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Fast-Tracked Jobs Help Asylum Seekers Integrate Faster*

Giovanni Abbiati† Erich Battistin‡ Paola Monti§ Paolo Pinotti¶

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Abstract

We evaluate a labor market integration program that fast-tracked asylum seekers into the Italian labor market through personalized job mentoring, placement assistance, and on-the-job training. Leveraging randomized assignment across reception centers and individual-level administrative records, we find effects on employment rates of 10 percentage points, or 30% over the baseline, over a 18-month period. The program also improved job quality through increased access to fixed-term and open-ended contracts. Subsidized internships were a critical pathway to transitioning participants into standard employment. Survey data indicate that these effects reflect a net increase in employment, rather than a shift from informal to formal jobs. We also document broader benefits on socioeconomic integration, including language proficiency and social networks with native Italians.

Keywords— Asylum Seekers, Job Mentoring, Labor Market Integration, Socioeconomic Integration
JEL Codes— C93, D04, F22, I38, J15, J61

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†University of Brescia, e-mail: giovanni.abbiati@unibs.it.
‡University of Maryland, CEPR, IZA and FBK-IRVAPP, e-mail: ebattist@umd.edu.
§Rodolfo Debenedetti Foundation, e-mail: paola.monti@unibocconi.it.
¶Bocconi University, Rodolfo Debenedetti Foundation, and CEPR, e-mail: paolo.pinotti@unibocconi.it.

1 Introduction

Recent years have seen a dramatic surge in refugee migration. The number of refugees and asylum seekers rose from 11 million in the early 2010s to 25 million by the end of the decade, reaching a record 36 million following the escalation of the Russia-Ukraine conflict in 2022. Europe experienced the fastest growth, with the number of refugees rising to 14 million in 2023 – one-third of the global total. Over two-thirds of these individuals are fleeing the wars in Syria and Ukraine, often arriving without a clear migration plan and facing uncertain prospects for integration.[1]

A major challenge for refugees is their limited knowledge of the host country's institutional environment, including labor market regulations, policies, and available job opportunities. This lack of knowledge can lead to skill mismatches and occupational downgrading. Administrative and bureaucratic hurdles, such as delays in obtaining work permits, often result in prolonged periods of inactivity, which can erode skills and cause psychological discouragement, further reducing the likelihood of employment (Hainmueller et al., 2016; Fasani et al., 2021). Limited proficiency in the host country's language and lack of familiarity with its culture and traditions further compound these challenges. Barriers tend to be even more severe for individuals fleeing conflict-ridden countries or other crises (see, for example, Brell et al., 2020; Fasani et al., 2022).

A growing consensus among policymakers suggests that fast-tracking asylum seekers and refugees into the labor market through personalized job coaching and matching is more effective than traditional vocational education – and, in some cases, even language instruction – for improving employment and integration prospects (Martín et al., 2016*a*,*b*; OECD, 2016; Schuettler and Caron, 2020). While language instruction remains crucial for the migrant integration, as shown among others by Sarvimäki and Hämäläinen (2016), Lochmann et al. (2019), Foged et al. (2024*b*) and Foged et al. (2024*a*), it should not be a bottleneck to

[1] Appendix Figure A1 plots, in Panel A, the number of refugee arrivals in Europe and worldwide. Panel B of the same figure shows the composition of refugee migration in Europe by area of origin.

labor market entry. Language training should be tailored to occupational needs and integrated into workplace experience, rather than relying solely on classroom-based instruction (Martín et al., 2016*a*). Additionally, preliminary skills assessments are essential to overcoming employers' reluctance to recognize foreign qualifications. Without proper certification or validation, many refugees face skill mismatches and occupational downgrading. For the same reason, job coaching and targeted matching with employers are even more critical for refugees and asylum seekers than for other unemployed workers, as they often lack the social networks and institutional knowledge needed to navigate the labor market effectively (Schuettler and Caron, 2020).

However, evidence on the effectiveness of job coaching and targeted matching remains limited and inconclusive. As noted by Martín et al. (2016*a*), there is "*a need for more systematic evaluation in terms of impact and cost-effectiveness*," largely due to the lack of comprehensive data on asylum seekers and refugees. Crucial information (such as socio-demographics, educational qualifications from origin countries, and career trajectories in host countries) is often fragmented and primarily available through small-scale surveys. Administrative data can mitigate some of these limitations by offering larger sample sizes and reducing attrition. However, they are available in only a few countries, primarily in Scandinavia, and often lack key variables such as language proficiency and broader measures of social and economic integration. This data gap limits empirical assessments of labor market integration policies and hampers policymakers' ability to design evidence-based interventions.

We evaluate the effectiveness of FORWORK (*Fostering Opportunities for Refugee WORKers*), an intervention designed to fast-track asylum seekers in Italy into the labor market through a personalized package of services, including job mentoring, placement assistance, and on-the-job training through internships subsidized by the Ministry of Labor. These elements were prioritized over traditional vocational education and language training, which nevertheless remained available to participants in need of these services. The intervention was tailored to align with each beneficiary's past work experience, skills, and aspirations,

ensuring a targeted approach to labor market integration. Participants were assigned a job mentor responsible for introducing them to the program and selecting the most appropriate bundle of job assistance services tailored to their individual needs. Unlike many other interventions, FORWORK targeted asylum seekers awaiting decisions on their applications for refugee status or international protection. As explained in Section 3, asylum seekers in Italy are legally permitted to work after a 60-day waiting period from the date of their application, yet they typically face extremely poor employment prospects. Their situation is worsened by limited integration support available in most reception centers.

This institutional context is an ideal setting to evaluate the effectiveness of job search assistance and labor market integration interventions for asylum seekers, as the baseline condition lacks structured integration services. In September 2019, we randomized eligibility for FORWORK across reception centers in Piedmont, a large region in Northern Italy. The randomization specifically targeted asylum seekers in municipalities with access to public transportation and located within the region's main metropolitan areas (the exact criteria are detailed in Section 3.3). Based on these criteria, we identified a population of $1,262$ asylum seekers housed in 260 reception centers. Half of the centers were randomly assigned to the *eligible group*, granting them access to the program, while the remaining half formed the *control group* without access to the intervention. Among asylum seekers in the eligible group, 66% joined the program, resulting in a total of 409 participants.

Participants entered the program in a staggered fashion between December 2019 and July 2021 due to delays caused by administrative backlogs and disruptions related to the COVID-19 pandemic. The likely non-random nature of these delays poses an identification challenge, as even conditional on randomized eligibility, the timing of participation may be endogenous. We address this challenge using an event-study design that exploits within-individual changes in outcomes at various leads and lags relative to the individual-specific timing of the start of FORWORK activities. In our preferred specification, asylum seekers not participating in FORWORK, regardless of their eligibility status, are used to define

the baseline outcome without FORWORK in event studies. Our results remain robust to alternative definitions of the group used to define this baseline.

Participants experienced steeper employment trajectories than non-participants in the months following their first meeting with a job mentor. We show this, in Section 6, using administrative employment records available at a daily frequency for both participants and non-participants. Specifically, after 18 months, the employment rate among participants was approximately 20 percentage points higher than it would have been otherwise, representing a 61% increase over the baseline employment rate of 33 percentage points. The positive effect emerged shortly after the initial meeting, with employment rates increasing by 10 percentage points over six months and 15 percentage points over one year.

Part of the gains can be attributed to subsidized internships (lasting 3 to 5 months), which were offered to about one-fifth of participants. If we classify these interns as non-employed for the duration of their internship, the estimated employment gain after 18 months drops to 10 percentage points, or 30% over the baseline. This estimate serves as a lower bound on the treatment effect, as some of these interns might have secured non-subsidized employment during the same period. Conversely, including subsidized internships in the employment definition could load one component of the treatment onto the final outcome, resulting in an opposite bias. To be conservative, we take the adjusted value of 10 percentage points as our preferred estimate and apply the same approach throughout the analysis.

The positive effects on participation were particularly pronounced for women. Also, participation in the program not only increased employment rates but also improved the *quality* of employment by facilitating access to more stable and structured working relationships. Specifically, when stratifying participants by gender, we find that the average employment increase reflects a smaller, less precisely estimated effect for females (about 8 to 10 percentage points after 18 months) and a larger, more precisely estimated effect for males (approximately 15 percentage points). Because baseline employment rates vary considerably by gender, the relative effect is 67% for women and 39% for men.

Turning to the *quality* of employment, we find that over an 18-month period, participants were nearly 50% more likely to hold fixed-term contracts, a substantial increase given the baseline probability of 18%. Fixed-term contracts account for approximately half of employment in our sample of asylum seekers. The relative increase in open-ended contracts is even greater, with a 65% rise over a baseline of 3%, though these estimates are less precise. However, open-ended contracts represent only one tenth of employment. Beyond contract stability, FORWORK enhances access to structured training opportunities. Participants benefit from more internships (beyond those funded through the program), which typically include formalized training, job-related education, and industry-recognized credentials. Employment gains along the job ladder also translate into a 30% increase in labor earnings after 18 months. These findings reinforce the idea that FORWORK contributes to long-term employability by improving job quality through better contract terms, professional training, and higher earnings potential.

While disentangling the effects of individual program components is inherently challenging – given that each beneficiary receives a personalized treatment with varying intensities across activities – we focus on isolating the impact of subsidized internships, as they play a key role in interpreting the overall results. We find evidence of dynamic selection into internships: participants who eventually took part in subsidized internships exhibited a clear 'Ashenfelter's dip' in their employment rates – approximately a 15 percentage point decline – in the six months preceding the start of the internship. To address this concern, we follow Arkhangelsky et al. (2021) and augment our staggered difference-in-differences design with a re-weighting scheme, constructing a synthetic control group that matches the employment trajectory of internship participants prior to treatment.

We estimate that subsidized internships increase the likelihood of transitioning to a non-subsidized job in the months immediately following the internship by approximately 10 percentage points, over and above the effect observed for program participants who did not receive an internship. This suggests that subsidized internships account for a substantial

share of the overall employment impact of the program.

We bolster the evidence from administrative data using information from two surveys that we conducted before and after the intervention – specifically, between May and September 2019 and between August and September 2021. In this case, we leverage random assignment to estimate intention-to-treat and treatment-on-the-treated effects on the outcomes of interest. Despite differences in data sources and empirical strategies, we find that the employment effect estimated from survey data closely aligns with that obtained from administrative data.

Crucially, survey data allow us to capture informal employment, which is not recorded in administrative data. Our results show that the observed increase in employment corresponds to an equivalent decline in unemployment, rather than a mere shift from informal to formal work. Thus, FORWORK is genuinely creating new job opportunities, rather than simply driving compositional changes between the informal and formal labor sectors.

In addition, the survey provides insights into other dimensions of integration, notably proficiency in Italian language and the size and composition of social networks in Italy. Participation in FORWORK enhanced language skills, increasing understanding, speaking, reading, and writing proficiency in Italian by 15 to 20 percentage points – effectively doubling baseline proficiency across all dimensions. Alongside linguistic improvements, and perhaps as a result of them, we observe greater social interactions with Italians and increased trust towards them. Specifically, the probability of meeting with Italians outside reception centers rises by 21.1 percentage points, compared to a baseline of 8.3% – a threefold increase. Similarly, the probability of trusting Italians increases by 14.5 percentage points, from a baseline of 23.4%. These findings indicate that FORWORK fosters progress in long-term socio-economic integration, not only by enhancing employability through language acquisition but also by strengthening social ties and trust within the host community.

Our findings contribute to the debate on designing active labor market policies (ALMPs) to improve economic opportunities for asylum seekers and refugees, where evidence remains relatively scarce. One key component of ALMPs for refugees is language training. Sarvimäki

and Hämäläinen (2016) find that the 1999 restructuring of ALMPs in Finland, which expanded migrant-specific training – particularly language courses – improved labor market integration. Similarly, Foged et al. (2024*b*) show that a Danish reform in the same year, aimed at improving language training for refugees, led to better labor market outcomes. Further evidence on the role of language proficiency in migrants' socio-economic integration is in Dustmann and Van Soest (2002), Dustmann and Fabbri (2003), and Lochmann et al. (2019). Another key component of ALMPs for refugees is early on-the-job training. Arendt and Bolvig (2023) leverage the rollout of an on-the-job training program combined with the country's refugee dispersal policy. While such training provides short-term employment gains, effects are transitory, and participation in the program hinders language acquisition. Battisti et al. (2019) estimate the impact of job search assistance on the employment outcomes of recently arrived refugees in Germany. They find positive employment effects over a one-year period, though estimates are imprecise due to a small sample size (400 individuals) and high attrition rates in both baseline and follow-up surveys. In contrast, our study achieves greater precision, leveraging a sample more than three times larger.

Importantly, we combine survey data with administrative data, leveraging their complementary strengths. Administrative data provide high-frequency (daily) observations on a limited set of job-related outcomes for the entire sample, while survey data allow for a broader assessment of socio-economic integration at two distinct points – before and after the intervention. This dual approach enables us to develop a more nuanced understanding of program effects by interpreting results through both sources of information, unlike previous studies that relied on a single data source. For example, 8.2% of our survey respondents are employed under informal arrangements, either based on a verbal agreement or without a formal contract. This figure is noteworthy given the limited understanding of the extent to which this specific migrant population is exposed to informal labor markets, leaving them vulnerable to exploitation and lacking legal protections. Moreover, most existing evidence on refugee labor market integration comes from policy variations in a handful of Northern Euro-

pean countries (notably Denmark; see Arendt et al., 2022; Foged et al., 2024*a*, for reviews). In contrast, our study evaluates a large-scale intervention in Southern Europe, specifically in a key entry-point country. Therefore, our findings provide novel insights into strengthening the absorption capacity of first-arrival countries, potentially reducing the need for complex and often challenging refugee relocations. Additionally, our intervention uniquely targeted asylum seekers immediately upon arrival – before they obtained refugee status or international protection – whereas previous studies have focused primarily on recognized refugees.

Our findings also have broader policy implications for both first-arrival countries and destination countries more generally. Delays and failures in integrating asylum seekers into the labor market increase the risk of their involvement in the informal economy or, in some cases, criminal activities (Bell et al., 2013; Mastrobuoni and Pinotti, 2015; Pinotti, 2017). This, in turn, can fuel native opposition to immigration, reinforcing negative perceptions and contributing to political backlash against refugee reception policies. In fact, extensive evidence shows that the so-called "European refugee crisis" of 2015–2017 played a pivotal role in the electoral success of anti-immigrant parties across Europe, such as the Northern League in Italy and Alba Dorada in Greece (Dustmann et al., 2019; Dinas et al., 2019; Bratti et al., 2020; Campo et al., 2024). Once in power, these parties have often pushed for stricter migration policies, which may further hinder the labor market integration of asylum seekers and refugees, exacerbating the very challenges that fuel opposition in the first place. Effective job assistance can break this vicious cycle by fostering integration and reducing the socio-political tensions that restrictive policies often intensify.

FORWORK stands out as a viable and scalable policy option, both in terms of cost-effectiveness and program design. We calculated the per-person cost of FORWORK by dividing total expenditures by the number of participants and, alternatively, by the number of individuals in the treatment group. The resulting costs are €3,171 per participant and €2,080 per eligible individual. Of the total expenditure, approximately 14% was allocated to regional coordination activities, 6% to subsidized internships, and the remaining 80% to

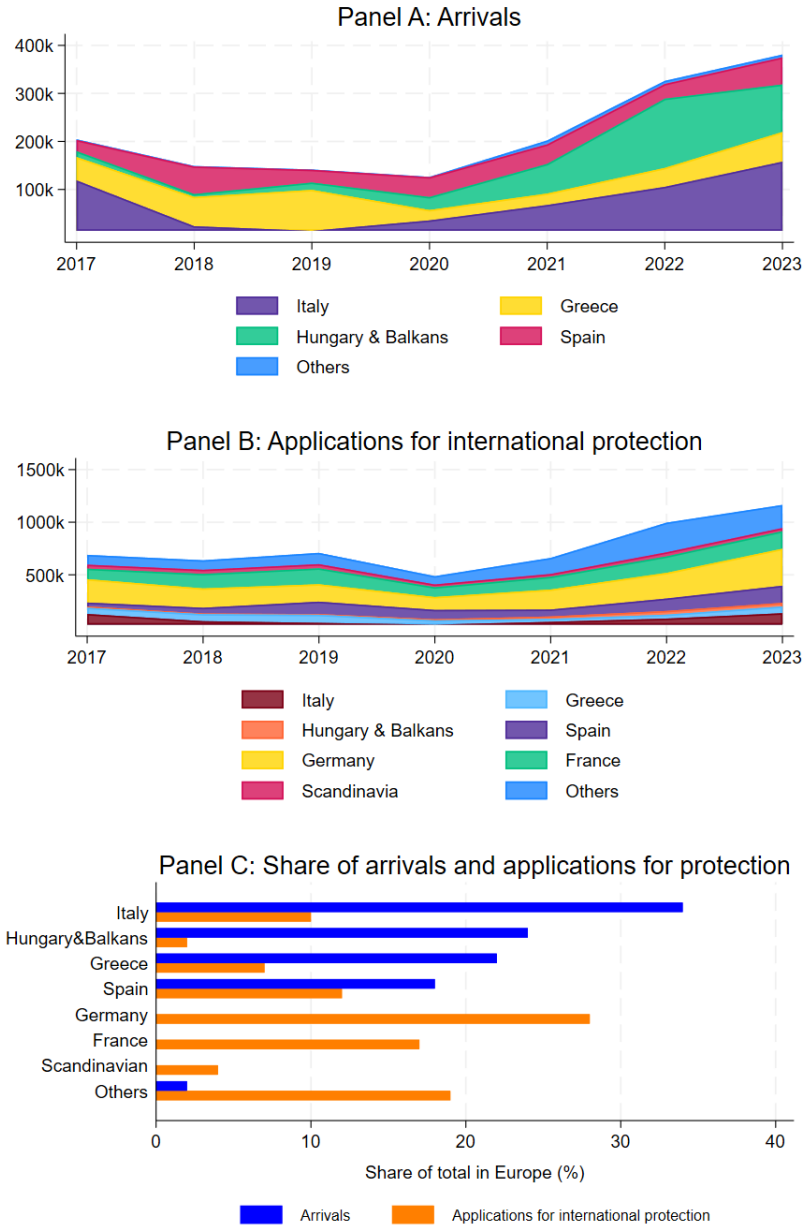
service delivery and personnel costs. This cost structure is in line with that of recent ALMPs for unemployed individuals in Italy. For example, the *Assegno di Ricollocazione* – a voucher scheme for jobseekers receiving unemployment benefits for more than four months – provided payments to public or private employment service providers ranging from €250 to €5,000, depending on the type of contract obtained and the employability profile of the jobseeker. More recently, the *Garanzia di Occupabilità dei Lavoratori* program, funded through the National Recovery and Resilience Plan (PNRR), supports jobseekers by offering a package of personalized support services, including individual profiling, career guidance, job matching assistance, and short-term training programs. The estimated per-person cost ranges between €2,000 and €5,000 for individuals with low employability.

The remainder of the paper is organized as follows. Section 2 describes the institutional background. Section 3 describes the FORWORK initiative. Section 4 presents the research design, and descriptive statistics are presented in Section 5. Section 6 presents the effects on labor market integration estimated from administrative data, whereas Section 7 considers other dimensions of social integration available from the survey data. Section 8 concludes.

2 Institutional Background

Most asylum seekers reach Europe through Italy and Greece. According to data from Frontex, the EU agency responsible for border management (Kalkman, 2021), between 2009 and 2021 Italy received about one-third of all arrivals in Europe (870 thousand people). The number of arrivals in Greece was significantly higher, with over 1.6 million arrivals in the same period. However, most arrivals to Greece (about 70%) were concentrated within a short period of time – between 2015 and 2016 – while Italy witnessed a more continuous flow over the years. After the March 2016 agreement between the EU and Turkey for the control of irregular crossings through the Aegean Sea, Italy became the main entry port into Europe for migrants.

Figure 1: Asylum arrivals and applications by country in Europe (2017–2023)



Notes: Panels A and B show, respectively, the number of asylum seekers arriving in the main destination countries in Europe and the number of applications for international protection submitted in each country from 2017 to 2023. Panel C presents the share of total arrivals and applications submitted in each country over the entire period. Data on arrivals are sourced from *Frontex Europe*, while data on applications for international protection come from *Eurostat*.

Most asylum seekers arriving to Italy and Greece tend to move to other European countries, such as Germany and France. Figure 1 shows that the number of applications for international protection submitted in Italy remains relatively low, accounting for just over 10% of all applications submitted to EU countries during the period 2017-2023, compared to about 20% for France and 27% for Germany. A key factor behind this gap between arrivals and applications in Italy compared to other major European economies – and more broadly between Southern and Northern Europe – may be differences in socio-economic integration opportunities. For example, a variety of integration programs are offered in Germany, including language courses, training, and counseling (Rietig, 2016; Brücker et al., 2019). In contrast, only a small proportion of asylum seekers in Italy participate in similar programs.

The Italian reception system consists of various centers and authorities. When migrants are rescued at sea or enter the country irregularly, they are first taken to emergency centers near the main entry points. These centers conduct pre-identification procedures and collect applications for international protection. After this initial stage, migrants are assigned to centers across all regions, where a local commission reviews their cases and determines whether to grant refugee status or other forms of international protection. Refugee status is granted to individuals who meet the 1951 Geneva Convention's definition of a refugee – those with a well-founded fear of persecution based on religion, race, political opinion, nationality, or membership in a particular social group. Those who do not qualify as refugees but face serious harm if returned to their home country may receive subsidiary protection. Individuals facing specific risks, such as human trafficking, may be granted special protection if they do not qualify for refugee or subsidiary protection. Applicants denied international protection can appeal the decision. If the appeal is rejected, they must leave the country.

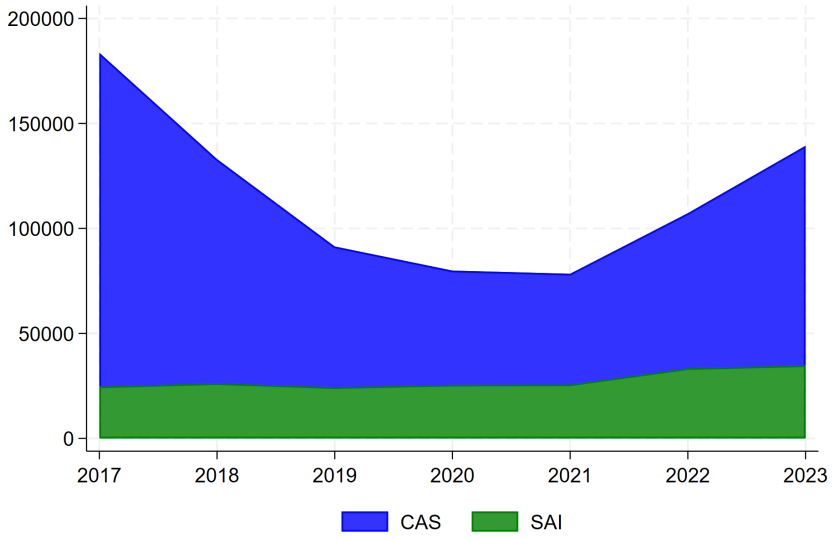
Throughout this process, which typically takes several years, asylum seekers are hosted in reception centers operating within two networks: SAI (*Sistema di Accoglienza e Integrazione*) and CAS (*Centri di Accoglienza Straordinaria*). SAI centers are funded by the Ministry of Interior through open calls submitted by municipalities on behalf of local NGOs and civic

associations. They primarily serve refugees – former asylum seekers who have already been granted international protection. In addition to shelter and food, SAI centers provide legal and administrative support, as well as socio-economic integration services such as job training and Italian language courses. In contrast, CAS centers are established by prefectures, the local branches of the Ministry of Interior, and are primarily intended for asylum seekers awaiting the outcome of their applications. They are managed by local institutions such as charities, NGOs, and cooperatives, with each institution typically overseeing multiple centers. CAS centers focus on emergency reception and basic assistance, providing accommodation, meals, and medical care; unlike SAI centers, they are not required to offer integration services.

Given their greater opportunities for socioeconomic integration, SAI centers were originally intended to be the cornerstone of Italy's reception system, while CAS centers were meant to play only a secondary role. However, the opposite has occurred. The bottom-up structure of the SAI network, which relies on municipalities and NGOs to apply for government funding, typically faces political resistance at the local level to the creation of new reception centers, particularly during migration crises. As a result, the expansion of SAI centers has been slow over the past decade, leaving the CAS network to absorb most of the system's demands. This trend is concerning, as these facilities were originally intended to provide temporary solutions. As a result, they often lack the necessary programs to support socio-economic integration, undermining long-term efforts and limiting asylum seekers' ability to engage with their host communities.

The disproportionate reliance on the CAS network is illustrated in Figure 2, which reports the number of asylum seekers and refugees accommodated in SAI and CAS centers from 2017 to 2023. Over this period, the number hosted in SAI centers remained relatively stable, rising only modestly from 25 to 35 thousand, despite significant fluctuations in migration pressures. In contrast, CAS centers absorbed the bulk of variation, hosting up to 159 thousand individuals at the peak of the refugee crisis, dropping to 53 thousand in 2021, and then rising again to 105 thousand in the wake of the war in Ukraine. On average, CAS

Figure 2: Asylum seekers and refugees in Italian reception centers by type (2017–2023)



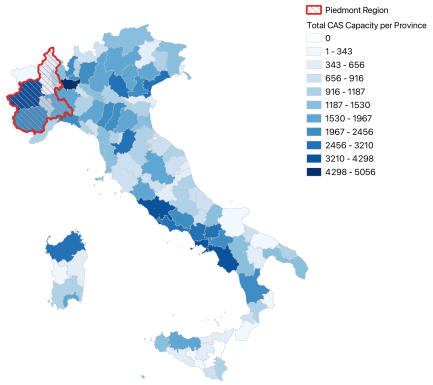
Notes: The graph shows the number of asylum seekers and refugees hosted in Italian reception centers, distinguishing between CAS (*Centri di Accoglienza Straordinaria*) and SAI (*Sistema di Accoglienza e Integrazione*). Source: *Centri d'Italia Opendata*, based on data provided by the Ministry of Interior.

centers accommodated more than three-quarters of all asylum seekers entering the Italian reception system during this period. Further insight is provided by the census of reception centers conducted by the NGO Centri d'Italia.[2] As of the end of 2022, the number of CAS and SAI centers was roughly equal - 5,474 and 5,165, respectively — implying that CAS centers are approximately three times larger on average. Still, both types of centers remain small in absolute terms, with fewer than 10% of CAS centers and less than 1% of SAI centers accommodating more than 30 asylum seekers.

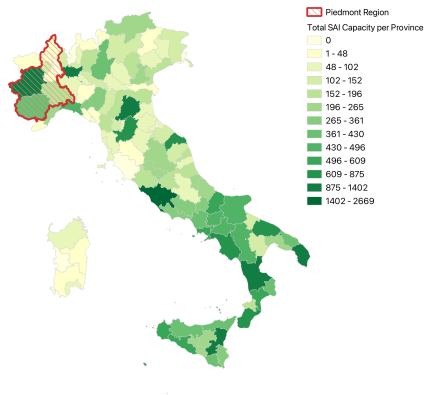
Figure 3 shows the distribution of asylum seekers hosted in CAS and SAI centers across Italian provinces. Accommodation in both types of centers is evenly spread across the national territory. This pattern remains broadly unchanged even when the figures are rescaled by province population (see Appendix Figure A2). The maps also highlight Piedmont, the region where the FORWORK intervention was implemented.

[2]The census is available at https://centriditalia.it/pages/open-data.

Figure 3: Asylum seekers hosted in CAS and SAI centers across Italian provinces



Panel A. CAS centers



Panel B. SAI centers

Notes: The maps show the distribution of asylum seekers hosted in CAS centers (Panel A) and SAI centers (Panel B) across Italian provinces. The red contour identifies Piedmont, the region targeted by FORWORK.

3 The FORWORK Initiative

3.1 Targeting Rationale

The *Fostering Opportunities for Refugee Workers* (FORWORK) program aimed to improve the labor market and social integration of asylum seekers in CAS centers through a participant-centered approach. It combined personalized support from job mentors with optional placement and training services provided by specialized organizations. Developed between 2018 and 2019, the program resulted from the collaborative effort between public and private institutions, including the Italian Ministry of Labor, the National Agency for Active Labour Market Policies (ANPAL), the agency overseeing Public Employment Services in the Piedmont Region (APL), and the Rodolfo Debenedetti Foundation. The goal of the collaboration was to design a program that incorporated internationally recognized best practices and to empirically assess its effectiveness. Funded by the European Union under the Employment and Social Innovation (EaSI) program, FORWORK was implemented between 2019 and 2022 in Piedmont, a large region in northwestern Italy, in partnership with two local not-for-profit employment service agencies, Exar Solutions and Inforcoop.

FORWORK targeted asylum seekers in CAS centers who were awaiting decisions on their applications for international protection. Under Italian law, these individuals are permitted to work after a 60-day waiting period from the date of their application. The decision to focus on CAS centers was strategic. Asylum seekers in SAI centers already have access to various support programs, such as language courses and job training, which limits the potential for additional initiatives. In contrast, CAS centers offer minimal structured services to support integration. This gap created an opportunity to pilot flexible, needs-based approaches tailored to asylum seekers. Moreover, while SAI centers provide more comprehensive services, these are typically available only at a later stage, often years after asylum seekers arrive in Italy. CAS centers, on the other hand, host individuals in the early stages of the application process, enabling early interventions at a critical point for integration.

FORWORK offered two key advantages over the standard practices in most Italian reception centers. First, it provided personalized interventions tailored to each participant's skills, needs, and aspirations, helping beneficiaries unlock their potential and pursue their goals. Second, the program emphasized frequent one-on-one interactions with various professionals, most of whom were natives. These interactions facilitated cultural integration by exposing participants to local norms, values, and social practices. Even in SAI centers, where integration programs exist, there are no clear guidelines on how these services should be structured, particularly regarding the degree of personalization or opportunities for asylum seekers to engage with Italian residents.

3.2 Activities

Individualized support was provided by professional job mentors and through a range of optional activities led by specialized professionals, including job coaches, cultural-linguistic mediators, and teachers (as summarized in Table 1). The program had a take-up rate of 66%, measured as the proportion of eligible asylum seekers who engaged with job mentors, resulting in 409 participants.

Table 1: Activities planned under the FORWORK initiative

			Take-Up		
Activity	**Provider**	**Mode of Delivery**	**Eligible**	**Participants**	**Hours**
Mentoring services	Job mentor	Individual	66%	100%	11.3
Placement services	Job coach	Individual	38%	58%	9.8
Internships	Job coach / supervisor	Individual	13%	20%	*na*
Translation services	Cultural-linguistic mediator	Individual	when needed		*na*
Training and Education	Teacher	Group	17%	25%	48 max

Notes: This table summarizes the activities available to FORWORK participants, specifying the professionals responsible for delivering each activity, the mode of engagement (individual or group-based), the take-up rate among eligible individuals (those randomized to FORWORK) and participants, and the average number of hours each participant spent in each activity. The entry *Training and Education* includes language and civic education courses as well as vocational training.

Upon joining FORWORK, participants were paired with a job mentor facilitating all subsequent steps. During the initial meetings, mentors used the *EU Skills Profile Tool for Third Country Nationals* to assess participants' existing skills and work experience, as well as to assist them in creating their CVs. Based on this assessment, mentees were introduced to the optional activities available under FORWORK (including placement services, internship opportunities, and short training programs) and received guidance in developing an individualized integration plan tailored to their goals and needs. A total of 31 professional job mentors were recruited, each supporting an average of $409/31 = 13$ participants and providing continuous support and encouragement throughout the program. Certified cultural-linguistic mediators occasionally assisted during meetings with job mentors and job coaches, offering translation and guidance during interviews and other interactions. Their support helped asylum seekers navigate language and cultural barriers, ensuring clearer communication and a smoother integration process.

A subset of participants enrolled in additional activities, including placement services, language and civic education classes, and vocational training (see Table 1). Placement services aimed to match beneficiaries with job opportunities, provide career guidance, and facilitate internships: 58% of participants engaged in this activity. Delivered by job coaches from employment agencies, placement services began with an employability assessment conducted in collaboration with job mentors to evaluate participants' skills, experience, and

job market expectations. Job coaches then provided career guidance and support, helping beneficiaries to understand the local labor market and prepare for job interviews.

A key aspect of the job coach's role was employer engagement and business scouting. Job coaches actively sought out potential employers willing to hire asylum seekers, identifying suitable opportunities and arranging job interviews. In some cases, placements took the form of internships, subsidized by the Ministry of Labor, providing up to €300 per month. These internships, lasting between three and five months, provided participants with valuable work experience. During the internship, job coaches acted as company tutors, facilitating workplace integration. In addition to employer outreach, job coaches supported participants in their active job search, equipping them with strategies to identify and secure employment opportunities. For those who remained unemployed after completing an internship or at the conclusion of FORWORK, job coaches referred them to local employment services for further assistance.

Language, civic education, and vocational training were designed to enhance the integration of asylum seekers into the labor market and society, with a practical focus on language acquisition. These activities complemented mentoring and placement services, particularly for participants with greater language needs. Language courses ranged from basic Italian to specialized modules on Italian for work, tailored to different proficiency levels. Civic education courses covered topics such as labor law, financial literacy, equal opportunities, and road safety, combining theoretical lessons with real-life case studies. Vocational training targeted specific occupations and incorporated job-specific Italian language instruction. Courses were short in duration, with participants attending an average of 15 hours (maximum 48 hours).

Due to COVID-19, FORWORK activities shifted significantly toward one-on-one interactions, prioritizing labor market integration services, typically delivered individually, while reducing the emphasis on training. To accommodate restrictions on in-person meetings, many activities were adapted for online delivery via platforms such as Skype, Zoom, and WhatsApp. Despite these limitations, participants were provided continuous support and

access to essential services throughout the pandemic, although group activities were postponed and later transitioned to online formats. As a result, participation in training activities remained relatively low, involving only 25% of participants (Table 1).

3.3 Population of interest

As of January 2019 (i.e, at the onset of the intervention), Piedmont had a population of 4.3 million, including 411,083 migrants, corresponding to 9.5 migrants per 100 inhabitants - above the national average of 7.2 migrants per 100 inhabitants.[3] Additionally, the region hosted 11,556 asylum seekers (8.3% of the total in Italy), the vast majority of whom (9,570) were accommodated in CAS centers (Centri D'Italia, 2025).

The intervention targeted CAS centers located in eight Local Market Areas (LMAs) within the Piedmont region: the LMA encompassing the regional capital, Turin; the LMAs of six province capitals (Alessandria, Asti, Biella, Cuneo, Verbania, and Vercelli); and the additional LMA of Chieri, near Turin.[4] These metropolitan areas were selected to facilitate the mobility of FORWORK providers and beneficiaries (via public transportation) compared to rural areas. Targeting criteria were further refined to include only CAS centers in municipalities served by public transportation, and located within a 30-minute drive of a Public Employment Service office. Additionally, only CAS centers hosting no more than 30 individuals – which was the case for 92% of centers in Piedmont, as of January 2019 – were included in the project.

At the individual level, two additional criteria applied: participants had to be at least 18 years old and still awaiting their first interview with the local commission assessing their application for international protection. The latter condition was intended to ensure that

[3]These data are available through the Italian Statistical Institute (http://dati.istat.it).

[4]LMAs are geographic areas consisting of adjacent municipalities with similar labor market characteristics and opportunities, as defined by the Italian National Statistical Institute based on commuting patterns of workers from census data (ISTAT, 2011). The LMAs selected are representative of the region in terms of workforce participation and employment rates, collectively accounting for 55.5% of the population, 55.1% of its labor force, and 54.8% of the employed population (authors' calculations based on the data available from ISTAT, 2024).

participants were in the early stages of the application process, giving them sufficient time to fully participate in the program and possibly securing employment upon its completion.

4 Research design and data

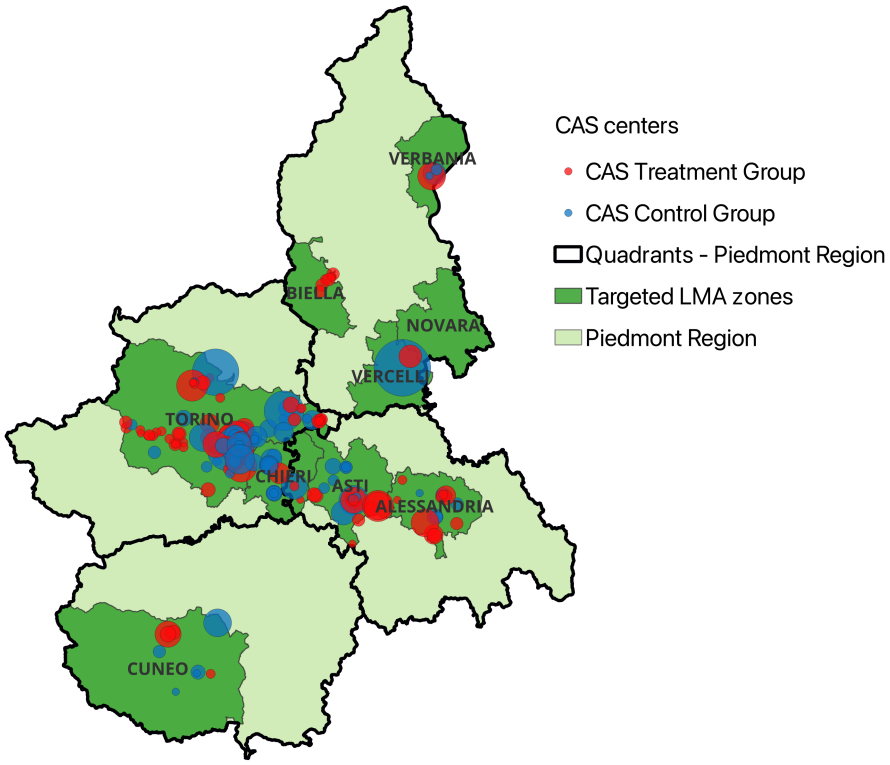
4.1 Randomization

Our identification strategy leverages *random variation* in the roll out of FORWORK activities arising from the evaluation design of the intervention. The randomization design started by considering the institutions managing the reception and integration support system in the region. The administrative records used to identify the census of institutions, CAS centers, and asylum seekers in the region were collected from local prefectures in May 2019. Using the criteria outlined above, we identified a population of $1,262$ asylum seekers in 260 CAS centers managed by 53 institutions.

The institutions managing CAS centers were stratified by the area of the region they serve, resulting in the identification of *seven strata* using the administrative geography of the region. The stratification process started by grouping institutions into four quadrants: the Turin area (North-West); Cuneo (South-West); Asti and Alessandria (South-East); and Biella, Verbania, and Vercelli (North-East). Given the large number of institutions operating in Turin, institutions in this quadrant were further divided into four groups: those operating only in the city of Turin; those operating outside Turin; those operating both in the city and outside Turin; clear outliers with respect to the number of asylum seekers hosted (this stratum contains only two institutions). Within each stratum, all possible pairs of institutions were formed, selecting the combination that minimized the overall within-pair distance with respect to a number of characteristics. One institution in each pair was then randomly assigned to FORWORK.[5]

[5]The following characteristics of managing institutions were considered: number of CAS centers managed, average size of these centers, percentage of females and average age of asylum seekers hosted, and percentage of asylum seekers eligible for FORWORK activities. In strata with an odd number of institutions, the

Figure 4: Distribution of CAS centers randomized into and out of FORWORK

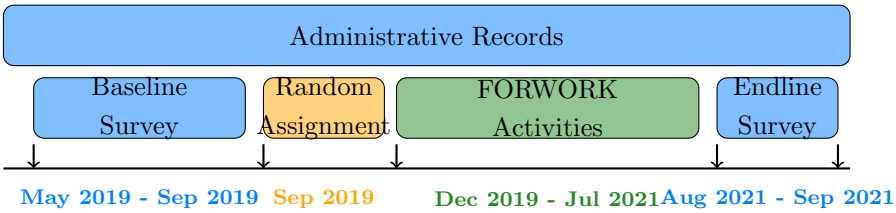


Notes: This figure displays the geographic distribution of CAS centers randomized into the treatment group (red circles) and in the control group (blue circles). The size of each circle is proportional to the number of asylum seekers hosted in the center. The map also shows (in dark green) the Local Market Areas targeted by the intervention and (in black) the contours of the quadrant used to stratify the randomization, as explained in the text.

The randomization assigned to FORWORK a group of 26 institutions managing 131 CAS centers hosting a total of 622 asylum seekers. The other group consists of 27 institutions managing 129 CAS centers hosting 640 asylum seekers. In what follows, we will refer to the statistical units in these groups as FORWORK *eligible units* and *control units*, respectively. Figure 4 shows the location of CAS centers in these two groups on a map of the Piedmont region. The breakdown by stratum is shown in Appendix Table A.1.

additional institution was randomly assigned to one of the two groups.

Figure 5: Timeline of FORWORK implementation and evaluation



Notes: Visualization of the stages in the evaluation design and data collection process. Data (in blue) include two surveys conducted before and after FORWORK (Baseline and Endline), along with administrative records from *SILP* (*Sistema Informativo Lavoro Piemonte*) up to February 2022. Eligibility (in orange) was determined through random assignment. FORWORK activities (in green) took place between December 2019 and July 2021.

4.2 Data

Figure 5 shows the timeline of FORWORK implementation. The intervention was carried out between December 2019 and July 2021. Our empirical analysis builds on longitudinal data obtained from the triangulation of administrative and survey data linked through unique identifiers of individuals and CAS centers.

Administrative records

Trends in the employment outcomes of asylum seekers are investigated using *SILP* (*Sistema Informativo Lavoro Piemonte*), which is an administrative platform maintained by Public Employment Service (PES) centers of the region. PES are government-funded job centers providing a range of employment-related services to job seekers, including job search assistance, career counseling, access to job listings, and job matching. SILP data track all employment contracts that have been activated in the region, including their starting date, duration, occupation, and sector; notably, it does not report earnings.

Asylum seekers must register at PES offices after arriving in a reception center. Through SILP data, we retrieved the day-to-day employment histories of $1,132$ out of the $1,262$ asylum seekers since they first arrived in the region. The lack of a perfect match with the administrative archives can be attributed mostly to random mistakes in the social security

alphanumerical code assigned at PES centers.

To supplement the SILP data, we linked these records to *monitoring and evaluation data* from FORWORK. This archive provides information on the take-up and timing of activities among eligible asylum seekers, as well as the dates and duration of meetings with job mentors, placement services received and their duration, internships, and attendance of language classes.

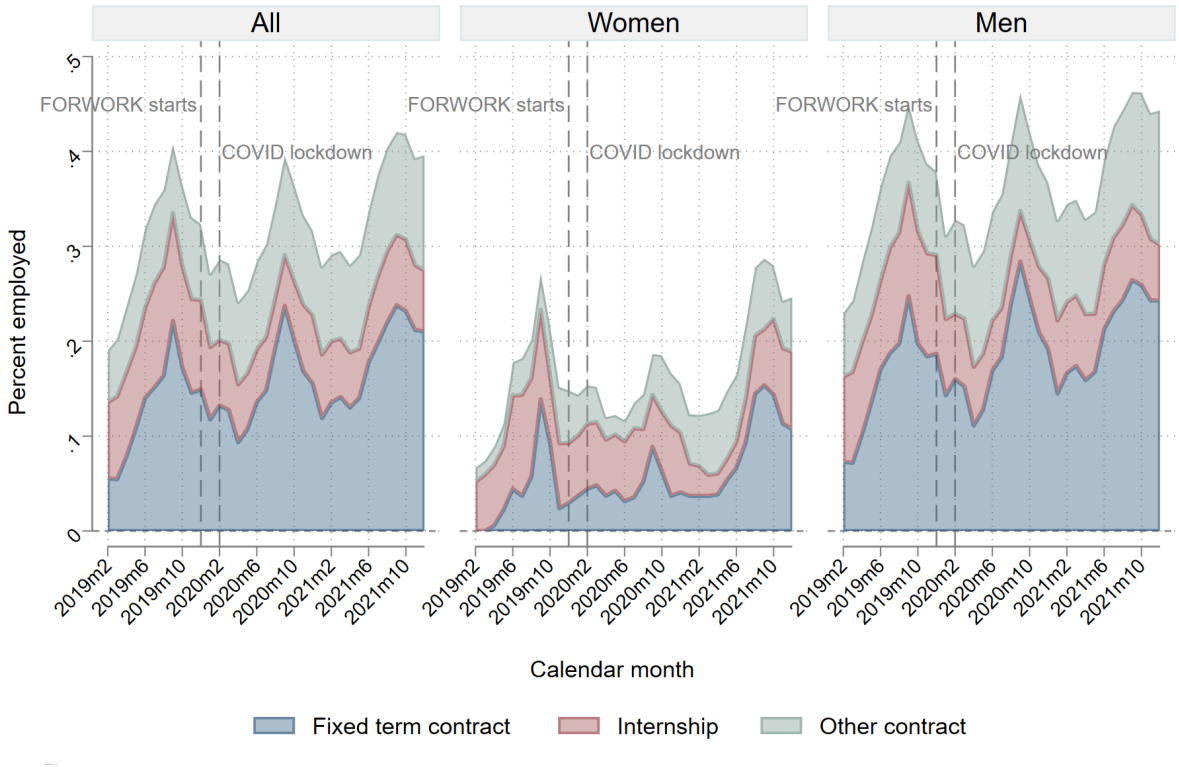
Baseline and end-line surveys

A *baseline survey*, completed in September 2019, provided a comprehensive assessment of socio-demographic characteristics, labor market integration and social integration more broadly, of asylum seekers prior to the start of FORWORK activities. Face-to-face interviews were conducted in CAS centers by trained interviewers with previous experience. To ensure that respondents were comfortable and able to provide accurate and complete information, CAS employees were not present during interviews. In particular, the survey questionnaire gathered information on: measures of social integration, such as quality and frequency of social relations outside the CAS center and trust toward others; labor market outcomes, such as earnings and informal employment; literacy, educational levels, and self-reported language skills. The survey response rate was 74.4% (941 of the $1,262$ planned interviews).

A similar *endline survey* was completed in September 2021, after the completion of FORWORK activities. Follow-up interviews in this survey were implemented with telephone and web survey techniques (CATI and CAWI). The response rate in this second round was considerably lower, at about 45% of those interviewed at baseline (404 completed interviews).[6] Appendix Table A.2 shows descriptive statistics for the demographic composition of our working sample.

[6]About 35% of survey participants could not be reached in the end-line survey because phone numbers or emails were no longer active, or because of incorrect contact information collected during the first interview.

Figure 6: Employment rates by type of contract and gender



Notes: Using SILP administrative records, the figure shows gender-specific employment rates for asylum seekers who are *randomized out* of FORWORK, categorized by type of contract. The horizontal axis denotes the calendar month between February 2019 and December 2021. Fixed-term contracts, apprenticeships, and other contracts (e.g., open-ended contracts, internships, on-call work contracts) are the three types of contract considered.

5 Descriptives and Graphical Evidence

Counterfactual employment rates without FORWORK

The average employment rate before FORWORK was around 30%, ranging between approximately 15% for women and 35% for men. These rates are shown in Figure 6, which presents gender-specific employment rates by contract type, computed from administrative records for asylum seekers randomized out of FORWORK. Before FORWORK, fixed-term (temporary) contracts in the figure accounted for about 48% of total employment, while open-ended

(permanent) contracts made up approximately 9%. The figure also shows seasonal fluctuations in employment, with higher rates observed during the summer months. The most plausible explanation for this pattern is the seasonal demand for labor in the agricultural sector, particularly during planting and harvesting periods. This explanation is supported by the occupational distribution outlined in Appendix Table A.3.[7] Finally, Figure 6 also shows relatively small changes in employment rates from before to after FORWORK absent the intervention: the average employment rate after FORWORK was launched for asylum seekers randomized out of FORWORK is about 33%, with 17% for women and 38% for men. Below, we use these figures as the baseline for discussing the relative size of effects on employment.

According to the self-reported data of the survey, 8.2% of the respondents are employed based on a verbal agreement or without a regular contract. This information is particularly valuable, as informal employment is rarely captured in administrative data—including our own—and is generally under-documented. It also allows us to assess whether the employment effects of FORWORK reflect a net increase in job creation rather than a simple reallocation from informal to formal employment.

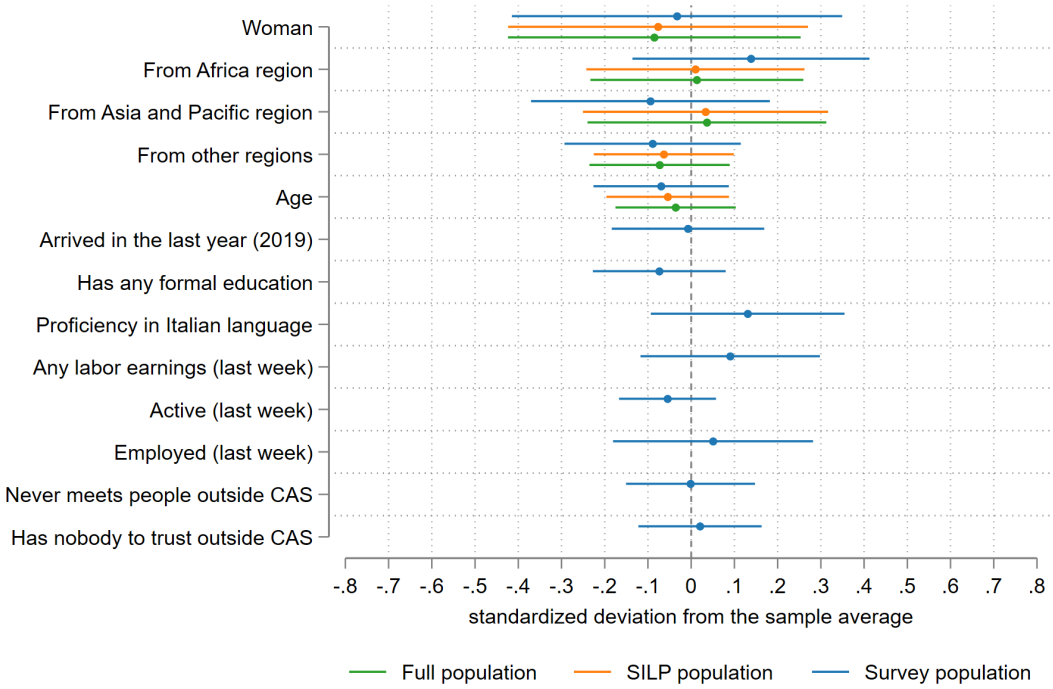
Balancing tests and participation to FORWORK

We consider regressions demonstrating the randomization to FORWORK activities using individual-level data. The characteristic x_i is for asylum-seeker i in stratum r_i (seven strata in total), z_i is an indicator for being in the group randomized to FORWORK (instead of being in the group randomized out), and $\alpha_0(r_i)$ is shorthand for a set of strata effects:

$$x_i = \alpha_0 (r_i) + \alpha_1 z_i + \omega_i. \tag{1}$$

[7]The units of observation in this table are contracts, meaning individuals may hold multiple contracts. The agricultural industry in Piedmont is a significant contributor to the region's economy and includes crops like grapes, hazelnuts, rice, and fruit, along with livestock farming, particularly dairy cattle.

Figure 7: Balancing tests for the randomization of FORWORK



Notes: Estimates of α_1 from equation (1) for the demographic variables observed in the listing of asylum seekers (gender, country of origin, and age) and other variables that were only measured in the baseline survey. The coefficient α_1 estimates the average difference of each variable on the left between asylum seekers randomized to FORWORK and those randomized out. The horizontal lines denote confidence intervals with 95% coverage. Equation (1) is estimated using asylum seekers originally considered for the randomization (Full population), those retrieved in administrative data (SILP population), and respondents to the baseline survey (Survey population). The variables x_i at the left of equation (1) are standardized to have zero mean and unit variance in the Survey population. Summary statistics for these variables are in Table A.2.

The coefficient α_1 is estimated from the cross-sectional variation of z_i within the randomization strata. Standard errors are clustered at the level of the institutions managing the CAS. Figure 7 shows point estimates of α_1 obtained from Equation (1) when estimated using three different populations: the full population of asylum seekers originally considered for randomization (*Full population*), those retrieved in administrative data (*SILP population*), and survey respondents (*Survey population*). The variables x_i on the left-hand side of equation (1) are standardized to have a zero mean and unit variance among survey respondents.

Attrition across different sources of data does not introduce bias in a significant way. Specifically, attrition due to the lack of a perfect match with administrative data is not

systematically different between asylum seekers randomized to FORWORK and those randomized out. This can be seen by noticing that the demographic variables observed in the listing of asylum seekers (gender, country of origin, and age) are equally balanced in the population used for the randomization and in the subpopulation retrieved from SILP data. A similar conclusion holds for respondents to the baseline survey, despite the higher attrition rate in survey data.

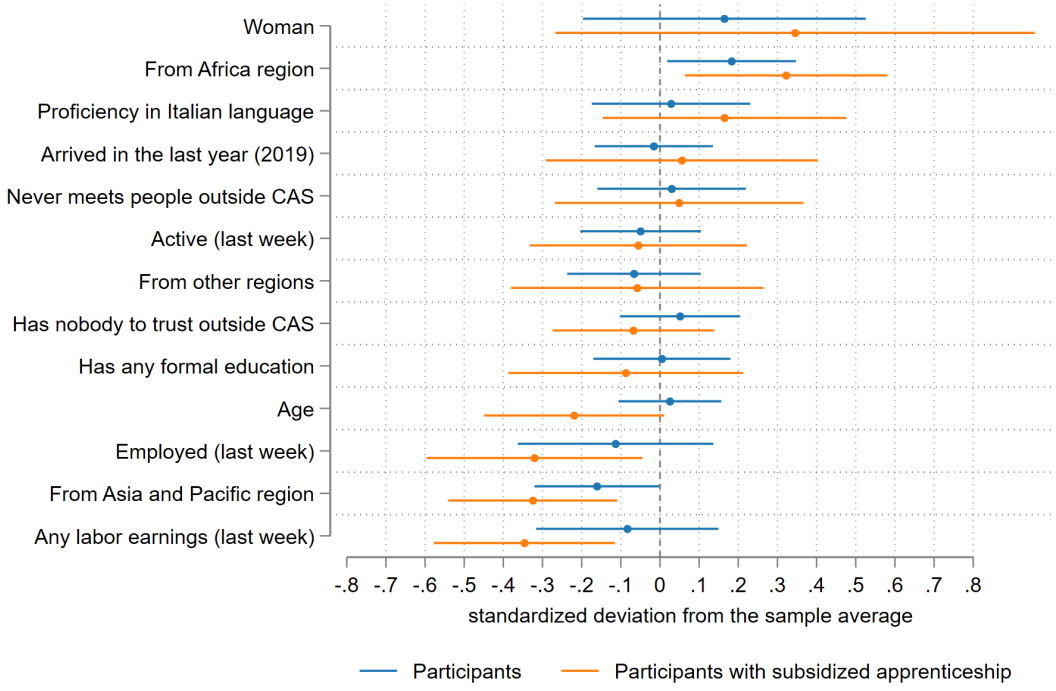
Participation in FORWORK activities was not universal among eligible asylum seekers. The demographics of asylum-seekers engaging in FORWORK (*participants* hereafter) can be characterized by exploiting the randomization to FORWORK under the monotonicity of behavior with and without eligibility. Specifically, monotonicity requires that eligibility cannot decrease the chance of engaging in FORWORK. This assumption is valid in our case by design, because asylum seekers in the control group complied with the randomization status. We therefore consider the following regression:

$$d_i x_i = \beta_0 \left(r_i \right) + \beta_1 d_i + \zeta_i, \tag{2}$$

where $\beta_0(r_i)$ is shorthand for a set of strata effects, d_i is an indicator for participation in FORWORK, and x_i are the same demographics standardized as in equation (1). We obtain the value of the coefficient β_1 in equation (2) via 2SLS, instrumenting d_i with the offer indicator z_i. Using a standard instrumental variable reasoning, the value of β_1 estimates the average of x_i for participants in FORWORK (i.e., the offer compliers). We keep only respondents to the baseline survey – the Survey population in Figure 7 – and cluster standard errors at the level of the institutions managing the CAS centers.

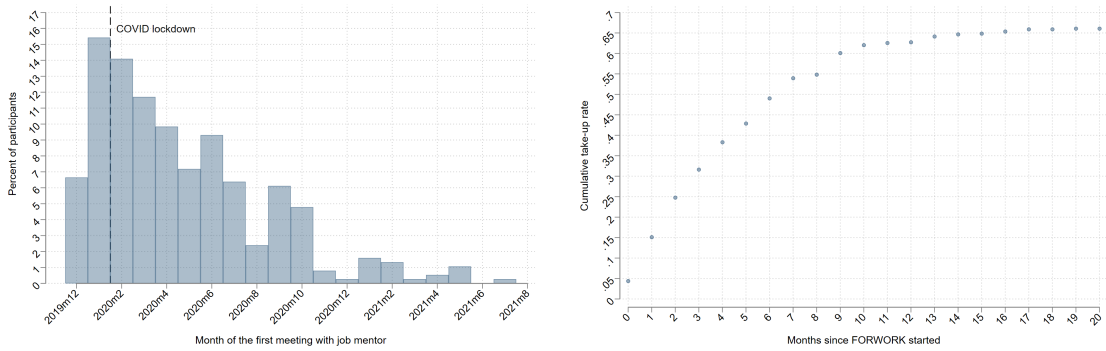
Figure 8 shows estimates of β_1 from equation (2) for the same demographic variables considered above. Participants are disproportionately more likely to be women, originate from African countries, and be unemployed at the time of the baseline survey. Indeed, it is not surprising that FORWORK attracted individuals facing worse labor market opportunities,

Figure 8: Characterization of participants in FORWORK activities



Notes: 2SLS estimates of β_1 from equation (2) for the same demographic variables considered in Figure 7. The coefficient β_1 estimates the average of each variable at the left for participants in FORWORK, which we define considering the date of the first meeting with the job mentor. Equation (2) is estimated using respondents to the baseline survey (Survey population). Results for *participants* are obtained by setting d_i to an indicator for participation in FORWORK. Results for *participants with a subsidized internship* are obtained by setting d_i to an indicator for participation in FORWORK and receipt of the subsidized internship. The variables x_i at the left of equation (2) are standardized to have zero mean and unit variance in the Survey population. A positive (negative) value of coefficients in this figure implies that the average for participants is β_1 points of a standard deviation above (below) the average in the sample. Horizontal lines denote confidence intervals with 95% coverage. Coefficients are sorted in the figure using their absolute value for *participants with a subsidized internship*.

Figure 9: Timing of participation in FORWORK



Panel A. Treatment start month

Panel B. Participation rate

Notes: Panel A shows the distribution of the calendar month of the first meeting with the job mentor among participants. The month of the first meeting is used to determine the timing of participation in FORWORK. Panel B shows changes over time in the participation rate among asylum seekers randomized to FORWORK. The horizontal axis in this panel denotes, in months, the elapsed time since the intervention started (December 2019).

unemployed women above all.

Timing of participation and activities

Other than the decision of eligible individuals to participate in FORWORK, two additional sources of selection motivate the empirical strategy discussed in the next section. The first source of selection arises from the *timing* of participation in FORWORK, which varies across individuals. This can be seen from Panel A of Figure 9, which shows the distribution of the calendar month of the first meeting with the job mentor among participants. The recruitment of FORWORK beneficiaries began in December 2019 with group presentations of the program's contents at PES offices of the region, and the start of mentoring activities. We consider the timing of participation in the program by using the month of the first meeting with the job mentor. The distribution in Panel A shows that the last participant started 20 months after December 2019, in July 2021. This variability is partly explained by delays caused by the COVID outbreak. The restrictions introduced by the national lockdown in March 2020 prevented participation in face-to-face meetings, leading to a slowdown in the

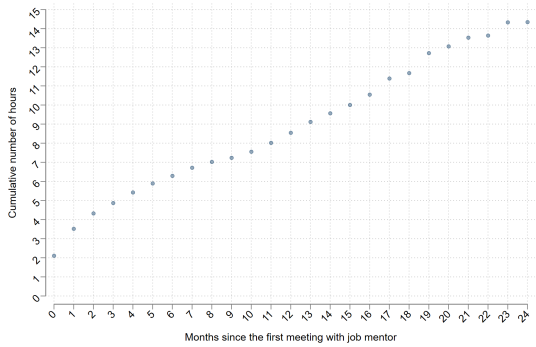
recruitment of new participants. Additional determinants of the timing of participation are differences in the outreach effort of the institutions managing CAS centers, and differences across individuals hosted in these centers. Panel B of Figure 9 shows how the take-up rate among eligible asylum seekers changed over time. The horizontal axis denotes the elapsed time, in months, since the intervention started (in December 2019). Participation growth is piece-wise linear, progressively slows down starting with the COVID lockdown, and reaches a plateau of about 66% after one year (as discussed in Table 1).[8]

The second source of selection arises from the specific *combination of services* offered to each participant, which depends both on the individual's preferences and on the job mentor's assessment of their skills, experiences, and needs. Panel A of Figure 10 shows the time that participants spent with their job mentors. The horizontal axis is now indexed to the elapsed number of months since the first meeting, and each value on this axis can refer to different calendar months as the timing of treatment varies across participants. Although our administrative panel is balanced in calendar time, it is imbalanced in elapsed time since treatment. Therefore, the descriptives presented in this figure are for individuals reaching a specific duration in the program (on the horizontal axis) by the last period they are included in the panel. We abstract away from the compositional differences generated by this selection.

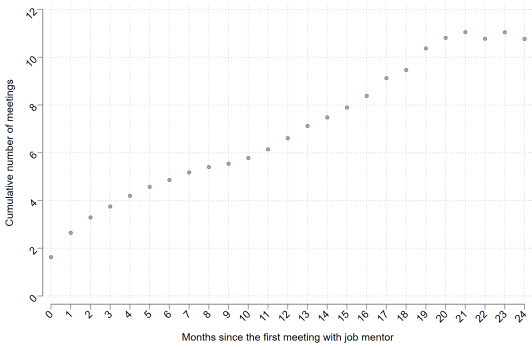
According to Panel A of Figure 10, participants who were observed 18 months after their first meeting spent an average of 12 hours with their mentors. In Panel B, we see that participants met their job mentor 9 times over the same horizon, indicating that each session lasted about 80 minutes on average. Panel C shows that over 70% of participants completed the skill assessment within a month of meeting their mentor. The job mentors used an online self-assessment tool called the Skills Profile Tool for Third Country Nationals, created by the European Commission, to identify and document the participants' language proficiency,

[8]Appendix Figure A.1 shows the percentage of eligible individuals who have entered the FORWORK program over time, broken down by institutions managing CAS centers. Some institutions have high take-up rates early in the program, while others have very low or no take-up until later.

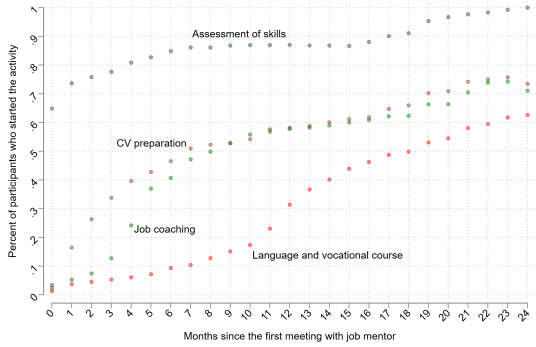
Figure 10: Timing of activities for FORWORK participants



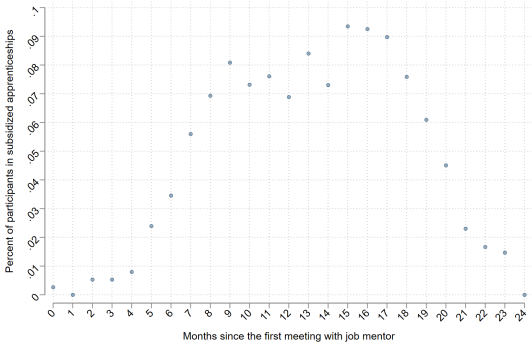
Panel A. Hours



Panel B. Meetings



Panel C. Activities



Panel D. Internships

Notes: The figure shows the changes observed over time in different aspects of the FORWORK program, computed using data for participants. Panel A presents the average number of hours participants spent with their job mentor over time. The horizontal axis in this panel represents the elapsed time, in months, since the first meeting with the job mentor. Panel B displays the average number of meetings with the job mentor. Panel C presents the changes in the type of activities for participants over time, with the horizontal axis indicating the elapsed time since their first meeting with the job mentor. Panel D is structured similarly to Panel C and shows the share of participants employed in special internships funded by the Italian Ministry of Labor under the FORWORK program.

education and training, work experience, personal skills, and intercultural competences. The tool generates a personalized skills profile based on the participants' responses, which can be shared with employers, education and training providers, and other stakeholders to facilitate the recognition and validation of skills acquired in their country of origin. After the skill assessment, the following activities were CV preparation and meeting with a job coach, with the language course being the last activity.

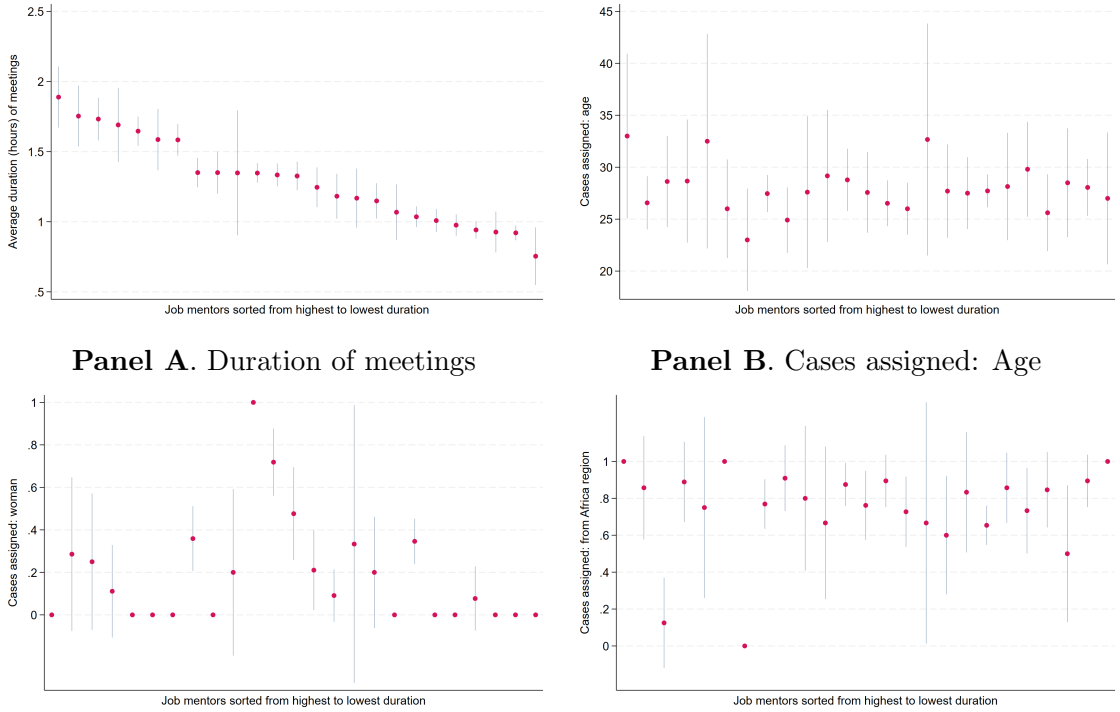
Some participants were also involved in internships subsidized by the Ministry of Labor specifically under FORWORK. This is shown in Panel D of Figure 10. A total of 89 internships were activated between January 2020 and August 2021, typically covering the costs of a four-month contract for part-time employment. Panel D shows that these internships did not start earlier than 4 months after seeing the job mentor. In the 9 to 18 month window after the first meeting, about 8% of participants are employed through internships. The share of participants engaged in this activity drops starting from about 18 months since the first meeting. It is important to note that the match between FORWORK participants and these internships is non-random and may depend on the characteristics of the asylum seekers and job mentors.

We note that participants in internships subsidized by the Ministry of Labor are disproportionally more likely to be women, as can be seen from Figure 8 (see values labelled as "Participants with subsidized internships"). A juxtaposition with results for the characterization of FORWORK participants, in the same figure, reveals that a specific demographic group was more likely to access the subsidized internships: relatively older women from Africa and more likely to be unemployed before FORWORK started.

Job mentor effects

The match between job mentors and participants likely introduced heterogeneity in how activities under FORWORK unfolded. This variation may stem from idiosyncratic factors related to job mentors, such as differences in how meetings are structured and conducted,

Figure 11: Matches between FORWORK participants and job mentors



Panel A. Duration of meetings

Panel B. Cases assigned: Age

Panel C. Cases assigned: Woman

Panel D. Cases assigned: from Africa region

Notes: Panel A shows the duration of meetings (in hours) with FORWORK participants, averaged across all cases assigned to a job mentor. Bars represent the standard deviation of this average. Each dot represents one job mentor, and job mentors are sorted on the horizontal axis from the longest to the shortest duration. Panel B is structured similarly, this time using the average age of cases assigned to each mentor. In this panel, job mentors are also sorted on the horizontal axis from the longest to the shortest duration as shown in Panel A. Panel C and Panel D report the proportion of women and cases from the Africa region, respectively. In all panels, only job mentors included in Figure 12 are considered.

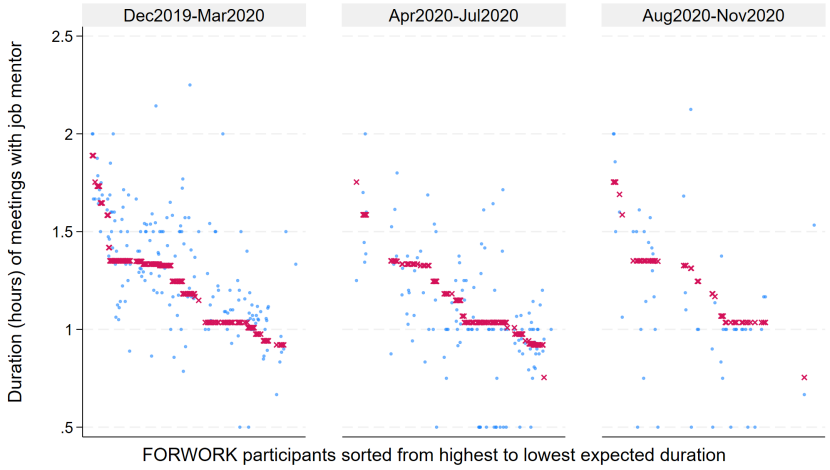
and/or from participant characteristics, including demographic factors.

We explore these channels by establishing three key findings. First, the duration of meetings varies depending on the job mentors assigned, a pattern we refer to as the *job mentor effect*. Second, there is no significant relationship between this mentor effect and the demographics of the assigned mentees, suggesting that mentor-mentee matches were formed in a quasi-random manner. Third, we show that the expected duration of meetings (as explained by the mentor effect) remains consistent across participants who began their activities at different points in time. This finding suggests that mentors of similar "quality" were engaged throughout the duration of the program.

Panel A of Figure 11 demonstrates the job mentor effects on the duration of meetings. This figure is constructed by taking, for each mentor involved in FORWORK activities, the duration of meetings (in hours) averaged across all participants assigned to that mentor (12 on average). Each dot in the figure represents a mentor, and mentors are sorted on the horizontal axis from the longest to the shortest duration, which is reported on the vertical axis. The spread between the mentor with the shortest and longest duration is about one hour. In the remaining panels of the same figure, mentors are still sorted on the horizontal axis as in Panel A. However, the vertical axis now reports the average of select characteristics of cases assigned to these mentors: age, gender, and country of origin. For example, Panel B of Figure 11 shows that there is no relationship between the average age of participants working with a mentor and how this mentor ranks in terms of meeting duration. Importantly, with few exceptions most likely explained by the small population size, job mentors are not associated with specific demographics of their mentees.

Figure 12 shows differences between the expected duration of meetings, measured by the job mentor effect defined above, and the actual duration of meetings, measured from administrative data. Each observation in the figure denotes a participant. We divide participants into three four-month groups based on when they started activities under FORWORK. This grouping is reflected in the panels of Figure 12, which span a one-year window starting from

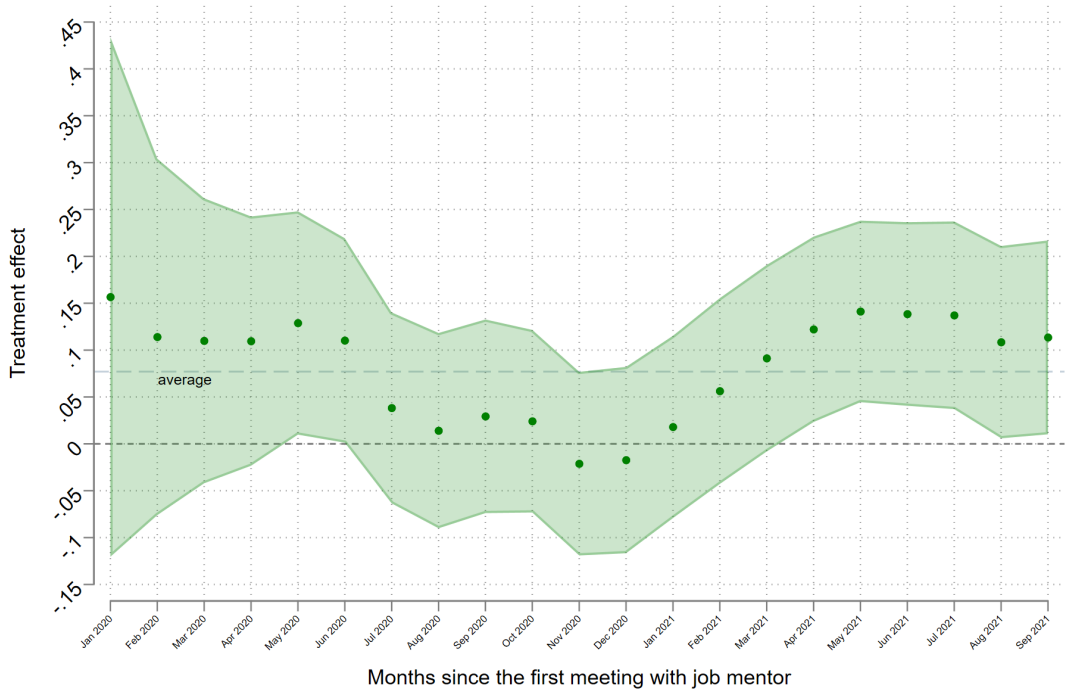
Figure 12: Expected and actual duration of meetings by start date



Notes: The figure shows the differences between the expected duration of meetings (measured by the job mentor effect in Panel A of Figure 11) and the actual duration of meetings (measured from administrative data). Each observation represents a participant, who belongs to one of three four-month cohorts based on the start date of activities. Red crosses indicate the expected duration of meetings, and participants are sorted from the longest to the shortest expected duration. Blue dots denote the actual duration of meetings.

the rollout of FORWORK in December 2019. The red crosses denote the expected duration of meetings, computed from Panel A of Figure 11, and participants are sorted from the longest to the shortest expected duration by pooling across panels.[9] We find that the spread and shape of the expected duration distribution are relatively stable across panels of Figure 12. The blue dots denote the actual average duration of meetings of participants with their mentors. We observe sizeable variability around the expected duration, which is however stable across panels. A plain regression of actual duration on a full set of job mentor effects, not shown here for brevity, explains about 40% of the total variation.

Figure 13: Average treatment effect for participants over time



Notes: The horizontal axis in this figure represents the calendar months after the intervention began (December 2019). The figure displays Wald-DID estimates for each month, which are calculated as the DID of the outcome divided by the DID of the treatment. The outcome variable is an indicator for any paid contract with employers during the month, while the treatment variable indicates whether the individual has had their first meeting with the job mentor by that month. Shaded areas represent 95% confidence bands, obtained by clustering on individuals. The horizontal line labeled *average* represents the weighted average of the month-by-month point estimates shown in the figure, with weights corresponding to the DID estimates of the treatment in each month.

6 Labor Market Outcomes

Average effects of participation over time

Figure 13 presents the estimated effects of program participation on employment probabilities using a standard instrumental variable approach. Specifically, we estimate the effect of participation d_i by instrumenting it with the randomized status z_i. We use two time periods for each individual i: the month before FORWORK started, November 2019, and each

[9]In cases where participants interacted with more than one job mentor, we consider the one with whom they interacted the longest during the unfolding of their activities.

calendar month t after the launch of FORWORK activities in December 2019. In particular, we consider the 21-month period between January 2020 and September 2021 (as shown on the horizontal axis of Figure 13). The treatment variable d_i is defined as an indicator for whether individual i had their first meeting with a job mentor by month t. The outcome variable in the figure is an indicator for any paid contract with an employer during that month. The figure shows estimates from 2SLS regressions of the outcome on d_i, a dummy for time t, a dummy for the randomized status $z_i = 1$, and the interaction of these two dummies as the excluded instrument for d_i. Separate 2SLS regressions are considered for each time period t.[10]

By September 2021 (approximately 21 months after FORWORK began), program participation increased the employment rate by 11.36 percentage points. The average effect over this period (represented by the horizontal line in the figure) is 7.30 percentage points. The decline in estimated effects in late 2020 is likely due to the negative labor market impact of the COVID-19 pandemic. To contextualize these effect sizes, they can be compared to the post-FORWORK employment rates for individuals with $z_i = 0$, shown in Figure 6, which are approximately 33%. We conclude, for example, that participants have an employment rate approximately $7.30/33 \simeq 22\%$ higher than randomized out asylum seekers in the 21 months after FORWORK began.

These estimated effects may be confounded by the fact that FORWORK participants did not all start the program at the same time. Since the program's activities were staggered (as shown in Figure 9), the 2SLS estimates at each point in time of Figure 13 conflate the effects across participants (*compliers*) who may be at different stages relative of the program, as measured by time elapsed since their first meeting with a job mentor. This variation makes it difficult to interpret the estimates as a treatment effect at a specific duration. To address this issue, the following analysis breaks down the effects of FORWORK based on different

[10]These regressions yield the Wald-DID estimates discussed in de Chaisemartin and D'HaultfŒuille (2017). Because of the randomized assignment to FORWORK, d_i equals zero at both time periods if $z_i = 0$ and in November 2019 if $z_i = 1$. In this context, the Wald-DID identifies the average treatment effect on the treated under standard DID assumptions (see Section 3.4.2 in de Chaisemartin and D'HaultfŒuille, 2017).

time intervals before and after participants' first meeting with their job mentor. This will help isolate the program's dynamic effects on employment outcomes over time.

Accounting for differences in participation timing

We estimate causal effects on some variable $y_{i,t}$ in a panel of *asylum seekers* $i = 1, \ldots, N$ in *calendar months* $t = 1, \ldots, T$. We group individuals by gender and randomization stratum, and index these groups to $g = 1, \ldots, G$. We further divide individuals of these groups into *cohorts* based on the month of their first meeting with the job mentor shown in Panel A of Figure 9. Specifically, the cohort variable c_i denotes the calendar month when the participation status of individual i switches from zero to one, and we set the value of c_i to ∞ if individual i does not participate. The variable $e_{i,t} = t - c_i$ represents the *elapsed time*, in months, since the first meeting with the job mentor. With this notation, nonparticipants are "infinitely far" from meeting the job mentor (i.e., $c_i = \infty$). Non-participants include individuals excluded from the program ($z_i = 0$) as well as those who were randomized to FORWORK but never met the job mentor ($z_i = 1$ and $d_i = 0$). The number of individuals in group g and cohort c is denoted by N_{cg}.

There are as many potential outcomes $y_{i,t}(c)$ for individual i as the number of possible treatment cohorts, $c \in \{1, \ldots, T, \infty\}$. The outcome observed for individual i at time t is:

$$y_{i,t} = y_{i,t}(\infty) + \sum_{c=1}^{T} \mathbb{1}_{c_i=c} \left[y_{i,t}(c) - y_{i,t}(\infty) \right],$$

where $\mathbb{1}_{c_i=c}$ is an indicator for whether individual i's cohort c_i is equal to c. We study how causal effects vary with the length of exposure to FORWORK. Specifically, for participants in group g and cohort c we consider the following average treatment effect parameter e months from the first meeting with the job mentor:

$$ATT_e(g, c) \equiv \frac{1}{N_{cg}} \sum_{i=1}^{N_{cg}} y_{i,c+e}(c) - \frac{1}{N_{cg}} \sum_{i=1}^{N_{cg}} y_{i,c+e}(\infty), \tag{3}$$

where $g = 1, \ldots, G$ and $c \in \{1, \ldots, T\}$. This parameter is defined by averaging across participants the difference between the outcome observed after e months in the program, $y_{i,c+e}(c)$, and the counterfactual outcome they would have experienced in the same calendar month having $c_i = \infty$ instead, $y_{i,c+e}(\infty)$.

Our empirical analysis from administrative records yields estimates of the $ATT_e(g,c)$'s in (3), which we then show graphically by aggregating over c and by g depending on the heterogeneity dimension considered. We maintain throughout the assumption of no anticipation effects on outcomes prior to the participation in FORWORK. This assumption implies $y_{i,t}(c) = y_{i,t}(\infty)$ when $t < c$ for all individuals i.

Estimation

Identification relies on assumptions to approximate the unobserved counterfactual term on the right-hand side of (3). We retrieve this counterfactual using a difference-in-differences logic grounded on the following steps. First, we keep only individuals in group g. Within this group, we keep individuals in cohort c (participants) or in cohort ∞ (non-participants). We additionally restrict the sample to calendar months $t = c - 1$ (the month before cohort c starts treatment) or $t = c + e$ (the e-th month from when cohort c starts treatment). On this sample, we compute the following difference of differences:

$$\widehat{ATT}_e(g,c) \equiv \frac{1}{N_{cg}} \sum_{i=1}^{N_{cg}} (y_{i,c+e} - y_{i,c-1}) - \frac{1}{N_{\infty g}} \sum_{j=1}^{N_{\infty g}} (y_{j,c+e} - y_{j,c-1}), \tag{4}$$

which defines a two-groups two-times comparison of participants and non-participants over the same calendar months. The assumption of common counterfactual trends for participants and non-participants:

$$\frac{1}{N_{cg}} \sum_{i=1}^{N_{cg}} (y_{i,c+e}(\infty) - y_{i,c-1}(\infty)) = \frac{1}{N_{\infty g}} \sum_{j=1}^{N_{\infty g}} (y_{j,c+e}(\infty) - y_{j,c-1}(\infty)),$$

implies that the quantity in (4) identifies the parameter in (3). This approach is non-parametric and equivalent to computing cohort-specific difference-in-differences estimates. It is also robust to the possibility of pre-trends varying non-parametrically across groups g.

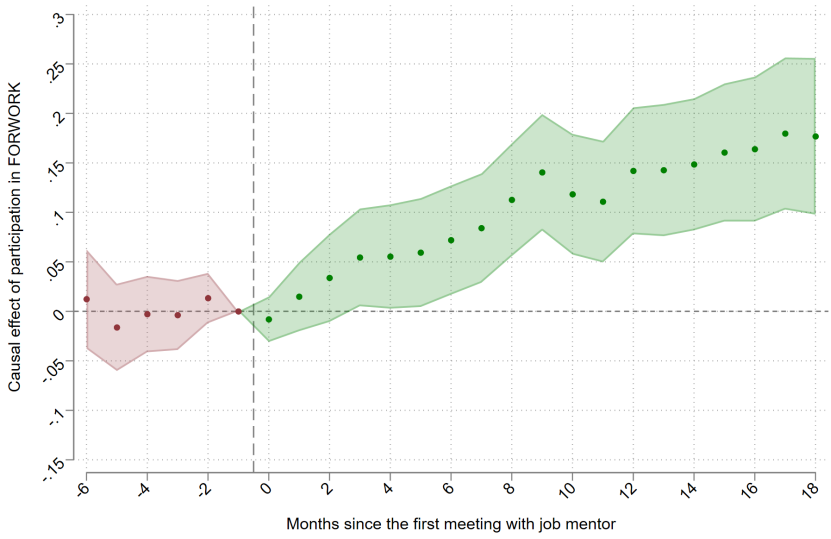
We follow the literature and show in figures more aggregated parameters obtained by averaging the effects of having been treated for e periods across individuals reaching that treatment horizon. Specifically, the event-study graphs below plot weighted averages of the $ATT_e(g,c)$'s across groups g and cohorts c:

$$\widehat{ATT}_e \equiv \sum_{g=1}^{G} \sum_{c=1}^{T} \widehat{ATT}_e(g,c)\, \omega_{gc}, \tag{5}$$

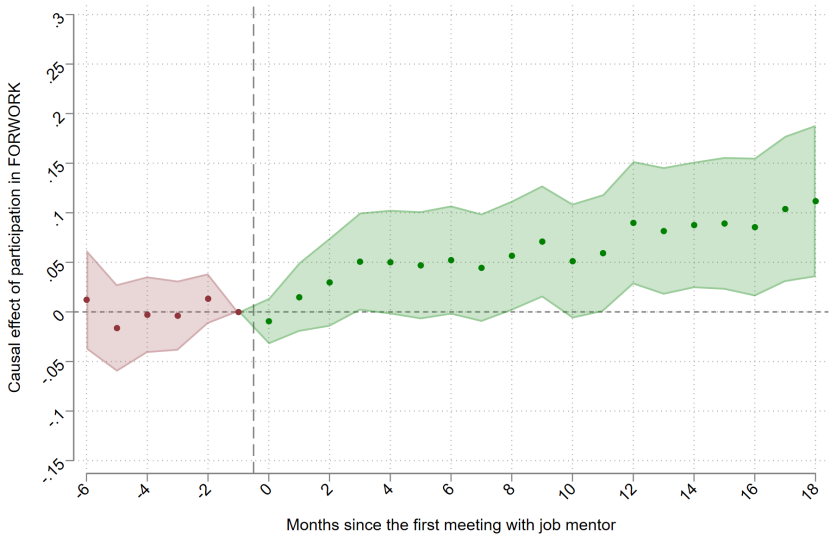
with the ω_{gc}'s being the number of participants in group g and cohort c, N_{cg}, divided by the total number of participants, $\sum_{g=1}^{G}\sum_{c=1}^{T} N_{cg}$. The last expression is an average of causal effects in event time, and overcomes the identification problems arising from effect heterogeneity and the staggered timing of participation in FORWORK (see Callaway and Sant'Anna, 2021, Sun and Abraham, 2021, and de Chaisemartin and D'Haultfoeuille, 2022, among many others). The *coefficients of interest* are the $\left\{\widehat{ATT}_e\right\}_{e\geq 0}$, which represent the effects on outcomes for participants e months after the treatment started. The *placebo coefficients* $\left\{\widehat{ATT}_e\right\}_{e<0}$ are used to visualize the lack of pre-treatment differences between participants and non-participants.

A potential challenge for the interpretation of (5) is that the number of participants over which one can average treatment effects varies with the horizon e, because only individuals reaching that treatment horizon can be considered. We limit the effects of these compositional changes by considering a window ranging between 6 months before and 18 months after the first meeting with the job mentor, $e \in \{-6, \ldots, 18\}$.[11]

Figure 14: Effect of job mentoring on employment



Panel A. Any employment contracts



Panel B. Without subsidized employment

Notes: This figure shows estimates of the quantities (5), which are the dynamic causal effects on employment rates by length of exposure to FORWORK. A value e on the horizontal axis denotes months before (negative values) and after (positive values) the first meeting with the job mentor. Dots in the figure show the outcome change for participants from -1 to e, compared to the outcome change for non-participants over the same period. Areas in red are for placebo effects e months *before* the first meeting with the job mentor. Areas in green denote the causal effects of participation *after* e months. Shaded areas are confidence bands with 95% coverage. The outcome variable in Panel A is an indicator for any paid contract with employers during the month. In Panel B, this indicator is set to zero if employment is through internships subsidized by FORWORK.

Effects of job mentoring on employment

Participants who received job mentorship have a significantly higher employment rate compared to those who did not, according to Panel A of Figure 14. We show here the causal effects estimated from (5) setting $y_{i,t}$ to be an indicator for being employed. The difference in employment rates grows steadily from two weeks after the initial meeting and reaches almost 20 percentage points after 18 months. The causal effects on employment before participation in FORWORK are small and statistically indistinguishable from zero (the shaded area in the graph represents 95% confidence intervals).

The positive effects on employment rates are not explained by the subsidized internships offered under FORWORK. Specifically, a potential concern with the interpretation of causal effects is that a number participants secured employment through subsidized internships, as we showed in Panel D of Figure 10. In these cases, the employment status is mechanically explained by the treatment rather than being an outcome. To address this concern, Panel B of Figure 14 shows results obtained by setting the status of individuals to no employment for the entire duration of FORWORK internships. The effect size in Panel B is about 10 percentage points after 18 months, and is still significant. This effect size is $+10/33 \approx +30\%$ over the baseline employment rate (see Figure 6).

Our conclusions remain robust to different choices of the control group. As discussed earlier, the counterfactual in the parameter (4) is with respect to non-participation (the ∞ cohort), which requires an empirical definition. In Figure 14, non-participants include both asylum seekers who were randomized out of FORWORK ($z_i = 0$) and those who were randomized in but did not participate ($z_i = 1$ and $d_i = 0$). To assess the sensitivity of our results, Panel A of Appendix Figure B.2 presents estimates using only asylum seekers who were randomized out ($z_i = 0$) as the control group. This choice may help address concerns about potential spillover effects from FORWORK participants onto other asylum seekers in

[11] Appendix Figure B.1 shows that about 90% of participants are observed in the 16 months following the first meeting with the job mentor, and that this number drop to about 83% after 18 months.

CAS centers. However, restricting the control group in this way reduces statistical precision due to the smaller sample size. Despite this, the results remain consistent with those in Figure 14, suggesting that spillovers are unlikely. In Panel B of Figure B.2, we further expand the control group used in Figure 14 by including asylum seekers with $z_i = 1$ and $d_i = 1$ who had *not yet* received their first job mentor meeting at a given time horizon. This alternative also yields results similar to those in our main analysis.

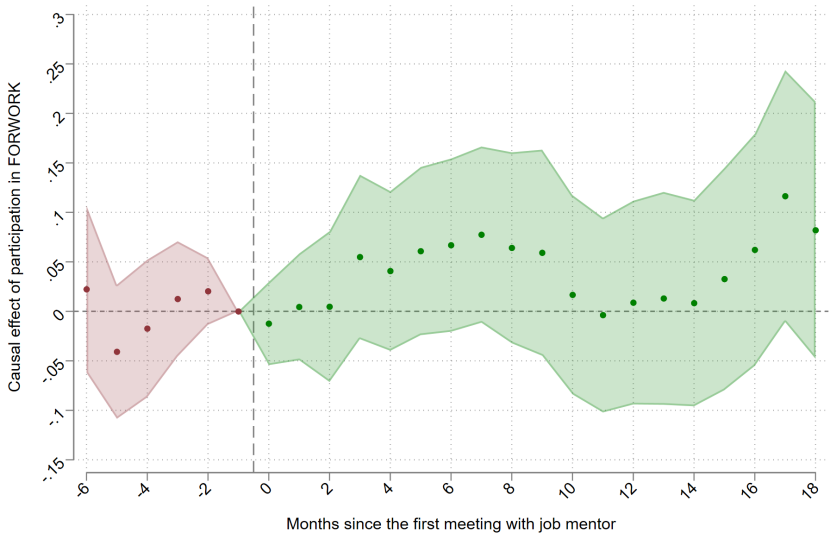
Separate estimates by gender, presented in Figure 15, show that women's employment effects range from 5 to 10 percentage points at the end of the graph but are much lower in the period between 10 and 14 months after seeing the job mentor. The drop during this period is most likely due to higher participation in subsidized employment, as shown in Panel D of Figure 10. Indeed, women were more involved in subsidized internships than men, as shown in Figure 8. For men, the employment effects after 18 months in Panel B of Figure 15 are approximately 15 percentage points. Using the baseline employment rates in Figure 6, computed after the start of FORWORK, we estimate effects of approximately 33% to 67% for women ($5/17 = 29\%$ to $10/17 = 59\%$) and 39% for men ($15/38 = 39\%$).

Effects on employment contracts and earnings

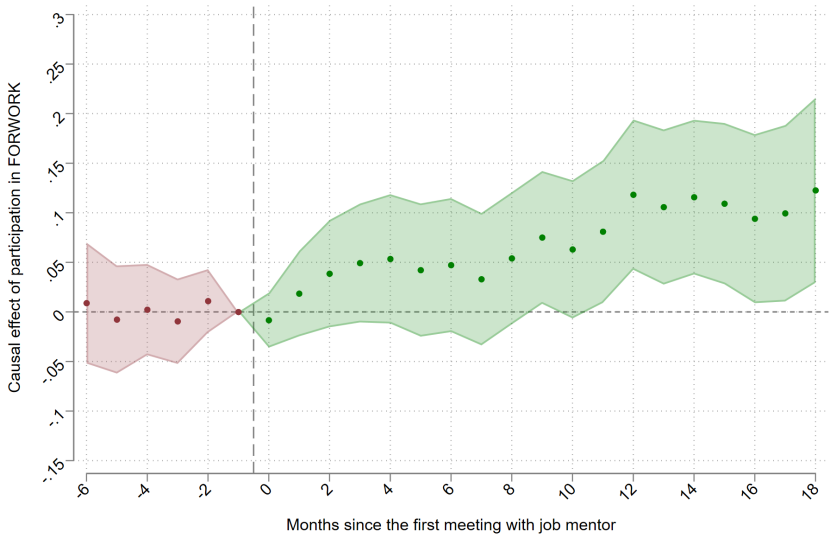
Our findings suggest that FORWORK has positive effects on employment, including increased job security and better salaries. The first three panels in Figure 16 show estimates of (5) which are obtained by setting $y_{i,t}$ to indicators of fixed-term contracts, open-ended contracts, and internships (excluding those subsidized under FORWORK), respectively. The treatment effects in these panels represent the percent difference with respect to the outcome observed for individuals who were not selected for the program. This parameterization was obtained by dividing $y_{i,t}$ by the average of this outcome using data for the $z_i = 0$ group only after December 2019, when FORWORK started.

Panel A indicates that, 18 months after job mentoring, the probability of participants being employed on a fixed-term contract is almost 50% higher than the baseline level for

Figure 15: Effect of job mentoring on employment by gender



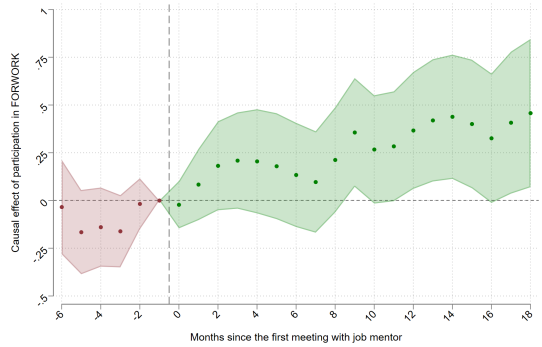
Panel A. Women



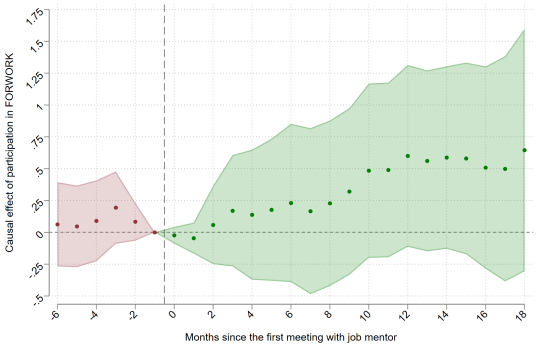
Panel B. Men

Notes: This figure shows estimates of the quantities (5), which are the dynamic causal effects on employment rates by length of exposure to FORWORK. The coefficients in this figure are obtained by aggregating (5) over the relevant groups g, distinguishing between women and men. See the footnote to Figure 14 for how to interpret the quantities reported. The outcome variable is an indicator for any paid contract with employers during the month, excluding employment through internships subsidized by FORWORK.

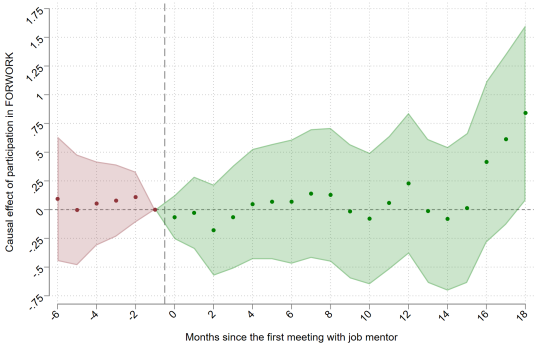
Figure 16: Effect on contracts and earnings



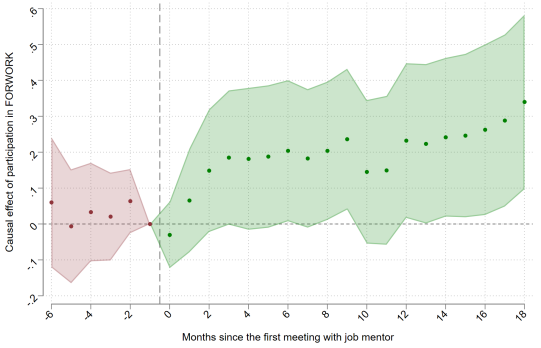
Panel A. Fixed-term



Panel B. Open-ended



Panel C. Internships



Panel D. Labor income

Notes: This figure shows estimates of the dynamic causal effects by length of exposure to FORWORK, represented by the quantities (5). To interpret the reported quantities, see the footnote in Figure 14. The outcome variable represents an indicator for employment status with a fixed-term contract (Panel A), an open-ended contract (Panel B), or an internship not subsidized through FORWORK (Panel C). The treatment effects are parameterized to represent percentages of the average outcome computed over the time period after FORWORK started using only individuals randomized out of the program. This baseline average is 18% (Panel A), 3% (Panel B), and 7% (Panel C). Panel D shows the effects on labor income, which is set to zero if unemployed or employed in internships subsidized through FORWORK.

the control group (18% in our data). Panel B reveals that job mentoring increases the probability of open-ended contracts by approximately 65% compared to what it would have been otherwise (3% in our data). Although the precision of estimates in this panel is lower, the pattern and size of treatment effects in the figure, compared to that of placebo coefficients, suggest that FORWORK enables a transition to more secure jobs. Panel C of the figure shows that FORWORK provides participants with more internship opportunities. Unlike fixed-term contracts, internships offer formalized training and job-related education, leading to industry-recognized certifications or credentials.

Panel D of Figure 16 shows the effects of FORWORK on labor earnings. Since SILP data track employment spells but not earnings, we measure the latter in steps. First, for each individual i (whether or not they participated in FORWORK), labor earnings in calendar month t are set to zero if i was unemployed in that month. Second, if employed in month t, we use information on i's employment episode (e.g., number of hours and type of contract – see Appendix Table A.3) and industry to compute the average wage in records with the same characteristics, in month t, from the Italian Labor Force Survey (LFS). Third, we set the variable $y_{i,t}$ to either zero if i is unemployed or to the imputed wage from LFS records if employed. The results in Panel D are obtained by dividing $y_{i,t}$ by the average of $y_{i,t}$ for individuals randomized out of FORWORK ($z_i = 0$) in month t. In other words, Panel D shows percent effects with respect to the average earnings without being eligible for FORWORK. We find effects on labor earnings around 30% after 18 months.

Job mentorship versus on-the-job experience

The causal effects of FORWORK compound employment services provided to all participants and more structured training through subsidized internships offered to selected individuals. As shown in Section 5, the nature and timing of these services are customized based on individualized plans developed during meetings with job mentors. In this section, we examine whether the on-the-job experience gained through subsidized internships had an additional

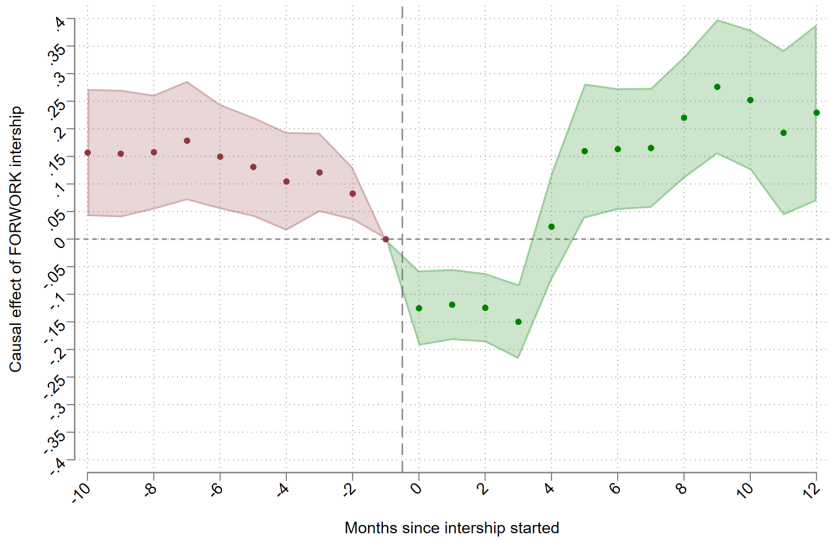
impact on labor market outcomes beyond the effects of job mentorship, which was provided to all participants.

Assessing the relative contribution of internships is challenging due to the non-random selection of interns, as discussed in Figure 8. The extent and nature of this selection are further explored in Panel A of Figure 17, which presents estimates of average treatment effect parameters from participation in subsidized internships. We follow five steps to obtain such estimates. First, we limit the sample to FORWORK participants, that is, only individuals who have met a job mentor. Second, we group these individuals into cohorts c based on their internship start date, assigning those who did not participate to the ∞ cohort. Third, because of the reduction in sample size, we compute (4) using the steps outlined earlier but without stratification by group g. This computation exploits differences in the timing of subsidized internships among FORWORK participants, while the causal parameter in Figure 14 relies on variation across individuals in the timing of their first meeting with a job mentor. Fourth, to account for differences in elapsed time since starting FORWORK, we control for the month of each individual's first job mentor meeting. We do so to isolate the additional impact of subsidized internships while adjusting for differences in program timing.[12]

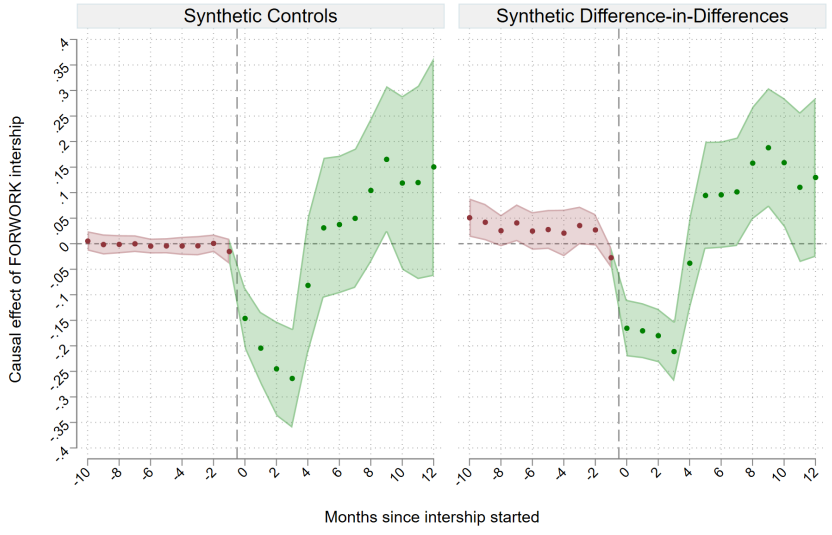
Panel A of Figure 17 shows that interns had a significantly higher likelihood of employment than other FORWORK participants six months before the start of their internships, followed by a pronounced Ashenfelter's dip in the months immediately preceding the internship. This pattern suggests that, on average, interns were selected from among participants who had experienced a recent negative employment shock. To address this clear violation of the parallel trends assumption, we implement the synthetic difference-in-differences approach proposed by Arkhangelsky et al. (2021), adapting it to account for the staggered timing of internship start dates. This method constructs a matched control unit, akin to a synthetic control, to generate counterfactual employment trajectories for interning FORWORK par-

[12]Estimators with controls are like those without controls, except that the first difference of the outcome in (4) is replaced by residuals from regressions of the first difference on control variables and time fixed effects. For examples, see Arkhangelsky et al. (2021) and de Chaisemartin and D'Haultfoeuille (2022).

Figure 17: Effect of FORWORK internships on employment



Panel A. $\widehat{ATT}_e(g,c)$ computed as in (4)



Panel B. $\widehat{ATT}_e(g,c)$ computed as in (6)

Notes: This figure presents estimates of dynamic causal effects on employment rates using the quantities in (5). The horizontal axis represents e, the number of months before or after the start date of the internship. In Panel A, the dots indicate the change in employment outcomes for interns from -1 to e, compared to the change for individuals who did not intern over the same period. In Panel B, the change is measured relative to the average pre-internship outcome. Panel A estimates (5) by aggregating the quantities in (4), while Panel B aggregates the quantities in (6). Red dots represent placebo effects before the internship, while green dots denote causal effects after e months. The shaded areas show 95% confidence bands, which are obtained from 200 bootstrap replications clustered at the individual level in Panel B. The outcome variable is an indicator for any paid contract with an employer during the month, set to zero when employment occurs through subsidized internships.

ticipants without relying on the parallel trends assumption. It enables the estimation of disaggregated dynamic treatment effects by comparing outcome changes between interns and their synthetic controls relative to pre-internship periods.

This approach yields the following treatment-control comparisons:

$$\widehat{ATT}_e(g,c) \equiv \frac{1}{N_{cg}} \sum_{i=1}^{N_{cg}} (y_{i,c+e} - \hat{y}_{i,c}) - \frac{1}{N_{\infty g}} \sum_{j=1}^{N_{\infty g}} \omega_i (y_{j,c+e} - \hat{y}_{j,c}), \tag{6}$$

where:

$$\hat{y}_{i,c} \equiv \sum_{t<c} \lambda_t y_{i,t}. \tag{7}$$

The structure of this estimator is analogous to (4): it compares the average outcome for interns in group g and cohort c with the average outcome of non-interns in group g. The key difference lies in the weighting approach: outcomes in (6) are weighted using unit-time-specific weights, ω_i and λ_t, to ensure a comparison of interns and non-intern individuals who were following parallel trends prior to internships. Like a synthetic control method, the employment trajectory of an intern before the internship is approximated using a weighted average of the time series observed for non-interns over the same calendar time. The weights ω_i define a synthetic control for each intern. The weights λ_t assign greater importance to pre-internships periods which are more similar to post-internship periods. In standard event studies, the pre-treatment baseline is chosen arbitrarily (e.g., the period before treatment, as in Panel A of Figure 17). By contrast, in expression (6), the weights λ_t are selected to minimize differences in pre-internship employment trends between interns and their synthetic controls. Therefore, unlike (4), the baseline is a pre-treatment aggregate (7).[13]

The re-weighting technique effectively addresses differences in pre-internship trends. Panel B of Figure 17 presents the quantities in (5) obtained by aggregating the causal effects in (6). For transparency, we report treatment effects obtained using both a synthetic control

[13]The algorithm yielding optimal weights is described in Arkhangelsky et al. (2021), Ciccia (2024) and Clarke et al. (2024). Mirroring how the figure in Panel A was obtained, we did not stratify by group g and we controlled for the elapsed time since starting FORWORK.

method (on the left) and the synthetic difference-in-differences method (on the right). Thus, comparing the two panels of Figure 17 allows us to assess how a difference-in-differences approach (Panel A) compares to a synthetic control and a synthetic difference-in-differences approach (Panel B).

The employment rate for interns declines during the first four months after their start date, a mechanical consequence of our definition of the outcome variable, which excludes on-the-job experience on FORWORK internships. After this initial period, the estimated causal effect of internships becomes positive and smaller than in Panel A. Our analysis estimates that individuals who gained on-the-job experience through FORWORK are approximately 10 percentage points more likely to be employed than if they had received job mentorship alone (based on the coefficient for period 11 in Panel B). To provide context, the estimated employment rate in post-internship periods for synthetic units without an internship is approximately 27%. This suggests that selection into internships may have prioritized FORWORK participants with lower employment prospects than randomized-out asylum seekers, whose employment rate is 33% in Figure 6. Given an estimated effect, the effect size of internships is approximately $10/27 \approx 37\%$.

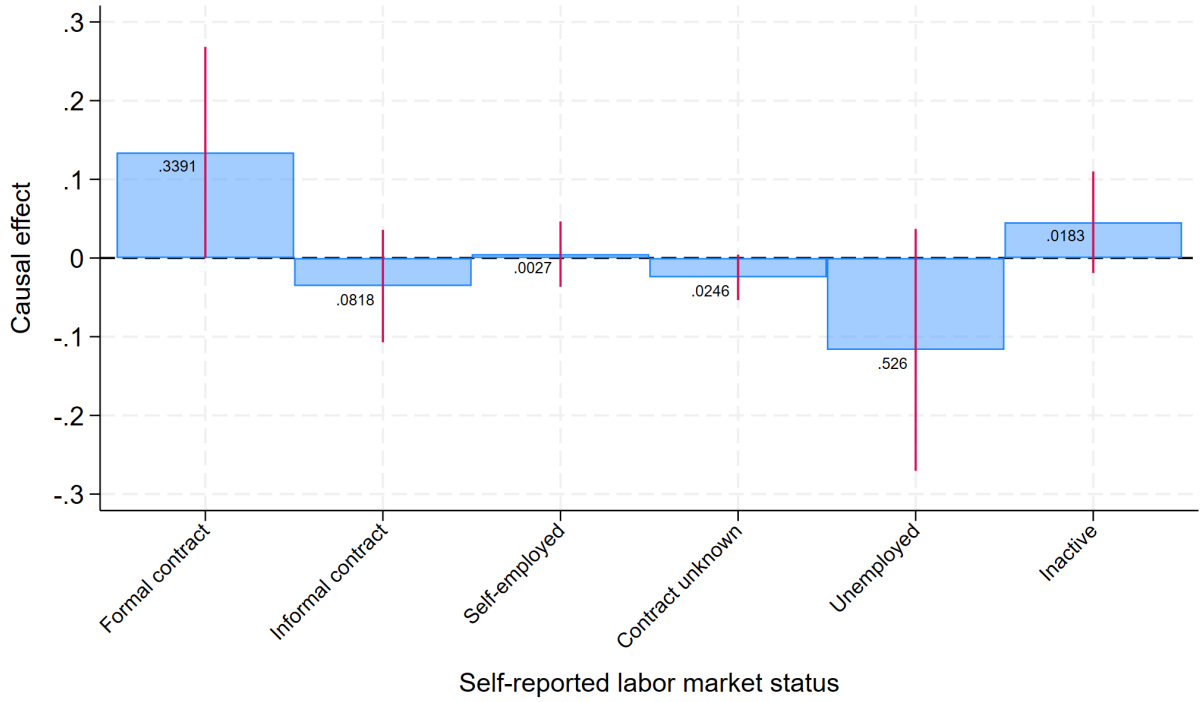
7 Job Quality and Social Integration

The survey data only provide two snapshots at baseline and endline times, thus they cannot track outcomes continuously over time. However, they offer the advantage of exploring additional dimensions of social integration beyond labor market outcomes, including interactions with people outside the CAS center and interpersonal trust towards Italians. In this section, we use the randomized eligibility – as in Figure 13 – to estimate the causal effects of participation in FORWORK activities on these outcomes.

We consider the following cross-sectional regression specification:

$$y_{i,\text{post}} = \delta_0(r_i) + \delta_1 d_i + u_i, \tag{8}$$

Figure 18: Effects of job mentoring on self-reported labor market participation



Notes: The bars in this figure represent 2SLS estimates of δ_1 from equation (8), with vertical lines representing confidence bands with 95% coverage. Standard errors are clustered by the institutions that manage the CAS centers. The outcomes are six mutually exclusive indicators for self-reported condition at the interview. We distinguish between respondents with jobs (the first three categories) based on the type of employment contract, self-employed, unemployed, and inactive. The number shown next to each bar is the estimate of γ_1 from equation (9), representing the counterfactual outcome for participants had they not received job mentoring under FORWORK (standard errors for this estimate are in Appendix Table B.1).

where $y_{i,\text{post}}$ represents the outcome at the endline interview, $\delta_0(r_i)$ is shorthand for randomization strata indicators, and d_i is the indicator for job mentoring (participation in FORWORK) defined in Section 5. We estimate the effects of job mentoring using 2SLS, instrumenting the indicator d_i with the randomized eligibility z_i. The estimation sample consists of individuals interviewed at both baseline and endline, and standard errors are clustered on institutions managing the CAS centers. The corresponding first-stage effect is shown in Appendix Table B.1. Consistent with the evidence from administrative records in Figure 9, the effect of eligibility on participation is about 70%. This value is obtained from the regression of d_i on z_i, controlling for randomization strata effects as in equation (8).

We begin by showing that the effects of mentoring on labor market participation are similar to those from the event-study analyses in the previous sections (point estimates in what follows are reported in Appendix Table B.1). We consider six mutually exclusive categories constructed from the self-reported condition at the interview. We classify respondents with jobs based on the type of employment contract: formal, informal, and unknown (if not reported). The remaining categories are self-employment, unemployment (those who are jobless and looking for a job), and inactivity (those who are neither employed nor unemployed). We show, in Figure 18, 2SLS estimates of δ_1 in equation (8) using indicators for each of the mutually exclusive categories as the outcome $y_{i,\text{post}}$. The effect of job mentoring on formal contracts is estimated at 13.42 percentage points in the first bar, a magnitude consistent with Figure 14.

To put this effect size in context, we report next to each bar the estimated counterfactual outcome that those receiving mentoring would have scored without FORWORK. We obtain this counterfactual by adapting methods developed by Abadie (2002) to estimate:

$$y_{i,\text{post}}(1 - d_i) = \gamma_0(r_i) + \gamma_1(1 - d_i) + \varepsilon_i. \tag{9}$$

The indicator for non-participation, $1-d_i$, is treated as endogenous and instrumented by the randomly assigned eligibility, z_i. The resulting estimate of γ_1 measures the average potential value of $y_{i,\text{post}}$ without job mentoring. In Figure 18, we report the value of this estimate obtained using for $y_{i,\text{post}}$, on the left-hand side of equation (9), each of the six indicators of labor market participation (standard errors are in Appendix Table B.1). It follows that the probability of employment with a formal contract is approximately $13.42/33.91 \approx 39.5\%$ higher after job mentoring than what it would have been otherwise for the same individuals. A virtue of this analysis is to show that this effect mostly follows from transitions away from unemployment. Bearing in mind that the limited sample size affects precision, we see that the probability of unemployment is $-11.68/52.60 \approx -22.2\%$ lower than what it would

Figure 19: Effects of job mentoring on self-assessed language proficiency

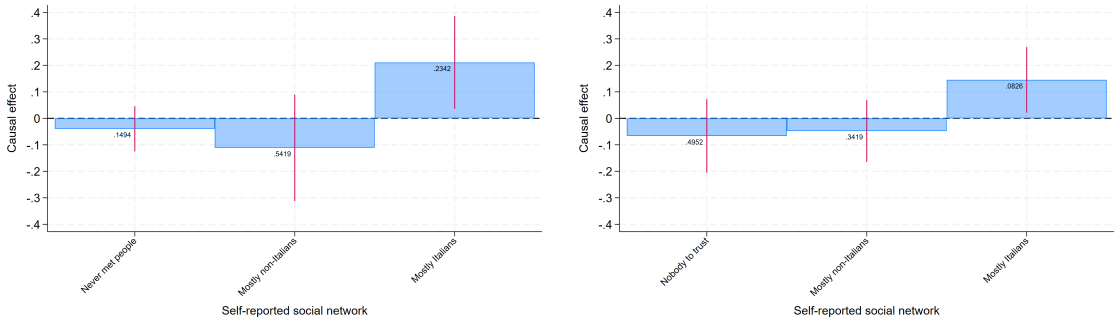
Notes: See the footnote to Figure 18 for how to interpret the quantities reported. The outcomes in each panel of this figure are three mutually exclusive indicators for self-assessed proficiency in the Italian language: below average, average, and above average. The analysis is carried out separately for four domains: understanding, speaking, reading, and writing.

have been otherwise without mentoring. The effect size corresponding to the probability of informal employment is $-3.56/8.18 \approx -43.5\%$. Finally, a notable finding is that survey data provide insight into the exposure of this specific migrant population to the informal labor market. According to our estimates, 8.2% of FORWORK participants would have been employed based on a verbal agreement or without a formal contract (see the *Informal contract* category in Figure 18).[14]

Job mentoring and the activities associated with participation in FORWORK affect the

[14]Due to the non-response rate in the endline survey, there is a concern about non-differential attrition with respect to z_i or substantial differences in the composition of survey respondents compared to the original population. Appendix Figure B.3 shows that attrition is not strongly correlated with eligibility status or the demographic variables used in the randomization (gender, country of origin, and age). Appendix Table B.1 demonstrates that estimates from equations (8) and (9) are robust to controlling for attrition by weighting observations. Additionally, Table B.1 shows that results are robust when baseline values of the outcome are included on the right-hand side of equations (8) and (9).

Figure 20: Effects of job mentoring on self-assessed social integration



Panel A. Meeting People

Panel B. Trusting People

Notes: See the footnote to Figure 18 for how to interpret the quantities reported. The outcomes in each panel of this figure are three mutually exclusive indicators for self-assessed social integration: frequency of meetings and nationality of people met outside the CAS center in the last month (Panel A); presence of anyone to trust outside the CAS center and their nationality (Panel B).

proficiency in the Italian language of participants. The survey provides measures of (self-assessed) ability to understand, speak, read, and write in Italian, on a scale from 1 to 5, with the central category denoting average proficiency. We use this information to create three indicators for proficiency (below average, average, and above average), separately for four domains (understanding, speaking, reading, and writing). Figure 19 is obtained using these indicators as the outcomes $y_{i,\text{post}}$ in equations (8) and (9). Participation in FORWORK shifts proficiency towards higher values. Specifically, the effects on the probability of above-average proficiency range between 15 and 20 percentage points, and are all statistically significant at conventional levels (the interval with 90% coverage does not include zero for the effect on understanding). Compared to the estimates for counterfactuals reported in the figure, the likelihood of participants being proficient above average nearly doubles compared to what it would have been without mentoring.

The improved employment opportunities and language skills yield increased interactions with Italians and increased trust towards them. This can be seen from Figure 20, which considers three mutually exclusive indicators for self-assessed social integration along two dimensions: frequency of meetings and nationality of people met outside the CAS center in the

last month (Panel A); presence of anyone to trust outside the CAS center and their nationality (Panel B). Participation in FORWORK shifts the distributions to the right, suggesting an increase in the number of social interactions and trust driven by more interactions with Italians. In particular, we find increases in the probability of meeting with Italians (21.10 percentage points compared to a counterfactual of 8.26 points) and trusting Italians (14.53 points and a counterfactual of 23.42 points). The nature of these effects is arguably beneficial for the long-term social integration of participants.

8 Conclusion

The sharp rise in the global refugee population over the past decade has placed increasing pressure on host countries to ensure the effective integration of asylum seekers, particularly into the labor market. As documented in previous work, delays and failures in this process can lead to long periods of inactivity, skill depreciation, and exclusion from formal employment—factors that increase the likelihood of involvement in the informal economy or, in some cases, criminal activity (Bell et al., 2013; Mastrobuoni and Pinotti, 2015; Pinotti, 2017; Fasani, 2018; Fasani et al., 2019). These dynamics, in turn, risk fueling anti-immigrant sentiment and political backlash. There is growing evidence that the so-called "European refugee crisis" of 2015–2017 paved the way for the electoral success of anti-immigrant parties in several countries, including Italy (Bratti et al., 2020; Campo et al., 2023, 2024), Greece (Dinas et al., 2019), Germany (Bredtmann, 2022), and Denmark (Dustmann et al., 2019). Once in power, these parties have frequently enacted more restrictive migration policies, which have further hampered the labor market integration of asylum seekers and refugees.

Labor market interventions that support early integration may help break this vicious circle. In this study, we evaluated the impact of a large-scale EU-funded intervention – FORWORK – implemented in Piedmont, a major region in Northern Italy. The program was designed to fast-track asylum seekers into employment during the waiting period for

international protection – prior to formal refugee recognition – through a package of services including job mentoring, placement assistance, and subsidized internships. These elements reflect the core recommendations advanced by major policy institutions, which advocate for early labor market access and practical, job-oriented support over traditional classroom-based training alone (Martín et al., 2016*a*,*b*; OECD, 2016; Schuettler and Caron, 2020).

Our findings show that FORWORK had a substantial impact on participants' employment outcomes. The program increased employment rates by 10 percentage points after 18 months, equivalent to a 30% increase relative to the counterfactual scenario. It also improved the quality of employment, as participants were more likely to access structured contracts, including both fixed-term and open-ended positions. Notably, subsidized internships played a key role in driving these results, with participants transitioning to non-subsidized jobs at significantly higher rates than other program beneficiaries. Beyond employment, FORWORK contributed to broader socio-economic integration. Survey data show that participants reported improved Italian language proficiency, expanded social networks, and greater trust in the host community. These non-economic outcomes are central to fostering long-term integration and social cohesion.

The FORWORK model, by targeting asylum seekers in a first-arrival country and intervening early in the reception phase, offers a novel and replicable approach to refugee integration. Its relatively low cost and scalability further support its potential as a key component of future integration strategies. Facilitating early access to the labor market allows asylum seekers to achieve financial independence more quickly and reduces pressure on welfare systems. In contrast, prolonged periods of inactivity and dependence on asylum support may increase the risk of poverty and even destitution once that support ends, as suggested by the recent rise in homelessness among asylum seekers (Barbu, 2022; Meyer et al., 2025). In this respect, active labor market interventions like FORWORK may offer more promising pathways to sustained integration than housing subsidies. Not only are housing subsidy programs for asylum seekers costly, but recent evidence shows they often fail to produce lasting

effects: initial improvements tend to fade quickly and may even undermine social cohesion with host communities (Tamim et al., 2025).

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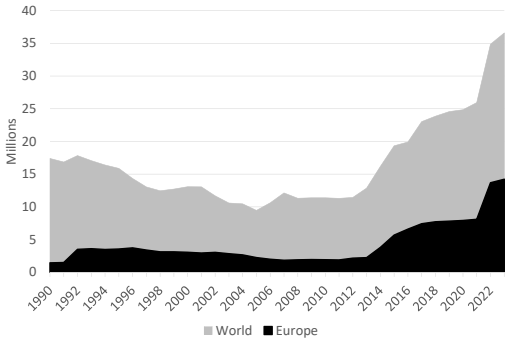
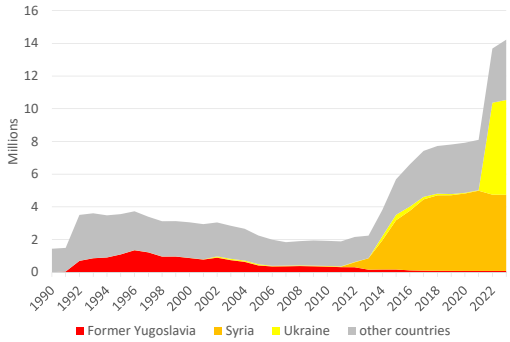
Online Appendix: Additional figures and tables

Figure A1: Asylum seekers and refugees in the world and in Europe



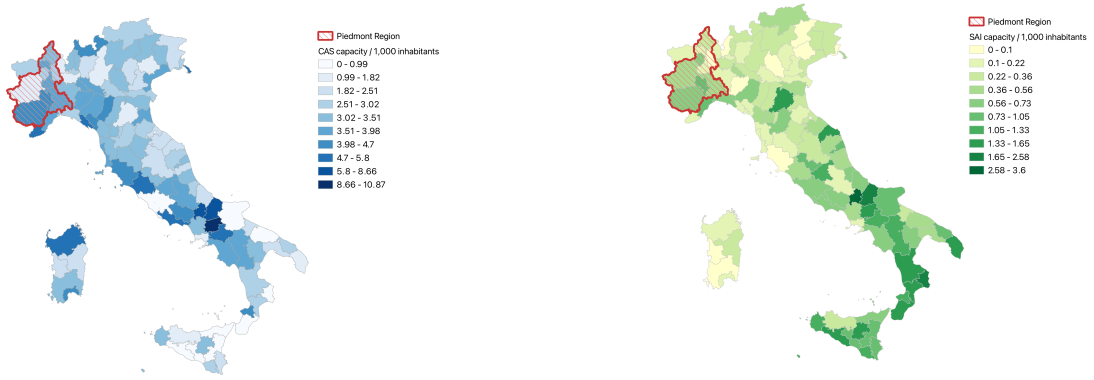
Panel A. World



Panel B. Europe

Source: United Nations High Commissioner for Refugees.

Figure A2: Asylum seekers hosted in CAS and SAI centers across Italian provinces, per 1,000 inhabitants



Panel A. CAS centers

Panel B. SAI centers

Notes: The maps show the distribution of asylum seekers hosted in CAS centers (Panel A) and SAI centers (Panel B) across Italian provinces, per 1,000 inhabitants. The red contour identifies Piedmont, the region targeted by FORWORK.

Table A.1: Populations and randomization of FORWORK eligibility for asylum seekers, CAS centers, and local institutions

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Managing Institutions			**CAS Centers**			**Asylum Seekers**		
	Eligible	**Control**	**Total**	**Eligible**	**Control**	**Total**	**Eligible**	**Control**	**Total**
North-West (Turin, outliers)	1	1	2	18	25	43	44	77	121
North-West (Turin, city)	8	8	16	18	16	34	131	125	256
North-West (Turin, outskirts)	5	5	10	16	17	33	77	111	188
North-West (Turin, whole province)	3	5	8	22	19	51	111	149	260
South-West	3	3	6	4	5	9	25	24	49
South-East	3	3	6	43	33	76	187	110	297
North-East	3	2	5	10	4	14	47	44	91
Total	26	27	53	131	129	260	622	640	1,262

Notes: This table displays the populations of asylum seekers, CAS centers, and local institutions considered for the randomization to FORWORK. The institutions managing CAS centers were stratified by the area of the region they serve, resulting in seven strata listed at the left. Within each stratum, all possible pairs of institutions were formed, selecting the combination that minimized the overall within-pair distance with respect to the number of CAS centers managed, average size of these centers, percentage of females and average age of asylum seekers hosted, and percentage of asylum seekers meeting the criteria to be considered for FORWORK. One institution in each pair was randomly assigned to FORWORK, with any additional institution in strata with an odd number also randomly assigned to one of the two groups. Columns (1), (4), and (7) show the number of institutions, CAS centers, and asylum seekers *eligible* for FORWORK because of the randomization, respectively. The control units in columns (2), (5), and (8) are those randomized out of FORWORK.

Table A.2: Summary statistics

	(1)	(2)	(3)	(4)	(5)	(6)
	Full Population		**SILP Population**		**Survey Population**	
	Control	**Eligible**	**Control**	**Eligible**	**Control**	**Eligible**
	640 (50.7%)	622 (49.3%)	563 (49.7%)	569 (50.3%)	461 (49.0%)	480 (51.0%)
Woman	0.247 (0.432)	0.204 (0.403)	0.240 (0.427)	0.202 (0.402)	0.254 (0.436)	0.242 (0.429)
From Africa region	0.716 (0.451)	0.740 (0.439)	0.719 (0.450)	0.745 (0.436)	0.681 (0.467)	0.769 (0.422)
From Asia and Pacific region	0.188 (0.391)	0.193 (0.395)	0.194 (0.395)	0.195 (0.397)	0.215 (0.411)	0.169 (0.375)
From other regions	0.097 (0.296)	0.068 (0.251)	0.087 (0.282)	0.060 (0.237)	0.104 (0.306)	0.062 (0.242)
Age	27.767 (6.757)	27.318 (7.046)	27.892 (6.770)	27.306 (6.965)	27.881 (6.956)	27.160 (6.725)
Arrived in the last year (2019)					0.040 (0.197)	0.038 (0.191)
Has any formal education					0.956 (0.205)	0.926 (0.262)
Proficiency in Italian language					8.106 (2.919)	8.312 (2.819)
Any labor earnings (last week)					0.312 (0.464)	0.350 (0.477)
Active (last week)					0.913 (0.282)	0.908 (0.289)
Employed (last week)					0.347 (0.477)	0.362 (0.481)
Never meets people outside CAS					0.380 (0.486)	0.385 (0.487)
Has nobody to trust outside CAS					0.618 (0.486)	0.633 (0.482)
	N = 1,262		**N = 1,132**		**N = 941**	

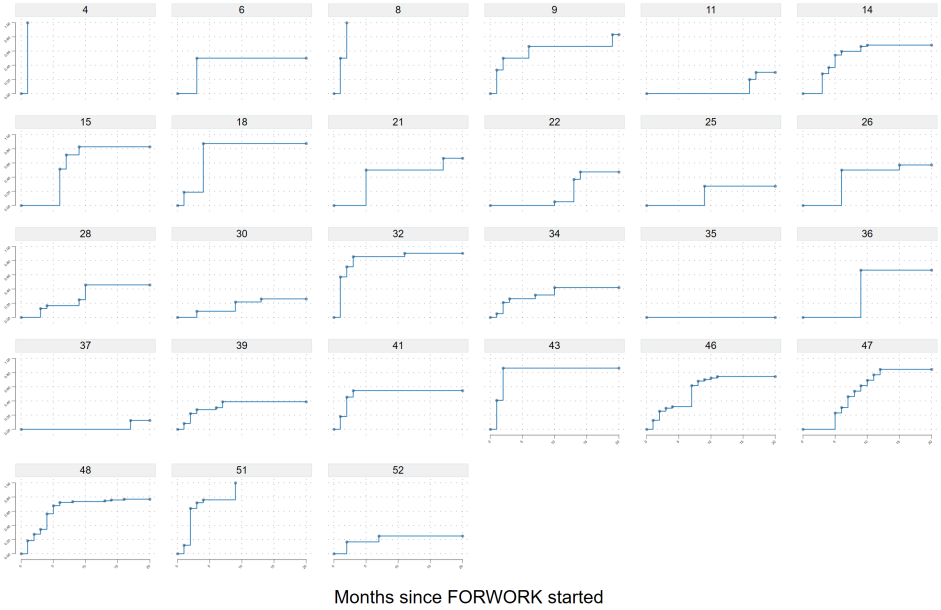
Notes: This table presents descriptive statistics for demographic variables observed in the listing of asylum seekers (gender, country of origin, and age), along with other variables measured only in the baseline survey. The first block (*Full Population*) reports the mean and standard deviation (in brackets) for each variable on the left, separately for asylum seekers randomized into FORWORK (*Eligible*) and those randomized out (*Control*). The second block (*SILP Population*) provides the same statistics for asylum seekers identified in administrative data. The third block (*Survey Population*) used only respondents to the baseline survey. The variables on the left are those used in Figure 7.

Table A.3: Employment contracts from SILP data

	(1)	(2)	(3)
	Eligibility Status		
	Control	**Eligible**	**Total**
Type of contract			
Temporary Contract	210 (61.8%)	285 (69.5%)	495 (66.0%)
Permanent Contract	16 (4.7%)	7 (1.7%)	23 (3.1%)
Internship	73 (21.5%)	88 (21.5%)	161 (21.5%)
Apprenticeship	11 (3.2%)	10 (2.4%)	21 (2.8%)
On-Call or Seasonal Work	12 (3.5%)	10 (2.4%)	22 (2.9%)
Shared Agricultural Employment	9 (2.6%)	10 (2.4%)	19 (2.5%)
Household Employment	7 (2.1%)	0 (0.0%)	7 (0.9%)
Other	2 (0.6%)	0 (0.0%)	2 (0.3%)
Contract duration (days)	160.438 (185.839)	136.509 (162.756)	147.371 (173.905)
Contracts per person	1.941 (1.220)	1.937 (0.923)	1.939 (1.067)
Employers per person	1.529 (0.825)	1.624 (0.845)	1.581 (0.837)
Most frequent occupations			
Agricultural Laborers	121 (35.6%)	177 (43.2%)	298 (39.7%)
Chefs and Cooks in Hotels and Restaurants	29 (8.5%)	19 (4.6%)	48 (6.4%)
Porters and Material Handlers	18 (5.3%)	19 (4.6%)	37 (4.9%)
Sanitation Workers and Janitors	5 (1.5%)	8 (2.0%)	13 (1.7%)
Office and Commercial Cleaning Staff	5 (1.5%)	9 (2.2%)	14 (1.9%)
Warehouse and Packaging Workers	7 (2.1%)	14 (3.4%)	21 (2.8%)
Catering Assistants and Food Service Workers	21 (6.2%)	25 (6.1%)	46 (6.1%)
Forestry and Specialized Agricultural Workers	15 (4.4%)	38 (9.3%)	53 (7.1%)
Couriers and Delivery Workers	10 (2.9%)	4 (1.0%)	14 (1.9%)
Construction Laborers	8 (2.4%)	6 (1.5%)	14 (1.9%)
Other	101 (29.7%)	91 (22.2%)	192 (25.6%)
	N = 340 (45.3%)	**N = 410 (54.7%)**	**N = 750 (100.0%)**

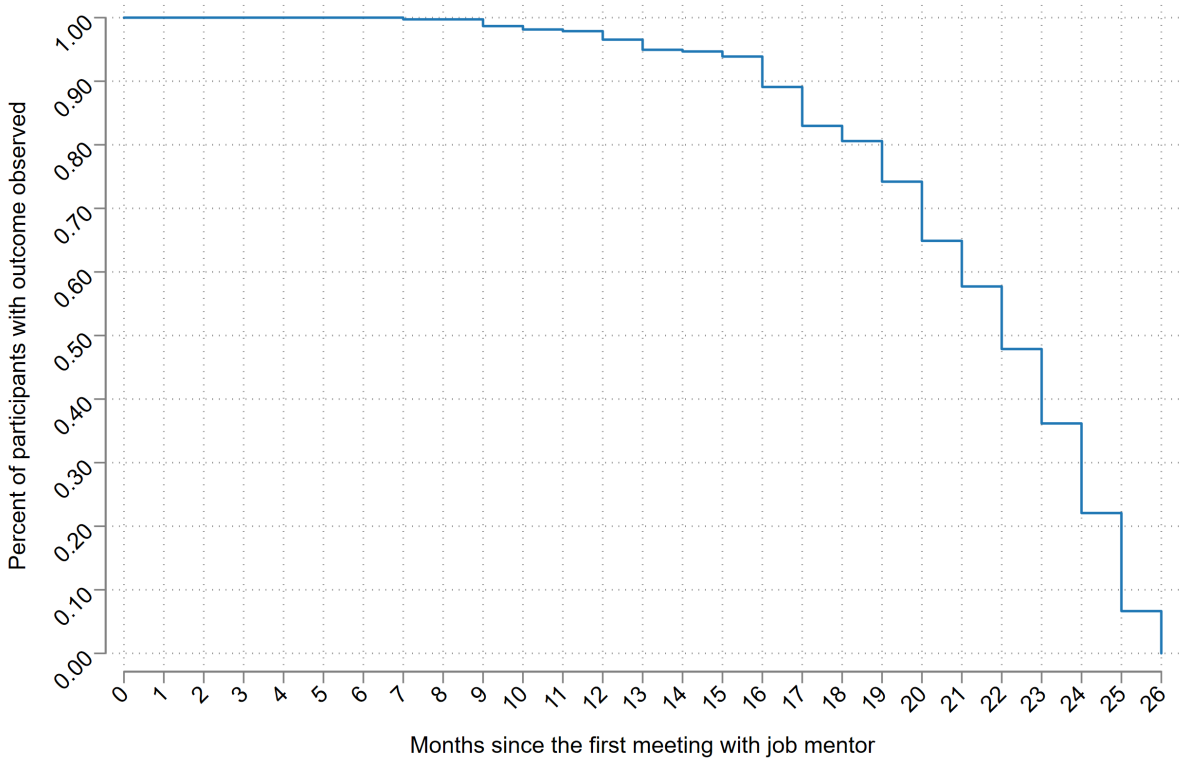
Notes: This table presents descriptive statistics for employment contracts recorded in SILP administrative data during the semester preceding the start of FORWORK (May to November 2019). Column (1) reports statistics for the *Control* group, consisting of asylum seekers randomized out of FORWORK. Column (2) reports statistics for the *Eligible* group, comprising asylum seekers randomized into FORWORK. Column (3) presents aggregate statistics for the full sample. Numbers in parentheses indicate the share of each category within the respective group or standard deviations. The total number of contracts exceeds the number of asylum seekers because multiple contracts per person are possible.

Figure A.1: Timing of participation in FORWORK by institutions managing CAS centers



Notes: The figure shows the percentage of eligible individuals who participated in the FORWORK program, categorized by the institutions managing CAS centers, over time. The horizontal axis displays the elapsed time in months since the intervention began in December 2019. The FORWORK program was randomized among 29 institutions, as shown in Table A.1. However, asylum seekers in two institutions did not participate in FORWORK. Therefore, this figure shows data for 27 institutions only.

Figure B.1: Staggered participation and compositional changes



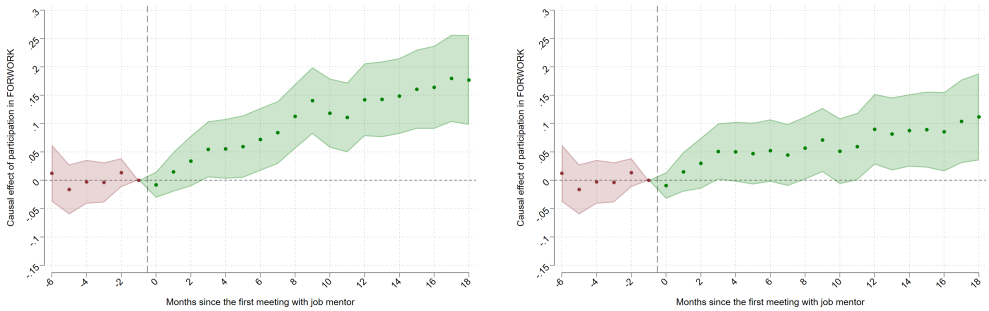
Notes: The figure represents the number of months observed after the first meeting with the job mentor, using the administrative panel of individuals from SILP data. The horizontal axis of the figure indicates the elapsed time, in months, since the first meeting with the job mentor. For each value on the horizontal axis, the vertical axis shows the percentage of participants for whom the outcome after treatment can be observed. For instance, the outcome after 7 months since the first meeting with the job mentor can be observed for all participants. However, the outcome after 16 months is observable for about 90% of participants, and for 65% of participants after 20 months. These differences arise due to the staggered date of participation in FORWORK across participants.

Table B.1: Effects on indicators of social integration

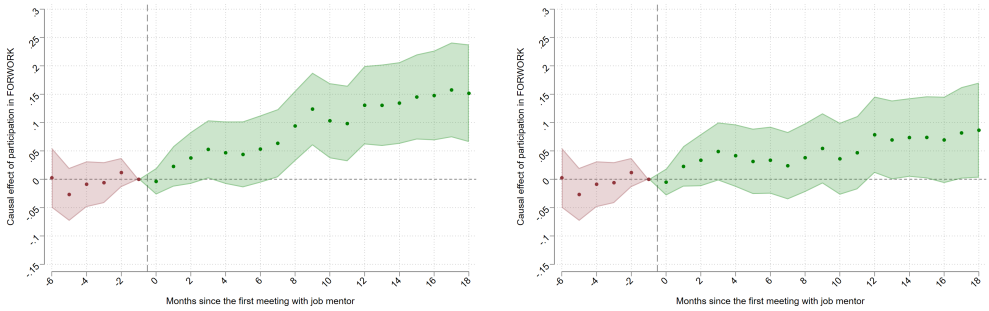
	Counterfactuals			Effects		
	(1)	(2)	(3)	(4)	(5)	(6)
			Panel A. First stage			
Participation				0.669***	0.658***	
				(0.051)	(0.053)	
			Panel B. Self-reported language skills			
Average understanding	0.478***	0.471***	0.468***	-0.073	-0.067	-0.041
	(0.054)	(0.056)	(0.051)	(0.071)	(0.072)	(0.066)
Understanding above average	0.298***	0.315***	0.352***	0.131	0.115	0.033
	(0.064)	(0.069)	(0.053)	(0.081)	(0.084)	(0.061)
Average speaking	0.542***	0.543***	0.561***	-0.128	-0.133	-0.139
	(0.078)	(0.080)	(0.073)	(0.093)	(0.096)	(0.091)
Speaking above average	0.164***	0.177***	0.194***	0.198***	0.190***	0.137**
	(0.054)	(0.054)	(0.048)	(0.071)	(0.072)	(0.056)
Average reading	0.422***	0.422***	0.431***	-0.064	-0.064	-0.073
	(0.052)	(0.054)	(0.050)	(0.063)	(0.064)	(0.061)
Reading above average	0.246***	0.254***	0.275***	0.166***	0.159**	0.111**
	(0.052)	(0.056)	(0.048)	(0.063)	(0.066)	(0.056)
Average writing	0.461***	0.458***	0.462***	-0.104*	-0.109*	-0.106*
	(0.046)	(0.046)	(0.046)	(0.062)	(0.062)	(0.062)
Writing above average	0.219***	0.229***	0.252***	0.163**	0.156**	0.104*
	(0.057)	(0.060)	(0.050)	(0.066)	(0.069)	(0.054)
			Panel C. Social integration			
Met mostly non-Italians	0.542***	0.538***	0.562***	-0.111	-0.099	-0.144
	(0.089)	(0.092)	(0.093)	(0.103)	(0.104)	(0.105)
Met mostly Italians	0.234***	0.229***	0.205***	0.211**	0.214**	0.259***
	(0.068)	(0.072)	(0.069)	(0.089)	(0.093)	(0.088)
Trust mostly non-Italians	0.342***	0.339***	0.346***	-0.048	-0.049	-0.050
	(0.053)	(0.055)	(0.052)	(0.060)	(0.062)	(0.059)
Trust mostly Italians	0.083*	0.088*	0.073	0.145**	0.135**	0.159***
	(0.050)	(0.050)	(0.048)	(0.063)	(0.062)	(0.061)
			Panel D. Labor market outcomes			
With formal contract	0.339***	0.336***	0.365***	0.134**	0.145**	0.106*
	(0.060)	(0.062)	(0.056)	(0.068)	(0.071)	(0.062)
With informal contract	0.082**	0.076**	0.080**	-0.036	-0.028	-0.033
	(0.033)	(0.035)	(0.033)	(0.036)	(0.039)	(0.036)
With unknown contract	0.025*	0.025*	0.025*	-0.025*	-0.025*	-0.025*
	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)
Self-employed	0.003	0.001	0.003	0.005	0.008	0.004
	(0.020)	(0.023)	(0.020)	(0.021)	(0.024)	(0.021)
Unemployed	0.526***	0.544***	0.518***	-0.117	-0.147*	-0.107
	(0.067)	(0.072)	(0.062)	(0.078)	(0.080)	(0.071)
Labor income	184.810***	181.685***	215.505***	20.114	39.148	-16.042
	(65.824)	(66.154)	(61.119)	(72.704)	(72.354)	(66.264)
Observations	404	404	404	404	404	404

Notes: Column (4) shows 2SLS estimates from equation (8) in Panels B to D and the corresponding first stage in Panel A. Estimates in column (4) across panels are shown as bars in Figure 18 (Panel D), Figure 19 (Panel B), and Figure 20 (Panel C). Estimates of the average counterfactual outcomes without participation, from equation (9), are shown in column (1). Column (5) shows 2SLS estimates from equation (8) using weights to adjust for imbalances introduced by attrition. These weights are constructed from the propensity scores in Figure B.3. Column (2) reports the counterfactual outcomes for compliers obtained from this specification. Column (6) provides the 2SLS estimates after adding the measurement from the baseline survey of the outcome on the left to equation (8). Column (3) reports the corresponding counterfactual outcomes for compliers. Standard errors are clustered by the institutions that manage the CAS centers.

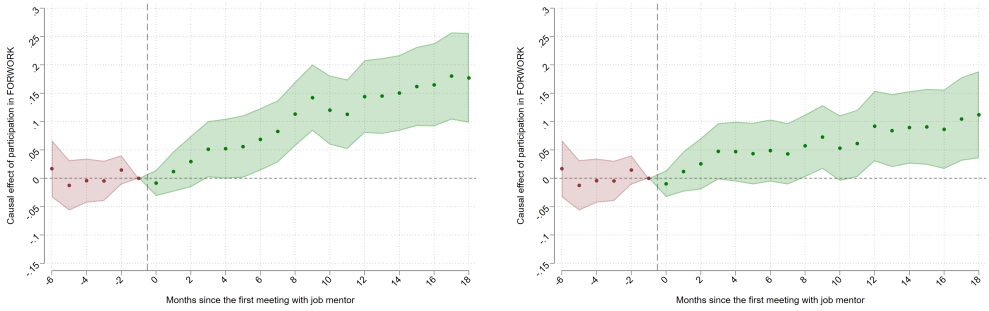
Figure B.2: Effect on employment (sensitivity analysis)



Panel A. $z_i = 0$ or $(z_i = 1, d_i = 0)$



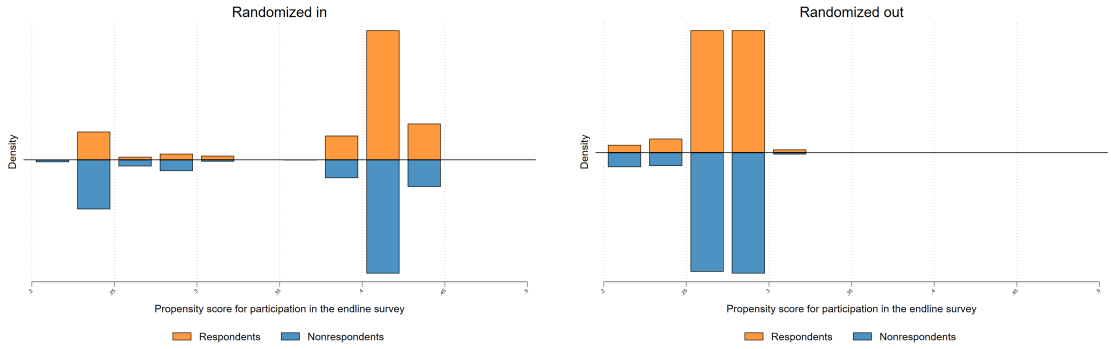
Panel B. $z_i = 0$ only



Panel C. $z_i = 0$, $(z_i = 1, d_i = 0)$ or not-yet-switched $(z_i = 1, d_i = 1)$

Notes: This figure presents estimates of the dynamic causal effects on employment rates by length of exposure to FORWORK, which are represented by the quantities (5). The outcome variable in the graph at the left of all panels is an indicator of any paid contract with employers during the month. If the employment is through internships subsidized by FORWORK, the indicator is set to zero in the graph at the right. The control group in Panel A in the same as in Figure 14: individuals with $z_i = 0$ or with $(z_i = 1, d_i = 0)$. In Panel B, only individuals who were randomized out of FORWORK $(z_i = 0)$ are included. In Panel C, individuals who have not yet been treated at each horizon considered on the horizontal axis are also included.

Figure B.3: Probability of participation in the endline survey by eligibility status



Notes: The figure shows the results of regressions predicting the likelihood of completing the endline survey based on the following variables x_{pre}: gender, country of origin (Africa region, Asia and Pacific region, or other), and age. The regressions were run separately for asylum seekers who were randomized to FORWORK (left-hand panel, $z_i = 1$) and those who were not (right-hand panel, $z_i = 0$). Predicted probabilities from these regressions $\hat{p}(x_{pre}, z_i)$ were obtained for all asylum seekers, and the distributions of these predictions are shown in each panel for both respondents to the endline survey (at the top) and non-respondents (at the bottom). Columns (2) and (5) of Table B.1 weight respondents to the endline survey by $1/\hat{p}(x_{pre}, z_i)$. These weights ensure that the distribution of x_{pre} among respondents to the endline survey with $z_i = \{0, 1\}$ is the same as in the original population of asylum seekers with $z_i = \{0, 1\}$.