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Lowering Entry Barriers: Experimental Evidence on Memberships and Access to the Global Labor Market

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Response to Reviewers:	We have attached the responses as referee report.

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February 13, 2026

Abstract

This study evaluates the impact of reducing job search costs by covering membership fees for a global digital labor platform where jobseekers can bid on short-term projects from global employers. Within a randomized controlled trial involving over 2,400 jobseekers, we implement a cross-randomization across three groups: a control group; a treatment group receiving information about the platform (T1); and a treatment group receiving both information and mentoring support (T2). The intervention aims to assess whether lowering entry costs increases user engagement, job search intensity, and employment outcomes both on and off the platform. By comparing outcomes across groups, we quantify the returns to reduced entry costs and explore whether combining cost subsidies with information and mentorship amplifies benefits. The findings will shed light on how job market entry frictions shape labor market participation and inform strategies to expand access to global employment opportunities.

Keywords: Search costs, digital platforms, Jordan, employment networks, information, mentorship

JEL codes: J23, J24, O33

Study pre-registration: We will register this study in the AEA RCT Registry before starting the intervention.

Proposed timeline *(required):* Data collection is funded by IGC Grant (P-0005389) and supported by the IGC Jordan country team. Baseline data will be collected in mid-February 2026 (immediately before the intervention). For the endline, we will obtain administrative click-by-click data from the collaborating platform to track the progress of our sample (May 2026). We plan to conduct a follow-up survey six months after the intervention (August 2026). We have IRB Ethics approval.

1. Introduction

It is well-documented that both the monetary and psychological costs of job search are substantial. Studies from Ethiopia, Jordan, South Africa, and Uganda estimate that jobseekers spend between 16% and 40% of their total expenditures or earnings on job search (Abebe et al., 2021b; Alfonsi et al., 2022; Carranza et al., 2022; Caria et al., 2024b). Digital platforms have been seen as a promising way to reduce these search frictions and transaction costs by streamlining access to information, matching users with relevant opportunities more efficiently, and enabling real-time interactions (Afridi et al., 2025). For example, job seekers can quickly find listings tailored to their skills and preferences, while employers can access a broader and more targeted pool of candidates.

However, many digital labor platforms operate on subscription-based models or impose paywalls to unlock full functionality. For individuals with limited financial resources, these upfront costs may pose significant barriers to meaningful participation. Thus, while digital platforms offer efficiency gains–specifically in terms of time, money and effort involved in the job search process–equitable access may still hinge on affordability. Our study investigates the role of these entry costs in shaping job search behavior.

Motivated by high search costs, numerous interventions have attempted to reduce job search frictions through conditional or unconditional cash transfers. Conditional transfers—typically aimed at covering transportation or application costs—have yielded either limited employment effects (Banerjee and Sequeira, 2023) or short-term improvements without long-term gains (Franklin, 2018; Abebe et al., 2021a). Unconditional transfers, while increasing search intensity, have generally not led to sustained improvements in labor market outcomes (Abebe et al., 2021b; Banerjee and Sequeira, 2023).

This evidence suggests that although search costs are high, simply subsidizing them may not translate into better employment outcomes. One explanation is that job-search subsidies may induce overconfidence, prompting jobseekers to target jobs beyond their reach (Banerjee and Sequeira, 2023). Another is that jobseekers may still face limited access to high-quality jobs (Caria et al., 2024b). A deeper structural constraint may be insufficient labor demand—especially in rigid labor markets where there are rigid hiring and firing standards (Adnan, Sangwan, and Abdelfattah, 2023). If demand-side constraints dominate, lowering search costs may yield limited returns. However, in more flexible labor markets—where hiring and firing are less constrained—cost-reduction interventions may yield greater impact by enabling access to a broader range of employers.

In our study, we test whether easing monetary entry barriers improves job search outcomes on a global digital labor platform—an area largely overlooked in the search-cost literature, which has focused on traditional labor markets. Our context is Jordan, a lower-middle-income country with youth unemployment nearing 40% and widespread job dissatisfaction—both indicative of poor match quality.

We partner with Freelancer.com, a global online freelancing platform connecting over 65 million users across 247 countries. A notable feature is that users can bid on short-term, project-based work posted by global employers. Moreover, this platform offers four-tiered membership plans, each providing progressively greater benefits. All registered users receive a one-month complimentary *Plus* membership, which allows up to 100 bids per month (compared to 6 for non-members), more skills listed on profiles, employer-following functionality, and reputation-enhancing badges. Our intervention provides an additional month of *Plus* membership, effectively doubling the duration of full-feature access.

Our collaboration with this platform provides access to granular click-level data, enabling us to track jobseeker activity—including bid frequency, contract outcomes, and earnings—and to open the "black box" of online wage negotiation. Participants in this study were part of an earlier randomized controlled trial (Adnan, Sangwan, and Abdelfattah, 2025) involving over 2,400 jobseekers assigned to one of three groups: (1) a control group, (2) a treatment group that received information about the platform (T1), and (3) a treatment group that received both information and mentoring support (T2). Mentoring included guided assistance with registration, profile creation, and platform navigation.

In the current study, we cross-randomize free membership within the original T1 and T2 groups. All treatment group participants from the previous RCT, regardless of whether the original intervention led them to enroll on the platform, will be cross randomized into the new treatment. This design allows us to estimate the effect of reducing monetary barriers conditional on different levels of initial support, and to unpack why uptake on digital platforms remains low—even when free trials are available. Half of the jobseekers in each group are randomly selected to receive an additional month of Plus membership. This design enables us to pursue two primary comparisons: (1) within-group comparisons (treated vs. untreated among T1 or T2) to estimate the effect of removing monetary entry barriers conditional on initial exposure, and (2) across-group (T2 vs. T1) comparisons to test whether additional informational and logistical support amplifies the effects of cost reduction. We continue to follow the pure control group for benchmarking.

Our design defines "entry costs" as encompassing not only the direct monetary price of membership, but also informational and psychological barriers to participation. These include uncertainty about platform functionality, fear of rejection, low self-confidence, and lack of network effects. By cross-randomizing cost subsidies with mentorship, we aim to disentangle these different components and identify where support is most needed.

This intervention allows us to examine whether subsidizing platform access increases job search intensity (e.g., bid volume), improves match quality (e.g., contract awards and earnings), or interacts with mentoring to address deeper informational or psychological frictions. Specifically, we ask:

(1) Does reducing entry costs via subsidized membership increase platform engagement and job search intensity? We measure engagement on the extensive margin using platform registration and active usage of platform i.e., having made at least one bid conditional on registration. Job search intensity is measured as the number of bids placed. This intervention also allows us to evaluate whether a one-month trial is sufficient for users to effectively navigate and benefit from the platform, or whether longer access, i.e. 2 months, may be necessary to generate sustained gains.

(2) Does the effectiveness of this subsidy depend on whether jobseekers received mentoring support?

(3) Are impacts strongest among those most likely to face financial or psychological barriers—such as younger or less experienced users?

Literature Review: This study contributes to a growing literature on digital job search platforms in low- and middle-income settings (Kelley et al., 2024; Chakravarty et al., 2023; Jones and Sen, 2022). While most studies have found limited or no employment effects from platform registration alone, Wheeler et al. (2022) show that bundling platform access with complementary interventions—such as a job-readiness program—can produce large gains. In their South African study, jobseekers saw improved employment outcomes only when LinkedIn registration was combined with preparatory training. Our study similarly investigates whether pairing job-search cost subsidies with information and mentoring improves labor market outcomes.

The global distribution of online freelancing remains highly concentrated, with about half of all users originating from a handful of countries (Fazio et al, 2025). Outside these core hubs, enrollment rates are strikingly low. For instance, our platform metrics show less than 1% of eligible users register in Jordan, a low adoption rate mirrored across regions like Latin America (Hilbert and Lulu, 2020; Fazio et al, 2025). This disparity highlights a crucial gap in the literature. While several studies address success barriers on the intensive margin—explaining why securing a contract is difficult (e.g., low employer ratings, unrecognized credentials, English fluency, lack of skills)—very little is known about the binding constraints on the extensive margin (i.e., why jobseekers fail to enroll).[1]

A further limitation of the job search literature is its neglect of the psychological costs associated with searching for work. Field et al. (2023) argue that jobseekers may avoid applying to high-return vacancies precisely because of the psychological toll of initiating applications—due to fear of failure, low self-confidence, or decision fatigue. If the mentorship intervention helped reduce such psychological barriers, our design enables us to test how removing monetary costs affects employment outcomes across groups with differing levels of psychological constraints.

[1] See Chan and Wang (2018), Das et al (2024), Fazio et al (2025), Hong et al (2021), Kassi and Lehdonvirta (2022), and Pallais and Glassberg Sands (2016).

The choice of the collaborating platform is conceptually important, as it differs fundamentally from platforms focused on traditional job listings (e.g., LinkedIn) or national platforms that solicit citizens. Our collaborating platform is a global task-based platform where employers post projects rather than long-term employment contracts, thereby circumventing many of the rigid hiring and firing standards common in traditional labor markets. Crucially, succeeding on such a platform requires constant re-engagement: jobseekers must continually search, refine bids, and manage contracts, even after securing initial work. This perpetual search friction, coupled with the steep learning curve required for effective bidding and reputation building, makes initial success particularly difficult. Furthermore, unlike training-intensive interventions on platforms like Upwork or Fiverr, which average $423 (Fazio et al, 2025) and $700 (Das et al, 2024) per beneficiary, our intervention is a low-cost, easily scalable membership subsidy. By extending the free trial period from one to two months, we aim to empirically determine whether sustained cost reductions matter for learning and persistence.

We also contribute to the literature on how reducing entry costs can generate long-term employment gains. Bryan, Chowdhury, and Mobarak (2014) show that subsidizing rural migration in Bangladesh led to sustained improvements in employment and repeat migration, as jobseekers gained experience and learned about better opportunities. In our context, a subsidized platform membership may play a similar role—enabling jobseekers to explore the online labor market, learn how to bid effectively, and build lasting relationships with employers. As McKenzie and Carranza (2024) and Mitchell et al. (2023) argue, such interventions are most effective for jobseekers facing severe financial constraints, limited experience, or weak professional networks. For these individuals—particularly young, first-time jobseekers—even small costs can pose binding barriers. Removing these entry costs may unlock durable gains by improving access to information, networks, and repeat employment opportunities that outlast the subsidy period.

Lastly and importantly, we explore the potential for our intervention to disproportionately benefit women, thereby addressing the crucial need for strategies to boost female employment in Jordan, which has one of the world's lowest female labor force participation rates. Task-based digital labor platforms, by offering remote work and flexible scheduling, may circumvent both social and logistical barriers that often keep women out of the formal labor market. For example, Alhorr (2024) documents that female entrepreneurs in Jordan experienced higher business survival rates and a rise in the number (and variety) of clients upon receiving a bundled intervention that included virtual support to manage a business page on Facebook and an online training program. Ho et al. (2025) find that allowing women to work from home (through digital job platforms) drastically increases the take-up rate of accepting a job offer in West Bengal. Both studies show that the effects are larger for women who are mobility constrained and/or have more traditional attitudes. Building on this, our study tests whether removing monetary barriers to platform participation can unlock similar gains.

Women often face disproportionately high job search costs due to limited social networks and mobility constraints (Afridi et al., 2025). The free premium membership coupled with mentorship

from experienced female freelancers can provide both information and role models, motivating women to persist through the early stages of online work. By analyzing the differential effects of the cost subsidy by gender, we aim to contribute empirical evidence on whether eliminating monetary costs to these platforms can serve as a potent tool for overcoming cultural constraints and improving search and employment outcomes for women.

In summary, this project leverages a randomized intervention on a global freelancing platform to examine how financial, informational, and psychological barriers interact to shape job search behavior and outcomes. By combining detailed clickstream data with experimental variation in search costs, information and mentorship support, we aim to identify the mechanisms through which digital labor platforms can be made more effective for jobseekers in low- and middle-income countries.

2. Data and Proposed Timeline

Our proposed timeline includes three key data collection points: baseline (February 2026), Intervention (February 2026), and endline (three months post-intervention in May 2026).

1. **Baseline Data Collection (February 2026)**: We will use the Endline 1 data from the previous RCT (Conditionally accepted based on pre-results review in JDE), as the baseline for this cross-randomization study of jobseekers aged 18-34 residing in the three major regions of Jordan - Amman, Irbid, and Zarqa. The current survey is supported by the IGC Jordan country team covering over 2400 jobseekers. We will extend on the treatment arms from the previous experiment for this new intervention.

2. **Intervention (February 2026)**: During the baseline data collection, we will randomize individuals from the two treatment arms (information about freelancer only (T1), and information about freelancer with mentoring (T2)) into the subsidized job search treatment arm. They will be informed that they can join and use the membership benefits without paying for the service for one full additional month.

3. **Endline (May 2026)**: We will construct a high-frequency engagement dataset using platform click data from the intervention period until three months later. We will also collect data using follow-up surveys to acquire information on employment outcomes and search strategies off the platform.

Proposed timeline

	February 2026	May 2026	June 2026	July 2026	August 2026	September 2026
Baseline						
Intervention						
Platform Data						
Telephonic Survey						
Analysis						

3. Motivation and Contribution

The challenge in scaling digital labor platforms, particularly in low- and middle-income countries, is exemplified by low rates of enrollment. In Jordan, for instance, less than 1% of eligible young people are registered on our collaborating platform. Moreover, even when the platform offers Plus membership access free of charge for the first month, the take-up rate of this free membership is only 8% among all registered users. This low engagement indicates that non-monetary barriers are strongly binding. A key explanation for these low take-up rates is that users may be unfamiliar with how to effectively navigate online platforms or are unaware of the trial period's full benefits. Crucially, jobseekers may not realize the importance of persistence—the necessity of a prolonged search period to overcome early rejections and secure the first successful contract—a need the mentorship program (T2) was designed to highlight.

Theory of Change: The additional month represents a crucial marginal extension that allows us to isolate the dynamic effects of sustained cost reduction and persistence in job search. In digital labor markets, the key constraint often lies not only in entry but in continuation after initial failure. Many jobseekers exhaust the initial trial period before developing effective bidding strategies or securing their first contract. The additional month, therefore, enables us to test whether lowering search costs over a longer horizon—beyond the initial learning phase—encourages jobseekers to persist long enough to overcome early rejections and begin to experience returns to search effort. Administrative data from the platform strongly supports the existence of this binding constraint (refer to Descriptive Statistics).

Our design allows us to test whether the subsidy primarily operates on the extensive margin—encouraging new jobseekers to join the platform—or whether its main impact lies on the intensive margin, increasing search effort and persistence among existing users (as reflected in bidding activity and platform engagement). We will leverage the rich baseline survey data collected in the original RCT to conduct heterogeneity analysis of the newly induced entrants. This will allow us to characterize the marginal joiners—those whose enrollment decisions are directly triggered by the reduction in monetary cost. We will test whether the subsidy disproportionately attracts individuals already well-positioned for success (e.g., those with higher education, digital skills, and English proficiency), or whether it instead promotes inclusion by enabling participation among groups typically disadvantaged in labor markets (e.g., women, individuals with weaker professional networks, or higher reservation wages). By explicitly measuring and analyzing this selection on observables, we ensure that the new randomization complements the earlier study by underscoring who is drawn into digital labor markets when entry costs are lowered and how these new entrants differ from prior participants.

The findings from this study will also allow us to distinguish between short-term exploration and long-term engagement. If most users disengage after the first month despite zero search costs, it would suggest that psychological or informational barriers dominate. However, if the second month meaningfully increases bidding activity, contract acquisition, or retention, it would imply that financial frictions continue to bind even after initial exposure, pointing to the importance of search duration as a margin of labor market participation. Beyond the specific platform context, the experiment thus sheds light on a broader policy question: Do short-term subsidies suffice to catalyze job search in new digital markets, or do sustained cost reductions matter for learning and persistence? By capturing behavior at this margin, our design contributes to understanding how the duration and timing of financial support shape transitions into unfamiliar labor market technologies more generally.

We now explicitly hypothesize two potential mechanisms of complementarity between the Plus membership subsidy and mentorship:

1. **Confidence Channel**: Mentorship is expected to reduce psychological barriers such as fear of rejection, low self-confidence, and uncertainty about self-presentation. The monetary subsidy, by removing the binding financial constraint on search (expanding the number of free bids from 6 to 100), enables jobseekers to fully act on the confidence and practical strategies gained during mentorship. The cross-randomization thus tests whether the behavioral activation triggered by psychological support when combined with the lifting of cost constraints translates into greater engagement on the platform.
2. **Duration Channel**: Success in digital freelancing typically requires persistence through an initial period of high failure and learning, irrespective of the level of initial support (T1 or T2). The extended free access allows jobseekers to remain active long enough to internalize the learning, develop effective bidding strategies, and possibly secure their

crucial first contract, transforming short-term exposure into sustained engagement. Without the extension, many may disengage prematurely, misinterpreting early rejections as a lack of suitability rather than part of the learning curve. Mentorship further reinforces this extended engagement by helping participants anticipate early challenges and persist long enough to realize returns from the platform.

Through this layered design, we are able to disentangle and quantify how financial, informational, and psychological frictions jointly determine participation and persistence in online labor markets.

This study makes three important contributions to literature. First, while search cost reduction has been studied in traditional labor markets, to the best of our knowledge, our study is among the first to evaluate such reductions in the context of online labor markets. Second, we leverage a cross-randomized experimental design to unpack the surprisingly low uptake of paid memberships on the platform (see next subsection), even though the platform offers a one-month free trial. Finally, our intervention directly tests whether one month of free access is sufficient—or whether users need extended exposure to meaningfully engage with the platform.

Descriptive Statistics on Freelancer Platform: To better understand the relationship between membership and job search behavior, we collaborated with the freelancing platform to obtain the administrative data for the year 2024 on all users based in the three regions where our intervention is implemented: Amman, Irbid, and Zarqa. The data cover both paid users (those with paid membership) and unpaid users (those without paid membership). According to platform records of over 42,000 Jordanian users, only 7.5% (3,159 Jordanian users) had an active membership and the remaining 92.5% (39,213 users) did not have any membership. Descriptive evidence from this sample shows that the two groups live in similar regions (Figures 1a and 1b) and list similar skill profiles (Figures 2a and 2b), suggesting that observed differences in platform behavior are not primarily driven by location or stated expertise.

Figure 1a – User Location among Paid Members

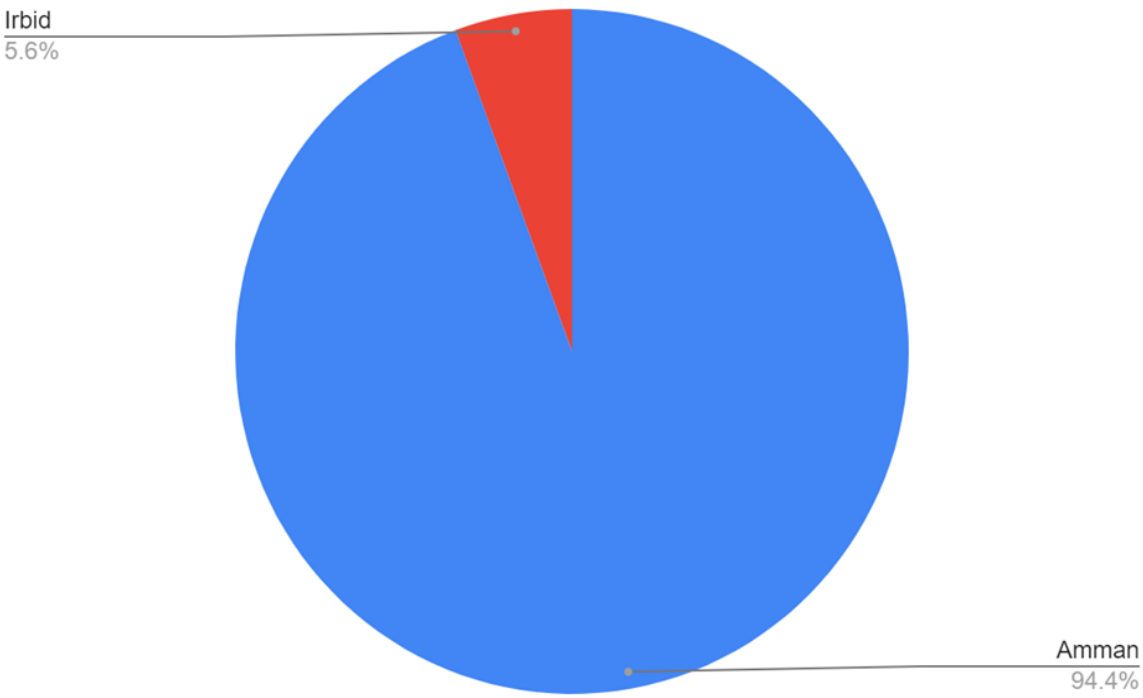


Figure 1b – User Location among Unpaid Users

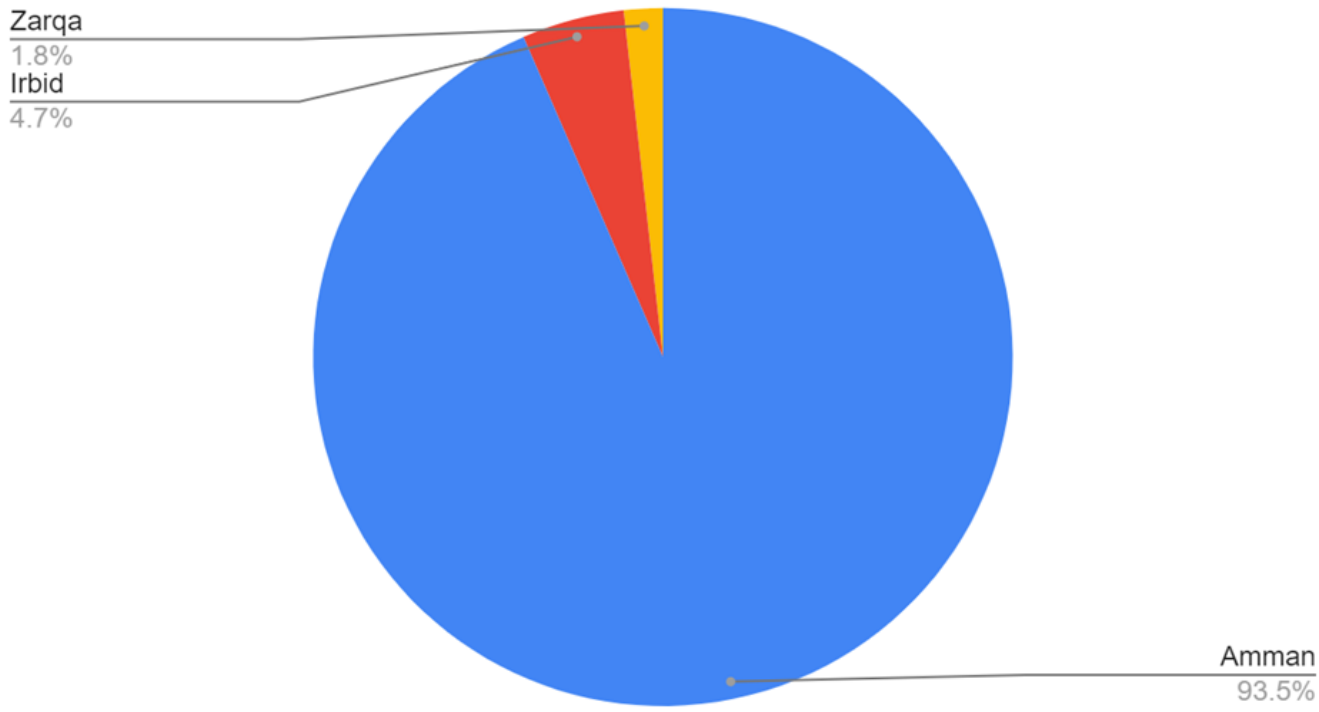


Figure 2a–Skills Profile among Paid Users

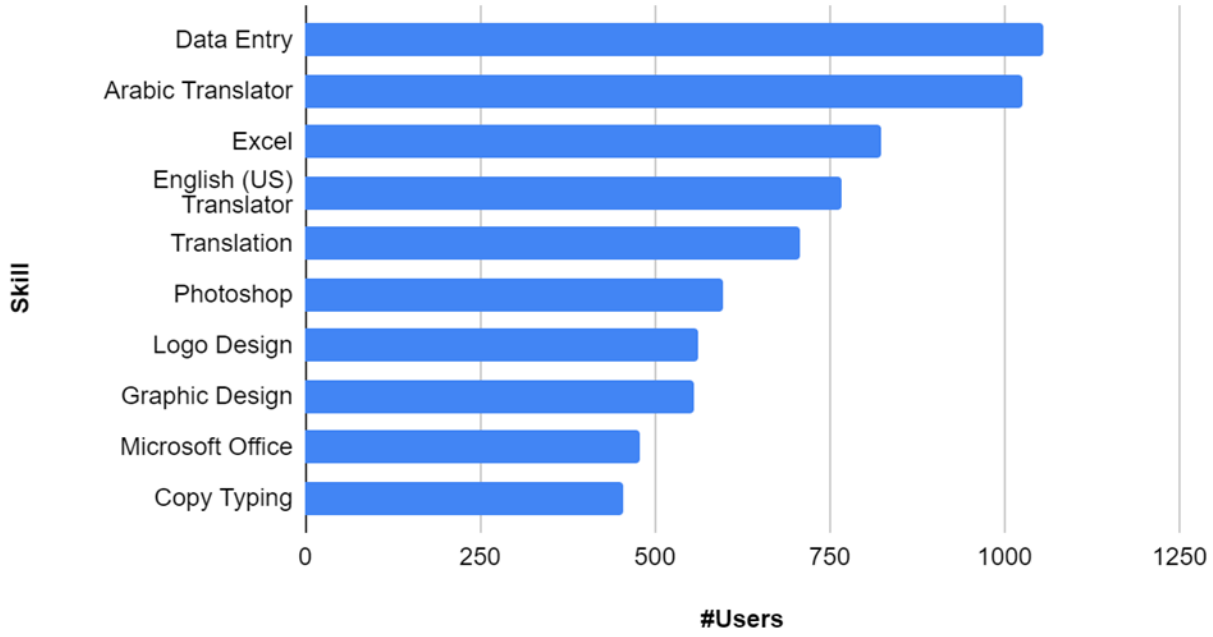


Figure 2b–Skills Profile among Unpaid Users

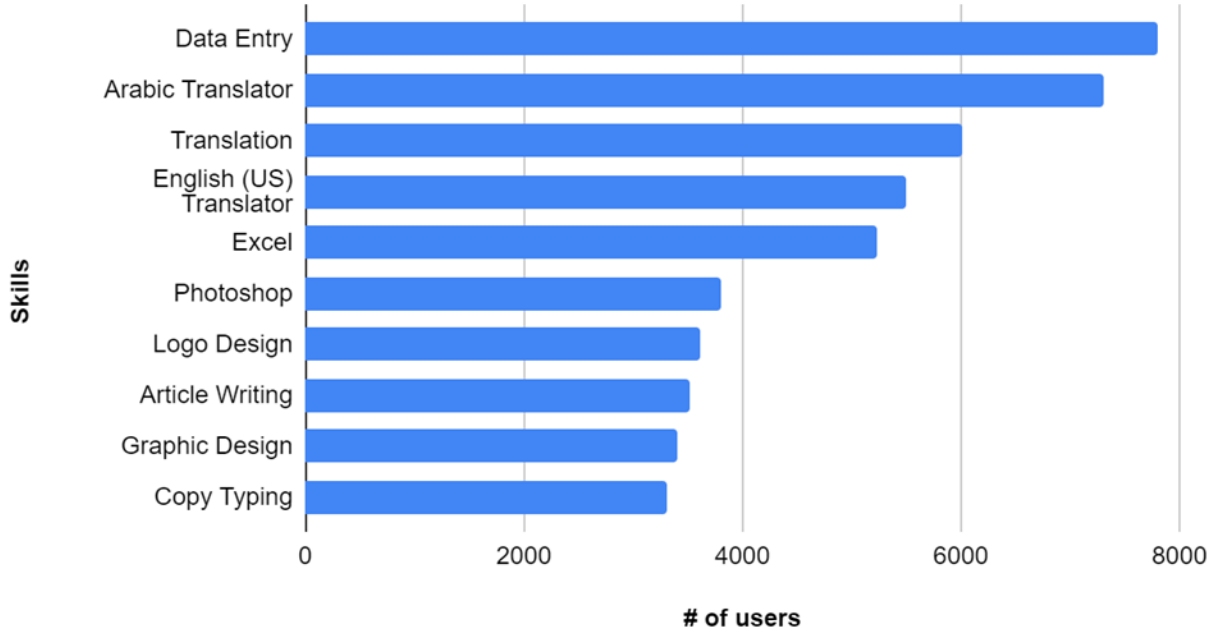
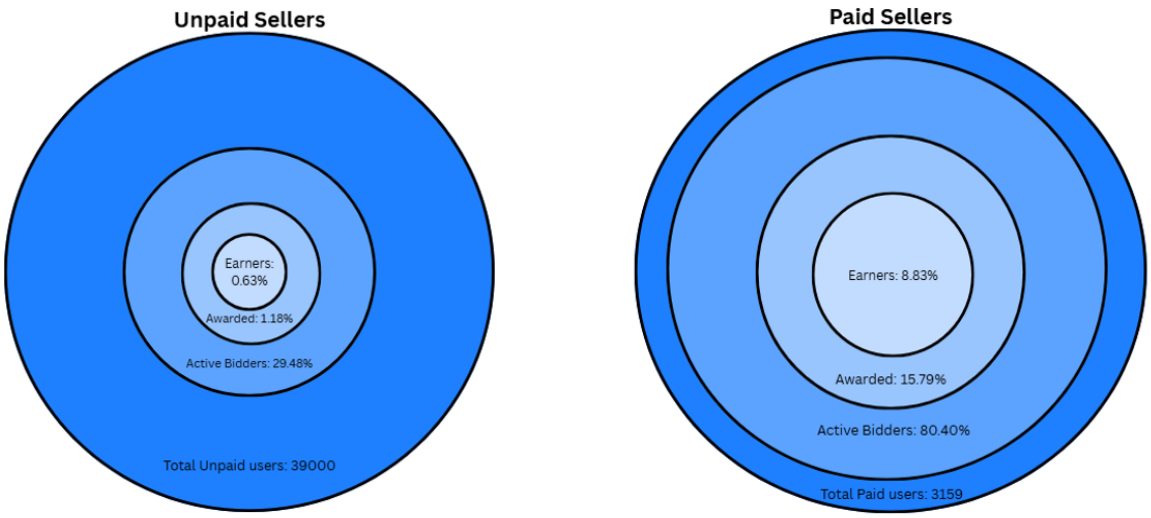


Figure 3 – Share of Bidders, Awarded Users, and Earners among Paid and Unpaid Users

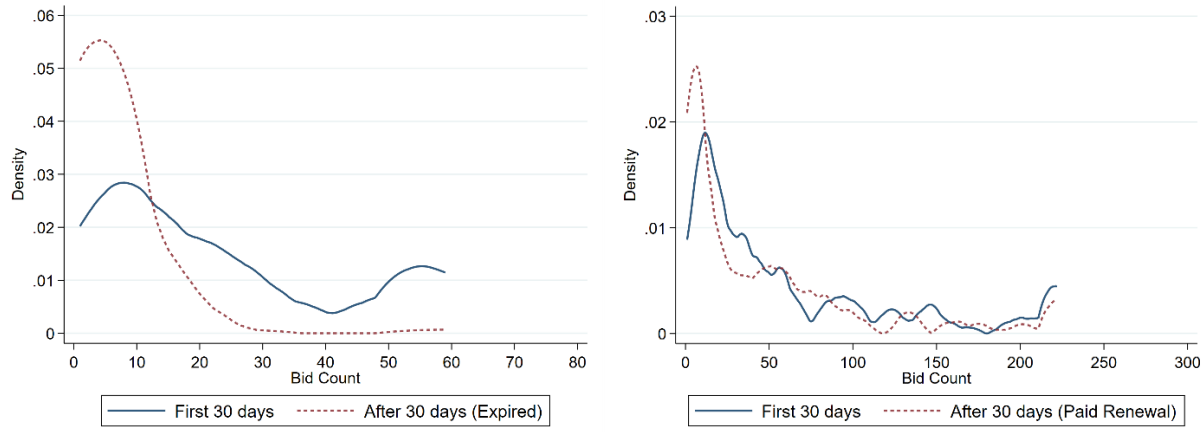


The behavioral differences between paid and unpaid users, however, are striking (Figure 3). Approximately 80% of paid users (2,540 individuals) submitted at least one bid, compared to just under 30% of unpaid users (11,607 individuals). While the wide gap in bid behavior provides suggestive evidence that reducing entry costs may boost platform engagement and participation, it does not guarantee success. Just 499 users, about 20% of active bidders and 16% of all paid users—were awarded any contract, and only 279 users (11% of active bidders and 9% of all paid users) completed a project and earned income. In contrast, only 4% (1%) of unpaid bidders (users) received any project, and just 2.1% (0.6%) accrued earnings. These figures suggest that although membership reduces entry barriers and increases platform engagement, other frictions—informational, logistical, or psychological—may still constrain users' success.

To assess the importance of membership subscriptions, we analyzed aggregate platform data on bidding activity and project awards for paid and unpaid users. Active paid users placed a total of 291,900 bids—an average of 115 bids per user—compared to just 77,518 bids in total (7 bids per user) among active unpaid users. These stark differences suggest that, even among users with similar profiles, membership status is strongly correlated with job search activity, likely due to the higher bidding limits available to paid members. Among paid (unpaid) users, 6,451 (1,093) of the 291,900 (77,518) bids were awarded projects. This implies that the success rate for all users is approximately 2%, i.e. 7,544 awarded projects/369,418 total bids. This implies that, on average, at least 50 bids are required to secure one successful contract per month, underscoring the importance of having at least a “Basic” membership subscription.

A natural concern is that paid users are positively selected (more motivated, experienced, or digitally literate) and thus inherently more active. As such, some of the observed differences may reflect selection rather than causal effects. To address this, we compare outcomes for users who renewed their membership versus those who allowed it to lapse, tracking their search behavior during the initial 30-day trial and the subsequent 30-day post-trial period. Figure 4 depicts the distribution of the number of bids for these two groups of users.

Figure 4 – Distribution of Bids among Unpaid users with expired free membership (left) and Paid users that renewed membership (right)



For active users who did not renew their membership, the average bid count dropped steeply from 26.7 bids during the 30-day free trial period to just 5.7 bids in the subsequent 30-day post-trial period. Notably, this average is just very close to the permissible limit of 6 bids covered in the unpaid subscription.[2] This massive decline in intensity is associated with a sharp drop in outcomes: during the trial period, 6 users secured 13 total projects and earned money, but they secured zero in the following month. This suggests that many users are effectively forced off the platform due to the financial constraint before they can overcome the high learning curve. In contrast, while it is true that those who renewed their membership are a positively selected group (with an average of 57.4 bids while the non-renewals have an average of 26.7 bids), they were able to maintain their bid intensity (58.9 bids during the 30-day post-trial period) and earn money on more projects: 47 users earned money on 129 projects during the trial, increasing to 54 users and 240 projects the following month. This indicates that even among the most successful users, persistence (i.e., time on the platform) is key to realizing maximum returns. Thus, our intervention targets the many

[2] It is worth noting that there are a few ways that users can exceed the monthly limit of 6 bids per month. Since our period covers all of those who registered between 2000 and 2024, it is relevant that the bid limit for unpaid users was 8 bids per month prior to the year 2007. Moreover, if users are immediately active, they will be able to get their bids replenished, such that one bid is replenished every 5 days; this is an important addition since this will increase bid count without making any payments. If users run out of bid packs, they may also purchase bid packs ($1 for 5 additional bids). Lastly, if they are awarded a project, they can earn Freelancer Rewards and Credits, which can be used to get more bids. These last two options are quite rare, since they involve making a payment or being awarded a project very early on.

jobseekers who may have the underlying ability but are currently cut off by the financial barrier before they can achieve the necessary duration for success.

Our cross-randomization design allows us to test precisely this possibility. By comparing outcomes among those who receive only the membership subsidy versus those who receive both the subsidy and mentorship support, we can assess whether combining cost-reduction with information and guidance improves not just participation but actual earnings and success rates. In doing so, we test whether bundled interventions are more effective than standalone subsidies in addressing the broader constraints facing jobseekers in digital labor markets.

4. Research Design

a. Objectives and hypotheses

The primary objective of this paper is to experimentally quantify the impact of reducing entry barriers—via a free membership subscription to an online freelancing platform—on platform engagement, job search intensity, and labor market outcomes of young men and women in Jordan. We are running this experiment in collaboration with Freelancer, a global freelancing firm.

This work builds on an ongoing randomized controlled trial (Adnan, Sangwan, & Abdelfattah, 2025), which assigned 2,400 Jordanian jobseekers from Amman, Irbid, and Zarqa to two treatment arms—information on how to access the platform (T1) and information plus mentoring (T2)—and a control group. In that study, our discussions with platform officials and high-earning Jordanian freelancers revealed that most users remain on the free plan even though all new users receive a complimentary one-month Plus membership.

A "Plus" membership on the platform unlocks several key features that may meaningfully affect job search behavior and outcomes.

1. **More bids, higher chances**: A "Plus" membership increases the number of bids a jobseeker can place—from 6 to 100 per month. Using administrative data of Jordanian users from the freelancing platform, we find that at least 50 bids are required for one successful bid conversion per month. This estimate is derived from the success rate (number of projects awarded divided by number of bids made) of current Jordanian users (including both paid and unpaid membership accounts). Therefore, we expect a higher success rate from the increased access to bids.
2. **Enhanced matching on listed skills**: It allows users to list up to 80 skills (vs. 20 for non-members). As the matching for potential jobs is based on these listed key skills, the potential pool of employers increases.
3. **Notifications of new projects**: It allows freelancers to follow up to ten employers for task notifications and earn badges that signal experience and boost credibility on the platform.

Despite these features, experienced freelancers emphasized that one month was insufficient to fully navigate the platform, learn bidding strategies, and begin seeing returns.

Drawing on these insights, the current study introduces a cross-randomized design: within each prior treatment group (T1 and T2), half of participants are randomly assigned to receive the Plus membership subscription. Since the platform offers one-month free membership to all new users, our intervention allows us to test whether extending membership from one to two months—and pairing it with mentoring—improves platform engagement, labor market outcomes, and re-subscription rates. For new users, the second month follows immediately after the platform's free month; for existing users, who have already exhausted their initial free trial month, we provide one month of membership during the study period. The design thus enables three comparisons: the direct effect of reducing search costs, the interaction effect with mentoring, and whether two consecutive free months outperform a spaced model in promoting retention.

We measure the direct effect of cost reduction by comparing subsidized and unsubsidized individuals within the T1 (Information Only) and T2 (Information + Mentorship) groups, which allows us to isolate the causal effect of removing the financial barrier, conditional on the user's initial level of support. We expect the membership subsidy to improve engagement, job search intensity and labor market outcomes—such as the registration rate, the number of bids, and contracts awarded—by reducing monetary barriers and enhancing platform functionality. More broadly, membership may reduce information frictions by improving users' ability to locate, assess, and pursue viable jobs. However, the intervention does not address opportunity costs (e.g., time spent searching) or psychological frictions (e.g., fear of rejection, fatigue or discouragement from repeated failures). It is therefore an open empirical question whether improved access also amplifies these non-monetary costs, especially among first-time users or those with limited digital confidence.

The cross-randomization design—comparing the effects of this subsidy across the T1 (Information Only) and T2 (Information + Mentorship) groups—lies at the core of our identification strategy. This comparison allows us to test whether the returns to lowering financial barriers are amplified when informational and psychological constraints are simultaneously addressed through mentorship.

During the mentorship sessions, experienced freelancers guided participants step-by-step through the platform's functioning—from registration and profile building to crafting persuasive bids and managing client communication. Mentors also shared strategies for coping with the high rejection rates typical of early-stage users, sustaining motivation, and managing workload stress. These discussions are directly relevant to how jobseekers internalize and effectively leverage the reduced search costs offered by the Plus membership.

Thus, we hypothesize that participants in the mentorship treatment arm will be more receptive to the membership subsidy, as they have been trained in best practices for bidding, are aware of

common pitfalls (e.g., low wages, high rejection rates), and may have received targeted vacancy recommendations that boost confidence and persistence (Field et al., 2023). Since some time has elapsed since the mentorship intervention was delivered, its impact may have diminished by the time the new treatment is introduced. To address this, we will send a reminder to all respondents in the mentoring group in the form of a WhatsApp message. This message will recap the key tips from the mentoring sessions and include supplementary self-help materials that were originally shared as part of the intervention. We expect this reminder to reinforce the salience of the mentorship treatment and strengthen its continued impact on treated respondents.

b. Main outcomes of interest

Our outcome variables are structured to capture the intervention's impact across three dimensions: platform engagement, long-run labor market outcomes, and underlying behavioral mechanisms. Primary outcomes focus on platform engagement, capturing the immediate effect on the extensive margin (platform registration rates and bidding rates) and the intensive margin (bidding intensity). Search intensity measures derived from platform data include the number of bids placed, contests entered, and employers followed.

Secondary outcomes allow us to assess the long-run effects of the intervention. First, we estimate the impact on on-platform employment success, which is measured directly by the number of projects awarded, total earnings accrued, the number of contests won, and the employer ratings of the workers; these capture the direct returns to the subsidy. Second, we measure long-term financial commitment through the rate of paid subscription renewal (membership extensions) after the subsidy period ends, suggesting greater attachment to the online labor market and finding it a suitable and potentially long-lasting work environment. Third, to assess how platform experience translates to broader labor market success, we track key off-platform metrics including wages, days/hours worked, and whether the experience on the platform enabled workers to search more intensely and/or land jobs completely unrelated to the platform.

Beyond these measurable labor market effects, we collect data on several metrics to understand psychological and behavioral mechanisms and potential trade-offs. This includes tracking mental health indicators such as self-reported measures of stress and fatigue to assess potential psychological costs associated with higher platform engagement. We hypothesize these costs will be relatively mitigated among mentored participants, as their training better prepares them for handling rejection and disputes.

We also document changes in jobseekers' attitudes and beliefs about the labor market, including the perceived importance and prestige of formal sector jobs versus freelancing, and what they believe is required to build a successful career. A critical behavioral metric is the reservation wage. Our survey instrument enables us to document the changes in the reservation wage (between baseline and follow-up) for three job types—in-person (formal, informal, public sector) and freelancing—to gauge shifts in job preferences. We hypothesize that successful engagement will

lead to a decrease in the perceived prestige of formal in-person jobs, potentially resulting in higher reservation wages for those roles, while the reservation wage for freelancing remains comparatively low for those who choose to persist.

Finally, we analyze intermediate outcomes such as changes in purchases and investments in upskilling, which may reflect increased confidence or income derived from the platform.

c. Testable hypotheses

Primary hypotheses: We expect to test the following hypotheses.

Impact of Membership Subscription on Platform Registration:

Hypothesis 1: Among users who got only information but no mentoring, those who receive two months of free membership will exhibit higher registration rates compared to those who did not receive the free membership.

Hypothesis 2: Among users who got information and mentoring, those who receive two months of free membership will exhibit higher registration rates compared to those who did not receive the free membership.

Hypothesis 3: Among users who get free membership, those who received two months of free membership with mentoring will outperform treated users with only membership access without mentoring.

Impact of Membership Subscription on Engagement on the Freelancer Platform:

Hypothesis 4: Among users who got only information but no mentoring, those who receive two months of free membership will demonstrate increased engagement and higher job search intensity on the Freelancer platform, as measured by the placement of bids, number of bids placed, number of contests entered, number of employers followed.

Hypothesis 5: Among users who got information and mentoring, those who receive two months of free membership will demonstrate increased engagement and higher job search intensity on the Freelancer platform, as measured by the placement of bids, number of bids placed, number of contests entered, number of employers followed.

Hypothesis 6: Among users who get free membership, those who received two months of free membership with mentoring will outperform treated users without mentoring membership access.

Secondary hypotheses: We also expect to test the following secondary hypotheses.

Impact of Membership Subscription on Membership Status:

Hypothesis 1: Among users who got only information but no mentoring, those who receive two months of free membership will demonstrate increased subscription to paid memberships.

Hypothesis 2: Among users who got information and mentoring, those who receive two months of free membership will demonstrate increased subscription to paid memberships.

Hypothesis 3: Among users who get free membership, those who received two months of free membership with mentoring will outperform treated users without mentoring.

Impact of Membership Subscription on Jobs on the Freelancer Platform:

Hypothesis 4: Among users who got only information but no mentoring, those who receive two months of free membership will have a higher likelihood of being employed on projects and thereby accumulate higher earnings from employment on the platform compared to those who don't get the membership.

Hypothesis 5: Among users who got information and mentoring, those who receive two months of free membership will have a higher likelihood of being employed on projects and thereby accumulate higher earnings from employment on the platform compared to those who don't get the free membership.

Hypothesis 6: Among treated users who get free membership, those who received mentoring will outperform treated users without mentoring.

Impact of Membership Subscription on Employment Outcomes (off-platform):

Hypothesis 7: Among users who got only information but no mentoring, those who receive two months of free membership will have a higher likelihood of being employed and thereby accumulate higher earnings from employment off-platform compared to those who don't get the free membership.

Hypothesis 8: Among users who got information and mentoring, those who receive two consecutive months of free membership will have a higher likelihood of being employed and thereby accumulate higher earnings from employment off-platform compared to those who don't get the free membership.

Hypothesis 9: Among users who get free membership, those who received mentoring will outperform treated users without mentoring.

Impact of Membership Subscription on Mental Health and Beliefs:

Hypothesis 7: Among users who get free membership, those who received mentoring will outperform treated users without mentoring.

Heterogeneity analysis by Gender, English proficiency, Social Class and Family Background:

Hypothesis 8: The impact on employment status and platform engagement may differ by gender (between men and women). In line with the literature, women place more value on opportunities for flexible jobs (and jobs with lower commutes) and may be more willing to spend time and effort searching for jobs on the platform. Drawing on Cortes et al. (2023), gender differences in risk preferences and expectations provide a theoretical basis for why subsidizing platform access could shrink gender gaps.[3]

Hypothesis 9: The impact on employment status and platform engagement will disproportionately benefit those of a lower social class (father/parental education) and modest family background (father's occupation/sector of employment). This is because jobseekers from lower income groups, absent guaranteeing a job, may not be willing to pay for a subscription.

Hypothesis 10: The impact on employment status and platform engagement will differ by English language proficiency. English speakers may benefit more from the platform as they will have access to a wider variety of countries and employers. Those with limited English skills might be restricted to tasks and employers that require a lower level of English proficiency.

d. Power Analysis for primary outcome variables

Outcome 1: Impact on platform registrations

Our sample comprises 2,497 respondents from the three governorates of Amman, Irbid, and Zarqa. For platform registration, our null hypothesis is that the intervention has no effect on registration rates. The alternative hypothesis is that the intervention increases the registration rate by 3 percentage points—a conservative estimate based on the existing literature and admin data.

Basis for the Alternative Hypothesis: Based on administrative data from our previous study (Adnan, Sangwan, and Abdelfattah, 2025), platform registration rates for the initial treatment groups (T1 and T2) averaged approximately 5%, compared to 1% for the control group. We expect that offering the extended membership subsidy will increase this baseline registration rate by at least 50%—a conservative expectation given that similar interventions involving transportation

[3] In their model of job search, women's higher risk aversion leads to lower reservation wages, earlier search initiation, and faster job acceptance, whereas men's greater optimism about job offers results in higher reservation wages and slower acceptance. By lowering the cost of search and providing an extended trial period, our intervention may amplify women's relative responsiveness—encouraging greater search intensity and earlier engagement—thereby narrowing gender gaps in platform use and employment outcomes over time.

subsidies for job search have demonstrated even higher take-up rates (Franklin, 2018; Abebe et al, 2021a; Banerjee and Sequeira, 2023). Even under a very conservative scenario assuming only a 20% increase, the membership subsidy should yield a noticeable 1-percentage point increase in registration (20% of 5%=1%).

Effect Size Calculation: Of our total sample of 2,497 respondents, 1,618 respondents (64.8%) are offered registration on the platform and 879 are in the control group. Half of the respondents offered registration (809 respondents) will be offered paid membership. From the previous experiment we know about 5% of the respondent's offered registration registered on the platform; at the same time, 1% of respondents from the control group are registered on the platform.

For the 809 respondents offered registration but no paid membership:

- Count of registered users: 809*(5% registration) = 40 users.

For the 879 control group respondents (not offered registration or paid membership):

- Count of registered users: 879*(1% registration) = 8.79 ~ 9 users.

Unconditional registration rate (untreated group)= 49/1688=2.9%

For the 809 respondents offered registration along with paid membership:

- Count of registered users: 809*(5%) = 40 users
- Additional registered users from paid membership: 809*(1%) = 8 users

Unconditional registration rate (treatment group)= 48/809=5.9%

Treatment Effect size: 5.9% – 2.9% = 3 percentage points.

Power Estimation: Using the calculated effect size, the required sample size for 80% power at a 5% significance level is 733 respondents per arm. Our sample well exceeds this.

Outcome 2: Extensive Margin Engagement on the platform (Placement of bids)

Our sample comprises 2,497 respondents from the three governorates of Amman, Irbid, and Zarqa. For platform engagement, our null hypothesis is that the intervention has no effect on bidding activity. The alternative hypothesis is that the intervention increases the bidding rate by 3 percentage points—a conservative estimate based on platform data.

Basis for the Alternative Hypothesis: Using administrative data from Freelancer for the three study regions (2000–2024), we find the following bidding rates among unpaid users and paid users:

- Unpaid users: ~30% have placed at least one bid.
- Paid members: ~80% have placed at least one bid.

We treat these bidding rates as lower-bound estimates. Note that while power calculations only account for bidding activity, the platform also offers "contests," where freelancers compete for prize-based projects without formal job offers. While contests do not yield earnings or reviews for most participants, high-quality submissions often lead to future work through employer follow-up.

From the admin data, we also know that about 7.5% of the users on the platform bought paid membership while the remaining 92.5% were unpaid users.

Effect Size Calculation: Of our total sample of 2,497 respondents, 1,618 respondents (64.8%) are offered registration on the platform and 879 are in the control group. Half of the respondents offered registration (809 respondents) will be offered paid membership. From the previous experiment we know about 5% of the respondent's offered registration registered on the platform. This becomes a lower bound on the expected registration rate on the platform. Assuming a 5% take-up rate, about 40 treated respondents will use two months of free membership – either consecutive or spaced out. And from the control group 1% of respondents also registered on the platform.

For the 809 respondents offered registration but no paid membership:

- Count of bidders: 809*(5% take-up) * ((0.30 × 92.5%) + (0.80 × 7.5%)) = 13.65 bidders.

For the 879 control group respondents (not offered registration or paid membership):

- Count of bidders: 879*(1% take-up) * ((0.30 × 92.5%) + (0.80 × 7.5%)) = 2.97 bidders.

Unconditional Bidding rate (untreated group)= 16.62/1688=0.98%

For the 809 respondents offered registration along with paid membership:

- Count of bidders: 809*(5% take-up) * (0.80) = 32.36 bidders

Unconditional Bidding rate (treatment group)= 32.36/809=4%

Treatment Effect size: 4% – 0.98% = 3.02 percentage points.

Power Estimation: Using the calculated effect size, the required sample size for 80% power at a 5% significance level is 417 respondents per arm. Our sample well exceeds this. For the bidding rate conditional on registration on the platform we are sufficiently powered as the treatment effect size is about 46 percentage points, requiring only 17 respondents per arm. Thus, the study is sufficiently powered to detect both the unconditional and the conditional treatment effects on bidding.

Outcome 3: Intensive Margin Engagement on the platform (Number of bids placed)

For bids count, our null hypothesis is that the intervention has no effect on bidding activity. The alternative hypothesis is that the intervention results in 4.45 additional bids.

Basis for the Alternative Hypothesis: Using administrative data from Freelancer for the three study regions (2000–2024), we find the following bidding counts among unpaid users and paid users:

- Unpaid users: an average of 7 bids per active user
- Paid members: an average of 115 bids per active user

From the estimation from the previous hypothesis, we have that the (unconditional) bidding rate in the treatment group is about 4% and 0.98% in the group not offered paid membership. From the admin data, we also know that about 7.5% of the users on the platform bought paid membership while the remaining 92.5% were unpaid users. We use an estimate of standard deviation of 4.81 from the raw bidding data of the users registered on the platform in 2024 from the three study regions.

Effect Size Calculation:

For the 1688 respondents not offered paid membership:

- Count of bids: 1688*(0.98% active) * ((7 × 92.5%) + (115× 7.5%)) = 249.79 bids.

  Avg. bids=249.79/1688=0.148

For the 809 respondents offered paid membership:

- Count of bids: 809*(4% active) * (115) = 3721.4 bids
  Avg bids=3721.4/809=4.6

Treatment Effect size: 4.6 – 0.148 = 4.452 bids.

Power Estimation: Using the calculated effect size, the required sample size for 80% power at a 5% significance level is 20 respondents per arm. Even if we were to consider an even higher standard deviation of 30, the required sample size would be 714 respondents per arm. Our sample well exceeds this. Thus, the study is sufficiently powered to detect treatment effects on number of bids.

Thus, the study is sufficiently powered to detect treatment effects on bidding (extensive and intensive margin) but not on projects awarded. Due to data limitations, we cannot yet compute the minimum detectable effect size for all platform engagement outcomes, but our assumptions suggest adequate power for the primary measures of platform engagement.

e. Sampling

The team conducted face-to-face interviews with Jordanian men and women aged 18 to 34 years who were actively looking for work. The targeted sample size for the study was 2,497 interviews (as per the budget limitations). It was distributed among the targeted governorates of Amman, Irbid, and Zarqa based on the actual population distribution as per the Department of Statistics (DOS, 2023) for the age group under study of 18-34 years. Following the stratification as per the population of the three regions of interest, 1,331 interviews were allocated to Amman Governorate, 685 to Irbid Governorate, and 481 to Zarqa governorate. This sample produces a margin of error of 2.0% for all three governorates, and less than 5% in each governorate at a 95% confidence level and a 50% prevalence level.

Each governorate was considered a separate stratum, so stratified random sampling was used as follows:

Stage 1: Distributing the sample size allocated to the governorate (stratum) across its sub-regions based on the size of the population in each sub-region.

Stage 2: Distribution of interviews in the sub-region of each governorate across gender and age groups based on the known population distribution according to DOS (2023).

Stage 3: These respondents were selected through a household sampling strategy. The strategy was to divide the number of households in each area by the sample allocated to that area to estimate the skip interval (nth) for each governorate. On average, the skip interval was 10 households. The table below (Table 3) lists the estimates used for selecting the respondent from each household.

The respondents who were unavailable at the time of the interview were re-contacted once and if they were still not available for interview, a replacement household was picked from that location.

Table 2: Recruitment of respondents

Governorate	Total number of neighborhoods	Total number of respondents	Control Group	T1 Group	T2 Group
Irbid	**37**	**685**	**234**	**216**	**235**
Zarqa	**27**	**481**	**161**	**157**	**163**
Amman	**74**	**1331**	**484**	**412**	**435**
Summary	**138**	**2497**	**879**	**785**	**833**

During the baseline survey, we were able to survey 2,497 of the target respondents from 138 neighborhoods.

f. Methodology & Intervention

This study employs a randomized controlled trial (RCT) to evaluate the impact of providing free membership subscription on the labor market outcomes and platform engagement of young men and women in Jordan.

The current experiment performs a cross-randomization method, building on a previous experiment, where over 2400 job seekers were randomly allocated to two treatment groups and one control group. In the first treatment group (T1), jobseekers were provided information about platform access and in the second treatment group (T2), jobseekers received the same intervention as those in T1 as well as a mentoring intervention. As is customary, the control group did not undergo any intervention.

In the current experiment, half of the jobseekers in T1 and half of those in T2 are randomly selected to receive paid membership subscriptions. As is the case with the previous study, our sample is restricted to (employed and unemployed) young adults in Jordan who are interested in improving their employment prospects.

We have conducted balance checks on the observed characteristics of our respondents and confirm that the randomization was carried out successfully with no significant differences across the initial three treatment arms.

As a next step we have split these three treatment arms from our previous study into five treatment arms as follows:

1. Treatment 1 (Info): Only information about access to the platform.
2. Treatment 2 (InfoSubs): Information about access to the platform + One-month paid subscription.
3. Treatment 3 (InfoMent): Access to the platform + mentorship sessions.
4. Treatment 4 (InfoMentSubs): Access to the platform + mentorship sessions + One-month paid subscription.
5. Control group (C): No intervention

Here, groups *Info* and *InfoMent* are the same as the previous study and neither gets the free subscription of the membership for the second month. We will refer to them as the "*NoMem*" group. The groups *InfoSubs* and *InfoMentSubs* get the free subscription of the membership for the second month and will be referred as the "*Mem*" group. Control group is the same as the previous study. For details on the treatment in the previous study, please refer to Appendix A.

Assignment to treatment arms- We will randomly assign the treatment at the individual level. Randomization will be done using a computer-generated random number sequence to ensure that the assignment is both random and unbiased. Table 3 depicts the intended assignment to the five treatment arms.

Table 3: Assignment of respondents to treatment

Governorate	**Total respondents**	**Control group (C)**	**Treatment (without membership) - NoMem N=809**		**Treatment (with membership) - Mem N=809**	
			Info	**InfoMent**	**InfoSubs**	**InfoMentSubs**
Irbid	685	234	108	117	108	118
Zarqa	481	161	78	82	79	81
Amman	1331	484	206	218	206	217
Total	**2497**	**879**	**392**	**417**	**393**	**416**

5. Analysis

a) Statistical model

To causally estimate the impact of reducing the job search costs on the platform job search outcomes, we use a standard ANCOVA specification as follows:

For the overall treatment: $Y_i = \alpha + \mu_1 \, Mem_i + \Omega Y_{0i} + X_i + \varepsilon_i$ (1)

For the type of treatment:

$$Y_i = \alpha + \beta_1 \, Info_i + \beta_2 \, InfoSubs_i + \beta_3 \, InfoMent_i + \beta_4 \, InfoMentSubs_i + \theta Y_{0i} + X_i + \varepsilon_i \quad (2)$$

where Y_i is the job search outcomes of individual i at the Endline (registration on the platform, number of bids placed, number of bids won, value of bids won, number of contests entered, number of contests won, number of employers followed, employer ratings of the workers, and membership extensions); Mem_i is an indicator for treatment with the second month of free subscription, $Info_i$ is an indicator for only information treatment, $InfoSubs_i$ is an indicator for information with subscription treatment, $InfoMent_i$ is an indicator for information with mentoring treatment, and $InfoMentSubs_i$ is an indicator for information with mentoring and subscription treatment. Y_{0i} is the baseline employment status of individual i, X_i are a set of baseline characteristics for individual i and ε_i is the idiosyncratic error term. In the first overall specification, we are interested in the coefficients on Mem_i (μ_1) to assess the advantage of free one-month membership. We further explore the type of treatment in the second specification where we are interested in comparing the coefficients on $Info_i$ and $InfoSubs_i$ (β_1 vs β_2) and $InfoMent_i$ and $InfoMentSubs_i$ (β_3 vs β_4) to assess the advantage of free one-month membership over just information and information plus mentoring, respectively. We are also interested in comparing $InfoSubs_i$and $InfoMentSubs_i$ (β_2 vs β_4) to understand how pairing free-membership with mentorship can enhance platform activity over and above a free-membership.

For the outcome variables where we do not observe values at the baseline, e.g., the platform engagement variables and employment outcomes on the platform, we will use the OLS specification as follows:

$$Y_i = \alpha + \mu_1 \, Mem_i + X_i + \varepsilon_i$$

$$Y_i = \alpha + \beta_1 \, Info_i + \beta_2 \, InfoSubs_i + \beta_3 \, InfoMent_i + \beta_4 \, InfoMentSubs_i + X_i + \varepsilon_i$$

We use robust standard errors in all specifications.

Given that the take-up of the platform in our initial experiment was limited, we plan to additionally estimate the two-stage least squares (2SLS) Treatment-on-Treatment (TOT) effect wherein we instrument for registration on the platform by the random assignment to treatment. This allows us to causally substantiate the estimates from our baseline specification.

The analysis will also include a descriptive summary characterizing how the complier population differs between the subsidized and non-subsidized groups. To further disentangle the extensive and intensive margin effects, we plan to utilize a methodology akin to the D-I-D framework to compare the outcomes of those offered the subsidy against the non-subsidized group, comparing behavior from the baseline period (the month prior to the subsidy) to the intervention period (the month of the subsidy). This two-way means comparison allows to precisely decompose the two margins of potential effect:

(1) Extensive Margin: We will estimate the causal effect of the subsidy on platform entry by tracking the change in registration rates between the two periods (pre-intervention and intervention

months). Specifically, we will compare the differential change in entry rates between the treatment group (offered the subsidy) and the control group (not offered the subsidy). Since the subsidy was randomized, this diff-in-diff approach identifies the extensive margin response by isolating the influx of new registrants.

(2) Intensive Margin: To isolate the impact of the subsidy on search effort and success, we focus on the subset of respondents who were already registered and active on the platform before the intervention. For this group, we will calculate the diff-in-diff in search intensity (e.g., bid frequency) and platform outcomes (e.g., projects awarded and earnings accrued) between the pre-subsidy and subsidy periods.

b) Heterogeneity Analysis

We are interested in testing for heterogeneity by Gender, English proficiency, Social Class and Family Background. We will follow a standard heterogeneity analysis on all these dimensions for the main outcome variables of platform engagement.

We will also run the heterogeneity analysis by baseline skill level to understand how it interacts with financial and informational frictions in shaping digital labor market engagement.

c) Additional Analysis

As the treatment is a bundle, to identify which specific features of the Plus membership bundle users value most, we will add a discrete choice experiment (DCE) at the endline survey. This will allow us to estimate the participants' willingness-to-pay for each feature of the Plus membership package.

As part of the current analysis, we are already estimating the average increase in total earnings among the treated respondents. For further estimating the economic returns, we will estimate the returns (actual earnings and monetary value of projects awarded to proxy for the returns) conditional on utilizing the membership and then comparing it to the cost of the membership. As we expect a learning curve and cumulative returns from joining the platform, we plan to estimate these month-wise starting from the month of intervention and cumulatively. We will also compare these net benefits to the WTP estimates from the discrete choice experiment.

There are two limitations to this estimation – (1) there may not be sufficient earnings or projects awarded in the initial months and (2) joining the platform may offer a number of non-pecuniary benefits such as skill acquisition, improved professional networks, exposure to a greater variety of global jobs, and enhanced labor market understanding. To partly address the former, we will extrapolate the bid counts from the initial months to predict expected earnings using platform metrics and compare this projected financial value directly against the cost of the Plus subscription. The latter implies that the calculated benefits represent a lower bound of the potential benefits.

From the estimation of the economic returns to the membership, we can classify the respondents to have either benefitted or not from the membership. We can then examine whether their membership renewal decisions are guided by these returns. We define a "mistake" as a case where a participant's realized net benefit during the subsidized period was clearly positive (i.e., their realized earnings exceeded the marginal membership cost), yet they chose not to renew the membership upon expiration. To identify the drivers of these apparent errors, we will test whether non-renewal mistakes are systematically correlated with demographic (gender, age, employment status), financial (liquidity constraints) or behavioral determinants at baseline as well as the self-reported WTP estimates.

d) Robustness Checks

i. Multiple outcomes and multiple hypothesis testing

We will use Michael Anderson's False Discovery Rate (FDR) q-values to address false positives from multiple hypothesis testing for the two sets of primary outcomes.

ii. Attrition

We will address selective attrition concerns in two ways: (1) entropy balancing and (2) inverse-probability weights (IPW). In entropy balancing, we construct weights that produce baseline balance among the non-attritors and then run the main outcome regressions on the non-attritors using those weights. Similarly in IPW, we use the inverse-probability weights to construct the probability of attrition and use these weights to correct for any systematic attrition and re-run the regressions.

iii. Randomization inference testing and bootstrapping

The experiment involved respondents from 138 localities randomly assigned to five treatment categories. We check the asymptotic validity of our results using two robustness checks: (1) randomization inference p-values from tests of the sharp null that the treatment had no effect and (2) wild-cluster bootstrap.

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Appendix A: Details of the previous Intervention

Control Group: No intervention.

Treatment 1 (T1): In the past, participants were provided with access to the Freelancer platform, which will allow them to search for job opportunities, place bids, quote prices, and negotiate with potential employers. At the end of the pre-treatment data collection, the respondents will be informed about Freelancer and the one-month free subscription on the platform for new users. They will then be asked whether they wanted to know more about joining the platform and the registration process. Upon consent, they will be shown a digital brochure and a short video (about 1-2 minutes in duration), which provide instructions on how to register; they will also be given a hard copy of printed instructions on the registration process. The links to the reference material used in the intervention are available in Appendix B. This was followed up with a registration link via text message on the registered mobile number of the respondents.

Treatment 2 (T2): Participants will receive the same access to the Freelancer platform as T1, but with additional access to a mentoring program. This program will feature success stories, mentoring sessions, and motivational content designed to inspire and guide participants in their freelancing careers. Stories will cover testimonies from successful freelancers who started in similar circumstances. The inaugural mentoring session will include an in-person session in each of the three governorates under study in Jordan. This will be followed by two-hours of weekend (Friday and Saturday) virtual sessions with experienced freelancers for everyone in the mentoring group (irrespective of whether they attend the in-person session or not) for a month. This will offer avenues for the mentees to inquire about how to effectively use the platform and get feedback on their Freelancer profiles. During the pre-treatment data collection, the (treated) respondents will be informed about the (in-person and online) mentoring sessions by successful mentors on the Freelancing platform. These mentors have been recruited after a thorough interview process run in collaboration with the platform. To ensure the mentors are relatable, we made sure that the mentors are Jordanian citizens who are of the same gender and age group as their mentees. In this way, the newly recruited freelancers can identify with and learn from the mentors when the latter describe their own journeys.

On the first day of the mentoring session, the respondents assigned to this treatment arm will be shown the process to onboard the Freelancer platform and how the one-month free membership is activated. For the rest of the training, they receive guidance on the profile creation and a guided explanation of the various features of the platform they can use to amplify their profile for a wider reach. During the in-person training session of 2 hours that covers various examples and anecdotal experiences of the mentors, the respondents will have time to clarify any doubts or queries. This is followed by weekly sessions, which are arranged for the respondents to have online weekly meetups with the mentors who provide feedback during the first session. In total, each respondent has access to four weekend meetups (a total of eight contact points) with their mentors. The

respondents are informed about the nature of this weekly assistance service on the day of the in-person mentoring session; they also receive reminders through WhatsApp and Freelancer one day before each session. To ensure data protection, we will create mentoring groups on the Freelancing platform and keep the engagement with the mentors there.

Appendix B: Supplementary Material

Link to the Questionnaire (in English):

https://www.dropbox.com/scl/fi/c5ftsss8v332dt7bkt95n/Questionnaire_Latest-Nov-2025-v3.pdf?rlkey=rdwar8bn7u2qu5gz5w55a1exa&dl=0

Link to the Questionnaire (in Arabic):

https://www.dropbox.com/scl/fi/sldp40oooexdjwk7ioxsa/Nov-2025_-v3-Notes.docx?rlkey=1o6ppzrjg4afe3js9vg1ko6av&dl=0

Appendix C: Data quality checks and handling missing data

Data is collected using tablets through SurveyCTO/ODK software. The software contains a set of in-built quality checks that ensure that no illogical answers are accepted. It is programmed to display an error alert if there is any issue in the entered data or a discrepancy between any answers. Moreover, we have prepared a data quality checks do-file that runs a data quality test on the responses collected from the field on a daily basis. With these checks we keep track of the number of respondents covered each day, scanning for any duplicate entries and the gender presentation from each locality.

To minimise missing data and attrition we have a protocol to try to reach the respondent through two repeat attempts, to contact the respondent. If there are missing variables, we will use the sample with missing data and run a robustness check with a balanced panel and the Inverse-Probability Weights (IPW).