Reaching Marginalized Job Seekers through Public Employment Services: Experimental Evidence from Ethiopia*

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Abstract

We experimentally evaluate an at-scale expansion of public employment services in Addis Ababa, Ethiopia, that provided up-to-date vacancy information through local offices. Benefits were concentrated among relatively lower-skill women (LSW), the most marginalized job seekers before the expansion: offers and wage employment rose, work in household enterprises fell, and earnings increased by 24 percent. Impacts exceeded what the listed vacancies could explain; instead, LSW changed expectations and aspirations. Job match quality also increased. Notably, LSW job offers arrived through friends and family, not through the service directly – evidence that social networks can carry information to those hardest to reach.

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1 Introduction

Labor markets in low-income countries (LIC) tend to have high rates of self employment, low rates of wage employment, and workers frequently move between unemployment and marginal employment without climbing to better paid jobs (Bandiera et al., 2022; Donovan, Lu and Schoellman, 2023). Increasingly, information frictions are recognized as a key factor preventing efficient allocation of workers to jobs in these contexts.[1] Existing work in LICs has found that (i) job search is costly and spatially constrained (e.g. Abebe et al., 2025; Franklin, 2018), (ii) firms and workers lack relevant information (e.g. Belot, Kircher and Muller, 2019; Carranza et al., 2022) and (iii) job seekers hold biased beliefs about job opportunities (e.g. Alfonsi, Namubiru and Spaziani, 2024; Kelley, Ksoll and Magruder, 2024). Governments spend heavily on active labor market programs to address these frictions (Card, Kluve and Weber, 2018; Crépon and van den Berg, 2016), yet whether such programs reach the job seekers facing the steepest barriers remains largely unresolved.

Policymakers increasingly turn to online job platforms for their potential to reduce search costs at scale, but these platforms can be inaccessible to more marginalized groups with limited access to mobile devices, difficulty navigating complex interfaces, and language barriers (Chakravorty et al., 2023).[2] Pre-existing information frictions, and these added exclusionary interventions, can potentially exacerbate labor market segmentation and gaps in labor market outcomes, particularly for marginalized job seekers who may struggle to access relevant information or engage in costly search. Women, in particular, often face higher barriers to job search and labor force participation and may be differentially impacted by such information frictions.[3]

How can policymakers effectively reach more marginalized job seekers? Public Employment Services (PES) represent a potential alternative. They can provide personalized and localized support to job seekers while addressing access constraints. While caseworker contact and job-search counseling delivered through PES have been shown to raise employment in high-income countries (Behaghel, Crépon and Gurgand, 2014; Maibom, Rosholm and Svarer, 2017; Schiprowski, 2020), rigorous evidence from LIC contexts remains scarce.[4] Estimating and understanding the effectiveness of LIC PES, particularly in reaching more marginalized job seekers, is a key frontier in both research and policy.

This paper presents evidence from a citywide randomized controlled trial in Addis Ababa, Ethiopia, that evaluated a program enhancing public employment services with up-to-date va-

[1] See, for example, Carranza and McKenzie (2024) and Donovan and Schoellman (2023) for recent reviews.

[2] Rigorous evidence on their effectiveness remains mixed (Afridi et al., 2023; Jones and Sen, 2025; Kelley, Ksoll and Magruder, 2024; Wheeler et al., 2022).

[3] In contexts where referral-based hiring through social networks is prevalent (Carranza and McKenzie, 2024, Table 1), women can be significantly disadvantaged (Beaman, Keleher and Magruder, 2018). In recent work with a large online job search platform, Archibong et al. (2022) find that women appear to be differentially more impacted by skills mismatches and information frictions.

[4] Effects of active labor market programs more broadly are modest on average, with job-search assistance among the most consistently positive categories (Card, Kluve and Weber, 2018; Crépon and van den Berg, 2016).

cancy information. The program was shaped by stark disparities by gender and education in Ethiopia's urban labor markets (Maaskant, 2024). These patterns also motivated our pre-registered focus on heterogeneous treatment effects by gender and skill, proxied by education.[5]

The randomized intervention leveraged complementarities between existing job search channels, combining the accessibility of PES with the systematic organization of up-to-date data from less accessible information sources. The program exploits Addis Ababa's administrative structure, where public employment services are provided through centers located in each of the city's 113 districts (*woredas*). Each center serves the local population within its district.[6] Working with government partners, we randomly assigned half of all centers across Addis Ababa to receive improved vacancy information for a period of 14 weeks. A service provider collected, digitized, and categorized vacancies from multiple online and offline sources across the city, creating weekly booklets containing about 600 listings for distribution to treated offices. We complemented this with awareness campaigns to inform job seekers about the improved services.

We estimate impacts of this citywide intervention using representative data on all relevant job seekers across Addis Ababa. Our data collection builds on a unique sampling frame that we constructed through an extensive household listing across Addis Ababa – addressing a key challenge in studying urban labor markets in low-income countries, where representative data on job seekers is often unavailable. In each city district, we randomly selected three enumeration areas and surveyed all households to identify 40,040 eligible job seekers (adults with at least 10 years of schooling willing to take up wage employment).[7] From this listing, we randomly sampled 3,530 individuals, stratified by enumeration area, gender, and skill, proxied by post-secondary education. We analyze data from three sources: the initial job seeker listing, an in-person baseline, and two waves of endline surveys during and immediately after the intervention period.

Lower-skill women in our sample are significantly less likely to be aware of the program than other job seekers in treated districts (61.7 percent vs. 72.3 percent). They are also less likely to use the booklets in treated PES centers directly. However, our findings imply large impacts of the program on job search, employment, and earnings specifically for *only* these lower-skill women.

We find that lower-skill women in treated districts roughly double the number of employ-

[5] In our baseline data, women with less education experience significantly lower employment rates, substantially lower incomes, and distinctive job search patterns. These lower-skill women are less likely to use online platforms, conduct more geographically constrained searches, and disproportionately target low-skill positions; section 2 documents these gaps in detail.

[6] This spatial organization is particularly valuable given the existing evidence on spatial constraints to job search in the same context (Abebe et al., 2021; Franklin, 2018).

[7] The choice to limit sampling to job seekers with at least 10 years of schooling stemmed from the expected match between the skills of these job seekers and the needs of formal sector employers in the local labor market. Ten years corresponds to completing general secondary school in Ethiopia, and roughly two thirds of the working-age adults reached by our listing meet this threshold.

ment offers they receive, relative to lower-skill women in control districts.[8] This positive effect on offers accompanies positive effects on downstream labor market outcomes. Treated lower-skill women turn away from subsistence entrepreneurship, reporting a 7.3 percentage point decrease in household business work, a 5.5 percentage point increase in paid wage employment (over a control mean of 39 percent), and a 24 percent increase in earned income at endline. These findings are robust to various alternative controls, adjustments for multiple hypothesis testing, controlling for spillovers, tests for experimenter demand, and checks using randomization inference.[9] Treated lower-skill women also experience higher match quality for paid work, measured both by self-reported use of previously acquired competencies in the specific job they find and self-reported job satisfaction. These are large effects for an information intervention, and they arise at scale, through existing government infrastructure.

Beyond providing specific vacancy information, our intervention appears to shift lower-skill women's search aspirations and expectations more generally. They revise reservation wages for temporary relative to permanent work, and expect higher earnings over the next four months. Recent work suggests that limited labor force participation may stem from constrained aspirations (Ahmed et al., 2024; Orkin et al., 2023) and systematically biased beliefs about job opportunities (Alfonsi, Namubiru and Spaziani, 2024; Conlon et al., 2018; Kelley, Ksoll and Magruder, 2024; Spinnewijn, 2015). Our estimates are in line with these findings. These findings suggest that lower-skill women are learning something about themselves and the labor market, rather than merely making use of the possibility of applying to a specific booklet listing. Indeed, the increase in paid employment for lower-skill women across Addis Ababa implied by our estimated treatment effect – a gross figure for this group, not a net aggregate – is over six times the total number of opportunities relevant to lower-skill women listed in the booklets over the course of the program.

Interestingly, these economically meaningful impacts of improved PES for lower-skill women do not come from direct engagement with the PES. Instead, multiple pieces of evidence from both qualitative interviews and quantitative analysis suggest that personal networks, a central determinant of labor market outcomes in their own right (Beaman, 2012; Calvó-Armengol and Jackson, 2004), played a key role in the impact of improved PES on lower-skill women's search and labor market outcomes. In open-ended questions at endline, respondents who used the booklet mention sharing vacancy information with friends and family members. Although treated lower-skill women do not detectably shift search toward personal networks in response to the intervention at endline, they are 6.1 percentage points more likely to have received an offer through this channel (which is also the modal source of offers for the control group at endline). In fact, holding

[8] The increase in offers persists beyond the intervention's end. Applications, which do not rise over the full endline window, do rise while the booklet was available, by 0.201 over a control mean of 0.086, nearly a tripling (Table C2).

[9] Because the intervention covered half of the districts of one connected urban labor market, we test for effects that cross district boundaries using three measures of indirect exposure to treated PES offices, including a baseline commuting-zone measure in the spirit of Franklin et al. (2024). Indirect exposure does not attenuate the effects for lower-skill women and shows no systematic pattern for other job seekers (subsection 4.3).

neighbors' awareness of the booklets fixed substantially reduces the estimated treatment effects on lower-skill women's job offers, including offers received through personal networks, while holding lower-skill women's own awareness fixed does not.[10] Taken together, our findings suggest that the program impacted lower-skill women not through direct awareness and their own take-up, but rather through a shift in the quality of labor market information provided through their existing search methods.

These gains for lower-skill women come with an important caveat: we find no evidence that the intervention increased employment or earnings in the aggregate. Averaged across our representative sample of job seekers with at least ten years of schooling, the estimated effects on applications, offers, paid employment, and earnings are small and statistically insignificant; the only aggregate margin that moves is a decline in household business work, mirroring lower-skill women's shift out of subsistence self-employment. The evidence is thus most consistent with the intervention redirecting access to vacancies toward the most marginalized job seekers (Crépon et al., 2013; Gautier et al., 2018), although our pooled estimates are not precise enough to rule out modest net additions to employment. Whether such a redistribution justifies the program is ultimately a question of policy priorities; at approximately USD 0.40 per lower-skill woman reached, the implied cost of shifting employment access toward the most marginalized is low.[11]

Our findings contribute to four literatures. First, we add to the evidence on job-search assistance and active labor market programs (Card, Kluve and Weber, 2018; Crépon and van den Berg, 2016; McKenzie, 2017), and in particular to the question of which job seekers such programs actually reach (Carranza and McKenzie, 2024; Carranza et al., 2022). Ours is, to our knowledge, the first experimental evaluation of a government-run public employment service at scale in a low-income country. We estimate effects on a representative population of job seekers rather than on program applicants – essential for detecting who a program reaches, not only what it does for users.[12] Second, we contribute to work on social networks in labor markets (Beaman and Magruder, 2012; Beaman, Keleher and Magruder, 2018; Calvó-Armengol and Jackson, 2004). Where existing studies document that networks transmit referrals and information among connected workers, and often disadvantage women (Beaman, Keleher and Magruder, 2018), we

[10] We are defining neighbors through close proximity of up to 0.5 kilometers away from the GPS household location of the lower-skill female job seeker.

[11] Point estimates for lower-skill men, higher-skill men, and higher-skill women in the rest of the sample are far less consistent than for lower-skill women. Average total income in lower-skill women's own households rises, so their individual gains do not appear to be offset by other household members' losses. Household income gains for the pooled sample are also concentrated in households with at least one other lower-skill woman, consistent with reallocation across, rather than within, households.

[12] Our work builds directly on the experimental literature on job search in Addis Ababa (Abebe et al., 2021, 2025; Franklin, 2018), which established the importance of spatial and informational constraints to search in this setting. We extend this agenda to a government-delivered service operating citywide and evaluated on a representative population of job seekers. Other close antecedents include experimental vacancy-information delivery through a public intermediation service for registered applicants in middle-income Peru (Dammert, Galdo and Galdo, 2015) and evaluations of services delivered by national employment agencies in middle- and high-income countries (Behaghel, Crépon and Gurgand, 2014; Crépon et al., 2013; Hirshleifer et al., 2016).

provide evidence that a public information intervention can propagate through such networks to benefit job seekers who rarely use the service directly: informal networks can serve as part of the delivery infrastructure of public policy. Our results also speak to experimental work on seeding information within communities and tracing its spread (Banerjee et al., 2019; Beaman et al., 2021). A service delivered to every district reached its most marginalized users the way seeded information does, through the people they know. Third, our estimated impacts on job search behavior, aspirations, and expectations of lower-skill women corroborate the conclusion of Carranza and McKenzie (2024) that such programs work best when they lead job seekers to revise their understanding of the labor market, reassessing which jobs to target and adjusting wage expectations. Fourth, we speak to the literature on gender gaps in job search and female labor supply (Bandiera et al., 2020; Conlon et al., 2018; Delecourt and Fitzpatrick, 2021; Heath, 2017; Jensen, 2012; Le Barbanchon, Rathelot and Roulet, 2021): community-embedded services reached precisely the lower-skill women least likely to use digital search channels, shifting them from subsistence self-employment into wage work.

This paper proceeds as follows. Section 2 describes the setting and intervention, and Section 3 the experimental design. Section 4 presents our findings, their robustness, and aggregate effects; Section 5 explores mechanisms. Section 6 concludes.

2 Context and Intervention

2.1 Job Search and Labor Market Outcomes in Urban Ethiopia

Ethiopia's urban labor markets show patterns common to many low-income country labor markets. Data from the Government's Urban Employment and Unemployment Survey (UEUS) shows youth unemployment at 26 percent in 2020, with a significant increase since 2016 (Ethiopian Statistical Service, 2020; Maaskant, 2024). Women face persistently higher barriers: urban youth unemployment reaches 33 percent for women versus 20 percent for men, with young women three times more likely to be inactive than young men. These gender gaps intersect with education levels, as 80 percent of unemployed youth between 2006 and 2020 had not completed secondary education. Among those with only primary education, unemployment rates are nearly twice as high for women (39 percent) compared to men (21 percent).

Our baseline survey data confirms significant gaps across these dimensions (Table 1). Lower-skill women (LSW) lag behind other job seekers: their paid employment rate (35 vs. 56 percent), monthly income (1,080 vs. 4,320 Ethiopian birr), and job search activity (1 vs. 1.6 hours searched in the past 7 days). Their search patterns are distinctive: They are significantly less likely to use offline and online media (7 vs. 27 percent) and predominantly target low- and medium-skill positions (23 vs. 17 percent). When conducting in-person searches, LSW operate within a smaller geographical radius, visiting fewer neighborhoods and traveling shorter distances. While

personal networks are the most common search method across all groups, LSW rely more exclusively on this channel. These stark contrasts motivated our analytical focus on comparing LSW with the rest of the sample (RoS).

This reliance on networks exists within a job search environment with fragmented information channels. Low-skill job vacancies are primarily advertised on centrally-located job boards, requiring costly travel (Abebe et al., 2021). While online platforms are growing in popularity, they primarily serve higher-skill job seekers. In contrast, public employment service centers are distributed throughout residential neighborhoods, making them geographically accessible. However, these centers are widely perceived as ineffective due to outdated information.[13]

2.2 Intervention Design and Implementation

In 2019, the Ethiopian government launched a reform of active labor market policies focusing on improved employment and intermediation services through approximately 1,700 government service centers across the country. The goal of this reform was to reduce information frictions by bringing vacancy data to government offices. We worked closely with federal and local government partners and a private online jobs platform to design, implement, and evaluate a pilot program in Addis Ababa to realize this goal.

The program processed, collated, and aggregated vacancy postings from existing offline and online channels. This information was curated into weekly booklets that were provided to government public employment service centers in randomly selected districts throughout the city. In Addis Ababa's administrative structure, each district (*woreda*) has one PES center, also known as "one-stop service center" (OSSC), and residents are required to use the center in their district of residence.[14]

Prior to our intervention, PES centers faced significant limitations in their ability to serve job seekers effectively. While these centers offered free, in-person services with caseworker support in accessible neighborhood locations, they lacked reliable, up-to-date information on job vacancies. The centers had no prior systematic connection to vacancy data flows from either online or offline sources and no digital case management system. Job information was sporadic, often outdated, and largely dependent on employers directly contacting specific PES centers.

The program explicitly aimed to address key limitations of, and leverage complementarities between, existing job search methods: Public employment offices offered localized, free, in-person services with caseworker support, but were viewed as ineffective due to outdated and incomplete vacancy information. In contrast, online jobs platforms provided systematic organi-

[13] We elicited detailed beliefs about the returns to job search through various channels. We asked respondents about their expected number of job offers in the next four months if they only searched for work in one channel. Among respondents living in control areas, the public employment services are seen as the least efficient, generating on average 1.5 offers in expectation. Online job search is seen as more effective, generating 2.95 offers in expectation. Costly private intermediation agencies are seen as most effective, generating 3.81 offers in expectation. Every reported mean is weighted to reflect the overall job seeker population in Addis Ababa with more than 10 years of education.

[14] See Appendix Figure A1a for a map.

zation and up-to-date vacancy data but remained inaccessible to many marginalized job seekers.

Between early November 2022 and early February 2023, a dedicated service provider collected vacancy data daily from multiple online job websites, physical job boards, newspapers, brokers, and other sources across the city. These vacancies were digitized, de-duplicated, and manually coded by occupation and skill level, generating an average of 596 listings per week, of which 15.3 percent were low- and medium-skill positions.[15] Our research team manually reviewed the listings every week. The processed vacancies were added to our partner's online jobs platform and made available through their existing online channels.

In treated districts, the PES office received weekly printed booklets organizing all current vacancies, which were available for job seeker consultation during opening hours. The booklet was delivered every Thursday morning to ensure that the PES office and their staff could plan accordingly.[16] Booklets were professionally typeset, illustrated, and branded with the logos of the Ethiopian federal government, the online job search platform, and the University of Oxford. They also included instructions for their use and contact information of the government and the online job search platform. To ensure the availability of the booklets, our team worked with a separate survey firm to conduct unannounced audits in randomly selected PES offices.[17] To ensure that job seekers residing in treated areas were aware of the booklets, we conducted an awareness campaign in November 2022. The campaign involved posting banners across treated areas, including information on the location of the local PES office and an explanation of the booklet contents.

On average, each weekly booklet contained approximately 600 vacancies, about 15 percent of which we classified as low- or medium-skill jobs. Following norms in this context, these low- and medium-skill jobs were further divided into two categories: sales and services, and manufacturing and construction. Vacancies were roughly split evenly between these two categories. A vacancy could appear in the booklet more than once, provided its application deadline met the inclusion criterion of being at least two days after booklet delivery. Across the 14 weeks of the intervention, the booklets featured 2,669 unique vacancies, of which we classified 1,156, or about 43 percent, as low- or medium-skilled. Typical low- and medium-skill vacancies included positions in supermarkets, store keeping, clerical roles, and jobs in the hotel and restaurant sector. Table A1 summarizes key statistics on the booklet contents.

In total, 13 different booklets were made available during the 14-week intervention period.

[15] We followed the International Standard Classification of Occupations (ISCO) from the International Labour Organization (ILO) in coding the vacancies.

[16] The choice of physical booklets rather than electronic delivery was informed by our qualitative research, which identified potential constraints in both infrastructural capacity at employment centers and digital literacy among lower-skill job seekers. Given the widespread use of print media for job search in this context, physical booklets represented the most appropriate delivery mechanism. Figure A2 shows examples of the booklet structure and content, including vacancies in sales and services classified as low- or medium-skilled.

[17] 53 visits were conducted during the intervention period, of which 46 visits met our criteria for sufficient availability of the booklet. Among the 7 visits with insufficient availability, 4 were due to the booklet not being available and 3 were due to the PES center being closed.

The first booklet was delivered to local public employment centers on November 2, 2022, and the final booklet on February 8, 2023. The booklet delivery was paused for the week of January 18, 2023 due to the Ethiopian Epiphany holiday (*Timkat*). Data from our random implementation audits suggests that the booklets were actively used. During our audit visits, PES center staff were asked to estimate the number of job seekers in the previous seven days and the number of booklet users. At the median, 50 job seekers visit a PES center per week, with 15 of them actively using the booklet.

3 Experimental Design

Our study employs a cluster-randomized design at the district level across Addis Ababa combined with a bespoke job seeker census and stratified sampling protocol designed to provide representative estimates of the community-level intervention on individual job seekers by our pre-specified gender and education categories. Figure 1 illustrates the experimental design in a Consolidated Standards of Reporting Trials (CONSORT) chart.

3.1 Randomization

We randomize all of Addis Ababa's 113 districts (*woredas*) with PES offices into 57 treatment and 56 control districts, stratified by the 11 higher-level administrative divisions ("subcities") of Addis Ababa.[18] This randomization exploits Addis Ababa's administrative structure, where public employment services are provided through centers located in each district. Each PES center serves only the local population within its district, and residents are required to use the center in their district of residence.

In treated districts, the PES offices were provided with improved services through the weekly vacancy booklet described in subsection 2.2. Residents in treated districts were also informed about the improved services with an awareness campaign that involved flyers in centrally located locations in the district (e.g. bus stops, community centers). In control districts, the existing PES infrastructure continued to operate as before.[19]

3.2 Construction of Sampling Frame

Our data collection and analysis draws on a representative sample of job seekers in Addis Ababa with at least 10 years of education. We define "job seekers" as individuals willing and available

[18] There are 116 districts in total. We work in 113 out of 116, excluding three districts that did not have a functioning PES office at the time of data collection.

[19] In addition to this intervention, a second independent individual-level intervention was fielded, focusing on providing information about the labor market. That intervention was randomized orthogonally to the district-level PES intervention and is not part of this paper. We control for this individual-level intervention throughout our analysis.

to take up employment if offered, regardless of whether they are actively searching.[20]

In the absence of an existing job seeker census or suitable administrative data in Ethiopia, we constructed our own sampling frame through door-to-door surveying in randomly selected enumeration areas (EAs) across Addis Ababa's districts.[21] From 605 EAs provided by the Ethiopian Central Statistical Agency, we randomly selected 375 EAs, ensuring a minimum of three EAs per district (Appendix Figure A1b). The listing survey was conducted between May and July 2022. Our stratification by geography, gender, and education level (a binary dummy for more than 12 years of education) ensures representativeness across Addis Ababa.

Enumerators visited every household within the selected enumeration areas.[22] Respondents had to be members of the household (e.g., not housemaids or gatekeepers) and at least 18 years old. In 35 percent of cases, the household head was interviewed, while in 21 percent it was their spouse, in 25 percent one of their adult children, and in 19 percent of cases some other adult household member. Overall, 56 percent of respondents were female.[23]

Based on this listing, we defined an eligible job seeker for our intervention as anyone in this population who is willing to take up wage employment in Addis Ababa within the next three or six months.[24] This process identified a sampling frame of 40,040 eligible job seekers. From this pool, we randomly sampled 3,530 individuals for our study, stratified by city divisions (*subcity*), city district, enumeration area, gender, and completion of more than 12th grade education.

3.3 Data

We present three waves of data on our experimental sample: (i) job seeker listing data (May to July 2022), (ii) baseline data prior to intervention implementation (August to October 2022), and (iii) endline data collected in two waves during and after the intervention (March to June 2023).[25] Appendix Figure A3 provides a timeline of data collection and intervention delivery.

Listing The listing data serves dual purposes. Beyond constructing our sample of job seekers, it provides information on the overall number of job seekers in a given geographic area. Since enumeration areas comprise approximately 150 to 200 housing units, they can serve as a proxy for a job seeker's immediate neighbors. For each enumeration area resident that is reached by our listing, we document skill level and job search behavior, including active search within the past

[20] Consequently, not all individuals in our sample were actively searching for employment at the baseline survey. This is in line with other recent papers in the same context (Abebe et al., 2021).

[21] Enumeration areas are clearly delineated, non-overlapping geographical units comprising 150 to 200 housing units. See also Abebe et al. (2025).

[22] To ensure comprehensive coverage, enumerators were required to make at least three visits to each household at six-hour intervals, including at least one visit on a different day, before a household could be classified as unreachable.

[23] Enumerators visited households on weekdays as well as on weekends and holidays to improve response rates. Overall, 19.1 percent of households could not be reached within three attempts. Refusal rates were relatively low, at 3.5 percent.

[24] In our listing survey, this was elicited with two separate questions to give us flexibility in sampling.

[25] We also collected phone follow-up surveys between baseline and endline, but we omit them here for clarity.

30 days and whether they would take up wage employment within three or within six months if offered. These data also enable analysis of household composition, particularly regarding the proportion of working-age household members engaged in job search. In total, the listing reached 103,227 individuals across the 375 sampled EAs.

Baseline The baseline was collected between end of August 2022 and late October 2022. We conducted face-to-face baseline surveys with 3,530 individual job seekers between August and October 2022. The baseline instrument collected data on household characteristics, schooling, cognitive and non-cognitive skills, risk and time preference, decision making, activities, employment and time use, job search behavior, job search expectations and beliefs, plans to start a business, and various income sources. Appendix Table A2 summarizes our baseline sample.

Endline We conducted endline surveys six months after the beginning of intervention implementation, following the same format as the baseline. The endline achieved an 85 percent response rate, reaching 3,003 participants from the original sample. To minimize attrition, we conducted phone surveys with a reduced questionnaire for participants who had relocated from Addis Ababa. The endline data collection was randomly stratified into an early (March to April 2023) and a late (April to June 2023) wave, allowing us to examine how treatment effects evolved over time. With the final vacancy booklet delivered to PES offices on February 8, 2023, the early wave captures effects while job listings remained relevant, while the late wave measures impacts after the intervention had concluded. The early wave included 1,507 respondents (50.2 percent of endline sample) while the late wave included 1,496 respondents (49.8 percent).[26] The endline survey incorporated additional modules to assess treatment uptake, including questions about respondents' proximity to employment centers, perceived returns to different search methods, and open-ended questions about booklet usage for those who accessed them.

Outcome Measures Our primary endline outcomes capture job search and labor market status over the 30 days preceding the interview. Applications and job offers count applications submitted and offers received, with offers summed over permanent, temporary, and casual positions. Employment for pay indicates any work for pay, including casual and temporary labor, with corresponding total monthly hours. Work in household business indicates running, or working for pay in, a non-agricultural household enterprise, with corresponding monthly hours. Total earned income sums cash and in-kind earnings across all activities, winsorized at the 99th percentile, separately by our main analysis split (LSW vs RoS). To examine mechanisms, we use reservation wages for permanent and temporary positions and their gap, expectations about offers and salaries over the next four months, the channels through which respondents search for

[26] It is worth noting that the early endline period coincided with Adwa Victory Day commemorations and related protests, which in 2023 generated significant tensions in Addis Ababa and may have temporarily disrupted normal job search activities.

and receive offers recorded in a roster of up to twenty search episodes for each of three job types, and two measures of match quality among the paid jobs respondents hold: whether the job allows them to apply previously acquired competencies, and whether they report at least neutral job satisfaction. Unless otherwise noted, we report all outcomes with sampling weights applied.

Measuring Spatial and Network Exposure Our measures of each respondent's spatial and social environment are built from four inputs. The listing survey records, for every adult it reaches, their gender, highest grade completed, and the household and enumeration area in which they live. For adults in our target population, it asks whether they would take up wage employment within three months and within six months if offered and whether they have taken any action to find work. Every listed household and every PES office is geo-located. The endline survey records whether each respondent was aware of the booklet and whether they used it. The baseline survey records where respondents work or look for work. From these we construct the following measures. Counting the other listed job seekers in a respondent's enumeration area gives the density of potential job seeker contacts among their immediate neighbors. Combining the gender and schooling of a respondent's household members gives an indicator for whether another woman with 10 to 12 years of schooling lives in the household. Distances between households and PES offices give the treatment status of the second-closest office and the share of offices within three kilometers that are treated. Aggregating endline booklet awareness across respondents living within a given radius of a household gives a measure of neighbors' awareness. Finally, the baseline distribution of destination subcities to which a district's residents commute gives our commuting zone exposure measure.

3.4 Balance and Attrition

Overall, baseline observables appear balanced on treatment assignment for the overall pooled sample (Table B1) as well as for lower-skill women (Table B2) and for the rest of the sample (Table B3). For example, among the seventeen variables tested for balance, we only find one significant difference between treatment and control for lower-skill women, consistent with what would be expected by chance. Observable characteristics also appear balanced on treatment assignment while accounting for attrition at endline. [27]

The endline response rate is high, with 85 percent of the original sample participating.[28] For all three samples, no differential attrition is observed.[29]

[27] These results are reported in Table B4 for the pooled sample, Table B5 for lower-skill women and Table B6 for the rest of the sample.

[28] Table B7, Table B8, and Table B9 report tests for potential differential attrition across our three analysis sample groups - the pooled sample, lower-skill women and the rest of the sample, respectively.

[29] See Figure A4 for the visual depiction of the number of eligible job seekers listed, sampled, and not attrited at endline.

3.5 Empirical Strategy

To estimate the causal effect of the district-level PES intervention on individual job seeker outcomes, we use the following OLS regression specification:

$$y_{iw} = \alpha + \beta_1 Treatment_w + X'_{iw}\delta + \varepsilon_{iw} \quad (1)$$

where y_{iw} is the outcome of interest for job seeker i residing in district w. $Treatment_w$ indicates whether district w was randomly assigned to receive vacancy booklets in the local district PES office. X_{iw} is a vector of control variables, which includes (1) strata fixed effects, (2) controls for relevant imbalanced baseline covariates identified in our balance tests, (3) additional controls selected using the post-double-selection lasso method of Belloni, Chernozhukov and Hansen (2014), (4) an indicator for an orthogonal information intervention for another study, and (5) the baseline value of the outcome variable when available. We cluster standard errors at the district level, the unit of randomization. We adjust our estimation using sampling weights to reflect the stratified sampling design and estimate the average treatment effect for the representative sample of Addis Ababa job seekers with at least 10 years of education. For our main outcomes of interest, we focus on endline measures pooling the early and the late survey round. However, to better understand the mechanism at play, we also exploit the random variation in timing of the two endline survey rounds.

As pre-registered, given the disparities documented at baseline, we analyze heterogeneous treatment effects by gender and education level, using post-secondary education (more than 12 years of education) as the cutoff between lower- and higher-skill individuals. This cutoff is also the median split of the job seekers we listed. This analysis focuses particularly on lower-skill women (LSW), who showed the most disadvantaged baseline outcomes, compared to the rest of the sample (RoS). The heterogeneous treatment effects are estimated by interacting the treatment indicator with group indicators.

4 Results

4.1 Intervention Take-Up

Job seekers in treated districts generally report being aware of the PES program (69.5 percent in the pooled sample, Table 2 Panel A), though awareness is significantly lower for lower-skill women (61.7 percent among lower-skill women vs. 72.3 percent of the rest of the sample, Table 2 Panel B). Actual usage of the booklet remains modest (14 percent in the pooled sample), again with lower usage reported by lower-skill women (10 percent of lower-skill women reporting use vs. 15 percent of the rest of the sample).[30]

[30]The extremely low control group mean of approximately 6 percent for awareness and just 1 percent for usage in the pooled sample further suggests the absence of information spillovers from treated to untreated districts. We

4.2 Job Search and Labor Market Outcomes

Lower-skill women in treated districts report improved job search and labor market outcomes, relative to lower-skill women in control districts. The rest of the sample are not detectably impacted on such outcomes.

Job Search Outcomes While we do not detect significant effects on job search outcomes in the pooled sample (Table 3, Panel A, columns 1 and 2), we find substantial heterogeneity between lower-skill women and the rest of the sample (Table 3, Panel B, columns 1 and 2). The intervention substantially improved job search outcomes exclusively for lower-skill women, roughly doubling the job offers they received (Table 3, Panel B, column 2). While we do not observe an overall significant increase in applications, we find a large and significant increase in applications during the intervention period when the booklet was available. The increase in job offers persisted beyond the intervention's end (Table C2). Crucially, the rest of the sample showed no significant changes in either applications or offers. For offers, the difference in treatment effects between groups is statistically significant. These results are particularly meaningful given that lower-skill women lagged considerably behind other job seekers at baseline on these outcomes; the intervention enabled this group to reduce the gap in both applications submitted in the period the booklet was available and offers received.

Labor Market Outcomes The pattern mirrors the findings for job search outcomes. We detect no significant pooled effects on paid employment or income, while work in household business declines by 2.7 percentage points in the pooled sample. For lower-skill women, in contrast, we find substantial improvements (Table 3, Panels A and B, columns 3 to 7).

Lower-skill women in treated districts report a 24 percent increase in their total earned income over the past 30 days, significant at the ten percent level and robust to randomization inference (Table 3, Panel B, column 7). They report a statistically significant increase in employment for pay (5.5 percentage points over a control mean of 39 percent, column 3) and a decrease in household business work (a 7.3 percentage point reduction over a control mean of 17.5 percent, column 5). We observe a similar pattern for hours worked in employment for pay and household businesses. Lower-skill women show a statistically significant 20 percent increase in hours worked in employment for pay (column 4) and a 49 percent decrease in hours worked in household businesses (column 6).[31] Echoing the lack of detectable impacts for their job search outcome, we also find no detectable impacts on labor market outcomes for job seekers in the rest of our sample.

examine spillovers directly in subsection 4.3.

[31] Employment for pay includes both wage employment and temporary/casual jobs, although the results are primarily driven by an increase in wage employment. Notably, much of this increase in wage employment stems from public sector jobs.

Employment and earnings gains for lower-skill women materialized primarily after the intervention ended, while their reduction in household business engagement occurred both during and after the intervention period (Table C2). This timing reflects the natural job search sequence: applications submitted during the intervention translate into offers received during and after, with employment outcomes following subsequently. The rest of the sample showed no significant treatment effects in either period (Table C3). In the pooled sample, the only significant effect is a 3.4 percentage point decline in household business work during the intervention, with no significant effects after the intervention ended (Table C1).

4.3 Robustness of Main Findings

Our main results remain robust across alternative specifications and inference procedures.

Randomization Inference We employ randomization inference to test whether our treatment effects could have arisen by chance under alternative treatment assignments. This approach provides exact p-values without relying on large-sample approximations or distributional assumptions – particularly valuable given the heterogeneous nature of the treatment effects. We generate 1,000 alternative random assignments, reporting results for all main outcomes reported in Table 3. With the exception of work in household business and hours worked, the estimated treatment effects for the pooled sample are around zero (Figure B1). With the exception of applications, the estimated coefficients for lower-skill women fall in the extreme tail of the distribution, confirming statistical significance (Figure B2). The estimated treatment effects for the rest of the sample remain close to zero (Figure B3).

Alternative Controls Our main findings are robust to excluding the post-double-selection lasso procedure and using only pre-specified controls and controls for baseline imbalances (Table B10). This test addresses concerns that our results might be sensitive to the data-driven variable selection inherent in the Lasso estimator (Belloni, Chernozhukov and Hansen, 2014). An additional concern is that variables that are imbalanced for either lower-skill women or the rest of the sample at baseline are driving our estimates. Table B11 is therefore controlling for these imbalances, in addition to the Lasso selected controls. Our findings remain robust to the inclusion of these additional controls.

Adjusting for Multiple Hypothesis Testing Our primary findings remain robust when adjusting p-values to control the False Discovery Rate (Benjamini and Hochberg, 1995) using the procedure by Anderson (2008) (Table B12).

Experimenter Demand Effects We explore the potential for experimenter demand effects, the concern that our findings could be driven by changes in perceived reporting expectations in

treated districts rather than actual experienced changes, given that our main outcomes rely on survey data. We leverage a concurrent intervention for another study that involved randomly calling job seekers individually to provide them with labor market information. This orthogonal intervention included a placebo group receiving generic information about job search and the PES, alongside a control group receiving no calls. If experimenter demand effects were meaningfully present, impacts of the booklet intervention should be more pronounced among those receiving placebo calls relative to those receiving no calls at all. However, we find that our treatment effects are, if anything, instead driven by job seekers who received no calls (Table B13).

Spillovers The intervention was implemented in half of Addis Ababa's districts, and treated and control job seekers participate in the same citywide labor market. A key internal validity concern that arises from such a design is whether the intervention affects job seekers across districts and thereby biases our treatment-control comparisons. Direct booklet-access spillovers to control areas are unlikely because job seekers must use the PES office in their own district, but vacancy information may spread through social networks, and applications from treated district residents may increase competition for the jobs available to nearby district job seekers. Such competition may also extend beyond neighboring districts, through the citywide commuting patterns that connect them. We therefore add measures of indirect exposure to our main estimating equation and test for both the presence of and the robustness of the treatment effects to spillovers. We use three measures of indirect treatment exposure, each with different strengths and weaknesses. The first is an indicator for whether the respondent's second-closest PES office is treated (Table B20).[32] The second is the standardized share of other PES offices within three kilometers of the respondent's home that are treated, excluding the respondent's own office and coded as zero when no other office lies within this radius (Table B21).[33] The third is a baseline commuting zone exposure metric (Table B22).[34] None of these measures produces evidence of systematic spillover effects to other districts.[35] Importantly for internal validity, accounting for nearby treatment leaves the estimated effects for lower-skill women essentially unchanged.

[32]Only this measure is fully exogenous. Baseline balance for each sample group is reported in Appendix Tables B14 through B19.

[33]Although not fully exogenous, this measure captures indirect effects that arise only at fuller levels of saturation, which a single exogenously treated nearest neighbor cannot pick up.

[34]In line with the methodology used for citywide spillover estimation in Franklin et al. (2024), we construct for each district an exposure measure equal to the treated share of the other districts whose residents commuted, at baseline, to the same destination subcities, weighting destinations by the origin district's baseline commuting shares. The respondent's own district is excluded and the measure is recentered to account for the stratified randomization.

[35]Of the 63 exposure coefficients these specifications yield (seven outcomes for the pooled sample, lower-skill women, and the rest of the sample, under each of three measures), five are significant at the ten percent level and one of these at the five percent level. With no true spillovers we would expect about six and three, respectively. Three of the five are negative estimates of hours worked in paid employment, for the rest of the sample under the second-closest office and commuting measures and for the pooled sample under the second-closest office measure. The remaining two are small positive coefficients for lower-skill women under the saturation measure, on paid employment and on hours in household business, the opposite of what competition for vacancies would produce. Neither paid employment nor total income moves for the rest of the sample under any measure.

4.4 Magnitude, Scalability, and Cost Effectiveness

We find no evidence that the intervention raised average employment or earnings across our representative sample of job seekers. Pooled effects on applications, offers, paid employment, and earnings are small and statistically insignificant (Table 3, Panel A).[36] Point estimates for higher-skill women (HSW), higher-skill men (HSM), and lower-skill men (LSM) are far less consistent than for LSW (Appendix E). Across the seven main outcomes tested across three RoS groups, only significant decreases in offers for HSM and, for HSW, significant decreases in household business work and significant increases in total income survive randomization inference.[37] Although potentially spurious, these patterns are suggestive that part of what treated lower-skill women gained may have come at the expense of less marginalized (male) job seekers. However, our current findings cannot separate reallocation from modest net job creation. Lower-skill women are about a quarter of our weighted sample, so a gain of 5.5 percentage points concentrated among them implies a pooled employment effect of roughly 1.4 percentage points. That is well inside our pooled confidence interval.

Additional evidence on household-level income suggests any reallocation is happening across rather than within households. Total income in lower-skill women's own households rises on average (a marginally significant 711 Ethiopian birr over a control mean of 7,589 Ethiopian birr). Household income gains, for the pooled sample and for lower-skill women themselves, are also concentrated in households with at least one other lower-skill woman (Appendix Table C5). The evidence is most consistent with the intervention redirecting access to existing vacancies toward the most marginalized job seekers (and households) (Crépon et al., 2013; Gautier et al., 2018).

The estimated effectiveness of the program depends on which job seekers a policymaker is trying to reach. For lower-skill women, the group least likely to be served by existing search channels, they are large by the standards of the literature. Their monthly earnings rise by 24 percent (95% CI: [−2.9%, 50.6%]), nearly three times the average earnings effect of 7.8 percent that Carranza and McKenzie (2024) report across labor market interventions, most of which serve more accessible populations (Figure C1). Their paid employment rises by 5.5 percentage points (95% CI: [−0.4, 11.4]), against an average of 0.64 percentage points across the same evaluations (Figure C2). Both estimates are significant at the ten percent level.[38]

The evaluated intervention is fiscally and logistically scalable. We estimate the total cost of

[36] Household business work falls by 2.7 percentage points in the pooled sample. However, this decline is driven by lower-skill women's own shift out of household business work (Table 3, Panel B).

[37] We also note a significant increase in household business hours and a large, significant decrease in total income for LSM (along with a large but insignificant decrease in total income for HSM). Neither LSM estimate quite survives randomization inference ($p = 0.118$ and $p = 0.116$).

[38] These treatment effects are not attenuated by the inclusion of our indirect exposure measures. Under the second-closest office and saturation measures we detect no interaction between indirect exposure and direct treatment (Table B23). Only under the commuting-linked measure the interaction with only total income is negative and significant at the five percent level. Effects of this size for lower-skill women may therefore hold as more districts are treated, with the possible exception of earnings in areas that are already strongly connected to treated districts.

the intervention for three months to be 1.7 million Ethiopian birr (approximately USD 33,072), primarily for printing and design (Appendix A.3). Since the largest share of costs is variable, rolling out the intervention across the entire city would cost less than double this amount – approximately USD 250,000 per year.[39] Our implementation across half of Addis Ababa demonstrates the intervention's scalability through existing government infrastructure and delivery mechanisms.

The evaluated program is also highly cost effective in producing impacts for the most marginalized job seekers. Our intervention targeted an estimated 321,127 job seekers in treated districts.[40] However, as a community-level information intervention, our cost-effectiveness calculations differ fundamentally from targeted individual programs, and the average cost per targeted beneficiary depends on the underlying job seeker population. Considering our pooled sample, the intervention cost USD 0.10 per job seeker reached, with no detectable average earnings impact – yielding a null cost-benefit ratio for the general population. However, when we focus on the total number of targeted lower-skill women job seekers, average costs increase to USD 0.40.[41] This compares favorably to programs reviewed by Carranza and McKenzie (2024), such as Colombia's vocational training (19.6 percent earnings increase at USD 812 per participant) or Côte d'Ivoire's youth program (16.9 percent at USD 1,109 per participant). Notably, our intervention achieves comparable or larger impacts among a more marginalized population at less than one percent of the per-beneficiary cost.

5 Exploration of Mechanisms

The employment effects we observe for lower-skill women cannot be explained by direct placement into booklet-advertised positions. The booklet contained approximately 650 jobs suitable for lower-skill women over the 14-week intervention period – roughly 50 vacancies per week in low- and medium-skill sales and service positions (Table A1). However, our treatment effects imply approximately 4,600 additional employment instances for lower-skill women across treated districts of Addis Ababa (a gross figure for this group, not net job creation, see subsection 4.3), far exceeding the available booklet positions.[42]

[39] Assuming that the intervention costs for three months and half of Addis Ababa scales slightly less than linearly to an entire year and the entire city. Notably, the total costs represent a fraction of alternative approaches: a concurrent World Bank supported youth employment program in urban Ethiopia budgeted 7 million USD over five years to reach 18,000 job seekers with improved labor market intermediation (World Bank, 2020).

[40] In our listing survey, we sampled a total of 40,040 eligible job seekers. Out of these, 20,231 were in treated districts. Given the effective sampling rate of 6.3 percent of our listing, we estimate that the total number of job seekers in treated districts was 321,127.

[41] At listing, we have a total of 5,266 LSW job seekers in treated districts. As above, given our effective sampling rate of 6.3 percent, we estimate the total number of LSW job seekers in treated districts to be 83,587. Implied cost per job seeker in the rest of our sample is USD 0.14.

[42] In our listing survey, we find 5,266 LSW in our sampled enumeration areas. With an effective sampling rate of 6.3 percent (332 randomly drawn enumeration areas from the universe of 5,267 enumeration areas across Addis Ababa), we estimate approximately 83,587 LSW in all treated areas. Our estimated effect of 5.5 additional employment

This discrepancy suggests that the intervention's impact likely operated through broader labor market learning rather than direct job matching. Qualitative evidence supports this interpretation: treated women report gaining insights about salary ranges, skill requirements, and the structure of labor demand across occupations.[43]

5.1 Job Match Quality

The increase in paid employment among lower-skill women does not appear to come at the expense of job match quality. In fact, the treatment increases the probability that a lower-skill woman holds a paid job that uses her previously acquired competencies by 8.1 percentage points (over a control mean of 22.7 percent) and the probability that she holds a paid job with satisfaction at or above the median by 8.7 percentage points (over a control mean of 24.8 percent) (Table 4, columns 1 and 3). We find no corresponding effects for the rest of the sample, and the differences between lower-skill women and the rest of the sample are statistically significant for both unconditional outcomes and for competence-matched employment among paid workers, though not for job satisfaction among paid workers (Table 4, Panel B).[44] These unconditional outcomes combine the treatment's effect on entering paid employment with the quality of the jobs obtained. The estimated effects for lower-skill women remain positive and statistically significant for competence-matched employment and for the unconditional job satisfaction outcome. Among respondents employed for pay at endline, the competence-match estimate also remains positive and significant, while the estimated effect on job satisfaction is positive and also marginally significant. Because employment at endline may itself be affected by treatment, these paid-workers-only estimates should be interpreted as suggestive evidence about the intensive margin rather than as causal effects conditional on employment.[45]

5.2 Reservation Wages and Expectations

We examine whether the vacancy information changed job seekers' reservation wages and expectations about future job offers (Table 5). In the pooled sample, the treatment increases the gap between reservation wages for temporary and permanent positions by 412 Ethiopian birr (Panel A, column 1). This is driven by a positive effect on the reservation wage for temporary work, while the estimated effect for permanent work is small and statistically insignificant (columns 2

instances per 100 LSW thus implies 4,600 additional employment instances across all treated districts.

[43]Examples include "[The booklet] helps me learn about different types of jobs and the variety of opportunities available"; "When I check the booklet and see many job vacancies in my field, it gives me hope and helps me feel that I have a variety of job opportunities"; "It helped me see different job types [and] helped evaluate what job types I could work in"; "[I could gain] accurate information about the qualifications required for a position."

[44]The pooled outcomes do not reach statistical significance.

[45]These conclusions are robust to controlling for baseline measures of the corresponding job-quality outcomes using an ANCOVA specification (Appendix Table C4). However, this specification must include a dummy indicator and controlled adjustments to not lose the many respondents for whom job quality was not observed at baseline because they were not in paid employment and is thus not our preferred specification here.

and 3). Among lower-skill women, the temporary–permanent reservation-wage gap increases by 508 Ethiopian birr (Panel B, column 1). Similarly to the pooled sample, this is driven by a positive, yet not significant, effect on the reservation wage for temporary work. We do not observe an effect on lower-skill women updating their reservation wages for permanent work. For the rest of the sample, the reservation-wage gap also increases, however the effects are not statistically significant. The differences in treatment effects between lower-skill women and the rest of the sample are not statistically significant.

The intervention also makes lower-skill women more optimistic about their future labor-market prospects. Their probability of expecting to receive any job offer during the following four months increases, however it is not statistically significant (column 4). Yet, for this outcome, the difference in treatment effects between lower-skill women and the rest of the sample is statistically significant at the 10 percent level. Their expected salary associated with future offers increases by approximately 599 Ethiopian birr, or 17.9 percent relative to the control mean (column 5). The corresponding estimates for the rest of the sample are close to zero. These results suggest that the intervention changed lower-skill women's perceptions of the opportunities available to them and, in particular, made them more optimistic about both receiving an offer and the salary it would provide.

5.3 Community Networks as Potential Impact Channel

Offers Come Through Personal Networks Analysis of lower-skill women's job search methods and offer channels suggests that lower-skill women's community members play a key role in disseminating relevant vacancy information. Although we do not observe a shift toward greater reliance on personal networks for job searching, it is noteworthy that personal networks were already the primary method of job search at baseline (Table 6). Additionally, the intervention significantly increases the likelihood of lower-skill women receiving job offers through family and friends, with a 6.1 percentage point increase from a control group mean of 7.1 percent. These findings are consistent with translations of recorded responses to open-ended questions at endline mentioning sharing booklet information and insights with friends and family.

Neighbors' Program Awareness Mediates Impacts We examine whether respondents' own booklet awareness or awareness among nearby neighbors can account for the treatment effects on the number of job offers lower-skill women receive, including offers received through personal networks.

We compute the average controlled direct effect (ACDE) of the intervention fixing the potential mediators of interest — that is, the effect that the intervention would have had on the lower-skill women's job offer outcomes if the behavior captured by the mediator had not happened.[46] The ACDE captures the impact of an intervention when a particular mediator is not

[46]We follow the recommendations on mediation analysis of Acharya, Blackwell and Sen (2016) to estimate average

allowed to respond to the treatment. We can thus assess the importance of a given mediator by comparing the original treatment effect to the ACDE. We show these comparisons in the two panels of Figure D1.[47]

The figure shows the original treatment effect and various mediated treatment effects on two different outcomes of interest: the lower-skill women's number of job offers (panel a) and number of job offers received via personal connections (panel b). The top coefficient in both panels displays the original, unmediated treatment effects for reference (dashed line). Below that, both panels show the effect of the booklet treatment on the outcomes when the respondent's own awareness of the vacancy booklet is fixed as a mediator. For both outcomes, the ACDE fixing the respondent's own booklet awareness remains quite similar. This means that the effect that the booklet treatment would have had on the lower-skill women's job offers and job offers via personal networks if their own awareness of the booklet had not changed would have been statistically indistinguishable from the original treatment effect (to be precise, 36 percent smaller for the number of job offers and 9 percent larger for the number of job offers via personal networks). This changes when looking at mediators relating to the respondents' *neighbors'* awareness of the vacancy booklet, as shown in the bottom three coefficients in both panels: fixing the booklet awareness of the neighbors living within different radii around the respondent (0.5km, 0.75km, 1km) substantially reduces the original treatment effects. For the number of job offers, had the neighbors living close to the respondent not been aware of the booklet, the treatment effect of the booklet on the respondents' job offers would have been indistinguishable from zero (a reduction by up to 50 percent).

For offers via personal networks, holding neighbors' awareness fixed reduces the estimated effect by 40 percent within 0.5 kilometers, 22 percent within 0.75 kilometers, and 29 percent within one kilometer – each time indistinguishable from zero. Thus, awareness among nearby neighbors consistently accounts for part of the increase in offers transmitted through personal networks, whereas respondents' own awareness does not.

Overall, these patterns are consistent with local information diffusion contributing to the treatment effects on job offers, particularly offers received through friends and family.

Heterogeneity by Local Job Seeker Density Although our listing data do not map respondents' personal networks, they allow us to measure the density of potential job seeker connections in their enumeration area. We classify lower-skill women as living in a high-network area when the number of other listed job seekers available for employment within six months is above the

controlled direct effects and assess how much the estimated treatment effects change when respondents' own or nearby neighbors' booklet awareness is held fixed (in line with the findings from Table 2).

[47] As a complementary mechanism exercise, we apply the sharp-null tests of full mediation developed by Kwon and Roth (2026). Using lower-skill women's search and labor-market outcomes, we cannot reject that the treatment effects are fully mediated by a joint bundle capturing respondents' own institutional awareness and booklet awareness among nearby lower-skill women. The exercise shows that the combined direct-exposure and local-diffusion account is compatible with the observed treatment effects.

median. Table D1 shows that the treatment effect on the total number of offers is similar in low- and high-network areas: the estimated effects are 0.064 and 0.060 offers, respectively, and their difference is small and statistically insignificant. This remains true after controlling for enumeration-area population.

By contrast, local job seeker density strongly predicts the channel through which offers arrive. In low-network areas, the treatment has essentially no effect on receiving an offer through a personal network. In high-network areas, it raises this probability by 9.8 percentage points, with a high-minus-low difference of 9.3 percentage points. Controlling for enumeration-area population produces nearly identical estimates of 9.7 and 9.1 percentage points, respectively. This pattern is consistent with denser local job seeker environments facilitating the interpersonal transmission of vacancy information, although density may also capture other neighborhood characteristics and should therefore be interpreted as suggestive evidence.

6 Conclusion

This paper provides experimental evidence that enhanced public employment services can improve labor market outcomes for marginalized job seekers in a low-income country. In our at-scale evaluation, providing up-to-date vacancy information through existing government infrastructure raised monthly earnings for lower-skill women in Addis Ababa by 24 percent and their paid employment rate by 5.5 percentage points, or 14 percent relative to the control mean.

These gains came at a fraction of the cost of comparable programs. At approximately USD 0.40 per lower-skill woman reached, the implied cost of extending employment access to the most marginalized is very low. The gains also appear stable across areas with different levels of local treatment saturation, which is reassuring for scale-up.

The gains do not, however, translate into detectable average gains for job seekers as a whole. While our analysis cannot explicitly rule out net job creation, several pieces of suggestive evidence are most consistent with the program primarily reallocating access to existing vacancies toward lower-skill women and their households. Whether such targeted gains justify the program is ultimately a question of policy priorities.

Our evaluated program also demonstrates that public employment services can reach highly marginalized job seekers by leveraging community networks rather than relying solely on direct service take-up. This word-of-mouth diffusion mechanism may explain both the intervention's cost-effectiveness and its capacity to scale. By embedding information within local social structures, public institutions can bridge the digital divide and reach individuals who remain excluded from technology-driven job platforms. Because lower-skill women rarely used the service and gained through their networks, an evaluation conditioned on take-up could not have identified these gains.

These insights open three valuable avenues for future research. First, while our evalua-

tion captures immediate downstream gains, a longer panel is needed to trace whether initial entries into wage employment lead to sustained career progression or labor market advantages for lower-skill women. Second, given that job information propagated primarily through informal channels, future work should explicitly test how variations in local network density mediate the speed and equity of diffusion. Third, dedicated spatial designs with fine-grained variation in treatment intensity across commuting flows will be essential to precisely quantify net job creation versus potential displacement effects across connected urban labor markets.

Ultimately, these findings challenge the assumption that a public employment service must be used directly to be effective. When designed to complement existing social structures, public employment services do not merely match workers to open vacancies. They can carry information to the job seekers hardest to reach, at a cost low enough to do so citywide.

Tables

Table 1: Baseline Employment, Income and Job Search

	Entire Sample	Lower Skill Women	Rest of Sample	(2)-(3) Δ	(2)-(3) p-value	Obs
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Job Search and Labor Market Outcomes						
# Applications	0.65	0.28	0.78	-0.499	0.000	3,530
# Offers	0.16	0.07	0.18	-0.111	0.000	3,530
Employment for Pay	0.51	0.35	0.56	-0.208	0.000	3,530
Work in HH Business	0.13	0.09	0.14	-0.043	0.002	3,530
Total Income	3,512.26	1,080.16	4,319.92	-3,234.063	0.000	3,530
Total HH Income	9,714.49	6,978.54	10,621.65	-3,570.506	0.000	3,517
Panel B: Job Search Behaviors						
# Hours Searched	1.43	0.98	1.58	-0.620	0.002	3,530
Directed Search: High skill vacancies	0.22	0.06	0.28	-0.222	0.000	3,530
Directed Search: Low and medium skill vacancies	0.19	0.23	0.17	0.052	0.003	3,530
Panel C: Reservation Wages						
Gap	1,517.07	653.86	1,804.72	-1,127.829	0.000	3,519
Permanent	7,433.38	4,267.48	8,485.63	-4,191.445	0.000	3,528
Temporary	8,921.19	4,923.05	10,253.49	-5,283.602	0.000	3,519
Panel D: Expectations						
Any offer	0.82	0.82	0.82	-0.005	0.750	3,530
Salary	6,335.76	3,658.87	7,222.77	-3,541.997	0.000	3,457
Panel E: Job Search Method						
PES	0.00	0.01	0.00	0.002	0.471	3,530
In-person search	0.16	0.11	0.17	-0.057	0.000	3,530
Media search	0.22	0.07	0.27	-0.201	0.000	3,530
Brokers/agencies	0.07	0.08	0.06	0.020	0.075	3,530
Family and friends	0.24	0.20	0.26	-0.056	0.001	3,530
Panel F: Detail of In-Person Job Search, Conditional on Searching In-Person						
Number of search neighborhoods	1.75	1.50	1.80	-0.318	0.001	569
Average distance (km)	5.27	4.00	5.55	-1.284	0.007	569
Total distance (km)	10.13	6.11	11.02	-4.490	0.000	569

Notes: This table describes our baseline sample and the disparities between lower-skill women and the rest of the sample. Columns (1) to (3) report means for the entire sample of job seekers, for lower-skill female job seekers, and for all other job seekers. Job seekers are defined as adults with at least 10 years of education who are willing to take up wage employment either within 3 or 6 months, where lower-skill job seekers have 12 or fewer years of education. Column (4) reports the difference between lower-skill women and the rest of the sample, adjusted for subcity fixed effects and a second, cross-randomized intervention; a negative difference means a lower value for lower-skill women. Column (5) gives the p-value for that difference and column (6) the number of observations. Because column (4) is regression-adjusted, it need not equal the difference between columns (2) and (3). Both the means and the difference are estimated with sampling weights, so they are representative of job seekers with at least 10 years of education in Addis Ababa. Standard errors are clustered at the district (*woreda*) level. The panels explore disparities in employment status, income, and job search behavior. With the exception of Panel C and D and the number of hours searched in Panel B, all outcomes are measured within the last 30 days. Panel B first reports the number of hours searched in the last 7 days (winsorized at the 0 and 99 percentiles) and then focuses on directed search outcomes in the last 30 days. Here, vacancies are divided into high- and low-and medium-skill vacancies following the ILO ISCO skill classification. Panel C focuses on reservation wages, reporting reservation wages for permanent and temporary jobs (both winsorized at the 0 and 99 percentiles) as well as the gap between the two measures. Panel D displays expectations over whether the respondent would receive a job offer in the next four months and what the corresponding salary would be (winsorized at the 0 and 99 percentiles). Panel E reports differences in job search methods. In-person job search refers to looking for jobs via physical job boards or by visiting worksites. Media search includes both online and offline channels. Online search comprises web-based platforms, SMS, and social media applications such as Telegram, WhatsApp, and Facebook. Traditional media includes newspapers, radio, and television. Panel F provides additional detail on in-person search. The number of neighborhoods indicates how many distinct neighborhoods were visited in person to search for jobs. Average distance is the mean distance from the respondent's household to job boards or worksites in the neighborhoods visited. Total distance is the sum of these distances across all visited neighborhoods. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 2: Take-Up of the Intervention

	Aware of booklet	Used booklet
	(1)	(2)
Panel A: Pooled Sample		
TE for Pooled	0.638***	0.132***
	(0.015)	(0.010)
Control mean	0.057	0.007
Number of obs.	3,003	3,003
Panel B: Lower-Skill Women (LSW) vs. Rest of Sample (RoS)		
TE for LSW	0.557***	0.089***
	(0.030)	(0.018)
TE for RoS	0.667***	0.146***
	(0.016)	(0.011)
Difference	-0.109***	-0.057***
	(0.031)	(0.020)
Control mean LSW	0.060	0.013
Control mean RoS	0.056	0.005
N LSW	737	737
N RoS	2,266	2,266

Notes: This table reports the effect of the intervention on awareness and use of the vacancy booklet. Treatment Effect (TE) is a binary indicator for treatment assignment, defined as living in a district (*woreda*) where the vacancy booklet was available in the PES office. Panel A reports the pooled treatment effect. Panel B interacts treatment assignment with an indicator for lower-skill women, reporting the implied treatment effect for lower-skill women (LSW) and for the rest of the sample (RoS); the difference row reports the interaction coefficient. Both outcomes are binary and measured at endline: whether the respondent had heard of the vacancy booklet (column 1), and whether the respondent had consulted it (column 2). The control mean is the mean of the outcome among respondents in control districts. All specifications include strata fixed effects and an indicator for an unrelated, cross-randomized intervention. We control for baseline imbalances, accounting for attrition endline (any job search (last 7d) and household size, see Table B4). The post-double-selection lasso procedure of Belloni, Chernozhukov and Hansen (2014) selected no additional controls. Standard errors are clustered at the district level. Sampling weights are applied to both the estimated treatment effects and the control means, so estimates are representative of job seekers with at least 10 years of education in Addis Ababa. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 3: Treatment Effect Estimates on Job Search and Labor Market Outcomes

	Job Search Behavior		Labor Market Downstream Outcomes				
	# Applications	# Offers	Employment for pay (Dummy)	Employment for pay (Hours)	Work in HH business (Dummy)	Work in HH business (Hours)	Total Income
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A: Pooled Sample							
TE for Pooled	0.017	-0.005	0.007	4.121	-0.027**	-2.024	-62.264
	(0.051)	(0.020)	(0.016)	(3.444)	(0.013)	(1.987)	(193.278)
Control mean	0.392	0.170	0.573	95.254	0.163	20.843	4,051.271
Number of obs.	3,003	3,003	3,003	3,003	3,003	3,003	3,003
Panel B: Lower-Skill Women (LSW) vs. Rest of Sample (RoS)							
TE for LSW	0.087	0.070**	0.055*	13.343**	-0.073***	-10.790***	318.610*
	(0.058)	(0.030)	(0.030)	(5.809)	(0.024)	(3.567)	(182.207)
TE for RoS	-0.006	-0.030	-0.009	1.057	-0.011	0.974	-190.632
	(0.064)	(0.024)	(0.021)	(4.298)	(0.015)	(2.270)	(265.671)
Difference	0.093	0.100***	0.064	12.286	-0.062**	-11.765***	509.242
	(0.081)	(0.036)	(0.041)	(7.537)	(0.029)	(4.144)	(356.062)
Control mean LSW	0.113	0.064	0.390	66.196	0.175	22.194	1,336.697
Control mean RoS	0.482	0.204	0.632	104.602	0.160	20.408	4,924.528
N LSW	737	737	737	737	737	737	737
N RoS	2,266	2,266	2,266	2,266	2,266	2,266	2,266

Notes: This table reports treatment effects on job search behavior and downstream labor market outcomes. Treatment Effect (TE) is a binary indicator for treatment assignment, defined as living in a district (*woreda*) where the vacancy booklet was available in the PES office. Panel A reports pooled treatment effects. Panel B interacts treatment assignment with an indicator for lower-skill women, reporting the implied treatment effect for lower-skill women (LSW) and for the rest of the sample (RoS); the difference row reports the interaction coefficient. All outcomes are measured at endline over the preceding 30 days: the number of applications submitted (column 1) and offers received (column 2); an indicator for any employment for pay or casual work and hours worked in it (columns 3 and 4); an indicator for any work in a household business and hours worked in it (columns 5 and 6); and total earned income from any economic activity (employment for pay, household business work, casual work) in Ethiopian birr, winsorized at the 0 and 99 percentiles (column 7). The control mean is the mean of the outcome among respondents in control districts in the relevant group. All specifications include the baseline value of the dependent variable, strata fixed effects, and an indicator for an unrelated, cross-randomized intervention. We control for baseline imbalances, accounting for attrition at endline (any job search (last 7d) and household size, see Table B4). In addition to these, further controls are selected using post-double-selection lasso (Belloni, Chernozhukov and Hansen, 2014), identically in both panels, as follows by column #: baseline paid work in the last 7 days (columns 3, 4, 5, 6, 7); female (columns 2, 3, 5, 6, 7); baseline permanent contract (columns 3, 4, 6, 7); baseline written contract (columns 3, 4, 5, 7); higher education (columns 1, 7); baseline job search in the last 7 days (columns 1, 3); age (column 1); the interaction of the missing-value indicator for baseline total income with baseline job search (column 1); and baseline total income, winsorized (column 7). Standard errors are clustered at the district level. Sampling weights are applied to both the estimated treatment effects and the control means, so estimates are representative of job seekers with at least 10 years of education in Addis Ababa. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 4: Treatment Effects on Job Match Quality

	Competence-Matched Paid Job		Paid Job Satisfaction $\geq$ Median	
	Full sample	Paid workers only	Full sample	Paid workers only
	(1)	(2)	(3)	(4)
Panel A: Pooled Sample				
TE for Pooled	0.010	0.010	0.028	0.039
	(0.022)	(0.029)	(0.018)	(0.024)
Control mean	0.408	0.713	0.394	0.687
Number of obs.	3,003	1,693	3,003	1,693
Panel B: Lower-Skill Women (LSW) vs. Rest of Sample (RoS)				
TE for LSW	0.081**	0.103*	0.087***	0.109*
	(0.032)	(0.060)	(0.032)	(0.057)
TE for RoS	-0.014	-0.009	0.010	0.026
	(0.027)	(0.030)	(0.022)	(0.026)
Difference	0.096**	0.111*	0.077*	0.083
	(0.041)	(0.059)	(0.041)	(0.061)
Control mean LSW	0.227	0.582	0.248	0.636
Control mean RoS	0.467	0.738	0.441	0.697
N LSW	737	299	737	299
N RoS	2,266	1,394	2,266	1,394

Notes: This table reports treatment effects on the quality of the match between job seekers and the paid work they hold at endline. Treatment Effect (TE) is a binary indicator for treatment assignment, defined as living in a district (*woreda*) where the vacancy booklet was available in the PES office. Panel A reports pooled treatment effects. Panel B interacts treatment assignment with an indicator for lower-skill women, reporting the implied treatment effect for lower-skill women (LSW) and for the rest of the sample (RoS); the difference row reports the interaction coefficient. We report two binary measures of match quality, both measured at endline: whether the respondent holds a paid job that allows her to use previously acquired competencies (columns 1 and 2), and whether she holds a paid job with reported satisfaction at or above the median worker (columns 3 and 4). Columns (1) and (3) are unconditional, so a respondent not in paid work at endline takes the value zero; columns (2) and (4) restrict the sample to those in paid employment at endline. The control mean is the mean of the outcome among respondents in control districts in the relevant group. All specifications include strata fixed effects and an indicator for an unrelated, cross-randomized intervention. Because match quality is observed at baseline only for respondents in paid work at that time, we do not control for the baseline outcome here; Table C4 reports an ANCOVA specification that accounts for these missing baseline values. We control for baseline imbalances, accounting for attrition at endline (any job search (last 7d) and household size, see Table B4). In addition to these, further controls are selected using post-double-selection lasso (Belloni, Chernozhukov and Hansen, 2014) as follows by column #: baseline paid work in the last 7 days and baseline written contract (columns 1, 3); female (columns 1, 2); married and higher education (column 3); and baseline total income, winsorized (column 2). No additional controls are selected in column (4). Standard errors are clustered at the district level. Sampling weights are applied to both the estimated treatment effects and the control means, so estimates are representative of job seekers with at least 10 years of education in Addis Ababa.* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 5: Treatment Effects on Job Search Aspirations and Expectations

	Reservation Wages			Expectations	
	Gap	Permanent	Temporary	Any offer	Salary
	(1)	(2)	(3)	(4)	(5)
Panel A: Pooled Sample					
TE for Pooled	412.467**	113.774	468.840*	0.014	157.543
	(192.492)	(178.764)	(269.812)	(0.024)	(264.226)
Control mean	1,560.497	8,327.858	9,868.754	0.793	6,525.213
Number of obs.	2,971	2,995	2,975	3,003	2,948
Panel B: Lower-Skill Women (LSW) vs. Rest of Sample (RoS)					
TE for LSW	507.558**	-35.750	504.569	0.061	599.167**
	(251.713)	(236.529)	(364.552)	(0.039)	(285.600)
TE for RoS	380.540	164.465	457.477	-0.001	8.750
	(245.231)	(235.932)	(356.329)	(0.024)	(325.528)
Difference	127.018	-200.215	47.092	0.062*	590.417
	(355.889)	(355.156)	(542.714)	(0.035)	(397.424)
Control mean LSW	425.982	4,905.446	5,335.152	0.717	3,339.757
Control mean RoS	1,925.888	9,432.134	11325.480	0.817	7,549.949
N LSW	731	737	731	737	721
N RoS	2,240	2,258	2,244	2,266	2,227

Notes: This table reports treatment effects on reservation wages and on expectations about future job offers. Treatment Effect (TE) is a binary indicator for treatment assignment, defined as living in a district (*woreda*) where the vacancy booklet was available in the PES office. Panel A reports pooled treatment effects. Panel B interacts treatment assignment with an indicator for lower-skill women, reporting the implied treatment effect for lower-skill women (LSW) and for the rest of the sample (RoS); the difference row reports the interaction coefficient. All outcomes are measured at endline. Columns (2) and (3) report monthly reservation wages in Ethiopian birr for permanent and temporary positions, and column (1) the gap between them, defined as the temporary minus the permanent reservation wage. Columns (4) and (5) concern offers the respondent expects to receive over the next four months: whether she expects any offer (column 4), and the salary in Ethiopian birr she expects such an offer to carry (column 5). All wage and salary variables are winsorized at the 0 and 99 percentiles. Control mean is the mean of the outcome among respondents in control districts in the relevant group. All specifications include the baseline value of the dependent variable, strata fixed effects, and an indicator for an unrelated, cross-randomized intervention. We control for baseline imbalances, accounting for attrition at endline (any job search (last 7d) and household size, see Table B4). In addition to these, further controls are selected using post-double-selection lasso (Belloni, Chernozhukov and Hansen, 2014) as follows by column #:baseline permanent contract, female, post-secondary education, and baseline total income, winsorized (columns 1, 2, 3, 5); married (columns 1, 2, 3); age (columns 2, 4); and baseline paid work in the last 7 days (column 4). Standard errors are clustered at the district level. Sampling weights are applied to both the estimated treatment effects and the control means, so estimates are representative of job seekers with at least 10 years of education in Addis Ababa. * p < 0.10, ** p < 0.05, *** p < 0.01.

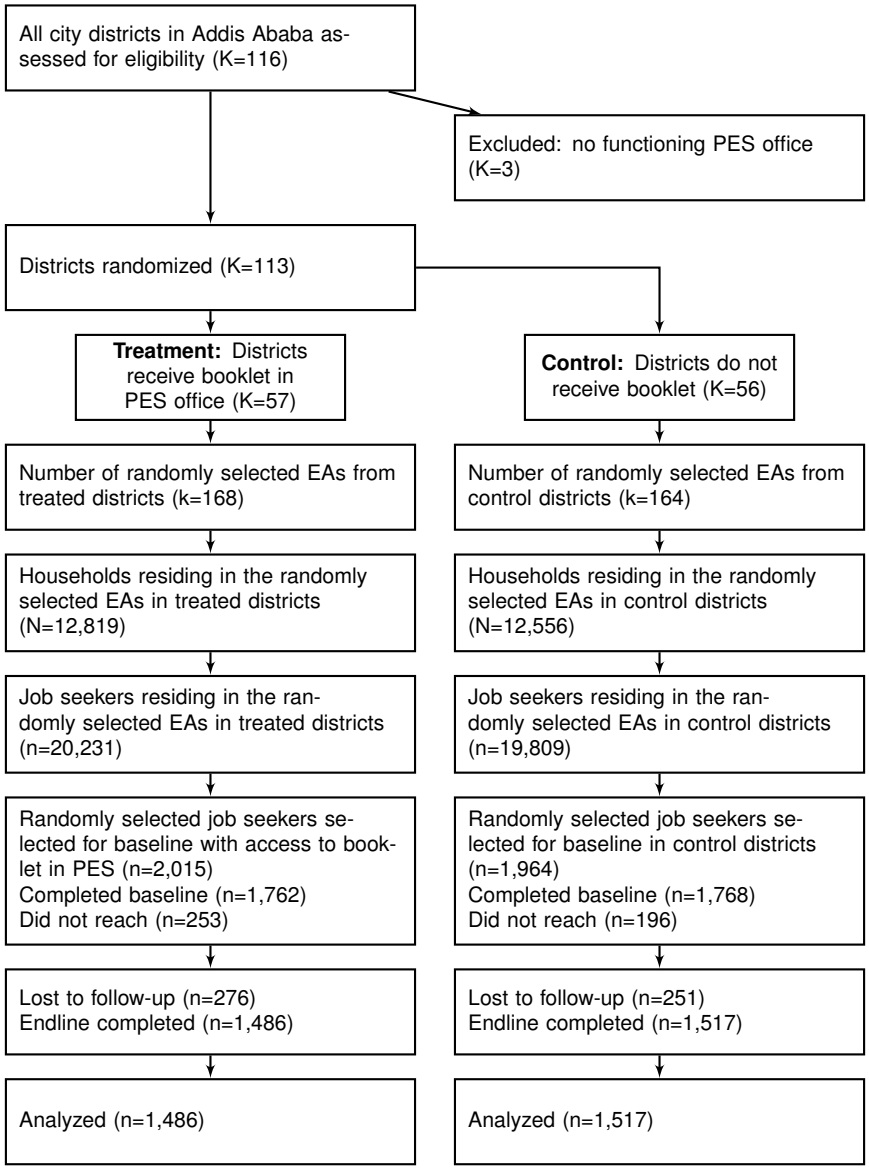
Table 6: Treatment Effects on Search and Offer Channels

	PES	In-person search	Online and offline media	Brokers and agencies	Personal networks
	(1)	(2)	(3)	(4)	(5)
Panel A: Search Methods					
TE for LSW	0.020	0.012	0.006	0.017	0.023
	(0.014)	(0.026)	(0.016)	(0.019)	(0.033)
Control mean	0.013	0.082	0.042	0.052	0.146
Number of obs.	737	737	737	737	737
Panel B: Offer Channels					
TE for LSW	-0.008	0.004	0.003	0.009	0.061***
	(0.006)	(0.009)	(0.002)	(0.012)	(0.022)
Control mean	0.011	0.021	0.000	0.021	0.071
Number of obs.	737	737	737	737	737

Notes: This table reports treatment effects on the channels through which lower-skill women search for work and receive job offers. The sample is restricted to lower-skill women (LSW). Treatment Effect (TE) is a binary indicator for treatment assignment, defined as living in a district (*woreda*) where the vacancy booklet was available in the PES office. Panel A reports effects on the use of each search method and Panel B on the channel through which offers were received, using the same five channels in both: public employment services (column 1); in-person search, meaning physical job boards and visits to work sites (column 2); online and offline media, comprising newspapers, websites, SMS, and Telegram (column 3); brokers and agencies (column 4); and personal networks, meaning friends and family (column 5). All outcomes are binary and measured at endline over the preceding 30 days. The control mean is the mean of the outcome among lower-skill women in control districts. All specifications include the baseline value of the dependent variable, strata fixed effects, and an indicator for an unrelated, cross-randomized intervention. We control for baseline imbalances, accounting for attrition at endline (income from paid work (last 7d) (see Table B5). In addition to these, further controls are selected using post-double-selection lasso (Belloni, Chernozhukov and Hansen, 2014) as follows. Panel A, by column #: baseline total income, winsorized (columns 1, 2); baseline written contract, higher education, baseline number of job applications, and # correct Raven out of 10 (cognitive skills) (column 3); and baseline weekly salary from paid work, winsorized (column 4). Panel B, by column #: post secondary education and number of job applications at baseline (column 3); female and number of offers at baseline (column 5). No additional controls are selected in column (5) of Panel A or columns (1), (2), and (4) of Panel B. Standard errors are clustered at the district level. Sampling weights are applied to both the estimated treatment effects and the control means, so estimates are representative of job seekers with at least 10 years of education in Addis Ababa. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Figures

Figure 1: Cluster Randomization Flow Diagram



Notes: This flowchart follows the Consolidated Standards of Reporting Trials (CONSORT) recommendations (Eldridge et al., 2016). Randomization was conducted at the district (*woreda*) level. At the time of listing, there were 116 districts, of which 3 were excluded from randomization because they did not have a functioning public employment services office at the time of data collection. Treatment assignment refers to individuals with access to a booklet. Within the randomized districts, 117,107 individuals were assessed for eligibility. Eligibility was defined as having at least 10 years of education and expressing interest in finding work in the next 3 or 6 months, where a total of 40,040 individuals were deemed eligible. 3,979 job seekers were randomly selected for the baseline survey. At baseline, 3,530 individuals were successfully surveyed, and 3,003 were surveyed again at endline for the final analysis.

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Supplemental Appendix

Reaching Marginalized Job Seekers through Public Employment Services: Experimental Evidence from Ethiopia

Marc Witte ⓡ Johanna Roth
ⓡ Morgan Hardy ⓡ Christian Johannes Meyer

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A Context and Experimental Details

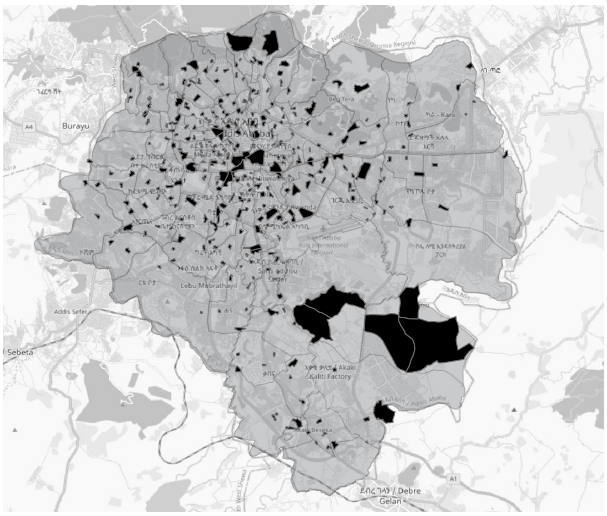
A.1 Setting and Intervention

Figure A1: Maps of Enumeration Areas and PES Offices in Addis Ababa

(a) Treated vs. Control PES Offices



(b) Sampled Enumeration Areas



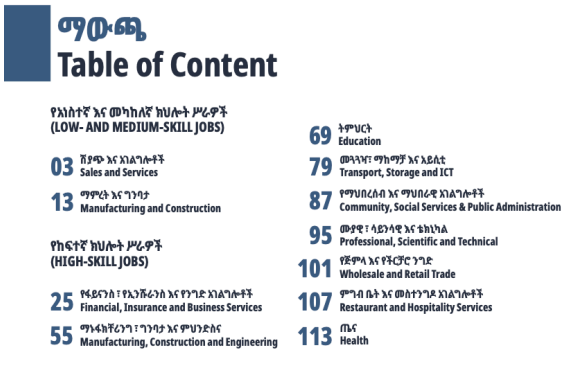
Notes: Panel (a) displays the public employment service office locations by treatment status. Crosses indicate treated locations, circles indicate control locations. Panel (b) shows the enumeration areas used for constructing our job seeker sampling frame. Shaded polygons indicate the 375 randomly selected enumeration areas from a list of 605 in Addis Ababa. The 605 EAs are randomly selected from a total of 5,267 EAs across Addis Ababa. The map data is based on OpenStreetMap.

Figure A2: Weekly Vacancy Booklet Provided to PES Offices

(a) Cover Page



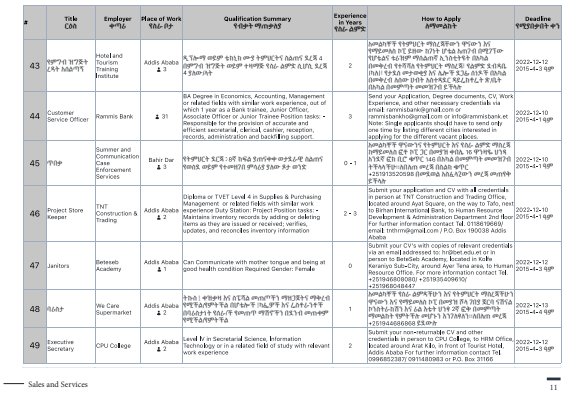
(b) Content Page



(c) Cover Page Example for Section



(d) Example of low- and medium-skill vacancies



#	Title ርዕስ	Employer ቀጣሪ	Place of Work የስራ ቦታ	Qualification Summary የብቃት ማጠቃለያ	Experience in Years የስራ ልምድ	How to Apply ለማመልከት	Deadline የሚያበቃበት ቀን
43	ካምፖብ ዝገጅት ረዳት አስፈጣሚ	Hotel and Tourism Training Institute	Addis Ababa ▲ 3	ዲፕሎማ ወይም ተዘቢነ መሰ ትምህርትና በልጠና ሂረጅ 4 በሙያህ ዝገጅት ወይም ተመሳሳይ የስራ ልምድ ሊሆነ ሂረጅ 4 ደልዶት	2	አመልከቸዎ ትምህርት ማስረጀችሁን ሞናው ገ እና ከማሟመላከ ጋር ደብቀ ጋንት ሀኖል አዲስ በማፕንተው ዋሸፍልና ዳሪክሞም ማስልጠኛ ል ጋንድትት በአስል በመቀረብ ተቀባይነ ተቀማሪዎች ማስረጀ ፍቀዳዊ ኮፒዎችን ይዘው አስተላሊር ዲፈሊቀሊት ጽሕፈት በአክል በመምጣት መመዝገብ ይችላሉ	2022-12-12 2015-4-3 ዓም
44	Customer Service Officer	Rammis Bank	▲ 31	BA Degree in Economics, Accounting, Management or related fields with similar work experience, out of which 1 year as a Bank trainee, Junior Officer, Associate Officer or Junior Trainee Position tasks: - Responsible for the provision of accurate and efficient secretarial , clerical, cashier, reception, records, administration and backlilling support.	3	Send your Application, Degree documents, CV, Work Experience, and other necessary credentials via email: rammisbank@gmail.com or rammisbankhod@gmail.com or intodrammisbank.et Note: Single applicants should have to send only one time to listing different cities interested in applying for the different vacant places.	2022-12-10 2015-4-1 ዓም
45	ጥበቃ	Summer and Communication Care Enforcement Services	Bahir Dar ▲ 3	የትምህርት ደረጃ : ያኖ ከፍል ያጠናቀቀ ወታደራዊ ስልጠና ዳመንጨ ወቅም የተመዘገበ ምስሰያ ያለው ጾታ ወንድ	0 - 1	አመልከቸዎ ምርመራ የትምህርት እና የስራ ልምድ ማስረጀች ከማይመለስ ፎቶ ጋር ጋር በመሆንዎ ቀብሌ 16 ዋናመዜ ህንጻ አንደኛ ፎቅ ቢሮ ቁጥር 146 በአካል በመምጣት መመዝገብ ትችላላችሁ።በስልክ መረጃ በመስጠ ቁጥር +251913520598 በመደወል አዲሌንሶን መረጃ መጠየቅ ይችላል	2022-12-10 2015-4-1 ዓም
46	Project Store Keeper	TNT Construction & Trading	Addis Ababa ▲ 2	Diploma or TVET Level 4 in Supplies & Purchasing Management or related fields with similar work experience Duty Station: Project Position tasks: - Maintains inventory records by adding or deleting items as they are issued or received; verifies, updates, and reconciles inventory information	2 - 3	Submit your application and CV with all credentials in person at TNT Construction and Trading Office, located around Ayat Square, on the way to Tafo, next to Bilhan International Bank, to Human Resource Development & Administration Department 2nd floor For further information contact Tel. 0113619069/ email: tntmm@gmail.com / P.O. Box 190038 Addis Ababa	2022-12-10 2015-4-1 ዓም
47	Janitors	Beteseb Academy	Addis Ababa ▲ 1	Can Communicate with mother tongue and being at good health condition Required Gender: Female	0	Submit your CV's with copies of relevant credentials via an email addressed to: hr@bet.edu.et or in person to Beteseb Academy, located in Kulle Keraniyo Sub-City, around Ayer Tena area, to Human Resource Office. For more information contact Tel. +251946808080/ +251935409610/ +251968048447	2022-12-12 2015-4-3 ዓም
48	ባለሱታ	We Care Supermarket	Addis Ababa ▲ 2	ትክክ ፣ ቀዝቃዛ ክና ስፒሻል መጠጦችን ማከማቸትና ማቅረብ የሚችል/ሳ ሞያ ያለው/ያላት ፣ጫሌም ክና ሰራተኞችን በኃላፊነት የሚሰራ/ት ዋጠጥ ማሸጊያን በደንብ መያዝም የሚችል/ሳ ሞያ ያለው/ያላት ፣ሴል	1	አመልከቸዎ የስራ ልምዳችሁን እና የትምህርት ማስረጀችሁን ሞናው እና ከማሟመላከ ጋር በመሆን ያሉ ጋንደ ጀርባ የሸዋል ከንስትራክሽን እና ሌል አከታ ህንፃ ጋር ፊት በመምጣት መመዝገብ ትችላላችሁ መረጃን አንገለልን።በስልክ መረጃ +251946868868 ይጠቀሙ	2022-12-13 2015-4-4 ዓም
49	Executive Secretary	CPU College	Addis Ababa ▲ 2	Level IV in Secretarial Science, Information Technology or in a related field of study with relevant work experience	2	Submit your non-refundable CV and other credentials in person to CPU College, to HRM Office, located around Arat Kilo, in front of Tourist Hotel, Addis Ababa For further information contact Tel. 0966852387/ 0911480983 or P.O. Box 31166	2022-12-12 2015-4-3 ዓም

Notes: The four panels illustrate the design of the vacancy booklet. Panel (a) displays the cover page, which includes the publication week for the job opportunities and prominently features the logos of the study's partner organizations. Panel (b) shows the table of contents, organized by skill level—low- and medium-skill jobs versus high-skill jobs—and by relevant sectors. Panels (c) and (d) provide examples of how pages targeting low- and medium-skill job seekers are structured. Panel (c) presents a sample sector cover page, here for the Sales and Services sector. Panel (d) displays a typical content page, where vacancies are presented in a tabular format summarizing the key details of each posting.

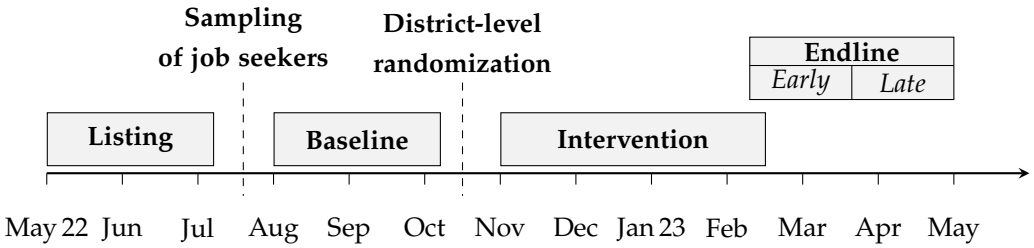
Table A1: Number and Type of Vacancies Posted in Job Information Booklets

	Mean per week	Total across all weeks	Unique across all weeks
	(1)	(2)	(3)
All occupations and sectors	596	7,748	2,669
of which: low and medium skill	91	1,187	1,156
of which: sales and services	50	652	621
of which: manufacturing and construction	41	535	535

Notes: Data based on all booklets published every week between November 2022 and February 2023. Note that a vacancy could appear in multiple editions of the booklet, as long as the vacancy application deadline met the booklet inclusion criterion of being at least two days after the booklet's delivery. Column 3 reports the sum of unique vacancies across all weeks, adjusting for vacancies that were published more than once in the booklet. In practice, high-skill postings tended to remain active for a longer period than low- and medium-skill postings.

A.2 Sampling, Data Collection, and Sample Composition

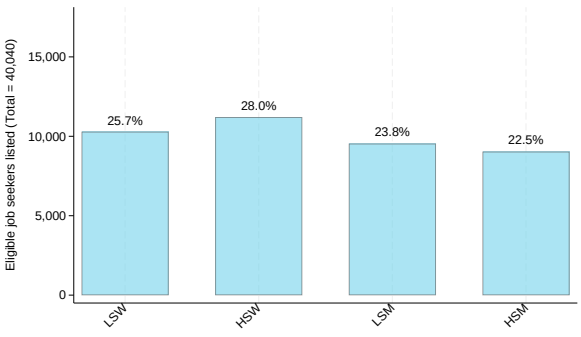
Figure A3: Experimental Timeline



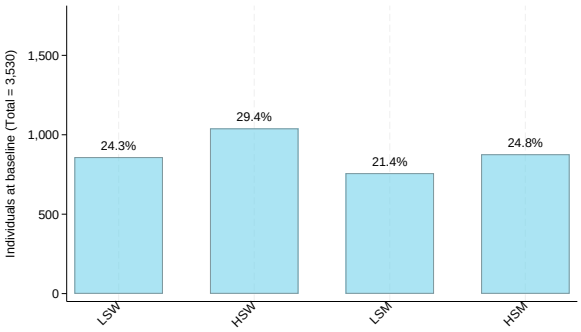
Notes: This figure illustrates the study timeline. The experiment started in May 2022. We collected data for our job seeker listing between May and July 2022. Based on this, we identified eligible job seekers for our baseline survey, which was implemented from August to October 2022. The intervention was fielded in early November 2022 and lasted three months. After the end of the intervention, we again interviewed all baseline survey participants at endline between March and June 2023. The endline survey was fielded in two phases with the first phase overlapping with the last available booklet in the local employment centers.

Figure A4: Sample Composition Listed, Sampled and Analyzed

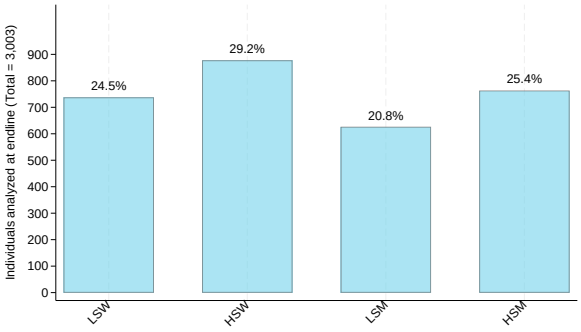
(a) Number of Eligible Listed Individuals



(b) Number of Sampled Individuals at Baseline



(c) Number of Individuals Analyzed at Endline



Notes: This figure details the number of listed (panel a), sampled (panel b), and analyzed (panel c) individuals. As shown in Panel A, lower-skill women are a minority compared to the rest of the strata in the universe of eligible job seekers in Addis Ababa. Eligible job seekers are defined as individuals with at least 10 years of education who are looking for a job either in the next 3 or 6 months of the survey.

Table A2: Baseline Socioeconomic Characteristics, Employment, Job Search and Skills

	Entire Sample	Lower Skill Women	Rest of Sample	(2)-(3) Δ	(2)-(3) p-value	Obs
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Socioeconomic Characteristics						
Age	31.03	31.04	31.03	0.053	0.897	3,530
Married	0.44	0.47	0.42	0.053	0.011	3,530
Household size	4.51	4.59	4.48	0.081	0.340	3,530
# People sleeping in same room	2.74	2.90	2.69	0.197	0.001	3,530
Amharic as Native Language	0.85	0.83	0.85	-0.030	0.033	3,530
Panel B: Employment, Income, Job Search						
Paid employment (last 7d)	0.39	0.27	0.43	-0.162	0.000	3,530
Income from paid work (last 7d)	284.17	73.52	354.12	-281.270	0.000	3,530
Permanent job (last 30d)	0.25	0.14	0.28	-0.138	0.000	3,530
Written agreement / contract (last 30d)	0.30	0.18	0.34	-0.155	0.000	3,530
Total household income (last 30d)	9,676.29	6,942.97	10,583.98	-3,572.405	0.000	3,530
Any job search (last 7d)	0.23	0.14	0.26	-0.123	0.000	3,530
# Applications (last 30d)	0.65	0.28	0.78	-0.499	0.000	3,530
# Offers (last 30d)	0.16	0.07	0.18	-0.111	0.000	3,530
Search via PES (last 7d)	0.00	0.00	0.00	0.001	0.649	3,530
ETB spent on job search (last 7d)	26.12	9.78	31.54	-21.943	0.000	3,530
Panel C: Skills						
# correct Raven out of 10	6.22	5.79	6.36	-0.578	0.000	3,530
Non-cognitive skills (1 = high, 5 = low)	2.86	2.90	2.85	0.049	0.000	3,530

Notes: This table describes the socioeconomic characteristics, employment, job search behavior, and skills of our baseline sample, and the disparities between lower-skill women and the rest of the sample. Columns (1) to (3) report means for the entire sample of job seekers, for lower-skill female job seekers, and for all other job seekers. Column (4) reports the difference between lower-skill women and the rest of the sample, adjusted for subcity fixed effects and a second, cross-randomized intervention. Column (5) gives the p-value for that difference and column (6) the number of observations. Because column (4) is regression-adjusted, it need not equal the difference between columns (2) and (3). Both the means and the difference are estimated with sampling weights, so they are representative of job seekers with at least 10 years of education in Addis Ababa. Standard errors are clustered at the district level. Panel A reports socioeconomic characteristics. Panel B reports employment, income, and job search over the last 7 or 30 days as indicated in the row labels. Panel C reports cognitive skills, measured as the number of correct answers out of ten Raven's matrices, and non-cognitive skills, measured on a scale from 1 (high) to 5 (low). Income from paid work, total household income, and money spent on job search are winsorized at the 0 and 99 percentiles.

A.3 Intervention Cost Estimates

The largest costs associated with providing the vacancy booklet are linked to its weekly distribution across the 57 treated districts over a 14-week period. The largest expense is printing, which amounts to 707,143 Ethiopian birr ($\sim$ 13,454 USD), followed by the cost linked to the design of booklet with 441,504 Ethiopian birr ($\sim$ 8,400 USD). Additional smaller cost categories include the collection of offline vacancy sources, which are integrated with online vacancies from our private jobs platform partner HahuJobs (94,608 Ethiopian birr ($\sim$ 1,800 USD)). Lastly, the distribution of the booklet, along with small incentives for the intervention implementers at the PES offices, totals 270,000 Ethiopian birr ($\sim$ 5,137 USD) and 225,000 Ethiopian birr ($\sim$ 4,281 USD) respectively. Thus, the overall cost of the booklet intervention comes to 1,738,255 Ethiopian birr ($\sim$ 33,072 USD).

B Design Tests and Robustness

B.1 Balance and Attrition

Table B1: Baseline Balance (Pooled Sample)

	Treatment		Control		Delta		
	Mean	SD	Mean	SD	Beta	P-Value	Obs
Panel A: Socioeconomic Characteristics							
Age	31.04	8.95	31.02	9.14	0.086	0.817	3,530
Married	0.44	0.50	0.44	0.50	0.003	0.853	3,530
Household size	4.59	1.94	4.42	2.02	0.167	0.032	3,530
# People sleeping in same room	2.78	1.45	2.70	1.38	0.088	0.124	3,530
Amharic as Native Language	0.85	0.36	0.84	0.37	0.014	0.404	3,530
Female	0.57	0.49	0.57	0.49	0.001	0.926	3,530
$>$ 12 years of education	0.53	0.50	0.57	0.50	-0.034	0.048	3,530
Panel B: Employment, Income, Job Search							
Paid employment (last 7d)	0.39	0.49	0.40	0.49	-0.007	0.738	3,530
Income from paid work (last 7d)	278.66	1,540.62	289.63	1,924.23	-23.416	0.719	3,530
Permanent job (last 30d)	0.24	0.43	0.25	0.43	-0.010	0.591	3,530
Written agreement / contract (last 30d)	0.29	0.45	0.31	0.46	-0.019	0.336	3,530
Total household income (last 30d)	9,818.84	8,992.18	9,534.74	9,286.79	298.172	0.473	3,530
Any job search (last 7d)	0.22	0.41	0.24	0.42	-0.021	0.197	3,530
# Applications (last 30d)	0.63	1.89	0.68	3.66	-0.047	0.691	3,530
# Offers (last 30d)	0.15	0.46	0.16	0.52	-0.009	0.652	3,530
Search via PES (last 7d)	0.00	0.00	0.00	0.04	-0.002	0.073	3,530
ETB spent on job search (last 7d)	25.70	96.23	26.53	95.33	-1.047	0.774	3,530
Panel C: Skills							
# correct Raven out of 10	6.23	1.59	6.20	1.68	0.008	0.917	3,530
Non-cognitive skills (1 = high, 5 = low)	2.86	0.33	2.86	0.32	0.007	0.649	3,530

Notes: This table tests whether baseline characteristics are balanced across treated and control districts. Columns (1) to (4) report means and standard deviations of baseline characteristics for the full baseline sample. Column (5) reports the difference between treated and control districts, adjusted for subcity fixed effects and a second, cross-randomized intervention. Column (6) gives the p-value for that difference and column (7) the number of observations. Because column (5) is regression-adjusted, it need not equal the raw difference between columns (1) and (3). Treatment assignment is a binary indicator for living in a district (*woreda*) where the vacancy booklet was available in the PES office. Both the means and the difference are estimated with sampling weights, so they are representative of job seekers with at least 10 years of education in Addis Ababa. Standard errors are clustered at the district level. Income from paid work, total household income, and money spent on job search are winsorized at the 0 and 99 percentile.

Table B2: Baseline Balance (Lower-Skill Women)

	Treatment		Control		Delta		
	Mean	SD	Mean	SD	Beta	P-Value	Obs
Panel A: Socioeconomic Characteristics							
Age	30.75	9.33	31.36	9.45	-0.393	0.595	858
Married	0.46	0.50	0.49	0.50	-0.024	0.469	858
Household size	4.62	1.98	4.56	2.14	0.043	0.762	858
# People sleeping in same room	2.87	1.40	2.93	1.35	-0.064	0.520	858
Amharic as Native Language	0.83	0.38	0.82	0.38	0.005	0.874	858
Panel B: Employment, Income, Job Search							
Paid employment (last 7d)	0.26	0.44	0.28	0.45	-0.010	0.754	858
Income from paid work (last 7d)	99.32	533.94	45.34	264.79	60.501	0.022	858
Permanent job (last 30d)	0.13	0.34	0.15	0.36	-0.014	0.534	858
Written agreement / contract (last 30d)	0.17	0.38	0.19	0.39	-0.017	0.527	858
Total household income (last 30d)	7,110.60	5,608.12	6,759.83	5,718.81	307.017	0.527	858
Any job search (last 7d)	0.14	0.35	0.13	0.33	0.014	0.561	858
# Applications (last 30d)	0.26	0.87	0.29	1.68	-0.010	0.903	858
# Offers (last 30d)	0.09	0.33	0.05	0.27	0.035	0.101	858
Search via PES (last 7d)	0.00	0.00	0.00	0.06	-0.003	0.287	858
ETB spent on job search (last 7d)	11.96	43.85	7.40	41.49	4.626	0.157	858
Panel C: Skills							
# correct Raven out of 10	5.81	1.51	5.76	1.59	-0.017	0.879	858
Non-cognitive skills (1 = high, 5 = low)	2.91	0.33	2.88	0.33	0.036	0.157	858

Notes: This table tests whether baseline characteristics are balanced across treated and control districts. Columns (1) to (4) report means and standard deviations of baseline characteristics for the lower-skill women. Column (5) reports the difference between treated and control districts, adjusted for subcity fixed effects and a second, cross-randomized intervention. Column (6) gives the p-value for that difference and column (7) the number of observations. Because column (5) is regression-adjusted, it need not equal the raw difference between columns (1) and (3). Treatment assignment is a binary indicator for living in a district (*woreda*) where the vacancy booklet was available in the PES office. Both the means and the difference are estimated with sampling weights, so they are representative of job seekers with at least 10 years of education in Addis Ababa. Standard errors are clustered at the district level. Income from paid work, total household income, and money spent on job search are winsorized at the 0 and 99 percentile.

Table B3: Baseline Balance (Rest of Sample)

	Treatment		Control		Delta		
	Mean	SD	Mean	SD	Beta	P-Value	Obs
Panel A: Socioeconomic Characteristics							
Age	31.14	8.82	30.92	9.04	0.249	0.518	2,672
Married	0.43	0.50	0.42	0.49	0.011	0.609	2,672
Household size	4.58	1.93	4.38	1.98	0.204	0.020	2,672
# People sleeping in same room	2.75	1.46	2.63	1.39	0.131	0.039	2,672
Amharic as Native Language	0.86	0.35	0.85	0.36	0.018	0.276	2,672
Panel B: Employment, Income, Job Search							
Paid employment (last 7d)	0.43	0.50	0.44	0.50	-0.001	0.959	2,672
Income from paid work (last 7d)	342.08	1,759.95	365.69	2,193.21	-40.998	0.633	2,672
Permanent job (last 30d)	0.28	0.45	0.29	0.45	-0.005	0.837	2,672
Written agreement / contract (last 30d)	0.33	0.47	0.35	0.48	-0.015	0.521	2,672
Total household income (last 30d)	10,776.57	9,739.39	10,398.72	9,990.23	390.869	0.425	2,672
Any job search (last 7d)	0.24	0.43	0.27	0.44	-0.030	0.148	2,672
# Applications (last 30d)	0.76	2.12	0.80	4.08	-0.039	0.800	2,672
# Offers (last 30d)	0.17	0.50	0.19	0.58	-0.020	0.382	2,672
Search via PES (last 7d)	0.00	0.00	0.00	0.04	-0.001	0.141	2,672
ETB spent on job search (last 7d)	30.56	108.48	32.49	105.99	-2.262	0.618	2,672
Panel C: Skills							
# correct Raven out of 10	6.38	1.59	6.34	1.69	0.030	0.711	2,672
Non-cognitive skills (1 = high, 5 = low)	2.84	0.33	2.85	0.32	-0.004	0.818	2,672

Notes: This table tests whether baseline characteristics are balanced across treated and control districts. Columns (1) to (4) report means and standard deviations of baseline characteristics for the rest of the sample, that is all but lower-skill women. Column (5) reports the difference between treated and control districts, adjusted for subcity fixed effects and a second, cross-randomized intervention. Column (6) gives the p-value for that difference and column (7) the number of observations. Because column (5) is regression-adjusted, it need not equal the raw difference between columns (1) and (3). Treatment assignment is a binary indicator for living in a district (*woreda*) where the vacancy booklet was available in the PES office. Both the means and the difference are estimated with sampling weights, so they are representative of job seekers with at least 10 years of education in Addis Ababa. Standard errors are clustered at the district level. Income from paid work, total household income, and money spent on job search are winsorized at the 0 and 99 percentile.

Table B4: Baseline Balance in the Endline Sample (Pooled Sample)

	Treatment		Control		Delta		
	Mean	SD	Mean	SD	Beta	P-Value	Obs
Panel A: Socioeconomic Characteristics							
Age	31.09	9.01	31.02	9.22	0.136	0.728	3,003
Married	0.44	0.50	0.44	0.50	0.008	0.721	3,003
Household size	4.59	1.96	4.44	1.99	0.156	0.066	3,003
# People sleeping in same room	2.80	1.44	2.72	1.38	0.088	0.169	3,003
Amharic as Native Language	0.84	0.36	0.84	0.36	0.001	0.933	3,003
Female	0.58	0.49	0.57	0.50	0.007	0.643	3,003
$>$ 12 years of education	0.54	0.50	0.56	0.50	-0.025	0.161	3,003
Panel B: Employment, Income, Job Search							
Paid employment (last 7d)	0.39	0.49	0.40	0.49	-0.005	0.821	3,003
Income from paid work (last 7d)	284.36	1,616.87	262.53	1,876.11	12.046	0.860	3,003
Permanent job (last 30d)	0.24	0.43	0.26	0.44	-0.014	0.465	3,003
Written agreement / contract (last 30d)	0.29	0.46	0.31	0.46	-0.021	0.308	3,003
Total household income (last 30d)	9,624.86	8,827.23	9,314.31	8,894.76	337.801	0.410	3,003
Any job search (last 7d)	0.21	0.41	0.24	0.43	-0.032	0.072	3,003
# Applications (last 30d)	0.60	1.74	0.72	3.87	-0.127	0.344	3,003
# Offers (last 30d)	0.15	0.47	0.15	0.47	-0.002	0.910	3,003
Search via PES (last 7d)	0.00	0.00	0.00	0.04	-0.001	0.159	3,003
ETB spent on job search (last 7d)	25.13	97.31	26.42	94.97	-1.812	0.660	3,003
Panel C: Skills							
# correct Raven out of 10	6.25	1.60	6.17	1.69	0.058	0.481	3,003
Non-cognitive skills (1 = high, 5 = low)	2.86	0.34	2.86	0.33	0.005	0.793	3,003

Notes: This table tests whether baseline characteristics are balanced across treated and control districts. Columns (1) to (4) report means and standard deviations of baseline characteristics for the full sample who responded to both our baseline and endline survey. Column (5) reports the difference between treated and control districts, adjusted for subcity fixed effects and a second, cross-randomized intervention. Column (6) gives the p-value for that difference and column (7) the number of observations. Because column (5) is regression-adjusted, it need not equal the raw difference between columns (1) and (3). Treatment assignment is a binary indicator for living in a district (*woreda*) where the vacancy booklet was available in the PES office. Both the means and the difference are estimated with sampling weights, so they are representative of job seekers with at least 10 years of education in Addis Ababa. Standard errors are clustered at the district level. Income from paid work, total household income, and money spent on job search are winsorized at the 0 and 99 percentile.

Table B5: Baseline Balance in the Endline Sample (Lower-Skill Women)

	Treatment		Control		Delta		
	Mean	SD	Mean	SD	Beta	P-Value	Obs
Panel A: Socioeconomic Characteristics							
Age	30.94	9.34	31.32	9.51	-0.228	0.769	737
Married	0.48	0.50	0.48	0.50	0.002	0.955	737
Household size	4.55	2.01	4.56	2.03	-0.037	0.808	737
# People sleeping in same room	2.84	1.38	2.93	1.34	-0.093	0.389	737
Amharic as Native Language	0.82	0.39	0.81	0.39	0.012	0.722	737
Panel B: Employment, Income, Job Search							
Paid employment (last 7d)	0.26	0.44	0.27	0.44	0.002	0.953	737
Income from paid work (last 7d)	87.71	451.82	44.64	266.52	50.476	0.059	737
Permanent job (last 30d)	0.13	0.34	0.14	0.35	-0.005	0.838	737
Written agreement / contract (last 30d)	0.18	0.39	0.19	0.39	-0.003	0.923	737
Total household income (last 30d)	6,922.56	5,178.60	6,634.20	5,631.31	261.735	0.608	737
Any job search (last 7d)	0.12	0.33	0.13	0.33	-0.009	0.737	737
# Applications (last 30d)	0.29	0.92	0.25	1.37	0.049	0.533	737
# Offers (last 30d)	0.08	0.30	0.04	0.23	0.033	0.123	737
Search via PES (last 7d)	0.00	0.00	0.00	0.06	-0.003	0.286	737
ETB spent on job search (last 7d)	10.10	40.08	7.46	42.61	2.326	0.476	737
Panel C: Skills							
# correct Raven out of 10	5.85	1.50	5.71	1.61	0.042	0.741	737
Non-cognitive skills (1 = high, 5 = low)	2.91	0.33	2.88	0.33	0.036	0.166	737

Notes: This table tests whether baseline characteristics are balanced across treated and control districts. Columns (1) to (4) report means and standard deviations of baseline characteristics for lower-skill women who responded to both our baseline and endline survey. Column (5) reports the difference between treated and control districts, adjusted for subcity fixed effects and a second, cross-randomized intervention. Column (6) gives the p-value for that difference and column (7) the number of observations. Because column (5) is regression-adjusted, it need not equal the raw difference between columns (1) and (3). Treatment assignment is a binary indicator for living in a district (*woreda*) where the vacancy booklet was available in the PES office. Both the means and the difference are estimated with sampling weights, so they are representative of job seekers with at least 10 years of education in Addis Ababa. Standard errors are clustered at the district level. Income from paid work, total household income, and money spent on job search are winsorized at the 0 and 99 percentile.

Table B6: Baseline Balance in the Endline Sample (Rest of Sample)

	Treatment		Control		Delta		
	Mean	SD	Mean	SD	Beta	P-Value	Obs
Panel A: Socioeconomic Characteristics							
Age	31.14	8.89	30.92	9.12	0.253	0.556	2,266
Married	0.43	0.50	0.43	0.49	0.008	0.739	2,266
Household size	4.61	1.94	4.40	1.97	0.221	0.015	2,266
# People sleeping in same room	2.78	1.46	2.65	1.39	0.147	0.038	2,266
Amharic as Native Language	0.85	0.36	0.86	0.35	-0.001	0.939	2,266
Panel B: Employment, Income, Job Search							
Paid employment (last 7d)	0.44	0.50	0.44	0.50	-0.001	0.957	2,266
Income from paid work (last 7d)	353.86	1,857.02	332.62	2,147.09	5.152	0.955	2,266
Permanent job (last 30d)	0.28	0.45	0.29	0.45	-0.013	0.590	2,266
Written agreement / contract (last 30d)	0.33	0.47	0.35	0.48	-0.023	0.345	2,266
Total household income (last 30d)	10,579.93	9,619.02	10,176.48	9,557.77	427.115	0.390	2,266
Any job search (last 7d)	0.24	0.43	0.27	0.45	-0.037	0.098	2,266
# Applications (last 30d)	0.72	1.94	0.88	4.37	-0.169	0.338	2,266
# Offers (last 30d)	0.18	0.52	0.19	0.52	-0.012	0.619	2,266
Search via PES (last 7d)	0.00	0.00	0.00	0.03	-0.001	0.315	2,266
ETB spent on job search (last 7d)	30.44	110.19	32.53	105.77	-2.760	0.593	2,266
Panel C: Skills							
# correct Raven out of 10	6.39	1.61	6.32	1.69	0.060	0.496	2,266
Non-cognitive skills (1 = high, 5 = low)	2.84	0.34	2.86	0.32	-0.007	0.687	2,266

Notes: This table tests whether baseline characteristics are balanced across treated and control districts. Columns (1) to (4) report means and standard deviations of baseline characteristics for the rest of the sample, that is all but lower-skill women, who responded to both our baseline and endline survey. Column (5) reports the difference between treated and control districts, adjusted for subcity fixed effects and a second, cross-randomized intervention. Column (6) gives the p-value for that difference and column (7) the number of observations. Because column (5) is regression-adjusted, it need not equal the raw difference between columns (1) and (3). Treatment assignment is a binary indicator for living in a district (*woreda*) where the vacancy booklet was available in the PES office. Both the means and the difference are estimated with sampling weights, so they are representative of job seekers with at least 10 years of education in Addis Ababa. Standard errors are clustered at the district level. Income from paid work, total household income, and money spent on job search are winsorized at the 0 and 99 percentile.

Table B7: Attrition Balance (Pooled Sample)

	Full Sample		Experimental Sample		Difference		
	Mean	SD	Mean	SD	Beta	P-Value	Obs
Panel A: Socioeconomic Characteristics							
Age	31.05	9.11	31.03	9.04	4.007	0.000	6,533
Married	0.44	0.50	0.44	0.50	0.055	0.187	6,533
Household size	4.52	1.98	4.51	1.98	-0.000	.	6,533
# People sleeping in same room	2.76	1.41	2.74	1.42	-0.264	0.010	6,533
Amharic as Native Language	0.84	0.36	0.85	0.36	0.015	0.570	6,533
Female	0.57	0.49	0.57	0.49	0.033	0.372	6,533
$>$ 12 years of education	0.55	0.50	0.55	0.50	-0.000	.	6,533
Panel B: Employment, Income, Job Search							
Paid employment (last 7d)	0.39	0.49	0.39	0.49	0.046	0.236	6,533
Income from paid work (last 7d)	273.27	1,753.14	284.17	1,743.44	-98.306	0.077	6,533
Permanent job (last 30d)	0.25	0.43	0.25	0.43	0.062	0.081	6,533
Written agreement / contract (last 30d)	0.30	0.46	0.30	0.46	0.046	0.180	6,533
Total household income (last 30d)	9,467.06	8,861.50	9,676.29	9,141.00	-965.974	0.127	6,533
Any job search (last 7d)	0.23	0.42	0.23	0.42	-0.142	0.000	6,533
# Applications (last 30d)	0.66	3.02	0.65	2.91	-0.427	0.000	6,533
# Offers (last 30d)	0.15	0.47	0.16	0.49	-0.084	0.001	6,533
Search via PES (last 7d)	0.00	0.03	0.00	0.03	-0.000	.	6,533
ETB spent on job search (last 7d)	25.79	96.11	26.12	95.77	-19.804	0.000	6,533
Panel C: Skills							
# correct Raven out of 10	6.21	1.65	6.22	1.64	-0.192	0.112	6,533
Non-cognitive skills (1 = high, 5 = low)	2.86	0.33	2.86	0.33	0.018	0.557	6,533
Panel D: Treatment Status							
Booklet treatment	0.49	0.50	0.50	0.50	0.001	0.978	6,533

Notes: This table tests whether attrition between the baseline and endline surveys is related to baseline characteristics, for the full sample. Columns (1) to (4) report weighted means and standard deviations of baseline characteristics for the full baseline sample and for the subset who also completed the endline survey. Column (5) reports the difference between the two, adjusted for subcity fixed effects, a second cross-randomized intervention, and baseline imbalances in household size, more than 12 years of education, and search via the PES in the last 7 days. Column (6) gives the p-value for that difference and column (7) the number of observations. Because column (5) is regression-adjusted, it need not equal the raw difference between columns (1) and (3). Both the means and the difference are estimated with sampling weights, so they are representative of job seekers with at least 10 years of education in Addis Ababa. Standard errors are clustered at the district level. Income from paid work, total household income, and money spent on job search are winsorized at the 0 and 99 percentiles.

Table B8: Attrition Balance (Lower-Skill Women)

	Full Sample		Experimental Sample		Difference		
	Mean	SD	Mean	SD	Beta	P-Value	Obs
Panel A: Socioeconomic Characteristics							
Age	31.13	9.42	31.04	9.38	6.422	0.000	1,595
Married	0.48	0.50	0.47	0.50	0.063	0.321	1,595
Household size	4.55	2.02	4.59	2.06	-0.053	0.825	1,595
# People sleeping in same room	2.89	1.36	2.90	1.37	-0.301	0.031	1,595
Amharic as Native Language	0.82	0.39	0.83	0.38	0.002	0.962	1,595
Panel B: Employment, Income, Job Search							
Paid employment (last 7d)	0.27	0.44	0.27	0.44	0.038	0.476	1,595
Income from paid work (last 7d)	66.58	372.99	73.52	427.65	0.000	.	1,595
Permanent job (last 30d)	0.14	0.35	0.14	0.35	0.052	0.299	1,595
Written agreement / contract (last 30d)	0.18	0.39	0.18	0.39	0.043	0.419	1,595
Total household income (last 30d)	6,781.11	5,403.66	6942.97	5660.69	-524.380	0.388	1,595
Any job search (last 7d)	0.13	0.33	0.14	0.34	-0.128	0.000	1,595
# Applications (last 30d)	0.27	1.16	0.28	1.32	-0.173	0.016	1,595
# Offers (last 30d)	0.06	0.27	0.07	0.30	0.000	.	1,595
Search via PES (last 7d)	0.00	0.04	0.00	0.04	-0.002	0.269	1,595
ETB spent on job search (last 7d)	8.81	41.33	9.78	42.77	-8.900	0.000	1,595
Panel C: Skills							
# correct Raven out of 10	5.78	1.56	5.79	1.55	-0.376	0.030	1,595
Non-cognitive skills (1 = high, 5 = low)	2.89	0.33	2.90	0.33	0.001	0.979	1,595
Panel D: Treatment Status							
Booklet treatment	0.51	0.50	0.52	0.50	0.015	0.809	1,595

Notes: This table tests whether attrition between the baseline and endline surveys is related to baseline characteristics, for lower-skill women. Columns (1) to (4) report weighted means and standard deviations of baseline characteristics for the full baseline sample and for the subset who also completed the endline survey. Column (5) reports the difference between the two, adjusted for subcity fixed effects, a second cross-randomized intervention, and baseline imbalances in household size, more than 12 years of education, and search via the PES in the last 7 days. Column (6) gives the p-value for that difference and column (7) the number of observations. Because column (5) is regression-adjusted, it need not equal the raw difference between columns (1) and (3). Both the means and the difference are estimated with sampling weights, so they are representative of job seekers with at least 10 years of education in Addis Ababa. Standard errors are clustered at the district level. Income from paid work, total household income, and money spent on job search are winsorized at the 0 and 99 percentiles.

Table B9: Attrition Balance (Rest of Sample)

	Full Sample		Experimental Sample		Difference		
	Mean	SD	Mean	SD	Beta	P-Value	Obs
Panel A: Socioeconomic Characteristics							
Age	31.03	9.01	31.03	8.93	2.922	0.006	4,938
Married	0.43	0.49	0.42	0.49	0.079	0.135	4,938
Household size	4.50	1.96	4.48	1.96	-0.000	.	4,938
# People sleeping in same room	2.72	1.43	2.69	1.43	-0.000	.	4,938
Amharic as Native Language	0.85	0.35	0.85	0.35	0.016	0.550	4,938
Panel B: Employment, Income, Job Search							
Paid employment (last 7d)	0.44	0.50	0.43	0.50	0.069	0.157	4,938
Income from paid work (last 7d)	342.94	2,010.95	354.12	1,992.25	-105.865	0.172	4,938
Permanent job (last 30d)	0.29	0.45	0.28	0.45	0.076	0.083	4,938
Written agreement / contract (last 30d)	0.34	0.48	0.34	0.47	0.059	0.166	4,938
Total household income (last 30d)	10,372.53	9,587.59	10,583.98	9,868.00	-1225.483	0.134	4,938
Any job search (last 7d)	0.26	0.44	0.26	0.44	-0.133	0.000	4,938
# Applications (last 30d)	0.80	3.41	0.78	3.27	-0.545	0.000	4,938
# Offers (last 30d)	0.18	0.52	0.18	0.54	-0.081	0.013	4,938
Search via PES (last 7d)	0.00	0.02	0.00	0.03	-0.001	0.175	4,938
ETB spent on job search (last 7d)	31.51	107.93	31.54	107.20	-22.151	0.000	4,938
Panel C: Skills							
# correct Raven out of 10	6.36	1.65	6.36	1.64	-0.050	0.713	4,938
Non-cognitive skills (1 = high, 5 = low)	2.85	0.33	2.85	0.33	0.019	0.558	4,938
Panel D: Treatment Status							
Booklet treatment	0.49	0.50	0.49	0.50	0.003	0.952	4,938

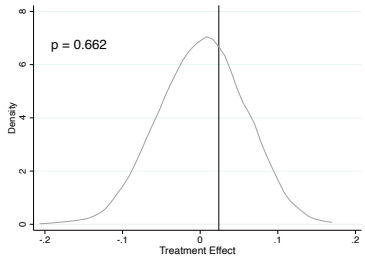
Notes: This table tests whether attrition between the baseline and endline surveys is related to baseline characteristics, for the rest of the sample, that is all but lower-skill women. Columns (1) to (4) report weighted means and standard deviations of baseline characteristics for the full baseline sample and for the subset who also completed the endline survey. Column (5) reports the difference between the two, adjusted for subcity fixed effects, a second cross-randomized intervention, and baseline imbalances in household size, more than 12 years of education, and search via the PES in the last 7 days. Column (6) gives the p-value for that difference and column (7) the number of observations. Because column (5) is regression-adjusted, it need not equal the raw difference between columns (1) and (3). Both the means and the difference are estimated with sampling weights, so they are representative of job seekers with at least 10 years of education in Addis Ababa. Standard errors are clustered at the district level. Income from paid work, total household income, and money spent on job search are winsorized at the 0 and 99 percentiles.

B.2 Robustness of Main Findings

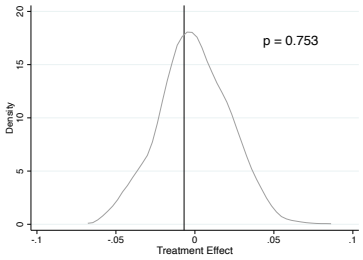
B.2.1 Randomization Inference

Figure B1: Treatment Effects on Job Search and Labor Market Outcomes – Randomization Inference (Pooled Sample)

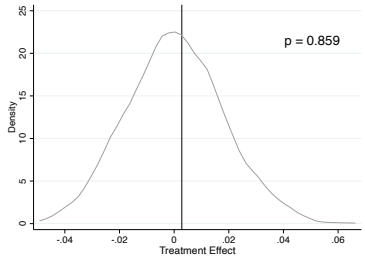
(a) # Applications



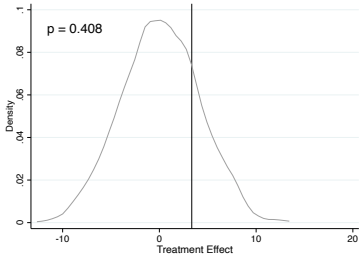
(b) # Offers



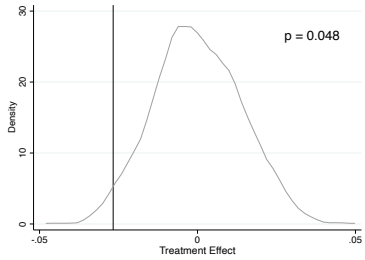
(c) Paid employment (Dummy)



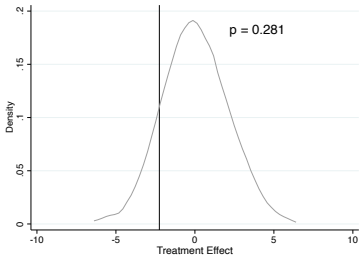
(d) Paid employment (Hours)



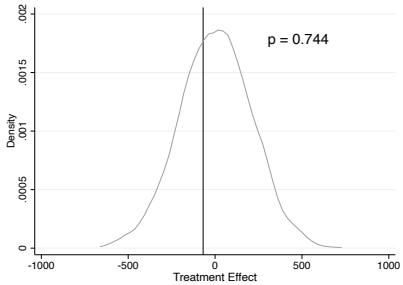
(e) HH business (Dummy)



(f) HH business (Hours)



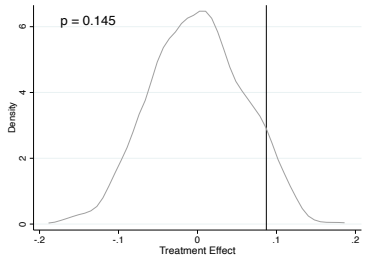
(g) Total income



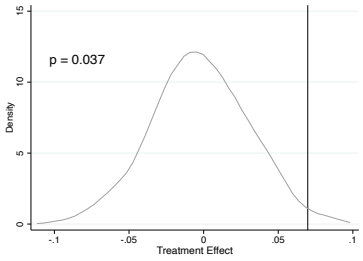
Notes: These figures present the distribution of placebo treatment effects for the pooled sample from randomization inference with 1,000 re-randomizations using the *ritest* command (Heß, 2017). The dashed vertical line illustrates the observed treatment effect, as reported in Table 3, Panel A.

Figure B2: Treatment Effects on Job Search and Labor Market Outcomes – Randomization Inference (Lower-Skill Women)

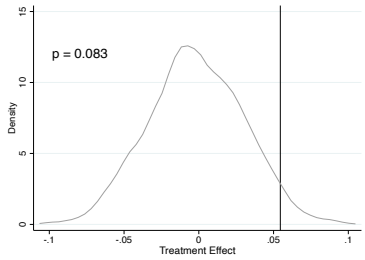
(a) # Applications



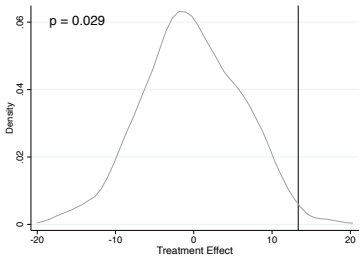
(b) # Offers



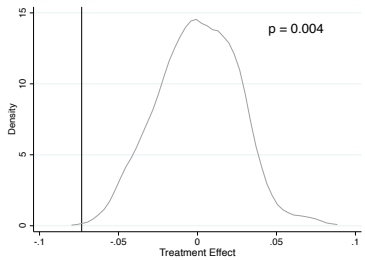
(c) Paid employment (Dummy)



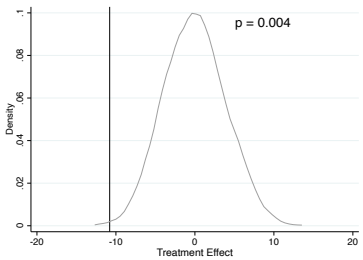
(d) Paid employment (Hours)



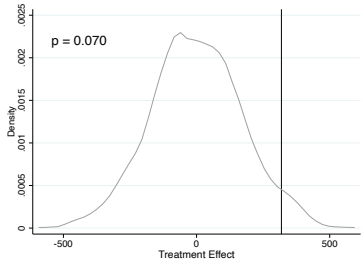
(e) HH business (Dummy)



(f) HH business (Hours)



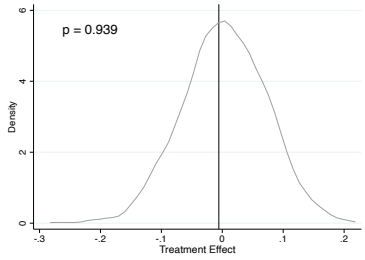
(g) Total income



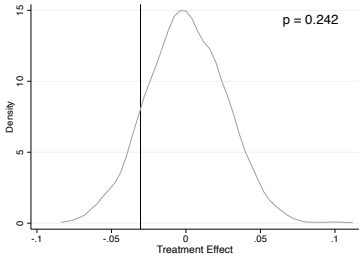
Notes: These figures present the distribution of placebo treatment effects for lower-skill women from randomization inference with 1,000 re-randomizations using the *ritest* command (Heß, 2017). The dashed vertical line illustrates the observed treatment effect, as reported in Table 3, Panel B.

Figure B3: Treatment Effects on Job Search and Labor Market Outcomes – Randomization Inference (Rest of Sample)

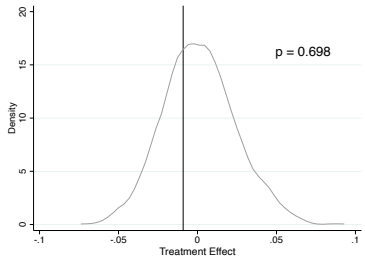
(a) # Applications



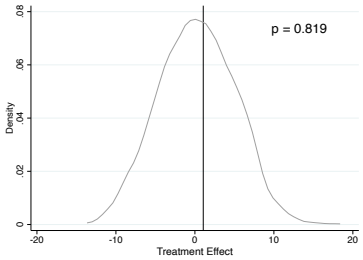
(b) # Offers



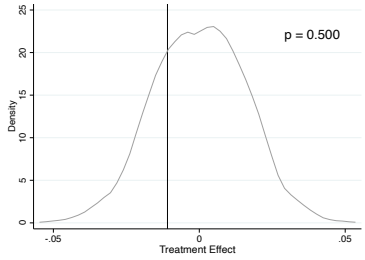
(c) Paid employment (Dummy)



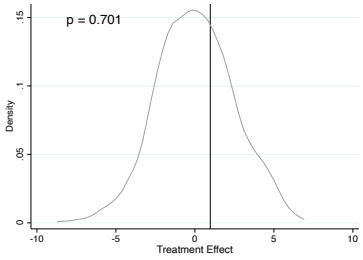
(d) Paid employment (Hours)



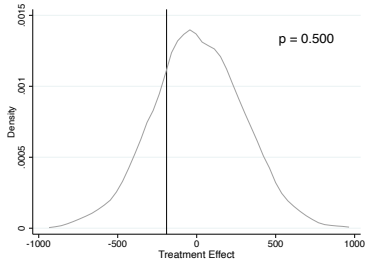
(e) HH business (Dummy)



(f) HH business (Hours)



(g) Total income



Notes: These figures present the distribution of placebo treatment effects for everyone but lower-skill women from randomization inference with 1,000 re-randomizations using the *ritest* command (Heß, 2017). The dashed vertical line illustrates the observed treatment effect, as reported in Table 3, Panel B.

B.2.2 Alternative Controls

Table B10: Treatment Effect Estimates on Job Search and Labor Market Outcomes (No Post-Double-Selection Lasso Controls)

	Job Search Behavior		Labor Market Downstream Outcomes				
	# Applications	# Offers	Employment for pay (Dummy)	Employment for pay (Hours)	Work in HH business (Dummy)	Work in HH business (Hours)	Total Income
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A: Pooled Sample							
TE for Pooled	0.013	-0.005	0.004	3.632	-0.026*	-2.000	-83.761
	(0.052)	(0.020)	(0.017)	(3.599)	(0.013)	(2.030)	(197.195)
Control mean	0.392	0.170	0.573	95.254	0.163	20.843	4,051.271
Number of obs.	3,003	3,003	3,003	3,003	3,003	3,003	3,003
Panel B: Lower-Skill Women (LSW) vs. Rest of Sample (RoS)							
TE for LSW	0.089	0.069**	0.051*	12.942**	-0.072***	-10.806***	301.971*
	(0.059)	(0.030)	(0.030)	(5.842)	(0.024)	(3.631)	(170.155)
TE for RoS	-0.010	-0.029	-0.010	0.693	-0.010	0.977	-184.350
	(0.064)	(0.024)	(0.022)	(4.478)	(0.016)	(2.313)	(266.407)
Difference	0.099	0.098***	0.061	12.248	-0.062**	-11.783***	486.320
	(0.082)	(0.036)	(0.041)	(7.582)	(0.028)	(4.155)	(347.543)
Control mean LSW	0.113	0.064	0.390	66.196	0.175	22.194	1,336.697
Control mean RoS	0.482	0.204	0.632	104.602	0.160	20.408	4,924.528
N LSW	737	737	737	737	737	737	737
N RoS	2,266	2,266	2,266	2,266	2,266	2,266	2,266

Notes: This table replicates Table 3, without adding the controls using post-double-selection lasso. Treatment Effect (TE) is a binary indicator for treatment assignment, defined as living in a district (*woreda*) where the vacancy booklet was available in the PES office. Panel A reports pooled treatment effects. Panel B interacts treatment assignment with an indicator for lower-skill women, reporting the implied treatment effect for lower-skill women (LSW) and for the rest of the sample (RoS); the difference row reports the interaction coefficient. All outcomes are measured at endline over the preceding 30 days: the number of applications submitted (column 1) and offers received (column 2); an indicator for any employment for pay or casual work and hours worked in it (columns 3 and 4); an indicator for any work in a household business and hours worked in it (columns 5 and 6); and total earned income from any economic activity (employment for pay, household business work, casual work) in Ethiopian birr, winsorized at the 0 and 99 percentiles (column 7). The control mean is the mean of the outcome among respondents in control districts in the relevant group. All specifications include the baseline value of the dependent variable, strata fixed effects, and an indicator for an unrelated, cross-randomized intervention. We control for baseline imbalances, accounting for attrition at endline (any job search (last 7d) and household size, see Table B4). Sampling weights are applied to both the estimated treatment effects and the control means, so estimates are representative of job seekers with at least 10 years of education in Addis Ababa. * p < 0.10, ** p < 0.05, *** p < 0.01.

Table B11: Treatment Effect Estimates on Job Search and Labor Market Outcomes (Additional Imbalance Controls)

	Job Search Behavior		Labor Market Downstream Outcomes				
	# Applications	# Offers	Employment for pay (Dummy)	Employment for pay (Hours)	Work in HH business (Dummy)	Work in HH business (Hours)	Total Income
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A: Pooled Sample							
TE for Pooled	0.016	-0.005	0.006	4.040	-0.027**	-2.126	-77.456
	(0.051)	(0.020)	(0.015)	(3.441)	(0.013)	(1.976)	(192.192)
Control mean	0.392	0.170	0.573	95.254	0.163	20.843	4,051.271
Number of obs.	3,003	3,003	3,003	3,003	3,003	3,003	3,003
Panel B: Lower-Skill Women (LSW) vs. Rest of Sample (RoS)							
TE for LSW	0.085	0.070**	0.056*	13.463**	-0.074***	-10.675***	332.254*
	(0.058)	(0.030)	(0.030)	(5.812)	(0.024)	(3.557)	(185.847)
TE for RoS	-0.007	-0.030	-0.010	0.910	-0.011	0.809	-215.682
	(0.063)	(0.024)	(0.021)	(4.300)	(0.015)	(2.260)	(266.080)
Difference	0.091	0.100***	0.066	12.553*	-0.063**	-11.484***	547.935
	(0.081)	(0.036)	(0.041)	(7.554)	(0.028)	(4.129)	(362.776)
Control mean LSW	0.113	0.064	0.390	66.196	0.175	22.194	1,336.697
Control mean RoS	0.482	0.204	0.632	104.602	0.160	20.408	4,924.528
N LSW	737	737	737	737	737	737	737
N RoS	2,266	2,266	2,266	2,266	2,266	2,266	2,266

Notes: This table replicates Table 3, adding additional controls for imbalance for lower-skill women and the rest of the sample. Treatment Effect (TE) is a binary indicator for treatment assignment, defined as living in a district (*woreda*) where the vacancy booklet was available in the PES office. Panel A reports pooled treatment effects. Panel B interacts treatment assignment with an indicator for lower-skill women, reporting the implied treatment effect for lower-skill women (LSW) and for the rest of the sample (RoS); the difference row reports the interaction coefficient. All outcomes are measured at endline over the preceding 30 days: the number of applications submitted (column 1) and offers received (column 2); an indicator for any employment for pay or casual work and hours worked in it (columns 3 and 4); an indicator for any work in a household business and hours worked in it (columns 5 and 6); and total earned income from any economic activity (employment for pay, household business work, casual work) in Ethiopian birr, winsorized at the 0 and 99 percentiles (column 7). The control mean is the mean of the outcome among respondents in control districts in the relevant group. All specifications include the baseline value of the dependent variable, strata fixed effects, and an indicator for an unrelated, cross-randomized intervention. We control for baseline imbalances, accounting for attrition at endline (any job search (last 7d) and household size, see Table B4). In addition to these, further controls are selected using post-double-selection lasso (Belloni, Chernozhukov and Hansen, 2014), as follows by column #: baseline paid work in the last 7 days and baseline permanent contract (columns 3, 4, 5, 6, 7); baseline written contract (columns 3, 4, 5, 7); female (columns 2, 3, 5, 7); higher education (columns 1, 7); age (column 1); the interaction of the missing-value indicator for baseline total income with baseline job search (column 1); and baseline total income, winsorized (column 7). Sampling weights are applied to both the estimated treatment effects and the control means, so estimates are representative of job seekers with at least 10 years of education in Addis Ababa. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

B.2.3 Multiple Hypothesis Testing

Table B12: Treatment Effect Estimates on Job Search and Labor Market Outcomes (Multiple Hypothesis Testing)

	Job Search Behavior		Labor Market Downstream Outcomes				
	# Applications	# Offers	Employment for pay (Dummy)	Employment for pay (Hours)	Work in HH business (Dummy)	Work in HH business (Hours)	Total Income
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A: Pooled Sample							
TE for Pooled	0.017	-0.005	0.007	4.121	-0.027**	-2.024	-62.264
	(0.051)	(0.020)	(0.016)	(3.444)	(0.013)	(1.987)	(193.278)
	[1.000]	[1.000]	[1.000]	[1.000]	[0.325]	[1.000]	[1.000]
Control mean	0.392	0.170	0.573	95.254	0.163	20.843	4,051.271
Number of obs.	3,003	3,003	3,003	3,003	3,003	3,003	3,003
Panel B: Lower-Skill Women (LSW) vs. Rest of Sample (RoS)							
Treatment effect for LSW	0.087	0.070**	0.055*	13.343**	-0.073***	-10.790***	318.610*
	(0.058)	(0.030)	(0.030)	(5.809)	(0.024)	(3.567)	(182.207)
	[0.060]*	[0.027]**	[0.041]**	[0.027]**	[0.008]***	[0.008]***	[0.041]**
Treatment effect for RoS	-0.006	-0.030	-0.009	1.057	-0.011	0.974	-190.632
	(0.064)	(0.024)	(0.021)	(4.298)	(0.015)	(2.270)	(265.671)
	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]	[1.000]
Difference	0.093	0.100***	0.064	12.286	-0.062**	-11.765***	509.242
	(0.081)	(0.036)	(0.041)	(7.537)	(0.029)	(4.144)	(356.062)
Control mean LSW	0.113	0.064	0.390	66.196	0.175	22.194	1,336.697
Control mean RoS	0.482	0.204	0.632	104.602	0.160	20.408	4,924.528
N LSW	737	737	737	737	737	737	737
N RoS	2,266	2,266	2,266	2,266	2,266	2,266	2,266

Notes: This table replicates Table 3, reporting additional minimum q-values from two-stage false discovery rate correction (Anderson, 2008; Benjamini and Hochberg, 1995). Treatment Effect (TE) is a binary indicator for treatment assignment, defined as living in a district (*woreda*) where the vacancy booklet was available in the PES office. All outcomes are measured at endline. Total income is winsorized at the 0 and 99 percentiles. All specifications include the baseline value of the dependent variable, strata fixed effects, and an indicator for an unrelated, cross-randomized intervention. We control for baseline imbalances, accounting for attrition at endline (any job search (last 7d) and household size (see Table B4). In addition to these, further controls are selected using post-double-selection lasso (Belloni, Chernozhukov and Hansen, 2014), identically in both panels, as follows by column #: baseline paid work in the last 7 days (columns 3, 4, 5, 6, 7); female (columns 2, 3, 5, 6, 7); baseline permanent contract (columns 3, 4, 6, 7); baseline written contract (columns 3, 4, 5, 7); higher education (columns 1, 7); baseline job search in the last 7 days (columns 1, 3); age (column 1); the interaction of the missing-value indicator for baseline total income with baseline job search (column 1); and baseline total income, winsorized (column 7). Standard errors are clustered at the district level and reported in parenthesis. Minimum q-values from two-stage false discovery rate correction are displayed in brackets. Sampling weights are applied. * p < 0.10, ** p < 0.05, *** p < 0.01.

B.2.4 Experimenter Demand Check

Table B13: Treatment Effects on Job Search and Labor Market Outcomes – Experimenter Demand (Lower-Skill Women)

	Job Search Behavior		Labor Market Downstream Outcomes				
	# Applications	# Offers	Employment for pay (Dummy)	Employment for pay (Hours)	Work in HH business (Dummy)	Work in HH business (Hours)	Total Income
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
TE for Placebo Call	0.037	0.039	-0.002	5.826	-0.073	-17.123**	191.728
	(0.077)	(0.052)	(0.050)	(10.524)	(0.046)	(6.864)	(276.747)
TE for No Call	0.001	0.095**	0.186**	35.713**	-0.212***	-13.910***	1366.421***
	(0.113)	(0.044)	(0.081)	(16.906)	(0.058)	(5.008)	(372.127)
Difference	0.036	-0.056	-0.188**	-29.887	0.139*	-3.213	-1.2e+03***
	(0.139)	(0.072)	(0.091)	(18.536)	(0.072)	(8.245)	(438.939)
Control mean Placebo Call	0.111	0.091	0.478	78.303	0.154	19.830	1,815.621
Control mean No Call	0.115	0.030	0.287	50.501	0.250	18.678	936.937
N Placebo Call	203	203	203	203	203	203	203
N No Call	92	92	92	92	92	92	92

Notes: The table reports heterogeneous treatment effects for lower-skill women (LSW) receiving job search reminder calls vs those receiving no call to test for experimenter demand effects. A third group of job seekers received calls with additional labor market information. This group is excluded from this analysis. In the case of experimenter demand effects, our findings should be driven entirely by those receiving the calls. Treatment Effect (TE) is a binary indicator for treatment assignment, defined as living in a district (*woreda*) where the vacancy booklet was available in the PES office. All outcomes are measured at endline. Total income is winsorized at the 0 and 99 percentiles. All specifications include the baseline value of the dependent variable, strata fixed effects, and an indicator for an unrelated, cross-randomized intervention. We control for baseline imbalances, accounting for attrition at endline (income from paid work (last 7d) (see Table B5). In addition to these, further controls are selected using post-double-selection lasso (Belloni, Chernozhukov and Hansen, 2014) as follows by column #: baseline job search through family and friends in the last 7 days (all columns); baseline number of job applications (columns 1, 3, 4, 5, 6, 7, 8); and baseline paid work in the last 7 days (columns 4, 5, 8).Standard errors are clustered at the district level. Sampling weights are applied. * p < 0.10, ** p < 0.05, *** p < 0.01.

B.3 Spillover and Displacement Analysis

B.3.1 Balance on Spillover Proxy

Table B14: Baseline Balance (Pooled Sample, Spillover Proxy)

	Neighboring PES Treated		Neighboring PES Control		Delta		
	Mean	SD	Mean	SD	Beta	P-Value	Obs
Panel A: Socioeconomic Characteristics							
Age	31.22	9.24	30.83	8.83	0.275	0.467	3,530
Married	0.44	0.50	0.43	0.50	0.002	0.935	3,530
Household size	4.44	1.99	4.57	1.97	-0.047	0.630	3,530
# People sleeping in same room	2.73	1.37	2.76	1.47	-0.010	0.886	3,530
Amharic as Native Language	0.85	0.35	0.84	0.37	0.015	0.405	3,530
Female	0.57	0.49	0.57	0.50	0.003	0.847	3,530
$>$ 12 years of education	0.57	0.49	0.52	0.50	0.035	0.068	3,530
Panel B: Employment, Income, Job Search							
Paid employment (last 7d)	0.41	0.49	0.38	0.49	0.027	0.197	3,530
Income from paid work (last 7d)	250.92	1,481.12	318.59	1,978.62	-100.533	0.102	3,530
Permanent job (last 30d)	0.28	0.45	0.22	0.41	0.040	0.016	3,530
Written agreement / contract (last 30d)	0.33	0.47	0.27	0.44	0.045	0.012	3,530
Total household income (last 30d)	10,011.01	9,231.83	9,329.66	9,035.59	533.141	0.220	3,530
Any job search (last 7d)	0.24	0.43	0.21	0.41	0.022	0.260	3,530
# Applications (last 30d)	0.59	1.77	0.73	3.75	-0.124	0.360	3,530
# Offers (last 30d)	0.16	0.52	0.15	0.47	0.019	0.442	3,530
Search via PES (last 7d)	0.00	0.00	0.00	0.04	-0.001	0.120	3,530
ETB spent on job search (last 7d)	25.78	90.61	26.48	100.85	-0.145	0.971	3,530
Panel C: Skills							
# correct Raven out of 10	6.29	1.61	6.14	1.67	0.119	0.176	3,530
Non-cognitive skills (1 = high, 5 = low)	2.85	0.32	2.87	0.34	-0.012	0.497	3,530

Notes: This table tests whether baseline characteristics are balanced across job seekers whose second-closest employment office was assigned to treatment and those whose was not. Because job seekers must use the office they are assigned to, the second-closest is the nearest office that is not their assigned one. Columns (1) to (4) report weighted means and standard deviations of baseline characteristics for the full baseline sample. Column (5) reports the difference between the two groups, adjusted for subcity fixed effects and a second, cross-randomized intervention. Column (6) gives the p-value for that difference and column (7) the number of observations. Because column (5) is regression-adjusted, it need not equal the raw difference between columns (1) and (3). Both the means and the difference are estimated with sampling weights. Standard errors are clustered at the district level. Income from paid work, total household income, and money spent on job search are winsorized at the 0 and 99 percentiles.

Table B15: Baseline Balance in the Endline Sample (Pooled Sample, Spillover Proxy)

	Neighboring PES Treated		Neighboring PES Control		Delta		
	Mean	SD	Mean	SD	Beta	P-Value	Obs
Panel A: Socioeconomic Characteristics							
Age	31.23	9.35	30.87	8.85	0.343	0.419	3,003
Married	0.44	0.50	0.44	0.50	0.003	0.895	3,003
Household size	4.46	1.99	4.58	1.96	-0.058	0.586	3,003
# People sleeping in same room	2.75	1.38	2.77	1.45	-0.005	0.944	3,003
Amharic as Native Language	0.85	0.35	0.83	0.37	0.021	0.276	3,003
Female	0.57	0.50	0.58	0.49	-0.004	0.811	3,003
$>$ 12 years of education	0.57	0.49	0.52	0.50	0.031	0.100	3,003
Panel B: Employment, Income, Job Search							
Paid employment (last 7d)	0.41	0.49	0.38	0.49	0.036	0.101	3,003
Income from paid work (last 7d)	260.95	1,562.44	286.16	1,933.13	-54.219	0.418	3,003
Permanent job (last 30d)	0.28	0.45	0.22	0.41	0.045	0.010	3,003
Written agreement / contract (last 30d)	0.33	0.47	0.27	0.44	0.052	0.007	3,003
Total household income (last 30d)	9,820.76	8,891.39	9,096.87	8,817.95	567.277	0.166	3,003
Any job search (last 7d)	0.24	0.42	0.21	0.41	0.011	0.585	3,003
# Applications (last 30d)	0.58	1.73	0.75	3.94	-0.165	0.274	3,003
# Offers (last 30d)	0.15	0.47	0.15	0.48	0.006	0.800	3,003
Search via PES (last 7d)	0.00	0.00	0.00	0.04	-0.001	0.176	3,003
ETB spent on job search (last 7d)	25.32	90.86	26.27	101.35	-0.619	0.886	3,003
Panel C: Skills							
# correct Raven out of 10	6.30	1.61	6.12	1.68	0.139	0.134	3,003
Non-cognitive skills (1 = high, 5 = low)	2.86	0.32	2.87	0.34	-0.007	0.705	3,003

Notes: This table tests whether baseline characteristics are balanced across job seekers whose second-closest employment office was assigned to treatment and those whose was not. Because job seekers must use the office they are assigned to, the second-closest is the nearest office that is not their assigned one. Columns (1) to (4) report weighted means and standard deviations of baseline characteristics for the full baseline sample having answerd both the baseline and endline survey. Column (5) reports the difference between the two groups, adjusted for subcity fixed effects and a second, cross-randomized intervention. Column (6) gives the p-value for that difference and column (7) the number of observations. Because column (5) is regression-adjusted, it need not equal the raw difference between columns (1) and (3). Both the means and the difference are estimated with sampling weights. Standard errors are clustered at the district level. Income from paid work, total household income, and money spent on job search are winsorized at the 0 and 99 percentiles.

Table B16: Baseline Balance (Lower-Skill Women, Spillover Proxy)

	Neighboring PES Treated		Neighboring PES Control		Delta		
	Mean	SD	Mean	SD	Beta	P-Value	Obs
Panel A: Socioeconomic Characteristics							
Age	31.25	9.65	30.86	9.15	0.438	0.570	858
Married	0.46	0.50	0.48	0.50	-0.057	0.142	858
Household size	4.49	2.11	4.68	2.01	-0.156	0.385	858
# People sleeping in same room	2.88	1.33	2.92	1.41	-0.026	0.815	858
Amharic as Native Language	0.82	0.38	0.83	0.38	-0.001	0.984	858
Panel B: Employment, Income, Job Search							
Paid employment (last 7d)	0.26	0.44	0.28	0.45	-0.013	0.700	858
Income from paid work (last 7d)	73.12	432.05	73.88	424.26	-3.016	0.910	858
Permanent job (last 30d)	0.16	0.37	0.12	0.32	0.029	0.245	858
Written agreement / contract (last 30d)	0.20	0.40	0.17	0.37	0.014	0.597	858
Total household income (last 30d)	6,803.79	5,421.76	7,063.90	5,863.60	-563.363	0.235	858
Any job search (last 7d)	0.14	0.35	0.13	0.34	0.026	0.311	858
# Applications (last 30d)	0.31	1.38	0.25	1.27	0.026	0.837	858
# Offers (last 30d)	0.08	0.29	0.07	0.32	0.010	0.657	858
Search via PES (last 7d)	0.00	0.00	0.00	0.05	-0.002	0.309	858
ETB spent on job search (last 7d)	10.37	41.83	9.27	43.62	1.753	0.575	858
Panel C: Skills							
# correct Raven out of 10	5.93	1.50	5.66	1.58	0.242	0.050	858
Non-cognitive skills (1 = high, 5 = low)	2.89	0.34	2.90	0.33	-0.002	0.958	858

Notes: This table tests whether baseline characteristics are balanced across job seekers whose second-closest employment office was assigned to treatment and those whose was not. Because job seekers must use the office they are assigned to, the second-closest is the nearest office that is not their assigned one. Columns (1) to (4) report weighted means and standard deviations of baseline characteristics for the lower-skill women. Column (5) reports the difference between the two groups, adjusted for subcity fixed effects and a second, cross-randomized intervention. Column (6) gives the p-value for that difference and column (7) the number of observations. Because column (5) is regression-adjusted, it need not equal the raw difference between columns (1) and (3). Both the means and the difference are estimated with sampling weights. Standard errors are clustered at the district level. Income from paid work, total household income, and money spent on job search are winsorized at the 0 and 99 percentiles.

Table B17: Baseline Balance in the Endline Sample (Lower-Skill Women, Spillover Proxy)

	Neighboring PES Treated		Neighboring PES Control		Delta		
	Mean	SD	Mean	SD	Beta	P-Value	Obs
Panel A: Socioeconomic Characteristics							
Age	31.44	9.84	30.86	9.05	0.861	0.302	737
Married	0.44	0.50	0.51	0.50	-0.084	0.043	737
Household size	4.50	2.14	4.60	1.91	-0.086	0.668	737
# People sleeping in same room	2.87	1.33	2.90	1.38	-0.049	0.695	737
Amharic as Native Language	0.81	0.39	0.82	0.38	-0.005	0.878	737
Panel B: Employment, Income, Job Search							
Paid employment (last 7d)	0.27	0.44	0.26	0.44	0.009	0.791	737
Income from paid work (last 7d)	74.09	441.54	60.14	302.56	14.898	0.601	737
Permanent job (last 30d)	0.17	0.38	0.11	0.32	0.035	0.158	737
Written agreement / contract (last 30d)	0.20	0.40	0.17	0.38	0.010	0.731	737
Total household income (last 30d)	6,531.85	4,929.85	6,994.78	5,776.62	-617.689	0.213	737
Any job search (last 7d)	0.13	0.34	0.12	0.32	0.008	0.765	737
# Applications (last 30d)	0.25	0.88	0.28	1.36	-0.122	0.220	737
# Offers (last 30d)	0.07	0.29	0.05	0.25	0.013	0.588	737
Search via PES (last 7d)	0.00	0.00	0.00	0.06	-0.004	0.300	737
ETB spent on job search (last 7d)	9.45	41.42	8.25	41.30	0.787	0.797	737
Panel C: Skills							
# correct Raven out of 10	5.91	1.50	5.67	1.60	0.216	0.098	737
Non-cognitive skills (1 = high, 5 = low)	2.89	0.33	2.90	0.33	0.006	0.851	737

Notes: This table tests whether baseline characteristics are balanced across job seekers whose second-closest employment office was assigned to treatment and those whose was not. Because job seekers must use the office they are assigned to, the second-closest is the nearest office that is not their assigned one. Columns (1) to (4) report weighted means and standard deviations of baseline characteristics for lower-skill women having answered both the baseline and endline survey. Column (5) reports the difference between the two groups, adjusted for subcity fixed effects and a second, cross-randomized intervention. Column (6) gives the p-value for that difference and column (7) the number of observations. Because column (5) is regression-adjusted, it need not equal the raw difference between columns (1) and (3). Both the means and the difference are estimated with sampling weights. Standard errors are clustered at the district level. Income from paid work, total household income, and money spent on job search are winsorized at the 0 and 99 percentiles.

Table B18: Baseline Balance (Rest of Sample, Spillover Proxy)

	Neighboring PES Treated		Neighboring PES Control		Delta		
	Mean	SD	Mean	SD	Beta	P-Value	Obs
Panel A: Socioeconomic Characteristics							
Age	31.21	9.12	30.82	8.71	0.241	0.550	2,672
Married	0.44	0.50	0.41	0.49	0.024	0.341	2,672
Household size	4.43	1.96	4.53	1.96	-0.011	0.912	2,672
# People sleeping in same room	2.68	1.38	2.70	1.48	0.005	0.943	2,672
Amharic as Native Language	0.86	0.35	0.84	0.36	0.019	0.303	2,672
Panel B: Employment, Income, Job Search							
Paid employment (last 7d)	0.45	0.50	0.42	0.49	0.031	0.190	2,672
Income from paid work (last 7d)	303.38	1,665.65	409.81	2,297.31	-145.980	0.083	2,672
Permanent job (last 30d)	0.31	0.46	0.26	0.44	0.036	0.098	2,672
Written agreement / contract (last 30d)	0.37	0.48	0.31	0.46	0.047	0.034	2,672
Total household income (last 30d)	10,957.25	9,889.40	10,174.24	9,832.04	697.954	0.165	2,672
Any job search (last 7d)	0.27	0.44	0.25	0.43	0.015	0.537	2,672
# Applications (last 30d)	0.67	1.86	0.90	4.31	-0.197	0.264	2,672
# Offers (last 30d)	0.18	0.57	0.18	0.51	0.016	0.583	2,672
Search via PES (last 7d)	0.00	0.00	0.00	0.04	-0.001	0.197	2,672
ETB spent on job search (last 7d)	30.32	100.15	32.89	114.47	-1.612	0.750	2,672
Panel C: Skills							
# correct Raven out of 10	6.40	1.62	6.32	1.66	0.049	0.601	2,672
Non-cognitive skills (1 = high, 5 = low)	2.84	0.31	2.86	0.34	-0.012	0.473	2,672

Notes: This table tests whether baseline characteristics are balanced across job seekers whose second-closest employment office was assigned to treatment and those whose was not. Because job seekers must use the office they are assigned to, the second-closest is the nearest office that is not their assigned one. Columns (1) to (4) report weighted means and standard deviations of baseline characteristics for the rest of the sample, that is all but lower-skill women. Column (5) reports the difference between the two groups, adjusted for subcity fixed effects and a second, cross-randomized intervention. Column (6) gives the p-value for that difference and column (7) the number of observations. Because column (5) is regression-adjusted, it need not equal the raw difference between columns (1) and (3). Both the means and the difference are estimated with sampling weights. Standard errors are clustered at the district level. Income from paid work, total household income, and money spent on job search are winsorized at the 0 and 99 percentiles.

Table B19: Baseline Balance in the Endline Sample (Rest of Sample, Spillover Proxy)

	Neighboring PES Treated		Neighboring PES Control		Delta		
	Mean	SD	Mean	SD	Beta	P-Value	Obs
Panel A: Socioeconomic Characteristics							
Age	31.17	9.21	30.87	8.78	0.221	0.619	2,266
Married	0.44	0.50	0.41	0.49	0.036	0.174	2,266
Household size	4.45	1.94	4.57	1.98	-0.052	0.628	2,266
# People sleeping in same room	2.71	1.39	2.72	1.47	0.017	0.840	2,266
Amharic as Native Language	0.87	0.34	0.84	0.37	0.029	0.120	2,266
Panel B: Employment, Income, Job Search							
Paid employment (last 7d)	0.45	0.50	0.42	0.49	0.035	0.159	2,266
Income from paid work (last 7d)	315.99	1,757.94	373.12	2,261.31	-88.933	0.325	2,266
Permanent job (last 30d)	0.31	0.46	0.26	0.44	0.040	0.091	2,266
Written agreement / contract (last 30d)	0.37	0.48	0.31	0.46	0.057	0.017	2,266
Total household income (last 30d)	10,789.62	9,544.28	9,905.59	9,618.85	765.459	0.117	2,266
Any job search (last 7d)	0.27	0.44	0.25	0.43	0.006	0.794	2,266
# Applications (last 30d)	0.68	1.90	0.93	4.54	-0.213	0.281	2,266
# Offers (last 30d)	0.17	0.51	0.19	0.53	-0.002	0.938	2,266
Search via PES (last 7d)	0.00	0.00	0.00	0.03	-0.001	0.317	2,266
ETB spent on job search (last 7d)	30.00	100.45	33.21	115.75	-2.025	0.711	2,266
Panel C: Skills							
# correct Raven out of 10	6.41	1.62	6.30	1.68	0.077	0.434	2,266
Non-cognitive skills (1 = high, 5 = low)	2.84	0.32	2.86	0.34	-0.008	0.649	2,266

Notes: This table adds a spillover measure to the specification in Table 3, to test whether treatment in nearby districts affects job seekers' outcomes and whether accounting for it changes the estimated direct treatment effect. Booklet treatment is a binary indicator for treatment assignment, defined as living in a district (*woreda*) where the vacancy booklet was available in the PES office. The spillover measure, second-closest PES office treated, is a binary indicator for the nearest employment office other than the one the respondent is assigned to being treated. Panel A reports estimates for the pooled sample; Panel B reports estimates from separate regressions on lower-skill women (LSW) and on the rest of the sample (RoS). Control mean is the mean of the outcome among respondents in control districts in the relevant sample. All specifications include the baseline value of the dependent variable, strata fixed effects, and an indicator for an unrelated, cross-randomized intervention. We control for baseline imbalances, accounting for attrition at endline, using the set relevant to each sample: any job search (last 7d) and household size for the pooled sample, see Table B4; baseline weekly salary from paid work for lower-skill women, see Table B5; and any job search (last 7d), household size, and # people sleeping in the same room for the rest of the sample, see Table B6. In addition to these, further controls are selected using post-double-selection lasso (Belloni, Chernozhukov and Hansen, 2014) as follows by column #. Pooled sample: baseline paid work in the last 7 days (columns 3, 4, 5, 6, 7); female (columns 2, 3, 5, 7); age (column 1); and baseline total household income, winsorized (column 7). Lower-skill women: baseline job search through family and friends in the last 7 days (all columns); baseline permanent contract (columns 3, 4, 5, 6, 7); baseline paid work in the last 7 days (columns 3, 4, 6, 7); and baseline written contract (column 7). Rest of the sample: baseline paid work in the last 7 days (columns 3, 4, 5, 6, 7); female (columns 2, 5, 7); and age (column 1). Standard errors are clustered at the district level. Sampling weights are applied to both the estimated treatment effects and the control means. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

B.3.2 Treatment Effects Estimates with Neighborhood Spillover Measures

Table B20: Treatment Effects and Neighborhood Spillovers (Second-Closest PES Office Treated)

	Job Search Behavior		Labor Market Downstream Outcomes				
	# Applications	# Offers	Employment for pay (Dummy)	Employment for pay (Hours)	Work in HH business (Dummy)	Work in HH business (Hours)	Total Income
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A: Pooled Sample							
Booklet treatment	0.021	-0.005	0.006	3.858	-0.027**	-1.908	-61.494
	(0.052)	(0.020)	(0.016)	(3.416)	(0.013)	(1.985)	(195.229)
Second-closest PES office treated	0.018	0.011	-0.013	-6.611*	-0.012	2.652	17.738
	(0.042)	(0.023)	(0.017)	(3.805)	(0.014)	(2.004)	(224.567)
Control mean	0.392	0.170	0.573	95.254	0.163	20.843	4,051.271
Number of obs.	3,003	3,003	3,003	3,003	3,003	3,003	3,003
Panel B: Lower-Skill Women (LSW) vs. Rest of Sample (RoS)							
Booklet treatment LSW	0.105**	0.062**	0.060**	13.705**	-0.072***	-12.363***	325.467***
	(0.052)	(0.025)	(0.026)	(5.373)	(0.021)	(3.321)	(114.392)
Second-closest PES office treated LSW	-0.007	-0.010	0.013	-3.249	-0.001	2.459	-81.305
	(0.050)	(0.036)	(0.029)	(5.820)	(0.028)	(4.190)	(157.393)
Booklet treatment RoS	-0.004	-0.030	-0.013	0.240	-0.010	1.214	-246.538
	(0.063)	(0.024)	(0.020)	(4.127)	(0.015)	(2.294)	(263.630)
Second-closest PES office treated RoS	0.016	0.019	-0.025	-9.114*	-0.018	2.386	15.413
	(0.052)	(0.025)	(0.022)	(4.782)	(0.015)	(2.275)	(284.916)
Control mean LSW	0.113	0.064	0.390	66.196	0.175	22.194	1,336.697
N LSW	737	737	737	737	737	737	737
Control mean RoS	0.482	0.204	0.632	104.602	0.160	20.408	4,924.528
N RoS	2,266	2,266	2,266	2,266	2,266	2,266	2,266

Notes: This table replicates Table 3, controlling in addition for the constructed spillover proxy. The constructed spillover proxy is an indicator variable equal to one in case the nearest PES to the job seeker's home is also treated, that is receiving the vacancy booklet. This calculation excludes the job seeker's own PES. Treatment Effect (TE) is a binary indicator for treatment assignment, defined as living in a district (*woreda*) where the vacancy booklet was available in the PES office. All outcomes are measured at endline. Total income is winsorized at the 0 and 99 percentiles. All specifications include the baseline value of the dependent variable, strata fixed effects, and an indicator for an unrelated, cross-randomized intervention. We control for baseline imbalances for both the treatment and spillover indicator, accounting for attrition at endline (any job search (last 7d) and household size, and permanent job (last 30d), written agreement/contract (last 30d), total household income (last 30d), respectively). In addition to these, further controls are selected using post-double-selection lasso (Belloni, Chernozhukov and Hansen, 2014). Standard errors are clustered at the district level. Sampling weights are applied. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table B21: Treatment Effects and Neighborhood Spillovers (PES Office Treatment Saturation within 3 km)

	Job Search Behavior		Labor Market Downstream Outcomes				
	# Applications	# Offers	Employment for pay (Dummy)	Employment for pay (Hours)	Work in HH business (Dummy)	Work in HH business (Hours)	Total Income
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A: Pooled Sample							
Booklet treatment	0.020	-0.005	0.007	4.164	-0.027**	-2.000	-58.656
	(0.051)	(0.020)	(0.016)	(3.474)	(0.013)	(1.993)	(196.847)
Share treated PES office within 3 kms (Standardized)	0.023	-0.004	0.002	0.380	0.001	0.209	32.249
	(0.020)	(0.010)	(0.008)	(1.723)	(0.006)	(1.028)	(134.020)
Control mean	0.392	0.170	0.573	95.254	0.163	20.843	4,051.271
Number of obs.	3,003	3,003	3,003	3,003	3,003	3,003	3,003
Panel B: Lower-Skill Women (LSW) vs. Rest of Sample (RoS)							
Booklet treatment LSW	0.106*	0.063**	0.060**	14.013**	-0.070***	-12.188***	333.814***
	(0.055)	(0.026)	(0.026)	(5.454)	(0.020)	(3.313)	(110.913)
Share treated PES office within 3 kms (Standardized) LSW	-0.021	0.005	0.020*	3.847	0.015	3.406*	56.164
	(0.016)	(0.010)	(0.012)	(2.513)	(0.010)	(1.871)	(47.773)
Booklet treatment RoS	-0.003	-0.031	-0.013	0.612	-0.009	1.098	-246.370
	(0.063)	(0.024)	(0.020)	(4.265)	(0.015)	(2.310)	(268.535)
Share treated PES office within 3 kms (Standardized) RoS	0.034	-0.010	-0.006	-0.773	-0.005	-0.814	6.828
	(0.027)	(0.012)	(0.010)	(2.030)	(0.008)	(1.221)	(188.557)
Control mean LSW	0.113	0.064	0.390	66.196	0.175	22.194	1,336.697
Number of obs. LSW	737	737	737	737	737	737	737
Control mean RoS	0.482	0.204	0.632	104.602	0.160	20.408	4,924.528
Number of obs. RoS	2,266	2,266	2,266	2,266	2,266	2,266	2,266

Notes: This table adds a spillover measure to the specification in Table 3, to test whether treatment in nearby districts affects job seekers' outcomes and whether accounting for it changes the estimated direct treatment effect. Booklet treatment is a binary indicator for treatment assignment, defined as living in a district (*woreda*) where the vacancy booklet was available in the PES office. The spillover measure is the standardized share of employment offices within 3 km of the respondent's home, other than the office they are assigned to, that were treated; it is coded as zero where no other office lies within this radius. Panel A reports estimates for the pooled sample; Panel B reports estimates from separate regressions on lower-skill women (LSW) and on the rest of the sample (RoS). Control mean is the mean of the outcome among respondents in control districts in the relevant sample. All specifications include the baseline value of the dependent variable, strata fixed effects, and an indicator for an unrelated, cross-randomized intervention. We control for baseline imbalances, accounting for attrition at endline, using the set relevant to each sample: any job search (last 7d) and household size for the pooled sample, see Table B4; baseline weekly salary from paid work for lower-skill women, see Table B5; and any job search (last 7d), household size, and # people sleeping in the same room for the rest of the sample, see Table B6. In addition to these, further controls are selected using post-double-selection lasso (Belloni, Chernozhukov and Hansen, 2014) as follows by column #. Pooled sample: baseline paid work in the last 7 days and baseline permanent contract (columns 3, 4, 5, 6, 7); baseline written contract (columns 3, 4, 5, 7); female (columns 2, 3, 5, 7); higher education (columns 1, 7); age (column 1); and baseline total household income, winsorized (column 7). Lower-skill women: baseline job search through family and friends in the last 7 days (all columns); baseline permanent contract (columns 3, 4, 5, 6, 7); baseline paid work in the last 7 days (columns 3, 4, 6, 7); and baseline written contract (column 7). Rest of the sample: baseline paid work in the last 7 days and baseline written contract (columns 3, 4, 5, 6, 7); female (columns 2, 5, 7); age (column 1); and baseline permanent contract and baseline total household income, winsorized (column 7). Because each sample is estimated separately, the selected controls differ across them. Standard errors are clustered at the district level. Sampling weights are applied to both the estimated treatment effects and the control means. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table B22: Treatment Effects and Neighborhood Spillovers (Commuting-Linked Exposure)

	Job Search Behavior		Labor Market Downstream Outcomes				
	# Applications	# Offers	Employment for pay (Dummy)	Employment for pay (Hours)	Work in HH business (Dummy)	Work in HH business (Hours)	Total Income
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A: Pooled Sample							
Booklet treatment	0.020	-0.007	0.005	3.625	-0.027**	-1.955	-81.519
	(0.053)	(0.021)	(0.015)	(3.264)	(0.012)	(1.998)	(189.722)
Commuting-linked exposure (standardized)	0.022	-0.012	-0.010	-3.761	-0.001	0.535	-147.966
	(0.029)	(0.013)	(0.011)	(2.551)	(0.010)	(1.269)	(114.231)
Control mean	0.392	0.170	0.573	95.254	0.163	20.843	4,051.271
Number of obs.	3,003	3,003	3,003	3,003	3,003	3,003	3,003
Panel B: Lower-Skill Women (LSW) vs. Rest of Sample (RoS)							
Booklet treatment LSW	0.114**	0.065**	0.059**	13.967**	-0.074***	-12.685***	316.879***
	(0.055)	(0.026)	(0.027)	(5.563)	(0.020)	(3.331)	(116.679)
Commuting-linked exposure (standardized) LSW	0.036	0.009	0.001	1.334	-0.015	-1.310	-70.237
	(0.027)	(0.019)	(0.019)	(2.976)	(0.014)	(2.139)	(67.043)
Booklet treatment RoS	-0.005	-0.032	-0.015	0.034	-0.008	1.292	-268.749
	(0.065)	(0.024)	(0.020)	(4.053)	(0.015)	(2.319)	(257.972)
Commuting-linked exposure (standardized) RoS	0.020	-0.014	-0.018	-5.951**	0.005	0.822	-190.386
	(0.040)	(0.015)	(0.013)	(2.935)	(0.012)	(1.570)	(158.048)
Control mean LSW	0.113	0.064	0.390	66.196	0.175	22.194	1,336.697
Number of obs. LSW	737	737	737	737	737	737	737
Control mean RoS	0.482	0.204	0.632	104.602	0.160	20.408	4,924.528
Number of obs. RoS	2,266	2,266	2,266	2,266	2,266	2,266	2,266

Notes: This table replicates Table 3, controlling in addition for the constructed spillover proxy, commuting-linked exposure. This spillover proxy is constructed from predetermined baseline links between residential origin woredas and destination subcities. Own-woreda treatment is excluded. Exposure is recentered at its exact expectation conditional on own treatment under the original subcity-stratified randomization and standardized in the endline sample. All outcomes are measured at endline. Total income is winsorized at the 0 and 99 percentiles. All specifications include the baseline value of the dependent variable, strata fixed effects, and an indicator for an unrelated, cross-randomized intervention. We control for baseline imbalances, accounting for attrition at endline (any job search (last 7d) and household size (see Table B4). In addition to these, further controls are selected using post-double-selection lasso (Belloni, Chernozhukov and Hansen, 2014). Standard errors are clustered at the district level. Sampling weights are applied. * p < 0.10, ** p < 0.05, *** p < 0.01.

B.3.3 Interactions Spillover Measures with Booklet Treatment

Table B23: Interactions of Treatment with Indirect-Exposure Measures (Lower-Skill Women)

	Job Search Behavior		Labor Market Downstream Outcomes				
	# Applications	# Offers	Employment for pay (Dummy)	Employment for pay (Hours)	Work in HH business (Dummy)	Work in HH business (Hours)	Total Income
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A: Second-closest OSSC Treated							
Booklet Treatment × Second-Closest PES Office	0.063	-0.037	0.034	2.118	-0.013	0.416	386.072
	(0.109)	(0.060)	(0.055)	(10.557)	(0.048)	(7.949)	(277.755)
Panel B: Share Treated OSSC Within 3 kms							
Booklet Treatment × Share (Standardized)	0.021	-0.012	0.003	-0.070	0.015	0.490	75.041
	(0.056)	(0.022)	(0.025)	(5.321)	(0.021)	(3.554)	(98.571)
Panel C: Commuting-Linked Exposure							
Booklet Treatment × Exposure	0.059	0.029	-0.006	-0.467	-0.002	2.224	-205.223**
	(0.048)	(0.027)	(0.026)	(6.028)	(0.021)	(3.644)	(100.297)
Control mean	0.113	0.064	0.390	66.196	0.175	22.194	1,336.697
Number of obs.	737	737	737	737	737	737	737

Notes: This table interacts each indirect exposure measure with booklet treatment, to test whether the direct treatment effect varies with the degree of indirect exposure. The sample is restricted to lower-skill women. Booklet treatment is a binary indicator for treatment assignment, defined as living in a district (*woreda*) where the vacancy booklet was available in the PES office. Each panel reports estimates from a separate regression using a different measure of indirect exposure: Panel A, a binary indicator for the nearest employment office other than the one the respondent is assigned to being treated; Panel B, the standardized share of employment offices within 3 km of the respondent's home, other than their assigned office, that were treated; and Panel C, commuting-linked exposure, constructed from baseline commuting patterns following Franklin et al. (2024). Each regression includes booklet treatment, the indirect exposure measure, and their interaction; only the interaction coefficient is reported, so a coefficient indistinguishable from zero indicates that the direct treatment effect does not vary with indirect exposure. Control mean is the mean of the outcome among lower-skill women in control districts. All specifications include the baseline value of the dependent variable, strata fixed effects, and an indicator for an unrelated, cross-randomized intervention. We control for baseline imbalances, accounting for attrition at endline (baseline weekly salary from paid work, see Table B5). In addition to these, further controls are selected using post-double-selection lasso (Belloni, Chernozhukov and Hansen, 2014), identically in all three panels, as follows by column #: baseline job search through family and friends in the last 7 days (all columns); baseline permanent contract (columns 3, 4, 5, 6, 7); baseline paid work in the last 7 days (columns 3, 4, 6, 7); and baseline written contract (column 7). Standard errors are clustered at the district level. Sampling weights are applied to both the estimated treatment effects and the control means. * p < 0.10, ** p < 0.05, *** p < 0.01.

C Additional Results

C.1 Treatment Effects During vs. After the Intervention

Table C1: Treatment Effects During vs. After the Intervention (Pooled Sample)

	Job Search Behavior		Labor Market Downstream Outcomes				
	# Applications	# Offers	Employment for pay (Dummy)	Employment for pay (Hours)	Work in HH business (Dummy)	Work in HH business (Hours)	Total Income
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
TE during intervention	0.066	-0.005	0.006	3.572	-0.034*	-3.838	-132.642
	(0.084)	(0.033)	(0.023)	(4.530)	(0.018)	(3.319)	(278.414)
TE after intervention	-0.031	-0.004	0.007	4.737	-0.019	-0.161	15.199
	(0.064)	(0.022)	(0.023)	(4.809)	(0.020)	(3.034)	(220.002)
Difference	0.096	-0.001	-0.001	-1.165	-0.016	-3.677	-147.841
	(0.108)	(0.038)	(0.034)	(6.309)	(0.029)	(4.973)	(319.096)
Control mean during	0.440	0.211	0.579	96.063	0.159	22.593	4,169.075
Control mean after	0.343	0.128	0.567	94.414	0.168	19.024	3,928.855
N during	1,525	1,525	1,525	1,525	1,525	1,525	1,525
N after	1,478	1,478	1,478	1,478	1,478	1,478	1,478

Notes: This table splits the pooled-sample estimates in Panel A of Table 3 by endline survey round, to show whether effects arose while the booklet was available or persisted after it was withdrawn. Outcomes and controls are as in Table 3. Treatment Effect (TE) is a binary indicator for treatment assignment, defined as living in a district (*woreda*) where the vacancy booklet was available in the PES office. Respondents were randomly assigned to an early or a late endline round; the early round overlapped with the final booklet release, so the TE during intervention row reports effects measured while the booklet was still in circulation and the TE after intervention row those measured after it had ended. Both rows come from a single regression interacting treatment assignment with an indicator for the early round; the Difference row reports the interaction coefficient. Control mean during and Control mean after are the means of the outcome among respondents in control districts in the respective round. All specifications include the baseline value of the dependent variable, strata fixed effects, and an indicator for an unrelated, cross-randomized intervention. We control for baseline imbalances, accounting for attrition at endline (any job search (last 7d) and household size, see Table B4). In addition to these, further controls are selected using post-double-selection lasso (Belloni, Chernozhukov and Hansen, 2014) as follows by column #: baseline paid work in the last 7 days and baseline permanent contract (columns 3, 4, 5, 6, 7); baseline written contract (columns 3, 4, 5, 7); female (columns 2, 3, 5, 7); higher education (columns 1, 7); age and baseline job search in the last 7 days (column 1); and baseline total income, winsorized (column 7). Standard errors are clustered at the district level. Sampling weights are applied to both the estimated treatment effects and the control means, so estimates are representative of job seekers with at least 10 years of education in Addis Ababa. * p < 0.10, ** p < 0.05, *** p < 0.01.

Table C2: Treatment Effects During vs. After the Intervention (Lower-Skill Women)

	Job Search Behavior		Labor Market Downstream Outcomes				
	# Applications	# Offers	Employment for pay (Dummy)	Employment for pay (Hours)	Work in HH business (Dummy)	Work in HH business (Hours)	Total Income
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
TE during intervention	0.201**	0.073*	0.038	7.117	-0.082***	-11.428**	149.591
	(0.082)	(0.040)	(0.039)	(8.054)	(0.026)	(4.860)	(155.021)
TE after intervention	0.012	0.054*	0.081*	20.853***	-0.061*	-13.535***	520.340***
	(0.058)	(0.029)	(0.043)	(8.054)	(0.035)	(4.789)	(187.748)
Difference	0.189**	0.019	-0.043	-13.736	-0.022	2.107	-370.749
	(0.091)	(0.047)	(0.063)	(11.887)	(0.046)	(7.080)	(262.369)
Control mean during	0.086	0.085	0.435	76.300	0.174	22.441	1,481.044
Control mean after	0.142	0.042	0.340	55.185	0.175	21.925	1,179.378
N during	371	371	371	371	371	371	371
N after	366	366	366	366	366	366	366

Notes: This table splits the estimates for lower-skill women (LSW) in Panel B of Table 3 by endline survey round, to show whether effects arose while the booklet was available or persisted after it was withdrawn. Outcomes and controls are as in Table 3. Treatment Effect (TE) is a binary indicator for treatment assignment, defined as living in a district (*woreda*) where the vacancy booklet was available in the PES office. Respondents were randomly assigned to an early or a late endline round; the early round overlapped with the final booklet release, so the TE during intervention row reports effects measured while the booklet was still in circulation and the TE after intervention row those measured after it had ended. Both rows come from a single regression interacting treatment assignment with an indicator for the early round; the Difference row reports the interaction coefficient. Control mean during and Control mean after are the means of the outcome among lower-skill women in control districts in the respective round. All specifications include the baseline value of the dependent variable, strata fixed effects, and an indicator for an unrelated, cross-randomized intervention. We control for baseline imbalances, accounting for attrition at endline (baseline weekly salary from paid work and baseline number of offers, see Table B5). In addition to these, further controls are selected using post-double-selection lasso (Belloni, Chernozhukov and Hansen, 2014) as follows by column #: baseline job search through family and friends in the last 7 days (all columns); baseline permanent contract (columns 3, 4, 5, 6, 7); baseline paid work in the last 7 days (columns 3, 4, 6, 7); and baseline written contract (column 7). Standard errors are clustered at the district level. Sampling weights are applied to both the estimated treatment effects and the control means. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C3: Treatment Effects During vs. After the Intervention (Rest of Sample)

	Job Search Behavior		Labor Market Downstream Outcomes				
	# Applications	# Offers	Employment for pay (Dummy)	Employment for pay (Hours)	Work in HH business (Dummy)	Work in HH business (Hours)	Total Income
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
TE during intervention	0.025	-0.030	-0.005	2.263	-0.012	-1.665	-271.544
	(0.102)	(0.038)	(0.027)	(5.467)	(0.021)	(3.804)	(369.063)
TE after intervention	-0.039	-0.029	-0.020	-0.858	-0.004	4.118	-221.014
	(0.083)	(0.027)	(0.029)	(6.011)	(0.024)	(3.552)	(288.714)
Difference	0.064	-0.001	0.015	3.121	-0.008	-5.783	-50.530
	(0.134)	(0.046)	(0.039)	(7.749)	(0.033)	(5.747)	(405.898)
Control mean during	0.557	0.253	0.627	102.618	0.154	22.644	5,060.680
Control mean after	0.406	0.154	0.638	106.632	0.166	18.120	4,785.194
N during	1,154	1,154	1,154	1,154	1,154	1,154	1,154
N after	1,112	1,112	1,112	1,112	1,112	1,112	1,112

Notes: This table splits the estimates for the rest of the sample (RoS) in Panel B of Table 3 by endline survey round, to show whether effects arose while the booklet was available or persisted after it was withdrawn. Outcomes and controls are as in Table 3. Treatment Effect (TE) is a binary indicator for treatment assignment, defined as living in a district (*woreda*) where the vacancy booklet was available in the PES office. Respondents were randomly assigned to an early or a late endline round; the early round overlapped with the final booklet release, so the TE during intervention row reports effects measured while the booklet was still in circulation and the TE after intervention row those measured after it had ended. Both rows come from a single regression interacting treatment assignment with an indicator for the early round; the Difference row reports the interaction coefficient. Control mean during and Control mean after are the means of the outcome among respondents other than lower-skill women in control districts in the respective round. All specifications include the baseline value of the dependent variable, strata fixed effects, and an indicator for an unrelated, cross-randomized intervention. We control for baseline imbalances, accounting for attrition at endline (any job search (last 7d) and household size, see Table B4). In addition to these, further controls are selected using post-double-selection lasso (Belloni, Chernozhukov and Hansen, 2014) as follows by column #: baseline paid work in the last 7 days and baseline written contract (columns 3, 4, 5, 6, 7); female (columns 2, 5, 7); age and baseline job search in the last 7 days (column 1); and baseline permanent contract and baseline total income, winsorized (column 7). Standard errors are clustered at the district level. Sampling weights are applied to both the estimated treatment effects and the control means. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

C.2 Supportive Evidence for Mechanisms

Table C4: Treatment Effects on Job Match Quality (ANCOVA)

	Competence-Matched Paid Job		Paid Job Satisfaction $\geq$ Median	
	Full sample	Paid workers only	Full sample	Paid workers only
	(1)	(2)	(3)	(4)
Panel A: Pooled Sample				
TE for Pooled	0.009	0.009	0.021	0.025
	(0.020)	(0.027)	(0.017)	(0.021)
Control mean	0.408	0.713	0.394	0.687
Number of obs.	3,003	1,693	3,003	1,693
Panel B: LSW vs. RoS				
TE for LSW	0.078**	0.100*	0.077**	0.076
	(0.031)	(0.058)	(0.031)	(0.052)
TE for RoS	-0.014	-0.010	0.003	0.016
	(0.025)	(0.027)	(0.022)	(0.023)
Difference	0.092**	0.110*	0.074*	0.059
	(0.040)	(0.057)	(0.041)	(0.058)
Control mean LSW	0.227	0.582	0.248	0.636
Control mean RoS	0.467	0.738	0.441	0.697
N LSW	737	299	737	299
N RoS	2,266	1,394	2,266	1,394

Notes: This table reports treatment effects on the quality of the match between job seekers and the paid work they hold at endline. Treatment Effect (TE) is a binary indicator for treatment assignment, defined as living in a district (*woreda*) where the vacancy booklet was available in the PES office. Panel A reports pooled treatment effects. Panel B interacts treatment assignment with an indicator for lower-skill women, reporting the implied treatment effect for lower-skill women (LSW) and for the rest of the sample (RoS); the difference row reports the interaction coefficient. We report two binary measures of match quality, both measured at endline: whether the respondent holds a paid job that allows her to use previously acquired competencies (columns 1 and 2), and whether she holds a paid job with reported satisfaction at or above the median worker (columns 3 and 4). Columns (1) and (3) are unconditional, so a respondent not in paid work at endline takes the value zero; columns (2) and (4) restrict the sample to those in paid employment at endline. The control mean is the mean of the outcome among respondents in control districts in the relevant group. All specifications include strata fixed effects and an indicator for an unrelated, cross-randomized intervention. Because match quality is observed at baseline only for respondents in paid work at that time, we do not control for the baseline outcome here; Table C4 reports an ANCOVA specification that accounts for these missing baseline values. We control for baseline imbalances, accounting for attrition at endline (any job search (last 7d) and household size, see Table B4). In contrast to Table 4, all specifications in this table additionally control for the baseline value of the respective match-quality outcome in an ANCOVA specification in the spirit of McKenzie (2012). Because match quality is observed at baseline only for respondents who were in paid employment at baseline, we set the baseline outcome to zero for respondents without a baseline paid job and include both an indicator for this group and a control for baseline paid-employment status. We report this specification in the appendix rather than in the main text because missingness in the baseline outcome is non-random: it reflects selection into baseline paid employment rather than item non-response. In addition to these, further controls are selected using post-double-selection lasso (Belloni, Chernozhukov and Hansen, 2014). Standard errors are clustered at the district level. Sampling weights are applied to both the estimated treatment effects and the control means, so estimates are representative of job seekers with at least 10 years of education in Addis Ababa.* p < 0.10, ** p < 0.05, *** p < 0.01.

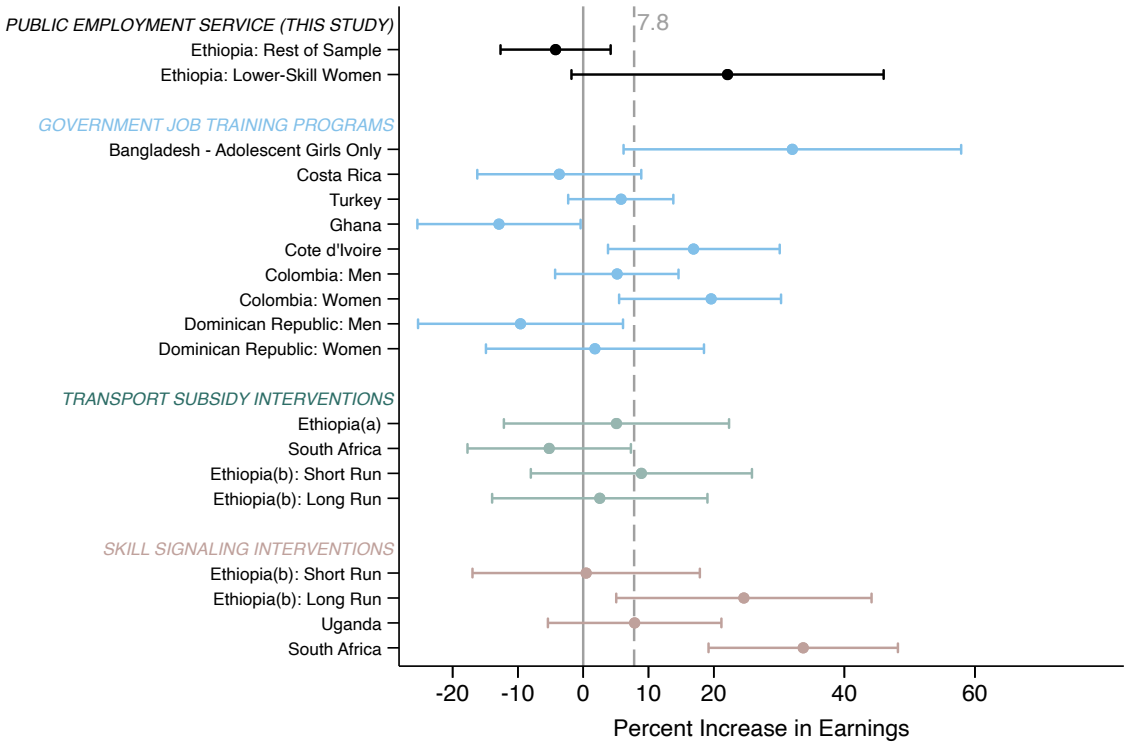
Table C5: Treatment Effect Estimates on Household Income

	Total Household Income		
	Pooled	LSW	Rest of Sample
	(1)	(2)	(3)
Panel A: Effects by Group			
Booklet Treatment	34.434	711.040*	-204.256
	(362.913)	(424.943)	(447.364)
Control mean	11,634.600	7,589.278	12,935.947
Number of obs.	3,003	737	2,266
Panel B: Heterogeneity by other HH members			
TE for HH with lower-skill women	1,521.867*	2,308.905***	1,267.402
	(845.290)	(843.176)	(1,010.585)
TE for HH w/o lower-skill women	-533.667	307.410	-792.668*
	(339.150)	(466.891)	(436.079)
Difference	2,055.534**	2,001.495**	2,060.070**
	(856.593)	(936.658)	(1,043.733)
Control mean HH with lower-skill women	10,620.555	6,476.290	11567.828
Control mean HH w/o lower-skill women	12,006.110	7,876.200	13490.569
N HH with lower-skill women	764	142	622
N HH w/o lower-skill women	2,239	595	1,644

Notes: This table reports treatment effects on total household income, to examine whether the gains accruing to lower-skill women are shared within their households or offset by losses to other members. Treatment Effect (TE) is a binary indicator for treatment assignment, defined as living in a district (*woreda*) where the vacancy booklet was available in the PES office. The outcome is total household income in Ethiopian birr over the preceding 30 days, measured at endline and winsorized at the 0 and 99 percentiles. Column (1) reports estimates for the pooled sample, column (2) for lower-skill women, and column (3) for the rest of the sample. Panel A reports the overall treatment effect in each sample. Panel B splits each sample by whether the respondent's household contains at least one other lower-skill woman, reporting the implied treatment effect for each group; the Difference row reports the coefficient on the interaction between treatment assignment and an indicator for the presence of another lower-skill woman. Control mean is the mean of the outcome among respondents in control districts in the relevant group. All specifications include the baseline value of the dependent variable, strata fixed effects, and an indicator for an unrelated, cross-randomized intervention. We control for baseline imbalances, accounting for attrition at endline, using the set relevant to each sample: any job search (last 7d) and household size in column (1), see Table B4; baseline weekly salary from paid work in column (2), see Table B5; and any job search (last 7d), household size, and # people sleeping in the same room in column (3), see Table B6. In addition to these, further controls are selected using post-double-selection lasso (Belloni, Chernozhukov and Hansen, 2014) as follows. Panel A: higher education and # correct Raven out of 10 (cognitive skills) (columns 1, 3); and baseline job search through family and friends in the last 7 days (column 2). Panel B: higher education and # correct Raven out of 10 (cognitive skills) (columns 1, 3); baseline job search through family and friends in the last 7 days and household size (column 2); and non-cognitive skills (column 3). Standard errors are clustered at the district level. Sampling weights are applied to both the estimated treatment effects and the control means. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

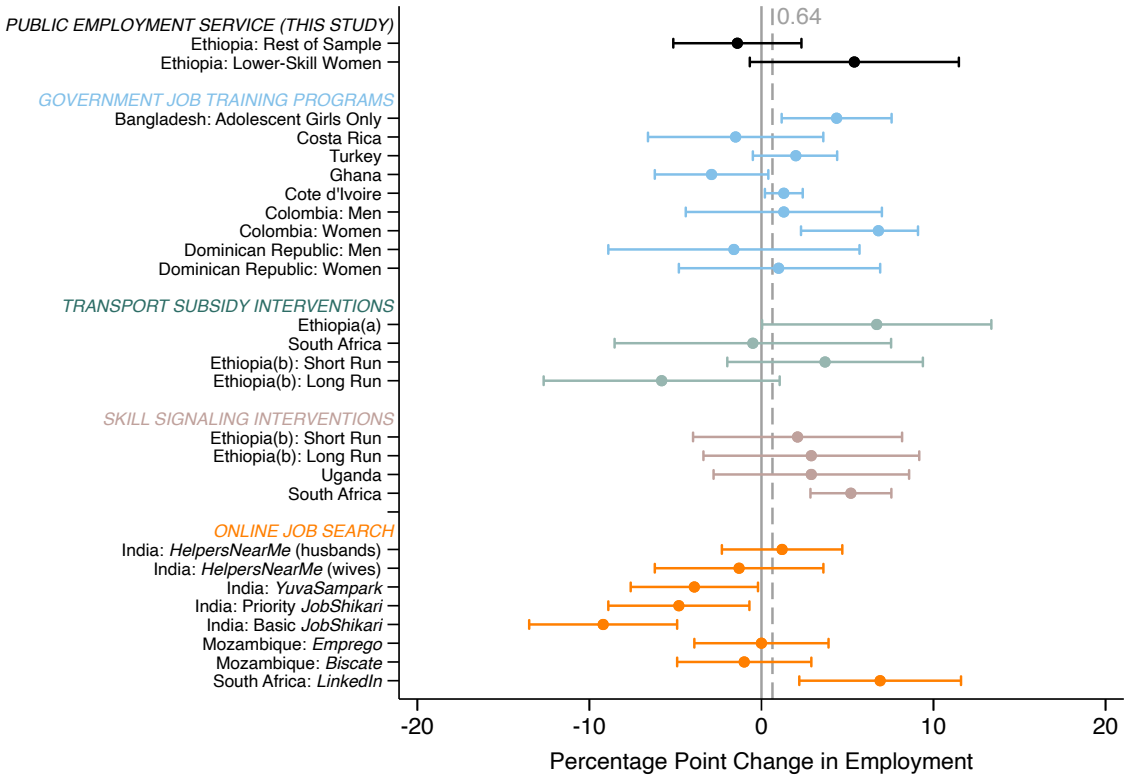
C.3 Comparison with the Literature

Figure C1: Comparison of Estimated Treatment Effects with Evaluations of Labor Market Interventions in the Literature: Earnings Impacts



Notes: This figure presents the estimated earnings impact of various job training programs across low-income countries, taken from Carranza and McKenzie (2024) (Figures 3 and 4). The percent increase in earnings is reported in comparison to the control mean. Point estimates are shown with 95 percent confidence intervals. The interventions are organized into four categories: public employment services (our study), government job training programs, transport subsidy interventions, skill signaling interventions. Online job search portals are excluded as no earnings impacts are reported by Carranza and McKenzie (2024). The dashed line shows the average earnings increase of 7.8 percent across across all studies (excluding our study). Sources for estimates are: Dominican Republic (Acevedo et al., 2020), Colombia (Attanasio et al., 2017), Côte d'Ivoire (Crépon and Premand, 2025), Ghana (Hardy et al., 2019), Costa Rica (Novella, Rosas-Shady and Freund, 2024), and Bangladesh (Amin and Makino, 2024) for newer studies. Ethiopia (a) estimates are from Franklin (2018) at four months post-intervention; South Africa estimates from Banerjee and Sequeira (2023) at one year post-intervention; Ethiopia (b) estimates from Abebe et al. (2021) at one year and four years post-intervention; Uganda estimates from Bassi and Nansamba (2022) at one year post-intervention; South Africa estimates from Carranza et al. (2022) at four months post-intervention.

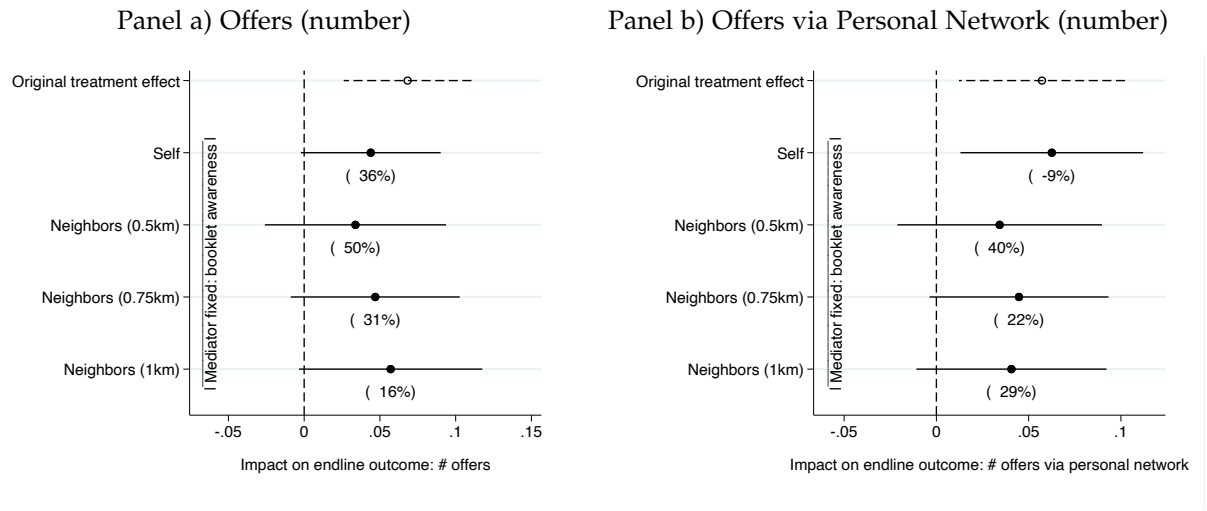
Figure C2: Comparison of Estimated Treatment Effects with Evaluations of Labor Market Interventions in the Literature: Employment Impacts



Notes: This figure presents the estimated employment impact of various job training programs across low-income countries, taken from Carranza and McKenzie (2024) (Figures 3, 4, and 5). Employment is defined as engaging in any paid work. Point estimates are shown with 95 percent confidence intervals. The interventions are organized into five categories: public employment services (our study), government job training programs, transport subsidy interventions, skill signaling interventions, and online job search platforms. The dashed line indicates the average employment impact of 0.64 percentage points across all studies (excluding our study). Sources for estimates are: Dominican Republic (Acevedo et al., 2020), Colombia (Attanasio et al., 2017), Côte d'Ivoire (Crépon and Premand, 2025), Ghana (Hardy et al., 2019), Turkey (Hirshleifer et al., 2016), Costa Rica (Novella, Rosas-Shady and Freund, 2024), and Bangladesh (Amin and Makino, 2024) including newer studies for government job training program. Ethiopia (a) estimates are from Franklin (2018) at four months post-intervention; South Africa estimates from Banerjee and Sequeira (2023) at one year post-intervention; Ethiopia (b) estimates from Abebe et al. (2021) at one year and four years post-intervention; Uganda estimates from Bassi and Nansamba (2022) at one year post-intervention; South Africa estimates from Carranza et al. (2022) at four months post-intervention for transport subsidy and skill signaling interventions. Sources for online job search studies are as follows. India estimates for *Helpersnearme* platform are from Afridi et al. (2023); India estimates for basic and priority *YuvaSampark* platform are from Chakravorty et al. (2023); India *JobShikari* is from Kelley, Ksoll and Magruder (2024); Mozambique estimates for *Biscate* (informal manual jobs) and *Emprego* (formal jobs) platforms come from Jones and Sen (2025); South Africa's *LinkedIn* platform estimates come from Wheeler et al. (2022).

D Mediation Analysis

Figure D1: Mediation Analysis for Treatment Effects on Lower-Skill Women (Own vs. Neighbors' Awareness of the Intervention)



Notes: This figure depicts results from mediation analysis following the techniques outlined in Acharya, Blackwell and Sen (2016). Panels (a) and (b) show estimated treatment effects at endline for lower-skill women on the number of offers and number of offers received via personal networks, respectively. Original treatment effects are shown at the top of each figure with hollow circles. Solid circles depict the average controlled direct effect (ACDE) of the intervention, each time fixing a different potential mediator of interest, which are booklet awareness of the respondent herself and booklet awareness of neighbors in varying proximity. The number in parentheses below each ACDE estimate is the percentage reduction in the ACDE relative to the original treatment effect. 90% confidence intervals are shown.

Table D1: Friend-Offer Effects in Denser Local Job Seeker Networks

	# of offers		Offer via personal network	
	(1)	(2)	(3)	(4)
TE if low network	0.064	0.062	0.006	0.006
	(0.047)	(0.046)	(0.030)	(0.030)
TE if high network	0.060*	0.051	0.098***	0.097***
	(0.033)	(0.034)	(0.030)	(0.031)
Difference	-0.004	-0.011	0.093**	0.091**
	(0.061)	(0.061)	(0.042)	(0.042)
EA population control	No	Yes	No	Yes
Control mean (low)	0.067	0.067	0.084	0.084
Control mean (high)	0.063	0.063	0.063	0.063
N low	367	367	367	367
N high	370	370	370	370

Notes: This table reports treatment effects on job offers separately for lower-skill women living in areas with more and fewer potential network contacts, to test whether offers arriving through personal networks depend on the density of job seekers nearby. The sample is restricted to lower-skill women. Treatment Effect (TE) is a binary indicator for treatment assignment, defined as living in a district (*woreda*) where the vacancy booklet was available in the PES office. High network is an indicator for living in an enumeration area with an above-median number of other listed job seekers available for employment within six months, where the median is taken across respondents. Both rows come from a single regression interacting treatment assignment with the high-network indicator; the Difference row reports the interaction coefficient. Columns (1) and (2) report effects on the number of job offers received; columns (3) and (4) on an indicator for having received at least one offer through friends or family. All outcomes are measured at endline over the preceding 30 days. Columns (2) and (4) additionally control for enumeration-area population, so that the comparison isolates the density of job seekers rather than of residents. Control mean (low) and Control mean (high) are the means of the outcome among lower-skill women in control districts in the respective group. All specifications include the baseline value of the dependent variable, strata fixed effects, and an indicator for an unrelated, cross-randomized intervention. We control for baseline imbalances, accounting for attrition at endline (baseline weekly salary from paid work, see Table B5). In addition to these, one further control is selected using post-double-selection lasso (Belloni, Chernozhukov and Hansen, 2014) in all four columns: baseline job search through family and friends in the last 7 days. Standard errors are clustered at the district level. Sampling weights are applied to both the estimated treatment effects and the control means. * p < 0.10, ** p < 0.05, *** p < 0.01.

E Analysis of Subgroups in Rest of Sample

E.1 Baseline Characteristics by Subgroup

Table E1: Baseline Employment, Income and Job Search

	Lower Skill Women		Lower Skill Men		Higher Skill Women		Higher Skill Men	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Job Search and Labor Market Outcomes								
# Applications	0.28	1.32	0.44	1.27	0.78	2.23	1.09	5.18
# Offers	0.07	0.30	0.24	0.66	0.12	0.42	0.22	0.57
Employment for Pay	0.35	0.48	0.56	0.50	0.53	0.50	0.59	0.49
Work in HH Business	0.09	0.29	0.18	0.39	0.07	0.25	0.19	0.39
Total Income	1,080.16	1,827.12	4,595.81	8,686.06	2,961.10	4,691.88	6,026.10	10,198.96
Total HH Income	6,978.54	5,653.26	8,283.58	7,800.58	10,892.20	9,415.83	12,348.43	11,616.19
Panel B: Job Search Behaviors								
# Hours Searched	0.98	4.47	1.79	5.52	1.50	4.88	1.51	4.38
Directed Search: High skill vacancies	0.06	0.23	0.19	0.39	0.26	0.44	0.38	0.48
Directed Search: Low and Medium skill vacancies	0.23	0.42	0.24	0.43	0.17	0.38	0.11	0.32
Panel C: Reservation Wages								
Gap	653.86	2,361.58	1,905.17	5,008.26	1,159.82	4,088.96	2,638.61	6,897.73
Permanent	4,267.48	2,412.57	7,422.52	5,723.60	7,324.78	5,838.70	11,113.37	,9253.70
Temporary	4,923.05	3,571.78	9,296.58	8,123.00	8,405.55	7,418.37	13,768.21	12,495.66
Panel D: Expectations								
Any offer	0.82	0.39	0.85	0.36	0.80	0.40	0.83	0.37
Salary	3,658.87	2,415.41	6,228.20	5,194.45	6,456.14	5,723.78	9,242.44	7,977.85
Panel E: Job Search Method								
PES	0.01	0.08	0.00	0.00	0.01	0.09	0.00	0.06
In-person search	0.11	0.32	0.20	0.40	0.13	0.34	0.19	0.40
Media search	0.07	0.26	0.12	0.33	0.31	0.46	0.35	0.48
Brokers/agencies	0.08	0.27	0.06	0.25	0.07	0.26	0.04	0.19
Family and friends	0.20	0.40	0.31	0.46	0.23	0.42	0.25	0.43
Panel F: Detail of In-Person Job Search, Conditional on Searching In-Person								
Number of search neighborhoods	1.50	0.75	1.84	1.29	1.82	1.09	1.76	0.94
Average distance (km)	4.00	4.60	5.39	4.29	5.57	4.30	5.67	4.23
Total distance (km)	6.11	6.47	11.85	19.37	10.99	12.74	10.27	8.96
Number of obs.	858		757		1,039		876	

Notes: This table describes baseline employment, income, and job search separately for each of the four gender-by-education strata, disaggregating the rest of the sample used in Table A2 into lower-skill men, higher-skill women, and higher-skill men. Columns (1) to (8) report weighted means and standard deviations for each group, computed over the 3,530 respondents who completed the baseline survey. The table is descriptive and reports no tests of difference between groups; see Table E2 through Table E7 for balance tests within each group. Sampling weights are applied, so the reported means are representative of job seekers with at least 10 years of education in Addis Ababa. With the exception of Panels C and D and the number of hours searched in Panel B, all outcomes are measured within the last 30 days. Panel B first reports the number of hours searched in the last 7 days (winsorized at the 0 and 99 percentiles) and then focuses on directed search outcomes in the last 30 days. Here, vacancies are divided into high- and low- and medium-skill vacancies following the ILO ISCO skill classification. Panel C focuses on reservation wages, reporting reservation wages for permanent and temporary jobs (both winsorized at the 0 and 99 percentiles) as well as the gap between the two measures, defined as the temporary minus the permanent reservation wage. Panel D displays expectations over whether the respondent would receive a job offer in the next four months and what the corresponding salary would be (winsorized at the 0 and 99 percentiles). Panel E reports differences in job search methods. In-person job search refers to looking for jobs via physical job boards or by visiting worksites. Media search includes both online and offline channels. Online search comprises web-based platforms, SMS, and social media applications such as Telegram, WhatsApp, and Facebook. Traditional media includes newspapers, radio, and television. Panel F provides additional detail on in-person search, and is conditional on having searched in person. The number of neighborhoods indicates how many distinct neighborhoods were visited in person to search for jobs. Average distance is the mean distance from the respondent's household to job boards or worksites in the neighborhoods visited. Total distance is the sum of these distances across all visited neighborhoods.

E.2 Balance by Subgroup

Table E2: Baseline Balance (Lower-Skill Men)

	Treatment		Control		Delta		
	Mean	SD	Mean	SD	Beta	P-Value	Obs
Panel A: Socioeconomic Characteristics							
Age	32.24	9.69	31.72	10.14	0.745	0.398	757
Married	0.48	0.50	0.46	0.50	0.034	0.429	757
Household size	4.60	1.88	4.51	1.87	0.044	0.775	757
# People sleeping in same room	2.90	1.52	2.85	1.46	0.067	0.586	757
Amharic as Native Language	0.83	0.38	0.81	0.39	0.022	0.471	757
Panel B: Employment, Income, Job Search							
Paid employment (last 7d)	0.41	0.49	0.34	0.47	0.074	0.065	757
Income from paid work (last 7d)	298.68	980.72	389.87	2,436.61	-86.330	0.499	757
Permanent job (last 30d)	0.13	0.34	0.13	0.34	0.007	0.805	757
Written agreement / contract (last 30d)	0.17	0.38	0.18	0.39	-0.005	0.871	757
Total household income (last 30d)	8,672.22	8,215.93	7,853.39	7,326.17	713.318	0.226	757
Any job search (last 7d)	0.22	0.42	0.26	0.44	-0.038	0.267	757
# Applications (last 30d)	0.45	1.27	0.43	1.27	0.049	0.655	757
# Offers (last 30d)	0.23	0.56	0.24	0.75	0.000	0.999	757
Search via PES (last 7d)	0.00	0.00	0.00	0.00	0.000	.	757
ETB spent on job search (last 7d)	37.46	127.91	37.20	119.24	1.593	0.868	757
Panel C: Skills							
# correct Raven out of 10	6.22	1.64	6.18	1.60	0.021	0.874	757
Non-cognitive skills (1 = high, 5 = low)	2.87	0.36	2.85	0.31	0.029	0.306	757

Notes: This table tests whether baseline characteristics are balanced across treated and control districts. Columns (1) to (4) report means and standard deviations of baseline characteristics for the lower-skill men. Column (5) reports the difference between treated and control districts, adjusted for subcity fixed effects and a second, cross-randomized intervention. Column (6) gives the p-value for that difference and column (7) the number of observations. Because column (5) is regression-adjusted, it need not equal the raw difference between columns (1) and (3). Treatment assignment is a binary indicator for living in a district (woreda) where the vacancy booklet was available in the PES office. Both the means and the difference are estimated with sampling weights, so they are representative of job seekers with at least 10 years of education in Addis Ababa. Standard errors are clustered at the district level. Income from paid work, total household income, and money spent on job search are winsorized at the 0 and 99 percentile.

Table E3: Baseline Balance (Higher-Skill Women)

	Treatment		Control		Delta		
	Mean	SD	Mean	SD	Beta	P-Value	Obs
Panel A: Socioeconomic Characteristics							
Age	30.03	7.83	29.55	8.12	0.501	0.387	1,039
Married	0.42	0.49	0.40	0.49	0.025	0.411	1,039
Household size	4.71	2.02	4.52	2.08	0.239	0.082	1,039
# People sleeping in same room	2.83	1.51	2.67	1.37	0.195	0.026	1,039
Amharic as Native Language	0.88	0.33	0.87	0.33	0.009	0.665	1,039
Panel B: Employment, Income, Job Search							
Paid employment (last 7d)	0.44	0.50	0.45	0.50	-0.014	0.677	1,039
Income from paid work (last 7d)	287.14	1,377.04	268.98	1,542.74	2.129	0.981	1,039
Permanent job (last 30d)	0.37	0.48	0.35	0.48	0.012	0.694	1,039
Written agreement / contract (last 30d)	0.42	0.49	0.41	0.49	0.009	0.781	1,039
Total household income (last 30d)	11,025.05	9,145.92	10,645.37	9,680.57	404.595	0.509	1,039
Any job search (last 7d)	0.26	0.44	0.25	0.43	0.017	0.628	1,039
# Applications (last 30d)	0.96	2.41	0.61	2.04	0.366	0.024	1,039
# Offers (last 30d)	0.13	0.46	0.12	0.39	0.013	0.617	1,039
Search via PES (last 7d)	0.00	0.00	0.00	0.06	-0.003	0.141	1,039
ETB spent on job search (last 7d)	24.55	94.49	25.40	82.57	-1.686	0.791	1,039
Panel C: Skills							
# correct Raven out of 10	6.26	1.54	6.20	1.69	0.062	0.553	1,039
Non-cognitive skills (1 = high, 5 = low)	2.84	0.32	2.87	0.32	-0.026	0.237	1,039

Notes: This table tests whether baseline characteristics are balanced across treated and control districts. Columns (1) to (4) report means and standard deviations of baseline characteristics for the higher-skill women. Column (5) reports the difference between treated and control districts, adjusted for subcity fixed effects and a second, cross-randomized intervention. Column (6) gives the p-value for that difference and column (7) the number of observations. Because column (5) is regression-adjusted, it need not equal the raw difference between columns (1) and (3). Treatment assignment is a binary indicator for living in a district (*woreda*) where the vacancy booklet was available in the PES office. Both the means and the difference are estimated with sampling weights, so they are representative of job seekers with at least 10 years of education in Addis Ababa. Standard errors are clustered at the district level. Income from paid work, total household income, and money spent on job search are winsorized at the 0 and 99 percentile.

Table E4: Baseline Balance (Higher-Skill Men)

	Treatment		Control		Delta		
	Mean	SD	Mean	SD	Beta	P-Value	Obs
Panel A: Socioeconomic Characteristics							
Age	31.65	9.10	32.23	9.05	-0.676	0.324	876
Married	0.39	0.49	0.42	0.49	-0.032	0.443	876
Household size	4.37	1.84	4.07	1.89	0.280	0.062	876
# People sleeping in same room	2.50	1.31	2.40	1.33	0.087	0.369	876
Amharic as Native Language	0.87	0.34	0.84	0.37	0.038	0.158	876
Panel B: Employment, Income, Job Search							
Paid employment (last 7d)	0.45	0.50	0.49	0.50	-0.044	0.211	876
Income from paid work (last 7d)	462.05	2,617.57	485.37	2,714.91	-37.805	0.831	876
Permanent job (last 30d)	0.30	0.46	0.32	0.47	-0.023	0.493	876
Written agreement / contract (last 30d)	0.37	0.48	0.41	0.49	-0.038	0.271	876
Total household income (last 30d)	12,437.29	11,420.22	12,211.23	11,812.01	385.176	0.687	876
Any job search (last 7d)	0.24	0.43	0.31	0.46	-0.080	0.013	876
# Applications (last 30d)	0.79	2.29	1.38	6.86	-0.596	0.184	876
# Offers (last 30d)	0.17	0.50	0.26	0.62	-0.090	0.018	876
Search via PES (last 7d)	0.00	0.00	0.00	0.00	0.000	.	876
ETB spent on job search (last 7d)	32.52	106.69	38.77	122.56	-7.032	0.333	876
Panel C: Skills							
# correct Raven out of 10	6.71	1.57	6.69	1.70	0.001	0.993	876
Non-cognitive skills (1 = high, 5 = low)	2.83	0.32	2.84	0.33	-0.006	0.809	876

Notes: This table tests whether baseline characteristics are balanced across treated and control districts. Columns (1) to (4) report means and standard deviations of baseline characteristics for the higher-skill men. Column (5) reports the difference between treated and control districts, adjusted for subcity fixed effects and a second, cross-randomized intervention. Column (6) gives the p-value for that difference and column (7) the number of observations. Because column (5) is regression-adjusted, it need not equal the raw difference between columns (1) and (3). Treatment assignment is a binary indicator for living in a district (*woreda*) where the vacancy booklet was available in the PES office. Both the means and the difference are estimated with sampling weights, so they are representative of job seekers with at least 10 years of education in Addis Ababa. Standard errors are clustered at the district level. Income from paid work, total household income, and money spent on job search are winsorized at the 0 and 99 percentile.

Table E5: Baseline Balance in the Endline Sample (Lower-Skill Men)

	Treatment		Control		Delta		
	Mean	SD	Mean	SD	Beta	P-Value	Obs
Panel A: Socioeconomic Characteristics							
Age	32.30	9.88	31.72	10.26	0.741	0.445	626
Married	0.49	0.50	0.47	0.50	0.014	0.761	626
Household size	4.63	1.93	4.54	1.80	0.040	0.784	626
# People sleeping in same room	2.92	1.55	2.87	1.41	0.076	0.538	626
Amharic as Native Language	0.81	0.39	0.82	0.39	-0.003	0.928	626
Panel B: Employment, Income, Job Search							
Paid employment (last 7d)	0.42	0.49	0.36	0.48	0.064	0.158	626
Income from paid work (last 7d)	288.10	991.64	408.64	2,615.98	-119.180	0.434	626
Permanent job (last 30d)	0.13	0.34	0.13	0.34	-0.004	0.896	626
Written agreement / contract (last 30d)	0.16	0.37	0.20	0.40	-0.033	0.367	626
Total household income (last 30d)	8,375.19	7,651.19	7,882.83	7,326.28	323.932	0.569	626
Any job search (last 7d)	0.23	0.42	0.25	0.43	-0.019	0.606	626
# Applications (last 30d)	0.42	1.20	0.44	1.28	0.007	0.950	626
# Offers (last 30d)	0.24	0.58	0.21	0.50	0.043	0.329	626
Search via PES (last 7d)	0.00	0.00	0.00	0.00	0.000	.	626
ETB spent on job search (last 7d)	39.75	134.11	30.65	100.99	9.755	0.363	626
Panel C: Skills							
# correct Raven out of 10	6.24	1.64	6.17	1.62	0.053	0.696	626
Non-cognitive skills (1 = high, 5 = low)	2.87	0.37	2.86	0.32	0.019	0.553	626

Notes: This table tests whether baseline characteristics are balanced across treated and control districts. Columns (1) to (4) report means and standard deviations of baseline characteristics for lower-skill men who responded to both our baseline and endline survey. Column (5) reports the difference between treated and control districts, adjusted for subcity fixed effects and a second, cross-randomized intervention. Column (6) gives the p-value for that difference and column (7) the number of observations. Because column (5) is regression-adjusted, it need not equal the raw difference between columns (1) and (3). Treatment assignment is a binary indicator for living in a district (*woreda*) where the vacancy booklet was available in the PES office. Both the means and the difference are estimated with sampling weights, so they are representative of job seekers with at least 10 years of education in Addis Ababa. Standard errors are clustered at the district level. Income from paid work, total household income, and money spent on job search are winsorized at the 0 and 99 percentile.

Table E6: Baseline Balance in the Endline Sample (Higher-Skill Women)

	Treatment		Control		Delta		
	Mean	SD	Mean	SD	Beta	P-Value	Obs
Panel A: Socioeconomic Characteristics							
Age	30.04	7.77	29.66	8.22	0.394	0.531	877
Married	0.42	0.49	0.40	0.49	0.018	0.574	877
Household size	4.76	2.05	4.53	2.10	0.284	0.063	877
# People sleeping in same room	2.85	1.49	2.69	1.39	0.212	0.036	877
Amharic as Native Language	0.87	0.34	0.88	0.32	-0.008	0.710	877
Panel B: Employment, Income, Job Search							
Paid employment (last 7d)	0.43	0.50	0.46	0.50	-0.023	0.514	877
Income from paid work (last 7d)	304.21	1,450.96	208.39	1,054.40	82.826	0.324	877
Permanent job (last 30d)	0.37	0.48	0.36	0.48	0.001	0.968	877
Written agreement / contract (last 30d)	0.41	0.49	0.41	0.49	-0.005	0.895	877
Total household income (last 30d)	10,833.67	9,080.90	10,271.72	9,236.81	643.688	0.314	877
Any job search (last 7d)	0.25	0.43	0.26	0.44	-0.004	0.920	877
# Applications (last 30d)	0.89	2.35	0.69	2.20	0.236	0.183	877
# Offers (last 30d)	0.13	0.48	0.12	0.40	0.016	0.610	877
Search via PES (last 7d)	0.00	0.00	0.00	0.04	-0.002	0.317	877
ETB spent on job search (last 7d)	23.89	95.49	26.82	87.34	-3.847	0.587	877
Panel C: Skills							
# correct Raven out of 10	6.23	1.58	6.16	1.70	0.078	0.501	877
Non-cognitive skills (1 = high, 5 = low)	2.84	0.33	2.87	0.32	-0.024	0.311	877

Notes: This table tests whether baseline characteristics are balanced across treated and control districts. Columns (1) to (4) report means and standard deviations of baseline characteristics for higher-skill women who responded to both our baseline and endline survey. Column (5) reports the difference between treated and control districts, adjusted for subcity fixed effects and a second, cross-randomized intervention. Column (6) gives the p-value for that difference and column (7) the number of observations. Because column (5) is regression-adjusted, it need not equal the raw difference between columns (1) and (3). Treatment assignment is a binary indicator for living in a district (*woreda*) where the vacancy booklet was available in the PES office. Both the means and the difference are estimated with sampling weights, so they are representative of job seekers with at least 10 years of education in Addis Ababa. Standard errors are clustered at the district level. Income from paid work, total household income, and money spent on job search are winsorized at the 0 and 99 percentile.

Table E7: Baseline Balance in the Endline Sample (Higher-Skill Men)

	Treatment		Control		Delta		
	Mean	SD	Mean	SD	Beta	P-Value	Obs
Panel A: Socioeconomic Characteristics							
Age	31.65	9.27	32.01	9.12	-0.402	0.588	763
Married	0.39	0.49	0.42	0.49	-0.020	0.664	763
Household size	4.38	1.79	4.10	1.89	0.251	0.100	763
# People sleeping in same room	2.56	1.31	2.43	1.34	0.112	0.287	763
Amharic as Native Language	0.86	0.35	0.85	0.36	0.017	0.564	763
Panel B: Employment, Income, Job Search							
Paid employment (last 7d)	0.46	0.50	0.48	0.50	-0.022	0.556	763
Income from paid work (last 7d)	485.06	2,761.00	443.04	2,762.58	3.426	0.986	763
Permanent job (last 30d)	0.29	0.45	0.32	0.47	-0.026	0.409	763
Written agreement / contract (last 30d)	0.37	0.48	0.41	0.49	-0.024	0.488	763
Total household income (last 30d)	12,243.78	11,458.02	11,953.74	11,139.37	426.363	0.665	763
Any job search (last 7d)	0.24	0.43	0.32	0.47	-0.094	0.005	763
# Applications (last 30d)	0.73	1.81	1.50	7.29	-0.784	0.103	763
# Offers (last 30d)	0.18	0.51	0.26	0.65	-0.097	0.021	763
Search via PES (last 7d)	0.00	0.00	0.00	0.00	0.000	.	763
ETB spent on job search (last 7d)	31.23	104.97	42.07	130.05	-12.482	0.127	763
Panel C: Skills							
# correct Raven out of 10	6.76	1.57	6.67	1.69	0.062	0.657	763
Non-cognitive skills (1 = high, 5 = low)	2.83	0.32	2.84	0.34	-0.015	0.590	763

Notes: This table tests whether baseline characteristics are balanced across treated and control districts. Columns (1) to (4) report means and standard deviations of baseline characteristics for higher-skill men who responded to both our baseline and endline survey. Column (5) reports the difference between treated and control districts, adjusted for subcity fixed effects and a second, cross-randomized intervention. Column (6) gives the p-value for that difference and column (7) the number of observations. Because column (5) is regression-adjusted, it need not equal the raw difference between columns (1) and (3). Treatment assignment is a binary indicator for living in a district (*woreda*) where the vacancy booklet was available in the PES office. Both the means and the difference are estimated with sampling weights, so they are representative of job seekers with at least 10 years of education in Addis Ababa. Standard errors are clustered at the district level. Income from paid work, total household income, and money spent on job search are winsorized at the 0 and 99 percentile.

E.3 Treatment Effects by Subgroup

Table E8: Treatment Effect Estimates on Job Search and Labor Market Outcomes (Rest-of-Sample Subgroups)

	Job Search Behavior		Labor Market Downstream Outcomes				
	# Applications	# Offers	Employment for pay (Dummy)	Employment for pay (Hours)	Work in HH business (Dummy)	Work in HH business (Hours)	Total Income
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A: Lower-Skill Men							
Booklet Treatment	0.007	-0.014	-0.036	0.141	0.036	9.647*	-870.289*
	(0.090)	(0.050)	(0.035)	(7.627)	(0.032)	(5.333)	(503.183)
	[0.937]	[0.792]	[0.398]	[0.982]	[0.323]	[0.118]	[0.116]
Control mean	0.301	0.266	0.613	103.122	0.191	23.189	5,102.499
Number of obs.	626	626	626	626	626	626	626
Panel B: Higher-Skill Women							
Booklet Treatment	-0.027	0.003	0.023	4.204	-0.044***	-4.532	562.884**
	(0.098)	(0.026)	(0.026)	(5.772)	(0.017)	(3.181)	(223.448)
	[0.777]	[0.911]	[0.442]	[0.547]	[0.023]	[0.206]	[0.038]
Control mean	0.475	0.111	0.596	101.697	0.116	14.814	3,345.553
Number of obs.	877	877	877	877	877	877	877
Panel C: Higher-Skill Men							
Booklet Treatment	0.008	-0.090*	-0.045	-4.917	0.004	1.890	-851.415
	(0.119)	(0.048)	(0.030)	(5.883)	(0.028)	(3.551)	(570.294)
	[0.956]	[0.067]	[0.183]	[0.451]	[0.856]	[0.636]	[0.146]
Control mean	0.644	0.284	0.699	109.898	0.195	25.915	6,984.492
Number of obs.	763	763	763	763	763	763	763

Notes: This table reports treatment effects on job search behavior and downstream labor market outcomes separately for each of the three groups making up the rest of the sample, disaggregating the RoS estimates in Panel B of Table 3. Treatment Effect (TE) is a binary indicator for treatment assignment, defined as living in a district (*woreda*) where the vacancy booklet was available in the PES office. Panel A reports estimates for lower-skill men, Panel B for higher-skill women, and Panel C for higher-skill men. All outcomes are measured at endline over the preceding 30 days: the number of applications submitted (column 1) and offers received (column 2); an indicator for any employment for pay and hours worked in it (columns 3 and 4); an indicator for any work in a household business and hours worked in it (columns 5 and 6); and total earned income in Ethiopian birr, winsorized at the 0 and 99 percentiles (column 7). Control mean is the mean of the outcome among respondents in control districts in the relevant group. All specifications include the baseline value of the dependent variable, strata fixed effects, and an indicator for an unrelated, cross-randomized intervention. We control for baseline imbalances, accounting for attrition at endline, using the set relevant to each group: none for lower-skill men (Table E5); household size and # people sleeping in the same room for higher-skill women (Table E6); and any job search (last 7d), baseline number of offers, and household size for higher-skill men (Table E7). In addition to these, further controls are selected using post-double-selection lasso (Belloni, Chernozhukov and Hansen, 2014) as follows by column #. Panel A: baseline paid work in the last 7 days (columns 3, 4, 5, 6, 7); baseline written contract (columns 3, 4); and baseline permanent contract (column 6). Panel B: baseline paid work in the last 7 days (columns 3, 4, 5, 7); baseline written contract (columns 3, 4, 6, 7); married (columns 3, 4); baseline weekly salary from paid work, winsorized (columns 5, 6); age (column 1); baseline job search through family and friends in the last 7 days (column 5); and baseline permanent contract and baseline total household income, winsorized (column 7). Panel C: baseline paid work in the last 7 days and baseline written contract (columns 3, 4, 5, 6, 7); and baseline weekly salary from paid work, winsorized (columns 5, 6). No additional controls are selected in columns (1) and (2) of Panels A and C, or in column (2) of Panel B. Because post-double-selection lasso is run separately for each group, the selected controls differ across panels. Standard errors are clustered at the district level. Randomization inference p-values from 1,000 re-randomizations, using the *ritest* command (Heß, 2017), are reported in brackets. Sampling weights are applied to both the estimated treatment effects and the control means. * p < 0.10, ** p < 0.05, *** p < 0.01.