# Perils of the Paperwork: The Impact of Information and Application Assistance on Welfare Program Take-Up in India

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JOB MARKET PAPER

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November 15, 2017

#### Abstract

Governments worldwide administer targeted social programs to improve the well-being of vulnerable groups, yet many eligible citizens do not take up these programs. This paper examines take-up of an unconditional cash transfer program for poor widows and divorcees in Delhi, India. Despite the considerable benefits, only one-third of eligible citizens are enrolled, with lower enrollment among more vulnerable women. I conduct a field experiment with over 1,200 pension-eligible women to identify barriers to program take-up and their distributive implications. One group of women is provided with only information about the program. Others receive information plus *mediation*: assistance with filling out the application form (basic mediation) or assistance engaging with political authorities (intensive mediation). I find that information alone raises application rates only among literate women. On the other hand, basic and intensive mediation increase average application rates by 41% and 70%, respectively. Furthermore, providing mediation changes the applicant pool to include more vulnerable women: those who are illiterate, politically disconnected, or lack autonomy in their household. While conventional wisdom suggests that application ordeals ensure take-up by those with the highest marginal utility of enrollment, I show that ordeals can interact with capabilities of poor citizens to select out those with a high need for the program. Simpler enrollment procedures and strengthened channels of bureaucratic mediation may facilitate more widespread and inclusive take-up.

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# 1 Introduction

Low take-up of targeted social programs is a puzzling outcome seen in many contexts. Given that these programs often redistribute income to impoverished citizens, it is important to understand why this money is being left on the table. In developing countries, significant literature focuses on distortions in service provision due to leakage, elite capture, or other forms of corruption<sup>1</sup>, but less work considers constraints to program access when these issues are not at play.

Evidence from rich countries offers two primary explanations for low take-up of social programs: lack of information and transaction costs of enrollment (Currie, 2004)<sup>2</sup>. I employ a field experiment to examine these two barriers to take-up, and their distributive implications, in the context of an unconditional cash transfer program in India. I find that in comparison to providing only information, reducing transaction costs is particularly important to increase take-up by more vulnerable individuals.

Like the majority of Indian states, the Delhi government provides a non-contributory, social pension for life to young widows and divorced women living in poverty. The transfer amount of Rs. 1,500 per month is substantial, equivalent to 70% of median per-capita consumption across urban areas of the state (NSS, 2012)<sup>3</sup>. Strict verification procedures and secure bank-to-bank payment systems leave little room for leakage. A recent survey by the World Bank (2014), however, finds that two-thirds of eligible women are *not* enrolled in this program. This resonates with a broader trend in India, where only 40% of citizens apply for the goods and services they report they need from the government (Demirguc-Kunt et al., 2017).

Enrollment in this pension program is dependent on undergoing an application process to prove one's eligibility, requiring citizens to self-select in to the program. It is possible that better information about program eligibility and benefits alone could boost enrollment, especially if more vulnerable citizens tend to be less informed about government programs. Providing

<sup>&</sup>lt;sup>1</sup>This work highlights intentional diversion of anti-poverty benefits from intended recipients (Banerjee et al., 2009; Bardhan and Mookherjee, 2006; Besley et al., 2011; Niehaus and Atanassova, 2013; Reinikka and Svensson, 2004), targeting along partisan and ethnic lines (Chandra, 2007; Dunning and Nilekani, 2013; Habyarimana et al., 2007; Stokes et al., 2013), and unreliable service providers (Chaudhury et al., 2006; WB, 2003).

<sup>&</sup>lt;sup>2</sup>Transaction costs are broadly defined to include the time, effort, monetary, and stigma-related costs associated with applying for or being enrolled in a given program.

<sup>&</sup>lt;sup>3</sup>The transfer amount was raised to Rs. 2,500 per month in January 2017, making it equivalent to 118% of median per capita consumption in urban Delhi.

information to citizens was shown to successfully increase take-up of food subsidies in Indonesia (Banerjee et al., 2015), while other studies examining the impact of information on community and voter empowerment efforts have found mixed results (Mansuri and Rao, 2013; Pande, 2011). If citizens do not take up social programs even when provided comprehensive information, it suggests a potentially important role of transaction costs in limiting take-up.

Of course, any time a program is targeted instead of universally provided, there will be some transaction costs involved due to the screening required to separate eligible from ineligible citizens, which will predictably lead to incomplete take-up (Kleven and Kopczuk, 2011). Common screening mechanisms include application forms and supporting documents used to prove eligibility. Still, standard economic theory would suggest that these screening procedures, or *ordeals*, promote self-selection by those with the highest marginal utility of enrollment, as they are most willing to undergo the hassle of applying (Nichols and Zeckhauser, 1982).

Yet in comparison to the rich, the poor may be particularly sensitive to small, short-run costs (Holla and Kremer, 2009; Mullainathan and Shafir, 2013) or face higher utility costs from the application process, leaving the effect of ordeals on targeting to be theoretically ambiguous (Alatas et al., 2016). Similarly, I argue that it is important to understand how administrative ordeals of welfare programs interact with personal capabilities of the poor to determine program take-up and the distribution of welfare recipients. In developing countries, poverty, especially among women, is associated with adult illiteracy, political dis-empowerment, and constraints on basic mobility outside of the household, so ordeals that work well in rich countries may have unintended consequences in such settings.

Therefore, in the context of the widow pension scheme in Delhi, I answer two important questions with my research. First, what is the role of information constraints and transaction costs of ordeals in explaining low take-up? Second, how does reducing either of these barriers change the distribution of applicants?

To answer these questions, I conduct a randomized controlled trial with over 1,200 pensioneligible women living across 75 Delhi slums. To apply for widow pensions, women must complete an application form, provide several supporting documents, and obtain the signature of their state legislator (MLA) before finally submitting the application to the district bureaucracy. One group of women in my study is provided only detailed information about the pension scheme, including benefits, eligibility requirements, and application procedures. The second intervention group, called the *basic mediation* group, receives identical information along with an application form and personal assistance with filling it out. The third intervention group, or *intensive mediation* group, receives information, assistance filling out the form, and an opportunity to be accompanied to the MLA's office to obtain the required signature. A fourth group of women serves as the status quo or control group and receives neither information nor assistance.

I find that providing only information increases the number of women who begin the application but does not, on average, significantly increase the number who complete the entire process. Thus, in this setting, certain ordeals within the system are not easily overcome by better information alone. This is true despite the fact that providing information to women increased their knowledge of the program to the same extent as providing information plus mediation did. In the two mediation groups, however, more women complete all steps of the application, even the final steps with which we do not assist. In comparison to a 15% completion rate in the control group 4 months after the intervention, women who receive basic mediation are 41% (6pp) more likely to complete the application process, and women who receive intensive mediation are 70% (11pp) more likely to complete it.

Higher application rates do translate into higher enrollment: treated women, pooling across the two mediation groups, are 46% (7pp) more likely to be receiving pensions than those in the control group one year after the intervention. This effect is 2.5 times higher in magnitude than the impact of anti-corruption strategies that reduced leakages in similar social pension programs implemented in another Indian state (Muralidharan et al., 2016)<sup>4</sup>. In both cases, the focus is on ensuring eligible citizens receive an entitlement they are due from the government. The large impact of individual assistance found here highlights the importance of application ordeals in determining access to such entitlements, especially when common, corruption-related distortions are minimal.

Importantly, the basic and intensive mediation interventions assist citizens at two stages where application ordeals could potentially select out women with specific vulnerabilities. Having

<sup>&</sup>lt;sup>4</sup>This intervention was aimed at introducing a secure payment system for pensions using biometric identification in place of traditional cash distribution systems in villages.

to complete an application form might exclude illiterate citizens, and getting the politician's signoff could exclude women with limited mobility outside of the household or those less connected to the MLA. My results show that the treatment impacts are conditioned by these characteristics of the women.

While 70% of the women in my sample are illiterate, the pure information treatment is only sufficient to help *literate* women complete all steps of the application on their own. Basic mediation at the stage of form filling, however, helps facilitate applications by illiterate women. Offering intensive mediation, or help visiting the legislator's office, has no additional impact on illiterate women beyond the impact of basic mediation. These findings suggest that for this group, obtaining and filling the application form is the more relevant barrier to take-up.

I also find that women who are less connected to the political gate-keeper of this program, the MLA, benefit more from mediation than those with stronger MLA connections. In addition, less connected women observe larger impacts from the two mediation treatments than from pure information. Surprisingly, less connected women benefit equally from basic and intensive mediation, suggesting that being connected with the MLA is more important for getting the form filled than getting the official signature, which may actually be given out impartially based on administrative criteria. These findings imply that the MLA is not necessarily using the signature requirement to provide biased access, but knowing the MLA provides a reliable source of mediation with the application form for some women.

Finally, the results show that women lacking autonomy in their household are dramatically underrepresented among applicants in the control group and benefit significantly from all three of the treatments offered. Notably, for these women, the intensive mediation, which helps them leave the house and obtain a politician signature, has a larger impact than either pure information or basic mediation. For these women, each trip outside of the home required for the application can be a challenge. Streamlined application procedures could improve take-up by such women, who may have the greatest need for an independent source of income from the state to improve their welfare.

Qualitative interviews and robustness checks support my interpretation of the findings and help reject alternative explanations, as discussed in Section 5. Specifically, I rule out that the interventions primarily helped women overcome cognitive constraints or welfare stigma, and I show that results are not driven by women who would have eventually applied on their own.

This work contributes to existing literature aimed at understanding take-up of welfare benefits, which has been concentrated almost exclusively in rich countries (Bhargava and Manoli, 2015; Bettinger et al., 2012; Currie, 2004; Deshpande and Li, 2017)<sup>5</sup>. In developing countries, public service deficiencies are often attributed to a breakdown in accountability between citizens, politicians, and bureaucrats<sup>6</sup>. Less research in this context focuses on take-up of welfare programs that are relatively well-administered by the state. I help fill this gap by showing that lack of information and transaction costs associated with applying are important barriers to access in developing countries as well. In addition, reducing each of these barriers increases take-up by different types of individuals, highlighting the distributive implications of ordeals when they interact with personal vulnerabilities. In this context, citizens seem constrained in opting in to welfare programs even when they want to and make efforts to because they get lost along the way in a complex and taxing system. This calls for looking at take-up as more than an all-or-nothing decision, but instead one that reflects baseline empowerment and resources.

These results are consistent with behavioral theories that suggest small, situational barriers, such as "a testy bus ride, challenging hours, or the reluctance to face a contemptuous bankteller" (Bertrand et al., 2004) may play a large role in preventing take-up of social programs by the poor. In such cases, minor changes that open up a "channel" of access, such as providing a map to the office or specifying a time to go, can help facilitate actionable behaviors (Bertrand et al., 2004). My findings support the idea that helping with initial steps or reducing hassles can substantially improve take-up. In addition, my heterogeneity analysis suggests that opening these access channels can be particularly important for those whose vulnerabilities cause them to face disproportionately high utility costs of engaging with application ordeals. These individuals may indefinitely opt out or procrastinate unless the process is made more user-friendly and less

<sup>&</sup>lt;sup>5</sup>One notable exception is a paper from Indonesia that finds imposing an ordeal mechanism to induce self-targeting helps a social program reach poorer households than using automatic enrollment to target households (Alatas et al., 2016).

<sup>&</sup>lt;sup>6</sup>Significant research documents varieties of this breakdown, and offers strategies such as decentralized government (Alderman, 2002; Alatas et al., 2012; Schneider and Sircar, 2014), political oversight of bureaucrats (Raffler, 2016), improved accountability between voters and politicians (Ferraz and Finan, 2011; Pande, 2011), secure payment infrastructures (Muralidharan et al., 2016), and community monitoring (Bjrkman and Svensson, 2009) as potential vehicles to improve outcomes.

uncertain via simplification or offering help at challenging stages.

My findings also contribute to our understanding of citizen-state engagement in developing countries. In such contexts, citizens often rely on various intermediaries to access public services<sup>7</sup>. Some intermediaries require compensation, such as payment or political support (Stokes et al., 2013)<sup>8</sup>, while others come in the form of educated or well-connected friends, neighbors, or family members who can provide assistance (Bussell, 2011; Krishna, 2011). Despite these various avenues, I show that many citizens, especially the most vulnerable, actually face a *mediation deficit*, as providing them with basic assistance increases their take-up of state resources. This implies a dearth of reliable, unbiased mediation provided by state actors, who may lack the information, capacity, or political will to reach their most vulnerable constituents. Similarly, non-state actors, such as private or civil society groups, have not sufficiently filled this gap.

Finally, my work speaks to the growing body of literature focusing on political participation by women in developing countries (Bhalotra et al., 2013; Chattopadhyay and Duflo, 2004; Kruks-Wisner, 2011; Prillaman, 2016). Previous work finds that women who lack empowerment within the household are less likely to run for office (Chhibber, 2002), and I similarly I find that these women are also less likely to access welfare schemes or engage with political intermediaries who can facilitate access. I corroborate the findings of Prillaman (2016) by showing that participation by women can be increased without changing their position in the household when external factors are at play, in this case information and individual assistance to overcome ordeals.

From a policy perspective, this research highlights the importance of creating user-friendly, simple, and streamlined application processes in addition to raising awareness of social programs to facilitate greater and more inclusive take-up. Given potential vulnerabilities of targeted groups, strengthening mediation offered directly by the bureaucracy to assist eligible citizens overcome necessary screening ordeals can also improve take-up.

The remainder of this paper is organized as follows. Section 2 describes the study context, Section 3 explains the experimental design and data collection, Section 4 presents the results and robustness checks, and Section 5 concludes and discusses policy implications of this research.

<sup>&</sup>lt;sup>7</sup>I provide a useful categorization of mediation channels highlighted in the literature in the Appendix.

<sup>&</sup>lt;sup>8</sup>Specifically in India, influential local leaders, both informal and elected, are often relied upon to serve as middlemen for gaining access to services, sometimes for a bribe (Bertrand et al., 2007; Bussell, 2014; Jha et al., 2007; Krishna, 2011; Peisakhin and Pinto, 2010; Kruks-Wisner, 2011).

# 2 Context of Study

Female-headed households are more likely to fall into and remain trapped within, cycles of poverty (Krishna, 2012). Oftentimes, families facing such conditions are the first group to be targeted when governments start offering social protection. A classic example is seen in the United States, where the Mother's Pension program was the first welfare program offered by the government to assist families facing the loss or disability of the primary income earner (Aizer et al., 2014). In India, in addition to facing higher rates of poverty, widows traditionally represent one of the most vulnerable and discriminated against groups in the social hierarchy (UN, 2001). Consequently, in India, as in many other countries, social support is offered to women in such conditions.

#### 2.1 Delhi Widow Pension Scheme

The widow pension scheme in Delhi is a non-contributory, unconditional cash transfer for life. In addition to widows, women who are divorced, permanently separated, or abandoned by their husbands are covered by this program. To be eligible, women must fall between the ages of 18-59 (becoming eligible for the old-age pension scheme at age 60), have lived in Delhi for at least 5 years, and have a household income that falls below a given threshold. Once enrolled in the scheme, women receive Rs. 1,500 (approximately \$25) per month transferred directly into their single-user bank account, made in lump sum payments every three months 10. Due to the automated and secure nature of the transfer, the program is not prone to payment leakages or substantial delays that are common to other social programs in India (WB, 2014; Muralidharan et al., 2016). Despite the clear benefits, a recent survey done by the World Bank (2014) indicates that 66% of eligible women in Delhi are not enrolled in this pension scheme.

The application process involves several steps, which are described below, followed by descriptive data from our surveys and the World Bank (2014) survey which highlights how these steps are completed in practice.

<sup>&</sup>lt;sup>9</sup>However, unlike other social schemes in India, this scheme is not limited to citizens who appear on the government's Below Poverty Line (BPL) list, which has been shown to contain both inclusion and exclusion errors (Niehaus and Atanassova, 2013).

<sup>&</sup>lt;sup>10</sup>This amount was increased to Rs. 2,500 per month in January 2017, which was after all rounds of data collection used in this paper other than the qualitative interviews conducted in July 2017.

- 1. **Obtaining an application form**: Application forms are officially available at the state legislator's office (MLA office), the district office, or online.
- 2. Filling out the application form: The application form includes three pages with fields including the woman's name, her husband's name, her address, the date of her husband's death, her aadhar card number, her bank account number, her bank branch information, the information on her marital proof, her constituency number, her MLA's name, and her signature or thumb print.
- 3. Gathering and attaching supporting documents: Along with two passport-sized photographs, the following documents must be attached to the application form:
  - Proof of Marital Status: A death certificate of the husband or a legal divorce certificate is required for widows and divorces, respectfully. For separated or abandoned women, a police report indicating that the husband has left, is missing, or living separately is required.
  - <u>Aadhar Card</u>: This unique identification card serves as identity proof and is linked to the applicant's bank account in order to process the payment.
  - <u>Proof of 5-Year Residency in Delhi</u>: Many documents (e.g. electricity bill, ration card) can fulfill this requirement as long as it has the respondent's name and a Delhi address listed from at least 5 years ago.
  - <u>Bank Account Information</u>: Applicants must provide a copy of their bank passbook which has the bank branch information as well as the page with the last transaction which indicates the current balance<sup>11</sup>.
- 4. Obtaining an MLA Signature: Once the application form has been filled out and the necessary supporting documents have been attached, the applicant must take this completed package to the MLA's office to receive a signature on her application.
- 5. Submitting Application to the District Office: After getting the MLA signature, the application package can be submitted to the district office, which is the bureaucratic

<sup>&</sup>lt;sup>11</sup>If an applicant's bank balance is too high, she is deemed ineligible.

center where the application and pension payments are processed. At the district office, the application can either be accepted or rejected based on a review of the application and supporting documents by a government employee. If the application is accepted, the outcome is now out of the hands of the applicant, who will have to check her bank account after three months to see if the money is coming. There is no other way to confirm enrollment into the program other than to wait for the money to start coming to the bank account. If the applicant is rejected at the district office, she may be instructed to provide additional or corrected documents and come back or may be deemed ineligible (due to age, residence, or income), meaning she cannot get the pension.

# 2.2 Completing the Application in Practice

Control group means from the end-line data collected in this study shed light on how citizens typically complete the application steps in practice. First, although multiple official avenues exist, 60% of the women who obtained an application form report getting it from the MLA office, and another 13% report getting it from a family member or neighbor (who likely got it from the MLA office). Only 6% of women in the control group say they got the form from the district office, and none report getting it online<sup>12</sup>. Of the women who filled out their forms, only 1% said they did it on their own, and only 5% report having to pay someone to fill it out for them<sup>13</sup>. On the other hand, 45% report a family member or neighbor filled it for them and 32% said they received help from the MLA office. Thus we see significant reliance on social and political networks to fulfill this step of the application process, and the use of non-state, paid middlemen is much less widespread than might be assumed.

Women must also travel to both the MLA and district offices in order to apply, which imposes time and financial costs. Table 1 highlights these costs for women in the control group who attempted the relevant application steps<sup>14</sup>. On average, a woman takes 2 trips to the MLA for application purposes, and each trip costs about Rs. 40 and takes 2 hours. Each trip to the district office, which tends to be much further than the local MLA office, requires a total of 3.7

<sup>&</sup>lt;sup>12</sup>see Appendix for breakdown of where women in each treatment group report obtaining their application forms. <sup>13</sup>The average amount paid was about Rs. 850(\$13), with a minimum payment of Rs. 10 and a maximum payment of Rs. 4000.)

<sup>&</sup>lt;sup>14</sup>see Appendix for breakdown of these costs across all treatment groups.

hours and costs Rs. 140 round trip. In total, women spend on average 10.5 hours and Rs. 325 (about \$5.00) completing (or attempting) the MLA and district office steps of the application. While these are not negligible time and financial costs, they should not theoretically suffice to deter take-up of a scheme that provides a payout of Rs. 1,500 per month for life, unless women are severely credit constrained or risk averse. Baseline data shows that most women have at least one person they can borrow money from when necessary. This suggests other indirect costs of engaging with the state or barriers to engagement prevent certain women from completing the application process.

#### 2.3 Potential Barriers to Access

As is the case for many welfare entitlement programs, the application process for this scheme includes locating and interacting with both politician and bureaucratic offices as well as filling out a complex application form with several required supplemental materials. It is certainly possible that lack of information regarding the program or application procedures could limit take-up.

Even with information, however, citizens may still struggle to access the scheme. Getting the application form, obtaining the MLA signature, and submitting to the district office all involve a trip to the MLA or district office, which requires time, money, and oftentimes for this population, an available family member or friend to accompany. Filling out the application form is another potential barrier to enrollment given the widespread illiteracy in the eligible population. In addition, women who rely exclusively on social, rather than political, networks may struggle to find someone to fill the form out *correctly*. Finally, the vast and stringent documentation requirements can be difficult to fulfill. Getting many of these documents requires a separate application process which comes with its own ordeals. Often the marital proof itself is the most difficult document to obtain 15. In fact, in the survey data gathered by the World Bank, citizens indicate that obtaining and filling out application forms as well as fulfilling documentation re-

<sup>&</sup>lt;sup>15</sup>Our extensive fieldwork shows that obtaining a death certificate is very difficult if the cremation slip or burial documentation is lost. Obtaining a divorce certificate requires the divorce to be first legally passed in court, which is a lengthy process, especially for Muslim households that observe verbally sanctioned divorces. Providing proof of separation or abandonment requires cooperation from the police, which is difficult for an average citizen, let alone poor and marginalized women.

quirements are important challenges in gaining access to social pensions (WB, 2014). Similarly, ex-post I find that less than 1% of the women surveyed in this experiment report filling the form on their own and many do not make it through the application because of document constraints.

There is also a politicized component to this application process in which citizens must receive the sign-off of their elected politician in order to successfully enroll in the scheme. This step can conceivably deter citizens lacking some degree of political connections with the MLA from undergoing the application process, especially women who have suddenly lost their spouse and are not accustomed to being the household member to make claims on the state (Prillaman, 2016). In addition, certain women might lack the freedom of mobility, the confidence, or the know-how to approach a politician's office and ask for a signature.

Taken together, the several layers of ordeals built into the application process suggests citizens may find it difficult to get through even once they have information. The field study described below aims to disentangle the need for better information alone from that of information with additional application assistance.

# 3 Research Design

# 3.1 Sample Selection and Randomization

To identify the study sample, I conducted a rapid screening exercise and census survey from July-August 2015 in 75 medium to large sized slum areas spanning 7 of the 10 administrative districts of Delhi. Every attempt was made to identify all widows, divorced, separated, or abandoned women who were not visibly much older than age 60. Once identified, women were rapidly screened for pension eligibility and then administered a census survey if eligible and not already enrolled in the pension scheme. A total of 4,347 women were screened, of which 82% were widows, 9% were abandoned, 5% were separated, and 4% were divorcees. Among the eligible women, 40% reported being enrolled in the pension scheme (comparable to the 34% enrollment rate found by the World Bank in 2014). Notably, this enrollment figure was actually 50% among widows and only 2.6% among non-widows who potentially did know the scheme applied to them.

Screening out women who were ineligible <sup>16</sup> or already receiving pensions, a short census survey was administered to the remaining 2,538 women. The data collected included basic demographic characteristics, address, household members' information, income, assets, reproductive history, and possession of government documents. Based on the project scope and purpose, we excluded women who did not have their marital proof or other difficult to obtain documents and did not seem likely to get them over the next 3-6 months. This left 1,420 women, of which 1,393 were selected for the study sample after dropping women whose self-reported income was too high.

Once the study sample was identified, women were randomly divided into 4 equal-sized groups, comprising of one control group and three treatment groups, detailed below. The randomization was done at the individual level, stratifying by slum.

#### 3.2 Intervention

I employ three interventions designed to identify barriers that are driving low take-up of this program. Specifically, the aim is to separate the role played by an information deficit from that played by transaction costs in which citizens struggle to overcome application ordeals even with information. The ordeals targeted are those likely to impose high utility costs given the characteristics of eligible women, including obtaining and filling out the application form and going to get the MLA signature on the application <sup>17</sup>. To measure the impact of randomly reducing these informational and transactional barriers, different groups of women received the following interventions.

The first intervention group receives only information. This includes detailed information about the pension scheme, including the benefits, eligibility criteria, documentation requirements, how to open a bank account, and the locations/timings of the local MLA and district offices.

<sup>&</sup>lt;sup>16</sup>This includes those whose length of stay in Delhi had not reached five years, those who are above the age of 60, and those who already receive income support from their husband's previous job, such as the wives of government employees.

<sup>&</sup>lt;sup>17</sup>The difficultly of providing all required documents for the application is an important barrier that is not explicitly addressed in the experimental design. It would not be possible to maintain the internal validity of the study by offering different types of documentation assistance on an individual basis by adjusting to the personal documentation constraints of different women. The information provided to women in all treatment groups, however, clearly explains which documents are required to apply and how to obtain each document, when applicable.

This information is read out-loud to the respondent and also provided in written form for future reference.

In the second intervention group, called the *basic mediation* group, women receive the same information as the first group, but in addition, we provide them with an application form and fill it out for them. We do *not* assist with gathering or making photocopies of the required documents or with subsequent application steps.

The third group, or *intensive mediation* group, receives the same information and assistance given to the first two groups, and in addition, we offer to accompany the respondent to the MLA office for a signature. We make an appointment to take them to the MLA 3 days after the initial intervention of giving them information and filling out their form. We remind them to have all of their documents and photocopies on hand at the time of the appointment. In addition to making photocopies, this three day window gives women without a bank account (only 15% of the sample at baseline) an opportunity to open one before going to the MLA. After receiving the MLA signature, the women are on their own to submit the form at the district office.

Table 2 provides summary statistics and balance checks of census data across the treatment arms. The treatment groups are balanced across all tested indicators at the 5% significance level, and it is important to note the low literacy levels, low employment rates, low income levels, and large number of potentially dependent children among the sample of women. Women on average have lost a monthly income of Rs. 5,539 that used to come from their spouse, and the pension amount of Rs. 1,500 per month (now Rs. 2,500 per month), can make up for 25% (now 45%) of these lost wages. Some women did report applying to the pension scheme previously at the time of the census survey, but as we did not capture how far they got in the application process and whether their application was accepted at the district or not, we included these women in our sample as they could potentially still benefit from our interventions<sup>18</sup>.

<sup>&</sup>lt;sup>18</sup>We did not want to have an information effect of the census survey itself by asking detailed questions about the widow pension scheme and application procedures. Thus the questions asked about widow pensions were the same as those asked about all the other documents/services that were captured in the census survey.

#### 3.3 Data Collection

In addition to the census survey, the data used in this study came from one baseline survey, one intervention survey, two end-line surveys, one qualitative module, and administrative data on pension beneficiaries. Below are the details of each round of data collection, including the time-line and number of women reached<sup>19</sup>. Table 3 summarizes the treatment design, data collection time-line, and sample size. Attrition between survey rounds was balanced across treatment groups, and reasons for attrition are provided in the Appendix. All survey data was collected on tablets, and only female surveyors conducted the baseline and qualitative questionnaire which includes potentially sensitive questions.

# • Baseline & Intervention (September - November 2015, n = 1257)

The baseline survey asks questions about family background; consumption patterns; borrowing/lending; previous experience with government programs; political profile; decision-making authority; personal autonomy; mental, social and physical health; and cognitive capacity. Immediately after the baseline survey is administered, the respondent receives an intervention based on her treatment assignment<sup>20</sup>. After the intervention, we administer a brief intervention survey to capture which components of the intervention the respondent complied with and which documents she had.

#### • End-Line I (February - April 2016, n = 1199)

This survey captures detailed information about the respondent's application experience and steps completed. It also asks about treatment spillovers to neighbors, stigma with receiving welfare, usage of bank accounts, and final acceptance rates in to the pension program.

# • End-Line II (August - October 2016, n = 1131)

This brief second end-line was conducted to recapture the final pension outcome<sup>21</sup> and also

<sup>&</sup>lt;sup>19</sup>All data collection and intervention activities were conducted by surveyors and field staff hired by J-PAL South Asia and trained by the senior research team, including the principal investigator.

<sup>&</sup>lt;sup>20</sup>The surveyor did not know until the end of the baseline survey which treatment the respondent would be receiving, so biased data collection in relation to treatment assignment is not a concern.

<sup>&</sup>lt;sup>21</sup>At the time of the first end-line, many women who had applied for pensions post-intervention still did not know the outcome of their application.

document what steps women completed in the application process in the longer run.

#### • Administrative Pension Data

To have an objective measure of whether or not the women in our sample are enrolled in the pension scheme, I scraped the Delhi government's widow pension website to obtain the official list of beneficiaries as of October 2016. Given the nature of the transfer, a lumpsum every three months, it is possible that newly enrolled women take some time to realize they are successfully enrolled due to low frequency of bank visits and the slightly arbitrary timing of the first transfer relative to these visits. Therefore, matching administrative data from October 2016, which aligns with the timing of the second end-line survey, with our sample data allowed for constructing a better measure of the actual pension outcome than what was captured by survey data alone.<sup>22</sup>.

## • Qualitative Data (June-July 2017, n=45)

In order to get a more detailed and nuanced account of the application process, 45 women were randomly selected to participate in in-depth interviews, and the sample consisted of women who did not try to apply, those who tried but failed, and those who tried and were successful. The questions ask about personal attitudes towards and experiences with applying for government schemes, constraints with fulfilling application requirements including household level factors, perceptions of the assistance offered in our experiment, and benefits (perceived or actual) from receiving this particular pension.

Table 4 presents balance checks and descriptive statistics from the baseline survey. While almost all of the women voted in the last election, a majority report dissatisfaction with the government and believe that women cannot approach the government as easily as males. There are many women who report the MLA is the first person they turn to when they need assistance with public services, suggesting some have political connections; whereas there is also a minority of women who report never having been to a government office in their entire life. In terms of empowerment within the household, about a quarter of women are not involved in the majority of financial decisions of the household, and almost half lack some degree of autonomy, measured

 $<sup>^{22}</sup>$ See Appendix for details of how our sample data was matched with administrative data and decisions taken in cases of ambiguity.

by requiring permission to do basic activities<sup>23</sup>. Finally, the financial hardships that could potentially be alleviated with a cash transfer are notable, as a majority of women face income and food insecurity, are unable to afford health care, and report anxiety about the future.

# 3.4 Compliance

Compliance, or take-up of treatment, varied across the different treatment arms of the study. One notable barrier to compliance was that 20% of treated women, despite efforts to screen out such cases from inclusion in the sample, were already receiving pensions at the time of the baseline and intervention<sup>24</sup>. This does not change the interpretation of the results but simply reduces our power to detect treatment impacts.

For women in the pure information group, 90% complied by listening to the information we provided on the pension scheme and accepting the printed handout. Of those who did not comply with this treatment, 96% were already getting pensions at baseline and thus were uninterested. In the second treatment group, compliance with the information portion of the treatment was 93%, and compliance with allowing us to fill the application form was 75%. Of the women who declined our assistance with the application form, 42% were already getting pensions, 24% refused due to document constraints, and 16% already had their applications accepted at the district office and were awaiting their pension result.

In the third and most intensive treatment group, compliance with the information portion of the treatment was 91%, and compliance with the form assistance was 71%. Compliance with the final stage of the treatment, defined as actually coming with us to the MLA office to obtain a signature, was 28%. While this is relatively low compliance, it is understandable given the nature of this final stage. In order to go with us, the respondent would have to be prepared at the time of her appointment with all of her documents and willing to spend that specific afternoon going to the politician's office. Several women who were given appointments simply were not ready with their documents, photocopies, or bank account information at the time of the appointment.

<sup>&</sup>lt;sup>23</sup>See Appendix for construction of financial decision making and autonomy variables.

<sup>&</sup>lt;sup>24</sup>Unfortunately, we do not have the same baseline level data on what percentage of women in the control group were getting pensions already as this was collected in the intervention survey. However, given balance across treatment and control groups on census level and baseline level characteristics (reported in Tables 2 and 4), there is no reason to believe the control group also had a significantly different rate of baseline pensioners.

Others were busy and/or said they would go on their own as they had a neighbor or family member available to accompany them if needed. Of the women who did come with us for the MLA signature, 76% were successful in obtaining it immediately, whereas others were turned away for various reasons or asked to make modifications and return.

## 3.5 Estimation

The results report intention-to-treat (ITT) estimates, which compares average outcomes in the treatment and control groups. All outcomes are estimated at the individual level. The estimation includes slum-fixed effects (randomization was stratified at the slum-level). Thus, the basic equation I estimate is:

$$Y_{is} = B_0 + B_1 T 1_{is} + B_2 T 2_{is} + B_3 T 3_{is} + n_s + e_{is}$$

where  $Y_{is}$  is an outcome for individual i living in slum s and  $T_1$ ,  $T_2$ ,  $T_3$  are treatment dummies for the three different intervention groups.  $n_s$  represents slum fixed effects, and  $e_{is}$  is a robust error term. In the heterogeneity analysis, I estimate:

$$Y_{is} = B_0 + \sum_{n=1}^{3} B_n T n_{it} + B_4 T 1_{is} * X_{is} + B_5 T 2_{is} * X_{is} + B_6 T 3_{is} * X_{is} + B_7 X_{is} + n_s + e_{is}$$

where  $X_{is}$  is the individual characteristic of interest for person i living in slum s.

# 4 Results

#### 4.1 Effects on Knowledge Levels

As all of the treatment arms included an information component, a primary outcome of interest is whether or not women in the treatment groups could more accurately report details of the pension scheme and application process than women in the control group at the time of End-Line I (knowledge questions were not asked in the much shorter End-Line II questionnaire.). In addition, to make the case that application assistance matters over and above the role of information, it is important to show that information on its own increases knowledge levels to

the same extent as the other interventions.

Whereas all but three women in the entire sample report knowledge of the scheme's existence, Table 5 presents the pooled and individual treatment impact on knowledge of specific program details. The results indicate that there is widespread knowledge among all women that the pension money is dispersed at the bank (column 4), but women in the pooled treatment group are 7 percentage points more likely to correctly report the pension amount awarded each month (column 1). In addition, belonging to a treatment group increases chances of knowing the MLA has to sign the application form by 8 percentage points and that the form must be finally submitted at the district office by 11 percentage points. Importantly, information on its own significantly raises knowledge levels relative to the control group in all of these dimensions, and providing additional application assistance does not substantially increase knowledge levels of the program beyond what is accomplished from the pure information treatment.

These results show that women did have gaps in their knowledge which were filled by better information, suggesting that lack of specific information about the program benefits and application procedures, despite widespread general knowledge of its existence, could be a salient barrier to take-up. Whether or not providing this information is sufficient to increase enrollment, however, remains an important question which is addressed below.

## 4.2 Effects on Application Steps Completed

The main analysis focuses on the fraction of women in each treatment group that completed the given application steps after the intervention period given that a notable subset were already receiving pensions at baseline<sup>25</sup>. In addition, the preferred specification considers results at the time of End-Line I, as the End-Line II survey measured fewer outcomes, was completed by fewer women, and also captures a potential treatment impact of participating in the End-Line I survey itself. As the End-Line I survey asked very detailed questions about take-up of the pension program and completion of all application steps, it could have served as an indirect information

<sup>&</sup>lt;sup>25</sup>Tables showing what fraction of women in each treatment group have *ever* completed the application steps are found in the Appendix. The results are similar but smaller in magnitude due to dilution of the sample with baseline pensioners.

treatment for the control group<sup>26</sup>. Thus, End-Line I results are better suited to capture the true impact of the interventions.

Table 6 displays both the pooled treatment effect and the individual treatment effect on application steps completed after the intervention period at the time of End-Line I. In comparison to women in the control group, women who received any treatment were more than twice as likely to obtain an application form and almost 50% more likely to complete all steps of the process by finally having their application accepted at the district office (columns 1 and 6)<sup>27</sup>. Thus, as a first pass, the data suggests there is room to increase enrollment in targeted social programs in this context by improving access to information and reducing the burden of ordeals via application assistance.

Table 6 also shows the differential impacts of individual treatments. While information may be necessary to begin the application process, it is not sufficient on its own to significantly increase the rate of completed applications, measured by having forms accepted at the district office (column 6). On the other hand, both basic and intensive mediation have a fairly large and significant impact on helping women make it all the way through the application process, suggesting both of these interventions are addressing salient barriers citizens face in enrollment beyond what better information can overcome. The basic mediation treatment leads to a 41% increase in completed applications, and the intensive mediation treatment leads to a 70% increase, representing a 6.2 and 10.6 percentage point increase from the control group mean, respectively. Because we excluded women from the sample with obvious document constraints, these results can be considered a lower bound if we think women with document constraints would benefit even more from information and application assistance than women who at baseline had more of their documentation requirements already sorted.

The parameters at the bottom of Table 6 show how the treatment impacts compare against one other. At the stage of obtaining and filling out the application form, both of the media-

<sup>&</sup>lt;sup>26</sup>Tables showing results at the time of End-Line II are included in the Appendix. The results are similar, but the control means notably higher than at the time of End-Line I and women who received the information treatment are now less distinguishable from the control group.

<sup>&</sup>lt;sup>27</sup>Once the form is accepted at the district office, it is out of the hands of the applicant to move the process forward, and it is usually just a matter of processing time before the pension money starts coming to the applicant's bank account. A very small percentage of applicants who have their forms accepted will not eventually get pensions due to some error in their application that was not noticed at the time of its submission.

tion treatments have a larger and statistically distinguishable impact from that of information alone. While this is in some ways a mechanical result, it suggests that providing assistance to help citizens overcome these initial ordeals does increase the likelihood that these steps will be completed beyond the increase accomplished by providing information alone. Thus, citizens may be information constrained, but they are not *only* information constrained.

In terms of attempting the MLA signature, women who receive basic mediation, or information plus assistance with obtaining and filling out the form, do go on to complete this step at higher rates than women in the control group and women who receive only information. This behavior is line with predictions that opening channels of access by helping citizens start a process or get over initial barriers can facilitate completion of subsequent tasks. However, beyond this step, while the basic mediation treatment continues to significantly improve outcomes relative to the control group, it is no longer possible to distinguish between basic mediation and information alone. This could partially reflect constraints in statistical power, but likely also reflects the difficulty of overcoming subsequent application ordeals even once women have had their forms filled.

The impact of intensive mediation, on the other hand, is statistically distinguishable from that of only information at the 5% level for all steps of the application. This clearly shows that the ordeal of getting the politician signature limits take-up even once information on how and where to get this signature is provided. Furthermore, while many women who get their forms filled do not attempt or receive the MLA signature, once women get over the hump of receiving the signature, most do submit to district office without our assistance. To further illustrate, the probability that a woman will go on to have her form accepted at the district office jumps from 52% once her form is filled to 76% once she obtains an MLA signature. But this probability only increases to 83% once she attempts a district office submission. This reflects that certain ordeals are more limiting than others, and the stage at which mediation is provided matters.

Why is the MLA signature step such an important bottleneck in the application process? At first glance, we may think this suggests a corruption story in which the MLA selectively gives a signature to political supporters or for a bribe. However, women surveyed in the end-line overwhelmingly report that the reason they failed to get the MLA signature was due to documen-

tation issues, and there is no evidence of bribery or extortion. Because the MLA signature step is the first time citizens have their documents checked, this step selects out women with missing, erroneous, or incomplete documents. This suggests that the stringent document requirements, an ordeal not directly targeted by my interventions, play an important role in limiting take-up. Furthermore, given that those who do get the MLA signature go on to have their forms accepted by the bureaucracy adds credibility to the administrative screening function rather than giving out signatures only to supporters regardless of application quality.

Still, documentation constraints notwithstanding, we see a large impact of accompanying women to the MLA office on application completion rates, suggesting that this ordeal itself limits take-up to some extent. The heterogeneity analysis discussed in Section 4.4 helps shed light on what kind of women are particularly burdened by having to go the MLA office for sign-off.

Finally, if the primary reason for not obtaining an MLA signature or submitting to the district was that women face credit constraints in the face of travel costs of going to these offices, we should not see the results seen in Table 6. None of our treatments, including the intensive mediation treatment, changed or subsidized the travel costs, yet the interventions still mobilized many more women to go to the MLA and district offices to complete the application. This suggests that the price of travel does not deter them, but perhaps just the thought of going alone or interacting with the government plays an important role. In addition, women may be more likely to use their savings or borrow money required for the fare when they feel more certainty of a positive outcome, which is likely facilitated by all of our treatments to some extent and increases with the level of support offered.

#### 4.3 Effects on Getting Pensions

Women in the treatment groups not only succeeded in *applying* for pensions at higher rates than women in the control group, but eventually they were also *enrolled* in the pension scheme at higher rates. Table 7 shows the pension outcome results for the pooled and individual treatment groups (again showing outcomes for women who had applied post-intervention at the time of

End-Line I<sup>28</sup>). In column 1, the pension outcome is measured using End-Line I data only. Due to low levels of reporting of getting pensions in both the End-Line I and End-Line II surveys despite high rates of successfully submitted applications, administrative data was relied upon to get more accurate measures of the pension outcome. Column 2 shows the results based purely on administrative data, and column 3 shows the results when the pension outcome is measured using a combination of administrative and End-Line II survey data, which is the preferred specification due to constraints of both data sources on their own<sup>29</sup>. This outcome essentially counts a woman as a pension recipient if she reported being so in the survey data or she matched in the pension beneficiary list provided in the administrative data online.

Pooling across all treatments, the interventions increased the number of pension beneficiaries by 6.2 percentage points, or 42% of the control mean (column 3, Table 8). The magnitude of impact is almost identical for the women in T2 and T3, at 6.6 percentage points and 7.0 percentage points, respectively, and smaller and insignificant for the T1 group at 4.8 percentage points. These magnitudes are statistically indistinguishable across the three treatment groups, most likely due to being under-powered to detect small differences in outcomes. Still, the individual treatment impacts on the pension outcome closely match the impact on application acceptance rates at the district office (Column 6, Table 6).

It is also important to acknowledge that even with extensive assistance, overall enrollment in the scheme remains relatively low. The pooled treatment mean for the pension outcome, regardless of application timing, is only 47.5% one year after the interventions (See Appendix). Survey data indicates that documentation constraints severely limit take-up, a stage where we did not offer mediation. Given the salience of this ordeal, providing assistance with documents may have led to much higher take-up rates, although many document problems facing the women in our sample are not easily solved. Thus, even though we don't see evidence of corruption in this program, there certainly is red tape that serves to limit and distort allocation rather than serve only as a dead-weight loss (Banerjee et al., 2013). At the same time, while the interventions had

<sup>&</sup>lt;sup>28</sup>See Appendix for other specifications.

<sup>&</sup>lt;sup>29</sup>The pure administrative data was not properly updated online for the East district, which led to underreporting of the pension outcome for women in this area, about 20% of our sample. While this error would be balanced across treatment and control groups, it still lowers the true magnitude of the result. Furthermore, women who have moved recently are systematically less likely to match in the administrative data (see Appendix for details), which again weakens the magnitude of the result.

moderate average impact, some particular groups of women saw substantial magnitude shifts in their enrollment, suggesting the composition of beneficiaries itself changed in important ways with these treatments, as detailed in the next section.

# 4.4 Heterogeneity of Impacts

Average treatment effects highlight the importance of information barriers and application ordeals in limiting take-up of this pension scheme. Next, I test for heterogeneous results along the
individual characteristics that were targeted by the design of the interventions. In particular,
I look at differential treatment impacts based on literacy, political connections, and personal
autonomy, as these characteristics may determine ability to utilize information and fulfill application requirements. These variables are minimally (sometimes negatively) correlated with one
another, suggesting they are capturing different dimensions of vulnerability<sup>30</sup>.

## 4.4.1 Literacy

Seventy percent of the women in my sample, which is arguably representative of eligible women in Delhi, are illiterate. This could be an important factor that prevents citizens from completing the pension applications independently. Table 8 shows results from the interaction of literacy with the interventions. For women who only received information, the subset that was *literate* completed all steps of the application at substantially higher rates than illiterate women in this group, eventually having their forms accepted at the district office at 14 percentage point higher rate than illiterate women (column 6). In fact, *only* literate women benefited significantly from the pure information treatment, implying they are the only ones who could utilize the information without any other assistance. On one hand, it is reassuring to find that simply better information can help at least some subset of eligible citizens access social safety nets. On the other hand, given that the majority of eligible women are illiterate, this finding also suggests that better information is insufficient to help the majority of deserving citizens access entitlement programs in such a context without further assistance.

<sup>&</sup>lt;sup>30</sup>The correlation between being illiterate and being less connected to the MLA is -0.06. The correlation between being illiterate and lacking autonomy in the household is -0.13. The correlation between being less connected to the MLA and lacking autonomy in the household is 0.05.

Unlike the pure information treatment, the two mediation treatments are able to help both literate and illiterate women, although a higher magnitude impact is still felt by literate women. This suggests that individual assistance is certainly important for illiterate women, but all else equal, being literate is advantageous to make the most of the mediation that is available<sup>31</sup>.

Importantly, there is no stage in the application process at which the impact of intensive mediation on illiterate women is distinguishable from the impact of basic mediation. As can be expected, for illiterate women, getting the form and having it filled seems to be a more relevant barrier to enrollment than attempting the politician's signature, and there is no added value of providing them with mediation at the signature stage. In addition, at the final stage of district submission, the impact of either mediation treatment on illiterate women is no longer distinguishable from the negligible impact of information, suggesting that this may be another stage of the process which is particularly difficult for illiterate women without assistance. This may be because the district office is on average further from the average woman's home than the MLA office and more difficult to find. Qualitative interviews suggest that navigating the journey to the government offices itself can be particularly taxing for illiterate women:

"For illiterate people it is very difficult. Literate people will know what bus goes where and can read the office address. The uneducated people have to keep asking around."

#### 4.4.2 Political Connections

Citizens may find it difficult to fulfill application requirements or access mediation when they are generally less plugged in to political networks and lack connections to the political figure involved with administering a given program. In this case, the MLA and his/her office staff play a central role in both informally helping citizens with their forms and officially providing

<sup>&</sup>lt;sup>31</sup>Table 8 shows a positive and significant coefficient on the *Illiterate dummy* for most application steps, meaning that illiterate women in the control group are more likely to complete the application than their literate counterparts. There are several potential explanations for this, but in particular, it is important to note that literate women in the sample are more likely to also be non-widows, and non-widows in the control group are much less likely to apply for this scheme given their probable lack of awareness that the scheme extends beyond widows to include women who are separated, divorced, or abandoned. As seen in the Appendix tables, non-widows are significantly underrepresented among control group applicants, and when I run the literacy heterogeneity test on the sample omitting non-widows, the coefficient on the illiterate dummy remains positive but smaller in magnitude and no longer significant.

the signoff required to move forward with the application. I create a dummy variable capturing whether a women turns first to her MLA when she needs assistance with public services as a proxy for being politically connected with the MLA. In this case, political connectedness does not necessarily reflect partisan affiliation but instead confidence and experience engaging with this political figure. Table 9 shows results from the interaction of political connectedness with the interventions.

First, we see that the impact of providing only information is not conditioned by having political connections, suggesting provision of information is a neutral intervention in this regard. On the other hand, basic mediation has a statistically larger positive impact on less politically connected women than it does on women with political connections, as seen by the positive coefficients on the interaction term in each stage of the application. Ultimately, women less connected with the MLA in the basic mediation group witness a 15 percentage point increase in their acceptance rates at the district office in comparison to these same type of women in the control group. This evidence suggests that political connections are useful for obtaining application forms and getting them filled, which many women do at the MLA office. Women without these connections are underrepresented in the applicant pool relative to what is possible when applitical avenues for completing these steps are readily available.

In comparing treatment impacts with one another, the parameters at the bottom of Table 7 show that the impact of both mediation treatments on less politically connected women is positive and statistically distinguishable from the impact of just pure information on these women across all application steps. Thus, information is less useful to woman lacking political connections than providing them with mediated assistance with the application. In addition, as was the case with illiterate women, the impact of the two mediation treatments on less politically connected women is not distinguishable from one another, meaning there is no added value of providing intensive mediation to these women beyond help with filling the form. Perhaps counter-intuitively, it seems that having political connections may be more important in providing access to the intermediary role played by the MLA's office in helping women fill out their forms than in helping them get the official signature, which may actually be given out on the basis of fulfilling administrative criteria.

These findings suggest that MLAs have inserted themselves within the application process by being the signing off authority not necessarily to provide biased access to their supporters, but to provide local screening and possibly to ensure citizens must rely on them to access government resources. This likely has substantial payoff during election time. Whether we consider this patronage or constituency service, it is evident from the results that their informal assistance does not reach everyone and contributes to a mediation deficit faced by citizens who are less inclined to turn to the MLA for assistance in the first place. While citizens may find other intermediaries to fill the form for them, such as neighbors and friends, because the MLA is the signing off authority, the form must be filled according to their strict guidelines, making it difficult for those who are not utilizing MLA staff to do it correctly. Due to thorough piloting done before carrying out our interventions, we learned the exact details of how to fill out the form and thus provided a reliable substitute to the MLA staff when providing our mediation treatments. Notably, providing this reliable substitute at the stage of form filling allowed less connected women to receive the sign-off from the MLA at the same rate as less connected women who were specifically helped with the sign-off via intensive mediation. This likely reflects that less connected women hesitate to approach politicians' offices to obtain forms or ask for assistance, but once these initial ordeals are overcome, they are more likely to take the step of going to get the MLA signature even without assistance.

#### 4.4.3 Household-Level Empowerment

Increasing work documents the various constraints women face in articulating their rights and responsibilities as citizens in comparison to men, motivating the importance of considering household level factors that might limit women's access to government schemes. To capture household-level empowerment, our baseline survey measured a woman's involvement in financial decision-making of the household and her autonomy to partake in activities within and outside of the household without permission. Women who are left out of decision-making or need permission for simple actions such as going shopping or taking a nap might also find it difficult to take actions to promote their welfare and access state resources. Since these two measures are highly correlated, the analysis focuses on lack of autonomy in the household, which likely has more

direct implications for applying to government programs.

Table 10 shows the results from the interaction of the treatments with a dummy variable representing women who lack autonomy in the household. One striking finding is that less autonomous women in the control group are 76% less likely to complete the application process than more empowered women in the control group. In addition, all three treatments have a larger magnitude impact on less autonomous women than more autonomous women. Moreover, for less autonomous women, information and basic mediation have statistically identical impact beyond the first two application steps which are mechanically facilitated by basic mediation. However, the large, positive impact of intensive mediation on less autonomous women remains distinguishable from the impact of pure information and from the impact of basic mediation for all steps of the application process (beyond the first two steps). Less autonomous women who receive intensive mediation see a 17 percentage point increase in their application acceptance rates at the district office relative to their control group counterparts (column 6).

Therefore, while any level of support helps less autonomous women complete the application in greater numbers, the additional support offered by the most intensive treatment in which these women are accompanied to a local politician's office does have a larger impact. This suggests that women lacking autonomy benefit more from assistance that mobilizes them and helps them leave the house to interact with outside entities. Thus application procedures that require multiple trips outside of the home may disadvantage such women who need household permission to engage with these ordeals. One woman in my sample explains the challenge of negotiating with family members:

"I don't get any support from my family in applying for these schemes. They tell me if something happens to me on the way, it is not their responsibility. That is when I get more reluctant about going to get the work done."

Given that this program provides women with a cash transfer directly into their personal bank accounts, the results in Tables 10 suggest that women who might benefit most from access to their own source of income find it particularly difficult to access this government resource. This can perpetuate the dis-empowerment of these women relative to their more autonomous counterparts and limit their ability to improve their welfare through government assistance.

# 4.5 Robustness and Alternative Explanations

Did we simply speed up a process that would have eventually occurred organically anyway? If so, this would imply that take-up happens more quickly for some than others but information barriers and ordeals do not select out more vulnerable women in the long run. Although even short-term loss of income for these women is of significance, it is important to understand whether or not long-term outcomes actually shifted due to the interventions.

As shown in Table 11, applicants in the control group are more likely to be women who have recently become eligible, measured by having been widowed, divorced, separated, or abandoned for less than a year at the time of the census. This suggests that the normal rate of take-up that occurs is mostly among women who are newly eligible and have the resources and connections to overcome ordeals in the application process. With our randomly assigned information and mediation, however, a new group of women is brought into the fold, including women who had been eligible for over a year, sometimes for several years. It is unlikely that these women would have gotten through the application on their own without the interventions given these same women are less likely to be applying from the control group where assistance was not provided<sup>32</sup>.

Another interpretation of the findings may be that the interventions simply helped women prioritize pensions as 'top of mind' given that the deprivations associated with poverty taxes their cognitive bandwidth (Mullainathan and Shafir, 2013). In other words, it isn't the ordeals themselves that limit take-up by some women, but the fact that they have multiple demands on their attention, and are thus unable to focus on the pension application. I capture cognitive capacity of women at baseline by asking them to memorize 3, 4, and 5-digit numbers and lists of 3, 4, and 5 words. As shown in Table 12, the interventions did not have a larger impact on women with lower cognitive capacity.

Similarly, my qualitative interviews indicate that that women are deeply concerned with and attentive to the process they need to undergo to access these pensions. Even those who have not successfully applied give accounts of many failed attempts at trying to decipher or navigate the

<sup>&</sup>lt;sup>32</sup>The same results found in Table 11 are presented from End-Line II in the Appendix. Notably, control group applicants are no longer more likely to be newly eligible to the scheme, suggesting some unintended impact from participating in the End-Line I survey. Otherwise, there would be no reason for the composition of the control group to change between the two end-line surveys, lending support to the decision to use End-Line I results as the preferred specification for measuring the isolated impact of the treatments.

system. Those who have not tried express disillusionment with the state due to previous negative experiences or exasperation with trying to gather the required documents before they can apply. None, however, show apathy towards the application process or incredulity regarding the many ways receiving these pensions could benefit their life. An account from one woman in my sample further illustrates that ordeals rather than inattention seem to be an important barrier to take-up:

"There was never a time when the work gets complete at one visit or in one attempt. For everything, they ask us to come many times. They will say it is because you do not have the necessary documents or because it is not the correct time or correct office to get it done, etc. The work is never completed easily. [...] The procedure is so rigid/fixed, they never have an alternate way of doing something."

Even if women do dedicate mental bandwidth to the pension applications, it is possible that the interventions worked by helping women get over procrastination. This interpretation, however, is not inconsistent with the finding that ordeals matter for take-up decisions. By helping women overcome information barriers and application ordeals, we may have reduced the utility costs of undergoing the application process to the point that women were no longer indefinitely procrastinating. It follows that reducing the burden of ordeals disproportionately helped women whose vulnerabilities may cause them to face the highest utility costs of the ordeals, or be more likely to procrastinate. Ultimately, whether more vulnerable women are actively opting out or simply procrastinating due to utility costs is not of huge consequence to the main interpretation of the findings that ordeals can limit take-up by such women.

It is also important to recognize, however, that none of our treatments helped women get all the way through the application process, as even our most intensive treatment stopped at the point of the MLA signature, leaving women on their own to complete the most time-consuming and costly step (see Table 1) of submitting the form at the district office on their own. Yet several women completed steps beyond where our treatments came in, with a significant number submitting their forms at the district office, which is the main application step we consider when discussing the effectiveness of the interventions. This suggests that even if their baseline inaction is due to procrastination, the women driving the main outcome of district acceptance are willing to put in the time, effort, and even money it takes to complete the application. Many simply need assistance and some assurances in order to do so.

Finally, public economics literature from the United States has found that stigma can limit take-up of certain welfare programs among eligible citizens. From the piloting exercises carried out before designing this experiment, it did not appear that receiving pensions from the government was stigmatized among the eligible women living in the slums we worked in. Still, to provide some clarity regarding whether or not stigma is a salient access barrier in this context, we asked women in our End-Line I survey if they thought the government should provide cash assistance to the poor and whether they personally felt any hesitance in receiving cash assistance from the government. Women in all groups responded 99% yes to the first question and 98% no to the second question, respectively. Therefore, it is unlikely that the results reflect women feeling less welfare stigma because of our interventions and taking up pensions in response.

# 5 Conclusion and Policy Implications

There is widespread evidence that cash transfer programs can improve the well-being of recipients and their families, especially when targeted at women (Bastagli et al., 2016). Oftentimes this evidence comes from experimental settings in which the selection of correct beneficiaries is ensured by the research design<sup>33</sup>. In real-world implementation, however, the reach and effectiveness of anti-poverty programs depends in part on the process by which eligible citizens are expected to enroll and whether on average, they have the capacity to do so or not.

Using a field experiment in Delhi with women eligible for the widow pension scheme, I show that simply assisting with required paperwork can boost enrollment, especially by more vulnerable women. Providing information without offering assistance, however, only helps more affluent women complete the application in higher numbers. While we may assume citizens are simply uninformed about social programs and require better information, my findings suggest information alone may not be the silver bullet to help the poor unless complementary efforts are made to ensure they can make use of the information. In addition, I find that stringent documentation

<sup>&</sup>lt;sup>33</sup>Exceptions include (Aizer et al., 2014; Duflo, 2003)

requirements significantly limit take-up of this program even with these interventions. Therefore, although there is little evidence of corruption, the process is certainly marked with notable red tape that serves to limit and distort allocation.

These findings come with clear policy implications. First, when the target population of a program is largely poor, illiterate, and dis-empowered, simple and straightforward application procedures with flexibility in documentation criteria can go a long way in facilitating inclusive take-up. In other words, ordeals should be designed keeping both Type I and Type II errors in mind so that the majority of *eligible* citizens are not deterred from enrolling. Secondly, investing in mediation offered by a neutral and accessible bureaucracy can decrease dependency on ad-hoc political and social networks to facilitate take-up. Finally, relying on self-selection can potentially leave out particularly vulnerable populations, suggesting a need for proactive outreach in local communities via information campaigns, distribution of application forms, and enrollment camps. There are also potential benefits of linking up with agencies that keep lists of widows, divorcees, and poor citizens and having an automatic enrollment option.

Ultimately, facilitating maximum take-up is as relevant to policy design as the decision regarding the type and amount of payout being offered<sup>34</sup>. An alternative to targeted welfare programs is providing all citizens with a universal basic income (UBI). Many countries, including India, are considering this option as it can provide necessary social protection while eliminating the need for multiple programs and a complex welfare administration. Yet proper implementation of UBI, assuming budgetary approval and political buy-in, will require the government to first provide unique identification and expand financial inclusion to all citizens. Therefore, ensuring equal access even to UBI requires addressing the non-trivial barriers to initial enrollment highlighted here. Otherwise, citizens who stand to benefit most from such an income maintenance program might not receive it.

In future work, I will exploit the random variation produced by my interventions in terms of engagement with the government and eventual access to the pension scheme to assess whether these activities change citizens' view of the state and create feedback loops that empower fu-

<sup>&</sup>lt;sup>34</sup>For example, in January 2017, the Delhi government substantially raised the monthly pension amount given to women enrolled in the widow pension scheme, suggesting that funding for the scheme is plentiful. Yet no changes were made to the actual administration of the scheme to improve its reach and accessibility, potentially limiting the true welfare gains made by this policy change.

ture engagement. I will also assess the welfare impact of receiving this cash transfer from the government on women and their households, especially those who are typically left out of such programs<sup>35</sup>.

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<sup>&</sup>lt;sup>35</sup>The data required to measure these second stage outcomes was collected from July-September 2017. The results will be presented in a subsequent paper.

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**TABLE 1. Time and Financial Costs for Control Group Applicants** 

Measures	
Average Number of Visits to MLA	2
Average Roundtrip Cost of Travel to MLA (Rupees)	41
Average Roundtrip Time to Travel to MLA (Hours)	1.5
Average Time Spent at MLA Office (Hours)	.52
Average Number of Visits to District Office	1.8
Average Roundtrip Cost of Travel to District Office (Rupees)	140
Average Roundtrip Time to Travel to District Office (Hours)	2.8
Average Time Spent at District Office (Hours)	.87
Observations	278

Notes: This table presents the average amount of time and money women in the control group report that they spent in completing the MLA signature and district office submission requirements of the application process. The total at the bottom represents the number of women in this group that completed the End-Line I survey, but not all of these women completed the MLA and district office submission steps.

TABLE 2. Balance Check for Study Sample Identified from Census

	·	(T1)	(T2)	(T3)	Joint
	Control	Infor-	Basic	Intensive	F-Test
Balance Variables		mation	Mediation	Mediation	p-value
Age (yrs.)	40.71	41.33	41.51	39.96	0.16
	(0.55)	(0.52)	(0.57)	(0.54)	
Literate (%)	0.31	0.25	0.26	0.32	0.08*
	(0.03)	(0.02)	(0.02)	(0.02)	
Muslim (%)	0.27	0.29	0.27	0.32	0.43
	(0.02)	(0.02)	(0.02)	(0.02)	
Non-Widows (%)	0.22	0.18	0.21	0.22	0.45
	(0.02)	(0.02)	(0.02)	(0.02)	
Household Size	4.61	4.72	4.55	4.66	0.79
	(0.13)	(0.12)	(0.12)	(0.13)	
Children Birthed	4.02	4.01	4.01	3.62	0.07*
	(0.14)	(0.13)	(0.13)	(0.13)	
Rent Home (%)	0.10	0.10	0.13	0.12	0.59
	(0.02)	(0.02)	(0.02)	(0.02)	
Years in Delhi	28.09	27.15	28.73	27.76	0.24
	(0.56)	(0.55)	(0.59)	(0.53)	
No Personal Income (%)	0.50	0.50	0.50	0.51	0.99
. ,	(0.03)	(0.03)	(0.03)	(0.03)	
Monthly Income (Rs.)	1601.06	1591.55	1591.89	1498.98	0.89
•	(111.40)	(112.99)	(105.74)	(99.94)	
Spouse's Monthly Income (Rs.)	5360.96	5558.66	5635.13	5594.69	0.94
• • • • • • • • • • • • • • • • • • • •	(348.12)	(292.40)	(354.19)	(288.36)	
Lives with Parents/In-Laws (%)	0.20	0.19	0.19	0.24	0.19
. ,	(0.02)	(0.02)	(0.02)	(0.02)	
Eligible > 1 Year (%)	0.36	0.39	0.36	0.36	0.84
- , , ,	(0.03)	(0.03)	(0.03)	(0.02)	
Previously Applied for Pension (%)	0.22	0.22	0.20	0.23	0.84
	(0.02)	(0.02)	(0.02)	(0.02)	
Observations	330	355	339	369	

Notes: This table compares average characteristics of the women in the sample across the control and treatment groups. Column 1 presents the overall mean for the entire sample whereas Columns 2, 3, 4, and 5 present means for the control group, treatment 1 group, treatment 2 group, and treatment 3 group, respectively. Column 6 presents the p-value for the joint F-test on whether any of the average values listed in columns 2-5 are statistically different from one another.

<sup>\*</sup>p < 0.10, \*\*p < 0.05, \*\*\*p < 0.01.

TABLE 3. Overview of Research Design and Timeline

	•	Census Sample	Baseline & Intervention	End-line I	End-Line II
Group	Intervention	July-Aug	Sept-Nov	Feb-April	Aug-Oct
		2015	2015	2016	2016
Control	None	330	292	278	256
<b>T1</b>	Information	355	322	308	296
<b>T2</b>	Information + Filling Application Form	339	308	298	281
Т3	Information + Filling Form + Take to MLA	369	335	315	298
Total		1393	1257	1199	1131

TABLE 4. Balance Check and Descriptive Statistics from Baseline Survey

					Joint F-Test
<b>Balance Variables</b>	Control	T1	<b>T2</b>	<b>T3</b>	p-value
Voted (%)	0.89	0.87	0.88	0.89	0.41
	(0.02)	(0.02)	(0.02)	(0.01)	
Satisfied with Govt. (%)	0.45	0.45	0.43	0.44	0.84
	(0.03)	(0.03)	(0.03)	(0.01)	
Turn to MLA for Services (%)	0.54	0.55	0.55	0.54	0.83
	(0.03)	(0.03)	(0.03)	(0.01)	
Women can Easily Approach Govt. (%)	0.49	0.48	0.45	0.47	0.76
	(0.03)	(0.03)	(0.03)	(0.01)	
Never Been to Govt. Office (%)	0.18	0.19	0.16	0.17	0.47
	(0.02)	(0.02)	(0.02)	(0.01)	
Make Fewer HH Financial Decisions (%)	0.24	0.25	0.28	0.26	0.58
	(0.02)	(0.02)	(0.02)	(0.01)	
Lack Autonomy in HH (%)	0.46	0.47	0.48	0.47	0.95
	(0.03)	(0.03)	(0.03)	(0.01)	
No Meal Entire Day (%)	0.57	0.56	0.53	0.55	0.74
	(0.03)	(0.03)	(0.03)	(0.01)	
Can't Afford Healthcare (%)	0.74	0.79	0.74	0.76	0.38
	(0.02)	(0.02)	(0.02)	(0.01)	
Anxious about Future (%)	0.67	0.70	0.72	0.70	0.63
	(0.03)	(0.03)	(0.02)	(0.01)	
Observations	292	322	308	335	

Notes: This table compares average characteristics of the women who completed the baseline survey across the control and treatment groups. Column 1 presents the overall mean for the baseline sample whereas Columns 2, 3, 4, and 5 present means for the control group, treatment 1 group, treatment 2 group, and treatment 3 group, respectively. Column 6 presents the p-value for the joint F-test on whether any of the average values listed in columns 2-5 are statistically different from one another. Statistical significance is denoted as: \*p < 0.10, \*\*p < 0.05, \*\*\*p < 0.01.

**TABLE 5: Knowledge of Pension Scheme at End-Line** 

	(1)	(2)	(3)	(4)
VARIABLES	Pension	MLA Has	Submit at	Collect
	Amount	to Sign	District Office	at Bank
Any Treatment	0.067**	0.077**	0.111***	0.018
	(0.03)	(0.03)	(0.03)	(0.03)
-				
Information (Info)	0.068*	0.060*	0.093**	0.009
	(0.040)	(0.035)	(0.040)	(0.030)
Basic Mediation (BM)	0.041	0.076**	0.114***	0.014
	(0.041)	(0.036)	(0.039)	(0.031)
Intensive Mediation (IM)	0.091**	0.094***	0.126***	0.031
, ,	(0.041)	(0.034)	(0.039)	(0.030)
Observations	1,199	1,199	1,199	1,199
Control Mean	0.507	0.730	0.576	0.827
Info=BM	0.498	0.638	0.577	0.849
Info=IM	0.550	0.278	0.374	0.431
BM=IM	0.211	0.565	0.747	0.555

Notes: This table presents pooled and individual impact on knowledge of pension scheme based on survey responses to questions asked in the End-Line I survey. *Information, Basic Mediation, and Intensive Mediation* are dummy variables that take a value of 1 if the respondent belongs to treatment group 1, treatment group 2, or treatment group 3, respectfully The dependent variables in Columns 1-4 are dummy variables capturing whether the respondent knows the amount of money pension beneficiaries receive each month from the government, that the MLA is the entity that must sign off on the application form, that the form must finally be submitted at the district office, and that the pension money is dispersed at the bank, respectfully. All regressions include slum fixed-effects. Robust standard errors in brackets.

\* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

TABLE 6. Application Steps Completed Post-Intervention by End-Line I

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Obtained	Form	MLA	MLA	District	District
	Form	Filled	Attempt	Sign	Attempt	Accept
Any Treatment	0.237***	0.226***	0.165***	0.109***	0.094***	0.070***
	(0.031)	(0.030)	(0.029)	(0.028)	(0.028)	(0.026)
7.0 (1.00)	0.44.65555	0.40 6 biblio	0.00044	0.0554	0.0.504	0.040
Information (Info)	0.116***	0.106***	0.088**	0.057*	0.058*	0.040
	(0.037)	(0.037)	(0.035)	(0.034)	(0.034)	(0.031)
Basic Mediation (BM)	0.261***	0.254***	0.161***	0.097***	0.077**	0.062*
. ,	(0.039)	(0.039)	(0.037)	(0.036)	(0.035)	(0.032)
Intensive Mediation (IM)	0.331***	0.316***	0.245***	0.171***	0.145***	0.106***
	(0.038)	(0.038)	(0.037)	(0.036)	(0.035)	(0.033)
Observations	1,199	1,199	1,199	1,199	1,199	1,199
Control Mean	0.227	0.223	0.194	0.187	0.176	0.151
Info = BM	0.000	0.000	0.051	0.255	0.583	0.501
Info = IM	0.000	0.000	0.000	0.002	0.014	0.046
BM = IM	0.081	0.126	0.035	0.048	0.063	0.197

Notes: This table presents pooled and individual treatment impacts on steps completed in the application process at the time of End-Line I by those who applied *after* the intervention. *Information, Basic Mediation, and Intensive Mediation* are dummy variables that take a value of 1 if the respondent belongs to treatment group 1, treatment group 2, or treatment group 3, respectfully. The dependent variables in Columns 1-6 are dummy variables that take a value of 1 if (1) the respondent obtained an application form, (2) the respondent's form has been filled, (3) the respondent went to the MLA's office to attempt getting a signature, (4) the respondent was successful in obtaining the signature (5) the respondent went to the district office to attempt submitting her application, and (6) the respondent's form was accepted at the district office, respectfully. All regressions include slum fixed-effects (the stratification variable), and robust standard errors are presented in brackets. The bottom panel shows p-values when testing whether the impact of an individual treatment is statistically equal to the impact of another individual treatment. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.05.

TABLE 7. Pension Outcomes for Women Who Applied Between Intervention and End-Line I

Detrices	i intervention and	Ena Eme i	
	(1)	(2)	(3)
VARIABLES	End-Line I	Admin	End-Line II Survey
	Survey Data	Data	+ Admin Data
Any Treatment	0.025*	0.045**	0.062**
	(0.014)	(0.023)	(0.025)
Information (Info)	0.039**	0.048*	0.048
	(0.019)	(0.028)	(0.031)
Basic Mediation (BM)	0.011	0.031	0.066**
	(0.017)	(0.028)	(0.032)
Intensive Mediation (IM)	0.025	0.056**	0.070**
	(0.019)	(0.028)	(0.032)
Observations	1,199	1,199	1,199
Control Mean	0.040	0.115	0.147
Info = BM	0.154	0.552	0.567
Info = IM	0.519	0.782	0.479
BM = IM	0.448	0.386	0.902

Notes: This table presents pooled and individual treatment impacts on final enrollment in the pension scheme by those who applied *after* the intervention and by End-Line I. *Information, Basic Mediation, and Intensive Mediation* are dummy variables that take a value of 1 if the respondent belongs to treatment group 1, treatment group 2, or treatment group 3, respectfully. The dependent variable in Columns 1 is dummy variable that takes a value of 1 if the respondent reported receiving pensions at End-Line I. The dependent variable in Column 2 is a dummy variable that takes a value of 1 if the respondent appeared in the official administrative list of pension beneficiaries published online in October 2016. The dependent variable in Column 3 is a dummy variable that takes a value of 1 if the respondent reported receiving pensions by the time of End-Line II survey or appeared in the official administrative list of pension beneficiaries published online in October 2016. All regressions include slum fixed-effects (the stratification variable), and robust standard errors are presented in brackets. The bottom panel shows p-values when testing whether the impact of an individual treatment is statistically equal to the impact of another individual treatment.

p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

TABLE 8. Steps Completed Post-Intervention by End-Line I Interaction with Illiteracy

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Obtained	Form	MLA	MLA	District	District
	Form	Filled	Attempt	Sign	Attempt	Accept
Information (Info)	0.341***	0.324***	0.219***	0.215***	0.200***	0.140**
	(0.071)	(0.071)	(0.068)	(0.067)	(0.065)	(0.061)
Basic Mediation (BM)	0.332***	0.322***	0.197***	0.153**	0.134**	0.082
,	(0.070)	(0.070)	(0.067)	(0.063)	(0.061)	(0.057)
Intensive Mediation (IM)	0.521***	0.495***	0.387***	0.329***	0.279***	0.210***
	(0.060)	(0.061)	(0.063)	(0.062)	(0.061)	(0.058)
Illiterate	0.120**	0.115**	0.086*	0.109**	0.091*	0.064
	(0.053)	(0.052)	(0.051)	(0.050)	(0.049)	(0.047)
Info x Illiterate	-0.310***	-0.299***	-0.182**	-0.220***	-0.196**	-0.138*
	(0.084)	(0.084)	(0.081)	(0.079)	(0.077)	(0.072)
BM x Illiterate	-0.106	-0.102	-0.055	-0.084	-0.083	-0.031
	(0.086)	(0.085)	(0.081)	(0.078)	(0.076)	(0.070)
IM x Illiterate	-0.280***	-0.264***	-0.210***	-0.233***	-0.197***	-0.152**
	(0.078)	(0.078)	(0.079)	(0.078)	(0.076)	(0.072)
Observations	1,199	1,199	1,199	1,199	1,199	1,199
Control Mean	0.227	0.223	0.194	0.187	0.176	0.151
Impact on Illiterate:						
Info = BM	0.000	0.000	0.0150	0.069	0.244	0.201
Info = IM	0.000	0.000	0.002	0.015	0.057	0.149
BM = IM	0.765	0.841	0.458	0.535	0.470	0.866

Notes: This table presents individual treatment impacts specifically for illiterate women on steps completed in the application process at the time of End-Line I by those who applied *after* the intervention. The dependent variables in Columns 1-6 are dummy variables that take a value of 1 if (1) the respondent obtained an application form, (2) the respondent's form has been filled, (3) the respondent went to the MLA's office to attempt getting a signature, (4) the respondent was successful in obtaining the signature (5) the respondent went to the district office to attempt submitting her application, and (6) the respondent's form was accepted at the district office, respectfully. All regressions include slum fixed-effects (the stratification variable), and robust standard errors are presented in brackets. The bottom panel shows p-values when testing whether the impact of an individual treatment on illiterate women is statistically equal to the impact of another individual treatment on illiterate women by comparing the additive impact of the treatment dummy plus the interaction dummy.  $^*p < 0.10$ ,  $^{**}p < 0.05$ ,  $^{***}p < 0.01$ .

TABLE 9. Steps Completed Post-Intervention by End-Line I, Interaction with Less Politically Connected to MLA

interaction with less 1 officeary Connected to MEA									
	(1)	(2)	(3)	(4)	(5)	(6)			
VARIABLES	Obtained	Form	MLA	MLA	District	District			
	Form	Filled	Attempt	Sign	Attempt	Accept			
						·			
Information (Info)	0.126**	0.123**	0.103**	0.061	0.064	0.031			
	(0.052)	(0.051)	(0.049)	(0.048)	(0.047)	(0.044)			
Basic Mediation (BM)	0.190***	0.178***	0.119**	0.043	0.022	-0.011			
	(0.054)	(0.053)	(0.051)	(0.048)	(0.047)	(0.043)			
Intensive Mediation (IM)	0.285***	0.288***	0.215***	0.132***	0.115**	0.090*			
	(0.053)	(0.052)	(0.051)	(0.050)	(0.048)	(0.046)			
Less Connected to MLA	-0.016	-0.004	-0.007	-0.031	-0.022	-0.027			
	(0.053)	(0.052)	(0.050)	(0.049)	(0.048)	(0.044)			
Info x Less Connected to MLA	-0.023	-0.039	-0.035	-0.013	-0.014	0.018			
	(0.076)	(0.076)	(0.072)	(0.070)	(0.069)	(0.064)			
BM x Less Connected to MLA	0.157**	0.167**	0.094	0.119	0.121*	0.161**			
	(0.080)	(0.079)	(0.076)	(0.073)	(0.071)	(0.067)			
IM x Less Connected to MLA	0.101	0.061	0.065	0.085	0.066	0.036			
	(0.078)	(0.078)	(0.076)	(0.074)	(0.072)	(0.067)			
Observations	1,199	1,199	1,199	1,199	1,199	1,199			
Control Mean	0.227	0.223	0.194	0.187	0.176	0.151			
Impact on Less Connected:									
Info = BM	0.000	0.000	0.011	0.039	0.082	0.053			
Info = IM	0.000	0.000	0.000	0.002	0.014	0.126			
BM = IM	0.504	0.957	0.257	0.335	0.513	0.653			
· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·			· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·				

Notes: This table presents individual treatment impacts specifically for less politically connected women on steps completed in the application process at the time of End-Line I by those who applied *after* the intervention. The dependent variables in Columns 1-6 are dummy variables that take a value of 1 if (1) the respondent obtained an application form, (2) the respondent's form has been filled, (3) the respondent went to the MLA's office to attempt getting a signature, (4) the respondent was successful in obtaining the signature (5) the respondent went to the district office to attempt submitting her application, and (6) the respondent's form was accepted at the district office, respectfully. All regressions include slum fixed-effects (the stratification variable), and robust standard errors are presented in brackets. The bottom panel shows p-values when testing whether the impact of an individual treatment on less politically connected women is statistically equal to the impact of another individual treatment on less politically connected women by comparing the additive impact of the treatment dummy plus the interaction dummy.

\* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.05, \*\*\* p < 0.01.

TABLE 10. Steps Completed Post-Intervention by End-Line I Interaction with Lack of Autonomy in the Household

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Obtained	Form	MLA	MLA	District	District
	Form	Filled	Attempt	Sign	Attempt	Accept
Information (Info)	0.060	0.066	0.043	0.025	0.031	0.026
	(0.053)	(0.053)	(0.051)	(0.050)	(0.049)	(0.045)
Basic Mediation (BM)	0.189***	0.187***	0.120**	0.050	0.047	0.056
	(0.056)	(0.055)	(0.053)	(0.051)	(0.050)	(0.047)
Intensive Mediation (IM)	0.250***	0.225***	0.163***	0.092*	0.077	0.055
	(0.054)	(0.054)	(0.053)	(0.051)	(0.050)	(0.046)
Lack of Autonomy	-0.123**	-0.118**	-0.112**	-0.110**	-0.105**	-0.068
	(0.053)	(0.052)	(0.049)	(0.049)	(0.047)	(0.045)
Info x Lack of Autonomy	0.121	0.086	0.099	0.069	0.059	0.031
	(0.077)	(0.076)	(0.072)	(0.070)	(0.069)	(0.065)
BM x Lack of Autonomy	0.156**	0.144*	0.090	0.102	0.067	0.014
	(0.079)	(0.079)	(0.075)	(0.072)	(0.070)	(0.066)
IM x Lack of Autonomy	0.175**	0.195**	0.176**	0.169**	0.148**	0.111*
	(0.077)	(0.077)	(0.075)	(0.073)	(0.071)	(0.066)
01	1 100	1 100	1 100	1 100	1 100	1 100
Observations	1,199	1,199	1,199	1,199	1,199	1,199
Control Mean	0.227	0.223	0.194	0.187	0.176	0.151
Impact on Less Autonomous						
Women:						
Info = BM	0.005	0.002	0.215	0.263	0.634	0.774
Info = IM	0.000	0.000	0.000	0.002	0.009	0.025
BM = IM	0.173	0.133	0.026	0.049	0.038	0.056

Notes: This table presents individual treatment impacts specifically for women that lack autonomy in the household on steps completed in the application process at the time of End-Line I by those who applied *after* the intervention. The dependent variables in Columns 1-6 are dummy variables that take a value of 1 if (1) the respondent obtained an application form, (2) the respondent's form has been filled, (3) the respondent went to the MLA's office to attempt getting a signature, (4) the respondent was successful in obtaining the signature (5) the respondent went to the district office to attempt submitting her application, and (6) the respondent's form was accepted at the district office, respectfully. All regressions include slum fixed-effects (the stratification variable), and robust standard errors are presented in brackets. The bottom panel shows p-values when testing whether the impact of an individual treatment on less autonomous women is statistically equal to the impact of another individual treatment on less autonomous women by comparing the additive impact of the treatment dummy plus the interaction dummy.

\* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

TABLE 11. Steps Completed Post-Intervention by End-Line I, Interaction with Eligibility Timing

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Obtained	Form	MLA	MLA	District	District
	Form	Filled	Attempt	Sign	Attempt	Accept
Any Treatment	0.264***	0.250***	0.182***	0.115***	0.113***	0.071**
	(0.037)	(0.036)	(0.034)	(0.033)	(0.032)	(0.029)
Eligible < 1yr at Census	0.119**	0.122**	0.146***	0.135**	0.162***	0.138***
	(0.056)	(0.056)	(0.054)	(0.053)	(0.052)	(0.049)
Any Treat x Eligible <1yr	-0.077	-0.070	-0.049	-0.019	-0.054	-0.005
	(0.066)	(0.066)	(0.063)	(0.062)	(0.061)	(0.058)
Observations	1,199	1,199	1,199	1,199	1,199	1,199
Control Mean	0.227	0.223	0.194	0.187	0.176	0.151

Notes: This table presents pooled treatment impact specifically for women that have been eligible for less than 1 year at the time of the census on steps completed in the application process at the time of End-Line I by those who applied *after* the intervention. The dependent variables in Columns 1-6 are dummy variables that take a value of 1 if (1) the respondent obtained an application form, (2) the respondent's form has been filled, (3) the respondent went to the MLA's office to attempt getting a signature, (4) the respondent was successful in obtaining the signature (5) the respondent went to the district office to attempt submitting her application, and (6) the respondent's form was accepted at the district office, respectfully. All regressions include slum fixed-effects (the stratification variable), and robust standard errors are presented in brackets. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

TABLE 12: Steps Completed Post-Intervention by End-Line I, Interaction with Cognitive Capacity

interaction with cognitive cupacity								
	(1)	(2)	(3)	(4)	(5)	(6)		
VARIABLES	Obtained	Form	MLA	MLA	District	District		
	Form	Filled	Attempt	Sign	Attempt	Accept		
Any Treatment	0.237***	0.231***	0.177***	0.113***	0.102***	0.087***		
•	(0.041)	(0.041)	(0.038)	(0.037)	(0.036)	(0.034)		
Memorized Four Words	0.027	0.032	0.030	0.024	0.013	0.024		
	(0.053)	(0.053)	(0.050)	(0.050)	(0.048)	(0.045)		
Any Treat x Four Words	-0.001	-0.012	-0.026	-0.008	-0.018	-0.039		
•	(0.063)	(0.062)	(0.060)	(0.058)	(0.056)	(0.053)		
Observations	1,199	1,199	1,199	1,199	1,199	1,199		
Control Mean	0.227	0.223	0.194	0.187	0.176	0.151		

Notes: This table presents pooled treatment impact specifically for women that were able to memorize a list of 4 words on steps completed in the application process at the time of End-Line I by those who applied *after* the intervention. The dependent variables in Columns 1-6 are dummy variables that take a value of 1 if (1) the respondent obtained an application form, (2) the respondent's form has been filled, (3) the respondent went to the MLA's office to attempt getting a signature, (4) the respondent was successful in obtaining the signature (5) the respondent went to the district office to attempt submitting her application, and (6) the respondent's form was accepted at the district office, respectfully. All regressions include slum fixed-effects (the stratification variable), and robust standard errors are presented in brackets.

\* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

# **APPENDIX A: Descriptive Statistics**

TABLE A1. Where Did Women Report Obtaining Pension Application Forms?

	Control	Control T1			
MLA Office	60%	57%	30%	35%	
J-PAL Research Team	2%	12%	45%	52%	
Family Member or Neighbor	13%	8%	7%	6%	
District Office	7%	7%	8%	3%	
Pradhan or Agent	2%	5%	2%	1%	
NGO or School	2%	2%	2%	0%	
Online	0%	3%	0%	0%	
Municipal Counselor's Office	5%	2%	0%	1%	
Other or Unknown Source	8%	4%	6%	1%	
Total	165	211	254	269	

Notes: This table presents a summary of where women in each treatment group reported they obtained their application forms from. The totals at the bottom of each column represent the number of women in each group that obtained an application form. The percentages in the table represent what percentage of these total women got their form from each of the listed sources on the left-hand side of the table.

TABLE A2. Average Time and Financial Costs for MLA Signature and District Office Submission

	Control	T1	<b>T2</b>	Т3
Number of Visits to MLA	2.1	1.8	1.9	1.8
Round-Trip Cost of Travel to MLA (Rupees)	41	40	51	33
Round-Trip Time to Travel to MLA (Hours)	1.5	1.5	1.4	1.4
Time Spent at MLA Office (Hours)	0.5	0.5	0.4	0.4
Number of Visits to District Office	1.8	1.9	1.8	1.7
Round-Trip Cost of Travel to District (Rupees)	140	139	132	145
Round-Trip Time to Travel to District (Hours)	2.8	2.7	2.6	2.7
Time Spent at District Office (Hours)	0.9	0.9	0.8	0.8
Observations	165	211	254	269

Notes: This table presents the average amount of time and money women in each treatment group report that they spent in completing the MLA signature and district office submission requirements of the application process. The totals at the bottom of each column represent the number of women in each group that completed the End-Line I survey, but not all of these women completed the MLA and district office submission steps.

TABLE A3. Reasons for Attrition in Each Survey Round After Census

	Baseline	End-Line I	<b>End-Line II</b>
In Village	18%	17%	13%
Busy	16%	2%	0%
Refused	15%	31%	7%
Has shifted	13%	24%	32%
Not Found	7%	0%	1%
With Husband	6%	5%	12%
Remarried	5%	7%	21%
Age 60+	4%	0%	0%
Has Passed Away	1%	12%	13%
Other	14%	2%	0%
Total	136	58	68

Notes: This table presents reasons why some respondents were not able to complete each subsequent round of surveying after the census survey from which the original sample was identified. The totals at the bottom of each column represent the number of women that did not complete the given survey, and the percentages represent what fraction of this total is represented by the reasons stated on the left-hand side of the table.

#### **APPENDIX B: Construction of Selected Outcome Variables**

## **B1. Matching Administrative Data with Survey Data**

Administrative data was scraped from the Delhi widow pension website, which was updated through October 2016 at the time. This data contains a list of roughly 154,000 approved widow pension beneficiaries with just three variables: woman's name, husband's name, and address.

The match was attempted with all 1199 women in the sample who completed the End-Line I survey. The first round of matching was done using a fuzzy matching code in Stata with a manual check and a second round was done checking all remaining women in the sample against the administrative data manually.

After this matching exercise, 384 women were classified as exact matches, meaning the wife's name, the husband's name, and the addresses were essentially identical in the administrative data and our survey data. Another 739 women were classified as non-matches, meaning there were no entries in the admin data in which the variables match well.

The remaining 76 women seemed to match with an entry in the administrative data but had some mismatch in one of the variables. They were handled as follows. Women whose name and husband's name matched exactly with the administrative data and whose address matched except for the specific house number, meaning the block letter, slum name, and area name matched exactly, were counted as matches. Women whose name and address matched exactly but the husband's name was slightly different were also counted as matches. In both cases, these women were counted as matches due to high probability of being a match given that surveyors could make small errors in capturing addresses and women sometimes reported their husbands' nicknames or informal names instead of official names when completing the survey. The remaining women were not counted as matches even if two of the three variables were exact matches.

### B2. Creating a Dummy Measure for Financial Decision-Making Power in Household

All women who completed the baseline survey were asked who has the final say in spending decisions in their household (multiple selections allowed) on the following items: a. Food Items; b. Respondent's Clothing; c. Daily Household Items (matches, soap); d. Large Household Items (bike, TV); e. Entertainment f. Healthcare for Respondent or Family; g. Education for Respondent's Children or Grandchildren; h. Savings.

The heterogeneity analysis in this paper relies on a dummy variable that takes a value of 1 if women are involved in only 0-3 of these 8 financial decisions in their household. Such women are categorized as having "less financial decision-making authority" in their household than the women who report being involved in 4 or more of these decisions.

#### **B3.** Creating a Dummy Measure for Lack of Autonomy in the Household

All women who completed the baseline survey were asked whether they need permission from anyone in their household to partake in the following activities: a. Visit Friends; b. Visit Natal Relatives; c. Go Shopping for Personal Items; d. Seek Healthcare for Herself or Her Children; e. Enroll her Children in School; f. Watch TV or Listen to Music; g. Sleep an Extra Hour in the Morning.

The heterogeneity analysis in this paper relies on a dummy variable that takes a value of 1 if women report needing permission for participating in any 1 or more of these activities. Such women are categorized as "lacking autonomy" in their household in comparison to the women who report not needing permission for participating in any of these activities.

### **APPENDIX C: Additional Specifications of Main Results**

TABLE C1. Application Steps Completed by End-Line I
Pre- and Post-Intervention

1 re- and 1 ost-intervention								
	(1)	(2)	(3)	(4)	(5)	(6)		
VARIABLES	Obtained	Form	MLA	MLA	District	District		
	Form	Filled	Attempt	Sign	Attempt	Accept		
Any Treatment	0.195***	0.187***	0.142***	0.107***	0.080**	0.056		
	(0.033)	(0.033)	(0.034)	(0.035)	(0.035)	(0.034)		
Information (Info)	0.080**	0.071*	0.077*	0.063	0.059	0.036		
Information (Info)								
	(0.040)	(0.040)	(0.041)	(0.041)	(0.041)	(0.041)		
Basic Mediation (BM)	0.258***	0.254***	0.157***	0.112***	0.079*	0.066		
	(0.036)	(0.037)	(0.040)	(0.041)	(0.042)	(0.042)		
Intensive Mediation (IM)	0.248***	0.236***	0.192***	0.146***	0.102**	0.065		
	(0.036)	(0.036)	(0.039)	(0.041)	(0.041)	(0.041)		
Observations	1,199	1,199	1,199	1,199	1,199	1,199		
Control Mean	0.597	0.590	0.522	0.475	0.457	0.406		
Info = BM	0.000	0.000	0.036	0.213	0.607	0.460		
Info = IM	0.000	0.000	0.002	0.034	0.272	0.462		
BM = IM	0.730	0.545	0.332	0.392	0.571	0.986		

Notes: This table presents pooled and individual treatment impacts on steps completed in the application process at the time of End-Line I regardless of whether these steps were taken before or after the intervention. *Information, Basic Mediation, and Intensive Mediation* are dummy variables that take a value of 1 if the respondent belongs to treatment group 1, treatment group 2, or treatment group 3, respectfully. The dependent variables in Columns 1-6 are dummy variables that take a value of 1 if (1) the respondent obtained an application form, (2) the respondent's form has been filled, (3) the respondent went to the MLA's office to attempt getting a signature, (4) the respondent was successful in obtaining the signature (5) the respondent went to the district office to attempt submitting her application, and (6) the respondent's form was accepted at the district office, respectfully. All regressions include slum fixed-effects (the stratification variable), and robust standard errors are presented in brackets. The bottom panel shows p-values when testing whether the impact of an individual treatment is statistically equal to the impact of another individual treatment.

<sup>\*</sup> p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

TABLE C2. Pension Outcomes for Women in End-Line I Sample

	(1)	(2)	(3)
VARIABLES	End-Line I	Admin	End-Line II Survey
VIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Survey Data	Data	+ Admin Data
	Survey Data	Data	+ Aumin Data
Any Treatment	0.025	0.022	0.026
Tilly Treatment	(0.029)	(0.032)	(0.034)
	(0.027)	(0.032)	(0.034)
Information (Info)	0.036	0.037	0.034
	(0.035)	(0.039)	(0.041)
	(0.055)	(0.00)	(0.0.1)
Basic Mediation (BM)	0.042	0.005	0.032
	(0.036)	(0.038)	(0.041)
Intensive Mediation (IM)	-0.003	0.024	0.014
	(0.035)	(0.038)	(0.041)
Observations	1,199	1,199	1,199
Control Mean	0.223	0.331	0.432
Info = BM	0.858	0.401	0.950
Info = IM	0.251	0.734	0.612
BM = IM	0.195	0.609	0.661

Notes: This table presents pooled and individual treatment impacts on final enrollment in the pension scheme by anyone who completed the End-Line I survey, regardless of the timing of the application. *Information, Basic Mediation, and Intensive Mediation* are dummy variables that take a value of 1 if the respondent belongs to treatment group 1, treatment group 2, or treatment group 3, respectfully. The dependent variable in Columns 1 is dummy variable that takes a value of 1 if the respondent reported receiving pensions at End-Line I. The dependent variable in Column 2 is a dummy variable that takes a value of 1 if the respondent appeared in the official administrative list of pension beneficiaries published online in October 2016. The dependent variable in Column 3 is a dummy variable that takes a value of 1 if the respondent reported receiving pensions by the time of the End-Line II survey or appeared in the official administrative list of pension beneficiaries published online in October 2016. All regressions include slum fixed-effects (the stratification variable), and robust standard errors are presented in brackets. The bottom panel shows p-values when testing whether the impact of an individual treatment is statistically equal to the impact of another individual treatment.

p < 0.10, p < 0.05, p < 0.01.

TABLE C3. Application Steps Completed Post-Intervention by End-Line II

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Obtained	Form	MLA	MLA	District	District
	Form	Filled	Attempt	Sign	Attempt	Accept
Any Treatment	0.231***	0.197***	0.092***	0.087**	0.087***	0.056*
	(0.035)	(0.035)	(0.035)	(0.034)	(0.033)	(0.032)
Information (Info)	0.107**	0.065	0.024	0.030	0.033	0.009
information (info)	(0.042)	(0.042)	(0.042)	(0.041)	(0.040)	(0.038)
	(0.042)	(0.042)	(0.042)	(0.041)	(0.040)	(0.038)
Basic Mediation (BM)	0.279***	0.251***	0.086**	0.077*	0.078*	0.068*
	(0.042)	(0.042)	(0.042)	(0.041)	(0.041)	(0.040)
Intensive Mediation (IM)	0.309***	0.278***	0.166***	0.153***	0.149***	0.092**
111011011 (1111)	(0.041)	(0.041)	(0.042)	(0.041)	(0.041)	(0.039)
Observations	1 121	1 121	1 121	1 121	1 121	1 121
	1,131	1,131	1,131	1,131	1,131	1,131
Control Mean	0.387	0.371	0.398	0.320	0.301	0.266
Info = BM	0.000	0.000	0.129	0.240	0.255	0.124
Info = IM	0.000	0.000	0.000	0.002	0.004	0.031
BM = IM	0.442	0.508	0.054	0.065	0.084	0.555

Notes: This table presents pooled and individual treatment impacts on steps completed in the application process at the time of End-Line II by those who applied *after* the intervention. *Information, Basic Mediation, and Intensive Mediation* are dummy variables that take a value of 1 if the respondent belongs to treatment group 1, treatment group 2, or treatment group 3, respectfully. The dependent variables in Columns 1-6 are dummy variables that take a value of 1 if (1) the respondent obtained an application form, (2) the respondent's form has been filled, (3) the respondent went to the MLA's office to attempt getting a signature, (4) the respondent was successful in obtaining the signature (5) the respondent went to the district office to attempt submitting her application, and (6) the respondent's form was accepted at the district office, respectfully. All regressions include slum fixed-effects (the stratification variable), and robust standard errors are presented in brackets. The bottom panel shows p-values when testing whether the impact of an individual treatment is statistically equal to the impact of another individual treatment.

\* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

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TABLE C4. Pension Outcomes for Women Who Applied Between Intervention and End-Line II

	(1)	(2)	(3)
VARIABLES	End-Line II	Admin	End-Line II Survey
	Survey Data	Data	+ Admin Data
Any Treatment	0.024	0.036	0.048*
	(0.026)	(0.026)	(0.029)
	0.010	0.042	0.027
Information (Info)	0.010	0.042	0.037
	(0.031)	(0.032)	(0.035)
Basic Mediation (BM	0.026	0.010	0.038
	(0.032)	(0.032)	(0.036)
Intensive Mediation (IM)	0.035	0.055*	0.069*
	(0.032)	(0.032)	(0.036)
Observations	1,131	1,131	1,131
Control Mean	0.148	0.160	0.199
Info = BM	0.599	0.311	0.982
Info = IM	0.409	0.694	0.370
BM = IM	0.777	0.160	0.392

Notes: This table presents pooled and individual treatment impacts on final enrollment in the pension scheme by those who applied *after* the intervention and by End-Line II. *Information, Basic Mediation, and Intensive Mediation* are dummy variables that take a value of 1 if the respondent belongs to treatment group 1, treatment group 2, or treatment group 3, respectfully. The dependent variable in Columns 1 is dummy variable that takes a value of 1 if the respondent reported receiving pensions at End-Line II. The dependent variable in Column 2 is a dummy variable that takes a value of 1 if the respondent appeared in the official administrative list of pension beneficiaries published online in October 2016. The dependent variable in Column 3 is a dummy variable that takes a value of 1 if the respondent reported receiving pensions at End-Line II or appeared in the official administrative list of pension beneficiaries published online in October 2016. All regressions include slum fixed-effects (the stratification variable), and robust standard errors are presented in brackets. The bottom panel shows p-values when testing whether the impact of an individual treatment is statistically equal to the impact of another individual treatment.

\* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

TABLE C5. Application Steps Completed by End-Line II **Pre- and Post-Intervention** 

VARIABLES         Obtained Form         Form Filled         MLA Attempt         MLA Sign         District Accept           Any Treatment         0.183***         0.148***         0.055*         0.064*         0.060*         0.037           (0.030)         (0.032)         (0.032)         (0.035)         (0.035)         (0.036)           Information (Info)         0.095***         0.053         0.022         0.032         0.030         0.012           (0.037)         (0.039)         (0.039)         (0.042)         (0.042)         (0.043)           Basic Mediation (BM)         0.235***         0.203***         0.054         0.066         0.063         0.057           (0.032)         (0.034)         (0.038)         (0.042)         (0.042)         (0.043)		(1)	(2)	(3)	(4)	(5)	(6)
Any Treatment 0.183*** 0.148*** 0.055* 0.064* 0.060* 0.037 (0.030) (0.032) (0.032) (0.035) (0.035) (0.035) (0.036)  Information (Info) 0.095*** 0.053 0.022 0.032 0.030 0.012 (0.037) (0.039) (0.039) (0.042) (0.042) (0.043)  Basic Mediation (BM) 0.235*** 0.203*** 0.054 0.066 0.063 0.057	VARIABLES	Obtained	Form	MLA	MLA	District	District
(0.030) (0.032) (0.032) (0.035) (0.035) (0.036)  Information (Info) 0.095*** 0.053 0.022 0.032 0.030 0.012 (0.037) (0.039) (0.039) (0.042) (0.042) (0.043)  Basic Mediation (BM) 0.235*** 0.203*** 0.054 0.066 0.063 0.057		Form	Filled	Attempt	Sign	Attempt	Accept
(0.030) (0.032) (0.032) (0.035) (0.035) (0.036)  Information (Info) 0.095*** 0.053 0.022 0.032 0.030 0.012 (0.037) (0.039) (0.039) (0.042) (0.042) (0.043)  Basic Mediation (BM) 0.235*** 0.203*** 0.054 0.066 0.063 0.057							
Information (Info)  0.095*** 0.053 0.022 0.032 0.030 0.012 (0.037) (0.039) (0.039) 0.042) 0.042) 0.043)  Basic Mediation (BM) 0.235*** 0.203*** 0.054 0.066 0.063 0.057	Any Treatment	0.183***	0.148***	0.055*	0.064*	0.060*	0.037
(0.037) (0.039) (0.039) (0.042) (0.042) (0.043)  Basic Mediation (BM) 0.235*** 0.203*** 0.054 0.066 0.063 0.057		(0.030)	(0.032)	(0.032)	(0.035)	(0.035)	(0.036)
(0.037) (0.039) (0.039) (0.042) (0.042) (0.043)  Basic Mediation (BM) 0.235*** 0.203*** 0.054 0.066 0.063 0.057							
Basic Mediation (BM) 0.235*** 0.203*** 0.054 0.066 0.063 0.057	Information (Info)	0.095***	0.053	0.022	0.032	0.030	0.012
		(0.037)	(0.039)	(0.039)	(0.042)	(0.042)	(0.043)
(0.032) $(0.034)$ $(0.038)$ $(0.042)$ $(0.042)$ $(0.043)$	Basic Mediation (BM)						
		(0.032)	(0.034)	(0.038)	(0.042)	(0.042)	(0.043)
Intensive Mediation (IM) 0.221*** 0.189*** 0.087** 0.095** 0.087** 0.042	Intensive Mediation (IM)	0.221***	0.189***	0.087**	0.095**	0.087**	0.042
(0.032) $(0.035)$ $(0.037)$ $(0.041)$ $(0.041)$ $(0.043)$		(0.032)	(0.035)	(0.037)	(0.041)	(0.041)	(0.043)
Observations 1,131 1,131 1,131 1,131 1,131 1,131	Observations	1 131	1 131	1 131	1 131	1 131	1 131
Control Mean 0.703 0.688 0.695 0.594 0.574 0.523			,	,			
Info = BM 0.000 0.000 0.386 0.385 0.415 0.267							
Info = IM 0.000 0.000 0.068 0.103 0.149 0.458							
BM = IM 0.512 0.597 0.348 0.459 0.547 0.705							

Notes: This table presents pooled and individual treatment impacts on steps completed in the application process at the time of End-Line II regardless of whether these steps were taken before or after the intervention. Information, Basic Mediation, and Intensive Mediation are dummy variables that take a value of 1 if the respondent belongs to treatment group 1, treatment group 2, or treatment group 3, respectfully. The dependent variables in Columns 1-6 are dummy variables that take a value of 1 if (1) the respondent obtained an application form, (2) the respondent's form has been filled, (3) the respondent went to the MLA's office to attempt getting a signature, (4) the respondent was successful in obtaining the signature (5) the respondent went to the district office to attempt submitting her application, and (6) the respondent's form was accepted at the district office, respectfully. All regressions include slum fixed-effects (the stratification variable), and robust standard errors are presented in brackets. The bottom panel shows pvalues when testing whether the impact of an individual treatment is statistically equal to the impact of another individual treatment. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

TABLE C6. Pension Outcomes for Women in End-Line II Sample

	(1)	(2)	(3)
VARIABLES	End-Line II	Admin	End-Line II Survey
	Survey Data	Data	+ Admin Data
Any Treatment	-0.001	0.008	0.014
•	(0.035)	(0.033)	(0.036)
Information (Info)	0.005	0.024	0.023
, ,	(0.042)	(0.040)	(0.043)
Basic Mediation (BM)	0.012	-0.012	0.012
,,	(0.043)	(0.040)	(0.043)
Intensive Mediation (IM)	-0.020	0.012	0.006
intensive inequation (in)	(0.042)	(0.040)	(0.043)
Observations	1,131	1,131	1,131
Control Mean	0.398	0.355	0.461
Info = BM	0.862	0.366	0.780
Info = IM	0.538	0.760	0.662
BM = IM	0.440	0.545	0.880

Notes: This table presents pooled and individual treatment impacts on final enrollment in the pension scheme by anyone who completed the End-Line II survey, regardless of the timing of the application. *Information, Basic Mediation, and Intensive Mediation* are dummy variables that take a value of 1 if the respondent belongs to treatment group 1, treatment group 2, or treatment group 3, respectfully. The dependent variable in Columns 1 is dummy variable that takes a value of 1 if the respondent reported receiving pensions at End-Line II. The dependent variable in Column 2 is a dummy variable that takes a value of 1 if the respondent appeared in the official administrative list of pension beneficiaries published online in October 2016. The dependent variable in Column 3 is a dummy variable that takes a value of 1 if the respondent reported receiving pensions at End-Line II or appeared in the official administrative list of pension beneficiaries published online in October 2016. All regressions include slum fixed-effects (the stratification variable), and robust standard errors are presented in brackets. The bottom panel shows p-values when testing whether the impact of an individual treatment is statistically equal to the impact of another individual treatment.

<sup>\*</sup> p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

### **APPENDIX D: Additional Specifications for Heterogeneity Analysis**

TABLE D1. Steps Completed Post-Intervention by End-Line I, Interaction with Non-Widow Status

	Interac	tion with two	n-Widow St	atus		
	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Obtained	Form	MLA	MLA	District	District
	Form	Filled	Attempt	Sign	Attempt	Accept
Information (Info)	0.044	0.045	0.040	0.016	0.023	0.027
	(0.043)	(0.043)	(0.041)	(0.040)	(0.039)	(0.037)
Basic Mediation (BM)	0.147***	0.143***	0.073*	0.036	0.020	0.026
	(0.045)	(0.045)	(0.043)	(0.041)	(0.040)	(0.038)
Intensive Mediation (IM)	0.237***	0.232***	0.176***	0.132***	0.105**	0.090**
	(0.045)	(0.045)	(0.044)	(0.043)	(0.042)	(0.040)
Non-Widow	-0.264***	-0.256***	-0.250***	-0.235***	-0.228***	-0.191***
	(0.043)	(0.043)	(0.040)	(0.039)	(0.038)	(0.036)
Info x Non-Widow	0.340***	0.279***	0.216***	0.176**	0.153**	0.039
	(0.085)	(0.083)	(0.076)	(0.071)	(0.069)	(0.054)
BM x Non-Widow	0.533***	0.519***	0.408***	0.279***	0.261***	0.164**
	(0.079)	(0.080)	(0.081)	(0.077)	(0.074)	(0.068)
IM x Non-Widow	0.422***	0.372***	0.310***	0.184**	0.186***	0.083
	(0.076)	(0.079)	(0.077)	(0.073)	(0.071)	(0.064)
Observations	1,199	1,199	1,199	1,199	1,199	1,199
Control Mean	0.227	0.223	0.194	0.187	0.176	0.151
Impact on Non-Widows:						
Info = BM	0.001	0.000	0.010	0.123	0.168	0.045
Info = IM	0.001	0.001	0.005	0.100	0.111	0.052
BM = IM	0.796	0.493	0.956	1.000	0.907	0.795

Notes: This table presents individual treatment impacts specifically for non-widows on steps completed in the application process at the time of End-Line I by those who applied *after* the intervention. The dependent variables in Columns 1-6 are dummy variables that take a value of 1 if (1) the respondent obtained an application form, (2) the respondent's form has been filled, (3) the respondent went to the MLA's office to attempt getting a signature, (4) the respondent was successful in obtaining the signature (5) the respondent went to the district office to attempt submitting her application, and (6) the respondent's form was accepted at the district office, respectfully. All regressions include slum fixed-effects (the stratification variable), and robust standard errors are presented in brackets. The bottom panel shows p-values when testing whether the impact of an individual treatment on non-widows is statistically equal to the impact of another individual treatment on non-widows by comparing the additive impact of the treatment dummy plus the interaction dummy. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

TABLE D2. Steps Completed Post-Intervention by End-Line I Interaction with Illiteracy for Widows Only

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Obtained	Form	MLA	MLA	District	District
	Form	Filled	Attempt	Sign	Attempt	Accept
						_
Information (Info)	0.266***	0.265***	0.199**	0.226**	0.221**	0.210**
	(0.100)	(0.100)	(0.098)	(0.096)	(0.095)	(0.093)
Basic Mediation (BM)	0.146	0.150	0.076	0.016	0.013	0.025
	(0.093)	(0.093)	(0.089)	(0.082)	(0.081)	(0.079)
Intensive Mediation (IM)	0.428***	0.413***	0.382***	0.364***	0.294***	0.227***
	(0.086)	(0.086)	(0.088)	(0.088)	(0.087)	(0.084)
Illiterate	0.070	0.067	0.043	0.074	0.054	0.031
	(0.070)	(0.069)	(0.068)	(0.067)	(0.065)	(0.062)
Info x Illiterate	-0.272**	-0.269**	-0.193*	-0.254**	-0.238**	-0.221**
	(0.112)	(0.111)	(0.109)	(0.107)	(0.105)	(0.103)
BM x Illiterate	0.001	-0.009	-0.001	0.021	0.008	-0.003
	(0.108)	(0.107)	(0.102)	(0.096)	(0.094)	(0.091)
IM x Illiterate	-0.248**	-0.235**	-0.269***	-0.302***	-0.246**	-0.180*
	(0.102)	(0.102)	(0.102)	(0.102)	(0.100)	(0.096)
Observations	946	946	946	946	946	946
Control Mean	0.227	0.223	0.194	0.187	0.176	0.151
Impact on Illiterate Women:						
Info = BM	0.001	0.002	0.127	0.131	0.373	0.420
Info = IM	0.000	0.000	0.022	0.047	0.129	0.173
BM = IM	0.524	0.462	0.443	0.616	0.540	0.578

Notes: This table restricts the sample to only widows and presents individual treatment impacts specifically for illiterate women on steps completed in the application process at the time of End-Line I by those who applied *after* the intervention. The dependent variables in Columns 1-6 are dummy variables that take a value of 1 if (1) the respondent obtained an application form, (2) the respondent's form has been filled, (3) the respondent went to the MLA's office to attempt getting a signature, (4) the respondent was successful in obtaining the signature (5) the respondent went to the district office to attempt submitting her application, and (6) the respondent's form was accepted at the district office, respectfully. All regressions include slum fixed-effects (the stratification variable), and robust standard errors are presented in brackets. The bottom panel shows p-values when testing whether the impact of an individual treatment illiterate women is statistically equal to the impact of another individual treatment on illiterate women by comparing the additive impact of the treatment dummy plus the interaction dummy. \*p < 0.10, \*\*p < 0.05, \*\*\*p < 0.01.

TABLE D3. Steps Completed Post-Intervention by End-Line II
Interaction with Illiteracy

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Obtained	Form	MLA	MLA	District	District
	Form	Filled	Attempt	Sign	Attempt	Accept
						_
Information (Info)	0.338***	0.311***	0.226***	0.246***	0.230***	0.160**
	(0.080)	(0.080)	(0.082)	(0.078)	(0.078)	(0.074)
Basic Mediation (BM)	0.460***	0.416***	0.195**	0.197***	0.166**	0.112
	(0.075)	(0.076)	(0.080)	(0.074)	(0.073)	(0.071)
Intensive Mediation (IM)	0.573***	0.530***	0.358***	0.341***	0.300***	0.224***
	(0.065)	(0.067)	(0.073)	(0.070)	(0.070)	(0.069)
Illiterate	0.199***	0.218***	0.172***	0.197***	0.168***	0.129**
	(0.065)	(0.064)	(0.066)	(0.062)	(0.061)	(0.060)
Info x Illiterate	-0.320***	-0.341***	-0.279***	-0.299***	-0.272***	-0.207**
	(0.095)	(0.095)	(0.096)	(0.093)	(0.092)	(0.088)
BM x Illiterate	-0.257***	-0.235**	-0.157	-0.172*	-0.127	-0.065
	(0.092)	(0.093)	(0.096)	(0.091)	(0.089)	(0.086)
IM x Illiterate	-0.384***	-0.367***	-0.277***	-0.271***	-0.218**	-0.191**
	(0.084)	(0.085)	(0.090)	(0.087)	(0.087)	(0.085)
Observations	1,131	1,131	1,131	1,131	1,131	1,131
Control Mean	0.387	0.371	0.398	0.320	0.301	0.266
Impact on Illiterate Women:						
Info = BM	0.000	0.000	0.053	0.093	0.080	0.033
Info = IM	0.000	0.000	0.006	0.009	0.008	0.071
BM = IM	0.780	0.730	0.396	0.360	0.376	0.768

Notes: This table presents individual treatment impacts specifically for illiterate women on steps completed in the application process at the time of End-Line II by those who applied *after* the intervention. The dependent variables in Columns 1-6 are dummy variables that take a value of 1 if (1) the respondent obtained an application form, (2) the respondent's form has been filled, (3) the respondent went to the MLA's office to attempt getting a signature, (4) the respondent was successful in obtaining the signature (5) the respondent went to the district office to attempt submitting her application, and (6) the respondent's form was accepted at the district office, respectfully. All regressions include slum fixed-effects (the stratification variable), and robust standard errors are presented in brackets. The bottom panel shows p-values when testing whether the impact of an individual treatment illiterate women is statistically equal to the impact of another individual treatment on illiterate women by comparing the additive impact of the treatment dummy plus the interaction dummy. \*p < 0.10, \*\*\* p < 0.05, \*\*\*\* p < 0.01.

TABLE D4. Steps Completed Post-Intervention by End-Line II Interaction with Less Politically Connected to MLA

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Obtained	Form	MLA	MLA	District	District
	Form	Filled	Attempt	Sign	Attempt	Accept
Information (Info)	0.097*	0.077	0.098*	0.078	0.079	0.054
	(0.058)	(0.059)	(0.058)	(0.057)	(0.056)	(0.053)
Basic Mediation (BM)	0.205***	0.154***	0.035	0.028	0.031	0.031
	(0.059)	(0.059)	(0.059)	(0.058)	(0.056)	(0.054)
Intensive Mediation (IM)	0.214***	0.214***	0.132**	0.124**	0.132**	0.111**
	(0.058)	(0.058)	(0.058)	(0.057)	(0.056)	(0.055)
Less Connected to MLA	-0.078	-0.090	-0.049	-0.050	-0.037	-0.006
	(0.063)	(0.062)	(0.063)	(0.061)	(0.059)	(0.057)
Info x Less Connected to MLA	0.017	-0.031	-0.164*	-0.107	-0.102	-0.097
	(0.086)	(0.085)	(0.084)	(0.082)	(0.080)	(0.077)
BM x Less Connected to MLA	0.156*	0.205**	0.108	0.103	0.101	0.080
	(0.086)	(0.086)	(0.088)	(0.085)	(0.084)	(0.081)
IM x Less Connected to MLA	0.204**	0.135	0.071	0.060	0.033	-0.043
	(0.083)	(0.085)	(0.087)	(0.085)	(0.084)	(0.081)
Observations	1,131	1,131	1,131	1,131	1,131	1,131
Control Mean	0.387	0.371	0.398	0.320	0.301	0.266
Impact on Less Connected:						
Info = BM	0.000	0.000	0.001	0.007	0.008	0.007
Info = IM	0.000	0.000	0.000	0.000	0.001	0.047
BM = IM	0.303	0.857	0.332	0.390	0.580	0.466

Notes: This table presents individual treatment impacts specifically for less politically connected women on steps completed in the application process at the time of End-Line II by those who applied *after* the intervention. The dependent variables in Columns 1-6 are dummy variables that take a value of 1 if (1) the respondent obtained an application form, (2) the respondent's form has been filled, (3) the respondent went to the MLA's office to attempt getting a signature, (4) the respondent was successful in obtaining the signature (5) the respondent went to the district office to attempt submitting her application, and (6) the respondent's form was accepted at the district office, respectfully. All regressions include slum fixed-effects (the stratification variable), and robust standard errors are presented in brackets. The bottom panel shows p-values when testing whether the impact of an individual treatment on less politically connected women is statistically equal to the impact of another individual treatment on less politically connected women by comparing the additive impact of the treatment dummy plus the interaction dummy.

\* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

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TABLE D5. Steps Completed Post-Intervention by End-Line II, Interaction with Financial Decision-Making Authority in the Household

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Obtained	Form	MLA	MLA	District	District
	Form	Filled	Attempt	Sign	Attempt	Accept
Information (Info)	0.066	0.043	0.007	0.008	0.005	-0.020
	(0.049)	(0.049)	(0.048)	(0.047)	(0.046)	(0.044)
Basic Mediation (BM)	0.209***	0.197***	0.062	0.047	0.034	0.035
	(0.049)	(0.049)	(0.049)	(0.048)	(0.048)	(0.046)
Intensive Mediation (IM)	0.274***	0.250***	0.140***	0.127***	0.121**	0.075
	(0.048)	(0.048)	(0.048)	(0.048)	(0.047)	(0.046)
Fewer Financial Decisions	-0.119*	-0.107	-0.121*	-0.166**	-0.190***	-0.163***
	(0.071)	(0.071)	(0.072)	(0.066)	(0.062)	(0.060)
Info x Fewer Financial Decisions	0.171*	0.088	0.066	0.089	0.113	0.120
	(0.101)	(0.100)	(0.100)	(0.093)	(0.089)	(0.085)
BM x Fewer Financial Decisions	0.289***	0.224**	0.099	0.122	0.183**	0.138
	(0.094)	(0.096)	(0.099)	(0.093)	(0.091)	(0.088)
IM x Fewer Financial Decisions	0.143	0.112	0.111	0.111	0.120	0.077
	(0.094)	(0.095)	(0.099)	(0.095)	(0.091)	(0.087)
Observations	1,131	1,131	1,131	1,131	1,131	1,131
Control Mean	0.387	0.371	0.398	0.320	0.301	0.266
Impact on Women Making						
Fewer Financial Decisions:						
Info = BM	0.001	0.000	0.302	0.371	0.227	0.352
Info = IM	0.029	0.005	0.037	0.086	0.125	0.493
BM = IM	0.277	0.463	0.292	0.407	0.763	0.794

Notes: This table presents individual treatment impacts specifically for women who make fewer financial decisions in the household on steps completed in the application process at the time of End-Line II by those who applied after the intervention. The dependent variables in Columns 1-6 are dummy variables that take a value of 1 if (1) the respondent obtained an application form, (2) the respondent's form has been filled, (3) the respondent went to the MLA's office to attempt getting a signature, (4) the respondent was successful in obtaining the signature (5) the respondent went to the district office to attempt submitting her application, and (6) the respondent's form was accepted at the district office, respectfully. All regressions include slum fixed-effects (the stratification variable), and robust standard errors are presented in brackets. The bottom panel shows p-values when testing whether the impact of an individual treatment on women who make fewer financial decisions is statistically equal to the impact of another individual treatment on women who make fewer financial decisions by comparing the additive impact of the treatment dummy plus the interaction dummy. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

TABLE D6. Steps Completed Post-Intervention by End-Line II Interaction with Lack of Autonomy in the Household

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Obtained	Form	MLA	MLA	District	District
	Form	Filled	Attempt	Sign	Attempt	Accept
Information (Info)	0.021	0.013	-0.014	-0.019	-0.023	-0.036
	(0.058)	(0.058)	(0.057)	(0.056)	(0.055)	(0.053)
Basic Mediation (BM)	0.162***	0.132**	0.028	-0.005	-0.007	0.003
	(0.059)	(0.059)	(0.058)	(0.057)	(0.056)	(0.055)
Intensive Mediation (IM)	0.258***	0.220***	0.131**	0.093	0.092*	0.044
	(0.057)	(0.057)	(0.058)	(0.057)	(0.056)	(0.054)
Lack of Autonomy	-0.064	-0.082	-0.058	-0.107*	-0.127**	-0.112**
	(0.063)	(0.063)	(0.063)	(0.061)	(0.058)	(0.057)
Info x Lack of Autonomy	0.189**	0.114	0.084	0.109	0.124	0.102
	(0.086)	(0.086)	(0.086)	(0.083)	(0.081)	(0.077)
BM x Lack of Autonomy	0.252***	0.257***	0.127	0.179**	0.188**	0.145*
	(0.085)	(0.085)	(0.087)	(0.084)	(0.083)	(0.080)
IM x Lack of Autonomy	0.113	0.127	0.078	0.133	0.127	0.108
	(0.084)	(0.085)	(0.086)	(0.084)	(0.082)	(0.079)
Observations	1,131	1,131	1,131	1,131	1,131	1,131
Control Mean	0.387	0.371	0.398	0.320	0.301	0.266
Impact on Less Autonomous Women:						
Info = BM	0.000	0.000	0.163	0.160	0.183	0.151
Info = IM	0.006	0.000	0.0210	0.023	0.047	0.127
BM = IM	0.430	0.459	0.372	0.396	0.530	0.940

Notes: This table presents individual treatment impacts specifically for women that lack autonomy in the household on steps completed in the application process at the time of End-Line I by those who applied *after* the intervention. The dependent variables in Columns 1-6 are dummy variables that take a value of 1 if (1) the respondent obtained an application form, (2) the respondent's form has been filled, (3) the respondent went to the MLA's office to attempt getting a signature, (4) the respondent was successful in obtaining the signature (5) the respondent went to the district office to attempt submitting her application, and (6) the respondent's form was accepted at the district office, respectfully. All regressions include slum fixed-effects (the stratification variable), and robust standard errors are presented in brackets. The bottom panel shows p-values when testing whether the impact of an individual treatment on less autonomous women is statistically equal to the impact of another individual treatment on less autonomous women by comparing the additive impact of the treatment dummy plus the interaction dummy.

\* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

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TABLE D7. Steps Completed Post-Intervention by End-Line II, Interaction with Eligibility Timing

Interaction with Englishing Thining						
	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Obtained	Form	MLA	MLA	District	District
	Form	Filled	Attempt	Sign	Attempt	Accept
Any Treatment	0.238***	0.199***	0.079*	0.073*	0.081**	0.045
	(0.044)	(0.044)	(0.044)	(0.042)	(0.041)	(0.038)
Eligible < 1yr at Census	0.041	0.044	0.014	0.066	0.080	0.103*
	(0.065)	(0.066)	(0.064)	(0.063)	(0.062)	(0.060)
Any Treat x Eligible <1yr	-0.020	-0.006	0.036	0.036	0.012	0.029
	(0.074)	(0.075)	(0.074)	(0.072)	(0.071)	(0.069)
Observations	1,131	1,131	1,131	1,131	1,131	1,131
Control Mean	0.387	0.371	0.398	0.320	0.301	0.266

Notes: This table presents pooled treatment impact specifically for women that have been eligible for less than 1 year at the time of the census on steps completed in the application process at the time of End-Line II by those who applied *after* the intervention. The dependent variables in Columns 1-6 are dummy variables that take a value of 1 if (1) the respondent obtained an application form, (2) the respondent's form has been filled, (3) the respondent went to the MLA's office to attempt getting a signature, (4) the respondent was successful in obtaining the signature (5) the respondent went to the district office to attempt submitting her application, and (6) the respondent's form was accepted at the district office, respectfully. All regressions include slum fixed-effects (the stratification variable), and robust standard errors are presented in brackets. \* p < 0.10, \*\*\* p < 0.05, \*\*\*\* p < 0.01

# **APPENDIX E: Charts**

**CHART E1. Mediation Channels** 

	Legal	Illegal
	Assistance provided does not include illicit fees or subvert official inclusion criteria.	Assistance provided includes illicit fees or subverts official inclusion criteria.
State Actors	<ul><li>Bureaucrats</li><li>Politicians</li><li>Government employees</li></ul>	<ul><li>Bureaucrats</li><li>Politicians</li><li>Government Employees</li></ul>
Non- State Actors	<ul> <li>Registered NGOs or private enterprises.         → Standardized and publicized fees</li> <li>Unelected local leaders without fees         → Ex. pradhans, fixers, party-workers</li> <li>Friends, family, or acquaintances.</li> </ul>	<ul> <li>Unregistered individuals or groups</li> <li>→Unreported and arbitrary payments</li> <li>→Ex. agents, brokers, middlemen</li> </ul>