Canvassing the Gatekeepers: A Field Experiment to Increase Women's Voter Turnout in Pakistan

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Abstract

How can we close persistent gender gaps in political participation? We highlight the role of male household members as "gatekeepers" of women's participation in patriarchal settings, and argue that the answer involves targeting these men. We conduct a field experiment in Pakistan, and find that targeting women with a non-partisan Get-Out-the-Vote campaign has no effect on their turnout in a national election. However, women's turnout increases substantially when men in their households are canvassed to support women's participation. In households where both men and women are canvassed, we also observe an increase in political discussion, and in men's practical support to help women vote on election day. Using a costly behavioral measure, we demonstrate lasting effects on men's supportive behavior in these households two months after the election. Our results speak to the importance, and tangible benefits, of engaging men to ease the constraints that hinder equal participation.

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1 Introduction

Gender gaps in political participation are ubiquitous in democracies around the world (Bratton, 1999; Coffe and Bolzendahl, 2011; Isaksson, Kotsadam and Nerman, 2014; Prillaman, 2017). In Pakistan, 11 million fewer women than men voted in the last national election in 2018. These gaps undermine the democratic principle of participation equality (Dahl, 1973), and preclude responsiveness to women's distinctive preferences (Chattopadhyay and Duflo, 2004; Gottlieb, Grossman and Robinson, 2016; Khan, 2020). Closing gender gaps in turnout is normatively important, and can also potentially produce welfare gains for women, as evinced by the experience of suffrage extension (Carruthers and Wanamaker, 2015; Lott and Kenny, 1999; Miller, 2008; Morgan-Collins, 2021). What works to increase women's turnout where such gaps persist?

Classic theories of participation point to gender gaps in resources and political engagement, and women's exclusion from political networks as explanations for women's lower participation rates (Baxter and Lansing, 1983; Brady, Verba and Schlozman, 1995; Verba, Burns and Schlozman, 1997). Policy interventions targeting women build on these theories, as they aim to increase participation through improving information, interest, civic skills and self-efficacy among women (Galston, 2001). However evidence of the impact of such efforts in developing countries is mixed. Giné and Mansuri (2018) find that an informational campaign targeting women in rural Pakistan increased women's turnout. Gottlieb (2016) finds that a civic education campaign *lowered* women's political participation in Mali. Ichino and Nathan (2018) find null effects of a civic education intervention on women's grassroots political participation in Ghana.

Interventions targeting women implicitly assume that the decision to participate in politics is one that women can make, and act on, independently. However, this may not generalize to patriarchal settings where men act as "gatekeepers" within households, and women's public engagement is subject to these men's attitudes and behaviors. At its extreme this may be codified in *de jure* restrictions: in 2015, adult women in 18 countries required a male guardian's permission to take a job (Thomson, 2015). More common are the informal *de facto* restrictions on women's movement and mobility, which are common in many developing countries, and rooted in concerns about women and girls' "safety and purity" (Becker, 2019; Jayachandran, 2015; Pande, 2015). Finally, women's public engagement may depend on men even in the absence of explicit restrictions. Across the developing world, men are more likely to own the key resources, like cellphones or means of transport, which mediate access to public life (Rosenbloom and Plessis-Fraissard, 2009; Rowentree and Shanahan, 2020).

Women's access may thus depend on men's willingness to share such resources. Women also often depend on male accompaniment in public spaces to ensure safety of movement (Jayachandran, 2015). We argue that in situations where women's participation is contingent on male gatekeeping, which may range from direct restrictions to indirect control, engaging men is imperative to achieve gains. We provide a theoretical framework which suggests that short term interventions may be effective when prevailing attitudes and norms are permissive of women's participation, but women nevertheless require men to enable participation.

We provide causal evidence for this claim from a field experiment which studies the effects of a non-partisan canvassing campaign aimed at increasing women's turnout conducted by local civil society organizations (CSOs) in the 2018 national elections in Pakistan. We test the effects of directly canvassing women in households, against an approach that targets men. 2,500 households in our study are randomly assigned to one of four experimental conditions: a canvassing visit by a female canvasser targeted to women (T1 only), a visit by a male canvasser targeted to men (T2 only), two separate visits by female and male canvassers targeted to women and men respectively (T1+T2), or no visit (control). The random variation allows us to identify the causal effects of targeting canvassing efforts to women, men, or both on women voters' turnout.

First, we measure turnout using an innovative method: the visual verification of indelible ink marks placed on voters' thumbs in the 2018 election. Using this measure, we find that targeting *only* women with a canvassing campaign (T1 only) is ineffective at improving women's turnout. However, women's turnout increases by 8.0 percentage points (p¡0.05) when canvassing targets both men and women in a household (T1+T2), and by 5.4 percentage points (p¡0.10) when it targets just men (T2 only). These are substantively large effects: the national gender gap in turnout in the 2018 elections was 9.1 percentage points.

Second, we document lasting changes in men's willingness to take actions to support women's participation using a costly behavioral measure. Two months after the election, we offer men in study households the option to post a publicly visible sticker on the entry-way of their residence. We cross-randomize whether men are offered a sticker with a generic message of support for democracy, or a sticker with a message of support for women's role in democracy, which allows us to interpret difference in take-up of the two stickers as men's willingness to publicly endorse women's political participation. Using this measure, we find strong evidence that men in households where both men and women were canvassed (T1+T2) are significantly more likely to express support for women's role in democracy, compared to men in control households.

Third, in an endline survey we find no evidence of lasting effects of canvassing on women's political knowledge, interest in politics, or sense of political self-efficacy. However, in households where canvassing was targeted at both men and women, respondents are significantly more likely to report discussing politics with each other. Respondents in these households also report that men actively enabled women's participation on election day through organizing transport and waiting for women at the polling station. We do not see evidence of such effects when only women or only men in a household are canvassed. Canvassing both men and women thus shifts outcomes beyond turnout at the household level.

Our study contributes to a rich literature on gender gaps in political participation, and the "private roots of public action" (Burns, Schlozman and Verba, 2001). We highlight how men within the home – generally considered the "private sphere" – shape women's political participation. This has clear relevance for contexts where patriarchal gender norms designate male family members as gatekeepers of women's presence in public lives. The term "gatekeeper" has been commonly used in the gender and politics literature to describe pivotal political elites who exercise decision-making power over women's access to political office or claim of rights (Brulé, 2020; Cheng and Tavits, 2011; Crowder-Meyer, 2013; Fox and Lawless, 2010; Kunovich and Paxton, 2005; Luhiste, 2015). By characterizing men within the home as "gatekeepers", we join a long tradition of feminist scholarship in asserting that the private sphere has deep implications for politics.

We also contribute to an extensive field experimental literature on the effectiveness of Get out the Vote (GOTV) campaigns in mobilizing turnout. Many studies explore the effectiveness of different modes of voter contact (in person vs. mail etc.), or of different messages delivered to voters (Green and Gerber, 2016). While keeping the mode of contact and message constant across treatment arms, our experiment tests the effectiveness of different *targets* of canvassing within households. Existing studies examining spillover effects of mobilization efforts from targeted individuals to other household members elucidate the intra-household dynamics of voter mobilization (Bhatti, Fieldhouse and Hansen, 2018; Foos and De Rooij, 2017; Nickerson, 2008). Our findings demonstrate the gendered nature of these household dynamics in gender-unequal settings.

Our findings also provide policy lessons for closing gender gaps in participation in patriarchal settings, where we might think change is especially difficult. Recent studies identify the potential of targeting male decision-makers in households with interventions to achieve improvements in women's labor market participation in other patriarchal settings: India (Bernhardt et al., 2018) and Saudi Arabia (Bursztyn, González and Yanagizawa-Drott, 2020). We

demonstrate that this is also a promising strategy for improving women's political participation. A well-targeted intervention achieves substantial gains in women's turnout, lasting changes in men's supportive behavior towards women's participation, increases in within-household political discussion, and sharing of resources on election day.

The remainder of the paper proceeds as follows. The following section describes our theory of change. Next, we provide relevant background about our study context of Lahore, Pakistan. Following this, we describe the intervention, experimental design, and data. We then present findings on women's turnout, men's supportive actions, and a set of secondary outcomes. We conclude with a discussion of the generalizability and scope conditions of our findings.

2 Gender Gaps in Political Participation: Theory and Prospects for Change

2.1 Resources, Engagement, Mobilization

Classic models of political participation emphasize the importance of individual level resources to explain the gender gap in participation (Brady, Verba and Schlozman, 1995). Insofar as these resources are unequally distributed across men and women, the resource gap may explain observed gender gaps in political participation. Moreover, the resource gap may be particularly pronounced in developing countries, where women have lower levels of education and labor force participation, and a higher burden of household responsibilities (Pande, 2011; Robinson and Gottlieb, 2019).

However, empirical evidence for purely resource-based explanations is limited (Isaksson, Kotsadam and Nerman, 2014; Atkeson and Rapoport, 2003; Verba, Burns and Schlozman, 1997). Several scholars instead draw attention to the gender gaps in political interest, engagement and efficacy (Verba, Burns and Schlozman, 1997; Preece, 2016). Brady, Verba and Schlozman (1995) point to "isolation from the recruitment networks through which citizens are mobilized to politics" as an explanation for lower participation by women. Within South Asia, Prillaman (2017), Goyal (2019) and Liaqat (2019) provide evidence of stark gender gaps in partisan mobilization in India and Pakistan. Khan (2020) shows that the gap extends beyond partisan mobilization: women in Pakistan are also less likely to be encouraged to vote by friends and family.

Taken together, this work suggests that mobilization campaigns that target women, and

seek to close gaps in resources and political engagement through providing information and motivational messaging, ought to be effective in increasing women's participation (Chong and Vega, 2018; Giné and Mansuri, 2018; Roza, 2014). However, the efficacy of this approach depends on the assumption that once gaps in resources, engagement and mobilization are narrowed, women can autonomously decide to participate, and independently act on this decision. What happens when this is not the case?

2.2 Male Gatekeeping

A rich literature demonstrates how patriarchal norms shape gender gaps in political participation across contexts (Bleck and Michelitch, 2018; Brule and Gaikwad, 2017; Chhibber, 2002; Robinson and Gottlieb, 2019). For our purposes, a key implication of such norms is that they often designate male household members as "gatekeepers" who exercise varying levels of control over women's participation in the public sphere. This can manifest as direct control through explicit formal or informal restrictions on women's participation, or indirect control, whereby women depend on men to enable participation through their actions.

We discuss two ways in which male gatekeeping can constrain women's political participation. First is through overt restrictions on women's freedom of movement and mobility which are common in many developing countries. Hanmer and Klugman (2016) document that 31% of married women across 29 developing countries report their movement being restricted by their husbands: these restrictions encompass not being permitted to meet female friends; restrictions on contact with family; and their spouse insisting on knowing whereabouts at all times, as measured in Demographic and Health Surveys. In our urban study sample in Lahore, 60% of surveyed adult women (compared to 16% of adult men) report having to seek permission to leave the house. Male family members —spouses and otherwise—are thus routinely in the position to grant or deny women permission to leave the home. . As Jayachandran (2015) notes, restrictions on mobility are "a proximate cause of reduced female schooling and career opportunities." It is plausible that such restrictions would similarly constrain women's political participation.

Second, gatekeeping also manifests as women's dependence on men to actively enable their participation. Men may control key resources required for participation, such as transport, physical accompaniment, and time, which can make women's participation conditional on men making these available. For voting, a crucial resource is transport to the polling place. While most households in our study sample own a motorbike, women rarely own or drive

these, and rely on male household members for everyday mobility. Moreover, street harassment and the resulting sense of feeling unsafe are common experiences for women navigating urban spaces across the world, and women often depend on male family members for accompaniment to ensure safe mobility while walking or using public transport (Borker, 2017; Bowman, 1993; Phadke, Khan and Ranade, 2011). In a conjoint survey experiment conducted in Lahore, Rahman and Thompson (2021) find that women report a higher likelihood of voting if accompanied by friends or family to the polling place, but that accompaniment does not affect men's likelihood of voting. Finally, another relevant resource that men may control as gatekeepers is time for participation. Voting can be time consuming, and women's participation may be restricted if men are unwilling to renegotiate care and chores on election day to free up women's time to vote.

While resource-based explanations of participation generally consider gaps in individual-level resources, our account of gatekeeping suggests a re-conceptualization. Certain political resources such as transport, accompaniment, and time are necessarily shared among household members, and are thus subject to intra-household bargaining, in which men enjoy greater bargaining power over allocation (Agarwal, 1997; Iversen and Rosenbluth, 2006). This suggests the need to account for intra-household dynamics when designing interventions to improve women's participation.

Male gatekeeping is likely to be most salient in "classic patriarchal" settings,[1] such as ours. However, such contexts are not monolithic: "few cultures operate with starkly dichotomous distributions of power with men making all the decisions and women making none" (Kabeer, 1999). Some forms of women's political participation may be subject to less restrictive forms of male gatekeeping than others. In our context, when it comes to voting, prevailing attitudes are not restrictive: in our study sample, fewer than 10% of men think it is inappropriate for women to vote, and over 90% of women expect that they would have permission to vote. Attitudes are more restrictive for more involved forms of participation: only a third of men consider it appropriate for women to attend political meetings or stand for office.

2.3 Implications for Change

When can we expect short-term interventions to increase women's political participation? In a review of gender experiments in comparative politics, Clayton and Anderson-Nilsson (2021) note that "beliefs about gender roles tend to move slowly and are unlikely to respond

[1] Kandiyoti (1988) notes that these are found in North Africa, the Muslim Middle East, and South and East Asia.

Table 1: Expectations of Change in Women's Political Participation from Short-Term Interventions

	Men's enabling actions for women's participation	
	Not required	**Required**
Permissive attitudes and norms	A: Unconstrained by gatekeeping Engaging men unnecessary; Short term change possible	B: Constrained by gatekeeping Engaging men necessary; Short term change possible
Restrictive attitudes and norms	C: Constrained by gatekeeping Short term change unlikely	

to experimental interventions in the short term". However, canvassing campaigns, such as the one we study, seek to change political behavior in the immediate lead-up to an election. We propose a simple framework (summarized in Table 1) for thinking about the implications for change from short-term interventions under different conditions.

[Table 1 here]

We characterize contexts, or forms of participation, as unconstrained by male gatekeeping when men's attitudes and norms towards women's participation are not restrictive, and women are not dependent on men to enable participation (Cell A). In these situations, engaging men directly is unnecessary to improve levels of women's participation, and interventions can focus on women alone. Conversely, in situations where attitudes and norms towards women's participation are prohibitive or restrictive, a short-term intervention, regardless of its target, is unlikely to produce change (Cell C).

Situations where prevailing attitudes and norms are permissive of women's participation, but where women depend on men to enable participation for the reasons discussed above, provide a window of opportunity for affecting change in the short term (Cell B). Here, interventions that encourage men to take enabling actions may be successful in improving women's participation. Moreover, since women's participation depends on such actions, interventions that leave men out are likely to be unsuccessful. We believe the case of women voters' turnout in our study context falls in this category of situations.

The canvassing campaign we study involves delivering practical information on voting, and motivational messaging emphasizing the importance and benefits of women's political participation. If individual-level informational (resource-based) or motivational (engagement-based) factors are constraining women's participation, we would expect women's turnout to

increase when they are targeted directly by the intervention. Our framework, however, suggests that if women's participation is constrained by male gatekeeping, it will be necessary to engage men to see change. Hence, we expect that treating women alone will not result in an increase in women's turnout, nor will it affect men's supportive behavior.

> H1: Targeting women with a non-partisan canvassing campaign about women's political participation will not increase women's turnout or men's supportive behavior.

Our framework suggests that when male gatekeeping is a constraint, efforts to improve women's participation ought to target men within the household. With a short-term intervention, we would not expect men's attitudes or beliefs to change, but would be optimistic about men being encouraged to take enabling actions in support of women's participation.

> H2: Targeting men with a non-partisan canvassing campaign about women's political participation will increase women's turnout and men's supportive behavior.

Treating men and women in the same household may lead to additional gains that are not realized if only men or women are treated. This may happen through increased interactions around the issue of women voting. For example, women who receive a canvassing visit, and are aware that men in the household have also been canvassed, may feel more comfortable initiating conversations to elicit support for their participation. As such, we expect additive effects when both men and women in the household are treated.

> H3: Targeting both women and men with a non-partisan canvassing campaign will increase women's turnout and men's supportive behavior more than when men or women are targeted alone.

3 Context

Our study was conducted around the 2018 national elections in Pakistan's second largest city of Lahore, which had a population of 11.1 million in 2017. Pakistan is a federal parliamentary democracy, which has witnessed multiple cycles of authoritarian and democratic rule since independence in 1947. The 2018 elections represented the second consecutive transfer of

power from one elected civilian government to another in Pakistan's history. Adult women have had equal voting rights since independence but severe gender inequalities in electoral participation persist. Reducing gender gaps in voter registration and turnout was a priority for the government in the leadup to the 2018 elections.[2] Nevertheless, 11 million fewer women than men voted in the 2018 election, contributing to a 9.1 percentage point gender gap in national level turnout.

To understand the landscape of women's political participation in Lahore, we draw on existing studies and on our baseline survey conducted with men and women in 2500 study households in Lahore in June 2018 prior to the roll-out of the intervention.[3]

Table 2a presents baseline summary statistics on gender gaps in political resources, engagement and mobilization in our sample. Women in our sample are less likely to have completed secondary education, and report lower access to cell phones than men, which may be important for access to political information. We document gender gaps in levels of political knowledge as measured through a set of questions specific to the then-upcoming 2018 election. We also observe gaps in standard measures of political interest and efficacy, and find that women in our sample are less likely to have experienced political contact from parties and representatives in the past.

[Table 2a here]

How prevalent is male gatekeeping in our context? Existing empirical scholarship demonstrates how gendered norms constrain women's participation in economic and political spheres in Pakistan (Khan, 2007; Mumtaz and Shaheed, 1987; Naqvi, Shahnaz and Arif, 2002; Rouse, 2004; Shaheed, 2010). We assess how this manifests in our sample households by examining household decision-making, mobility, and attitudes towards women's political participation (Table 2b).

[Table 2b here]

We find that women are systematically less likely than men to report making independent decisions about household purchases, visits to family, and pursuing employment or higher education, indicative of limited decision-making autonomy across several domains. Freedom

[2]The Elections Act 2017 passed by parliament empowers the Election Commission of Pakistan to run public awareness campaigns for women voters (Section 12(C)); and take special measures to reduce the gender gap in voter registration (Section 47).

[3]In this section, we report findings from 4000 respondents across the 2000 households which were randomly assigned to answer political modules in the baseline survey. Details are provided in the Experimental Design and Data section and Appendix A.2).

Table 2a: Baseline Summary Statistics: Resources, Engagement and Mobilization

Variable	(1) Female Mean/SE	(2) Male Mean/SE	T-test Difference (1)-(2)
Resources:			
(Binary Measures =1 if respondent:)			
Completed matric or higher education	0.545	0.609	-0.064***
	(0.013)	(0.013)	
Has access to mobile phone	0.741	0.989	-0.248***
	(0.013)	(0.003)	
Political Knowledge:			
(Binary Measures =1 if respondent:)			
Knows MNA/MPA elections are held on same day	0.560	0.863	-0.303***
	(0.015)	(0.010)	
Knows whether ballot has candidate picture	0.743	0.784	-0.040**
	(0.012)	(0.013)	
Knows whether voter has to sign ballot paper	0.804	0.884	-0.080***
	(0.011)	(0.008)	
Knows about 2018 delimitation	0.231	0.400	-0.169***
	(0.014)	(0.015)	
Political Interest and Efficacy:			
(Continuous Measure 3 point scale)			
Interest in political issues	0.498	1.158	-0.660***
	(0.025)	(0.028)	
Considers self well-qualified to participate in politics	0.749	0.872	-0.124***
	(0.028)	(0.025)	
Considers self well-informed about voting process	1.457	1.658	-0.201***
	(0.022)	(0.018)	
Finds politics and government too complicated sometimes	1.503	1.498	0.005
	(0.021)	(0.022)	
Don't think government officials care much what people like me think	1.208	1.119	0.089**
	(0.027)	(0.029)	
Mobilization:			
(Binary Measures =1 if respondent:)			
Contacted by local representative in past year	0.027	0.098	-0.071***
	(0.004)	(0.009)	
Contacted before last election by party workers/NGO/ECP	0.261	0.430	-0.170***
	(0.014)	(0.018)	
N	1999	2001	
Clusters	500	500	

Notes: The value displayed for t-tests are the differences in the means across the groups. Standard errors are clustered at ward level. Block (Union Council) are included in all estimation regressions. All missing values in balance variables are replaced with the relevant group mean at the cluster level. ***, **, and * indicate significance at the 1, 5, and 10 percent critical level.

Table 2b: Baseline Summary Statistics: Male Gatekeeping

Variable	(1) Female Mean/SE	(2) Male Mean/SE	T-test Difference (1)-(2)
Decision-making Autonomy:			
(Binary Measures =1 if respondent:)			
Can decide alone on purchase of large household items	0.129	0.297	-0.168***
	(0.009)	(0.015)	
Can decide alone on visit to family or relatives	0.167	0.325	-0.158***
	(0.010)	(0.015)	
Can decide alone on taking a job/pursuing higher ed	0.308	0.554	-0.246***
	(0.014)	(0.016)	
Mobility:			
(Count measures)			
No. of times gone out within neighborhood alone in the past week	3.116	17.411	-14.296***
	(0.162)	(0.436)	
No. of times gone out outside neighborhood by alone in the past week	2.185	13.108	-10.923***
	(0.120)	(0.362)	
Attitudes towards Participation:			
(Binary Measures =1 if respondent thinks it is appropriate for women to:)			
Vote in elections	0.955	0.917	0.038***
	(0.005)	(0.008)	
Attend political meetings	0.362	0.281	0.081***
	(0.014)	(0.013)	
Stand as candidates in elections	0.610	0.345	0.264***
	(0.015)	(0.014)	
Expectations of Permission:			
(Binary Measures =1 if female respondent expects she will have permission to:)			
Vote in elections	0.930	.	.
	(.006)	.	
Attend political meetings	0.326	.	.
	(0.011)	.	
N	1999	2001	
Clusters	500	500	

Notes: The value displayed for t-tests are the differences in the means across the groups. Standard errors are clustered at ward level. Block (Union Council) are included in all estimation regressions. All missing values in balance variables are replaced with the relevant group mean at the cluster level. ***, **, and * indicate significance at the 1, 5, and 10 percent critical level.

of movement and mobility is highly gendered, as demonstrated by large differences in men and women's frequency of travel both within and outside their neighborhoods. Furthermore, Sajjad et al. (2017) document that 40% of women in Lahore feel unsafe walking in their own neighborhood. Although 92% of households in our sample own a motorbike, vehicle ownership data from Lahore shows that 99 percent of motorbikes and 89.5 percent of cars in the city were owned by men in 2019.[4] In ethnographic work, Masood (2018) documents how women in middle and upper class households in Lahore are also far less likely to own a car or learn to drive.

Attitudes towards women's political participation are not uniformly restrictive or permissive; they vary by the form of participation. While more than 90% of men and women agree that it is appropriate for women to vote, the perceived appropriateness of women participating in political meetings or standing for political office is far lower. Furthermore, there is substantial divergence between men and women's views on the appropriateness of these more intensive forms of participation. As described earlier, adult women report needing permission to leave their homes. However, while expectations of permission for voting are high, women are far more pessimistic about permission to attend political meetings.

On the one hand, the observed gaps in resources, engagement, and mobilization suggest the potential efficacy of interventions that directly mobilize women into participation by providing information and motivational messaging. However, we also document that male gatekeeping is ubiquitous. While men's attitudes towards women's voting are not restrictive, given the overall limitations on women's autonomy and movement, women may still depend on men to facilitate participation. This suggests that targeting men with messaging about the importance of women's participation may encourage them to play an enabling role, and is also unlikely to lead to backlash.

4 Canvassing Intervention

The intervention is a non-partisan, door-to-door voter canvassing campaign aimed at increasing women's turnout in Pakistan's 2018 national election. The campaign was conducted in July 2018 leading up to election day on July 25. It entailed a 20-minute visit by canvassers to a total of 1500 treatment households, and was implemented by two prominent local CSOs: Aurat Foundation and South Asia Partnership-Pakistan.

[4]Statistics obtained from the Government of Punjab's Excise and Taxation Department.

The intervention comprised two types of household canvassing visits: a visit targeted to women conducted by a female canvasser, or a visit targeted to men conducted by a male canvasser. A third of all treatment households received the first type of visit (T1 only), another third received the second type (T2 only), and the remaining third received both (T1+T2). The CSOs used male (female) canvassers to target men (women) due to norms of gender segregation in the Pakistani context that limit contact between women and men. Following these norms, and to avoid introducing confounders from a joint visit, households in the T1+T2 condition received two separate visits from female and male canvassers, who separately delivered the treatment to the women and men in the household respectively.

To minimize systematic differences in how male and female canvassers conduct the visit, all canvassers were trained together in joint sessions and the content of the intervention was scripted. The intervention design draws on previous campaigns conducted by the CSOs, and on observations from focus group discussions and interviews conducted by the authors in Lahore in early 2018.

The intervention worked as follows. Male (female) canvassers visited treatment households unannounced and requested to speak with all available adult men (women) in the household for a 20 minute conversation about women's political participation in the upcoming election. The conversation began with an introduction by the canvasser that emphasized their non-partisan affiliation. The canvasser then used a handheld tablet to show household members a 5-minute video. The video follows the narrative of a young woman facing issues of poor service delivery in her neighborhood, who decides that the way to have her voice heard on these issues is to cast her vote in the upcoming election. Importantly, her brother is shown in an enabling role: he encourages her to take action and also agrees to help women in his family get to the polling station on election day on his motorbike. After showing the video, the canvasser shared procedural and practical information about the election and voting process through informational leaflets, and demonstrated how to cast a ballot using props. Further details of each component are provided in Appendices A.4 and A.5.

The content delivered in the intervention bundles together motivational and informational messaging. While a class of GOTV studies is designed to test the effect of different messaging strategies on turnout, the goal of this study is to test the effect of different *targeting* strategies, without varying the content that is delivered.

Ethical Considerations

In this section we discuss key ethical issues and the design choices we made to minimize risk to participants while preserving the integrity of the research.

Participant consent is the cornerstone of ethical research. For this study, participants provided oral consent to survey data collection and to participation in a research study. Participants assigned to the treatment conditions separately consented to receiving the intervention (Appendix A.6 includes the information scripts used). However, participants were not informed of (and thus did not explicitly consent to) being randomly assigned to a treatment or control condition, or the link between the canvassing visit and the research study. These omissions were deemed necessary to avoid the possibility of participants' behavior and responses being driven by experimenter demand effects, which would threaten the validity of causal inference.

As Clayton and Anderson-Nilsson (2021) note, gender-related interventions pose specific ethical challenges, including the risk of backlash in the short term. However, they also note that this may be mitigated by taking "pre-existing household and community gendered power structures into account." We may expect a heightened risk of backlash or conflict if an intervention encourages women to participate in actions that are perceived as inappropriate. To understand prevailing social norms, we conducted focus group discussions with women and interviews with men in out-of-sample localities in Lahore during the design phase of our study in early 2018. We did not find evidence of explicit prohibition, disapproval or perceived inappropriateness of women voting. This was also echoed in our baseline survey data findings. Thus, we feel that the risk of backlash or increased intra-household conflict from a short-term intervention encouraging women to vote was low. Furthermore, to ensure that the intervention did not violate norms of social interaction between men and women, the CSOs used male canvassers to target men, and female canvassers to target women in treatment households.

In order to undertake research involving an electoral intervention with the requisite level of legitimacy, we worked with local CSOs who had conducted voter education campaigns in past elections as implementing partners. Furthermore, the intervention was approved by the Election Commission of Pakistan (ECP), the statutory body responsible for the conduct of elections in Pakistan. Since the ECP is a non-partisan body, the intervention too had to be non-partisan: canvassers were trained not to disclose personal partisan preferences and to introduce themselves as non-partisan. Officials from the ECP attended the canvassing

training and reviewed and signed off on intervention materials, and each canvasser was issued ECP affiliation letters that they carried in the field.

Another consideration for an electoral intervention is the potential for effects on the electoral outcome (Desposato, 2018). To address this, we ensured at the design stage that the intervention was "not done at a scale liable to alter electoral outcomes", in line with APSA 2020 guidelines for "minimal social risk". We describe this design process in Appendix A.6.

5 Experimental Design & Data

In this section we describe the study sample and timeline, the randomization scheme, and our sources of outcome data.

5.1 Sample and Timeline

The sample for this study consists of 2500 households randomly drawn from 500 wards in the city of Lahore. Within each sample household, enumerators conducted a baseline survey in June 2018 with a randomly selected man and a randomly selected woman for a total survey sample of 5000 individuals, and later recontacted sample households in an endline survey in October 2018. The surveys with men and women were conducted by male and female enumerators respectively. After the baseline survey, we assigned study households to one of four experimental conditions. The intervention was conducted in July 2018 ahead of the general election on July 25. We measured turnout using a thumb ink verification exercise on July 26-27. We provide details on the study timeline in Appendix A.1 and on the sampling strategy in Appendix A.2.

5.2 Random Assignment

We use a two-stage randomization design in which clusters (wards) are first assigned to a treatment status, and then a subset of households within a cluster are randomly assigned to receive treatment. The primary randomization unit is thus the ward, the lowest electoral unit of local government. We chose this as an appropriate unit due to its political significance: it is the lowest electoral constituency in local governments and parties and CSOs typically organize campaign activities at the ward level.

The experimental design is a 2x2 factorial producing four possible experimental conditions. These include (i) targeting women only, (ii) targeting men only, (iii) targeting both women and men in separate visits, and (iv) control. We assign each of the 500 clusters (wards) to one of these four conditions, blocking on the union council (the lowest administrative unit in which wards are nested).

Within each cluster, we randomly assign 4 out of 5 study households to treatment, and the remaining household to control. We use this "partial population design" (Baird et al., 2018) to account for the possibility of within-cluster spillovers among households in the same cluster.[5] Table 3 shows the factorial design, with sample sizes at the ward and household level.

[Table 3 here]

Table 3: Randomization Scheme

	Women not Canvassed	**Women Canvassed**
Men not Canvassed	CONTROL Wards = 125 Treated HHs = 0 Untreated HHs = 625	T1 Wards = 125 Treated Households = 500 Untreated HHs = 125
Men Canvassed	T2 Wards = 125 Treated Households = 500 Untreated HHs = 125	T1 + T2 Wards = 125 Treated Households = 500 Untreated HHs = 125

Our experimental design is powered to detect a minimum effect of a 0.067 difference in proportions for main effects of each of the two treatment arms, and a 0.09 difference in proportions for comparisons of any one treatment condition to control.[6]. Details of the power calculations are in Appendix A.3.

Table 4 shows that randomization achieved balance on key variables. We report the means and standard errors for ten variables (measured at baseline) in each experimental condition. We also report the p-values from t-tests of difference in means between the control and

[5]This design decision was informed by Giné and Mansuri (2018)'s documentation of large geographical spillovers within clusters in their study of an informational canvassing campaign targeted to women in rural Sindh, Pakistan.

[6]We believe these MDEs are reasonable given the size of effects found in field experiments studying the effect of similar non-partisan canvassing campaigns. In a field experiment studying the effects of a non-partisan informational campaign conducted during the 2008 Pakistan general elections, Giné and Mansuri (2018) document an 11 percentage point increase in women's turnout.

each of the three treatment conditions, and F-statistics from tests of joint significance. We observe imbalance at the 10% level on 2 out of 30 tests, and at the 1% level on 1 test, which is roughly what would be expected by chance. We report results on our main outcome of turnout that adjust for a set of household level controls including these variables.

Table 4: Statistical Balance between Treatment and Control Groups

Variable	(1) Control Mean/SE	(2) T1 Mean/SE	(3) T2 Mean/SE	(4) T1+T2 Mean/SE	T-test P-value (1)-(2)	(1)-(3)	(1)-(4)
Age(Yrs)	40.042	39.577	40.698	39.597	0.158	0.283	0.157
	(0.461)	(0.455)	(0.423)	(0.457)			
Adult Men	2.630	2.717	2.598	2.925	0.636	0.921	0.006***
	(0.074)	(0.152)	(0.077)	(0.130)			
Adult Women	2.269	2.296	2.176	2.373	0.770	0.087*	0.214
	(0.064)	(0.082)	(0.063)	(0.096)			
Married	0.782	0.765	0.766	0.783	0.279	0.337	0.984
	(0.013)	(0.015)	(0.014)	(0.014)			
Employed	0.366	0.361	0.374	0.365	0.346	0.628	0.852
	(0.014)	(0.015)	(0.014)	(0.014)			
Has Cellphone	0.800	0.810	0.793	0.810	0.519	0.138	0.601
	(0.015)	(0.014)	(0.014)	(0.015)			
Has CNIC	0.986	0.987	0.987	0.990	0.833	0.641	0.220
	(0.004)	(0.003)	(0.003)	(0.003)			
Voted(2013)	0.664	0.664	0.636	0.633	0.985	0.062*	0.161
	(0.014)	(0.015)	(0.014)	(0.015)			
Likely to Vote	0.831	0.817	0.830	0.840	0.627	0.848	0.451
	(0.012)	(0.011)	(0.011)	(0.013)			
PML-N Supporter	0.569	0.589	0.557	0.579	0.486	0.413	0.737
	(0.016)	(0.015)	(0.017)	(0.016)			
N	1250	1250	1250	1250			
Clusters	125	125	125	125			
F-test of joint significance (F-stat)					0.510	1.453	1.497
F-test, number of observations					2500	2500	2500

Notes: The value displayed for t-tests are p-values. The value displayed for F-tests are the F-statistics. Standard errors are clustered at variable ward. Fixed effects using variable uc_no are included in all estimation regressions. All missing values in balance variables are treated as zero.***, **, and * indicate significance at the 1, 5, and 10 percent critical level.

[Table 4 here]

We account for the possibility that the baseline survey, which asks questions about past political participation, political preferences and attitudes, and the upcoming elections, could have served as a treatment in and of itself by raising the salience of the election. This may be of particular concern if women are systematically less likely to discuss politics (as our

baseline data shows). To account for this, at the baseline stage, we randomized 20% of our sample into receiving a 'no-politics' survey which only collects demographic information. This allows us to assess the causal effect of answering political questions in a survey on turnout.

5.3 Outcome Data

We draw on three sources of outcome data. First, we measure turnout using a thumb ink verification exercise conducted on July 26-27, 2018, starting the morning after election day. Second, we measure men's willingness to express support for women's role in democracy using a costly behavioral measure embedded in an endline survey conducted in October 2018. In the same endline survey, we measure self-reported outcomes related to political attitudes, knowledge and behaviors.

5.3.1 Turnout

Most GOTV studies conducted in the United States rely on publicly accessible voter records to verify turnout. Such administrative records are not available in our context. We measure turnout by leveraging an aspect of the electoral process: the marking of voters' thumbs with indelible ink by polling officers.[7] Measuring turnout by directly observing indelible ink on voters' thumbs requires considerable effort, not least because the ink is clearly visible in the first 2-3 days after being applied but begins to fade quickly after that. This is especially true for women who are responsible for washing clothes and dishes. We conducted a turnout verification exercise in which a team of 50 enumerators visited all 2500 study households in the 2 days immediately following the election, and visually verified turnout among household members by observing the indelible ink marks on voters' thumbs

Enumerators attempted to verify the turnout of both men and women in study households. However, since the verification exercise had to be conducted over only 2 days in order to reach study participants across 2500 households before ink marks faded, only 1 verification visit per household was possible. Since women's turnout is our primary outcome of interest, enumerators visited households during daytime when women were most likely to be available to speak to enumerators. This differed from the process of contacting households for the baseline and endline surveys, where the time constraint for completion was less strict and

[7] For a detailed discussion of the practice, see Ferree et al. (2018).

enumerators could make up to 3 visits, and could time visits to accommodate men and women's different schedules. Since men in our sample are more likely to be employed, far fewer men per household could be reached to verify turnout as compared to women. We therefore focus on women's turnout as our main outcome.

We define our primary outcome measure as the number of women in each household who voted (as verified by thumb ink marks) as a proportion of the total number of women in the household who have an identity card, and are therefore eligible to vote. We are able to verify women's turnout in 86% of our sample households. With this measure, we overcome the challenge of measuring turnout reliably using self-reported measures of voting, which are notoriously prone to over-reporting (Adida et al., 2019; Dahlgaard et al., 2019). Although researchers have explored methods to decrease over-reporting in a survey (e.g. Morin-Chassé et al. (2017)), in our case the intervention itself could affect individuals' desire to report that they voted, making self-reported measures particularly unreliable.

5.3.2 Men's Lasting Support for Women's Participation

We use a behavioral measure to ascertain whether the intervention increased men's willingness to support women's political participation. At the end of our endline survey in October 2018, in which we were able to recontact 97% of the original study households, enumerators asked male respondents whether they would like to place a sticker on the entry-way to their residence. Half of the male respondents in each treatment condition were randomly assigned to being offered a sticker with a message of generic support for democracy, while the other half were randomized to being offered a sticker with a message of support for women's role in democracy. The Urdu text on the generic support sticker translates to "Strong Democracy, Strong Pakistan", printed twice on the sticker. The women's support sticker includes the above message once, with the second iteration replaced by "Democracy is incomplete without the inclusion of women." Images of the stickers are reproduced in Appendix B.1. Assignment to sticker type was cross-randomized across treatment groups as shown in Figure 1. If the respondent accepted the sticker, the enumerator placed it on the entry-way to the respondent's residence immediately.

[Figure 1 here]

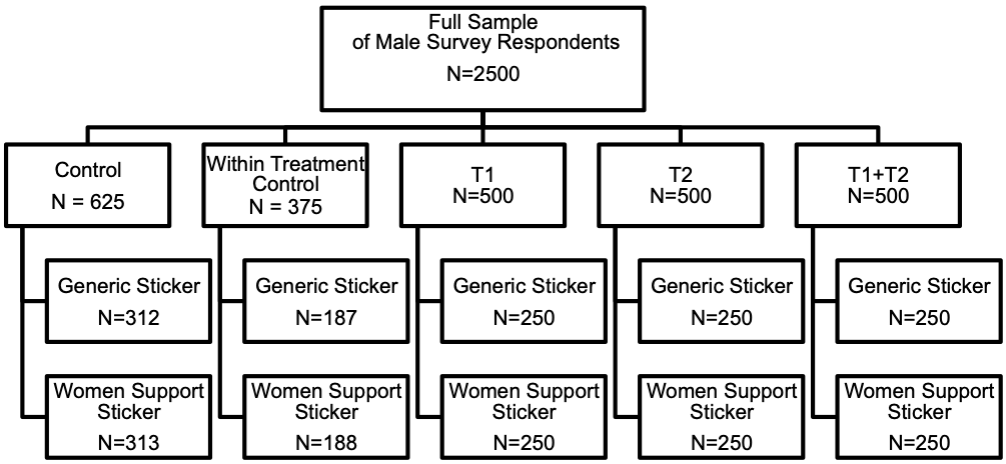
Since urban Lahore is extremely dense[8] and residence entry-ways open directly on to streets,

[8] Lahore's overall population density was 16,000 per square mile in 2017, and higher in our sampled areas which exclude low density semi-rural and elite neighborhoods

a sticker posted on an entry-way is visible to many pedestrians including neighbors. Furthermore, stickers placed on entry-ways, similar to lawn-signs in the United States context, are a common way to indicate support of parties or candidates. We therefore interpret a respondent's decision to accept a sticker as a costly measure of their willingness to express support.

Randomizing the choice of sticker offered allows us to isolate men's endorsement of the sticker message as the reason behind any differences in take-up of the two stickers in a relatively unobtrusive way. Differences in the relative take-up of the stickers between the control and treatment conditions can be interpreted as the causal effect of treatment on men's willingness to publicly express support for women's role in democracy. In using an experimental outcome measure, we follow a tradition within experimental economics and political science of using randomized choices (including recently Bursztyn et al. (2020)), when offering a full set of options would confound interpretation.

Figure 1: Randomization Scheme for Behavioral Outcome Measure



5.3.3 Self-Reported Survey Data

We collect endline data from our 2500 study households to measure effects on self-reported attitudes and behavior. We conducted this survey in October 2018 and were able to reach 97% of the original study households from baseline. We use this endline survey to investigate whether the intervention had lasting effects on knowledge, attitudes and self-reported

behavior relevant to political participation. We thematically group survey questions into six indices: (i) political knowledge, (ii) interest in politics, (iii) self-efficacy, (iv) attitudes towards men imposing restrictions on women's voting, (v) election day help from men, and (vi) political discussion between household members. Appendix B.2 includes the text of the survey questions used to construct these indices.

6 Results

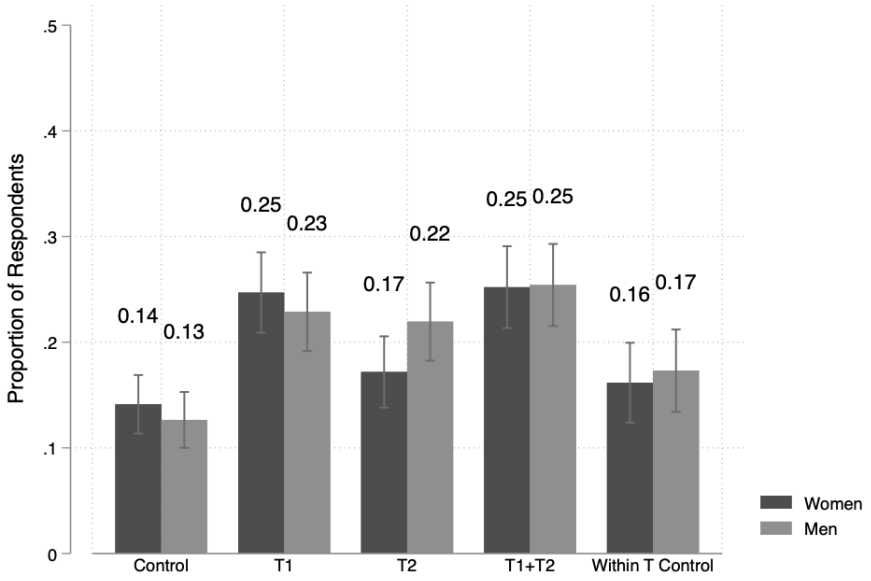
6.1 Compliance and Recall

We measure compliance with treatment using information recorded by canvassers in a checklist for each treatment household. A household is considered a complier if the canvasser could successfully deliver the intervention within 3 attempts. If the canvasser was unable to deliver the intervention after the 3rd attempt at contact, we consider the household to be a non-complier. Households assigned to T1+T2 (2 separate visits targeted at women and men respectively), are considered compliers if both visits could be successfully conducted within 3 attempts. Compliance rates are 96.6% in T1 only, 96.4% in T2 only, and 94.8% in T1+T2. The rate is slightly lower in T1+T2 due to the higher bar for compliance (completion of 2 successful visits targeted to women and men respectively). As a manipulation check, in the endline survey we ask study participants whether they recall the canvassing visit. Recall of the canvassing visit is overall low (at most 25% among respondents from targeted households), but it is significantly higher in all treatment conditions relative to control (Figure 2). Low recall may be due to the two month gap between the intervention and the endline survey, or because the intervention happened during a time of general high volume of campaign activities in the lead-up to the election. 13-14% of respondents in the control condition recall receiving a visit, which may be due to exposure to informational campaigns being conducted by the Pakistan Election Commission during this period.

[Figure 2 here]

We also find that men in households assigned to receive a visit targeted only to women (T1 only) are as likely as the targeted women to recall the visit. However, women in households assigned to receive a visit targeted only to men (T2 only) are no more likely than women in the control group to recall the visit. This gender disparity in recall is consistent with canvassers' field experiences: male canvassers reported that they would often speak with men outside the home and were not invited inside; conversely female canvassers were usually

Figure 2: Visit Recall, by Treatment Group and Respondent Gender



Bars depict the proportion of respondents who answered yes to the question: "Did representatives from Aurat Foundation, SAP-PK or ECP visit your household in the days leading up to the election?" Error bars represent the 95% confidence interval.

invited inside the home to speak with women. This explains why women who may have been inside the home may not recall visits by male canvassers in the T2 condition. It also speaks more broadly to the gendered challenges associated with voter mobilization in Pakistan, and the need to use female canvassers to interact directly with women in this study.

6.2 Women's Turnout

Does the intervention achieve its intended goal of increasing women's participation as voters in the 2018 election? We test this by estimating the household level intent-to-treat (ITT) effect of being randomly assigned to receive each type of canvassing visit: targeted only to women (T1 only), targeted only to men (T2 only), or both visits (T1+T2) on the proportion of women who turnout to vote in each household. Additionally, leveraging our fully factorial design, we measure the overall effects of canvassing visits targeted to women (T1) or men (T2), and the interactive effect of these factors.

6.2.1 Effects of Canvassing Only Women, Only Men, and Both

In Table 5 Column 1, we estimate the ITT effect of canvassing visits targeted to just women, just men, and both men and women by comparing households in each treatment category to households in the control condition.

$$Y_i = \beta_1 T1Only_i + \beta_2 T2Only_i + \beta_3 (T1 + T2)_i + \beta_4 Within_i + \delta_i + \gamma_s \tag{1}$$

where $T1Only_i$, $T2Only_i$ and $(T1+T2)_i$ are indicators for whether the household i received only a canvassing visit targeted to women, only a visit targeted to men, or both types of visits. $Within_i$ is an indicator for whether household i was a control household within a treatment cluster, δ_i controls for cross-randomized individual level treatments,[9] and γ_s are block (union council) fixed effects. Y_i denotes the proportion of women who turn out at the household level, measured by verified thumb ink impressions as described in the previous section. Standard errors are clustered at the ward level, which is the level of randomization.

6.2.2 Effect of Canvassing Women or Men

In Table 5 Columns 2 and 3, we estimate the ITT effect of canvassing visits targeted to women or men respectively by pooling together households that were assigned to receive a canvassing visit targeted to women (men) only or men and women both, and comparing them to the households in the control condition or households assigned to receive a canvassing visit targeted only to men (women).

$$Y_i = \beta_1 Treatment_i + \beta_2 Within_i + \delta_i + \gamma_s \tag{2}$$

where $Treatment_i$ is an indicator for whether the household i received a canvassing visit targeted to women (men).

6.2.3 Interaction Effect

In Table 5 Column 4, we estimate the ITT interaction effect of the two factors in our design using the following specification:

[9] These treatments, which focus on common knowledge and privacy, are not the subject of this paper.

$$Y_i = \beta_1 T1_i + \beta_2 T2_i + \beta_3 (T1 * T2)_i + \beta_4 Within_i + \delta_i + \gamma_s \quad (3)$$

where $(T1 * T2)_i$ is an indicator for the interaction between $T1$ and $T2$.

[Table 5 here]

Table 5: Results: Women's Turnout (ITT)

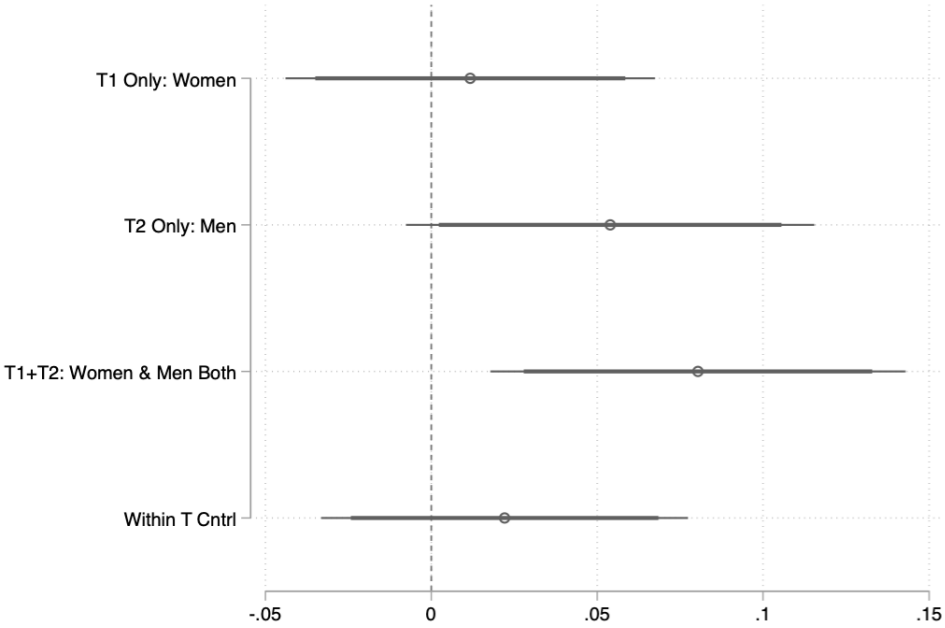
	Women's Turnout – Unadjusted			
	(1) **HH Proportion**	(2) **HH Proportion**	(3) **HH Proportion**	(4) **HH Proportion**
T1 Only:Women Canvassed	0.012			
	(0.028)			
T2 Only:Men Canvassed	0.054*			
	(0.031)			
T1+T2: Women and Men Both	0.080**			
	(0.032)			
T1: Women Canvassed		0.018		0.012
		(0.020)		(0.028)
T2: Men Canvassed			0.061**	0.054*
			(0.024)	(0.031)
T1*T2				0.015
				(0.039)
Within T Control	0.022	0.009	0.018	0.022
	(0.028)	(0.026)	(0.026)	(0.028)
Constant	0.562***	0.575***	0.567***	0.562***
	(0.017)	(0.014)	(0.014)	(0.017)
R-Squared	0.153	0.150	0.153	0.153
# Observations	2149	2149	2149	2149
P-Value: T1only=T2only	0.174			
P-Value: T1only=T1+T2	0.029			
P-Value: T2only=T1+T2	0.332			

Notes: All specifications show results using OLS estimation, include block (Union Council) fixed effects and control for individual level randomizations. Standard errors in parentheses are clustered at the ward level. The outcome variable is women's turnout at the household level calculated as the number of women who voted (as verified by thumb ink marks) as a proportion of women who have an identity card and are therefore eligible to vote. This table shows unadjusted results. Results from models that include a set of household level baseline controls are reported in Appendix D.1. *p<0.10, ** p<0.05, *** p<0.01

Testing the effects of the three treatment types separately using specification 1 (Column 1, Table 5 and Figure 3), we find no evidence of effects on women's turnout in households where only women were canvassed (T1 only). We find that canvassing only men (T2 only) and canvassing both men and women (T1+T2) increases women's turnout. In households where just men were targeted with a canvassing visit, the proportion of women turning out increases by 5.4 percentage points (significant at the 10% level). In households that receive two canvassing visits—one targeted at women (T1) and one at men (T2)—the proportion of women turning out increases by 8.0 percentage points (significant at the 5% level). The overall effect of canvassing women on women's turnout is insignificant (Column 2); however the overall effect of canvassing men has a positive effect on women's turnout, increasing the proportion of women turning out by 6.1 percentage points (significant at the 5% level) as shown in Column 3, Table 5.

The interaction term in Column 4 is positive but insignificant. This is because while the

Figure 3: Women's Turnout at the Household Level, ITT by Treatment Category



OLS coefficients from Table 4, Panel A, Column 4. Thin error bars represent the 90% confidence interval around the estimate; thick error bars represent the 95% confidence interval around the estimate

additional positive effect of canvassing men beyond canvassing women (T1+T2 vs. T1) is significant at the 5% level (p-value=0.03), the additional effect of canvassing women beyond canvassing men (T1+T2 vs. T2) is not significant (p-value=0.33).

Across specifications, we do not observe any effects on individuals in control households within treatment wards, suggesting that there are no discernible spillover effects of the treatments on nearby households. We also test whether these spillovers differ for within-treatment control households in each of the three treatment conditions and do not find evidence of such differences (Appendix D.3).

Taken together, the results suggest that targeting women with a canvassing campaign is insufficient to increase women's turnout. On the other hand, we find strong evidence that canvassing men is necessary to improve the turnout of women in their households, in line with our expectations for affecting change in situations where male gatekeeping is a constraint. Although we see the largest positive effects on women's turnout in the condition where *both* men and women are targeted with the intervention, we cannot reject the equivalence of T2 only (canvassing just men) and T1 + T2 (canvassing both men and women) from our data.

6.3 Robustness and Additional Analysis

Since we could not reach some of our original study households in the turnout verification exercise, we address possible threats to inference from attrition. Regressing an indicator for attrition on indicators for the three treatment conditions, and testing for the difference of coefficients in this model, we find no evidence of differential attrition between treatment and control, or between different treatment conditions (Appendix Table D.6). Nevertheless, we estimate Lee trimming bounds on the treatment effects in Appendix Table D.7 (Lee, 2009). The upper and lower bounds of the treatment effects for T2 and T1+T2 are minimally different in magnitude, and remain statistically significant in both cases.[10] Thus, we conclude that it is unlikely that our main results are biased by attrition.

In addition to the ITT effects on women's turnout, we also estimate the complier average causal effects (CACE) (Appendix D.4). As expected, with high rates of compliance, there is no substantive difference in the size or significance of coefficients.

We also account for the possibility that discussing politics in the baseline survey could have served as a treatment in and of itself. We estimate our preferred specification including an indicator for whether a respondent was randomly assigned to answer a version of the baseline survey that included political content. We do not find any evidence that answering questions about politics at baseline affects women's turnout (Appendix D.6).

We address the possibility that the effects of canvassing both men and women could be driven by the fact that a larger *number* of household members are canvassed in this treatment condition (Appendix D.7). We test for heterogeneity in each treatment category by the level of treatment 'dosage' (measured as the number of individuals canvassed according to canvasser checklists). We find no effects of treating additional household members on turnout, within any of the treatment arms. This suggests that the effects of the T1+T2 treatment are not driven by the larger number of individuals canvassed in this condition.

6.4 Men's Lasting Support for Women's Participation

Does the intervention make men more willing to take actions in support of women's participation two months after the election? Our theory of male gatekeeping suggests that men's support is a key outcome of interest. We use a behavioral measure of such support by assess-

[10] Note that these bounds rely on an assumption of monotoncity. While this is hard to test for, we prefer Lee bounds to the assumption free alternative of Manski bounds which would be too wide to be informative.

ing the willingness of men in each experimental condition to accept a sticker with a message supporting women's role in democracy (relative to a generic sticker supporting democracy).

In order to estimate the effect of treatment on men's expression of support, we use a set of difference-in-difference estimates comparing the relative take-up of the two stickers in each of the three experimental conditions to the relative take-up in the control condition. Table 6 shows the difference in take-up between the two stickers within each treatment condition (columns 1-2), and the difference in this difference between each of the treatment conditions and control (columns 3-4).

[Table 6 here]

Table 6: Results: Men's Support for Women's Role in Democracy

	(1) **Difference in take-up (S.E)**	(2) **p-value**	(3) **Difference-in-difference (S.E)**	(4) **p-value**
Control	-0.041	0.024		
	(0.018)			
T1 Only: Women Canvassed	-0.048	0.024	-0.007	0.799
	(0.021)		(0.028)	
T2 Only: Men Canvassed	-0.022	0.299	0.019	0.507
	(0.021)		(0.029)	
T1 + T2: Women and Men Both	0.021	0.215	0.062	0.012
	(0.017)		(0.025)	

Notes: This table shows the effects of the three treatment arms on the relative take-up of the two stickers by men. shows the point estimate of difference in take-up between the two stickers for each treatment group, with negative values that the take-up of the sticker supporting women's role in democracy (WS) was lower than the that of the generic sticke standard errors for this difference are shown in parentheses below. Column 2 shows p-values on the difference in take-up stickers within each group. Column 3 shows the point estimate of the difference in this difference between each of the groups and the control group. Robust standard errors for this difference-in-difference estimate clustered at the ward level in parentheses below. Finally, column 4 shows p-values for the difference-in-difference estimates.

We find that men in the control condition are 4.1 percentage points less likely to accept the sticker with a message of support for women's role in democracy, compared to the generic sticker. Men in T1 only are 4.8 percentage points less likely to accept the women's support sticker. This preference for the generic sticker in both control and T1 only is significant at the 5% level. As shown in Table 6 Column 3, the difference in the relative take-up is not significantly different between the control condition and T1, or between the control condition and T2. Men in the T1+T2 condition, on the other hand, are 2.1 percentage points more likely to accept the women's support sticker. The difference in relative take-up of the two stickers between T1+T2 and control is 6.2 percentage points with a p-value of 0.012 (Table 6 Column 3).

Thus, there is strong evidence that canvassing *both men and women* had a lasting positive

effect on men's willingness to take supportive action, an effect not seen when only men or only women are canvassed. Moreover, unlike results on turnout where the effects of canvassing both men and women are indistinguishable from canvassing just men, Appendix D.8 shows that the effect of T1+T2 on men's supportive behavior is significantly higher than the effect of T1 at the 1% level and T2 at the 10% level. We interpret this as suggestive evidence of additive effects of canvassing both men and women.

6.5 Political Knowledge, Attitudes and Behaviors

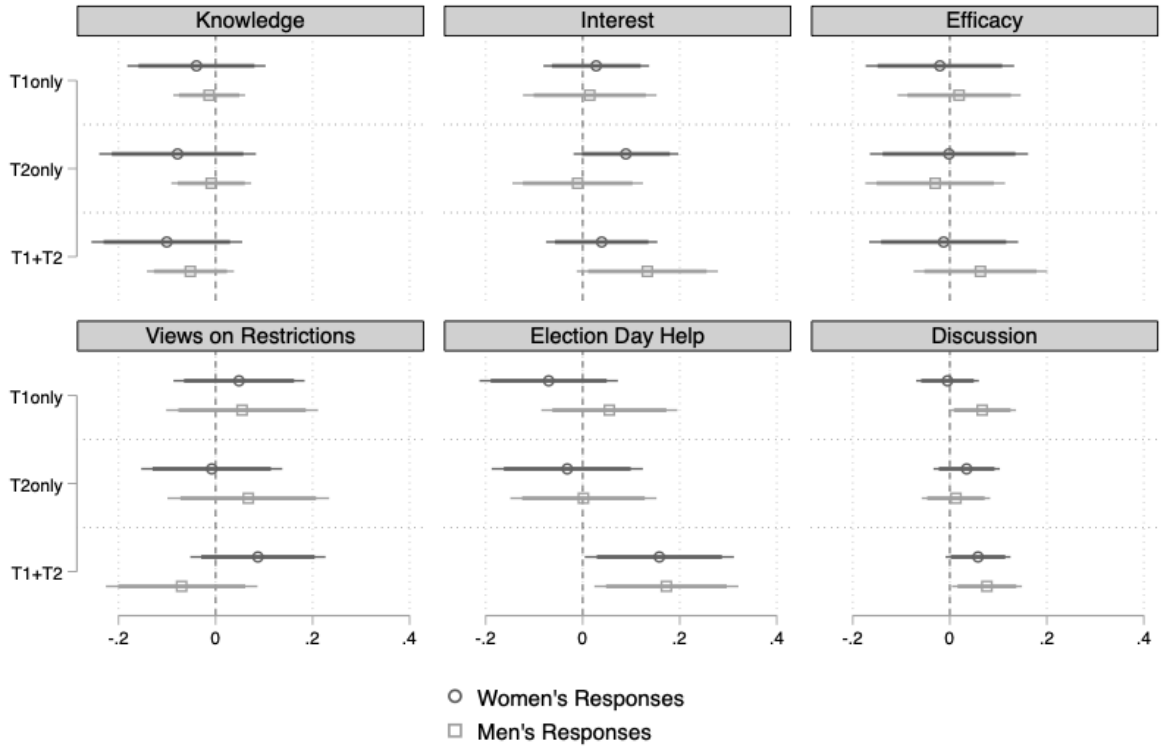
We use questions asked during an endline survey to investigate whether the canvassing intervention impacted index measures of (i) political knowledge, (ii) interest in politics, (iii) self-efficacy, (iv) attitudes towards men imposing restrictions on women's voting, (v) election day help from men, and (vi) political discussion between household members. The results are shown in Figure 4. Appendix C.1 shows the corresponding regression table, and Appendix C.3 shows results on the individual components of index-based measures.

[Figure 4 here]

We find no evidence that canvassing—regardless of whether it is targeted at women, men or both—has an effect on political knowledge, stated level of interest in politics, or sense of self-efficacy. We also do not find any effects on attitudes about the appropriateness of men restricting women's ability to vote under a set of different conditions. This is in line with our expectations that achieving attitudinal change on gender attitudes and norms in the short-term is difficult.

However, we do find effects of the canvassing treatment, when targeted to both men and women, on two types of self-reported behaviors. First, in households where the canvassing was targeted to both men and women, women are more likely to report that men provided help to them in voting on election day. The index measure of such help includes sharing household chores, organizing transport to the polling station, and waiting for women at the polling station. This is corroborated by men's responses: male respondents in these households are more likely to say that they personally took these actions. Second, women (men) in these households are about 6 (8) percentage points more likely to report that they discussed politics with other men (women) in their household. This indicates that there is more political discussion between men and women in households where both were canvassed. We do not see these effects in households where only women or only men were canvassed,

Figure 4: Knowledge, Attitudes, and Behavior, ITT by Respondent Gender and Treatment Category



Estimates are coefficients from OLS models which include block (Union Council) fixed effects and indicators for within treatment controls, and control for individual level randomizations. Thin and thick error bars represent the 90% and 95% confidence interval around the estimate respectively.

adding to the evidence that canvassing both women and men has additive effects.[11]

To account for multiple comparisons, we run our analysis pooling male and female respondents in the sample, and report adjusted test statistics using the Bonferroni correction, the Benjamini-Hochberg procedure, and sharpened False Discovery Rate (FDR) q-values (Anderson, 2008). These results are reported in Appendix C.2. We find that the results on men's help on election day remain significant at the 10% level under all three approaches; results on political discussion remain significant at the 10% level under the Benjamini-Hochberg correction procedure and the sharpened FDR q-value approach.[12]

[11] In unadjusted analysis (Figure 4), we also observe a significant increase in self-reported levels of political interest among men in households where canvassing was targeted to both men and women. However this effect is not robust to multiple comparisons corrections.

[12] The Bonferroni correction assumes that all tests are independent of each other (Coppock, 2015). This is especially conservative in our case since all outcomes are related to political participation.

6.6 Autonomous Participation

A strategy that relies on canvassing men may have pernicious implications for women's participation if it leads men to coerce women into voting a particular way. Do the improvements achieved in women's turnout through this intervention come at the cost of women's autonomy, defined as "the extent to which women exert control over their own lives" (Jejeebhoy and Sathar, 2001)? We answer this question focusing on women's control over the voting decision.

Autonomy is challenging to measure; many empirical studies measure either its "proxies" or enabling conditions (Agarwala and Lynch, 2006; Seymour and Peterman, 2018). We draw on the relative autonomy index (RAI) developed by psychologists (Ryan and Deci, 2000), which assesses "to what extent the motivation behind actions is driven by an individual's own goals, or externally regulated through internalized social pressure or coercion" (Donald et al., 2020). The measure has been adopted in international development research and validated in various cultural contexts(Gram et al., 2017; Vaz, Pratley and Alkire, 2016). An adaptation involves presenting respondents with vignettes corresponding to different motivations for a particular action. We adapt these vignettes to voting as follows, and ask respondents which vignette they most closely identify with:[13]

1. **Coercion:** Asma supports a candidate because her spouse, or another person or group in her community, tell her this is the person to support. She does what they tell her and doesn't feel can do differently.

2. **Social Pressure:** Salma supports the candidate most people in her family or community expect. No one tells her what to do but she knows who others support and supports that person. She wants them to approve of her making the right decision.

3. **Autonomy:** Zakia supports the candidate she personally likes and thinks is going to perform well. If she changes her mind, she could support someone else.

Using a multinomial logit model regressing women's choice of vignette on treatment conditions, with "Autonomy" as the base choice, we do not find evidence of significant changes in women's self-identification with other vignettes under any treatment condition (Table 7). The consistent direction away from identification with the "Autonomy" vignette under

[13]We use culturally common female names with the goal to "increase the likelihood that respondents think of the vignette as describing someone like themselves" (King and Wand, 2007). The order in which the hypothetical profiles are presented is randomized across respondents to avoid order-induced response bias.

T1 does however raise the possibility that encouraging women to participate in an action without changing the enabling environment could heighten their sense of lacking autonomy.

[Table 7 here]

Table 7: Results: Autonomy Vignettes, ITT Survey Measure Among Women Respondents

	(1) Vignette Type (Base=Autonomous)
Coercion	
T1only	0.313
	(0.212)
T2only	0.211
	(0.228)
T1+T2	0.033
	(0.222)
Within T Control	0.083
	(0.195)
Social Pressure	
T1only	0.132
	(0.220)
T2only	-0.079
	(0.242)
T1+T2	0.082
	(0.241)
Within T Control	0.074
	(0.206)
Pseudo R-Squared	0.002
# Observations	2298
Log Likelihood	-2213

Notes: Results from multinomial logit specification. Standard errors in parentheses are clustered at the ward level. Coefficients can be interpreted as the change in multinomial log-odds of choosing a vignette relative to the base choice (Autonomy Vignette) .* p<0.10, ** p<0.05, *** p<0.01

7 Discussion

In patriarchal settings, gender gaps in political participation are often under-girded by deep intra-household inequalities that make women's participation contingent on male household members' attitudes and behavior. Our findings demonstrate the potential for short-term change in contexts of "classic patriarchy", without having to fundamentally alter the status quo of gender relations.

We expect our findings to generalize to contexts where women's ability to independently make and act on decisions about their economic, social and political participation is limited, and subject to gatekeeping by men in their households. Pakistan is one of several developing

countries where adult women continue to require *de facto* permissions from male household members to take up jobs, vote, engage in public action, and continue with education, and face restrictions on freedom of movement (Hanmer and Klugman, 2016; Jayachandran, 2015). Thus, the evidence of gains from a short term intervention is promising, and suggests optimism for broader applicability to other settings where gender gaps in participation persist alongside patriarchal norms.

Relevant scope conditions to consider are the form of participation and the nature of male gatekeeping. We expect short term interventions to be effective for public actions not deemed inappropriate for women, but which nevertheless register gender gaps in participation. These may include voting in similar contexts, but also certain types of labour force participation, participation in neighbourhood associations, and maybe even secondary and higher education.

We would be cautious however about the potential for short term interventions to change women's participation in actions prohibited or restricted under prevailing social norms, for instance standing for office. Here, longer term engagement to shift attitudes would be necessary. A caveat is that individuals may overestimate just how restrictive attitudes and norms towards women's participation truly are. Gulzar, Khan and Sonnet (2020) demonstrate that this is the case for beliefs around women's participation in the Khyber Pakhtunkhwa province of Pakistan. Such cases provide a window of opportunity: short informational interventions to correct misperceptions can be effective in achieving change. For instance, Bursztyn, González and Yanagizawa-Drott (2020) find positive effects of an informational intervention correcting men's beliefs about other men's actual levels of support for women's labor force participation in Saudi Arabia.

How do our findings comport with existing literature? First, we believe our theoretical framework provides a useful way to understand the null and negative findings of interventions in other developing countries targeted primarily at women to improve their political participation (Gottlieb, 2016; Ichino and Nathan, 2018). However, Giné and Mansuri (2018) document positive effects of targeting women with an informational campaign in the 2008 election in Pakistan. Importantly, their study setting is rural Sindh, rather than an urban metropolis. This is a key difference, with implications for the extent to which women depend on men to enable participation. Various scholars have documented that women in rural areas of Pakistan enjoy relative freedom of movement within their villages, and that their mobility is constrained when crossing village boundaries (Cheema et al., 2020; Gazdar, 2003; Jacoby and Mansuri, 2015; Mumtaz and Salway, 2009). As polling stations in the Giné and

Mansuri (2018) study tend to be located within village boundaries, women may be less likely depend on men to enable participation through sharing transport and accompaniment than the women in our urban setting.[14] Moreover, women in the Giné and Mansuri (2018) study had especially low resources—only 18% of women in their sample have any formal schooling (compared to 54% of women who have completed secondary schooling in our sample). This raises an important question for future research: might purely resource-based interventions targeted at women be effective when baseline levels of resources are especially low?

How does our intervention speak to the existing landscape of political mobilization in Pakistan and similar contexts? Political parties already tend to target male heads of households under an equilibrium of family-centered clientelism (Prillaman, 2017). Moreover, they are limited in their ability to directly target women due to a largely male pool of party brokers (Goyal, 2019; Liaqat, 2019). If, as we demonstrate, canvassing men works to improve women's turnout, why do gender gaps persist? A possible reason is that partisan messaging does not focus on women's participation regardless of its target. This differs from the messaging in our intervention which explicitly centers on the importance of women's participation, and encourages men to support it. Whether more gender- inclusive partisan messaging can improve women's turnout is a fruitful question for future inquiry.

Finally, our study shows how to achieve change in the short term within a status quo that designates men as gatekeepers. However, as Moeller (2019) writes: "we also need interventions to transform the patriarchal relations between men and women that enable these statistics to be true." We agree, and would add that the findings of our study may be interpreted as a call for transformative change to the fundamentally unequal status-quo that makes women's participation conditional on male gatekeepers in the first place.

[14]This is generally true for the location of polling stations in rural Pakistan: "electoral areas" in rural contexts are defined as villages or census blocks according to the 2017 Election Act of Pakistan

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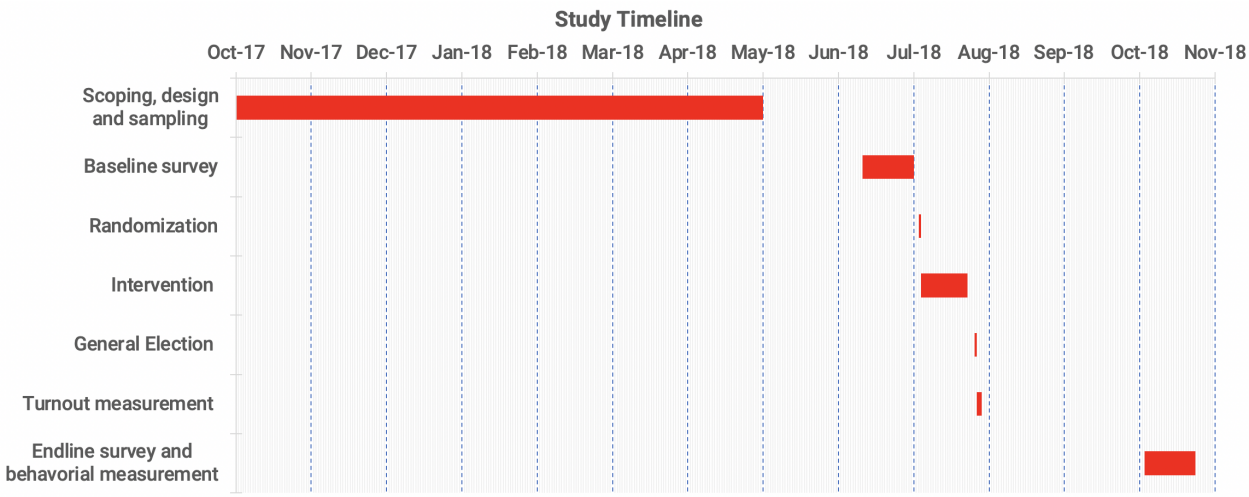
Appendix

A Study Design and Implementation

A.1 Study Timeline



A.2 Sampling Strategy

Our sample of study households is drawn from 94 geographically contiguous Union Councils (local administrative unit) in the northern part of the city of Lahore. Each Union Council has 6 wards within it. The ward is the lowest administrative and political unit and serves as the unit of randomization. To draw a sample of 500 wards, we include all 6 wards from a random subset of 30 Union Councils, and then randomly select 5 out of 6 wards for inclusion in the study from the remaining 64 Union Councils. To obtain the sample of 2,500 households, we select 5 households in each of the 500 sample wards.

To sample households within a ward, we drop a location pin at a random point within each ward. Two enumerators (one woman and one man) proceed to the pin location, and select the nearest household to the right for the first survey. After completing the first survey, they select four other households in the ward using the right hand rule which involves selecting the 7th household to the right of the last household surveyed. A household is excluded from the sample if the dwelling is locked/empty, if all members of the household are not registered to vote, if all members are registered to vote outside of Lahore, or if there is not at least 1 adult woman and 1 adult man with a CNIC (Computerized National Identity Card, which is required to vote) available and consenting to be surveyed. These conditions restrict the

sample to households with individuals who could plausibly cast a vote (have a CNIC and are registered in Lahore) because our intervention is conducted after the preparation of electoral rolls, which means we cannot expect it to change voter registration status.

If a household is ineligible for inclusion for any of these reasons, the enumerators skip the dwelling and proceed to one immediately to the right of it. Within the household, respondents are selected by listing all N eligible (over the age of 18 and possessing a CNIC) respondents of the same gender as the enumerator in order of age. After the listing is complete, a random number generator programmed in the survey tablet generates a number n, and the enumerator asks to speak with the *nth* listed eligible individual. The enumerator then provides relevant information about the study to this selected individual using an information script, and seeks oral consent to conduct a survey with them (see Appendix A.6 for details).

Households that participate in the study received compensation of Rs.100 (approximately $0.8 at the average exchange rate in 2018) after completion of the baseline survey, where completion means that the randomly selected female and male individuals have completed the survey, and another Rs.100 upon completion of the endline survey. The compensation was delivered via mobile money transfer if a member of the household had chosen to provide a cellphone number, or in the form of a physical mobile money scratch card to households where participants had chosen not to share a cellphone number. The minimum wage in Pakistan is Rs.15,000 per month, less than Rs.100 per hour (estimating twenty 8-hour workdays in a month). Participant households, where two respondents completed a half-hour long survey in each phase, were therefore compensated at a comparable hourly rate. This compensation was presented as a "token of appreciation" for the respondents' time.

A.3 Power Calculations

We calculate the minimum detectable effects (MDE) for our study design using the STATA "power twoproportions, cluster" command which estimates effect size for a test comparing two independent proportions in cluster randomized designs. We estimate MDE for two comparisons:

1. Main effect of either treatment arm (corresponds to the specification reported in Cols 2-3 in Table 5)

2. Comparison of any treatment condition to control (corresponds to the specification reported in Col 1 in Table 5)

For both power calculations the following common study parameters:

- α (significance level) = 0.05
- κ (power) = 0.80
- P_0 (control mean) = 0.59 [15]
- ρ (intra-cluster correlation)=0.07 [16]

For the first comparison we use the following cluster design parameters, and estimate an **MDE=0.067**

- k1 (number of clusters in group 1) = 250 [17]
- k2 (number of clusters in group 2) = 250 [18]
- m1 (observations per cluster in group 1) = 4 [19]
- m1 (observations per cluster in group 2) = 4

For the second comparison we use the following cluster design parameters, and estimate an **MDE=0.09**

- k1 (number of clusters in control) = 125
- k2 (number of clusters in any treatment condition) = 125
- m1 (observations per cluster in control) = 5
- m1 (observations per cluster in any treatment condition) = 4

[15] This is the control group mean of self reported turnout among women respondents in our baseline survey
[16] This is the ICC on the self reported turnout variable among women in our baseline survey data
[17] This pools the 125 control clusters and 125 clusters assigned to T1only or T2only
[18] This pools the 125 clusters assigned to T1only or T2only and the 125 clusters assigned to T1+T2 both
[19] There are 5 control observations in each control cluster, but 4 treatment observations + 1 within-treatment control observation in each treatment cluster. Since this group pools together control and treatment, we go with the more conservative number

A.4 Step-by-Step Details of Intervention

Step 1: Approaching Household Members

A female (male) canvasser visits a treatment household unannounced and requests to speak with the female (male) individual from that household who was surveyed at baseline for a 20-minute conversation.[20] If the baseline respondent is unavailable, the canvasser inquires when they might be home and if able to secure a time for later in the same day, they moved on to other households in the same area and return to the household later. If unable to make contact with the baseline respondent after 3 attempts, they ask to speak with any adult household member of the same gender as the baseline respondent. The canvasser asks the baseline respondent (or other individual) to gather all adult household members of the same gender who are available for a 20-minute conversation.

Step 2: Canvasser Introduction

Canvasser explicitly states their CSO affiliation, that they are here to speak about women's participation in the upcoming election, and clarifies that their organization is non-partisan. The canvassers also show letters from the Election Commission of Pakistan stating that this is an approved activity by a non-partisan organization.

Step 3: Motivational Video

The canvasser uses a handheld tablet device to show a 5-minute long video to household members. The video follows the narrative of a young woman, facing issues of poor service delivery in her neighborhood. This woman decides to make her voice heard by contacting a political candidate, and casting her vote in the election. Her brother is shown in an enabling role: he encourages her to take action and also agrees to help the women in his family reach the women's polling station on his motorbike.

The video content is designed in the spirit of "edutainment" style interventions. The video depicts a commonly experienced neighborhood problem (sanitation and sewerage) at the outset to make the video instantly relatable to viewers. The video then emphasizes the potential instrumental advantage of achieving tangible change through holding politicians accountable on election-day. This choice is informed by observations in focus groups whereby

[20] Although this intervention is delivered at the household level, canvassers are asked to prioritize inclusion of the baseline survey respondent in an effort to maximize the chances that when we re-survey this respondent at endline, we are speaking to a household member who was present at the time of the intervention.

participants frequently expressed dissatisfaction with politician performance as a reason for disengagement with politics.

The video also models supportive behavior by male family members whereby the male character expresses verbal support of his sister's political participation, encourages his mother to vote in the election, and also provides tangible support to do so by offering to take his female family members to the polling station on his motorbike.[21]

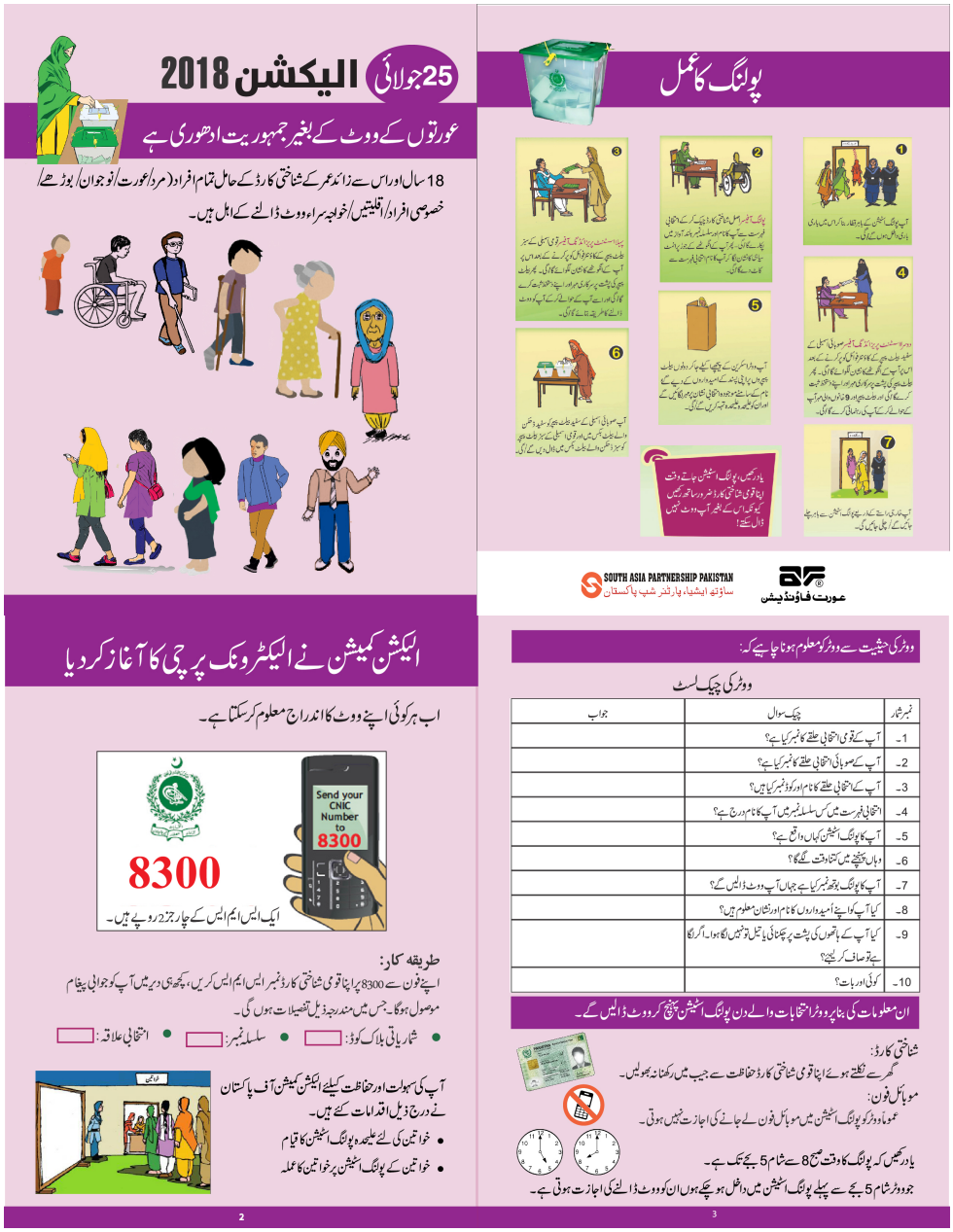
Step 4: Procedural Information

The canvasser shares procedural and practical information about the election and voting process through informational leaflets and a practical demonstration of how to cast a ballot. The leaflets (see the next two sections) describe how to find out the location of one's polling booth, the process of voting and associated rules as well as the role of elected officials at the national and provincial level and the symbols assigned to various parties. The canvasser goes through all the information provided in the leaflets in person, and leaves copies of the leaflets with the household members. Then the canvasser uses mock ballot papers, ballot boxes and a stamp to show the household members exactly how to mark the ballot, fold the paper and put it in the ballot box.

[21] Our baseline data show that women are less likely to be encouraged to vote by family members than are men, and focus groups suggested that motorbike was the most common way of transportation to the polls in Lahore, and this is borne out in our data where nearly 70% of those who report having voted say that they reached the polling station by motorbike.

A.5 Informational Materials used in Intervention

Figure A.1: Procedural Information Leaflet



25 جولائی الیکشن 2018

عورتوں کے ووٹ کے بغیر جمہوریت ادھوری ہے

18 سال اور اس سے زائد عمر کے شناختی کارڈ کے حامل تمام افراد (مرد/عورت/نوجوان/بوڑھے/خصوصی افراد/اقلیتیں/خواجہ سراء ووٹ ڈالنے کے اہل ہیں۔

پولنگ کا عمل

الیکشن کمیشن نے الیکٹرونک پرچی کا آغاز کردیا

اب ہر کوئی اپنے ووٹ کا اندراج معلوم کرسکتا ہے۔

Send your CNIC Number to 8300

8300

ایک ایس ایم ایس کے چار جز 2 روپے ہیں۔

طریقہ کار:

اپنے فون سے 8300 پر اپنا قومی شناختی کارڈ نمبر ایس ایم ایس کریں، کچھ ہی دیر میں آپ کو جوابی پیغام موصول ہوگا۔ جس میں مندرجہ ذیل تفصیلات ہوں گی۔

- شناختی بلاک کوڈ: ____
- سلسلہ نمبر: ____
- انتخابی علاقہ: ____

آپ کی سہولت اور حفاظت کیلئے الیکشن کمیشن آف پاکستان نے درج ذیل اقدامات کئے ہیں۔

- خواتین کی لئے علیحدہ پولنگ اسٹیشن کا قیام
- خواتین کے پولنگ اسٹیشن پر خواتین کا عملہ

SOUTH ASIA PARTNERSHIP PAKISTAN
ساؤتھ ایشیا پارٹنر شپ پاکستان

عورت فاؤنڈیشن

ووٹر کی حیثیت سے ووٹر کو معلوم ہونا چاہیے کہ:

ووٹر کی چیک لسٹ

نمبر شمار	چیک سوال	جواب
1۔	آپ کے قومی انتخابی حلقے کا نمبر کیا ہے؟	
2۔	آپ کے صوبائی انتخابی حلقے کا نمبر کیا ہے؟	
3۔	آپ کے انتخابی حلقے کا نام اور کوڈ نمبر کیا ہیں؟	
4۔	انتخابی فہرست میں کس سلسلہ نمبر میں آپ کا نام درج ہے؟	
5۔	آپ کا پولنگ اسٹیشن کہاں واقع ہے؟	
6۔	وہاں پہنچنے میں کتنا وقت لگے گا؟	
7۔	آپ کا پولنگ بوتھ نمبر کیا ہے جہاں آپ ووٹ ڈالیں گے؟	
8۔	کیا آپ کو اپنے امیدواروں کا نام اور نشان معلوم ہیں؟	
9۔	کیا آپ کے ہاتھوں کی پشت پر پکائی یا تیل تو نہیں لگا ہوا۔ اگر لگا ہے تو صاف کر لیجئے؟	
10۔	کوئی اور بات؟	

ان معلومات کی بنا پر ووٹر انتخابات والے دن پولنگ اسٹیشن پہنچ کر ووٹ ڈالیں گے۔

شناختی کارڈ:
گھر سے نکلتے ہوئے اپنا قومی شناختی کارڈ حفاظت سے جیب میں رکھنا نہ بھولیں۔

موبائل فون:
عموماً ووٹر کو پولنگ اسٹیشن میں موبائل فون لے جانے کی اجازت نہیں ہوتی۔

یاد رکھیں کہ پولنگ کا وقت صبح 8 سے شام 5 بجے تک ہے۔

جو ووٹر شام 5 بجے سے پہلے پولنگ اسٹیشن میں داخل ہو چکے ہوں ان کو ووٹ ڈالنے کی اجازت ہوتی ہے۔

Figure A.2: Political Knowledge Leaflet

A.6 Ethical Considerations

Participant Information and Consent

Below is the translated information script used to obtain oral consent from study participants during data collection activities:

Hello, my name is []. I am here on behalf of researchers from [institution] and would like to invite you to participate in a survey. The reason why we are conducting this survey is to find out what people think about different political issues, what their service delivery priorities are and how decisions are made in their households. Your household has been selected through a randomization procedure. We would like to survey one male and one female member in each house. Only those males and females who are above the age of 18 and have CNIC's are eligible to participate in this survey

You are free to choose whether or not to participate in this survey. If you do choose to participate, I will require half an hour of your time. During the survey you can refuse to answer any questions that you do not wish answer, or ask me to end the interview at any point.

I also want to clarify that the information you provide us will only be used for research purposes. If you participate, we will retain your name, address, and phone number for a little while so that our firm can return again to ask you some more questions. We will carefully safeguard this information and store it securely and will not share it with anyone.

We cannot guarantee that you will benefit from this survey and research, but we will provide Rs. 100 in the form of mobile credit as a token of our appreciation if you decide to participate in this survey.

Do you have any questions? Would you like to participate? [Yes/No]

If you have any questions regarding the survey, after I leave, you can contact [local researcher phone number]. I will also leave a copy of this contact information with you after the survey.

Below is the translated introductory script used by canvassers conducting the intervention:

Hello, my name is [X] and I work with Aurat Foundation/South Asia Partnership Pakistan. Our organization works for women's political, social and economic progress in Pakistan. As you know the General Elections are coming up soon and I am here, on behalf of the Election Commission, to provide you with some information about the election, and discuss the importance of voting with you and your family. Would it be possible to speak with all the adult men (if male canvasser)/women (if female canvasser) who are present at home right now? I will take 20 minutes of your time.

While the information provided to study participants clearly discloses that they are being asked to participate in a research study about politics, participants are not made aware that the survey team is assessing the impact of the intervention, or that the intervention is part of the study, or about their assignment to treatment or control status.

Electoral Intervention

We elaborate here on the specific ethical concerns associated with an intervention that is delivered around an election: the likelihood that such an intervention could affect the results of an election (Slough, 2020).
Our intervention is delivered across 7 electoral constituencies. The maximum number of treated households in any single constituency is 676.
The average number of adults in a household in urban Lahore is 3.45 (Pakistan Social and Living Standards Measurement Survey 2015-2016). If we take 4 as an upper bound, we would expect that a maximum of 2704 adult individuals would be treated in any one constituency in our sample.

In the previous national election in 2013, the lowest margin of victory in any constituency in Lahore was 7453 votes.

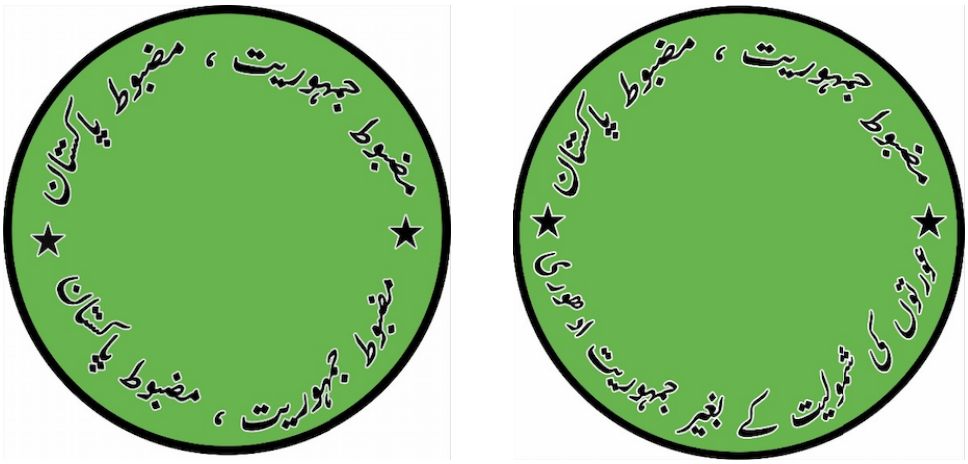
If we make an extreme assumption that none of the directly treated adults would have voted in absence of our intervention, we would need to see treatment effects amounting to a 275 percentage point increase in turnout to come close to the number of votes needed to

swing an election. Given that most GOTV interventions achieve closer to 10 percentage point increases in turnout (Giné and Mansuri, 2018), we consider it highly unlikely that our intervention could plausibly change electoral outcomes.

B Outcome Measures

B.1 Behavioral Measure of Men's Supportive Behavior

Figure B.1: Stickers offered to Male Respondents at Endline



Note Sticker 1 (L) has the slogan "Strong Democracy, Strong Pakistan; Strong Democracy, Strong Pakistan"; Sticker 2 (R) has the slogan "Strong Democracy, Strong Pakistan; Without Women's Participation, Democracy is Incomplete"

B.2 Survey Questions for Outcome Index Components

Question	Response Categories
(i) Political Knowledge:	
What was the ECP number you could SMS to find out whether and where your vote is registered?	Knows there is a phone number but doesn't know it Knows the right phone number (8300) Don't Know Refused
Were elections for MNA and MPAs both held on the same day?	One day On different days Don't know Refused to answer

Does a voter have to sign the ballot paper for it to be valid?	Yes No Don't know Refused to answer
Does a presiding officer have to sign the ballot paper for it to be valid?	Yes No Don't know Refused to answer
Who is this slogan associated with: "Faislay adalaton mein naheen, awam kay jalsay ki adalaton mein hotay hain" ("Decisions are not made in courts but rather in the court of public opinion")	Nawaz Sharif: PML-N Imran Khan: PTI Khadim Hussain Rizvi: TLYRA Shehbaz Sharif: PML-N Bilawal Bhuto : PPP Other Don't know Refused
Who is this slogan associated with: "Tabdeeli ayay gee naheen, aa gayee hai" ("Change is not about to arrive, it has already arrived'')	Nawaz Sharif: PML-N Imran Khan: PTI Khadim Hussain Rizvi: TLYRA Shehbaz Sharif: PML-N Bilawal Bhuto : PPP Other Don't know Refused
Who is this slogan associated with: "Bibi hum sharminda hain, teray qaatil zinda hain" ("Bibi (Benazir Bhutto) we are ashamed; your murderers are alive")	Nawaz Sharif: PML-N Imran Khan: PTI Khadim Hussain Rizvi: TLYRA Shehbaz Sharif: PML-N Bilawal Bhuto : PPP Other Don't know Refused
Who is this slogan associated with: "Tajdar-e-Khatm-e-Nabuwwat, Zindaabad" ("Long Live the King of the Finality of Prophethood")	Nawaz Sharif: PML-N Imran Khan: PTI Khadim Hussain Rizvi: TLYRA Shehbaz Sharif: PML-N Bilawal Bhuto : PPP Other Don't know Refused
(ii) Interest in Politics:	

How interested are you in political TV shows e.g. news and talk shows?	Not at all Interested Somewhat interested Somewhat disinterested Not at all disinterested
How interested are you in political issues / topics or problems?	Not at all Interested Somewhat interested Somewhat disinterested Not at all disinterested
How interested would you say you were in the 2018 Election?	A good deal Some Not much Don't know Refused
(iii) Self Efficacy:	
I consider myself well-qualified to participate in politics as a citizen	Agree Neither agree nor disgaree Disagree Don't know Refused
I think that I am well-informed about the process of how to cast my vote in the next election	Agree Neither agree nor disgaree Disagree Don't know Refused
Sometimes politics and government seem so complicated that a person like me can't really understand what's going on	Agree Neither agree nor disgaree Disagree Don't know Refused
(iv) Election Day Help from Men:	
Organizing transport/taking women to the polling station on election day	Yes No Refused
Sharing household duties so that women had time to vote	Yes No Refused
Waiting for women at the polling station	Yes No Refused
(v) Views on Men's Restrictions:	

We have heard of some situations in which men stop women from voting. I will tell you a few reasons for which men stop voting women from voting. Please tell me whether you think it's appropriate for men to stop women in that case. Please note that there is no right or wrong answer; I just want to know your opinion.	
They think women will vote for a different candidate/party than the one they support	Inappropriate Neither inappropriate nor appropriate Appropriate
The lines are expected to be very long and women might have to stand outside the polling station while waiting	Inappropriate Neither inappropriate nor appropriate Appropriate
There is a chance of fights breaking out at the polling station	Inappropriate Neither inappropriate nor appropriate Appropriate
They think it will interfere with women's household duties	Inappropriate Neither inappropriate nor appropriate Appropriate
(vi) Political Discussion:	
How often do you discuss political issues or topics with other people?	Everyday Once or twice in a week Once or twice in a month Hardly ever Never

C Effects on Index Measures and Index Components

C.1 All Indices

Table C.1: Results: Knowledge, Attitudes and Behaviors (ITT, Survey Measures)

	(1) Political Knowledge	(2) Interest in Politics	(3) Self Efficacy	(4) Views on Men's Restrictions	(5) Election-Day Help by Men	(6) Political Discussion
Panel A: Women's Responses						
T1 only	-0.039	0.028	-0.020	0.048	-0.070	-0.005
	(0.073)	(0.055)	(0.078)	(0.069)	(0.073)	(0.033)
T2 only	-0.078	0.089	-0.002	-0.008	-0.032	0.035
	(0.082)	(0.055)	(0.083)	(0.074)	(0.079)	(0.035)
T1+T2	-0.101	0.039	-0.013	0.087	0.158**	0.058*
	(0.079)	(0.058)	(0.078)	(0.071)	(0.078)	(0.034)
Within T Ctrl	-0.047	0.008	0.052	0.037	0.090	0.029
	(0.070)	(0.048)	(0.073)	(0.062)	(0.065)	(0.032)
Constant	-1.168***	-0.394***	-0.423	0.414	0.204	0.618***
	(0.256)	(0.149)	(0.294)	(0.359)	(0.176)	(0.080)
UC FEs	Yes	Yes	Yes	Yes	Yes	Yes
R-Squared	0.184	0.244	0.134	0.368	0.236	0.141
# Observations	2433	2435	2431	2430	2381	2499
Panel B: Men's Responses						
T1 only	-0.013	0.015	0.019	0.055	0.055	0.067*
	(0.038)	(0.070)	(0.065)	(0.080)	(0.071)	(0.035)
T2 only	-0.009	-0.010	-0.030	0.067	0.002	0.013
	(0.042)	(0.069)	(0.073)	(0.085)	(0.077)	(0.036)
T1+T2	-0.052	0.133*	0.063	-0.070	0.173**	0.077**
	(0.046)	(0.074)	(0.070)	(0.079)	(0.076)	(0.037)
Within T Ctrl	-0.019	0.047	-0.072	-0.033	0.078	0.013
	(0.040)	(0.064)	(0.065)	(0.068)	(0.069)	(0.033)
Constant	0.704***	0.563***	-0.229	0.025	0.725***	0.445***
	(0.095)	(0.124)	(0.149)	(0.447)	(0.118)	(0.125)
UC FEs	Yes	Yes	Yes	Yes	Yes	Yes
R-Squared	0.155	0.260	0.105	0.304	0.185	0.115
# Observations	2433	2434	2433	2433	2431	2499

Notes: All specifications show results using OLS estimation and employ block (Union Council) fixed effects. Standard errors in parentheses are clustered at the ward level. All outcomes are standardized indices, except for column (6). Column (6) is a binary indicator for whether women (men) stated that they discussed politics with a man (woman) in the household. For the remaining five columns, definitions of the variables composing the indices and results on each individual component are included in appendix tables Table C.4 to C.8.* p<0.10, ** p<0.05, *** p<0.01

C.2 Multiple Comparisons

Table C.2 shows results on the survey outcomes for the pooled sample of all respondents (men and women). To account for the fact that we are considering 18 different comparisons, six for each of the three treatment groups, we report adjusted test statistics in Table C.3 using several approaches.

The first row reports the unadjusted p-values from Table C.2. The second row reports the p-values using the Bonferroni correction: we multiply the unadjusted p-values by the total number of tests (18) and cap the maximum value at 1. Using this correction, we see that the p-value on the estimated effect of T1+T2 on election day help by men is below 0.10; however the p-value on the effect of T1+T2 on political discussion is above 0.10.

The third row reports adjusted p-values using the Benjamini-Hochberg procedure – to compute these the "raw" p-values are multiplied by m/i where m is the number of tests (18) and i is the rank of the p-value when p-values are sorted in ascending order (the smallest p-value has a rank of 1). If the adjusted p-value is smaller than the false discovery rate (i.e. the expected proportion of rejections that are type I errors or false rejections,FDR), the test is significant. Using this correction, the estimated effect of T1+T2 on election day help by men and political discussion is significant assuming a FDR of 10%. The fourth row reports sharpened False Discovery Rate (FDR) q-values following the approach in Anderson (2008). These are directly comparable to the raw p-values and we find that the sharpened q-values for the estimated effect of T1+T2 on election day help by men and political discussion are below 0.10.

Table C.2: Results: Knowledge, Attitudes and Behaviors (ITT, Survey Measures)

	(1) **Political Knowledge**	(2) **Interest in Politics**	(3) **Self Efficacy**	(4) **Views on Men's Restrictions**	(5) **Election-Day Help by Men**	(6) **Political Discussion**
T1 only	-0.027	0.021	-0.001	0.053	-0.009	0.031
	(0.526)	(0.667)	(0.983)	(0.309)	(0.862)	(0.227)
T2 only	-0.044	0.039	-0.017	0.031	-0.014	0.024
	(0.356)	(0.417)	(0.758)	(0.566)	(0.795)	(0.338)
T1+T2	-0.077	0.086*	0.025	0.010	0.165***	0.067**
	(0.104)	(0.085)	(0.626)	(0.854)	(0.004)	(0.010)
Within T Ctrl	-0.034	0.027	-0.010	0.004	0.084*	0.021
	(0.422)	(0.534)	(0.832)	(0.922)	(0.091)	(0.347)
Constant	-0.231*	0.084	-0.326***	0.218***	0.465***	0.532***
	(0.079)	(0.515)	(0.003)	(0.001)	(0.000)	(0.000)
UC FEs	Yes	Yes	Yes	Yes	Yes	Yes
R-Squared	0.074	0.103	0.069	0.189	0.120	0.077
# Observations	4866	4869	4864	4863	4812	4998

Notes: All specifications show results using OLS estimation and employ block (Union Council) fixed effects. Standard errors in parentheses are clustered at the ward level. All outcomes are standardized indices, except for column (6). Column (6) is a binary indicator for whether women (men) stated that they discussed politics with a man (woman) in the household. For the remaining five columns, definitions of the variables composing the indices and results on each individual component are included in appendix tables Table C.4 to C.8.* p<0.10, ** p<0.05, *** p<0.01

Table C.3: Adjusted test statistics for index outcomes using various approaches to multiple comparisons

	(1) **Political Knowledge**	(2) **Interest in Politics**	(3) **Self Efficacy**	(4) **Views on Restrictions**	(5) **Election Day Help by Men**	(6) **Political Discussion**
T1 only						
p-value	0.526	0.667	0.983	0.309	0.862	0.227
Bonferroni corrected p-value	1	1	1	1	1	1
Benjamini-Hochberg adjusted p-value	0.947	0.924	0.983	0.927	0.913	0.817
sharpened q-value	1	1	1	1	1	1
T2 only						
p-value	0.356	0.417	0.758	0.566	0.795	0.338
Bonferroni corrected p-value	1	1	1	1	1	1
Benjamini-Hochberg adjusted p-value	0.801	0.834	0.975	0.926	0.954	0.870
sharpened q-value	1	1	1	1	1	1
T1+T2						
p-value	0.104	0.085	0.626	0.854	0.004	0.010
Bonferroni corrected p-value	1	1	1	1	0.072	0.18
Benjamini-Hochberg adjusted p-value	0.468	0.51	0.939	0.961	0.072	0.09
sharpened q-value	0.713	0.713	1	1	0.078	0.093
N	4866	4869	4864	4863	4812	4998

C.3 Effects on Individual Index Components

Table C.4: Treatment Effects on Political Knowledge

	Panel A: Women's Knowledge				
	(1) **ECP Phone**	(2) **Election Days**	(3) **Voter Signature**	(4) **PO Signature**	(5) **Party Slogans**
T1only	-0.036	-0.030	0.022	-0.076**	0.032
	(0.030)	(0.032)	(0.033)	(0.032)	(0.075)
T2only	-0.049	-0.016	0.024	-0.069*	-0.032
	(0.031)	(0.034)	(0.035)	(0.038)	(0.087)
T1+T2	-0.015	-0.028	0.034	-0.079**	-0.074
	(0.033)	(0.034)	(0.034)	(0.034)	(0.084)
Within T Control	-0.042	0.014	0.052*	-0.042	-0.059
	(0.028)	(0.030)	(0.031)	(0.032)	(0.073)
Constant	0.186***	0.337***	0.862***	0.090***	-0.948**
	(0.070)	(0.130)	(0.073)	(0.033)	(0.375)
UC FEs	Yes	Yes	Yes	Yes	Yes
R-Squared	0.126	0.248	0.097	0.155	0.230
# Observations	2423	2421	2408	2417	2428
	Panel B: Men's Knowledge				
T1only	0.081**	-0.032**	-0.005	-0.075**	0.008
	(0.032)	(0.015)	(0.037)	(0.038)	(0.033)
T2only	0.094***	-0.018	-0.037	-0.062	0.007
	(0.034)	(0.015)	(0.038)	(0.040)	(0.037)
T1+T2	0.066*	-0.011	-0.047	-0.068*	-0.030
	(0.034)	(0.014)	(0.039)	(0.039)	(0.044)
Within T Control	0.027	-0.015	-0.002	-0.055	0.006
	(0.032)	(0.014)	(0.033)	(0.035)	(0.035)
Constant	0.710***	1.011***	0.567***	0.531***	0.606***
	(0.172)	(0.010)	(0.170)	(0.083)	(0.028)
UC FEs	Yes	Yes	Yes	Yes	Yes
R-Squared	0.204	0.084	0.264	0.220	0.147
# Observations	2427	2433	2413	2431	2433

Notes: All specifications show results using OLS estimation and employ strata (Union Council) fixed effects. Standard errors in parentheses are clustered at the ward level. All five outcomes used in this table are combined in a standardized index to form the outcome variable for Column (1) of Table C.1. Outcome for column (1) is an indicator for whether the respondent correctly repeated the Election Commission of Pakistan SMS short-code for checking one's voter registration. Column (2) is an indicator for whether the respondent correctly stated that elections for provincial and national assemblies take place on the same day (as opposed to different days). Column (3) is an indicator for whether the respondent correctly stated that a voter's signature is not required on the ballot paper. Column (4) is an indicator for whether the respondent correctly stated that a Presiding Officer's signature are required on the ballot paper. Column (5) is a standardized index comprising of four variables, each being an indicator for whether the respondent correctly linked a popular political slogan with a political party. * p<0.10, ** p<0.05, *** p<0.01

Table C.5: Treatment Effects on Interest in Politics

	Panel A: Women's Interest		
	(1) **Interest in Political TV**	(2) **Interest in Political Issues**	(3) **Interest in 2018 Election**
T1only	0.061	0.055	-0.047
	(0.056)	(0.055)	(0.070)
T2only	0.028	0.117**	0.083
	(0.054)	(0.055)	(0.074)
T1+T2	0.046	0.094	-0.037
	(0.059)	(0.058)	(0.075)
Within T Control	0.012	0.043	-0.029
	(0.048)	(0.049)	(0.065)
Constant	-0.117*	-0.245***	-0.602**
	(0.063)	(0.059)	(0.296)
UC FEs	Yes	Yes	Yes
R-Squared	0.294	0.260	0.142
# Observations	2435	2435	2384
	Panel B: Men's Interest		
T1only	-0.018	0.075	-0.027
	(0.067)	(0.072)	(0.070)
T2only	-0.085	0.073	-0.020
	(0.067)	(0.069)	(0.076)
T1+T2	0.049	0.182**	0.085
	(0.068)	(0.075)	(0.076)
Within T Control	0.014	0.069	0.029
	(0.061)	(0.066)	(0.067)
Constant	0.350*	0.836***	0.215
	(0.185)	(0.106)	(0.173)
UC FEs	Yes	Yes	Yes
R-Squared	0.253	0.194	0.227
# Observations	2434	2434	2413

Notes: All specifications show results using OLS estimation and employ strata (Union Council) fixed effects. Standard errors in parentheses are clustered at the ward level. All three outcomes are standardized. All three outcomes used in this table are combined into a standardized index to form the outcome variable for Column (2) of Table C.1. Column (1) uses responses to the question "How interested are you in political TV shows?" as outcome. Column (2) uses responses to the question "How interested are you in political issues / topics or problems?". Both questions are asked on a Likert scale. * p<0.10, ** p<0.05, *** p<0.01

Table C.6: Treatment Effects on Self-Efficacy

	Panel A: Women's Responses'		
	(1) **Qualified to Participate**	(2) **Informed about Voting**	(3) **Politics too Complicated**
T1only	-0.002	-0.025	-0.012
	(0.075)	(0.078)	(0.071)
T2only	-0.037	0.011	0.019
	(0.080)	(0.086)	(0.076)
T1+T2	-0.020	-0.015	0.012
	(0.070)	(0.081)	(0.073)
Within T Control	0.041	0.124	-0.076
	(0.066)	(0.076)	(0.067)
Constant	-0.788***	-0.309	0.377
	(0.271)	(0.332)	(0.240)
UC FEs	Yes	Yes	Yes
R-Squared	0.227	0.087	0.133
# Observations	2411	2363	2410
	Panel B: Men's Responses		
T1only	-0.030	0.075	-0.014
	(0.074)	(0.065)	(0.077)
T2only	-0.064	0.077	-0.063
	(0.080)	(0.073)	(0.078)
T1+T2	0.061	0.051	-0.012
	(0.080)	(0.073)	(0.083)
Within T Control	-0.115*	0.039	-0.041
	(0.069)	(0.064)	(0.071)
Constant	-0.393	-0.361	0.381
	(0.318)	(0.416)	(0.348)
UC FEs	Yes	Yes	Yes
R-Squared	0.258	0.157	0.147
# Observations	2428	2415	2427

Notes: All specifications show results using OLS estimation and employ strata (Union Council) fixed effects. Standard errors in parentheses are clustered at the ward level. All three outcomes are standardized. All three outcomes used in this table are combined into a standardized index to form the outcome variable for Column (3) of Table C.1. For women (Panel A), the questions used as outcomes are agreement on a likert scale with the following statements respectively: (1) I consider myself well-qualified to participate in politics as a citizen, (2) I think that I am well-informed about the process of how to cast my vote in the next election and (disagreement with) (3) Sometimes politics and government seem so complicated that a person like me can't really understand what's going on. * p<0.10, ** p<0.05, *** p<0.01

Table C.7: Treatment Effects on Views on Men's Restrictions

	Panel A: Women's Views on Restrictions if:			
	Vote Differently	**Long Lines**	**Threat of Violence**	**Interferes w/ HH Duties**
T1only	0.105	0.010	0.044	-0.016
	(0.066)	(0.065)	(0.074)	(0.074)
T2only	0.079	-0.029	-0.039	-0.035
	(0.070)	(0.070)	(0.080)	(0.078)
T1+T2	0.087	0.044	0.083	0.046
	(0.068)	(0.067)	(0.074)	(0.074)
Within T Control	0.059	0.061	-0.018	-0.002
	(0.059)	(0.058)	(0.069)	(0.068)
Constant	0.726***	0.382*	0.096	0.018
	(0.128)	(0.219)	(0.365)	(0.366)
UC FEs	Yes	Yes	Yes	Yes
R-Squared	0.357	0.302	0.235	0.224
# Observations	2426	2428	2409	2427
	Panel B: Men's Views on Restrictions if:			
T1only	0.129	0.016	-0.026	0.042
	(0.081)	(0.078)	(0.072)	(0.072)
T2only	0.162*	0.056	-0.104	0.085
	(0.084)	(0.082)	(0.079)	(0.078)
T1+T2	-0.041	-0.040	-0.127*	0.003
	(0.079)	(0.082)	(0.072)	(0.073)
Within T Control	-0.017	0.014	-0.094	0.003
	(0.071)	(0.068)	(0.065)	(0.068)
Constant	0.096	-0.396	0.358	0.015
	(0.345)	(0.445)	(0.255)	(0.302)
UC FEs	Yes	Yes	Yes	Yes
R-Squared	0.249	0.210	0.231	0.211
# Observations	2433	2433	2432	2432

Notes: All specifications show results using OLS estimation and employ strata (Union Council) fixed effects. Standard errors in parentheses are clustered at the ward level. All three outcomes used in this table are indicator variables combined into a standardized index to form the outcome variable for Column (4) of Table C.1. Each column uses answers to questions about conditions under which the respondent thinks it is appropriate for men to stop women from voting. In Column (1), the condition is "They (men) think women will vote for a different candidate/party than the one they support". In Column (2), the condition is "The lines are expected to be very long and women might have to stand outside the polling station while waiting". In Column (3), the condition is "There is a chance of fights breaking out at the polling station". In Column (4), the condition is "They (men) think it will interfere with women's household duties". * p<0.10, ** p<0.05, *** p<0.01.

Table C.8: Treatment Effects on Men's Election Day Support

	Panel A: Women's Responses		
	(1) **Organizing Transport**	(2) **Sharing HH Chores**	(3) **Waiting at PS**
T1only	-0.086	0.044	-0.123
	(0.070)	(0.068)	(0.076)
T2only	-0.023	-0.025	-0.023
	(0.070)	(0.077)	(0.082)
T1+T2	0.132*	0.116	0.113
	(0.075)	(0.072)	(0.081)
Within T Control	0.057	0.058	0.091
	(0.062)	(0.063)	(0.070)
Constant	0.183	-0.242	0.527***
	(0.125)	(0.235)	(0.117)
UC FEs	Yes	Yes	Yes
R-Squared	0.224	0.240	0.161
# Observations	2374	2377	2372
	Panel B: Men's Responses		
T1only	0.051	-0.036	0.107
	(0.070)	(0.072)	(0.076)
T2only	0.040	-0.143**	0.116
	(0.079)	(0.072)	(0.079)
T1+T2	0.152**	0.089	0.173**
	(0.076)	(0.077)	(0.079)
Within T Control	0.068	0.006	0.108
	(0.068)	(0.067)	(0.070)
Constant	0.668***	0.592**	0.491**
	(0.137)	(0.264)	(0.191)
UC FEs	Yes	Yes	Yes
R-Squared	0.168	0.186	0.137
# Observations	2418	2394	2359

Notes: All specifications show results using OLS estimation and employ strata (Union Council) fixed effects. Standard errors in parentheses are clustered at the ward level. All three outcomes used in this table are indicator variables combined into a standardized index to form the outcome variable for Column (5) of Table C.1. For women (Panel A), the questions used as outcomes are responses to the question "How willing were the men in your household to help with the following things before the election/on election day?". For men (Panel B), the questions used as outcome are yes or no responses to the question "Did you do any of the following before the election/on election day?". The relevant actions for each column respectively are (1) Organizing transport/taking women to the polling station on election day, (2) Sharing household duties so that women had time to vote and (3) Waiting for women at the polling station. * p<0.10, ** p<0.05, *** p<0.01.

D Robustness Checks

D.1 Women's Turnout with Controls

Table D.1: Results: Women's Turnout (ITT)

	Women's Turnout – Household Level Controls			
	(1)	(2)	(3)	(4)
	HH Proportion	**HH Proportion**	**HH Proportion**	**HH Proportion**
T1 Only:Women Canvassed	0.013			
	(0.029)			
T2 Only:Men Canvassed	0.055*			
	(0.031)			
T1+T2: Women and Men Both	0.079**			
	(0.032)			
T1: Women Canvassed		0.018		0.013
		(0.020)		(0.029)
T2: Men Canvassed			0.060**	0.055*
			(0.024)	(0.031)
T1*T2				0.011
				(0.040)
Within T Control	0.024	0.010	0.019	0.024
	(0.028)	(0.026)	(0.026)	(0.028)
Constant	0.538***	0.550***	0.542***	0.538***
	(0.029)	(0.026)	(0.026)	(0.029)
R-Squared	0.156	0.153	0.155	0.156
# Observations	2146	2146	2146	2146
P-Value: T1only=T2only	0.185			
P-Value: T1only=T1+T2	0.038			
P-Value: T2only=T1+T2	0.374			

Notes: All specifications show results using OLS estimation, include block (Union Council) fixed effects and control for individual level randomizations. Standard errors in parentheses are clustered at the ward level. The outcome variable is women's turnout at the household level calculated as the number of women who voted (as verified by thumb ink marks) as a proportion of women who have an identity card and are therefore eligible to vote. All models include controls at the household level for the total number of adult men and women in the household, whether the household has a joint (vs. nuclear) family, the presence of young children and elderly members who require care, and a standardized index of assets. *p<0.10, ** p<0.05, *** p<0.01

D.2 Men's Turnout

In Table D.2 we report results on male turnout using the same specifications as in Table 5 of the main paper. We do not find any evidence of effects of any of the treatment conditions on male turnout across specifications.

The outcome measure for this analysis is the number of men in a household for whom turnout could be visually verified (measured during the turnout verification exercise) divided by the number of male household members eligible to vote (measured at baseline). However, due to the time constraint during the turnout verification exercise (see paper section Outcome Data: Turnout), we could reach far fewer men per household than women to verify turnout. This is reflected in the low mean in the control group (0.34, sd 0.36) which is far lower than official male turnout numbers in these constituencies which ranges from 57% to 63%, and is indicative of overall measurement error in this outcome.

Table D.2: Results: Men's Turnout (ITT)

	Men's Turnout – Unadjusted			
	(1)	(2)	(3)	(4)
	HH Proportion	**HH Proportion**	**HH Proportion**	**HH Proportion**
T1 Only:Women Canvassed	0.013			
	(0.026)			
T2 Only:Men Canvassed	0.005			
	(0.027)			
T1+T2: Women and Men Both	0.035			
	(0.028)			
T1: Women Canvassed		0.022		0.013
		(0.018)		(0.026)
T2: Men Canvassed			0.013	0.005
			(0.021)	(0.027)
T1*T2				0.017
				(0.036)
Within T Control	0.024	0.024	0.019	0.024
	(0.025)	(0.023)	(0.022)	(0.025)
Constant	0.341***	0.341***	0.346***	0.341***
	(0.016)	(0.013)	(0.013)	(0.016)
R-Squared	0.200	0.199	0.199	0.200
# Observations	2190	2190	2190	2190
P-Value: T1only=T2only	0.758			
P-Value: T1only=T1+T2	0.442			
P-Value: T2only=T1+T2	0.218			

Notes: All specifications show results using OLS estimation, include block (Union Council) fixed effects and control for individual level randomizations. Standard errors in parentheses are clustered at the ward level. The outcome variable is men's turnout at the household level calculated as the number of men who voted (as verified by thumb ink marks) as a proportion of men who have an identity card and are therefore eligible to vote. This table shows unadjusted results, *p<0.10, ** p<0.05, *** p<0.01

D.3 Spillovers to Untreated Households

To be able to detect spillovers within clusters, we implemented a partial population design (Baird et al., 2016), whereby in the second stage of randomization, 4 of 5 study households in each treatment cluster were randomly assigned to receive the treatment, and 1 remaining household designated as a "Within-Treatment Control". In all main analyses reported in the paper we report the coefficient on the pooled "Within Treatment Controls" across treatment conditions. Table D.3 examines the spillover effect on Within treatment control households for each treatment condition separately. We do not find any significant differences, however we would caveat that we are not particularly well powered for these comparisons.

Table D.3: Effects on Untreated Households in Treatment Clusters

	(1) **HH Proportion**
T1 Only:Women Canvassed	0.011
	(0.028)
T2 Only:Men Canvassed	0.054*
	(0.031)
T1+T2: Women and Men Both	0.081**
	(0.032)
Within T1 Control	-0.032
	(0.041)
Within T2 Control	0.050
	(0.041)
Within T1+T2 Control	0.046
	(0.043)
Constant	0.562***
	(0.017)
R-Squared	0.154
# Observations	2149
P-Value: T1-Control=T2-Control	0.117
P-Value: T1-Control=T1+T2-Control	0.148
P-Value: T2-Control=T1+T2-Control	0.951

Notes: All specifications show results using OLS estimation, include block (Union Council) fixed effects and control for individual level randomizations. Standard errors in parentheses are clustered at the ward level. The outcome variable is women's turnout at the household level calculated as the number of women who voted (as verified by thumb ink marks) as a proportion of women who have an identity card and are therefore eligible to vote. *p<0.10, ** p<0.05, *** p<0.01

D.4 Compliance

The paper section titled "Recall and Compliance" describes our approach towards measuring compliance. Table D.4 shows results from a regression of our compliance measure on treatment status. Compliance is not significantly different between T1 and T2, however it is slightly lower in T1+T2 due to the higher bar for compliance (completion of 2 successful visits targeted to women and men respectively).

Table D.4: Proportion of Compliers, by Treatment Status

	(1) **Compliance**
T1 Only:Women Canvassed	0.968***
	(0.009)
T2 Only:Men Canvassed	0.965***
	(0.011)
T1+T2: Women and Men Both	0.945***
	(0.012)
Within T Control	0.002
	(0.005)
Constant	0.001
	(0.004)
R-Squared	0.908
# Observations	2390
P-Value: T1only=T2only	0.787
P-Value: T1only=T1+T2	0.094
P-Value: T2only=T1+T2	0.194

Notes: The regression uses OLS estimation and employs block (Union Council) fixed effects. The outcome is a binary indicator for whether a canvasser could successfully deliver the intervention within 3 attempts at contact * p<0.10, ** p<0.05, *** p<0.01

We estimate the complier average causal effect (CACE) for our preferred specification (Table 5, column 1). To do this we measure compliance as described above, and employ an instrumental variable approach where random assignment to treatment is used as an instrument for treatment status in a model following our preferred specification. Table D.5 reports results. This analysis relies on the following assumptions:

1. The treatment is randomly assigned
2. There is a positive share of compilers (met since the compliance rate is 96%)

3. Monotonicity, i.e. assignment to treatment does not make one less likely to be treated (met since the coefficients on a model regressing compliance on treatment status are all positive and significant (Table D.4)

4. Exclusion restriction: individuals respond to the treatment, not treatment assignment (plausibly met because individuals are not aware of treatment status)

As expected, with high rates of compliance, the CACE effects are very similar to the ITT estimates in Table 5 (Column 1), and there is no substantive difference in the size or significance of coefficients.

Table D.5: Complier Average Causal Effect

	(1)
	Women's Turnout – CACE
T1 Only:Women Canvassed	0.012
	(0.028)
T2 Only:Men Canvassed	0.056*
	(0.032)
T1+T2: Women and Men Both	0.085***
	(0.033)
Within T Control	0.022
	(0.027)
Constant	0.725***
	(0.091)
R-Squared	0.154
# Observations	2149
P-Value: T1only=T2only	0.163
P-Value: T1only=T1+T2	0.022
P-Value: T2only=T1+T2	0.293

Notes: The regression uses OLS estimation and employs block (Union Council) fixed effects. The outcome is a binary indicator for whether a canvasser could successfully deliver the intervention within 3 attempts at contact * p<0.10, ** p<0.05, *** p<0.01

D.5 Attrition

We analyze attrition in our sample between baseline and turnout verification to assess whether it is correlated with treatment status. First, we define a dummy variable that indicates whether a household was surveyed at baseline but could not be reached for turnout verification in the days following the election. In Table D.6 we report results from a regression of this attrition dummy on indicators of treatment status and do not find evidence that

assignment to treatment is significantly correlated with the probability of attrition; there is also no evidence of significant differences in the probability of attrition between different treatment groups.

Table D.6: Probability of Attrition, by Treatment Status

	(1) **Attrition**
T1 Only:Women Canvassed	-0.015
	(0.021)
T2 Only:Men Canvassed	-0.002
	(0.021)
T1+T2: Women and Men Both	-0.008
	(0.021)
Within T Control	0.000
	(0.022)
Constant	0.146***
	(0.014)
R-Squared	0.078
# Observations	2500
P-Value: T1only=T2only	0.562
P-Value: T1only=T1+T2	0.755
P-Value: T2only=T1+T2	0.788

Notes: The regression uses OLS estimation and employs block (Union Council) fixed effects. The outcome is a binary indicator for whether a household was observed at baseline but not at the time of turnout verification * p<0.10, ** p<0.05, *** p<0.01

Nevertheless, to account for the possibility nonrandom attrition in the sample, we follow (Lee, 2009) and report the lower and upper bounds on our main treatment effects using trimming bounds. We report these results in Table D.7, Columns 2-3 and find only minimal differences from the original estimation.

D.6 Baseline Survey With Political Content

Table D.8 shows our main results on turnout, controlling for an indicator for whether the baseline respondent from a household was randomized into receiving a survey that included questions about political participation and the upcoming elections. We do not find that the baseline survey affected participation, and there is no change in the estimated treatment effects when we control for this.

Table D.7: Lee Trimming Bounds for Treatment Effect on Turnout

	(1) **No Correction**	(2) **Lower Bound**	(3) **Upper Bound**
T1 Only:Women Canvassed	0.012	0.003	0.025
	(0.028)	(0.028)	(0.028)
T2 Only:Men Canvassed	0.054*	0.053*	0.061*
	(0.031)	(0.031)	(0.031)
T1+T2: Women and Men Both	0.080**	0.078**	0.090***
	(0.032)	(0.032)	(0.032)
Within T Control	0.022	0.019	0.025
	(0.028)	(0.028)	(0.028)
Constant	0.562***	0.561***	0.563***
	(0.017)	(0.018)	(0.017)
R-Squared	0.153	0.153	0.150
# Observations	2149	2126	2126

Notes: The regression uses OLS estimation and employs block (Union Council) fixed effects and control for individual level randomizations. Standard errors in parentheses are clustered at the ward level. The outcome variable is women's turnout at the household level calculated as the number of women who voted (as verified by thumb ink marks) as a proportion of women who have an identity card and are therefore eligible to vote. Random assignment to each of 3 experimental treatment conditions is used as an instrument for compliance with the treatment conditions * p<0.10, ** p<0.05, *** p<0.01

Table D.8: Results: Women's Turnout (ITT) Controlling for Baseline Political Survey

	(1) **HH Proportion**
T1 Only:Women Canvassed	0.012
	(0.028)
T2 Only:Men Canvassed	0.054*
	(0.031)
T1+T2: Women and Men Both	0.080**
	(0.032)
Within T Control	0.022
	(0.028)
Political Survey	-0.005
	(0.021)
Constant	0.571***
	(0.041)
R-Squared	0.153
# Observations	2149

Notes: The regression uses OLS estimation and employs block (Union Council) fixed effects and control for individual level randomizations. Standard errors in parentheses are clustered at the ward level. The outcome variable is women's turnout at the household level calculated as the number of women who voted (as verified by thumb ink marks) as a proportion of women who have an identity card and are therefore eligible to vote. * p<0.10, ** p<0.05, *** p<0.01

D.7 Heterogeneous Effects by Number of Individuals Canvassed

To examine whether we observe higher treatment effects in the T1+T2 condition because we treated a higher number of individuals in that condition, we analyze treatment effects by the number of individuals treated within each treatment arm. In particular, we test whether treating more than the minimum prescribed number of individuals is associated with a higher treatment effect. For T1 and T2, the minimum prescribed number is 1, while in T1+T2, the minimum prescribed number is 2. The mobilizers aimed to treat every household member of the relevant gender who was present and available, which meant that in many cases we treated more than the minimum prescribed number. We find that treatment effects are not significantly higher when we treat more individuals. On the contrary, the treatment effect co-efficient for T2 is lower when more than 1 men is treated, although this difference is not statistically significant. This analysis suggests that the higher treatment effects in the T1+T2 condition are not driven by a difference in the number of treated individuals.

D.8 Men's Supportive Behavior (Alternate Specification)

In the paper, we report results on the effect of treatment on men's supportive behavior using a set of difference-in-difference estimates which allow for clearer presentation. Here, we estimate the effect of the treatments using a specification analogous to the one used for our main turnout results (Table 5 Column 3 in the main paper), and show that the results are similar both in terms of substance and statistical significance. We use the following specification:

$$Y_i = \beta_1 WS_i + \beta_{2i} Treatment_i + \beta_{3i} WS * Treatment_i + \delta_i + \gamma_s \tag{4}$$

where WS_i is an indicator for whether the sticker offered to the male respondent in study household i was one with a message supporting women's role in democracy, $Treatment_i$ denotes separate indicators for T1 only, T2 only, T1+T2, and within treatment control. γ_s are union council fixed effects. Y_i is an indicator for whether the male respondent agreed to having the sticker placed on the entry-way to his residence. Standard errors are clustered at the ward level, which is the level of randomization. The co-efficient of interest is β_3, which estimates whether treatment affects men's relative propensity to accept the sticker with a supportive message about women's participation versus the generic support of democracy sticker.

Table D.9: Results: Treatment Effects by Number of Individuals Treated

	(1) **HH Proportion**
T1only: 1 Woman Treated	0.015
	(0.031)
T1only: 2+ Women Treated	0.006
	(0.039)
T2only: 1 Man Treated	0.065**
	(0.033)
T2only: 2+Men Treated	0.010
	(0.049)
T1+T2: 2 People Treated	0.071*
	(0.036)
T1+T2: 3+ People Treated	0.100***
	(0.036)
Within T Control	0.023
	(0.028)
Constant	0.561***
	(0.017)
R-Squared	0.154
# Observations	2149.000
P-Value: T1: 1 vs. 2+ Treated	0.820
P-Value: T2: 1 vs. 2+ Treated	0.270
P-Value: T3: 2 vs. 3+ Treated	0.434

Notes: The regression uses OLS estimation and employ block (Union Council) fixed effects and control for individual level randomizations. Standard errors in parentheses are clustered at the ward level. The outcome is the proportion of women in the HH who voted. For each of T1, T2 and T1+T2, we replace the treatment indicator with two indicators each: one for the minimum prescribed number of individuals to be treated (1 for T1 and T2; 2 for T1+T2) and another for any value higher than the minimum prescribed.* p<0.10, ** p<0.05, *** p<0.01

The results are shown in Table D.10. They key result is the coefficient on the $(T1+T2)*WS$ term, which shows that the relative take-up of the women's support sticker was 7.6 percentage points higher among men in households that received visits targeted to both women and men (T1+T2), compared to those in the control group.

Table D.10: Results: Men's Support for Women's Role in Democracy (ITT; Behavioral Measure)

	Men's Support for Women's Role in Democracy
	(1)
	Binary Takeup
Support for Women Message (WS)	-0.047**
	(0.022)
T1 Only:Women Canvassed	0.006
	(0.021)
T2 Only:Men Canvassed	-0.017
	(0.023)
T1+T2: Women and Men Both	-0.031
	(0.022)
Within T Control	-0.021
	(0.023)
T1only*WS	-0.013
	(0.031)
T2only*WS	0.027
	(0.031)
(T1+T2)*WS	0.075***
	(0.028)
Within T Control*WS	0.015
	(0.036)
Constant	0.949***
	(0.014)
# Observations	2434
P-Value: T1only*WS=T2only*WS	0.206
P-Value: T1only*WS=(T1+T2)*WS	0.002
P-Value: T2only*WS=(T1+T2)*WS	0.100

Notes: All specifications show results using OLS estimation, include block (Union Council) fixed effects and control for individual level randomizations. Standard errors in parentheses are clustered at the ward level. The outcome is an indicator for whether the male respondent agreed to post the offered sticker on the entry-way to their residence. WS indicates whether the sticker offered to them had a message indicating support for women's role in democracy. * p<0.10, ** p<0.05, *** p<0.01