(1) **Satisfaction Increase Dummy**	(2) **Satisfaction**	(3) **Satisfaction Increase Dummy**	(4) **Satisfaction**
Performance Treatment	0.045***	0.008*	0.009	-0.019*
	(0.011)	(0.004)	(0.022)	(0.010)
Treat * Spend			0.071*	0.053***
			(0.039)	(0.016)
Prior Satisfaction		0.900***		0.899***
		(0.014)		(0.014)
R-Squared	0.009	0.823	0.011	0.824
# Observations	1980	1980	1980	1980

Notes: All regressions are at the respondent level. The outcome labeled 'Satisfaction Increase Dummy' is a dummy for whether the respondent's satisfaction from government performance in their Union Council increased between prior and posterior. The outcome labeled 'Satisfaction' is respondent's satisfaction with government performance in the respondent's Union Council on a 0-1 scale. All specifications control for UC-Gender fixed effects. Standard errors are clustered at the UC*Gender level reported in parentheses. * p<0.10, ** p<0.05, *** p<0.01

Table 8: **Connectedness & Electoral Outcomes**

	Panel A: Vote Share				
	(1)	(2)	(3)	(4)	(5)
	Personal Connections	**Political Connections**	**Police / Court Connections**	**Aggregate Index**	**Inverse Rank**
Connection Measure	0.032	0.042**	0.031*	0.095***	0.042***
	(0.022)	(0.019)	(0.017)	(0.031)	(0.009)
Constant	0.419***	0.406***	0.411***	0.393***	0.238***
	(0.008)	(0.011)	(0.010)	(0.013)	(0.040)
R-Squared	0.189	0.199	0.193	0.209	0.229
	Panel B: Winner Dummy				
Connection Measure	0.162	0.084	0.091	0.277*	0.117**
	(0.099)	(0.088)	(0.075)	(0.149)	(0.051)
Constant	0.413***	0.402***	0.399***	0.347***	-0.079
	(0.017)	(0.036)	(0.031)	(0.048)	(0.225)
R-Squared	0.149	0.146	0.147	0.153	0.161
# Observations	353	353	353	353	353

Notes: Each panel-column combination regresses a voting outcome on a measure of connections. Each panel represents a different voting outcome and each column represents a different measure of connections. All connection measures (except for 'Inverse Rank') are on a 0-1 scale. Inverse Rank is the rank of a candidate in their Union Council by level of connections, with the most connected candidate having the highest rank. Standard errors clustered at the UC level reported in parentheses. Each specification includes provincial constituency × party fixed effects. * p<0.10, ** p<0.05, *** p<0.01

Table 9: **Robustness Checks**

	Panel A: Vote Shares			
	(1)	(2)	(3)	(4)
	OLS	**Party* PA FE**	**Party * PA FE (Assets Control)**	**Union Council FE (Assets Control)**
Connections Index	0.137***	0.125***	0.112***	0.097**
	(0.027)	(0.038)	(0.038)	(0.040)
Log Assets			0.010***	0.009*
			(0.004)	(0.005)
Constant	0.380***	0.384***	0.232***	0.257***
	(0.013)	(0.016)	(0.058)	(0.082)
R-Squared	0.073	0.238	0.266	0.608
	Panel B: Winner Dummy			
Connections Index	0.516***	0.382**	0.334*	0.581**
	(0.141)	(0.174)	(0.175)	(0.286)
Log Assets			0.036***	0.060***
			(0.012)	(0.022)
Constant	0.269***	0.313***	-0.245	-0.699*
	(0.048)	(0.058)	(0.180)	(0.355)
R-Squared	0.055	0.177	0.197	0.139
# Observations	285	285	285	285

Notes: This table is restricted to the 285 out of 353 candidates with at least 1,000 votes for whom we have been able to obtain nomination forms to date. All regressions in this table use the aggregate index of connections corresponding to column (4) in the previous table. Standard errors are clustered at the UC level and reported in parentheses. * p<0.10, ** p<0.05, *** p<0.01

Table 10: **Performance & Electoral Outcomes**

	Panel A: Performance as Log UC Spending Per Capita			
	(1) **PML-N Fielded Candidate**	(2) **PML-N Vote Share**	(3) **PML-N Candidate Won**	(4) **PML-N Candidate Rank**
Log Spending Per Capita	-0.011	0.003	0.006	-0.007
	(0.021)	(0.007)	(0.032)	(0.037)
Constant	0.904***	0.438***	0.545**	1.504***
	(0.154)	(0.048)	(0.230)	(0.265)
R-Squared	0.045	0.112	0.056	0.066
	Panel B: Performance as UC Spending Rank			
UC's Spending Rank	-0.072	0.006	0.093	-0.128
	(0.106)	(0.033)	(0.160)	(0.183)
Constant	0.859***	0.456***	0.539***	1.517***
	(0.061)	(0.019)	(0.090)	(0.104)
R-Squared	0.046	0.110	0.059	0.070
	Panel C: Performance as UC Spending Quintile			
Spending Quintile	-0.017	0.002	0.015	-0.025
	(0.022)	(0.007)	(0.033)	(0.038)
Constant	0.872***	0.454***	0.541***	1.526***
	(0.071)	(0.022)	(0.106)	(0.122)
R-Squared	0.047	0.111	0.058	0.069
# Observations	164	130	130	130

Notes: Regressions are run at the constituency level. Outcome variables are various electoral outcomes for the government (PML-N) candidate. The three panels correspond to three different measures of spending or government performance, all three of which were used in our performance treatment. Standard errors are clustered at the provincial assembly seat level and reported in parentheses. * p<0.10, ** p<0.05, *** p<0.01

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A Appendix: Tables

Table A1: **Priors on Outcome Variables**

	Connectedness (1)	Performance (2)	Placebo (3)	p-value (1)=(2)	p-value (1)=(3)	p-value (2)=(3)
Personal Connections (0-1)	0.28	0.27	0.27	0.63	0.52	0.86
	(0.45)	(0.45)	(0.44)			
Political Connections (0-1)	0.59	0.58	0.57	0.76	0.44	0.63
	(0.49)	(0.49)	(0.5)			
Police & Local Court (0-1)	0.43	0.44	0.44	0.44	0.46	0.98
	(0.36)	(0.36)	(0.36)			
Overall Connections (0-1)	0.43	0.43	0.43	0.92	0.64	0.71
	(0.29)	(0.29)	(0.29)			
Relative Performance (0-1)	0.41	0.42	0.41	0.38	0.91	0.43
	(0.22)	(0.22)	(0.22)			
Satisfaction with Government (0-1)	0.43	0.43	0.42	0.98	0.27	0.25
	(0.28)	(0.27)	(0.28)			
Support for Candidate (0-100)	43.17	42.84	43.48	0.86	0.87	0.74
	(41.9)	(41.99)	(41.84)			

Notes: This table shows pre-treatment summary statistics on our experimental outcomes by treatment condition as well as p-values of equality of means test for all three possible treatment pair combinations. Overall connections are an aggregate index of (i) personal connections, (ii) political connections, and (iii) police & local court connection. The exact question wording for outcome variables is listed in Appendix B.

Table A2: **Treatment Heterogeneity by Respondent Priors on Candidate Connectedness**

	(1) **Support Increase Dummy**	(2) **Support**
Treatment	0.01	0.02
	(0.01)	(0.53)
Prior Support		0.97***
		(0.01)
Under_Predictors	0.01	-0.45
	(0.01)	(0.70)
Treatment * Under_Predictors	0.02	1.58*
	(0.01)	(0.83)
Over_Predictors	0.02	-0.15
	(0.01)	(0.71)
Treatment * Over_Predictors	-0.01	0.46
	(0.02)	(0.98)
R-Squared	0.005	0.936
# Observations	3404	3404

Notes: All regressions are at the respondent-candidate level. The outcome labeled 'Support' is respondent's support for a candidate, on a 0-100 scale. "Under-predictors' and "Over-predictors' are dummy variables for whether the respondent underestimated or overestimate the candidate's connections in baseline. All specifications control for UC-Gender fixed effects. Standard errors are clustered at the UC*Gender level and are reported in parantheses. * p<0.10, ** p<0.05, *** p<0.01

Table A3: **Treatment Heterogeneity by Accuracy of Priors on Local Spending Performance**

	Performance Treatment	
	(1)	(2)
	Support Increase Dummy	**Support**
Performance Treatment	-0.013	0.637
	(0.010)	(0.812)
PML-N	-0.008	0.280
	(0.011)	(0.870)
Under Predict	0.008	1.383*
	(0.010)	(0.735)
Over Predict	0.000	-0.024
	(0.012)	(1.048)
Prior Support		0.973***
		(0.004)
Treat * PML-N	0.020	0.097
	(0.015)	(0.927)
Under Predict * Treatment	0.015	-1.085
	(0.012)	(0.905)
Under Predict * PML-N	0.005	-0.727
	(0.012)	(1.086)
Under Predict * Treatment * PML-N	-0.015	-0.246
	(0.018)	(1.353)
Over Predict * Treatment	0.022	-0.169
	(0.016)	(1.246)
Over Predict * PML-N	0.015	0.803
	(0.019)	(1.447)
Over Predict * Treatment * PML-N	-0.051**	-0.595
	(0.024)	(1.645)
R-Squared	0.002	0.939
# Observations	4861	4861

Notes: All regressions are at the respondent-candidate level. The outcome labeled 'Support' is respondent's support for a candidate, on a 0-100 scale. "Under-predict' and "Over-predict' are dummy variables for whether the respondent underestimated or overestimate how much the government spent in their UC in baseline. All specifications control for UC-Gender fixed effects. Standard errors are clustered at the UC*Gender level and are reported in parantheses. * p<0.10, ** p<0.05, *** p<0.01

Table A4: **Treatment Heterogeneity in Performance Treatment by Satisfaction with Public Services**

	Performance Treatment	
	(1) **Support Increase Dummy**	(2) **Support**
Performance Treatment	0.003	0.015
	(0.007)	(0.437)
PML-N	0.005	0.041
	(0.007)	(0.611)
Satisfaction with Govt Spending (=1 if very satisfied)	0.009	-0.635
	(0.008)	(0.507)
Treatment * PML-N	0.003	-0.366
	(0.011)	(0.856)
Treatment * Satisfaction	-0.017	-0.384
	(0.013)	(0.801)
Satisfaction * PML-N	-0.025**	0.036
	(0.011)	(0.848)
Treatment * PML-N * Satisfaction	0.001	0.644
	(0.016)	(1.249)
Prior Support		0.973***
		(0.004)
R-Squared	0.002	0.938
# Observations	4902	4902

Notes: All regressions are at the respondent-candidate level. The outcome labeled 'Support' is respondent's support for a candidate, on a 0-100 scale. "Support Increase Dummy" is an indicator for whether the respondent's support for a candidate increased after treatment. All specifications control for UC-Gender fixed effects. Standard errors are clustered at the UC*Gender level and are reported in parantheses. * p<0.10, ** p<0.05, *** p<0.01

Table A5: **Performance and Electoral Outcomes**

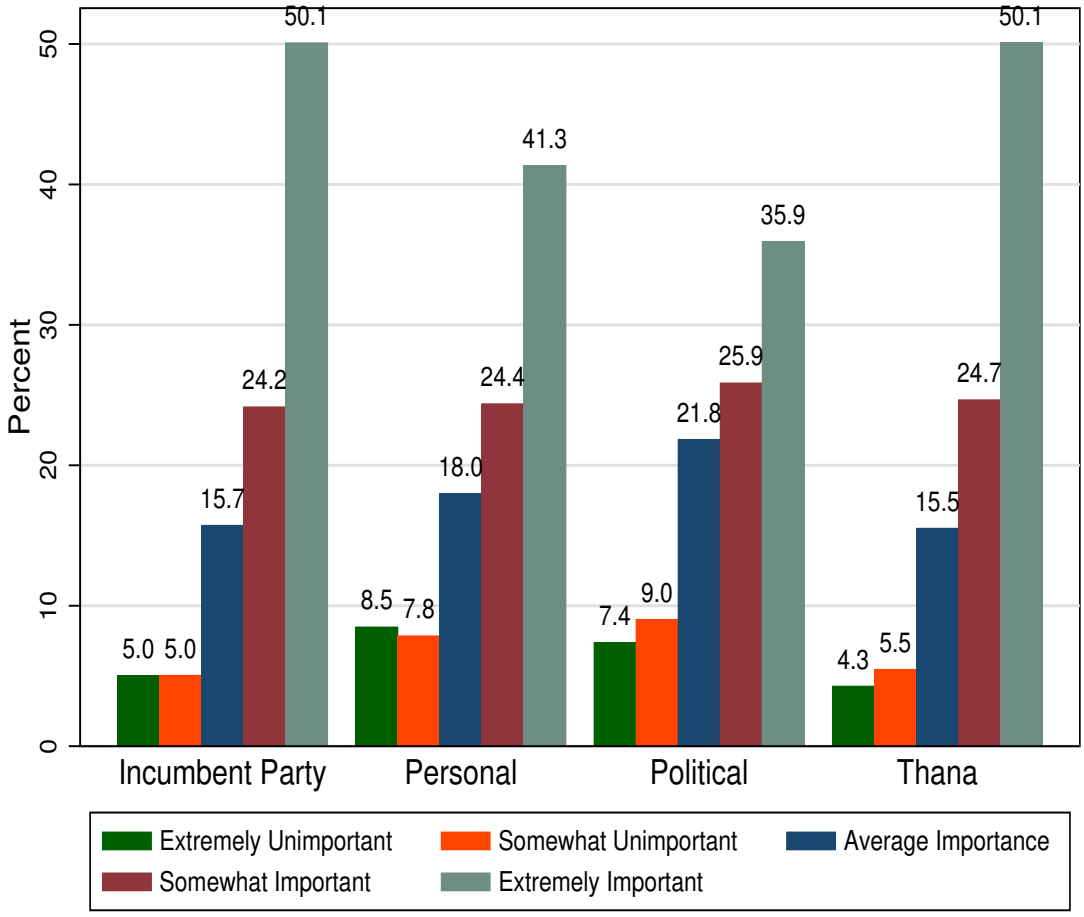
	Panel A: Spending by Sector		
	(1) **PML-N Fielded Candidate** No Control	(2) **PML-N Vote Share** No Control	(3) **PML-N Candidate Won** No Control
Health and Education	-0.003	0.001	0.006
	(0.002)	(0.001)	(0.005)
CM Programs	0.002	-0.001	0.001
	(0.002)	(0.001)	(0.003)
Buildings	-0.041*	0.001	-0.023
	(0.021)	(0.010)	(0.047)
District ADP	-0.010	0.009**	0.020
	(0.011)	(0.004)	(0.018)
Graveyards	-0.031	-0.000	0.004
	(0.022)	(0.008)	(0.037)
Local Development	0.000	-0.001	-0.015
	(0.015)	(0.004)	(0.021)
Model Villages	-0.002	-0.001	-0.003
	(0.003)	(0.001)	(0.005)
Social Services	0.005	-0.005	0.059
	(0.046)	(0.015)	(0.073)
Other	0.015	0.012	0.053
	(0.028)	(0.008)	(0.040)
Flood Damages	0.065	-0.066	-0.197
	(0.211)	(0.062)	(0.300)
Drainage/Sewerage	-0.002	-0.001	0.000
	(0.003)	(0.001)	(0.006)
Water	-0.005	0.000	0.005
	(0.006)	(0.002)	(0.012)
Constant	0.908***	0.455***	0.462***
	(0.053)	(0.018)	(0.088)
R-Squared	0.113	0.221	0.135
# Observations	145	114	114
	Panel B: Spending by Type of Projects		
Reconstruction	-0.034*	0.001	-0.013
	(0.020)	(0.009)	(0.043)
Regular	-0.002	0.000	0.003
	(0.002)	(0.001)	(0.003)
Special	-0.001	-0.000	0.001
	(0.002)	(0.000)	(0.002)
Constant	0.884***	0.458***	0.543***
	(0.044)	(0.014)	(0.067)
R-Squared	0.079	0.120	0.066
# Observations	161	128	128

Notes: Regressions are run at the constituency level. Outcome variables are various electoral outcomes for the government (PML-N) candidate. The two panels correspond to two different ways of breaking down government spending in each UC. Standard errors are clustered at the provincial assembly seat level and reported in parentheses. * p<0.10, ** p<0.05, *** p<0.01

B Appendix: Figures

Figure B1: Sargodha District in Punjab Province

Figure B2: Important Connections as a UC Chairman



Responses to separate survey questions about the perceived importance of connections. Question wording is included in the appendix.

Figure B3: Connectedness Treatment for one of the 84 UCs in our experimental sample

Connectedness Information – UC 99

We want to give you information regarding how connected your candidates for Union Council chairman are to politicians and bureaucrats. We collected this information on connectedness through a survey of informed citizens and political workers in your district.

As you know, being connected are very important for getting things done as a UC chairman. This is because the UC chairman will have to interact with higher-ups in the political system and bureaucracy at the provincial level and will need good relations with *Thana/kachehri* and government departments to get things done at the district level.

Candidate Name	Candidate Party	Family Relations with Current MNA / MPA	Campaigned for Current MNA / MPA	Relationship with Thana / Kachehri	Total Connectedness Score
Muhammad Afzal Warraich	Independent	2	2	2	6
Raja Faisal Nawaz	PML-N	1	1	1	3
Muhammad Afzal Sial	PTI	0	0	1	1
Waqas Riaz	Independent	0	0	0	0

We collected information on different kinds of connectedness. From our survey, we know that people think that three types of connections are most important: (i) Family relations with current MNA or MPA, (ii) connections from having campaigned for a current MNA / MPA, (iii) connections with *Thana and kachehri.*

- *In your Union Council, the most connected candidate is Muhammad Afzal Warraich.*
- *The second most connected candidate is Raja Faisal Nawaz.*
- *The Third most connected candidate is Muhammad Afzal Sial.*
- *The least connected candidate is Waqas Riaz.*

Figure B4: Performance Treatment for one of the 84 UCs in our experimental sample

Punjab Government's Budget Information – UC 11

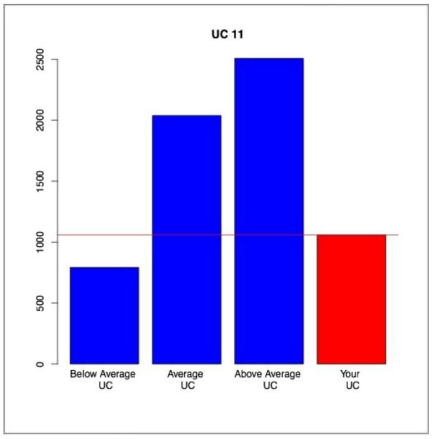
Prior to the local government elections being held this year the Punjab government run by the Pakistan Muslim League N was responsible for meeting the needs and demands of the citizens in your union council with regard to the much demanded public services such as local roads, provision of sanitation, street paving and water, street lights, health etc. That is, the PMLN government's spending decisions in Punjab determined development outcomes in your UC.

We will now give you objective information on government expenditure in your Union Council during the past 5 years. We collected this data on expenditure from the Punjab government's own budget figures.

The chart below shows how much the PML N government in Punjab has spent during the past five years from 2010-15 on various projects in different union councils in Sargodha district. It did not spend equal amounts per person in each UC. Instead, there was more spending in some UCs and low spending in other UCs.

The Punjab government's own budgetary information shows that:

1. *The government has spent **Rs. 1,058** per person on different projects from 2010 - 2015 in your UC, while on average in this time period the government spent **Rs. 2,039** per person on different projects.*
2. *Your UC is ranked **57 out of 164** rural UC's in Sargodha in terms of government expenditure.*
3. *This means that in your UC, the government has spent **Rs. 1 crore 17 lakh** less than the average UC.*
4. *The government led by PML-N **has not** spent more in your UC than in most other UCs.*



The three bars on the left show how much the government spent per person in an average UC, in an above average UC and in a below average UC. The bar on the right shows how much the governing party spent in your Union Council.

Figure B5: Placebo Treatment format; the treatment was customized for each of the 84 Union Councils in our experimental sample

General Information - UC XX

We want to give you some information about the upcoming general election, about the candidates and about your UC.
As you know, your village is located in UC <>. This UC consists of <> villages. There are a total of 164 rural Union Councils in district Sargodha. Different Union Councils have different numbers of villages. The number of Union Councils also changes when new delimitation happens. From time to time, the government also revises the number of mauzas. Recently, the number of mauzas in Sargodha increased from 832 to 906.

In the graph below, we show you the number of villages in a UC in rural Sargodha. There are 25 Union Councils that have 1 or 2 village, 55 Union Councils that have 3 or 4 villages, 35 villages that have 5 or 6 villages and 49 Union Councils that have 7 or more villages. The most number of villages in a Union Council are 16.

Local elections are happening in Sargodha on November 19. In some districts of Punjab they happened in end of October and in other districts they are happening in December.

<> candidates are contesting elections from UC <>. In some UC's there are more than two candidates, in some there are only two candidates.

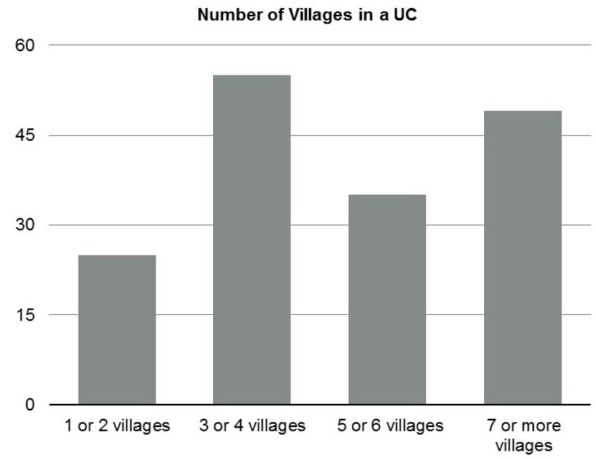
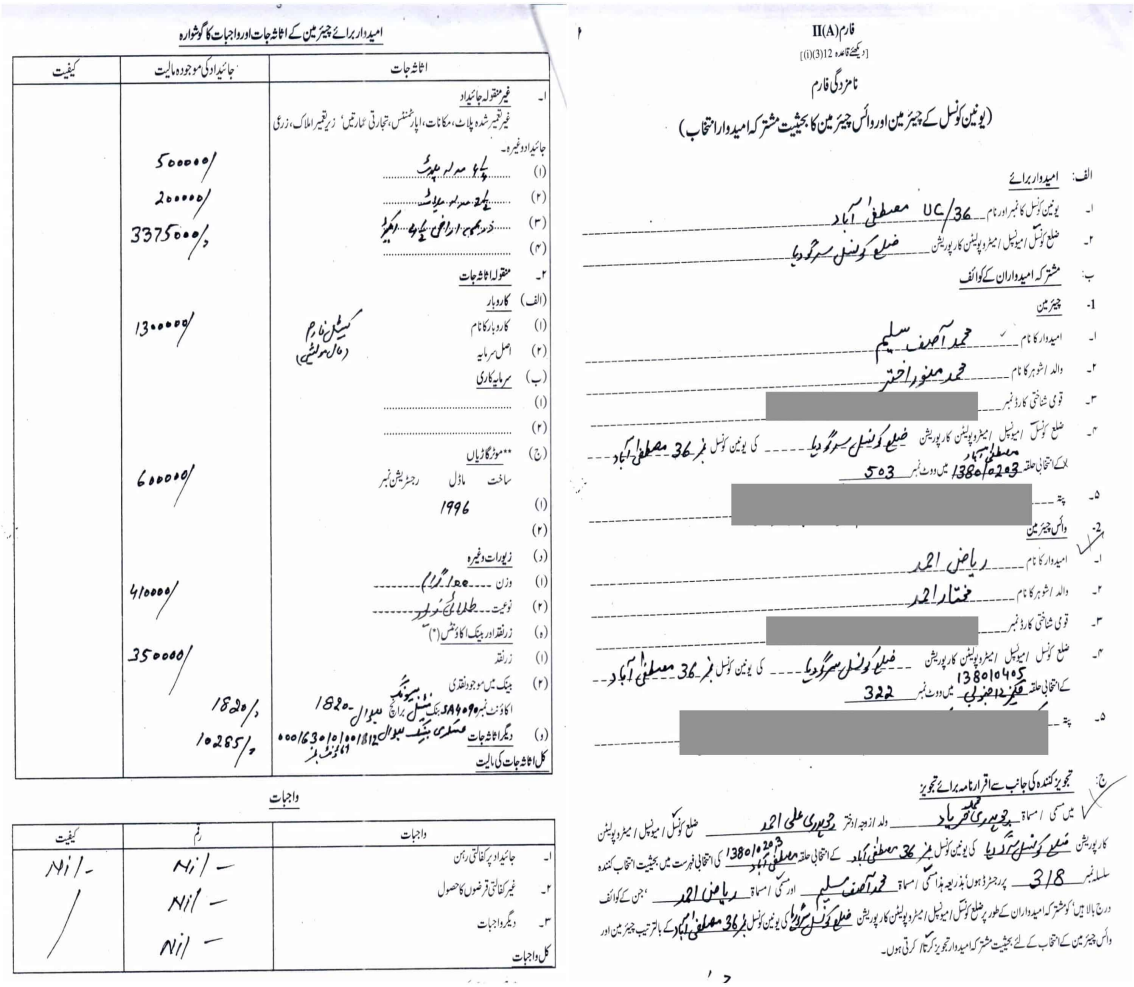


Figure B6: Sample Nomination Form



All candidates had to submit nomination forms including a declaration of assets to the Election Commission. The page on the right contains particulars of the UC and the candidate in addition to an oath statement. National identity card numbers and addresses have been grayed-out. The page on the left contains details of the UC chairman assets (top) and liabilities (bottom).

C Appendix: Sampling

This appendix provides details on how we sampled respondents within Union Council.

Within each UC, we selected 9 starting points from the Punjab Bureau of Statistics list of villages (mauza) in the UC using population proportional sampling with replacement. We surveyed 4 respondents at each starting point. Once the enumerator reached the village they picked a starting point from the following landmarks using a kish grid method (that used the UC code and village code to ensure that the different landmarks appear equally):

- (1) Retail market
- (2) Health:
  - if Basic Health Unit or Rural Health Unit in village, start there, if not;
  - if Hospital Dispensary in village, start there, if not:
  - if Private doctor clinic in village, start there.
- (3) Private School (largest)
- (4) Government Primary School. If two: start with GPS for Girls.
- (5) Transformer
- (6) Mosque. If two: start with larger mosque.
- (7) - (10) When you enter the village, conceptualize the village as a rough rectangle. Number the corners of the village as you go clockwise from your location as 'corner 1', 'corner 2', 'corner 3' and 'corner 4'.

Once a landmark had been chosen, the enumerator would skip five houses to the right of that landmark, and then survey the house. For each household ID allocated to each starting point, we randomly assigned the gender to survey. After doing the first survey, they would employ the right hand rule and survey three more households at that pin, then move on to the next pin. Within each household, they used a different kish grid to determine who to survey following the pre-determined gender assignment.

D Appendix: Measures

This appendix provides English language translations of the survey questions corresponding to the measures referenced during the paper.

- Connections
  - Personal Connection: Does this candidate have a personal relationship with an existing MNA or MPA? By a personal connection we mean that the candidate is either from the same family or *biraderi* (caste), or otherwise has a close personal friendship with the MNA or MPA (Asked as a yes/no question).
  - Political Connection: Does this candidate belong to the political *dharaa* (support bloc) of an existing MNA or MPA? (Asked as a yes/no question).
  - Petty Bureaucracy Connection: How are this candidate's connections with the local police and courts? (Asked on a 5-point scale: 1 - Very weak, 2 = weak, 3 = Average, 4 = Strong, 5 = Very strong)
- Perceived Importance of Connections
  - How important are family connections with higher-tiered politicians (MNA's / MPA's / Senators) for getting things done as UC chairman? (This and the following three questions below were asked on a 1-5 Likert scale with 1 as extremely unimportant and 5 as extremely important)
  - How important is it to have helped higher tiered politicians run campaigns in the past for getting things done as UC chairman?
  - How important is it to have connections in Thana / Kachaheri for getting things done as UC chairman?
  - How important is it to have connections with the ruling party in power?
- Performance
  - Relative Performance: We have statistics on expenditure done under all official schemes by the provincial government from 2010 to 2015. In your opinion, how much has the government spent in your Union Council compared to other rural Union Councils in Sargodha? (Asked on a 5-point scale with 1 being lower than average and 5 being much higher than average).
  - Satisfaction: How satisfied are you with the government services provided in your Union Council? (Asked on a 7-point scale being 1 being completely dissatisfied and 7 being completely satisfied).
- Support: How much do you support this candidate? Please tell us on a scale from 0-100 where 0 means you strongly oppose the candidate, 50 means you are neutral, and 100 means you strongly support the candidate.

- Services Desired: What are the things that you will need to get done from the Union Council or from the Union Council chairman when the local government is formed? (Asked as an open ended question and responses were coded using a pre-specified scheme)

E Appendix: Estimation Strategy

E.1 Experimental Analysis

We estimate the effects of our connectedness and performance treatments using three different specifications. Firstly, some outcomes are hypothesized to vary with treatment regardless of the actual measure of connections or performance. This class of outcomes includes: (i) various indicator variables such as whether respondents' knowledge of connections or spending increased, whether respondents belief about spending in their UC or candidates' connections increased in the right direction and whether respondents' support for candidates increased and (ii) various count variables such as the number of questions about connections answered correctly. For these outcomes, we estimate a simple difference in conditional means,

$$Y_i = \alpha + \beta_1 T_i + \gamma_p + \delta_t + \epsilon_{i,t}, \tag{1}$$

where Y_i is the outcome of interest for respondent i, T_i indicates the treatment variable which is either the connectedness treatment or the performance treatment with the placebo treatment as the omitted category, γ_p is Union Council $\times$ gender fixed effect to account for the randomization design (since our treatment randomization was stratified by UC and gender of the voter) and ϵ_i is the respondent-specific error term. We calculate robust standard errors clustered at the UC-gender level throughout.

Secondly, there are some outcomes where we expect treatment effects to vary along the actual measure of connections or performance. These include respondent beliefs about how connected a particular candidate is, how much the government has spent in a UC, respondent satisfaction with the government and respondent support for a candidate. The treatment effect for these outcomes depends on the actual connectedness of a candidate or government spending in a UC, controlling for the prior. To estimate these heterogenous effects, we add in the interaction of the treatment with the continuous measure of the moderator,

$$Y_i = \alpha + \beta_1 T_i + \beta_2 I_j + \beta_3 T_i * I_j + \gamma_p + \delta_t + \epsilon_{i,t}, \tag{2}$$

where, in addition to the variables in the previous equation, I_j indicates the 'intensity' of the treatment i.e. the actual connectedness of a candidate or government spending in a UC and $T_i * I_j$ indicates the interaction of the treatment dummy with the intensity of treatment.

Finally, there are outcomes where we test hypotheses around outcomes where the treatment effect should be different for candidates that are in the ruling party (PML-N) than for candidates that are not. The primary outcome of interest in this category is support for candidates under the performance treatment. We test if effects differ by party because the

spending on which we provide information had been undertaken by the PML-N provincial government and if voters draw a link between the provincial spending and local candidates, we would see support for PML-N candidates to differentially rise in government spending compared to support for non PML-N candidates. Here, we estimate a fully-interacted model,

$$Y_i = \alpha + \beta_1 T_i + \beta_2 I_j + \beta_2 G_j + \beta_3 T_i * I_j + \beta_3 T_i * G_j + \beta_3 I_j * G_j + \beta_3 T_i * I_j * G_j + \gamma_p + \delta_t + \epsilon_{i,t}, \quad (3)$$

where, in addition to the variables in the previous equation, we add G_j that is a dummy for whether the candidate in question belongs to the ruling party, PML-N. We also add the three possible double interactions between treatment dummy (T), treatment intensity (I) and government candidate dummy (G) as well as the triple interaction.

Across all specifications we re-scale all outcomes to fall in 0-1 so the coefficients can be directly interpreted as the proportion change in the outcome from being provided treatment.

E.2 Observational Analysis

For all candidate-level results we estimate equations of the form:

$$Y_i = \alpha + \beta_1 X_i + \gamma_p + \delta_i + \epsilon_{i,t}, \quad (4)$$

where Y_i is the outcome of interest for candidate i, X_i indicates the independent variable of interest which could be the candidate's level of connections, connectedness rank, or the amount spent in their area, γ_p is PA constituency $\times$ party fixed effect to partial out the party-specific impact of being in a given constituency, δ_i are candidate assets that we include as controls in certain regressions and ϵ_i is the candidate-specific error term. In some regressions, we employ UC fixed effects instead of PA constituency $\times$ party fixed effects. We calculate robust standard errors clustered at the UC-level throughout.

In all candidate-specific regressions we restrict the sample of candidates to those who obtained at least 1,000 votes to prevent non-serious contenders with low levels of connections to bias the results. The relationship is stronger if we include candidates with less than 1,000 votes. The summary of election results in Table 3 shows the distribution of votes obtained for candidates at different ranks by votes. The lowest number of votes obtained by runner-ups is approximately our cut-off of 1,000 votes.

For all UC-level results we estimate equations of a form similar to equation 4 above, except that we only include the PML-N candidate from that UC since we are examining the relationship between government performance and electoral outcomes for the government candidate. In such regressions, γ_p is a PA constituency fixed effect to partial out the impact of being in a given constituency.