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Child Care Subsidies, Employment Services, and Women's Labor Market Outcomes in Egypt: First Midline Results

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IZA Institute of Labor Economics
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ABSTRACT

Child Care Subsidies, Employment Services, and Women's Labor Market Outcomes in Egypt: First Midline Results[1]

We provide evidence on two constraints to the participation of women in the labor market that have received sustained attention in the literature: (1) high opportunity cost of time due to childcare, and (2) limited access to employment opportunities. In a randomized controlled trial (RCT) with a sample of mothers in urban Egypt, we evaluate two interventions designed to relax these constraints: childcare subsidies and job matching services. We find that neither the subsidies nor the job matching services nor the combination of these interventions increased job search intensity or changed reservation working conditions. These results suggest that in the context of urban Egypt, relaxing these constraints is insufficient to allow women to work.

JEL Classification:
J13, J16, J21, J64

Keywords:
female labor force participation, women's employment, job search, child care subsidies, Egypt

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Acknowledgments

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The overall research project was also supported by the Institute of Labour Economics (IZA) to inform labor market policies in low-income countries in order to close gender gaps in economic participation. Another smaller grant from IZA is dedicated to study how COVID-19 has impacted childcare and the work of women with young children, from the household perspective.

We greatly appreciate the support of the team in the World Bank's Country Office of the Arab Republic of Egypt, particularly Nahla Zeitoun and Souraya El Assiouty. Our thanks go out to the MNAGIL team at the Bank, especially Lili Mottaghi. Our gratitude to the team supporting our efforts at IZA, including Sven Kleinert.

This project is in collaboration with Egypt's Ministry of Social Solidarity (MoSS). We greatly appreciate their support, particularly Sahar Mashour, Mohsen Nagy and Manal Ahmed. This impact evaluation is also collaborating with local NGO nurseries, our partner umbrella NGO Kheir wa Baraka,[1] and Forasna,[2] an employment services firm. We would also like to express our thanks to DevGate,[3] our data collection partner, who collected our baseline and midline data. We deeply appreciate the collaboration of these partners and their efforts to support this project. This paper provides results for part of the sample through the first midline of the overall project.

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Executive summary

The Middle East and North Africa (MENA) region has the lowest rates of female labor force participation in the world (Verick, 2018; World Bank, 2011). Even though women's education levels have been rising, their labor force participation and employment rates have fallen (Assaad, Hendy, Lassassi, & Yassin, 2020). Labor force participation rates for women in Egypt, which has the largest population in the region, have been declining over time (Krafft, Assaad, & Keo, 2019). As of mid-2021, the female labor force participation rate for Egyptian women was only 15 percent (CAPMAS, 2021).

There are three key barriers to women's participation in Egypt's labor market: (1) high opportunity cost of time, (2) limited access to employment and (3) restrictive gender norms. A strong male breadwinner, female homemaker norm means women undertake disproportionate care work, raising their opportunity cost of time and making paid work outside the home difficult (Assaad, Krafft, & Selwaness, 2017; Economic Research Forum & UN Women, 2020; El Feki, Heilman, & Barker, 2017; Hoodfar, 1997). Women are particularly likely to leave private sector employment in anticipation of or at marriage (Assaad, Krafft, & Selwaness, 2017; Krafft, Assaad, & Keo, 2019). Gender norms restrict the types of employment that are acceptable for women (Barsoum, 2019; Spierings, 2014). These challenges are compounded by weak labor demand overall in Egypt (Assaad, Krafft, Rahman, & Selwaness, 2019; Assaad, Krafft, & Yassin, 2020).

A randomized controlled trial (RCT) in Egypt is exploring two interventions, providing child care subsidies and employment services, to address the constraints on women's employment. Child care subsidies can alleviate care responsibilities and reduce the opportunity cost of women working. Globally, early childhood care and education has been shown to be an important intervention to increase women's labor force participation (Clark, Kabiru, Laszlo, & Muthuri, 2019; Martínez A. & Perticará, 2017). Employment services can help women find and match with jobs. These interventions have mixed effectiveness but may be particularly effective for women facing a constrained labor market in Egypt (Blattman & Ralston, 2015; Card, Kluve, & Weber, 2018; Elsayed, Hempel, & Osman, 2018; Groh, McKenzie, Shammout, & Vishwanath, 2015).

Women with children aged 1-5 in low-income areas of Greater Cairo were cross-randomized to receive child care subsidies (vouchers) or employment services. The study focused on mothers who lived near the participating nurseries and were not using nursery care at baseline. Vouchers were given for 25 percent or 75 percent of the median nursery cost (the level of subsidy was randomized). Employment services were also randomized, offering assistance through a recruitment platform (Forasna), where staff matched women to vacancies based on their job criteria, offering up to six matches and facilitating job applications.

The experiment was designed to examine the impact of child care subsidies, employment services, and their combined impacts on the labor market outcomes of women with young children. The evaluation was undertaken by J-PAL MENA, in collaboration with the Ministry of Social Solidarity, which oversees nurseries (child care) in Egypt. The paper summarizes the

preliminary findings from the results of the evaluation at the first midline, focusing on take-up of the interventions and their impact on women's job search outcomes. The study was ongoing at the time of writing in January 2022; this paper discusses the findings from the baseline data collection for 3,587 households and the first midline survey approximately four months later for 2,240 households.

The subsidies and more so the higher levels of subsidy were taken up by women, but to a modest extent. Women who received only the 25 percent discount used the nursery vouchers only 1.4 percent of the time, but women who received only the 75 percent discount used the nursery vouchers 4.2 percent of the time. The take-up of subsidies was similar when combined with employment services. Additional questions in the midline explored why women who did not use the voucher had chosen not to. Reasons included the nursery being too far, children being too young, that fees were too expensive, and concerns about safety and quality of nursery care.

Questions in the baseline survey also showed that Egyptians were dubious of nursery care; 78 percent of women thought it was okay to leave a child with a relative to work, but only 66 percent thought it was acceptable to leave a child at nursery to go to work. Men were even less accepting of child care; only 50 percent thought it was okay to leave a child with a relative for work, and only 41 percent thought it was okay to leave a child at nursery to go to work.

We examined two measures of take-up of employment services: (1) creating a profile, which is a strong sign of interest and seeking a job among women and (2) actually applying for a job. Women often created profiles; 29.8 percent of those in only the employment services intervention. Around half of women who created profiles applied for jobs, 13.9 percent overall.

Among women who did not take up the employment services or did not apply, the most common reasons were their husband refused (25 percent), not wanting to work (19 percent), the location being too far (18 percent), unmatched preferences for other job characteristics (17 percent) and no child care available (14 percent). When asked at baseline what jobs they would accept, very few women were willing to be drivers, outdoor sales, delivery or agricultural workers and few were even willing to be waiters or industrial workers; less than half were willing to take even white-collar jobs such as bank teller or teacher; the only jobs a majority would take were public sector work (72 percent) or administrative assistant (56 percent). Gender norms substantially constrained women's employment; only 56 percent of men (husbands) thought it was acceptable for women to work outside the home, only 39 percent thought it was acceptable for women to work in a male-dominated environment, and only 37 percent thought it was acceptable for married women to return from work after 5pm.

Neither the subsidies nor employment services increased job search behavior or changed reservation working conditions. At the first midline survey, we measured the impact of the interventions on key reservation job quality outcomes: the reservation wage for a private sector job (monthly, in Egyptian pounds), reservation job quality (in terms of commuting time and requiring flexible working hours, paid leaves, child care at work, and part-time work), as well as the number of targeted occupations and whether the targeted occupations were white collar. We also examined the impact of the interventions on job search behavior: (1) whether they have done

any job search activity since the previous interview, (2) number of applications since the previous interview (3) number of interviews invited to and (4) number of interviews attended.

Cost remained a barrier to childcare and take-up of vouchers was low, but higher for 75 percent than 25 percent subsidy. Going forward, the study is raising the subsidies to 100 percent and provided additional incentives to enroll children in nurseries. The second midline and endline surveys will allow us to assess the impact of more fully subsidizing care on take up and women's labor market outcomes. However, responses from women also underscored health, safety, care, and environment quality issues as concerns with using nursery care. Social norms preferred relative care over nursery care, although only half of husbands accepted relative care to allow a woman to work.

Women in Egypt often want to work but face multiple barriers. A large fraction (29.8 percent) of our sample of mothers with young children who were offered the employment services intervention created a profile with the employment service. However, fewer women applied to jobs (13.9 percent) and almost no women were invited to or attended interviews through the employment services. Women who did not engage with the employment services were often constrained by their husband's refusal, as well as difficulties in finding jobs that matched their (and likely their family and society's) preferences for acceptable working conditions.

Research, programming, and policy around norms change is a priority in light of our findings. Recognizing, redistributing, and reducing care work is a critical part of changing norms (Economic Research Forum & UN Women, 2020). Generally, shifting gender norms is fundamental to redressing gender inequality (Harper, Marcus, George, D'Angelo, & Samman, 2020; Jayachandran, 2019; United Nations Development Program (UNDP), 2020). The education system can provide an important long-term opportunity for shifting norms across generations (Dhar, Jain, & Jayachandran, 2018; Levy et al., 2020).

Egyptian women, particularly married women with young children, face an array of obstacles that prevent them from participating in the labor market. Relaxing one or two constraints may be insufficient to allow women to work. Multi-faceted programs and policy approaches are needed. A parallel might be the targeting the ultra-poor or graduation programs. Such programs (Banerjee et al., 2015; BRAC, Sawiris Foundation, & J-PAL, 2019) are designed to tackle a variety of constraints, simultaneously, that "trap" the poor, through a multitude of bundled interventions. Programs typically provide a productive asset, support and training to use the asset, health, cash, savings or loan, and life skills support (Banerjee et al., 2015; BRAC, 2016). Programs and policies to promote women's employment in Egypt (and particularly married women's employment) may likewise need a large package of interventions to simultaneously tackle a host of constraints, including not only the cost of child care and employment services, but also gender norms, child care quality, employer discrimination, and the fundamentals of labor demand.

1 Introduction

The Middle East and North Africa (MENA) region has the lowest rates of female labor force participation in the world (World Bank, 2011). Despite increases in educational attainment for women in the region, female labor force participation has stagnated and, in some countries, even declined (Assaad, Hendy, Lassassi, & Yassin, 2020). For example, in Egypt, female labor force participation fell over time and was only 15 percent as of mid-2021 (CAPMAS, 2021; Krafft, Assaad, & Keo, 2019).

The low participation of women in MENA labor markets is primarily attributed to three factors: (1) high opportunity cost of time (2) limited access to jobs and (3) restrictive gender norms. Women tend to leave work at or in anticipation of marriage, due in part to the large number of hours of care work women undertake (Assaad, Krafft, & Selwaness, 2022; Economic Research Forum & UN Women, 2020; Selwaness & Krafft, 2021). A gender-segmented labor market and weak demand for labor both overall and for women constrain job opportunities (Assaad, Krafft, Rahman, & Selwaness, 2019; Barsoum, 2004; El-Hamidi & Said, 2014; World Bank, 2013, 2018). Gender norms restrict the types of employment that are acceptable for women, emphasize care roles over employment outside the home for women, and prioritize men over women for employment when jobs are scarce (Barsoum, 2019; Dougherty, 2014; Gauri, Rahman, & Sen, 2019; Krafft, Keo, & Fedi, 2019; Spierings, 2014; Spierings, Smits, & Verloo, 2010).

What can be done to increase female labor force participation in the face of these challenges? We undertook a randomized controlled trial to address two of the key constraints on women's employment in Egypt: the high opportunity cost of time and limited access to jobs. We cross-randomized two interventions: child care subsidies and employment services for mothers with young children (aged 1-5) in low-income areas of Greater Cairo.

This experiment builds on the global literature demonstrating that access to early childhood care and education (ECCE) is important for women's labor force participation (Attanasio, Carneiro, & Olinto, 2017; Attanasio, Low, & Sánchez-Marcos, 2008; Berlinski & Galiani, 2007; Clark, Kabiru, Laszlo, & Muthuri, 2019; Gathmann & Sass, 2018; Martínez A. & Perticará, 2017). Child care subsidies, specifically, have been studied among low- and middle-income countries in Kenya and Mozambique and shown to increase women's employment (Clark, Kabiru, Laszlo, & Muthuri, 2019; Martinez, Naudeau, & Pereira, 2012).

There is a sizeable global literature on active labor market policies (ALMPs) (Blattman & Ralston, 2015; Card, Kluve, & Weber, 2018; McKenzie, 2017), including employment services (job matching) interventions that work to overcome frictions in the labor market (Abdul Latif Jameel Poverty Action Lab (J-PAL), 2018). The results of job matching services to date are mixed. For example, one job matching intervention in Jordan attempted to match unemployed youth and made more than a thousand matches, but led to only nine jobs, in part due to mismatch between the jobs available and youth aspirations (Groh, McKenzie, Shammout, & Vishwanath, 2015). Job matching interventions may, however, be particularly effective for women. A job matching experiment in Egypt that offered guaranteed jobs substantially and significantly improved women's employment rates, while impacts were smaller and not statistically significant for men (Elsayed, Hempel, & Osman, 2018).

Our paper contributes to this literature in several important ways. First, the existing literature on the impact of childcare subsidies is from contexts with relatively higher rates of female labor force participation. Our work is thus an important test of whether alleviating care responsibilities and reducing the opportunity cost of women working through childcare subsidies can increase women's participation in contexts and populations with lower participation. Likewise, although there is a sizeable body of literature on employment services interventions, there is less evidence on whether they can help married women with young children. Lastly, recognizing that women in Egypt face a multitude of employment constraints, our experiment tests whether a combination of employment services and childcare subsidies has important complementarities, by alleviating multiple constraints at the same time.

This paper examines the impact of the interventions on job search outcomes for women 3-4 months after the baseline survey and assignment to treatment for approximately half the planned sample. The first midline survey examines specifically job search behaviors: reservation wages, reservation job quality, and job search effort.[4] We also discuss take-up of the two interventions and contextualize take-up and outcomes with information on norms about women's work and childcare.

We find modest take-up of the interventions. Less than 5 percent of those assigned to the various child care subsidy treatment arms used the subsidies. A sizeable fraction of women (30 percent) engaged with the employment services, but only half as many actually applied for jobs. The interventions did not impact job search behavior at midline or reservation wages. The primary changes in reservation job quality were women assigned to the nursery voucher intervention being more likely to require jobs have paid leaves (perhaps because they would need them as a complement to nursery care). We demonstrate that gender norms, social norms that preclude the use of child care, and concerns with the safety and quality of nurseries were important barriers to women's participation in the labor market.

The paper is organized as follows. The second section provides our motivation for tackling this topic, conceptual framework, and key context in terms of female labor force participation and childcare in Egypt. The third section describes the impact evaluation design, including the intervention, sample, and randomization. The fourth section discusses the different sources of data: the baseline survey, midline survey, and take-up data from our partners. In the fifth section, we then describe our methods and the hypotheses we test. Turning to our results in the sixth section, we present summary statistics on sample characteristics, childcare, employment, and gender norms at baseline. We also discuss subsidy and employment services take-up, both rates and responses on why women who did not take up interventions made this choice. In the seventh section, we present estimates of the impact of interventions on outcomes (reservation wages, reservation job quality, and job search effort) at midline. Finally, in the eighth, ninth, and tenth sections, we conclude with a discussion of next steps and key implications of our findings to date.

[4] The focus on job search at first midline is as per our registered pre-analysis plan.

2 Motivation, conceptual framework, and context

2.1 Female labor force participation in Egypt

Low rates of female labor force participation in Egypt and MENA more broadly tend to be attributed to the high opportunity cost of time of women, limited labor market opportunities for women, and restrictive gender norms. Married women with young children have particularly low rates of employment in Egypt. In 2018, just 13 percent of married women with children aged 0-2 were employed (Krafft, Assaad, & Keo, 2019). Women tend to leave employment, particularly private sector wage work, at marriage, due to difficulties reconciling the hours and conditions of private sector employment with marital domestic responsibilities (Assaad, Krafft, & Selwaness, 2022; Krafft, Assaad, & Keo, 2019; Selwaness & Krafft, 2021). Married women's hours of care work in Egypt comprise a full "second shift" even if they work outside the home (Assaad, Krafft, & Selwaness, 2022; Krafft, Keo, & Fedi, 2019). Women in the MENA region spend the most time per day on childcare and have the largest gender gaps in care work (International Labour Organization, 2018).

As with the rest of the MENA region, the demand for labor in Egypt is weak, due to limited and low-quality job creation, essentially following a "labor absorbing" paradigm (Assaad, AlSharawy, & Salemi, 2019; Assaad, Krafft, Rahman, & Selwaness, 2019; Assaad, Krafft, & Yassin, 2020). Women's employment tends to be highly concentrated in the public sector and specific components of the private sector, such as textile manufacturing, sectors that have been shrinking, creating a further drag on women's employment (Assaad, Krafft, Rahman, & Selwaness, 2019; Barsoum & Abdalla, 2020). The high unemployment rates of women (19.5 percent as of 2018 (Krafft, Assaad, & Keo, 2019)) signal their (potential) interest in employment, if suitable jobs could be found. Women may also particularly face challenges in finding jobs; men are more able to find jobs through social networks (Wahba & Zenou, 2005).

Gender norms that emphasize women's roles as caregivers (in contrast to men's roles as breadwinners) further constrain female labor force participation in Egypt (El Feki, Heilman, & Barker, 2017; Hoodfar, 1997; Sieverding & Hassan, 2016). A recent study of gender role attitudes showed that 87 percent of men and 77 percent of women believed women's most important responsibility was taking care of the home and cooking for the family; furthermore, 98 percent of men and 85 percent of women said "changing diapers, giving baths to children, and feeding children should **all** be the mother's responsibility" (emphasis added) (El Feki, Heilman, & Barker, 2017, p. 47). Only 31 percent of men (75 percent of women) believed a married woman should have the same right to work outside the home as her husband (El Feki, Heilman, & Barker, 2017). These constraints on female labor force participation are inter-linked; for instance, gender norms emphasizing caregiving drive women's high opportunity cost of time and weak labor demand interacts with norms that emphasize that when jobs are scarce, men should have priority (El Feki, Heilman, & Barker, 2017; Krafft, Keo, & Fedi, 2019; Mottaghi, et al., 2021).

2.2 Child care in Egypt

Child care can provide a potential solution to difficulties reconciling domestic responsibilities and work outside the home for women in Egypt. There are two key types of early childhood care and education (ECCE) services in Egypt: Kindergartens, optional pre-primary education overseen by the Ministry of Education and Technical Education (MOETE) and nurseries, overseen by the Ministry of Social Solidarity. Kindergartens serve children aged 4-6 (six is school entry age) while nurseries theoretically serve ages 0-4, but in reality, have a number of children aged 4-6 (UNDP & Institute of National Planning, 2008). Pre-primary enrolment rates were only 26 percent as of 2017 (Economic Research Forum & UN Women, 2020). In terms of ECCE services, only 8 percent of children aged 0-4 are enrolled in licensed nurseries (Economic Research Forum & UN Women, 2020). Given that household surveys suggest a rising rate of ECCE attendance over time, that 40 percent of 3-5 year-olds currently attend ECCE, and that nearly 60 percent of children attend some type of ECCE at some point, it is clear that enrollment is both sporadic (only in some years, not consistently) and also primarily in informal, unlicensed settings (El-Kogali & Krafft, 2015; Krafft, 2015).

ECCE affordability is a substantial issue in Egypt. In urban areas, formal nurseries' average monthly costs are 323 Egyptian pounds (EGP) per child and NGO nurseries costs 189 EGP per child (UNICEF Egypt, 2019). With average fertility in 2018 of 3.1 births per woman (Krafft, Assaad, & Keo, 2019) and a median private informal sector wage of 1,000 pounds (Said, Galal, & Sami, 2019), a woman making the median wage, sending 3.1 children on average to urban nursery care would have a net wage of -1 EGP. If she used an NGO nursery 59 percent of her wages would go to childcare. The costs of childcare make it a rational decision to not work, or at least not use paid child care; indeed, among Egyptian women who work with children under age 12, families provide most of the care: 27 percent use their mothers for child care, 18 percent their mother-in-laws, 13 percent other relatives, and 1 percent have the husband as primary caregiver. Only 19 percent use a nursery or nanny, 14 percent have their children in school, and 8 percent use some other arrangement (Assaad, Krafft, & Selwaness, 2017).

2.3 Providing nurseries with the goal to increase female labor force participation in Egypt

As part of the government economic reform program, the Egyptian government has launched in 2016 a program of policies and structural reforms funded by the International Monetary Fund (IMF, 2016). One of the main elements of these reforms are structural reforms for inclusive growth that aim to create employment opportunities for women and youth. In order to boost female labor force participation, public nurseries will be more available.

As part of the government economic reform program, MoSS started the National Early Childhood Development Program (NECDP). NECDP has dual goals: to increase female labor force participation and to equip children with cognitive and socio-emotional skills (Ministry of Social Solidarity, 2018). MoSS supervises Egypt's registered nurseries (more than 14,000 as of 2018) (Ministry of Social Solidarity, 2018). Through NECDP, the ministry is aiming to 1) establish new nurseries 2) improve the quality of existing nurseries and 3) promote the importance of nurseries to children and especially working mothers (Ministry of Social Solidarity, 2018).

3 Impact Evaluation Design

The randomized controlled trial (RCT) evaluation was designed to investigate the impact of alleviating two key barriers to women's employment: the cost of child care and limited access to jobs. We cross-randomized child care subsidy and employment services interventions. This section describes our interventions, the nursery (child care provider) and household samples, and the randomization process.

3.1 Interventions

3.1.1 Child care subsidies

Households assigned to this intervention were eligible for a subsidy on the price of the local formal NGO nursery, for a period of one year. We offered subsidies of 25 percent and 75 percent of the median nursery cost (among our sample of nurseries, which is described below). The subsidies scheme implemented covered children aged 0-5 in the household. Subsidies were available to be used at any participating NGO nursery. Mothers in households randomized into the subsidy were given the name(s) and addresses of nearby local participating nurseries.

The subsidy was administered as follows:

- At the end of the household survey, if she was randomized into a subsidy treatment, the mother was given a coupon corresponding to the level of support she was entitled to.
- The mother went to the nursery she wanted to use. She was required to provide the coupon + ID card + signature / fingerprint.
- Nurseries were instructed to call the partner NGO and confirm the names and ID numbers of mothers and the level of support they were receiving.
- The nursery took the children's attendance every day.
- The partner NGO made random visits in every nursery to ensure that the children who have subsidies were attending regularly.
- The partner NGO transferred the subsidy amount to each nursery at the end of each month.

During implementation and baseline data collection, some of the mothers randomized into the subsidy group were not correctly informed that the voucher was eligible to use for all their children between the ages of 0 and 5 and not just one child. This was corrected by re-contacting the mis-informed portion of the sample and delivering the correct message prior to the first midline survey.

3.1.2 Employment services

To offer employment services we partnered with a recruitment platform currently active in Egypt, Forasna. Forasna works with firms that have vacancies to fill. The basic service they offer is simply to post the vacancies on their dedicated website and social media accounts. Individuals searching for a job register on the platform and they can directly apply through the platform to the vacancy.

Forasna also offers employment services linking the firm and the job seeker. They have a large pool of operators on staff who are in charge of this matching process. To facilitate matching, at baseline (before randomization), all women were asked about their labor market status and their criteria for potential jobs in terms of geographical location, occupation, wage and work hours. These criteria help identify a set of firms who are likely to have vacancies fitting the women's search criteria.

For each woman randomly assigned to be offered employment services, Forasna searched in the pool of vacancies posted by these firms for vacancies that are suitable. Operators from the platform then called the mother within three weeks from conducting the baseline survey and once the potential matches were identified and proposed a minimum of three vacancies. Operators registered the vacancies, if any, the women were interested to apply to and created a profile for them on their platform. Once a profile was created (which is essentially acting as a resume for the mother), Forasna then sent these profiles to the matched employers and applied on behalf of the women.

On a regular basis, Forasna's operations teams tracked all the mothers' responses, interviews, and any job placements. In case mothers did not accept the job opportunities, the placement services firms offered up to three different job opportunities and followed up three times for each set of job opportunities.

3.2 Samples

3.2.1 Nurseries

Our experiment took place in low-income neighborhoods in Greater Cairo. Within these low-income neighborhoods, we identified nurseries registered with MoSS (formal nurseries). We offered these nurseries the opportunity to participate in our voucher experiment (to accept vouchers that subsidize part of the cost of care). The nurseries that agreed to participate were then surveyed to collect capacity data for our child care voucher experiment t_n.[5] The survey also asked about the monthly fee to attend the nursery, f_n.

3.2.2 Households

Our objective was to register in the study 5,000 households with women who have at least one child between the ages of 1 to 5 years old, living in the catchment area of the nurseries included in the experiment, and who are not yet a client of a nursery. To date, we collected[6] 3,587 households' baseline data and the first midline for 2,240; we report preliminary results in this paper

[5] Specifically, we identified nursery capacity in terms of number of slots, c_n, for nursery n (we paid specific attention to the current COVID-19 health crisis and policy response, which affected the capacity of nurseries. For example, nurseries were in early 2021 only allowed to operate at 50 percent capacity); the current number of slots occupied at the nursery o_n. We then calculated the supply of available slots at the nursery $s_n = c_n - o_n$, and then generated a local target number t_n that we defined as three-quarters of the number of slots locally available: $t_n = 0.75 s_n$. This number was then multiplied by two to determine the entire sample around each catchment area. While only half of households were offered subsidies, and not all took up the coupon, households who did use the subsidies sometimes had multiple children, so registering households at a level below capacity ensured that nursery slots were available locally.

[6] Here collected refers to households who consented to participate in the study (and were thus assigned to a treatment arm or control).

based on the baseline and midline samples as of December 2021. The procedure to identify and recruit these women was the following:

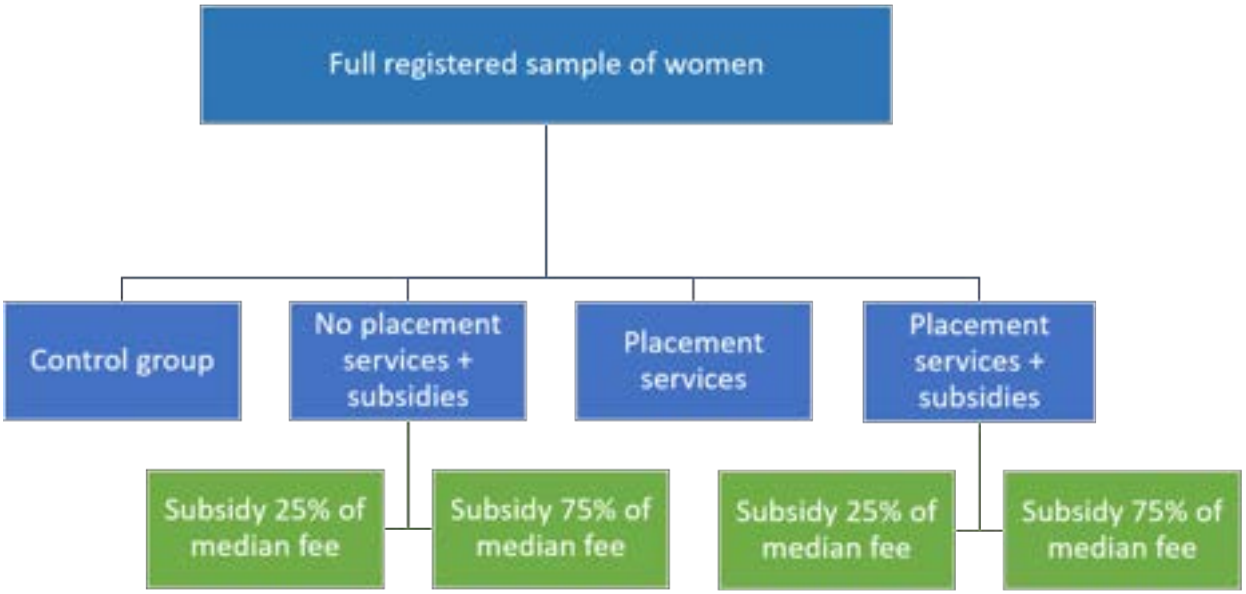
- The catchment area was defined by a 2km radius around each participating nursery.
- In cases where there were multiple nurseries with overlapping catchment areas, we combined the catchment areas and summed the household sample targets t_n.
- We used Facebook population projections to identify the GPS locations (pixels) where children aged 0 to 4 in 2020 lived and the number of such children. These children were 1 to 5 in 2021 when we were collecting baseline data.
- We then drew (sampled) points (pixels, which are locations with GPS coordinates) in each catchment area in a random order, probability proportional to child population.
- We visited the nearest residential building to each selected point, checked whether they met the eligibility conditions and then registered them if eligible.[7]
- We continued to register households in the catchment area until we reached the target t_n.

3.3 Randomization

We randomized both the subsidy and employment services interventions at the level of the household (mother). We assigned one fourth of the sample (about 1,250 mothers) to pure control (no subsidy and no employment services), one fourth of the sample to childcare subsidy but no employment services (evenly split between the two levels of the subsidy), one fourth to employment services but no subsidy, and one fourth to both subsidy and employment services (see Figure 1).

[7] Only one household per building was registered into the study.

Figure 1. Treatment design



Source: Authors' design

Randomization of mothers happened according to a simple stratification rule. Within each catchment area we constructed blocks of 8 individuals who (i) have been interviewed consecutively and (ii) are identical along the following two dimensions:

1. Age of youngest child (0-2 years old vs. 3-5 years old);
2. Ever having worked or not.[8]

At the end of the baseline interview, mothers were informed of their treatment status, provided the coupon (if randomized into the subsidy arm) and given an opportunity to ask questions.

[8] In each block, randomly: Two individuals were assigned to the control group; two individuals were offered childcare subsidies (one 25 percent, one 75 percent subsidy) and were not offered employment services; two individuals were offered employment services and were not offered childcare subsidies; two individuals were offered both employment services and childcare subsidies (one 25 percent, one 75 percent subsidy). This stratification helps ensure balance in terms of age of youngest child and ever worked, two key variables that shape take up and outcomes. Using blocks of eight individuals rather than four reduced the probability enumerators can guess the assignment. This stratification was done on the tablet to allow randomization into interventions at the end of the baseline interview.

4 Surveys and data

This paper covers data collected from households at two points in time: at baseline (right before offering the interventions) and four months after baseline (first midline). We also draw on data provided by our partners at the nurseries and Forasna to track the take up of our interventions.

4.1 Baseline survey

The baseline interview collects information about the mother (employment, reservation wages, actual earnings (of the mother and total household earnings), job quality, psychological well-being, and time use), her husband (particularly his labor supply), the child's development, and the household's dynamics (gender role attitudes and time use). The survey questions also capture attitudes and household bargaining power. They are asked to both mothers and their partners.

To date (as of December 2021) baseline data has been collected from 3,587 households around 43 nurseries spread across 17 poor areas in the Greater Cairo region. Within these households 3,587 interviews were conducted with the mothers (in person at their homes) and 1,348 were conducted with their spouses (conducted by phone one day after the interview with the women; see Table 6 in the appendix for non-response of fathers). The data collection happened over three separate periods of time due to delays related to COVID-19 restrictions. The pilot phase was implemented in December of 2020 (30 households), followed by another wave of data collection between March and May of 2021 (666 households) and then another wave between August and October of 2021 (2,891 households).

4.2 First midline survey

The first midline survey, conducted four months after baseline, is a short interview focused on measuring mothers' labor market outcomes, specifically job search behaviors. The survey was administered over the phone and was addressed to mothers using a subset of baseline survey questions, specifically those on current labor market activities and current child care use. The midline survey also asked questions about take-up of treatment.

Our main hypothesis is that childcare subsidies, employment services, and their combination will lead mothers to change reservation job quality and reservation wages. Using the midline survey, we study this hypothesis by estimating impacts on the following outcomes:

1. Reservation wage for private sector job (monthly, in Egyptian pounds)
2. Reservation job quality
    a. maximum commuting time
    b. requires flexible working hours
    c. requires ability to take time off work at short notice (paid leaves)
    d. requires childcare facility at place of work
    e. requires part-time work
3. Targeted occupation is a white-collar occupation

4. Number of targeted occupations

We also test the hypothesis that childcare subsidies, employment services, and their combination will lead mothers to increase their job search effort. This is done by estimating impacts on:

1. A dummy indicating whether they have done any job search activity since the previous interview
2. Number of applications since the previous interview
3. Number of interviews invited to
4. Number of interviews attended

This paper reports on first midline data that has been collected from 2,240 households (see Table 5, in the appendix, for preliminary attrition at the midline) around 43 nurseries spread across 16 poor areas in the Greater Cairo region over the period between November 2021 and December 2021.

4.3 Take-up data

We have two sources of take-up data. The first data on child care voucher take-up were provided by our partner NGO. The data includes the attendance of the eligible children, registered over time and for each enrolled nursery. The take-up variable is then constructed as a dummy variable where one indicates that the eligible mother used the subsidy and registered their kids in the nursery.

The second data were provided from our partner job-matching firm, Forasna, where the result of the job-matching process was provided for each mother. Data include whether the mother created a profile (a pre-requisite to applying) and whether she applied for a job. Forasna's operations team recorded information about each job applied to.

5 Methods

5.1 Main effects: Intent to treat on individuals

In our study we implement a two-sided multi-arm experiment. Households are registered in the catchment area of nurseries and they are randomly assigned to be offered different levels of subsidies: 0 percent (control), 25 percent or 75 percent and offered employment services. This defines a set of household variables that we denote as follows:

- V^{25} is equal to one for households who are offered a childcare subsidy corresponding to 25 percent of the median fee
- V^{75} is equal to one for households who are offered a childcare subsidy corresponding to 75 percent of the median fee
- E is equal to one for households who are offered employment services.

The main analysis of the data collected at the individual level from our household surveys is based on the estimation of the following intention-to-treat regression equation, in which S denotes the set of randomization strata dummies and i denotes the individual:

$$y_i = \alpha + \beta_1 E_i + \beta_2 V_i^{75} + \beta_3 V_i^{25} + \beta_4 E_i * V_i^{75} + \beta_5 E_i * V_i^{25} + \text{selected}(x_i) + \sum_k \delta_k S_i^k + \varepsilon_i$$

This model includes a set of control variables, x_i, selected using the double post lasso method proposed in Belloni et al. (2014) which has the advantage to automatically select the relevant subset of variables, avoiding specification search.[9]

We identified neighborhoods in Greater Cairo that corresponded to our target criteria. Within these areas we aimed for the largest possible sample of NGO nurseries. Within the corresponding catchment areas, we randomly assigned households to the different treatment groups. As a result, following Abadie et al. (2017) we did not cluster standard errors at the catchment area level and use the simple Eicker-Huber-White robust standard error.

There are several hypotheses we test. We implement these tests for our outcome variables *y*:

- H1: No impact of the employment service intervention in the absence of the childcare subsidies: $\beta_1 = 0$
- H2: No impact of childcare subsidies in the absence of employment services: $\beta_2 = \beta_3 = 0$
- H3: No differential impact of childcare subsidies depending on the amount of the voucher: $\beta_2 = \beta_3$
- H4: No interaction between childcare subsidies and employment services: $\beta_4 = \beta_5 = 0$

6 Results: Characteristics at baseline and take-up

This section first presents results on sample characteristics (childcare, employment, and gender norms) based on the baseline survey. The appendix presents additional descriptive statistics on household composition and income at baseline. We then turn to a discussion of take-up based on administrative data and reasons for take-up, drawing on the administrative take-up data through the first midline, responses about take-up decisions from the first midline, and additional context and norms from the baseline survey.

6.1 Sample characteristics at baseline

Overall, we were able to sample a group of mothers that seems appropriate for the interventions we have designed. We report mother characteristics at baseline and test for balance in Table 1 and do likewise for fathers in Table 2. We discuss the characteristics of the control group here. The average age of the mother is 31 years old, and 30 percent have ever worked. Women had relatively low levels of education for Egypt (Krafft, Assaad, & Keo, 2019), consistent with our sample being from low-income neighborhoods. Indeed, 47 percent of our sample had household income below the poverty line. While 35 percent had secondary education, 28 percent

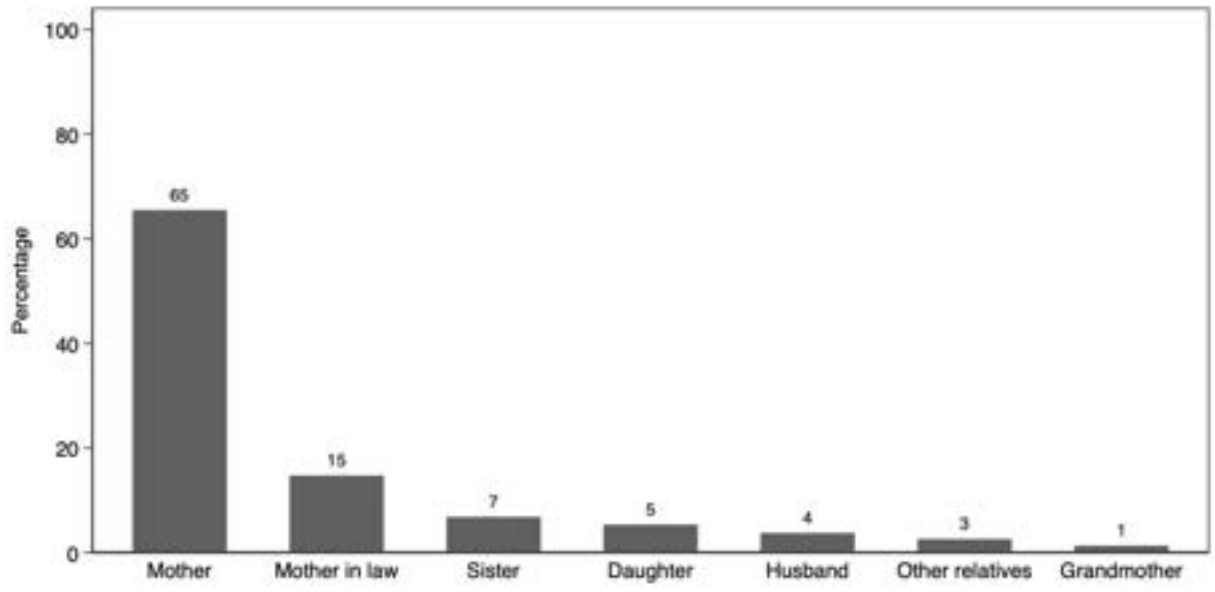
[9] These are the variables that are included in the first stage of the double-lasso procedure. First, the baseline value of all variables we consider as outcomes in any of our analyses. Second, a set of variables corresponding to the marital status, the presence of family members in the close neighborhood, the role of the mother-in-law in the household decision making, household assets and income, including labor income from the husband, remittances, government transfers, transfers from the family, as well as a set of dummy variables corresponding to the fact that the household *i* is in the catchment area of nursery *c*.

had some education but less than secondary and 17 percent no education. Only 6 percent had post-secondary (two-year) education and 14 percent university or above.

6.1.1 Childcare at baseline

Our sample was restricted to women not using nursery care at baseline. However, a substantial share of women (17 percent) reported that someone else looks after their children on a regular basis. Among those with such care arrangements (Figure 2), the most common provider was the woman's own mother (65 percent) followed by her mother-in-law (15 percent).

Figure 2. Primary caregivers of children (percentage of households), women who report someone else looks after children on a regular basis

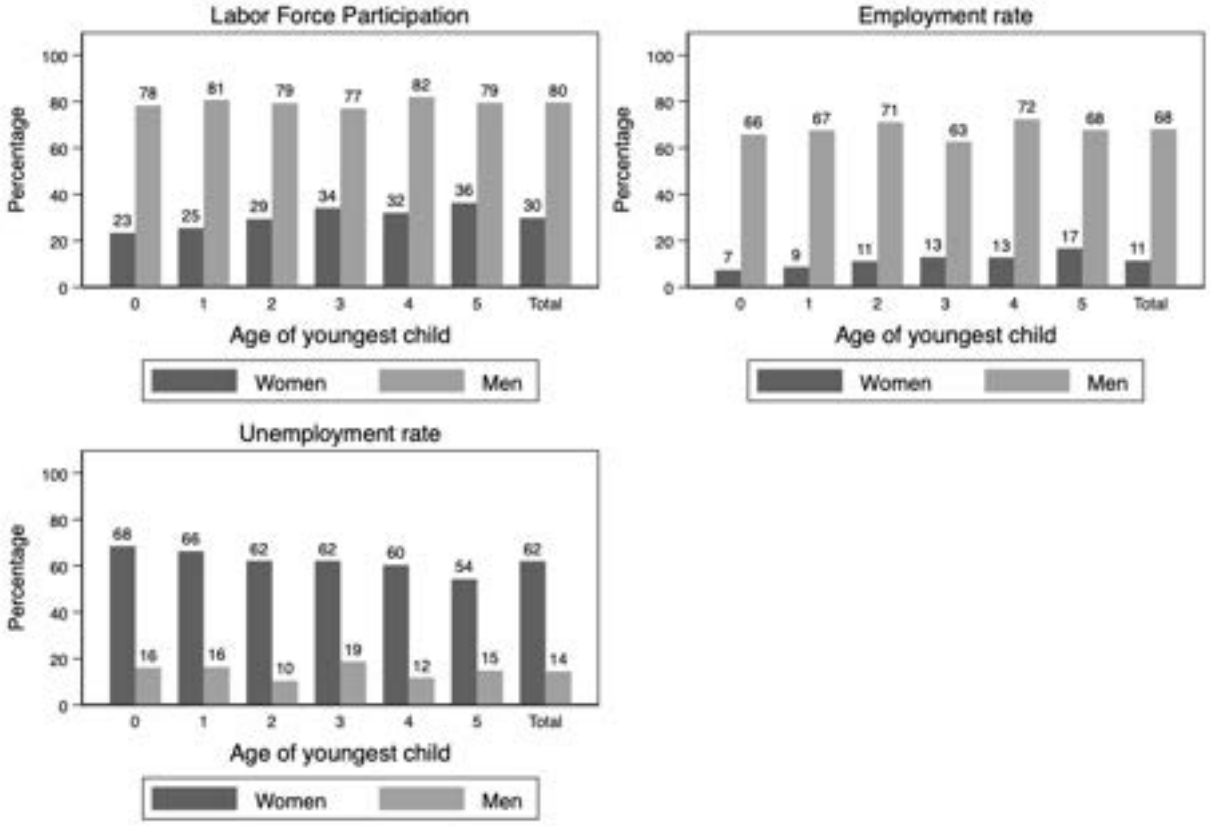


Source: Authors' calculations based on women's responses (mother's survey)
Notes: Mother here refers to the woman's mother, not the woman herself

6.1.2 Labor market outcomes at baseline

While men's labor force participation and labor market outcomes are largely invariant to the age of their youngest child, women are more likely to engage in the labor force and work as their children get older (Figure 3). While 7 percent of women whose youngest child is aged zero work, this rises to 9 percent when the youngest child is one, 11 percent at ages two, 13 percent at ages three and four, and 17 percent by age five. Overall, 11 percent of the women in our sample were employed at baseline and 68 percent of the men. While 30 percent of the women in the sample were in the labor force overall, 80 percent of the men were in the labor force. With their low employment rates, most of women's participation was in the form of unemployment (62 percent unemployment rate). The fact that women are interested in working but unable to find work suggests constraints, such as child care or finding jobs, may be limiting their employment.

Figure 3. Women's and men's labor force participation rates (percentage of the population), employment rates (percentage of the population), and unemployment rates (percentage of the labor force) by age of youngest child (and total)



Source: Authors' calculations based on women's responses (mother's survey) and men's responses (husband's survey)

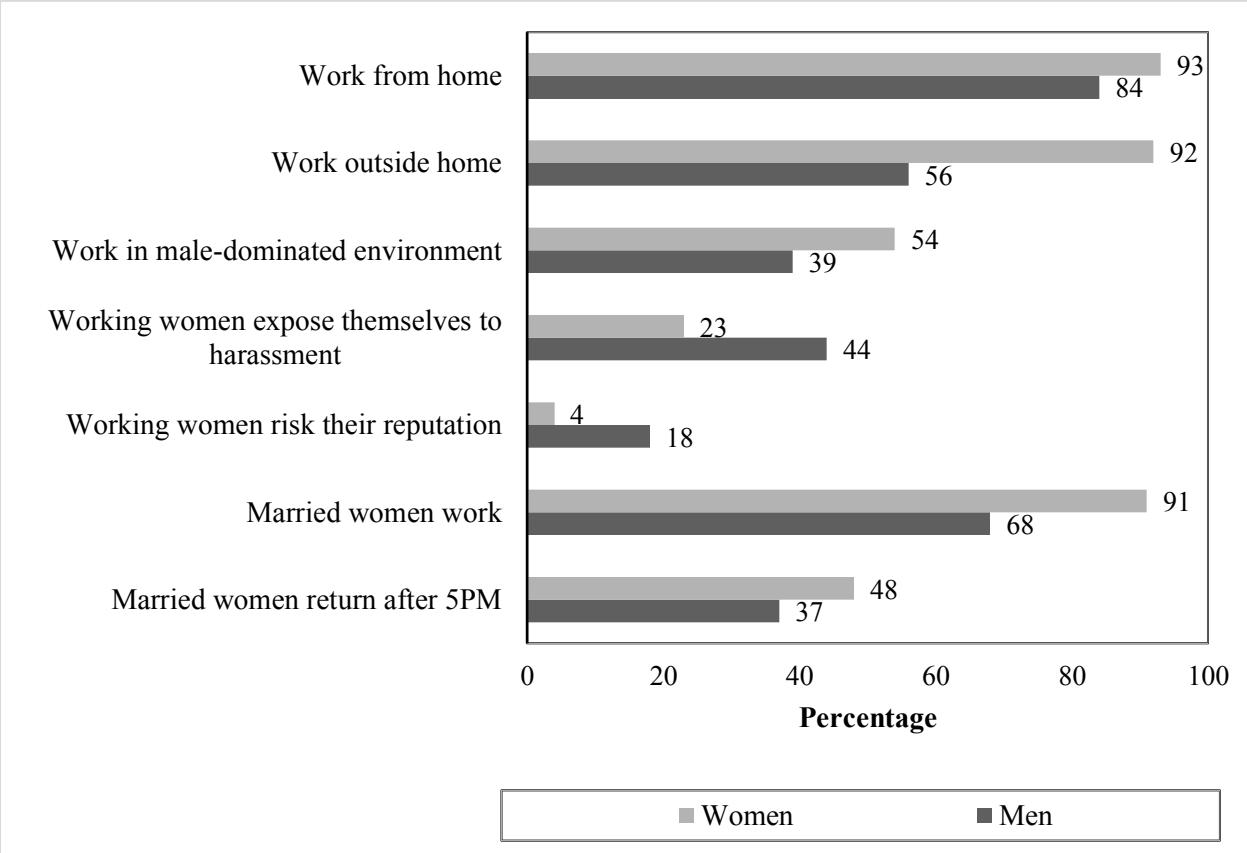
Note: The labor force participation rate is calculated as the percentage of the population who are either working (those who participated in any employment during the previous month or were attached to a job in the previous month but temporarily absent) or actively looking for a job. The employment rate is calculated as the share of people currently working as a percentage of the population. The unemployment rate is calculated as the share of people who are not working and actively looking for a job as a percentage of the labor force.

6.1.3 Gender norms at baseline

Norms about what work is acceptable for women are another constraint on their participation in paid employment. Figure 4 shows women's and their husband's responses to a series of questions about "Is it okay for women…" to engage in work and different hypothetical types of work. Work from home is generally supported (93 percent of women, 84 percent of men), but less so work for married women (91 percent of women and 68 percent of men). There is further gender divergence in work outside the home (okay for 92 percent of women and 56 percent of men). Work in a male-dominated environment is problematic (okay for only 54 percent of women and 39 percent of men), as is married women returning after 5pm (okay for 48 percent of women and 37 percent of men). Almost half (44 percent) of men and a quarter (23 percent) of women said yes to a question asking if working women expose themselves to harassment. Although only 4

percent of women thought working women risked their reputation, 18 percent of men did so. Overall, the picture that emerges is one where, although men and women theoretically support women's paid employment, the conditions under which they can work outside the home are limited, and men have more constrained views than women. These norms may further interact with weak labor demand; in our sample 87 percent of women and 90 percent of men agreed or strongly agreed when jobs are scarce, men should have more right to jobs than women.

Figure 4. Norms about women's work (percentage) by respondent sex



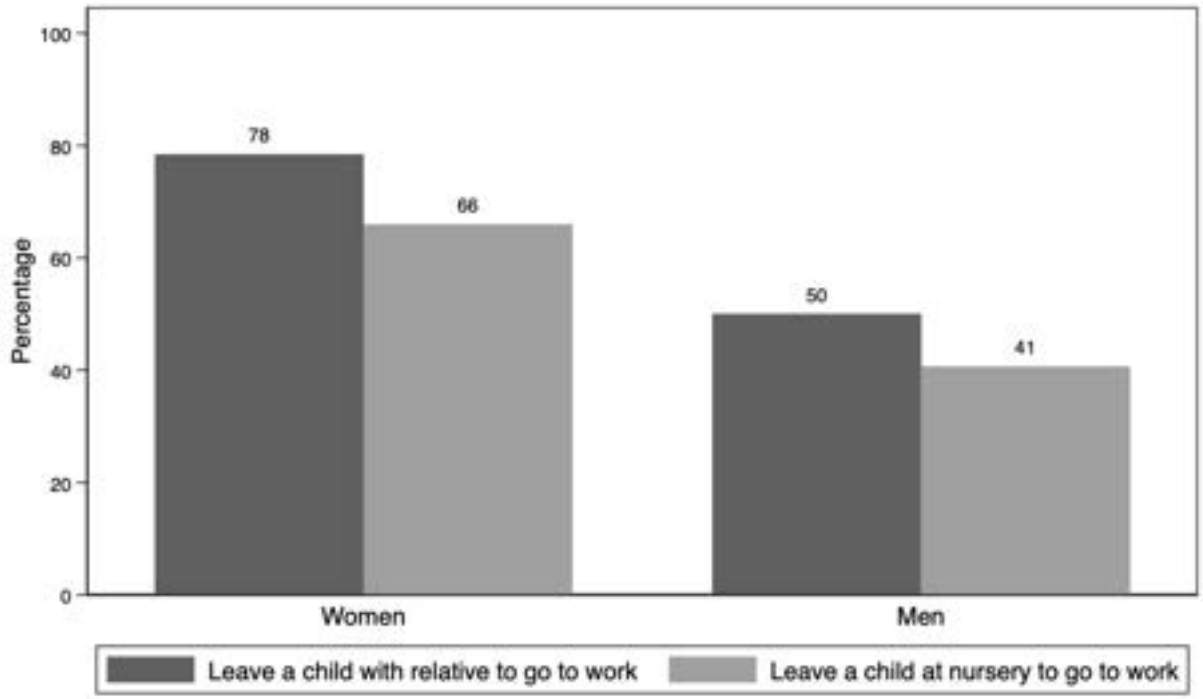
Source: Authors' calculations based on women's responses (mother's survey) and men's responses (husband's survey).

Notes: Percentage responding "yes" to "Do you think it's acceptable for a woman to work from home" or "Do you think it's acceptable for a woman to work outside home " or "Is it okay for women to work in an environment with mostly men" or "Do you think that working women are exposing themselves to harassment" or "Do you believe that working women are risking their reputation by working" or "Do you think it's acceptable for a married woman to work" or "It is okay for a married working woman to return home after 5 PM" questions about each of these work hypotheticals.

Figure 5 specifically investigates norms about child care and the percentage of women and men who think it is okay to use various childcare arrangements. While 78 percent of women think it is okay to leave a child with a relative to go to work, only 50 percent of men do so. Fewer women (66 percent) think it is acceptable to leave a child at nursery to go to work, and a lower share of men (41 percent) as well. Although the preference for family care over nursery care may be

specific to our sample (who were not enrolled in nursery at baseline) it is consistent with the pattern of family care over nursery care in a nationally representative survey (Assaad, Krafft, & Selwaness, 2017).

Figure 5. Norms about child care (percentage) by respondent sex



Source: Authors' calculations based on women's responses (mother's survey) and men's responses (husband's survey)
Notes: Percentage responding yes to questions "is it okay to leave child under 5 years old at nursery to go to work" and "is it okay to leave child under 5 years old with relative to go to work"

6.2 Intervention take up

Our subsidies treatment varied the level of subsidy, with some mothers receiving a 25 percent subsidy, others a 75 percent subsidy, and being cross-randomized with employment services. Table 3 shows take-up of subsidies (the percentage of households using the voucher) and employment services by treatment status.

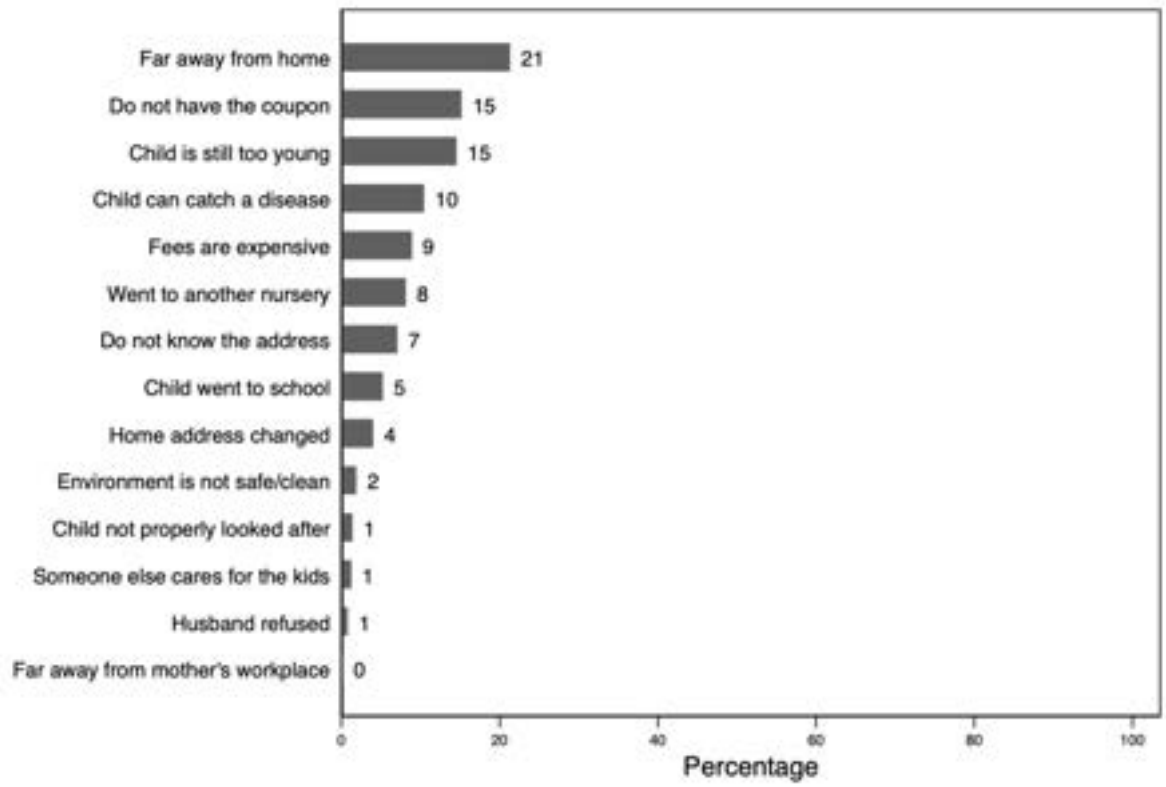
Households given the 25 percent discount took up the subsidy 1.4 percent of the time, while 4.2 percent of households given the 75 percent discount took up the subsidy. The significant difference between the two levels of subsidy illustrates the price-sensitivity of families. There is no evidence of complementarity between child care subsidies and employment services (which we discuss in further detail below) for subsidy take up.

In Figure 6, we explore the main reasons mothers gave during the first midline survey as to why they were not using the voucher, for those households randomized into the voucher treatment. The most common reason (21 percent) was that the nursery was far from home (even

though there was at least one nursery within 2 kilometers). Other mothers had lost the coupon (15 percent) or did not know the nursery address (8 percent), and where given assistance during the midline with those issues.[10] Mothers also commonly reported the child is still too young (15 percent), consistent with the strong gradient in employment by child age in Figure 3. The fees being too expensive—despite the voucher—was a response for 9 percent of households. Importantly, among the mothers who were eligible for a 25 percent discount, 11 percent stated fees were too expensive and among those eligible for a 75 percent discount, 8 percent stated fees were too expensive. Fees were thus still a barrier – but less of a barrier – at a 75 percent discount.

However, 8 percent report going to another nursery, suggesting that nursery use was higher than voucher take-up. Concerns with health and safety were also a constraint as shown in Figure 6 and also an additional question on the biggest worry of mothers about nurseries at baseline. The child can catch a disease, the environment is not clean or safe, the child is not properly or kindly looked after were all key worries, suggesting fundamental safety and quality concerns may constrain the use of nurseries.

Figure 6. Main reason why not using voucher (percentage), responses at first midline, households in voucher treatment who did not take-up



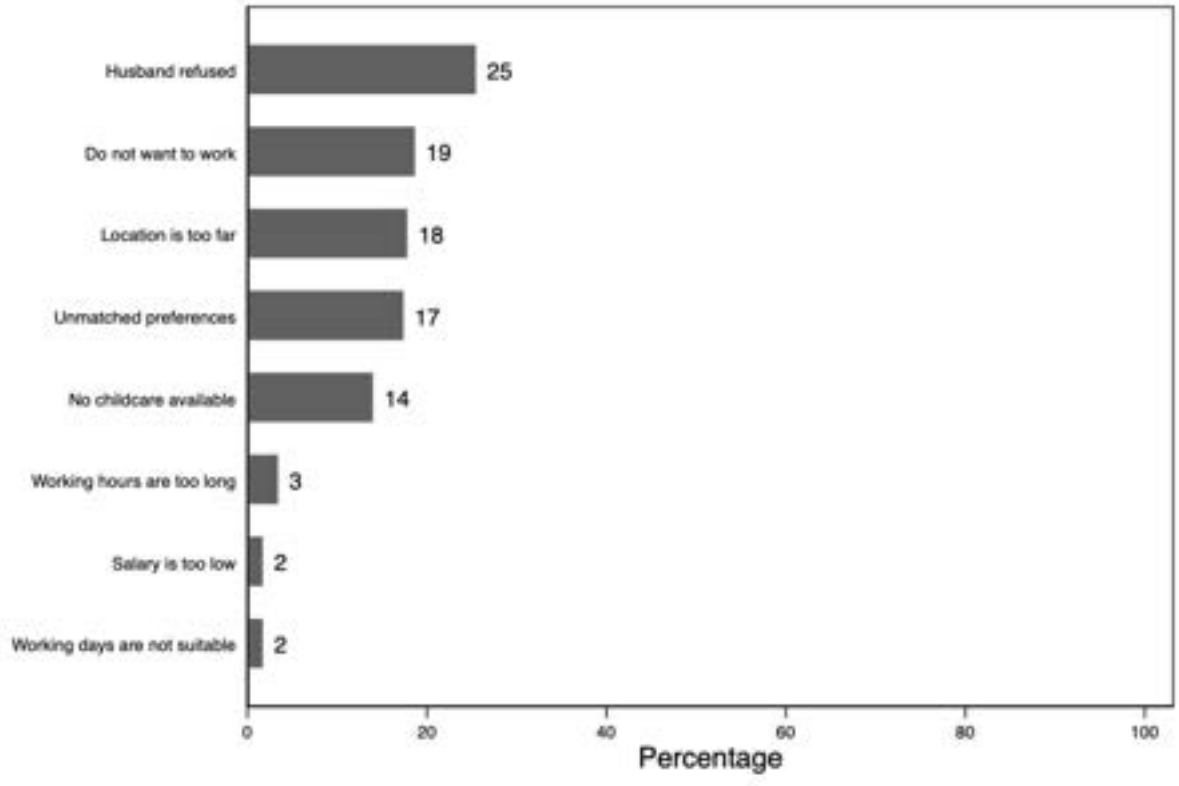
Source: Authors' calculations based on women's responses at midline

[10] Mothers were reminded about the nursery's address at the end of the phone survey and were informed they could go register their children with their ID card as all the eligible mothers' information (full names, national ID numbers and children's names) were shared with the corresponding nurseries to facilitate the registration process.

Take up of employment services was higher than take up of child care subsidies (Table 3). For employment services, we distinguish between creating a Forasna profile (a pre-requisite to applying for employment and a sign of interest in employment), applying for a job via Forasna, and the number of jobs applied to. Women assigned to employment services created a profile 29.8 percent of the time. Fewer actually applied to a job (13.9 percent) and the average number of job applications was 0.224. Joint take-up of employment services and child care vouchers was primarily for those with the 75 percent discount (1.4 percent took up both interventions).

There are a variety of reasons for modest take-up of employment services. Despite informing the women at the end of the baseline survey that they would be receiving a phone call from the employment services firm within three weeks, the majority (53 percent) of women were unreachable, even after up to three attempts. Figure 7 explores the main reasons why women did not take up the employment services intervention, according to the first midline. The most common reason was that their husband refused (25 percent), followed by not wanting to work (19 percent) location too far (18 percent), unmatched preferences (17 percent), and no child care available (14 percent). Fewer reported work hours were too long (3 percent), salary was too low (2 percent) or work days were unsuitable (2 percent). Importantly, among mothers who were eligible for a 25 percent discount, 17 percent stated a lack of childcare availability and among those eligible for a 75 percent discount, 16 percent stated a lack of childcare availability. Overall, the picture that emerges is that a constellation of gender norms, difficulties finding acceptable work, and practical constraints such as location and childcare constrain use of the employment services.

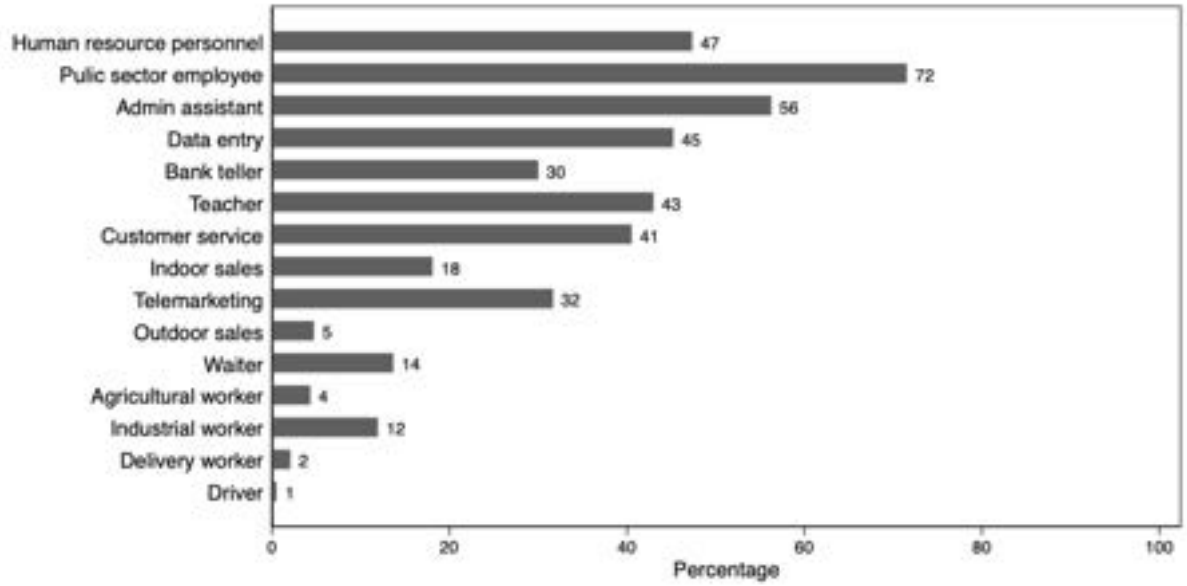
Figure 7. Main reason for not taking up employment services (percentage), responses at first midline, women in employment services treatment who did not take-up



Source: Authors' calculations based on women's responses at midline

Figure 8 further explores issues around acceptable jobs, using data on what jobs women were willing to accept when asked at baseline. Women display high reservation working conditions. There were only two jobs the majority of women would accept: public sector employment (72 percent) and administrative assistant (56 percent). Less than half but more than a third of women were hypothetically willing to accept work in human resources, data entry, as a teacher, or in customer service. Fewer were willing to accept public-facing jobs such as bank teller (30 percent), telemarketing (32 percent), indoor sales (18 percent), or as a waiter (14 percent). Few were willing to accept blue collar jobs of industrial worker (12 percent) and very few (5 percent or less) as outdoor sales, agricultural workers, delivery workers, or drivers. Especially since only 13 percent of the sample had a higher education degree, 35 percent a secondary degree, and 46 percent less than secondary, their educational qualifications are poorly matched with their employment aspirations.

Figure 8. Percentage of women who would accept various jobs at baseline



Source: Authors' calculations based on women's responses (mother's survey).

7 Results: Job search outcomes at first midline

In Table 4 we present the intent-to-treat estimates for the impact of the interventions on midline job search behaviors and reservation job quality (controls selected using the double post lasso method). Job quality outcomes are: the reservation wage for a private sector job, reservation job quality (in terms of commuting time and requiring flexible working hours, paid leaves, child care at work, and part-time work), as well as the number of targeted occupations and whether the targeted occupations were white collar. Job search behavior outcomes are: (1) whether women have done any job search activity since the previous interview, (2) number of applications since the previous interview (3) number of interviews invited to and (4) number of interviews attended.

There were no significant impacts of the subsidies, employment services, or their combination on job search behavior at the first midline. Nor did women's reservation wages or targeted occupations change significantly as a result of the interventions. There were not significant effects of the interventions on requiring flexible working hours, a childcare facility at work, or maximum commuting time. There were some, but potentially spurious (given the number of tests and interaction term) significant effects of 25 percent (but not 75 percent) subsidy on requiring part time work. Women who received the child care subsidy interventions were significantly more likely (8.6-12.7 percentage points) to say they required a job to allow them to take paid leaves. It may be that nursery care and paid leaves are important complements. If a child is sick and using nursery care, the mother may not be able to send him or her to nursery and need a paid leave day available, whereas other childcare arrangements (for instance, with family) would still work if the child were sick.

8 Activities progress

8.1 Workshops and Trainings

Eight workshops were conducted with the nurseries' representatives to present our project in a detailed manner. The JPAL team explained how the nurseries would benefit as childcare subsidies are expected to increase the number of children registered and hence, attendance rates which will in return generate more revenue for the nurseries. The nurseries were severely hit by the COVID-19 pandemic and were obliged to close for several months and have faced weak demand during the pandemic. Since the nurseries enrolled in this program are managed by local NGOs, the latter are also part of the network benefiting from the project. In addition, the JPAL team is organizing a two-day training for MoSS staff on what is impact evaluation, how to conduct it, and its importance for the projects led by the Ministry.

8.2 Next steps

Our project is currently completing baseline data collection and it is expected to reach the target sample size by mid-February 2022. The research team is simultaneously collecting the rest of the first midline for the batch which were surveyed from December 2020 to November 2021. It is expected that the second midline survey be before the end of subsidy, which will be over June-July of 2022 and the endline survey is expected to be conducted post-subsidy over October-December of 2022 (see Figure 9).

Figure 9. Implementation timeline

Once we complete the data collection, we will share findings with the National Program for Early Childhood Development under MoSS to strategize together about how to support the efforts to increase female labor force participation. This strategizing should positively impact the development of new related policies and programs. In addition, the impact evaluation principal investigators team will continue investigating other challenges and barriers that face women in

joining the labor force, such as social norms. An additional impact evaluation will potentially start in collaboration with the National Program for Early Childhood Development during 2022.

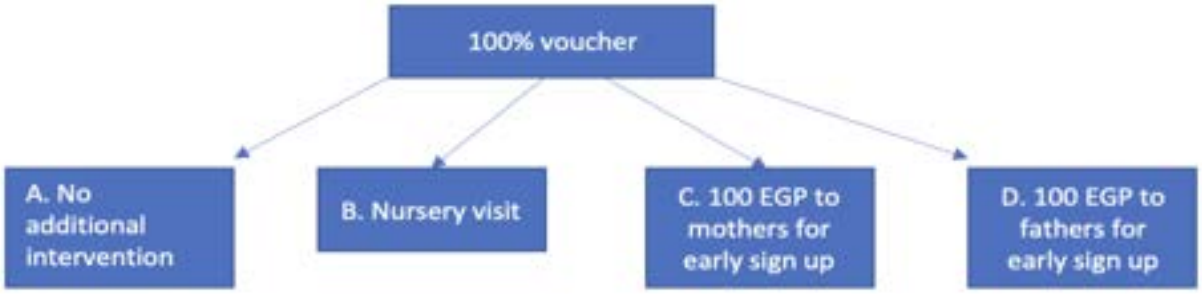
9 Changes to the subsidy intervention going forward

Given the relatively low take-up of the vouchers as of the first midline survey, our research team has introduced new interventions at the first midline. We are increasing the subsidies levels to 100 percent for all the mothers who were initially randomized into the subsidies' treatment arms. In addition, they were divided into 4 equal groups (Figure 10):

- 25 percent of the subsample randomly assigned to only "100 percent subsidies" to measure take up when the price is zero.
- 25 percent of the subsample randomly assigned to "100 percent + nursery visit" to measure the boost in take-up obtained by offering the option to verify the nursery's quality.
- 25 percent of the subsample randomly assigned to "100 percent + time-limited financial incentive to mothers" to measure the boost in take-up obtained by offering a time-limited financial incentive to join the nursery.
- 25 percent of the subsample to "100 percent + time-limited financial incentive to fathers" to measure whether giving fathers a financial stake in the decision is more effective than giving it to mothers.

This step is being conducted at the end of the first midline survey.

Figure 10. Revised voucher treatment and additional interventions at midline



Source: Authors' design

10 Conclusions and Recommendations

Women in Egypt and MENA more broadly face a number of barriers to employment, including high opportunity cost of time, weak labor demand, and restrictive gender norms (Assaad, Krafft, Rahman, & Selwaness, 2019; Assaad, Krafft, & Yassin, 2020; Economic Research Forum & UN Women, 2020; Spierings, 2014; Spierings, Smits, & Verloo, 2010). Married women and especially those with young children have particularly low participation in the labor force, due to difficulties reconciling paid employment with their unpaid care responsibilities (Assaad, Krafft, & Selwaness, 2022; Krafft, Assaad, & Keo, 2019; Selwaness & Krafft, 2021). Women's employment has even been declining in Egypt over time, despite rising levels of education (Assaad, Hendy,

Lassassi, & Yassin, 2020; Krafft, Assaad, & Keo, 2019). This paper reports the first midline findings of an experiment assessing the impact of alleviating two key constraints on women's employment in Egypt: the cost of child care and job search.

Even though we cross-randomized two interventions (child care subsidies and employment interventions), our results underscore the constellation of barriers women, especially married women with young children, face in Egypt. Take-up of the interventions was low; 1.4 percent of households took up the 25 percent child care subsidy vouchers and 4.2 percent the 75 percent vouchers. While 29.8 percent created a profile with Forasna, only 13.9 percent applied to a job via Forasna. Given low take-up, the lack of impact on job search behaviors and reservation working conditions at the first midline is not surprising. Our results contrast with other studies of subsidies in Kenya and Mozambique which found sizeable impacts (Clark, Kabiru, Laszlo, & Muthuri, 2019; Martinez, Naudeau, & Pereira, 2012). The additional constraints on women's employment in Egypt may have made the subsidy intervention less effective.

Our results on why women did not take-up the vouchers or employment services and key context on gender norms and child care demand provides important insights for future work. Since some women noted that fees were expensive even with the voucher (and childcare unavailable was a reason for not using employment services even with the voucher), at the end of the first midline interview we informed women that the vouchers were now 100 percent subsidies and provided additional incentives to register. The second midline and endline surveys will allow us to assess the impact of more fully subsidizing care on take up and women's labor market outcomes.

Fundamental health, safety, care, and environment quality issues were identified by women as their biggest concerns about nursery care. We presented some of the first results about norms regarding childcare; only 41 of men and 66 percent of women believed it was acceptable for women to leave children at nurseries to work (slightly more accepted leaving children with family). The fundamental quality concerns and (likely related) acceptability of nurseries and non-maternal care are key constraints on take-up of nurseries and may explain why women primarily rely on family care in Egypt (Assaad, Krafft, & Selwaness, 2017). Low-quality childcare is also unlikely to have positive developmental effects on children (Bouguen, Filmer, Macours, & Naudeau, 2013; Hawkinson, Griffen, Dong, & Maynard, 2013; Herbst & Tekin, 2010). Efforts to improve the quality of child care are underway with MoSS and coupling quality improvements with a push to normalize child care may be important.

Weak labor demand and particularly limited availability of acceptable jobs for women may have constrained the success of the employment services intervention. While a previous job matching intervention in Egypt was effective particularly for women, it offered guaranteed jobs and did not focus on married women with young children (Elsayed, Hempel, & Osman, 2018). Our results are more akin to a project in Jordan that attempted to match unemployed youth and made more than a thousand matches, but led to only nine jobs, in part due to mismatch between the jobs available and their aspirations (Groh, McKenzie, Shammout, & Vishwanath, 2015). Even among our moderately educated, low-income sample, women were unwilling to accept blue collar jobs; very few were willing to be drivers, outdoor sales, delivery or agricultural workers and few were even willing to be waiters or industrial workers; less than half were willing to take even

white-collar jobs such as bank teller or teacher; the only jobs a majority would take were public sector work (72 percent) or administrative assistant (56 percent).

Norms that preclude women from working in male-dominated environments or returning after 5pm limit the acceptable jobs for women. The husband's refusal was the main reason women did not take up employment services interventions, followed by women not wanting to work. Employers discriminate against women in hiring; in a recent experiment in Egypt 51 percent of employers admitted preferring hiring men over women (Osman, Speer, & Weaver, 2021). Norms that prioritize jobs for men over women when jobs are scarce further constrain labor demand for women (Krafft, Keo, & Fedi, 2019). Low and declining wages and weak labor demand in Egypt (Assaad, AlSharawy, & Salemi, 2019; Assaad, Krafft, Rahman, & Selwaness, 2019; Assaad, Krafft, & Yassin, 2020) limit the "pull" of the labor market to overcome these many barriers.

Research, programming, and policy around norms change is a priority in light of our findings. MENA is notable as the one region where gender role attitudes have not changed across generations (El Feki, Heilman, & Barker, 2017). The region also has the greatest inequity between men and women in terms of the time they spend on care work (International Labour Organization, 2018). Recognizing, redistributing, and reducing care work is a critical part of changing norms (Economic Research Forum & UN Women, 2020). Generally, shifting gender norms is fundamental to redressing gender inequality (Harper, Marcus, George, D'Angelo, & Samman, 2020; Jayachandran, 2019; United Nations Development Program (UNDP), 2020). The education system can provide an important opportunity for shifting norms across generations (Dhar, Jain, & Jayachandran, 2018; Levy et al., 2020).

Given the constellation of barriers women face when they seek employment, multi-faceted interventions may be needed. A parallel can be drawn to the targeting the ultra-poor or graduation programs; these programs both globally (Banerjee et al., 2015) and in Egypt (BRAC, Sawiris Foundation, & J-PAL, 2019) are designed to tackle a variety of constraints, simultaneously, that "trap" the poor. Programs typically provide households with a productive asset, support and training to leverage the asset, health, consumption support (cash), savings or loan, and life skills support in an integrated program (Banerjee et al., 2015; BRAC, 2016). This multifaceted approach tackles a whole constellation of possible constraints. Programs and policies to promote women's employment in Egypt (and particularly married women's employment) may likewise need to simultaneously tackle a host of constraints, including not only the cost of child care and employment services, but also gender norms, child care quality, employer discrimination, and the fundamentals of labor demand.

References

Abadie, A., Athey, S., Imbens, G. W., & Wooldridge, J. (2017). *When Should You Adjust Standard Errors for Clustering? NBER Working Paper Series No. 24003*.

Abdul Latif Jameel Poverty Action Lab (J-PAL). (2018). *Reducing Search Barriers for Jobseekers*. *J-PAL Policy Insights*.

Assaad, R., AlSharawy, A., & Salemi, C. (2019). *Is The Egyptian Economy Creating Good Jobs? Job Creation and Economic Vulnerability from 1998 to 2018*. *Economic Research Forum Working Paper Series No. 1354*. Cairo, Egypt.

Assaad, R., Hendy, R., Lassassi, M., & Yassin, S. (2020). Explaining the MENA Paradox: Rising Educational Attainment, Yet Stagnant Female Labor Force Participation. *Demographic Research*, *43*(28), 817–850.

Assaad, R., Krafft, C., Rahman, K. W., & Selwaness, I. (2019). *Job Creation in Egypt: A Sectoral and Geographical Analysis Focusing on Private Establishments, 1996-2017*. *ERF Policy Research Report*. Cairo, Egypt.

Assaad, R., Krafft, C., & Selwaness, I. (2017). *The Impact of Marriage on Women's Employment in the Middle East and North Africa*. *Economic Research Forum Working Paper Series No. 1086*. Cairo, Egypt.

Assaad, R., Krafft, C., & Selwaness, I. (2022). The Impact of Marriage on Women's Employment in The Middle East and North Africa. *Feminist Economics*.

Assaad, R., Krafft, C., & Yassin, S. (2020). Job Creation or Labor Absorption? An Analysis of Private Sector Job Growth in Egypt. *Middle East Development Journal*, *12*(2), 177–207.

Attanasio, O., Carneiro, P., & Olinto, P. (2017). *Impact of Free Availability of Public Childcare on Labour Supply and Child Development in Brazil*. *3ie Impact Evaluation Report No. 58*. New Delhi, India.

Attanasio, O., Low, H., & Sánchez-Marcos, V. (2008). Explaining Changes in Female Labor Supply in a Life-Cycle Model. *The American Economic Review*, *98*(4), 1517–1552.

Banerjee, A., Duflo, E., Goldberg, N., Karlan, D., Osei, R., Pariente, W., Shapiro, J., Thuysbaert, B., & Udry, C. (2015). A Multifaceted Program Causes Lasting Progress for the Very Poor: Evidence from Six Countries. *Science*, *348*(6236).

Barsoum, G. (2004). *The employment crisis of female graduates in Egypt: an ethnographic account*. Cairo, Egypt: American University in Cairo Press.

Barsoum, G. (2019). Women, Work, and Family: Educated Women's Employment Decisions and Social Policies in Egypt. *Gender, Work, and Organization*, *26*(7), 895–914.

Barsoum, G., & Abdalla, D. (2020). *Still the Employer of Choice: Evolution of Public Sector Employment in Egypt*. *Economic Research Forum Working Paper Series No. 1386*.

Belloni, A., Chernozhukov, V., & Hansen, C. (2014). Inference on Treatment Effects after Selection among High-Dimensional Controls. *Review of Economic Studies*, *81*(2), 608–650.

Berlinski, S., & Galiani, S. (2007). The Effect of a Large Expansion of Pre-Primary School Facilities on Preschool Attendance and Maternal Employment. *Labour Economics*, *14*(3), 665–680.

Blattman, C., & Ralston, L. (2015). *Generating Employment in Poor and Fragile States: Evidence from Labor Market and Entrepreneurship Programs*.

Bouguen, A., Filmer, D., Macours, K., & Naudeau, S. (2013). *Impact Evaluation of Three Types of Early Childhood Development Interventions in Cambodia*. *World Bank Policy Research Working Paper No. 6540*.

BRAC. (2016). *Targeting the Ultra Poor Programme Brief 2016*.
BRAC, Sawiris Foundation, & J-PAL. (2019). *Bab Amal Design Report*.
CAPMAS. (2021). Quarterly Bulletin of the Labor Force Survey, Second Quarter, Apr/May/June 2021.
Card, D., Kluve, J., & Weber, A. (2018). What Works? A Meta Analysis of Recent Active Labor Market Program Evaluations. *Journal of the European Economic Association*, *16*(3), 894–931.
Clark, S., Kabiru, C. W., Laszlo, S., & Muthuri, S. (2019). The Impact of Childcare on Poor Urban Women's Economic Empowerment in Africa. *Demography*, *56*, 1247–1272.
Dhar, D., Jain, T., & Jayachandran, S. (2018). *Reshaping Adolescents' Gender Attitudes: Evidence from a School-Based Experiment in India*. *NBER Working Paper Series No. 25331*.
Dougherty, C. (2014). *The Labour Market for Youth in Egypt: Evidence from the 2012 School to Work Transition Survey*. *Silatech Working Paper No. 14–2*. Doha, Qatar: Silatech.
Economic Research Forum, & UN Women. (2020). *Progress of Women in the Arab States 2020: The Role of the Care Economy in Promoting Gender Equality*. Cairo, Egypt: UN Women.
El Feki, S., Heilman, B., & Barker, G. (Eds.). (2017). *Understanding Masculinities: Results from the International Men and Gender Equality Survey (IMAGES) - Middle East and North Africa*. UN Women and Promundo-US.
El-Hamidi, F., & Said, M. (2014). Gender-Based Wage and Occupational Inequality in the New Millennium in Egypt. *The Journal of Developing Areas*, *48*(1), 21–41.
El-Kogali, S., & Krafft, C. (2015). *Expanding Opportunities for the Next Generation: Early Childhood Development in the Middle East and North Africa*. Washington, DC: World Bank.
Elsayed, A., Hempel, K., & Osman, A. (2018). *Overcoming Youth Unemployment in Egypt: Randomized Evaluations Showcase the Promise of Active Labor Market Programs*. *Working Paper*.
Gathmann, C., & Sass, B. (2018). Taxing Childcare: Effects on Childcare Choices, Family Labor Supply, and Children. *Journal of Labor Economics*, *36*(3), 665–709.
Gauri, V., Rahman, T., & Sen, I. (2019). *Measuring Social Norms About Female Labor Force Participation in Jordan*. *World Bank Policy Research Working Paper Series No. 8916*. Washington, DC.
Groh, M., McKenzie, D., Shammout, N., & Vishwanath, T. (2015). Testing the Importance of Search Frictions and Matching through a Randomized Experiment in Jordan. *IZA Journal of Labor Economics*, *4*(1).
Harper, C., Marcus, R., George, R., D'Angelo, S., & Samman, E. (2020). *Gender, Power, and Progress: How Norms Change*. Advancing Learning and Innovation on Gender Norms (ALIGN) and Overseas Development Institute (ODI).
Hawkinson, L. E., Griffen, A. S., Dong, N., & Maynard, R. A. (2013). The Relationship between Child Care Subsidies and Children's Cognitive Development. *Early Childhood Research Quarterly*, *28*(2), 388–404.
Herbst, C. M., & Tekin, E. (2010). Child Care Subsidies and Child Development. *Economics of Education Review*, *29*(4), 618–638.
Hoodfar, H. (1997). *Between Marriage and the Market: Intimate Politics and Survival in Cairo*. Berkeley, CA: University of California Press.
IMF. (2016). IMF Executive Board Approves US$12 Billion Extended Arrangement Under the Extended Fund Facility for Egypt. Retrieved January 26, 2022 from

https://www.imf.org/en/News/Articles/2016/11/11/PR16501-Egypt-Executive-Board-Approves-12-billion-Extended-Arrangement
International Labour Organization. (2018). *Care Work and Care Jobs for the Future of Decent Work*. Geneva.
Jayachandran, S. (2019). *Social Norms as a Barrier to Women's Employment in Developing Countries*. *WIDER Working Paper No. 2019/74*.
Krafft, C. (2015). Increasing Educational Attainment in Egypt: The Impact of Early Childhood Care and Education. *Economics of Education Review*, *46*, 127–143.
Krafft, C., Assaad, R., & Keo, C. (2019). *The Evolution of Labor Supply in Egypt from 1988-2018: A Gendered Analysis*. *Economic Research Forum Working Paper Series No. 1358*. Cairo, Egypt.
Krafft, C., Keo, C., & Fedi, L. (2019). *Rural Women in Egypt: Opportunities and Vulnerabilities*. *Economic Research Forum Working Paper Series No. 1359*. Cairo, Egypt.
Levy, J. K., Darmstadt, G. L., Ashby, C., Quandt, M., Halsey, E., Nagar, A., & Greene, M. E. (2020). Characteristics of Successful Programmes Targeting Gender Inequality and Restrictive Gender Norms for the Health and Wellbeing of Children, Adolescents, and Young Adults: A Systematic Review. *The Lancet Global Health*, *8*(2), e225–e236.
Martínez A., C., & Perticará, M. (2017). Childcare Effects on Maternal Employment: Evidence from Chile. *Journal of Development Economics*, *126*, 127–137.
Martinez, S., Naudeau, S., & Pereira, V. (2012). *The Promise of Preschool in Africa: A Randomized Impact Evaluation of Early Childhood Development in Rural Mozambique*. New Delhi, India: International Initiative for Impact Evaluation.
McKenzie, D. (2017). How Effective Are Active Labor Market Policies in Developing Countries? A Critical Review of Recent Evidence. *World Bank Research Observer*, *32*(2), 127–154.
Ministry of Social Solidarity. (2018). *Early Childhood Development Program - Egypt*. Cairo, Egypt.
Mottaghi, Lili; Crepon, B.; Krafft, C.; Caria, S.; Nagy, A.; Fadl, N., (2021). *Evidence to Inform Policy: What Works to Close the Gender Gaps in Middle East and North Africa. Research and Policy Brief.* World Bank, Washington, DC.
Osman, A., Speer, J. D., & Weaver, A. (2021). *Discrimination against Women in Hiring*. *Working Paper*.
Said, M., Galal, R., & Sami, M. (2019). *Inequality and Income Mobility in Egypt*. *Economic Research Forum Working Paper Series No. 1368*. Cairo, Egypt.
Selwaness, I., & Krafft, C. (2021). The Dynamics of Family Formation and Women's Work: What Facilitates and Hinders Female Employment in the Middle East and North Africa? *Population Research and Policy Review*, *40*(3), 533–587.
Sieverding, M., & Hassan, R. (2016). *"Her Future Is Marriage": Young People's Attitudes towards Gender Roles and the Gender Gap in Egypt*. Cairo, Egypt: Population Council.
Spierings, N. (2014). The Influence of Patriarchal Norms, Institutions, and Household Composition on Women's Employment in Twenty-Eight Muslim-Majority Countries. *Feminist Economics*, *20*(4), 87–112.
Spierings, N., Smits, J., & Verloo, M. (2010). Micro- and Macrolevel Determinants of Women's Employment in Six Arab Countries. *Journal of Marriage and Family*, *72*(5), 1391–1407.
UNDP, & Institute of National Planning. (2008). *Egypt Human Development Report 2008: Egypt's Social Contract: The Role of Civil Society*. Egypt.

UNICEF Egypt. (2019). *An Assessment of Egyptian Registered Nurseries and Development of Costing Models for the Purpose of Increasing Enrollment of Children*.
United Nations Development Program (UNDP). (2020). *2020 Human Development Perspectives: Tackling Social Norms: A Game Changer for Gender Inequalities*. New York, NY: UNDP.
Verick, S. (2018). Female Labor Force Participation and Development. *IZA World of Labor*, *87v2*, 1–11.
Wahba, J., & Zenou, Y. (2005). Density, Social Networks and Job Search Methods: Theory and Application to Egypt. *Journal of Development Economics*, *78*(2), 443–473.
World Bank. (2011). *World Development Report 2012: Gender Equality and Development*. Washington, DC: World Bank.
World Bank. (2013). *Opening Doors: Gender Equality and Development in the Middle East and North Africa*. Washington, DC: World Bank.
World Bank. (2018). *Women Economic Empowerment Study*. Washington, DC: World Bank.

Tables

Table 1. Balance tests for mothers at baseline

	Treatment status							
	(1) Control group	(2) 25 percent discount	(3) 75 percent discount	(4) Employment services	(5) 25 percent discount + Employment services	(6) 75 percent discount + Employment services	F-test for joint orthogonality	N
Respondent variables								
Married	0.898	0.909	0.899	0.909	0.895	0.905	0.945	3587
	(0.010)	(0.014)	(0.014)	(0.010)	(0.014)	(0.014)		
Age	30.729	30.893	30.427	30.829	30.985	30.976	0.858	3587
	(0.256)	(0.373)	(0.342)	(0.243)	(0.344)	(0.371)		
Husband absent	0.146	0.148	0.139	0.126	0.140	0.142	0.839	3587
	(0.012)	(0.017)	(0.016)	(0.011)	(0.016)	(0.016)		
Presence of family members in the close neighborhood	0.789	0.761	0.780	0.751	0.755	0.752	0.426	3587
	(0.014)	(0.020)	(0.019)	(0.015)	(0.020)	(0.020)		
Ever worked	0.301	0.310	0.308	0.305	0.291	0.308	0.951	3587
	(0.015)	(0.022)	(0.022)	(0.015)	(0.021)	(0.022)		
Education								
Less than secondary	0.282	0.301	0.324	0.290	0.234	0.279	0.066*	3587
	(0.015)	(0.022)	(0.022)	(0.015)	(0.020)	(0.021)		
Secondary	0.345	0.335	0.317	0.354	0.361	0.369	0.587	3587
	(0.016)	(0.023)	(0.022)	(0.016)	(0.022)	(0.023)		
Post-secondary	0.056	0.050	0.051	0.058	0.063	0.055	0.954	3587
	(0.008)	(0.010)	(0.010)	(0.008)	(0.011)	(0.011)		
University and above	0.144	0.155	0.134	0.111	0.144	0.142	0.182	3587
	(0.012)	(0.017)	(0.016)	(0.011)	(0.016)	(0.016)		
Labor Market Status								
Wage worker	0.080	0.105	0.099	0.079	0.074	0.073	0.324	3587
	(0.009)	(0.015)	(0.014)	(0.009)	(0.012)	(0.012)		
Employer	0.008	0.002	0.007	0.006	0.000	0.007	0.002***	3587
	(0.003)	(0.002)	(0.004)	(0.003)	(0.000)	(0.004)		
Self-employed	0.018	0.025	0.015	0.030	0.015	0.027	0.327	3587
	(0.004)	(0.007)	(0.006)	(0.006)	(0.006)	(0.008)		
Unemployed	0.195	0.157	0.194	0.186	0.175	0.188	0.596	3587
	(0.013)	(0.017)	(0.019)	(0.013)	(0.018)	(0.018)		
Out of labor force	0.696	0.711	0.683	0.696	0.733	0.704	0.594	3587
	(0.015)	(0.022)	(0.022)	(0.015)	(0.021)	(0.022)		

	Treatment status							
	(1) Control group	(2) 25 percent discount	(3) 75 percent discount	(4) Employment services	(5) 25 percent discount + Employment services	(6) 75 percent discount + Employment services	F-test for joint orthogonality	N
Household composition								
Nuclear family	0.888	0.882	0.883	0.903	0.871	0.854	0.164	3587
	(0.011)	(0.015)	(0.015)	(0.010)	(0.016)	(0.017)		
Household size	4.664	4.695	4.707	4.678	4.724	4.679	0.979	3587
	(0.044)	(0.064)	(0.064)	(0.045)	(0.065)	(0.062)		
Children age 0	0.150	0.123	0.137	0.139	0.138	0.131	0.856	3587
	(0.012)	(0.016)	(0.016)	(0.012)	(0.016)	(0.016)		
Children age 1	0.218	0.203	0.220	0.211	0.239	0.210	0.853	3587
	(0.014)	(0.020)	(0.020)	(0.014)	(0.021)	(0.020)		
Children age 2	0.232	0.257	0.231	0.242	0.214	0.257	0.633	3587
	(0.014)	(0.022)	(0.021)	(0.015)	(0.019)	(0.021)		
Children age 3	0.240	0.207	0.264	0.243	0.212	0.217	0.274	3587
	(0.015)	(0.020)	(0.021)	(0.015)	(0.019)	(0.020)		
Children age 4	0.279	0.296	0.300	0.273	0.254	0.252	0.507	3587
	(0.016)	(0.023)	(0.022)	(0.015)	(0.021)	(0.021)		
Children age 5	0.238	0.230	0.211	0.228	0.269	0.279	0.159	3587
	(0.015)	(0.021)	(0.020)	(0.014)	(0.021)	(0.022)		
Children age 6-17	1.157	1.212	1.187	1.217	1.175	1.131	0.767	3587
	(0.037)	(0.054)	(0.056)	(0.039)	(0.053)	(0.052)		
Living conditions								
Has assets	0.070	0.109	0.084	0.072	0.077	0.049	0.028**	3587
	(0.009)	(0.015)	(0.013)	(0.009)	(0.012)	(0.010)		
Pre-COVID household income below poverty line	0.424	0.444	0.447	0.449	0.444	0.420	0.852	3587
	(0.017)	(0.024)	(0.023)	(0.017)	(0.023)	(0.023)		
Post-COVID household income below poverty line	0.467	0.492	0.487	0.488	0.501	0.458	0.715	3587
	(0.017)	(0.024)	(0.023)	(0.017)	(0.023)	(0.023)		
Household income per month in EGP	1545.329	1550.100	1598.282	1582.445	1622.847	1666.046	0.727	3587
	(45.227)	(70.647)	(64.935)	(48.023)	(63.763)	(69.052)		
Has savings	0.033	0.050	0.033	0.036	0.042	0.040	0.775	3587
	(0.006)	(0.010)	(0.008)	(0.006)	(0.009)	(0.009)		
Financial attitudes								
Took formal loan	0.108	0.121	0.128	0.141	0.096	0.139	0.110	3587
	(0.010)	(0.016)	(0.016)	(0.012)	(0.014)	(0.016)		
Borrowed from family	0.445	0.453	0.441	0.449	0.440	0.409	0.788	3587
	(0.017)	(0.024)	(0.023)	(0.017)	(0.023)	(0.023)		
Participated in ROSCA	0.291	0.278	0.278	0.296	0.302	0.257	0.638	3587

	Treatment status							
	(1) Control group	(2) 25 percent discount	(3) 75 percent discount	(4) Employment services	(5) 25 percent discount + Employment services	(6) 75 percent discount + Employment services	F-test for joint orthogonality	N
	(0.015)	(0.021)	(0.021)	(0.015)	(0.021)	(0.021)		
Childcare								
Regularly uses child care	0.163	0.198	0.205	0.166	0.162	0.153	0.195	3587
	(0.012)	(0.019)	(0.019)	(0.013)	(0.017)	(0.017)		
Regular child care provider: Mother	0.102	0.118	0.137	0.112	0.112	0.106	0.579	3587
	(0.010)	(0.015)	(0.016)	(0.011)	(0.015)	(0.015)		
Regular child care provider: mother-in-law	0.025	0.032	0.026	0.024	0.026	0.022	0.963	3587
	(0.005)	(0.008)	(0.008)	(0.005)	(0.007)	(0.007)		
Primary outcomes								
Work activity over the past week	0.089	0.123	0.112	0.102	0.085	0.091	0.246	3587
	(0.010)	(0.016)	(0.015)	(0.010)	(0.013)	(0.014)		
Hours of work over the past week	2.556	4.257	3.355	3.175	2.565	2.670	0.131	3587
	(0.335)	(0.626)	(0.540)	(0.373)	(0.465)	(0.481)		
Gender norms								
Is okay that woman works from home	0.923	0.929	0.941	0.934	0.928	0.934	0.872	3587
	(0.009)	(0.012)	(0.011)	(0.008)	(0.012)	(0.012)		
Is okay that woman works outside home	0.930	0.893	0.927	0.917	0.895	0.909	0.143	3587
	(0.009)	(0.015)	(0.012)	(0.009)	(0.014)	(0.014)		
Is okay that woman works in male-dominated environment	0.533	0.490	0.597	0.531	0.560	0.531	0.034**	3587
	(0.017)	(0.024)	(0.023)	(0.017)	(0.023)	(0.023)		
Agree that working women expose themselves to harassment	0.232	0.246	0.225	0.215	0.239	0.226	0.839	3587
	(0.014)	(0.021)	(0.020)	(0.014)	(0.020)	(0.020)		
Agree that working women risk their reputation	0.036	0.048	0.020	0.035	0.053	0.029	0.069*	3587
	(0.006)	(0.010)	(0.007)	(0.006)	(0.010)	(0.008)		
It's acceptable for a married woman to work	0.908	0.900	0.927	0.906	0.891	0.918	0.403	3587
	(0.010)	(0.014)	(0.012)	(0.010)	(0.015)	(0.013)		
It is okay for a married woman return after 5PM	0.454	0.462	0.471	0.493	0.451	0.473	0.623	3587
	(0.017)	(0.024)	(0.023)	(0.017)	(0.023)	(0.024)		
Agree that mothers working outside home are unfit	0.067	0.089	0.055	0.048	0.072	0.071	0.092*	3587
	(0.008)	(0.014)	(0.011)	(0.007)	(0.012)	(0.012)		

	Treatment status							
	(1) Control group	(2) 25 percent discount	(3) 75 percent discount	(4) Employment services	(5) 25 percent discount + Employment services	(6) 75 percent discount + Employment services	F-test for joint orthogonality	N
Agree that when jobs are scarce, men should have more right to a job than women	0.863	0.870	0.874	0.883	0.893	0.874	0.660	3587
	(0.012)	(0.016)	(0.016)	(0.011)	(0.014)	(0.016)		
Agree that husband should help in raising children	0.939	0.945	0.945	0.938	0.921	0.947	0.672 0.623	3587
	(0.008)	(0.011)	(0.011)	(0.008)	(0.013)	(0.011)		
Agree that husband should help with household chores	0.523	0.503	0.452	0.543	0.523	0.502	0.052*	3587
	(0.017)	(0.024)	(0.023)	(0.017)	(0.023)	(0.024)		
Agree that girls should go to school to prepare for jobs	0.952	0.943	0.956	0.940	0.954	0.951	0.783	3587
	(0.007)	(0.011)	(0.010)	(0.008)	(0.010)	(0.010)		
Agree that women should work to be financially independent	0.763	0.727	0.771	0.741	0.729	0.715	0.226	3587
	(0.014)	(0.021)	(0.020)	(0.015)	(0.021)	(0.021)		
Agree that married working women are unfit wives	0.170	0.214	0.203	0.155	0.182	0.175	0.110	3587
	(0.013)	(0.020)	(0.019)	(0.012)	(0.018)	(0.018)		
Agree that women should have leadership positions	0.900	0.868	0.894	0.904	0.899	0.856	0.097*	3587
	(0.010)	(0.016)	(0.014)	(0.010)	(0.014)	(0.017)		
Agree that boys and girl should get same schooling	0.964	0.945	0.963	0.960	0.961	0.951	0.690	3587
	(0.006)	(0.011)	(0.009)	(0.007)	(0.009)	(0.010)		
Agree that boys and girls should be treated equally	0.842	0.802	0.817	0.829	0.821	0.852	0.360	3587
	(0.012)	(0.019)	(0.018)	(0.013)	(0.018)	(0.017)		
Agree that harassment is justified if women are dressed provocatively	0.667	0.656	0.656	0.674	0.637	0.648	0.790	3587
	(0.016)	(0.023)	(0.022)	(0.016)	(0.023)	(0.022)		
Is it okay to leave a child at nursery to go to work	0.661	0.610	0.676	0.675	0.628	0.639	0.147	3587
	(0.016)	(0.023)	(0.022)	(0.016)	(0.023)	(0.023)		
Is it okay to leave a child with relative to go to work	0.785	0.781	0.791	0.780	0.783	0.752	0.798	3587
	(0.014)	(0.020)	(0.019)	(0.014)	(0.019)	(0.020)		
Reservation wages and reservation job quality								

	Treatment status							
	(1) Control group	(2) 25 percent discount	(3) 75 percent discount	(4) Employment services	(5) 25 percent discount + Employment services	(6) 75 percent discount + Employment services	F-test for joint orthogonality	N
Monthly reservation wage in EGP for private sector job	2610.670	2526.424	2581.960	2502.587	2520.569	2516.593	0.393	3587
	(40.012)	(56.310)	(49.507)	(37.699)	(49.517)	(54.236)		
Maximum commuting time in minutes	31.481	32.679	33.075	31.660	31.545	31.465	0.589	3587
	(0.613)	(0.889)	(0.865)	(0.637)	(0.857)	(0.863)		
Requires flexible working hours	0.134	0.109	0.104	0.098	0.114	0.102	0.261	3587
	(0.011)	(0.015)	(0.014)	(0.010)	(0.015)	(0.014)		
Requires ability to take paid leaves	0.699	0.708	0.663	0.683	0.689	0.673	0.668	3587
	(0.015)	(0.022)	(0.022)	(0.016)	(0.022)	(0.022)		
Requires childcare facility	0.692	0.702	0.672	0.672	0.716	0.699	0.552	3587
	(0.015)	(0.022)	(0.022)	(0.016)	(0.021)	(0.022)		
Requires part-time work	0.799	0.763	0.782	0.789	0.792	0.788	0.801	3587
	(0.013)	(0.020)	(0.019)	(0.014)	(0.019)	(0.019)		
Targeted occupation is a white-collar occupation	0.521	0.487	0.518	0.520	0.488	0.533	0.635	3587
	(0.017)	(0.024)	(0.023)	(0.017)	(0.023)	(0.023)		
Number of targeted occupations	2.811	2.925	2.740	2.948	2.735	2.942	0.521	3587
	(0.083)	(0.124)	(0.119)	(0.087)	(0.116)	(0.119)		

Notes: The control group means are reported in column 1, with standard errors in parentheses. The subsequent groups report the differences between the control group and the different treatment groups. The 7th column reports the p-value of the F-test for joint orthogonality test. The final column lists the number of observations for each variable. Standard errors are Huber–White standard errors. The covariate variable strata is included in all estimation regressions. ***, **, and * indicate significance at the 1, 5, and 10 percent critical level. We also checked for rate of missing values, at most 2.2 percent for the age variable were missing and no variable was unbalanced. We also checked balance for nursery strata, of 43 nursery strata only 1 was unbalanced at the 5 percent level. Amounts are winsorized at the 99th percentile.

Table 2. Balance tests for fathers at baseline

	Treatment status							
	(1) Control group	(2) 25 percent discount	(3) 75 percent discount	(4) Employment services	(5) 25 percent discount + Employment services	(6) 75 percent discount + Employment services	F-test for joint orthogonality	N
Respondent variables								
Age	36.938	36.927	36.335	37.000	38.045	37.148	0.524	1348
	(0.441)	(0.615)	(0.624)	(0.421)	(0.626)	(0.564)		
Ever worked	0.938	0.933	0.950	0.928	0.911	0.903	0.545	1348
	(0.014)	(0.020)	(0.017)	(0.014)	(0.021)	(0.022)		
Labor Market Status								
Wage worker	0.692	0.680	0.776	0.712	0.687	0.676	0.242	1348
	(0.026)	(0.038)	(0.033)	(0.024)	(0.035)	(0.035)		
Employer	0.056	0.080	0.050	0.069	0.067	0.068	0.873	1348
	(0.013)	(0.022)	(0.017)	(0.013)	(0.019)	(0.019)		
Self-employed	0.044	0.080	0.037	0.064	0.050	0.057	0.552	1348
	(0.011)	(0.022)	(0.015)	(0.013)	(0.016)	(0.017)		
Unemployed	0.159	0.133	0.130	0.119	0.151	0.159	0.669	1348
	(0.020)	(0.028)	(0.027)	(0.017)	(0.027)	(0.028)		
Out of labor force	0.025	0.013	0.006	0.030	0.034	0.034	0.094*	1348
	(0.009)	(0.009)	(0.006)	(0.009)	(0.013)	(0.014)		
Financial attitudes								
Took formal loan	0.103	0.100	0.137	0.097	0.101	0.114	0.863	1348
	(0.017)	(0.025)	(0.027)	(0.016)	(0.023)	(0.024)		
Borrowed from family	0.629	0.713	0.689	0.690	0.698	0.670	0.415	1348
	(0.027)	(0.037)	(0.037)	(0.024)	(0.034)	(0.036)		
Participated in ROSCA	0.218	0.300	0.267	0.241	0.229	0.227	0.499	1348
	(0.023)	(0.038)	(0.035)	(0.023)	(0.031)	(0.032)		
Primary outcomes								
Work activity over the past week	0.688	0.720	0.789	0.737	0.704	0.676	0.128	1348
	(0.026)	(0.037)	(0.032)	(0.023)	(0.034)	(0.035)		
Hours of work over the past week	29.785	31.407	32.634	32.781	33.994	29.614	0.479	1348
	(1.474)	(2.243)	(2.012)	(1.445)	(2.203)	(2.095)		
Gender norms								
Is okay that woman works from home	0.816	0.813	0.770	0.806	0.821	0.858	0.453	1348
	(0.022)	(0.032)	(0.033)	(0.021)	(0.029)	(0.026)		
Is okay that woman works outside home	0.558	0.527	0.478	0.521	0.581	0.517	0.528	1348
	(0.028)	(0.041)	(0.039)	(0.026)	(0.037)	(0.038)		
Is okay that woman works in male-dominated environment	0.383	0.353	0.373	0.402	0.335	0.312	0.373	1348
	(0.027)	(0.039)	(0.038)	(0.026)	(0.035)	(0.035)		
Agree that working women expose themselves to harassment	0.393	0.447	0.435	0.393	0.374	0.460	0.507	1348

	Treatment status							
	(1) Control group	(2) 25 percent discount	(3) 75 percent discount	(4) Employment services	(5) 25 percent discount + Employment services	(6) 75 percent discount + Employment services	F-test for joint orthogonality	N
	(0.027)	(0.041)	(0.039)	(0.026)	(0.036)	(0.038)		
Agree that working women risk their reputation	0.125	0.200	0.174	0.172	0.145	0.193	0.233	1348
	(0.018)	(0.033)	(0.030)	(0.020)	(0.026)	(0.030)		
It's acceptable for a married woman to work	0.651	0.613	0.596	0.645	0.715	0.659	0.308	1348
	(0.027)	(0.040)	(0.039)	(0.025)	(0.034)	(0.036)		
It is okay for a married woman return after 5PM	0.340	0.367	0.342	0.343	0.374	0.358	0.965	1348
	(0.026)	(0.039)	(0.037)	(0.025)	(0.036)	(0.036)		
Agree that mothers working outside home are unfit	0.056	0.080	0.118	0.100	0.078	0.108	0.135	1348
	(0.013)	(0.022)	(0.026)	(0.016)	(0.020)	(0.023)		
Agree that when jobs are scarce, men should have more right to a job than women	0.875	0.853	0.907	0.886	0.872	0.909	0.557	1348
	(0.018)	(0.029)	(0.023)	(0.017)	(0.025)	(0.022)		
Agree that husband should help in raising children	0.866	0.913	0.919	0.909	0.866	0.938	0.071*	1348
	(0.019)	(0.023)	(0.022)	(0.015)	(0.026)	(0.018)	0.442	
Agree that husband should help with household chores	0.713	0.740	0.708	0.709	0.754	0.653	0.557	1348
	(0.025)	(0.036)	(0.036)	(0.024)	(0.032)	(0.036)		
Agree that girls should go to school to prepare for jobs	0.875	0.867	0.882	0.903	0.866	0.903	0.661	1348
	(0.018)	(0.028)	(0.026)	(0.016)	(0.026)	(0.022)		
Agree that women should work to be financially independent	0.259	0.233	0.248	0.269	0.223	0.273	0.835	1348
	(0.024)	(0.035)	(0.034)	(0.023)	(0.031)	(0.034)		
Agree that married working women are unfit wives	0.252	0.233	0.317	0.280	0.251	0.290	0.577	1348
	(0.024)	(0.035)	(0.037)	(0.024)	(0.033)	(0.034)		
Agree that women should have leadership positions	0.685	0.760	0.708	0.742	0.782	0.727	0.210	1348
	(0.026)	(0.035)	(0.036)	(0.023)	(0.031)	(0.034)		
Agree that boys and girl should get same schooling	0.903	0.940	0.932	0.925	0.916	0.926	0.800	1348
	(0.017)	(0.019)	(0.020)	(0.014)	(0.021)	(0.020)		

	Treatment status							
	(1) Control group	(2) 25 percent discount	(3) 75 percent discount	(4) Employment services	(5) 25 percent discount + Employment services	(6) 75 percent discount + Employment services	F-test for joint orthogonality	N
Agree that boys and girls should be treated equally	0.660	0.667	0.671	0.673	0.670	0.693	0.984	1348
	(0.026)	(0.039)	(0.037)	(0.025)	(0.035)	(0.035)		
Agree that harassment is justified if women are dressed provocatively	0.626	0.673	0.627	0.634	0.620	0.676	0.823	1348
	(0.027)	(0.038)	(0.038)	(0.025)	(0.036)	(0.035)		
Is it okay to leave a child at nursery to go to work	0.349	0.373	0.342	0.388	0.436	0.398	0.428	1348
	(0.027)	(0.040)	(0.037)	(0.026)	(0.037)	(0.037)		
Is it okay to leave a child with relative to go to work	0.492	0.433	0.472	0.454	0.508	0.438	0.677	1348
	(0.028)	(0.041)	(0.039)	(0.026)	(0.037)	(0.037)		
Reservation wages and reservation job quality								
Monthly reservation wage in EGP for private sector job	2658.255	2956.667	2859.627	2723.823	2513.408	2889.205	0.486	1348
	(121.935)	(194.912)	(171.392)	(116.463)	(158.205)	(186.933)		
Maximum commuting time in minutes	42.611	47.420	46.000	41.598	40.419	43.136	0.488	1348
	(2.114)	(3.306)	(2.969)	(1.885)	(2.592)	(2.836)		
Requires flexible working hours	0.078	0.053	0.031	0.044	0.061	0.062	0.252	1348
	(0.015)	(0.018)	(0.014)	(0.011)	(0.018)	(0.018)		
Requires ability to take paid leaves	0.262	0.273	0.311	0.233	0.274	0.295	0.475	1348
	(0.025)	(0.037)	(0.037)	(0.022)	(0.033)	(0.034)		
Requires childcare facility	0.159	0.173	0.143	0.139	0.173	0.142	0.867	1348
	(0.020)	(0.031)	(0.028)	(0.018)	(0.028)	(0.026)		
Requires part-time work	0.125	0.180	0.174	0.152	0.168	0.125	0.454	1348
	(0.018)	(0.031)	(0.030)	(0.019)	(0.028)	(0.025)		

Notes: The control group means are reported in column 1, with standard errors in brackets. The subsequent groups report the differences between the control group and the different treatment groups. The 7th column reports the p-value of the F-test for joint orthogonality test. The final column lists the number of observations for each variable. Standard errors are Huber–White standard errors. The covariate variable strata is included in all estimation regressions. ***, **, and * indicate significance at the 1, 5, and 10 percent critical level. We also checked for rate of missing values, at most 31 percent for the monthly reservation wage for the private sector variable, which was missing mostly because of refusals/don't knows, and only one variable of fourteen was unbalanced. Amounts are winsorized at the 99th percentile.

Table 3. Take-up of interventions

	(1) Take up nursery voucher	(2) Create a Forasna profile	(3) Applied for a Forasna job	(4) Number of job apps. via Forasna	(5) Joint take up (voucher + applied via Forasna)
Employment services (β_1)	0.000	0.298***	0.139***	0.224***	-0.000
	(0.000)	(0.015)	(0.012)	(0.023)	(0.000)
75 percent discount (β_2)	0.042***	-0.000	-0.000	-0.002	-0.000
	(0.009)	(0.002)	(0.001)	(0.002)	(0.000)
25 percent discount (β_3)	0.014**	-0.000	-0.000	-0.000	-0.000
	(0.006)	(0.002)	(0.001)	(0.002)	(0.000)
Interaction between 75 percent discount and Employment services (β_4)	-0.000	0.035	0.028	0.033	0.014**
	(0.013)	(0.027)	(0.021)	(0.040)	(0.006)
Interaction between 25 percent discount and Employment services (β_5)	0.002	-0.008	0.024	0.057	0.002
	(0.008)	(0.026)	(0.021)	(0.043)	(0.002)
Mean of control group	0.0	0.0	0.0	0.0	0.0
H1: $\beta_1 = 0$	0.865	0.000	0.000	0.000	0.785
H2: $\beta_2 = \beta_3 = 0$	0.000	0.973	0.964	0.783	0.723
H3: $\beta_2 = \beta_3$	0.010	0.852	0.994	0.617	0.451
H4: $\beta_4 = \beta_5 = 0$	0.980	0.332	0.313	0.366	0.029
N	3587	3587	3587	3587	3587

Notes: Column 1 is a binary variable that is equal to 1 if the mother used her discount voucher and registered her child(ren) in a participating nursery. Column 2 is a binary variable that is equal to 1 if the mother created a Forasna profile. Column 3 is a binary variable that is equal to 1 if the mother applied for a job through Forasna. Column 4 reports the number of job applications the mother submitted via Forasna. Column 5 is the joint take up: the interaction term of the take up nursery voucher and applied for a Forasna job. "H1-H4" rows report the p-value of four hypotheses tests where H1: No impact of the employment service intervention in the absence of the childcare subsidies: $\beta_1 = 0$, H2: No impact of childcare subsidies in the

absence of employment services: $\beta_2 = \beta_3 = 0$, H3: No differential impact of childcare subsidies depending on the amount of the voucher: $\beta_2 = \beta_3$, and H4: No interaction between childcare subsidies and employment services: $\beta_4 = \beta_5 = 0$. Regressions include strata fixed effects. Standard errors are Huber–White standard errors in parentheses. Significance * .10; ** .05; *** .01.

Table 4. Impact of interventions (double post lasso) on first midline job search behaviors and reservation job quality

	(1) Reservation wage for private sector job	(2) Maximum commuting time	(3) Requires flexible working hours	(4) Requires ability to take paid leaves	(5) Requires childcare facility	(6) Requires part-time work	(7) Targeted occupation is a white-collar occupation	(8) Number of targeted occupations	(9) Job search activity since the previous interview	(10) Number of apps since the previous interview	(11) Number of interviews invited to	(12) Number of interviews attended
Employment services (β_1)	-0.082	-0.084	0.001	0.004	-0.023	-0.006	-0.034	-0.099	-0.002	0.020	0.005	0.006
	(0.053)	(0.057)	(0.015)	(0.023)	(0.024)	(0.024)	(0.028)	(0.170)	(0.008)	(0.029)	(0.010)	(0.009)
75 percent discount (β_2)	-0.010	0.039	0.027	0.086***	0.017	-0.034	-0.003	0.200	0.016	0.023	0.055	0.059
	(0.067)	(0.072)	(0.020)	(0.026)	(0.029)	(0.030)	(0.035)	(0.206)	(0.012)	(0.028)	(0.050)	(0.050)
25 percent discount (β_3)	-0.011	-0.011	0.020	0.127***	0.018	0.064**	-0.003	-0.245	0.024*	0.019	0.019	0.018
	(0.070)	(0.080)	(0.020)	(0.028)	(0.031)	(0.030)	(0.036)	(0.202)	(0.014)	(0.028)	(0.018)	(0.017)
Interaction between 75 percent discount and Employment services (β_4)	0.126	0.044	-0.037	0.010	0.024	0.026	0.012	-0.237	-0.017	-0.010	-0.051	-0.056
	(0.095)	(0.099)	(0.027)	(0.037)	(0.042)	(0.042)	(0.049)	(0.290)	(0.016)	(0.050)	(0.049)	(0.049)
Interaction between 25 percent discount and Employment services (β_5)	0.181*	0.100	-0.010	-0.048	-0.017	-0.109**	0.028	0.258	-0.016	-0.026	-0.013	-0.011
	(0.101)	(0.104)	(0.027)	(0.038)	(0.043)	(0.043)	(0.050)	(0.293)	(0.018)	(0.047)	(0.024)	(0.023)
Constant	0.307	0.208	0.082	0.663***	0.360***	1.386***	-0.195*	10.514***	0.039	0.061	0.018	0.019
	(0.214)	(0.229)	(0.063)	(0.105)	(0.110)	(0.106)	(0.115)	(0.696)	(0.040)	(0.092)	(0.043)	(0.043)
Nursery dummy variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Strata dummy variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mean of control group	0.023	0.012	0.068	0.530	0.561	0.691	0.476	4.830	0.023	0.038	Yes	Yes
H1: $\beta_1 = 0$	0.124	0.136	0.919	0.860	0.338	0.817	0.228	0.562	0.763	0.49	0.010	0.007
H2: $\beta_2 = \beta_3 = 0$	0.983	0.820	0.309	0.000	0.773	0.017	0.995	0.171	0.134	0.601	0.608	0.518

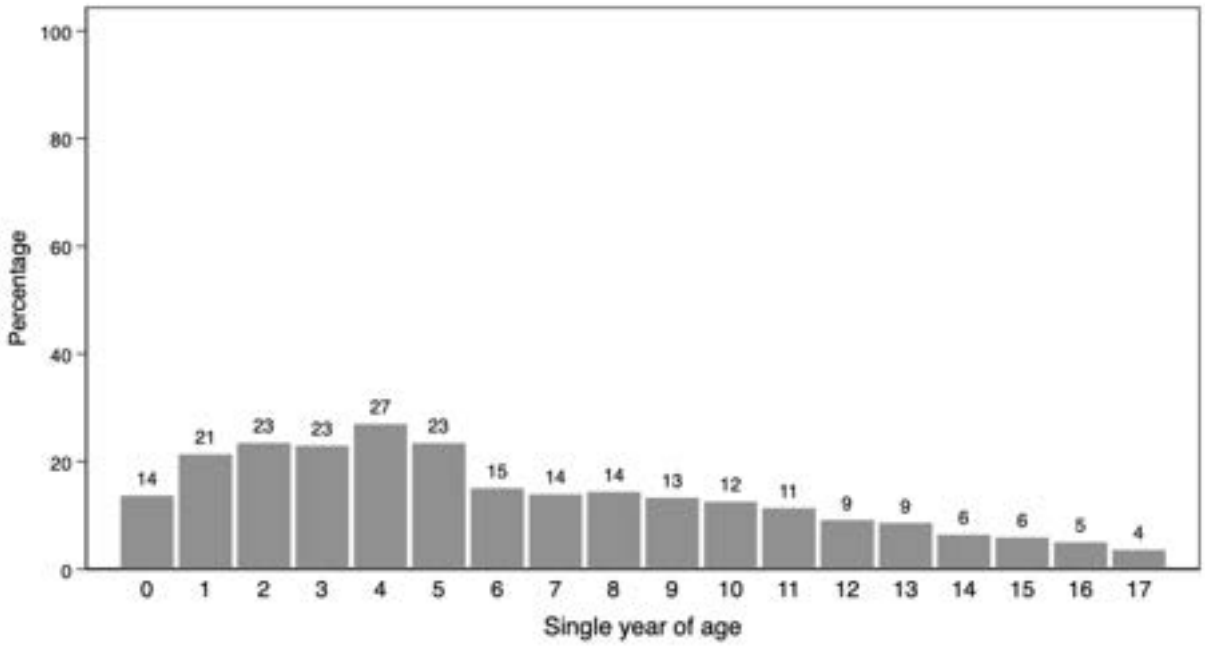
	(1) Reservation wage for private sector job	(2) Maximum commuting time	(3) Requires flexible working hours	(4) Requires ability to take paid leaves	(5) Requires childcare facility	(6) Requires part-time work	(7) Targeted occupation is a white-collar occupation	(8) Number of targeted occupations	(9) Job search activity since the previous interview	(10) Number of apps since the previous interview	(11) Number of interviews invited to	(12) Number of interviews attended
H3: $\beta_2 = \beta_3$	0.990	0.575	0.784	0.186	0.991	0.005	0.998	0.061	0.665	0.915	0.237	0.187
H4: $\beta_4 = \beta_5 = 0$	0.139	0.623	0.379	0.342	0.706	0.013	0.852	0.340	0.446	0.854	0.522	0.477
N	2240	2240	2240	2240	2240	2240	2240	2240	2240	2240	0.368	0.340
											2240	2240

Notes: Column 1 reports the standardized value of the reservation wage for private sector job. Column 2 is a standardized value of the maximum commuting time (in minutes). Column 3 is a binary variable that is equal to 1 if the mother requires flexible working hours. Column 4 is a binary variable that is equal to 1 if the mother requires to have a job enabling taking time off at short notice (paid leaves). Column 5 is a binary variable that is equal to 1 if the mother requires childcare facility at place of work. Column 6 is a binary variable that is equal to 1 if the mother requires part-time work. Column 7 is a binary variable that is equal to 1 if the targeted occupation is white-collar. Final column reports the number of targeted occupations. "H1-H4" rows report the p-value of four hypotheses tests where H1: No impact of the employment service intervention in the absence of the childcare subsidies: $\beta_1 = 0$, H2: No impact of childcare subsidies in the absence of employment services: $\beta_2 = \beta_3 = 0$, H3: No differential impact of childcare subsidies depending on the amount of the voucher: $\beta_2 = \beta_3$, and H4: No interaction between childcare subsidies and employment services: $\beta_4 = \beta_5 = 0$. Standard errors are Huber–White standard errors. ***, **, and * indicate significance at the 1, 5, and 10 percent critical level.

11 Appendix 1: Additional sample characteristics at baseline

The households in our sample were primarily nuclear (88 percent) rather than extended family (12 percent) living arrangements. In 14 percent of households the husband was absent from the household. Figure 11 presents the percentage of households with children in each single year of age, at baseline. Given our sample restriction to those with children aged 1-5, unsurprisingly 21-27 percent of households have a child aged one, two, three, four, or five. Children of other ages are also common, with 14 percent of household having a child aged zero, 15 percent having a child aged six (school aged), and a decreasing share having children of older ages, up to 4 percent of households with children aged 17. On average there were 1.34 children aged 0-5 and 1.18 children aged 6-17 in each household.

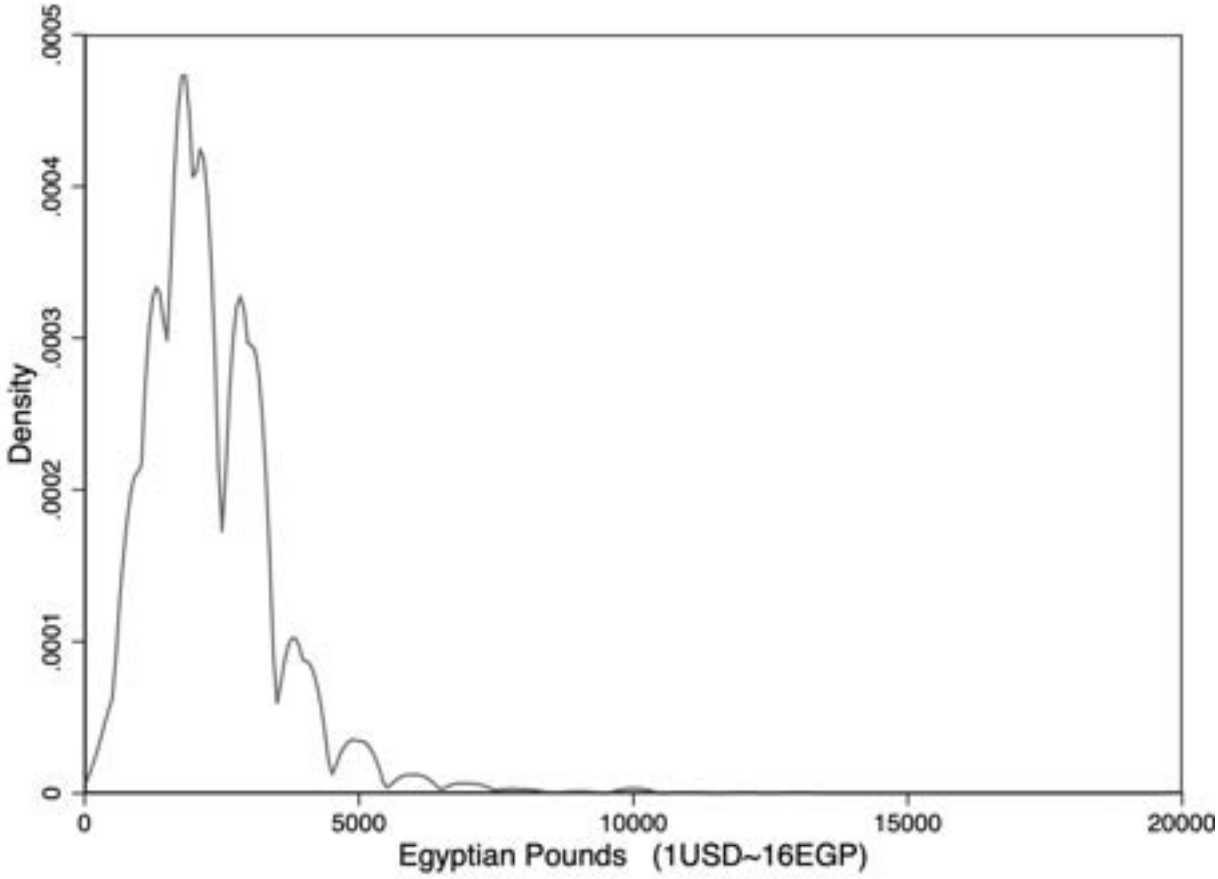
Figure 11. Percentage of households with children in each single year of age at baseline



Source: Authors' calculations

The households in our sample were low income (Figure 12); their mean monthly income was 2331 EGP (25th percentile 1500 EGP; median 2000 EGP; 75th percentile 3000 EGP).

Figure 12. Distribution of households by total monthly income in Egyptian pounds



Source: Authors' calculations

Notes: Kernel density (kernel = epanechnikov, bandwidth = 209.6702)

12 Appendix 2: Additional tables

Table 5. Attrition of mothers at midline by treatment arm and baseline characteristics

	(1) Attrition at Midline
Panel A: Treatment arms	
25 percent discount	0.066**
	(0.028)
75 percent discount	0.028
	(0.028)
Employment services	0.002
	(0.022)
25 percent discount + Employment services	0.011
	(0.027)
75 percent discount + Employment services	0.023
	(0.028)
Mean of control group	0.307
Panel B: Respondent variables	
Married	-0.034
	(0.050)
Age	-0.002
	(0.002)
Husband absent	0.051
	(0.044)
Presence of family members in the close neighborhood	-0.000
	(0.020)
Ever worked	-0.033
	(0.045)
Panel C: Education	
Less than secondary	-0.015
	(0.026)
Secondary	-0.042*
	(0.026)
Post-secondary	-0.014
	(0.041)
University and above	0.050
	(0.035)
Panel D: Labor Market Status	
Wage worker	-0.503***
	(0.184)

Employer	-0.436**
	(0.196)
Self-employed	-0.554***
	(0.189)
Unemployed	-0.508***
	(0.159)
Out of labor force	-0.481***
	(0.158)
Panel E: Household composition	
Nuclear family	-0.042
	(0.036)
Household size	-0.016
	(0.015)
Children age 0	0.052
	(0.036)
Children age 1	-0.034
	(0.034)
Children age 2	-0.027
	(0.033)
Children age 3	-0.046*
	(0.025)
Children age 4	-0.039
	(0.025)
Children age 5	-0.039
	(0.025)
Children age 6-17	0.012
	(0.015)
Panel F: Living conditions	
Has assets	0.095***
	(0.036)
Pre-COVID household income below poverty line	0.019
	(0.032)
Post-COVID household income below poverty line	-0.026
	(0.035)
Household income per month in EGP	0.000
	(0.000)
Has savings	-0.106**
	(0.047)
Panel G: Financial attitudes	
Took formal loan	-0.003

	(0.025)
Borrowed from family	-0.017
	(0.017)
Participated in ROSCA	-0.037**
	(0.019)
Panel H: Childcare	
Regularly uses child care	-0.044
	(0.041)
Regular child care provider: Mother	0.005
	(0.047)
Regular child care provider: mother-in-law	-0.012
	(0.064)
Panel I: Primary outcomes	
Work activity over the past week	0.069
	(0.111)
Hours of work over the past week	-0.001
	(0.001)
Labor income	-0.000
	(0.000)
Panel J: Reservation wages and reservation job quality	
Monthly reservation wage in EGP for private sector job	0.000
	(0.000)
Maximum commuting time in minutes	-0.000
	(0.000)
Requires flexible working hours	0.004
	(0.026)
Requires ability to take paid leaves	0.028
	(0.024)
Requires childcare facility	-0.041*
	(0.023)
Requires part-time work	0.001
	(0.023)
Targeted occupation is a white-collar occupation	-0.004
	(0.018)
Number of targeted occupations	-0.013***
	(0.004)
Nursery dummy variables	Yes
N	3292

Notes: Column 1 is a binary variable that is equal to 1 if the mother attrited at midline. Coefficients come from an ordinary least square regression that try to predict mothers' attrition at midline using treatment

arms and baseline characteristics. Standard errors are Huber–White standard errors. The covariate variable strata are included in the estimation regression. Nursery dummy variables were included in the estimation regression. Final row reports the size of the sample. ***, **, and * indicate significance at the 1, 5, and 10 percent critical level. Results are preliminary as we report on only 2240 reached at midline out of 3292 observations and midline data collection is still on going in order to increase the response rates.

Table 6. Non-response of fathers at baseline by treatment arm

	(1) Non-response of fathers
25 percent discount	-0.004
	(0.037)
75 percent discount	0.035
	(0.035)
Employment services	-0.052*
	(0.029)
25 percent discount + Employment services	-0.052
	(0.035)
75 percent discount + Employment services	-0.015
	(0.035)
Nursery dummy variables	Yes
Mean of control group	0.457
N	2395

Notes: Column 1 is a binary variable that is equal to 1 if the father did not respond by phone at baseline. Coefficients come from an ordinary least square regression that try to predict fathers' non-response using the treatment arms. Standard errors are Huber–White standard errors. The covariate variable strata is included in the estimation regression. Nursery dummy variables were included in the estimation regression. Final row reports the size of the sample. ***, **, and * indicate significance at the 1, 5, and 10 percent critical levels.