Overcoming Youth Unemployment in Egypt:
Randomized Evaluations Showcase the Promise of Active Labor Market Programs



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Executive Summary

Background

Promoting youth employment has become a policy priority. Across the globe, youth are usually subject to higher unemployment rates than other segments of the labor market, which can have important impacts on the youth themselves as well as society as a whole (Gregg and Tominey 2005). Recent decades have therefore witnessed an increase in efforts to improve employment among youth through so called Active Labor Market Programs (ALMPs) (McKenzie and Robalino 2010; Blattman and Ralston 2015). Promoting youth employment has also become a policy priority in Egypt. Millions of dollars are spent every year on youth employment projects, some focusing on helping youth find wage-employment opportunities and others supporting them in starting their own micro-businesses. This usually happens through provision of some kind of business-, vocational- or soft-skill training, coaching or counseling, search and matching help and/or some kind of capital.

Despite the widespread use of Active Labor Market Programs, the evidence on the effectiveness of these types of programs is still limited, especially in the Middle East and North Africa (MENA) region, and in Egypt in particular. Historically, the MENA region has been the region with the least available evidence on youth employment programs (Betcherman et al. 2007). While there has been a push for more evaluations in the region over the past 10 years, robust evidence on ALMPs in Egypt remains scarce. As noted by a recent ILO report on ALMPs in Egypt:

> *"Many policy makers and implementers lack an understanding of the importance of evaluation for programme design and improvement. As a result, monitoring and evaluation frameworks are often underdeveloped, and only a minority of programmes conduct evaluation. Robust impact assessments are almost non-existent."* (ILO 2017)

The ILO report therefore emphasizes the need for more evidence-based programming to ensure that future youth employment programs can be based on lessons from international and local practice.

The Emergency Employment Investment Project (EEIP) sought to support young people's transition to employment while building the evidence-base on youth employment programming in Egypt. The Emergency Employment Investment Project (2014-2017) was a grant in the amount of EUR 67.6 million financed by the European Union (EU), administered by the World Bank and implemented by the Micro, Small and Medium Enterprise Development Agency (MSMEDA) (formerly the Social Fund for Development). Specifically, the "Improving Youth Employability" component financed the piloting of youth employment projects aimed at facilitating young people's sustainable transition into wage- and self-employment. Promising pilot projects were identified and implemented by NGOs based on a demand-driven process, whereby the NGOs proposed interventions adapted to the needs of youth and employers in the local context. The goal of the program was to identify and evaluate promising approaches to facilitate young people's transition to work and contribute to building the evidence-base on youth employment programming in Egypt.

The Evaluation and Findings

The present study provides some of the first experimental evidence of the effectiveness of employment interventions in Egypt, and globally some of the first tests of the impacts of providing additional counseling services to job seekers. To achieve this, unemployed youth in Cairo and Upper Egypt were randomly split into three groups: a group that received training/employment support, a group that received training/employment support *and* counseling, and a control group that did not receive those services. Following up on those individuals over time, the evaluation sought to give answers to the following research questions:

1. What is the effect of training/employment support on the labor market outcomes of youth, such as employment status and income?
2. How does the addition of individualized counseling impact the employment outcomes of participants?
3. Do the impacts of this intervention differ based on the gender of the participants?
4. Does the intervention have impacts on non-labor market outcomes, such as female empowerment?

The study was successfully completed. Randomization between the different groups was successful and attrition was low (6% for the endline survey).

The impact evaluation suggests that the training/employment support that was provided at both NGOs were successful in improving labor market outcomes for participants, with much stronger results for young women. Key observed impacts include:

- Employment: In Upper Egypt employment for the treatment groups was four times higher than employment in the control group (59% vs 15%), while in Cairo the treatment group's employment rate was 12 percentage points greater than the control (47% vs 35%). These impacts are both economically and statistically significant, and on the upper end of estimates of similar programs elsewhere in the world.

- Income: Income in both locations increased in important ways. In Upper Egypt income increased by about 58% (from 139LE/month to 220LE/month), while in Cairo income increased by 36% on average (from 286LE/month to 388LE/month). These impacts are again both economically and statistically significant, and on the upper end of estimates of similar programs elsewhere in the world.

- Economic empowerment of women: The impact evaluation suggests that the positive impacts of the interventions are much more pronounced for women, potentially showcasing that even though the labor market for women in Egypt is more challenging, there are effective ways to support women in engaging with the market more fully.

- Impact from additional counseling: There does not seem to be any additional benefit from the individualized counseling, but it is possible that these benefits will take longer to manifest. It is also possible that the lack of additional impacts from counseling are partially due to the inexperience of the implementing NGOs with providing counseling at scale, as this was their first experience doing so.

While these estimates are from relatively short-term follow up surveys (between 4-14 months post intervention), the results largely hold when we restrict to those surveys implemented at least 10 months after the intervention. We hope to return to the sample to collect longer term data which would allow us to assess the sustainability of these positive employment impacts.

Conclusions

Overall, the study provides some important conclusions for Active Labor Market Programs in Egypt and beyond. In particular:

- **ALMPs can have strong results on employment and income, especially for the most disadvantaged populations.** Critics have argued that *"Active labour market policies are not likely to create additional employment, substantially upgrade skills or facilitate job matching in the Egyptian context"* (Assaad and Krafft 2018). In contrast, the findings of this study suggest that ALMPs can have an important role to play in facilitating young people's transition to the labor market. This appears to be especially true for disadvantaged groups such as young women and youth in poor areas (EEIP was targeted at the poorest districts in Egypt). Indeed, the impacts found in this study are higher than those typically found in ALMP evaluations. Overall, the findings are in line with international evidence which suggests that, when well designed and implemented, Active Labor Market Programs for youth can be effective (Kluve et al. 2017). Hence, ALMPs in Egypt should form part of the policy mix, complementing macroeconomic and investment policies.

- **Public-private partnerships are a promising implementation modality for ALMPs.** EEIP was implemented as a partnership between the Micro, Small and Medium Enterprise Development Agency (MSMEDA), a government agency now under the Ministry of Trade and Industry, and over 40 Non-Governmental Organizations (NGOs). MSMEDA provided the general principles for programming (e.g. target districts, eligibility criteria for youth, etc.) while giving a lot of flexibility to the NGOs to select the type of interventions best suited for the specific target group and local context. Importantly, NGOs had to meet clear employment targets, which were further emphasized through performance-based contracts (part of the contract value was paid upon independent verification of employment results achieved). The positive results from the evaluation may suggest that such public-private partnerships for employment promotion, which are still a very novel approach in Egypt, could hold promise for the future.

- **Conducting robust impact evaluations of ALMPs is possible, even for smaller organizations.** Improving the evidence-base of youth employment programs in Egypt and beyond is contingent on a more widespread use of robust evaluation methods. Yet, many organizations often argue that these types of methods are not feasible for their programs. This evaluation has shown that committed government agencies and NGOs, with the technical support of a research team and the financial assistance of the funding agency, can conduct rigorous impact evaluations.

- **There is still much to learn about how to optimize design and delivery of ALMPs.** While this study has shown the potential of ALMPs in Egypt, there is clearly scope for further research on what types of programs are most effective, for which parts of the population, and under what conditions. Returning to the current sample to collect longer term data would be a productive initial step for additional learning on the long-term effects of ALMPs in Egypt. While we did not find impacts from the counseling intervention we believe that counseling can still be a cost-effective tool for policy makers to consider, when designed and implemented in an appropriate way. By cultivating a culture of experimentation and rigorous evaluation governments and NGOs can test and enhance different approaches and interventions, gaining valuable input for smart policy decisions in the future.

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1. Country Background and Program Context

In January 2011 nationwide protests, led by young Egyptians, took place in many major cities in Egypt. After 18 days, the protests led to the fall of Mubarak's 30-year regime. The few years following to January 2011 were a time of upheaval and uncertainty. The political transition Egypt underwent led to major changes in the economy. Sectors like services are a large part of the Egyptian economy were badly affected. This resulted in many job losses and closed businesses as the number of tourists plunged post 2011. The official unemployment rate jumped from 9% in 2010 to 13% in the following years. Youth unemployment also increased sharply at the time and did not recover. It has averaged 35% from 2011 to today[1].

1.1. The Emergency Employment Investment Project (EEIP)

In response to the economic and social challenges facing Egypt in the aftermath of the Arab Spring, the Government of Egypt launched the Emergency Employment Investment Project (EEIP) in 2014 (ended in December 2017). EEIP was a grant in the amount of EUR 67.6 million financed by the European Union (EU). EEIP was administered by the World Bank and implemented by the Micro, Small and Medium Enterprise Development Agency (MSMEDA) (formerly the Social Fund for Development). EEIP was a stand-alone complementary financing to the World Bank-funded Emergency Labor Intensive Investment Project.

The project development objective of EEIP was to:

i) create short-term employment opportunities for the unemployed, unskilled and semi-skilled workers in selected locations in Egypt;
ii) contribute to the creation and/or maintenance of community infrastructure and services;
iii) improve access to basic infrastructure and community services among the target population; and
iv) improve the employability of young men and women through short-term training or other support services to facilitate transitions to wage and self-employment.

The project consisted of four components:

- ***Component 1:*** *Employment-intensive Small-scale Infrastructure Sub-projects*
- ***Component 2:*** *Intensive Community Service Sub-projects and Youth Employment Activities*
- ***Component 3:*** *Improving Workers' Employability*
- ***Component 4:*** *Project Implementation and Capacity Building*

1.2. The "Improving Workers' Employability" Component

Approach

While component 1 and 2 were focused on rapid creation of temporary jobs for income support, EEIP's component 3 financed the piloting of youth employment sub-projects aimed at facilitating young people's more sustainable transition into wage- and self-employment. The pilot projects were designed and implemented by NGOs based on a demand-driven process, whereby the NGOs proposed interventions adapted to the needs of youth and employers in the

[1] https://data.worldbank.org/country/egypt-arab-rep

local context. The NGOs were selected following a competitive selection process (open call for proposals). The goal of this component was to identify and evaluate promising approaches to facilitate young people's transition to work and contribute to building the evidence-base on youth employment programming in Egypt. In total, 42 NGO projects were funded (from almost 200 Expressions of Interest by NGOs) for a volume of approximately six million Euros.

Target groups

The interventions were targeted at the following groups:

- Youth aged 18-29 (in some cases up to 35)
- Individuals who were out-of-school and out of work (unemployed or inactive)
- Special focus on particularly disadvantaged groups in the labor market (e.g. poor, young women, low levels of education, disability, no prior work in the formal sector, etc.)
- Beneficiaries had to live in the poorest districts of Egypt as defined by Egypt's Poverty Map

In total, the component reached approximately 16,300 beneficiaries, of which 62% were female, and about 75% of beneficiaries had limited levels of completed education (secondary or less).

General design and implementation features

The component introduced several features in line with good practices globally. These included:

- **Public-private partnership:** The component was implemented as a collaboration between the public sector (MSMEDA), which administered the sub-grants, and NGOs which implemented the services for final beneficiaries. To this end, NGO projects were selected on a competitive basis. A two-stage selection process was set up, consisting of an Expression of Interest (as the basis for assessing general NGO capacity) and a detailed proposal (as the basis for judging the quality of the proposed project). Recognising the heterogeneity of potential beneficiaries and the variation of labor market barriers by local context, the component gave large flexibility to NGOs to select among a range of employment promotion services (e.g. technical training, soft skills, intermediation, wage- and training subsidies, financial and non-financial services, etc.).

- **Adoption of global good practices:** In order to ensure that projects were in line with labor market needs, applicant NGOs had to provide proof as part of their proposal that there was actual demand for the jobs they were trying to fill, for instance through employment commitment letters (in the case of wage-employment) and market studies (in the case of self-employment). MSMEDA's Call for Proposals further encouraged the use of other global good practices, such as combining technical and soft-skills training or providing holistic support (training, financing, advisory services) to aspiring young entrepreneurs.

- **Focus on results:** In line with international best-practice, the programme put in place some strong results focus and held implementing NGOs accountable for their achievements rather than for their activities. For instance, a performance-based final payment of 10% of the contract value was established that would only be paid if the

implementing NGOs met the job placement targets. The results reported by NGOs were validated through independent verification.

- **Focus on learning and knowledge generation:** A key objective of the programme was to learn from supported projects to inform future youth employment interventions in Egypt. Therefore, the following instruments were used:
    - MSMEDA's Management Information System (MIS) tracking individual-level beneficiary data and standard indicators from all contracted NGOs to ensure a systematic monitoring;
    - A process evaluation of a sample of 12 NGOs to understand common success factors and challenges of supported interventions;
    - A quantitative impact evaluation of two NGOs to provide a robust assessment of specific employment promotion approaches (the focus of this report);
    - A qualitative assessment of the two NGOs participating in the impact evaluation to acquire a deeper understanding of their implementation dynamics.

Indeed, a rigorous impact evaluation was planned for the program from the beginning. During the call for proposals period researchers were brought in to work with promising NGOs to develop a plan to implement a randomized control trial on their activities. This was an opportunity to produce some of the first rigorous evidence in Egypt about the impact of these types of employment interventions, as well as to build the capacity of local researchers and the MSMEDA about impact evaluation.

2. How this Evaluation Informs Local and Global Debates

2.1. Policy Discourse in Egypt and Beyond

The general narrative on employment promotion in Egypt is focused on the macroeconomic environment (ILO, 2017). There is a general view that the key bottleneck to employment in Egypt is the slow creation of private sector jobs. In turn, the most important mechanism to achieve employment is believed to be through more investment and economic growth. As a result, the policy areas prioritized by the government are related to macroeconomic stability, business climate and investment policies. For instance, large investments in megaprojects, such as the new administrative capital and the Suez Canal Axis development project, are commonly portrayed as the main drivers for job creation.

On the other hand, problems related to skills mismatch and intermediation in the Egyptian labor market tend to receive much less attention in political and public discourse. Contrary to the very prominent pillar on economic development, Egypt's *Sustainable Development Strategy: Egypt Vision 2030* does not put emphasis on labor market policies to facilitate people's transition to employment and higher productivity. Indeed, even though many active labor market policies and programs (ALMPs) have been implemented in Egypt by the public sector and civil society, their overall reputation has been constrained by often weak performance, such as program fragmentation, lack of targeting, and insufficient monitoring and evaluation (Semlali and Angel-Urdinola 2012). This has led many observers to criticize ALMPs and question their potential for employment promotion in Egypt (see for example Assaad and Krafft 2018).

At the same time, there is increased recognition globally that while economic growth is necessary for improved living conditions and poverty reduction, it is insufficient on its own, and that the link between macroeconomic growth to employment and prosperity is by no means automatic. Instead, in line with the Sustainable Development Goals, countries should seek "inclusive growth"; that is, 'economic growth that creates opportunity for all segments of the population and distributes the dividends of increased prosperity, both in monetary and non-monetary terms, fairly across society'.[2] Hence, it is commonly believed that for growth to have broad-based employment effects it needs to be inclusive of a large part of a country's labor force (Ianchovichina and Lundstrom 2009), thereby highlighting the need for labor market policies and institutions that can assist people in their transition to work, especially the most disadvantaged groups in society, such as youth.

Box 1: Definition of Active Labor Market Programs (ALMPs)

Active Labor Market Programs are (relatively short-term)[3] interventions aimed at the improvement of the beneficiaries' prospects of finding gainful employment or to otherwise increase their earnings capacity. This includes spending on labor market training, employment services, self-employment assistance, and subsidized employment (e.g. employment subsidies or public works). ALMPs are typically targeted at unemployed, youth (to transition from school to work), and at other vulnerable groups (e.g. the disabled).

Source: Adapted from Organization for Economic Cooperation and Development (OECD)

2.2. Mixed Evidence on Active Labor Market Programs Globally

This report builds on a growing body of economic literature that investigates the impact of different forms of ALMPs on labor market outcomes of young people. The literature shows a broad variation in program effectiveness across different interventions depending on the type of the intervention, the labor market outcomes, types of beneficiaries, the timeframe of analysis and the country context (Card, Kluve, and Weber 2017; Cho and Honorati 2014; McKenzie and Woodruff 2012; Grimm and Paffhausen 2015; Fox and Kaul 2017; Kluve et al. 2017; Blattman and Ralston 2015).

Some of the main findings in the global literature on ALMPs include:

- **No type of intervention is better than others per se.** Different ALMPs have different purposes and characteristics. The constraints holding people back from employment vary from place to place. Thus, accurate diagnostics in each context is key in order to choose the type of ALMP best suited to that context.
- **ALMPs can improve labor market outcomes.** On average, ALMPs generate positive impacts, stressing that they can be an important instrument in facilitating transitions to work. In some cases, programs were able to even achieve very large impacts on employment and earnings (Blattman et al. 2013; Blattman, Fiala, and Martinez 2014; Mckenzie 2015; Martínez et al. 2016).
- **However, most of the time impacts of ALMPs are small.** While some programs show strong success, most evaluated programs across the world have zero to minor impacts, increasing employment and earnings by usually no more than a few percentage points.

[2] OECD website, http://www.oecd.org/inclusive-growth.
[3] The typical duration is less than 6 months, in some case it can be up to 1-2 years.

- **The effects become larger with longer time horizons.** While job search assistance and job matching services typically have larger short-term effects, which then do not increase further or fade out in the longer run, other ALMPs, such as job training programs, show increased impacts in the long run due to the human capital investment they comprise.
- **Programs for low-income and disadvantaged groups tend to be more effective.** For instance, a focus on low-income youth or youth with low levels of education has been found to trigger higher employment and earnings than for youth across all country income levels.
- **ALMPs tend to have higher impacts in low- and middle-income countries than in high-income countries.** This can be explained by the fact that developing countries often have large cohorts of disadvantaged people, for whom investments in skills and employment opportunities can lead to larger improvements.
- **Quality of design and implementation is key.** A key takeaway is that the success of ALMPs crucially depends on how well they are conceived and implemented. Indeed, program design and implementation tend to drive results more strongly than the type of intervention; in other words, the "how" may be more important than the "what" (Kluve et al. 2017).

Because the quality of design and implementation of programs is key, there has been increasing discussion about different features of ALMPs that can increase their effectiveness. Against this background, providing supplementary counseling to unemployed individuals has become a common point of discussion among policy makers and practitioners. Counseling could play an important role in helping young people understand and retain the business and vocational knowledge that they receive during regular training settings. They could also benefit from the tailored nature of counseling which focuses on their own strengths and weaknesses and gives the beneficiary a chance to ask questions and discuss topics most relevant for them.

Despite the interest in counseling as a tool in addressing unemployment, only two studies experimentally evaluate the impact of counseling in a developing country context. The first is a study of counseling of inexperienced female microenterprise owners in Kenya by successful business owners in their community (Brooks, Donovan, and Johnson 2017). They find a large positive short-term impact on business profits that dissipate by the end of the first year after training. The second also takes place in Kenya and focuses on female micro-enterprises (Mckenzie and Puerto 2017). While the second study finds impacts from a short training program they do not find any differential impact from additional counseling services. Our study contributes to this literature by providing evidence from a new context and about different types of programs (wage- vs self-employment).

2.3. Limited Evidence in the MENA Region

Historically, the MENA region has been the region with the least available evidence on youth employment programs (Betcherman et al. 2007). While there has been a push for more quality evaluations in the region over the past 10 years, the evidence remains limited and more robust evaluations will be needed in the future to properly assess the impact of ALMPs.

Randomized impact evaluations on (youth) employment in the MENA region mainly include:

- Crépon et al. (2015) evaluated the impact of microcredit in rural areas of Morocco. The authors found that households with pre-existing economic activities saved and borrowed to expand their activities, while no business outcomes were observed for households without a pre-existing activity.
- Groh et al. (2015) tested the impact of an intensive screening and matching service based on educational backgrounds and psychometric assessments. They found that, when matches were made, youth often rejected the opportunity to have an interview, and when a job offer was received, they rejected this offer or quickly quit the job over 80 percent of the time.
- McKenzie, Assaf and Cusolito (2016) evaluated the impact of a youth internship program in Yemen that provided firms with a subsidy to hire recent graduates of universities and vocational schools. They found that the program significantly enhanced young people's work experience and that internship recipients had better employment outcomes than the control group in the first five months after the program ended.
- Groh et al (2013) ran a randomized experiment in Jordan in which female community college graduates were randomly assigned to a soft skills training program. Despite the program being twice as long in length as the average program in the region, and taught by a well-regarded provider, there was no significant employment impact over three rounds of follow-up surveys.
- The World Bank and the Tunisian National Observatory for Employment and Qualifications (2016) evaluated the impact of an entrepreneurship curriculum in universities, finding that that the impacts of the program were short-lived: While students assigned to the entrepreneurship track were slightly more likely to be self-employed one year after graduation, there was no impact on self-employment four years after graduation. This was largely attributed to challenges in access to finance and startup funds.
- MCC (2016) evaluated post-creation support to Income Generating Activities (IGAs) in Morocco, finding an average increase in production and sales, as well as in profits and survival rate among beneficiaries.
- Dyer et al. (2017) evaluated the impact of the skills training program "100 hours to success" in Morocco which offered financial education, life skills and business skills. The study found no evidence that participating in the training systematically affected long-term outcomes or choices related to education.
- World Bank (2017) evaluated the impact of the Emergency Labor-Intensive Investment Project (ELIIP) in Egypt – a cash-for-work program implemented by MSMEDA. In line with other evaluations of public works programs, it finds short-term impacts on temporary employment and income, but that these effects are not sustained after the end of the project.

2.4. Contribution to the Academic Literature

There are many things that are still left to learn about which types of interventions work best in helping unemployed youth. In fact, it is still an open question whether types of programs work at all in Egypt as there is only one other randomized evaluation of an employment intervention in the country that we are aware of (the recent evaluation of the cash-for-work program mentioned above).[4] With this in mind, we designed two randomized evaluations that would provide the first rigorous evidence about how these programs work in Egypt and would also provide lessons for similar programs outside the country. We will also contribute more broadly to the literatures on vocational training/job matching and business training/capital

[4] We do not consider the randomized evaluation "Evaluating the Effects of Entrepreneurship Edutainment in Egypt" by Barsoum et al. (2017) as an employment program.

support. Each of these literatures are growing, with a need for a more robust evidence base that can allow us to improve our understanding of what works and what does not when trying to help individuals find employment.

The impact assessment was conducted through two NGOs. NGO1's activities were focused on promoting self-employment while NGO2's focused on wage-employment. Our work with NGO1 sits in the middle of the studies in the microcredit and training literature which largely find minimal impacts (Banerjee, Karlan, and Zinman 2015), and the studies in the capital grants (de Mel, McKenzie, and Woodruff 2008) and "targeting the ultra-poor" (TUP) literature which find sizeable and sustained impacts (Banerjee et al. 2015). As we will discuss in detail below, our treatment groups in NGO1 got training but also the opportunity to apply for a capital support in the form of a grant and a loan for their businesses. This is more support than normal microcredit programs but less than the TUP programs, while also focusing on a different set of participants, and related to the larger literature on business programs (Grimm and Paffhausen 2015; Cho and Honorati 2014; Banerjee et al. 2015)

Our work with NGO2 sits much more closely to the training and job matching literature. While the program is similar to other programs of this type that were tried in the past, the context is very different. At the same time, there are no papers that look at counseling support for job seekers in the developing world, as far as we are aware, which is an important contribution of this work.

There is also an increased recognition in the field that impact evaluations can be made more policy-relevant by comparing the effectiveness of different version of an intervention (e.g. through so called mechanism experiments or cross-cutting designs, see for example (Ludwig, Kling, and Mullainathan 2011). Our evaluation therefore tests the effectiveness of the NGOs programs with and without an individualized counselling component.

2.5. Evaluation Objectives

The present study seeks to answer the following research questions:

1. **What is the effect of training/employment support on labor market outcomes of youths?** The primary hypothesis is that the support provided by the NGOs would have a positive impact on labor market outcomes (e.g., income, employment, working hours, job satisfaction, etc.).
2. **How does the addition of individualized counseling impact the employment outcomes of participants?** To understand which component of the intervention drives the results, the study seeks to investigate whether having an additional counseling component to the combination of other employment assistance would lead to even better labor market outcomes.
3. **Do the impacts of this intervention differ based on the gender of participants?** Given the large differences in gender norms and attitudes in Egypt, as well as differences in labor force participation and unemployment rates, we expect that the impacts of the programs may differ by gender.
4. **Does the intervention have impacts on non-labor market outcomes?** In addition to employment outcomes, we are also interested in other relevant outcomes including female empowerment through their ability to have a say in the financial and family planning decisions of the household. We also look at impact the intervention could have on assets ownership, household consumption, and subjective well-being.

3. Evaluation Details

3.1. Identification of the NGOs

MSMEDA selected NGOs suitable for the implementation of the employment program funded by the EU using their own set of criteria and experience in the field. Eligible NGOs were then asked if they were interested in partaking in an impact evaluation and were invited to attend an information workshop to meet with researchers to see if there was scope to collaborate on a randomized impact evaluation. Ten proposals were shortlisted and the best two were selected. The selected NGOs were Together Association for Development and Environment (Maan in Arabic) which we refer to as NGO1 and Alashanik Ya Baladi Association for Sustainable Development (AYB) which we refer to as NGO2. The activities of NGO1 (Maan) ran in Beni-Suef and Minia and focused mainly on self-employment while NGO2 (AYB) took place in Greater Cairo and Beni-Suef and focused on wage employment interventions.

3.2. Overview of Interventions

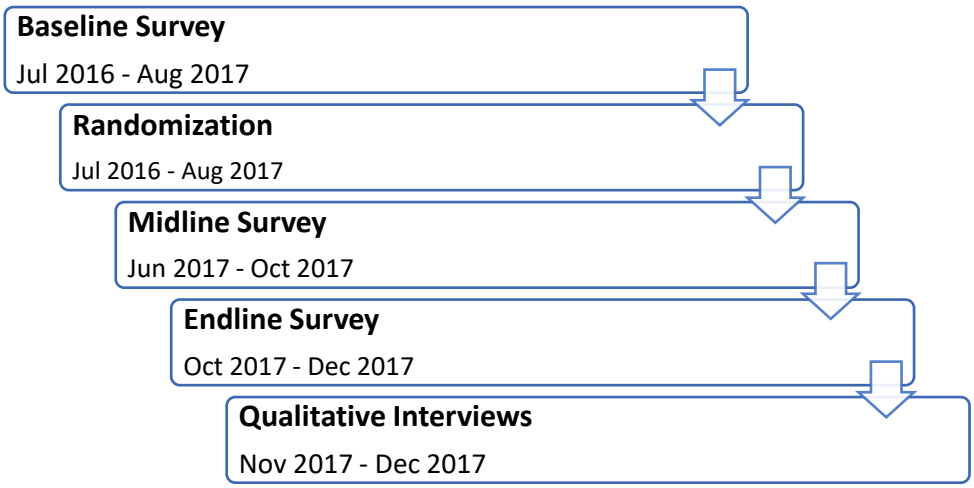
Each NGO focused on different solutions for the youth unemployment problems in their context. NGO1 provided training and capital support for people to start their own businesses, while NGO2 provided training and job matching assistance for people to find a job opportunity. While the two NGOs have many differences, we were able to unify the design of the randomized evaluation across both NGOs. In particular, both NGOs have two treatment groups and a control group. Each NGO provided the treatment groups with the NGO's normal suite of services which we will describe in detail below. A randomly chosen subset of individuals were also provided individualized counseling support, which was a new service that the NGOs began providing at scale during this project.

3.3. Evaluation Method

We used a Randomized Control Trial (RCT) to evaluate the impact of the interventions. After the baseline survey, individuals were randomly allocated to three groups: a group that received training, a group that received training and counseling, and a control group that did not receive any services. For NGO1 the treatment groups were also allowed to apply for capital assistance in the form of loans and grants, allocated on a competitive basis. We will describe the details of each group further in sections 4 and 5 below.

The randomization is meant to ensure that individuals across the three groups are on average similar to each other with regard to all observable and unobservable characteristics before the implementation of the intervention. This allows us to compare outcomes across groups after the intervention and to be sure that any differences we find at that point can be attributed to the impact of the program itself. Figure 1 shows the timeline of the implementation of the intervention. Below we provide more detail on each phase of the evaluation.

Figure 1: Timeline of impact evaluation activities



3.4. Baseline

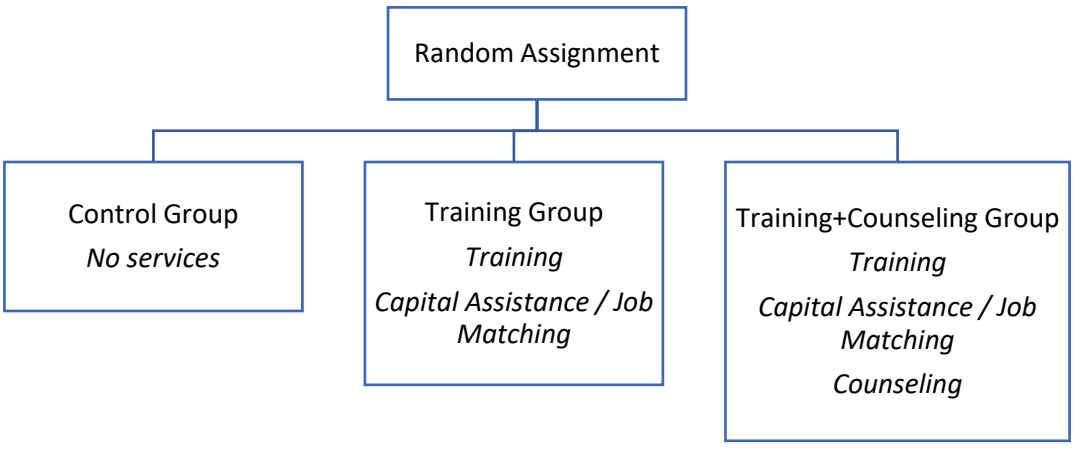
The baseline survey form was designed to collect information on program participants that have already filled a preliminary basic application with the NGO. The form included sections on contact information, work and employment status, socioeconomic status, previous training programs, previous capital assistance and travel and immigration preferences.

Baseline data collection started in July 2016 and enumerators were joined in the field by the research team for their first day of data collection to monitor their performance. Interviews were administered mainly on the premises of partner NGOs. Interviews took 15 minutes on average.

3.5. Randomization

After applicants to the program completed the baseline survey the NGOs would send a list of suggested participants for a particular set of training classes. The research team would assess whether or not the individuals were eligible for the services, in particular whether they met the requirements set by MSMEDA and whether they had completed the baseline survey. Afterwards the research team would randomize them into one of the three groups (control, training, training + counseling) (see Figure 2). The randomized lists would return to the NGO for them to provide the services as instructed (or not, in the case of the control group).

Figure 2: Impact evaluation design



3.6. Short Term Phone Follow Up

A short phone interview was implemented, on average, three months after participants received the intervention. Most questions came directly from the baseline survey in addition to some question about the intervention itself. The survey started in mid-June 2017 and was completed in late October 2017.

Based on the research team instructions, telephone enumerators reached out to 1,611 individuals, of which 1,011 were from NGO1 (Maan) and 600 were from NGO2 (AYB).[5] The data collection firm successfully surveyed a total of 1,136 beneficiaries from both NGOs but was not able to survey the remaining 475. The phone survey had about 71% reach of the total sample. The unreachable beneficiaries had inaccurate contact information, provided wrong phone numbers to the NGO or would not answer their phones. Annex A shows the sample outreach for both NGOs, broken down by governorate.

3.7. Endline

The endline survey was a more comprehensive data collection effort implemented using in-person interviews. The intent was to implement the endline survey on the entire sample about one year after the start of their support by the NGO. However, due to the delays of implementation, this was not possible while keeping within the boundaries of the EU grant, thus interviews were implemented between 4 and 14 months after the implementation of the program. We hope to have the opportunity to return to these individuals at a later time to collect data on their longer-term outcomes.

A team of 15 field enumerators were responsible for the endline data collection, five enumerators in each of the three governorates. The enumerators were accompanied by 4 field coordinators to help track the beneficiaries. The team was able to track almost all beneficiaries in all governorates. An incentive of a mobile phone card was offered to all beneficiaries to fill the endline survey. The survey had an attrition rate of about 6%. Annex A shows the status of beneficiaries in the endline survey broken down by governorate for each NGO. In total, the team was able to collect 975 (96.4%) complete forms from NGO1 (Maan which focused on self-employment) and 662 (91.3%) from NGO2 (AYB which focused on wage employment).

3.8. Benefits of Additional Follow-up

As mentioned above, many of the endline surveys were completed only a few months after the start of implementation: 64% of the sample had a gap of fewer than 10 months between receiving the intervention and the endline survey. Such short-term data collection may underestimate the impact of the intervention and is limited in showing the long-term effects that could take over a year to manifest. Another round of data collection, at least twelve months after the intervention, is needed for further analyses. The research team would like to continue with further rounds of data collection to estimate the long-term impact of the intervention conditional on funding availability.

[5] Not all beneficiaries in the NGO2 (AYB) sample were reached out to. NGO2 (AYB) concluded their services of training and mentorship later than expected and the research team decided to skip the midline survey for 125 beneficiaries out of total of 725 and proceed with the endline survey instead.

3.9. Qualitative Study

A World Bank consultant carried out a qualitative assessment during November 2017 and December 2017. The objective of the study was to learn what was successful and unsuccessful during the program from both participants and implementers (Kwinana 2018). The study was also designed to provide additional clarity on preliminary findings from the quantitative impact evaluation and thereby facilitate the interpretation of results.

3.10. Data Collection Details and Quality Control

The research team deployed an electronic data collection tool for the data collection and management using the SurveyCTO platform. All enumerators during each phase of data collection were trained on how to conduct the survey. The training tackled each of the following points: (1) Familiarize the enumerators with the survey form, (2) Explain SurveyCTO data collection application with all its functionalities: data entry, form submission and upload, and (3) Practice collecting data on tablet devices through role playing.

In the short-term phone survey, one-day training was given to the enumerators. In the endline round the training lasted for three days before the data collection with a two-day refresher half way through the data collection. A local data collection firm named *Athar* managed training logistics based on training content developed by the research team.

The research team was able to verify the quality of the data collected through spot checks, where team members planned surprise visits to enumerators in the field. High frequency checks were applied to the data where the data was scrutinized for consistency. Additionally, parts of the survey interviews were audio recorded. The recordings were implemented in a way to guarantee that only the voice of the surveyor was recorded. Members of a research support team listened to over 90% of the interviews to verify the quality of the data collection. Results of this audit activity were reported to the research team and feedback was given to the field enumerators weekly, after which the recordings were destroyed for privacy reasons.

3.11. Research Team Details

The impact evaluation was led by Ahmed Elsayed, Senior Research Associate at Institute of Labor Economics (IZA) and Adam Osman, Assistant Professor at University of Illinois at Urbana-Champagne (UIUC). The local team was led by World Bank short-term consultant Abdelrahman Nagy, with support from Mohamed Zanati who was in charge of day to day communication with NGO1 (Maan), Sahar Al Bazar who was in charge of day to day communication with NGO2 (AYB) in the early stages of the evaluation, and Mohsen Nagy who led communication with NGO2 after February 2017. Rahma Ali was responsible for data management, data analysis and communication with MSMEDA. Finally, Kevin Hempel (Prospera Consulting) provided support to the study design and coordinated the impact evaluation process on behalf of the World Bank.

Data collection was outsourced to *Athar*, a data collection firm based in Cairo. MSMEDA was responsible for the contracting process with the firm. Human Subjects approval was obtained from UIUC's Institutional Review Board (Protocol 17191).

4. NGO1: Maan (Focused on Self-Employment)

4.1. The Interventions and Evaluation

NGO1's program began with an open call for applications from individuals who wanted training and counseling services. The NGO managed to get many more applications than they had spots for (about 2,000 applications). They vetted those 2,000 applications and chose the 1,011 that they thought were most suited for the program and most likely to follow through the full training. The application and vetting process was rolling, i.e. the NGO would collect applicants for a particular cohort of classes and then the research team would randomize that particular cohort into the three groups: (1) a group that gets training (337 individuals), (2) a group that gets training and counseling (335 individuals), and (3) a control group that would not receive those services (339 individuals). All the individuals in the two treatment groups were also allowed to apply for capital assistance in the form of loans or grants which was provided on a competitive basis. The average cost per beneficiary served was approximately 3850 EGP for the training group and EGP 4350 for the training and counseling group. A detailed description of the different intervention components is given below:

Training

The training focused on three main industries (livestock fattening, sewing, and construction) and consisted of two main parts:

(1) Business training focused on business-related topics including feasibility studies, marketing, project management, and book keeping. This training was the same for all industries. The three-day training was divided into two days before the vocational training and then one day after the end of the vocational training.

(2) Vocational training was industry-specific and ranged from 6 days (48 hours) in livestock fattening to 17 days (136 hours) in both sewing and construction. This training focused on the technical aspects of the industry.

Capital Assistance

In addition to business and vocational training, all of those in the treatment group were allowed to apply for capital assistance which consisted of a cash-grant and a loan. This capital assistance acted as seed funding for beneficiary's private businesses. In most cases, beneficiaries started businesses in the same field as the vocational training they received.

The value of the in-kind grants ranged between 1,000 EGP (56.30 USD) and 2,000 EGP (112.60 USD). The in-kind grants took the form of equipment to start the business such as livestock, sewing machines, plumbing kit, etc. Loan amounts started from 1,000 EGP (56.30 USD) up to 10,000 EGP (563 USD), and were given to help beneficiaries purchase more capital for their businesses. The loans had a repayment period of a maximum of 24 months with a 14% interest rate and were paid back in monthly or quarterly installments. Funding constraints did not allow the capital assistance to be provided to everyone and so it was given to beneficiaries who, according to the implementing partner, showed commitment and active participation in the training sessions as well as a solid feasibility study for their proposed businesses. Overall about 75% of beneficiaries in the two treatment groups received capital assistance.

Counseling

Beneficiaries in the second treatment group also received one-on-one sessions with a counselor. Each beneficiary was entitled to receive between 6-8 sessions of 30-60 minutes each. During these sessions, beneficiaries and the counselor discussed the beneficiary's challenges and the progress of their project. The counseling sessions started at the beginning of the training and continued during, and after, the training period. There was no pre-defined content, as opposed to regular training, but the counseling aimed to provide more tailored guidance to the beneficiary. A counselor would help a beneficiary better state his/her goals and help him/her figure out his/her strengths and weaknesses. Moreover, the counselor would review with the beneficiary the different steps of setting up the project as taught in the business training component and ensure that the beneficiary was on track with proper business operations. Counselors for this component were experts in the industry of the beneficiary's small business. They were outsourced by the NGO and there were an average of four counselors for each industry. Each counselor met with an average of 20 beneficiaries. Detailed information on the content of the counseling (which would differ across beneficiaries) were collected by the research team.

4.2. Sample Characteristics and Baseline Balance

Table 1 outlines the basic demographic characteristics of the sample for NGO1. Most of the sample was female (84%). Although the organization's outreach activities were not gender specific, females showed much more interest in the training programs relative to males. The sample participants were about 24 years old on average, and 59% are married.

Two thirds of the sample participants had gone to a vocational education high school. Less than 14% of the sample has a university degree. The average household monthly income for sample participants is 775 EGP (43USD). Less than 1% of the sample reported household monthly income of more than 2000 EGP (112USD) and about 23% of the sample reported household monthly income of less than 500 EGP (28USD).

A small proportion, 5%, reported that they were employed at baseline. About 13% of the sample reported working for a family member or at home for no pay and about 82% of the sample were reported unemployed. Less than 2% of the sample had received loans previously while less than 1% of the sample had received a grant or a grant and a loan.

Annex B, Table 1 reports the balance checks performed on the sample. The results of the regressions indicate that there are no significant differences among the two treatment groups and the control group. The differences are measured in terms of education, marital status, age, household size, household income, self-employment preference, previous work, migration preference and work status at baseline. We implement a joint test of significance, comparing all of the characteristics listed in the table for each treatment group to the control group and cannot reject that they are statistically equivalent (i.e. the groups are all statistically equal to one another).

Table 1: NGO1 Sample Characteristics

	Control	Training	Training and Counseling
	(1)	(2)	(3)
Age	24.36	24.28	24.13
Female	84%	82%	84%
Primary Education	12%	13%	12%
College Education	14%	11%	13%
Married	59%	60%	57%
Household Size	6	5.99	6.05
Average Household Income in EGP	778	787.12	774.58
Working for an Income	5%	5%	5%
Observations	337	335	339

Note: Differences in characteristics across the three groups are not statistically significant.

Implementation Check (First Stage Regression)

Table 2 and Annex B, Table 2 report our first stage regression, i.e. checks of program implementation. The regression results show significant differences between each of the treatment groups and the control group in terms of the number of administrative and vocational training days attended, as well as on loan amount and grant amounts received. It shows that, on average, those in the training group received 2.58 days of admin training while those in the training and counseling group received 2.65 days of admin training, with the control group receiving none. Similarly, the training group received 8.42 days of technical training while the training and counseling group received 8.71 days of technical training on average, with no training given to the control group. Neither the control group nor the training group received any counseling while the training and counseling group received an average of 5.12 counseling sessions. About 75% of both treatment groups received about 1,300 EGP in loans and 1,000 EGP in grants, with no significant difference between them.

All together this showcases that the randomization was implemented successfully. The control group got nearly no services at all, while the training group got the same services given to the training and counseling group except that they did not get any counseling services and the final experimental group got everything that the training group got in addition to counseling support.

Table 2: NGO1 Implementation Across Groups

	Control	Training		Training and Counseling	
	(1)	(2)		(3)	
Business Training Attendance	0	2.58	***	2.65	***
Vocational Training Attendance	0	8.42	***	8.71	***
Total Counseling Sessions	0.05	0.01		4.32	***
Total Borrowed	4.5	1,324.50	***	1,314.50	***
Total Grant	4.5	1,004.50	***	999.5	***
Observations	337	335		339	

4.3. Results of Impact Evaluation

Given the balance across all three groups, and the fact that the randomization protocol was correctly followed, we can now estimate the impacts of the program by comparing the average outcomes of each group to each other. Annex B, Table 3 shows the impact of the intervention on primary labor market outcomes and finds large and positive impacts. Figures 3-7 summarize the impacts graphically.

4.3.1. Impact on Labor Market Outcomes

Employment: The share of those reporting that they are currently working increased by 45 percentage points for the training group and by 43 percentage points for the treated training and counseling group relative to the control group. This represents an increase of around 300% relative to the average of 15% employment in the control group. This is remarkable.

Income: Monthly personal income increased by around 91 EGP (66%) for the training group and by 63 EGP (45%) for the training and counseling group relative to the average of 139 EGP in the control group. Similarly, the share of individuals who report having no income decreased significantly in the two treatment groups relative to the control group: by 17 percentage points for the training only group and by 19 percentage points for the training and counseling groups. This represents a decline relative to the average of 32% in the control group by 53% and 59%, respectively.

Working time: The amount of time spent on work increased for the two treatment groups. Weekly working hours increased by 7.85 hours for the training group and by 8.6 for the training and counseling group. This represents a large increase relative to the control group average of 6 working hours per week.

Wealth: The improvement in labor market outcomes is translated into better economic conditions. Annex B, Table 3 also shows that beneficiaries in the two treatment groups achieved a significant increase in their wealth index which is a measured by the amount of different assets owned by the household.

Figure *3*: NGO1 impacts on employment status

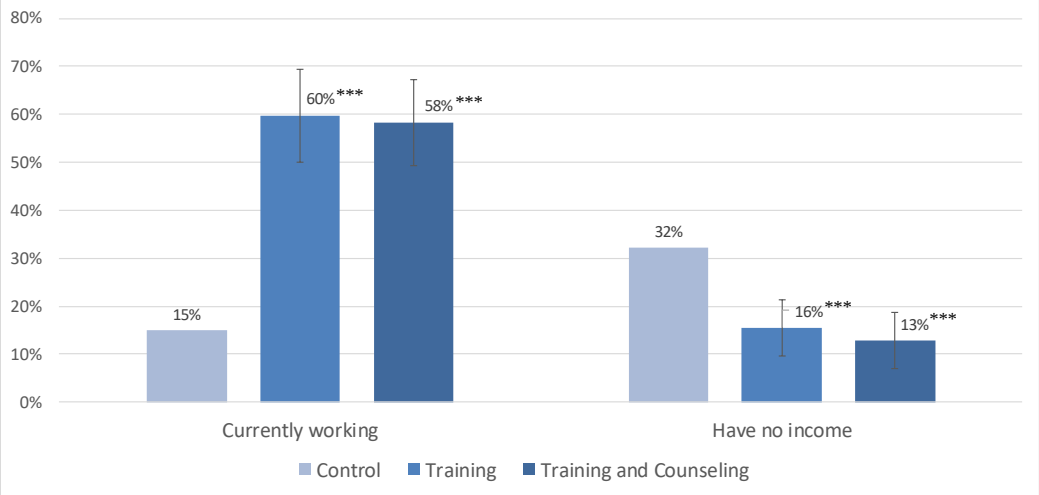


Figure *4*: NGO1 impact on personal income per month

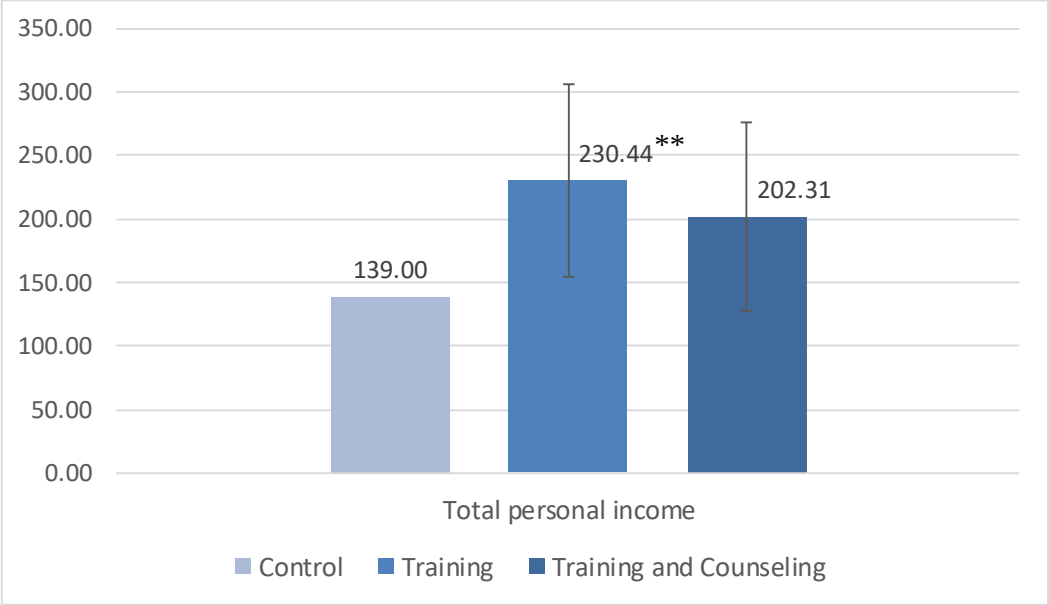
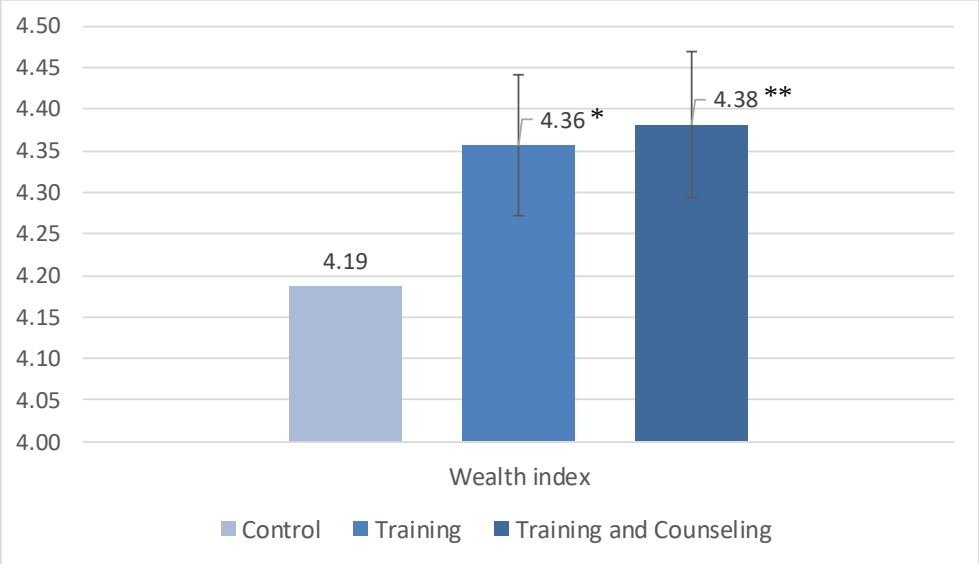


Figure *5*: NGO1 impact on wealth index



4.3.2. Impact on Secondary Outcomes

Annex B, Table 4 and Figures 6 and 7 show results of the intervention on other outcomes.

Migration: Beneficiaries from the training group are less likely to want to migrate than those in the control group. While 59% of the control group expressed their preference to migrate, only 52% did in the training group with 7 percentage point difference which represents an 11% decrease.

Perception about the role of government: 66% of participants in the control group believe that the government is responsible for providing them with jobs. This percentage decreases to 59% in the training group and 58% in the training and counseling group.

Well-being: Treatment group participants also think that they are doing well and are "happy" with their lives more than those in the control group. This indicator was measured with a question in the survey asking beneficiaries to report on a scale, or "ladder steps", from 1 to 10 on which step they think they stand in terms of happiness with their current achievements in life. While the positive difference is not statistically significant with respect

to their happiness level now, they are more optimistic about the future, with a much higher and significant increase in expected happiness in one year.

Empowerment of women: We asked individuals "who decides how to spend the income that they generate" and while 46% of the control group said that they decide for themselves, about 58% of the training group have that decision-making power (and 56% for the training and counseling group). That's an increase of 12 percentage points, a 26% improvement, which is large and statistically significant. This suggests that improvement in labor market outcomes for women comes together with empowering them financially and giving them more freedom of choice.

Figure 6: NGO1 impact on other outcomes

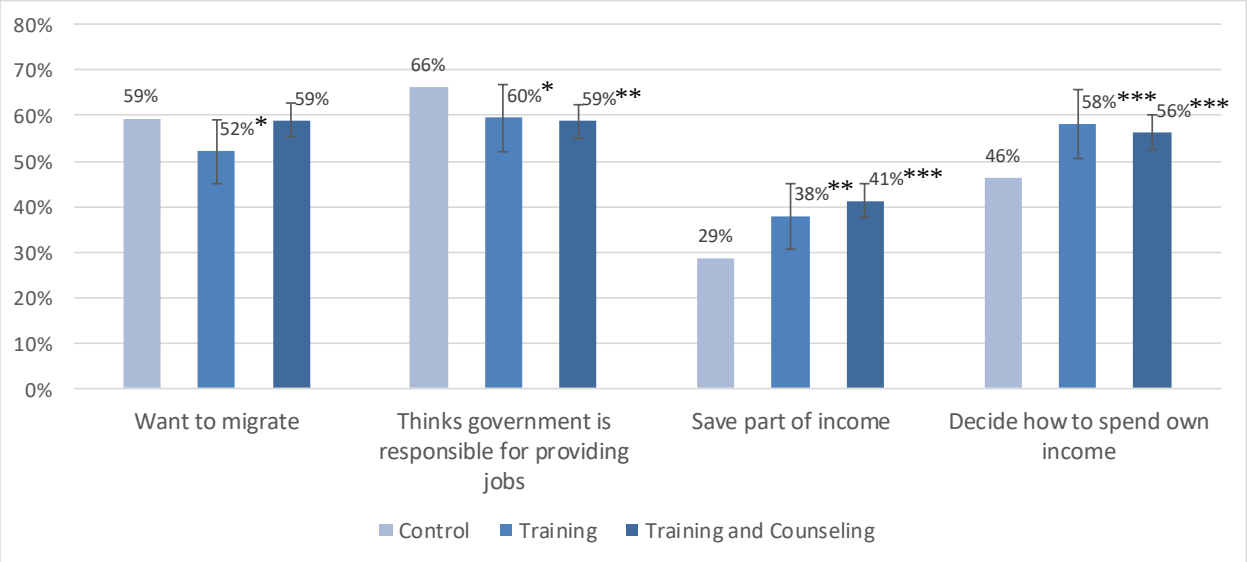
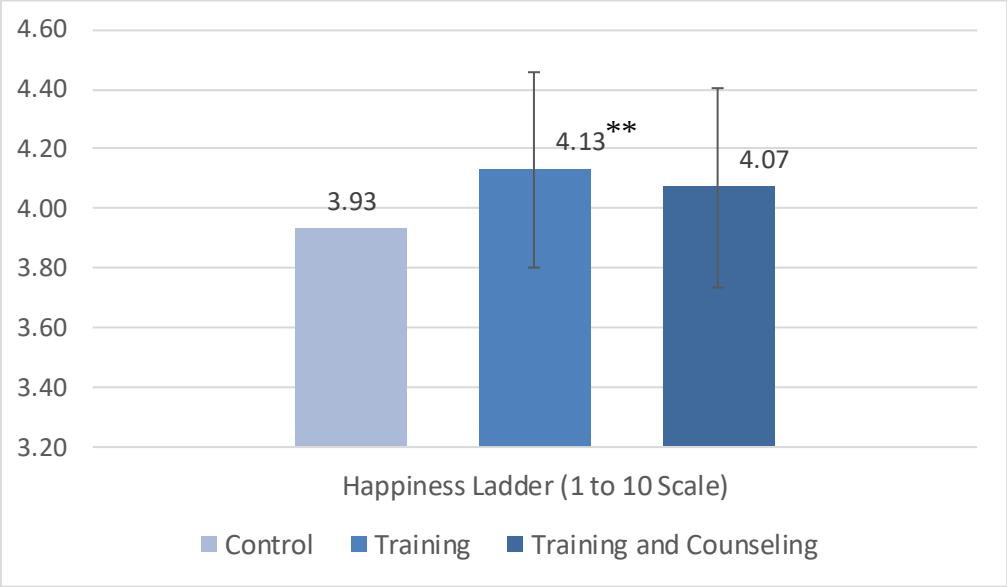


Figure 7: NGO1 impact on well being



To get an idea on the longer-term impacts of the intervention, Annex B, Tables 5 and 6 show the same outcomes as those in Annex B, Tables 3 and 4 but restrict the sample to beneficiaries who were surveyed at least 10 months after they had received the intervention. The results are overall very similar, although slightly less precise, since we lose more than 60% of our sample.

We do not separately look at the impacts of those individuals who received the capital support and those that did not because these groups are different from one another. Because the NGO decided who they wanted to give the money based on the NGO's own assessment of the individual's ability, comparing someone who got the money to someone who did not would be like "comparing apples to oranges". We would expect that those that got the money did better, but it is due to a combination of the impact of the money as well as the fact that these individuals were performing better overall.

4.3.3. Heterogeneous Impacts by Gender

Given the potential for differential effects by gender as seen in many other studies of these types of interventions, as well as the stark differences in employment rates by gender in the Middle East, it is worthwhile to consider how the impacts differ for men and women. Annex B, Table 7 showcases these differences. The table takes a different format from the earlier tables by combining the two treatment groups into one. This is reasonable because in our earlier tables we found no real difference between the group that got training and the group that got training and counseling. We do this to improve our ability to detect differences across genders.

Annex B, Table 7 and Figures 8 and 9 show that while the intervention helped both men and women, the impacts are much more pronounced for women. Since there were only 162 men but 809 women, the results for men are much less precise, leading to most estimates becoming statistically insignificant. Nonetheless, we can still learn from this table that the impacts on women are indeed large and significant. While only 9 percent of women are working in the control group, 60% of women are working in the treatment group. This difference is astounding. The other results likely come from this increase in overall employment. There was also an increase in personal income, in working days and working hours and in wealth and happiness.

Figure 8: NGO1 impact on labor market outcomes by gender

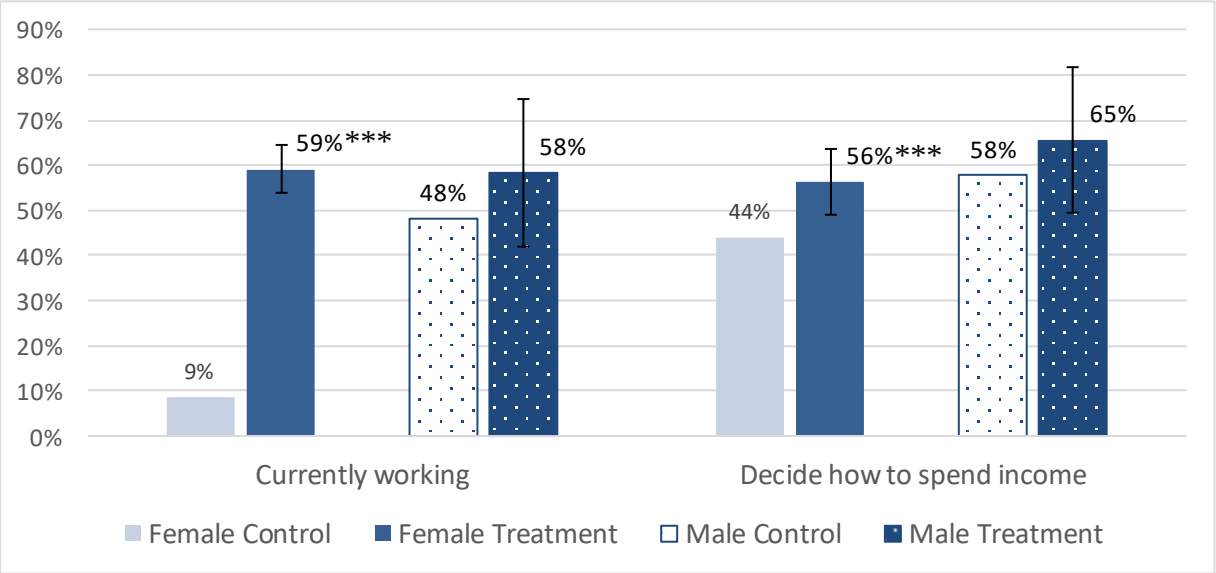
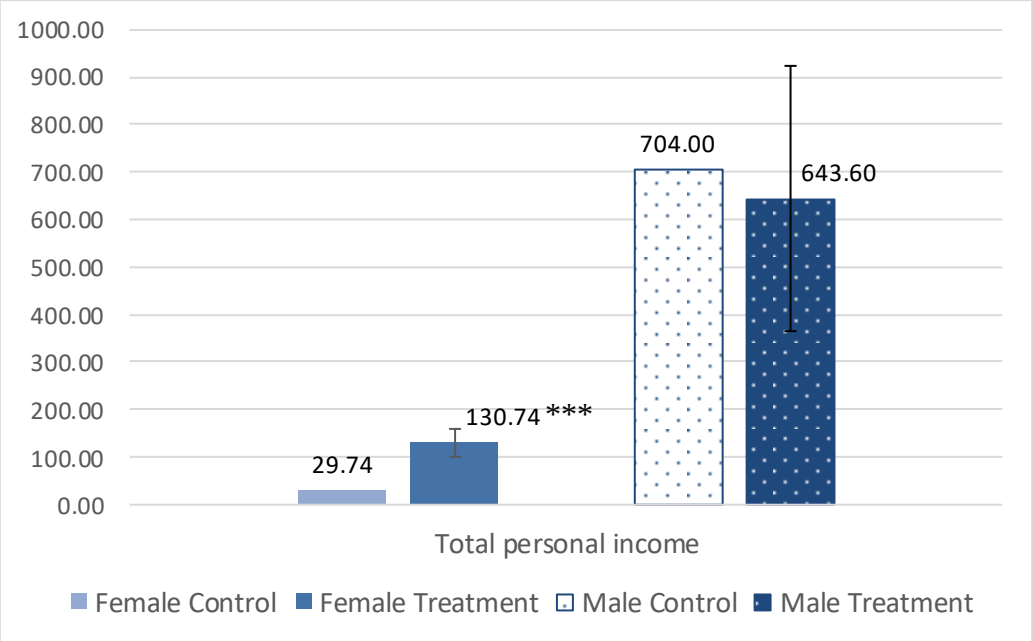


Figure 9: NGO1 impact on income by gender



Interestingly, we see that the effect on migration seemed to be completely coming from men, with little impact on female interest in migration. We also see that the impact on a decrease in expectations about government responsibility for providing employment is coming mostly from women. Other than that, the impacts seem to be similar across both genders, but much more effective for increasing the outcomes of women. This difference is statistically significant in several cases, for instance in overall employment and the log of income.

4.4. Interpretation

The findings suggest that the intervention was successful in making unemployed young people achieve better labor market outcomes through self-employment. Individuals in the two treated groups are more likely to be currently working, earn higher income, have higher wealth and are less inclined to leave the country and migrate. The findings, however, show no difference in the outcomes of the two treatment groups, suggesting that counseling did not add much to the success of regular training intervention, at least in this shortened timeframe of the analysis. Interestingly, the overall impacts are much more pronounced for women relative to men.

These are important results for several reasons. The first is that these results showcase the effectiveness of this type of program in increasing employment for the young in Egypt. While self-employment programs are very common in Egypt, there were no rigorous studies that were able to test their impact- this is the first.

The effects are also large. When compared to other randomized experiments done on self-employment programs outside of Egypt, these results stand out. For instance, the 10 evaluations of entrepreneurship programs in low- and middle-income countries reviewed by Kluve et al (2017) had average impacts on employment and earning in the order of 30 percent, which, albeit strong in comparison to other ALMPs, was less than the impacts found in the present evaluation. This implies that the context of the program may have been one in which self-employment programs are particularly likely to work.

While we cannot know for sure what it is exactly about this context that could be driving this type of effect, our initial sense is that it is a combination of a sluggish rural labor market with very few opportunities for wage-employment which makes self-employment support likely the right strategy. Moreover, the poor education system in Egypt leads to substantial gaps between what is being learned in school and the skills required allowing even just short-term training to address relevant constraints. The effect is more pronounced for women because they — relative to men — often lack basic business knowledge and are less informed about investment opportunities (Karlan and Valdivia 2010). This pattern is more pronounced in rural areas, where women have relatively lower access to schooling and the scarcity of non-agriculture waged employment opportunities drives them into self-employment (Emran, Morshed, and Stiglitz 2011).

Finally, we find no real impacts of counseling services on primary or secondary outcomes. This comes despite qualitative reports from NGO staff, the beneficiaries and the mentors that these services were extremely helpful (Kwinana 2018). It may be the case that the impacts are just too small to detect, or it could be that it takes longer for the differences to manifest. It is also possible that there were positive spillovers between the two treatment groups, with those in the counseling group sharing what they learned with their classmates. This would lead us to underestimate the impacts of the counseling support.

4.5. Challenges

4.5.1. Implementation Challenges

Logistics and admin issues: To better suit the randomized evaluation, some changes were introduced compared to the NGO's original program proposal, such as a reduction in the number of vocational industries. Discussions related to modifying the contract with MSMEDA led to a more than three-month delay in beginning the activities. There was also a delay in the transfer of the second installment of the budget from MSMEDA to the NGO due to administrative reasons. This delay caused a long gap between the training and the receipt of the loans and grants for some program beneficiaries to start their projects.

Quality of the training: According to the qualitative assessment, stakeholders considered the duration of the business training to be too short, leading to subsequent problems in business operations (e.g. purchasing and marketing) among beneficiaries. Similarly, some technical training tracks also faced challenges, for instance because the equipment used during the training (e.g. sewing machines) did not function properly, skills acquisition and subsequent business performance were negatively affected (e.g. low quality of final products).

Staff turnover: The project managers at the NGO were replaced three times for a variety of reasons. The monitoring and evaluation officer was changed at one point as well which posed a challenge during the implementation phase. In addition to that, budget constraints led to hiring candidates with lower qualification and less experience.

External economic factors: The surrounding economic environment directly affected the implementation of the project. The devaluation of the Egyptian pound led to a discrepancy in the budget and forced the organization to purchase lower end equipment for beneficiaries to make up the difference. The devaluation also lowered the purchasing value of the grants and fueled difficulties to meet loan payments. Some applicants who participated in the baseline

survey were also found to be enrolled in a government social security program and these applicants were disqualified from the training since they did not match the program's criteria.

Overall, the program was implemented as intended. That said, the above challenges suggest that implementation delays and limitations in program design may have prevented the program from maximizing its potential impacts. Hence, further improvements to design and implementation may contribute to additional increases in program effects.

4.5.2. Challenges with the Evaluation

Delay between random assignment and intervention: Some beneficiaries dropped out of the program after they were randomly assigned to a group. This happened because there was sometimes a gap between the random assignment and the start of the training. The NGO reported that some beneficiaries in the control group were in greater need for the training and capital assistance services. This was difficult on the NGO team as the idea of randomized control trials was new to them. The research team walked them through these issues, the value of the study and the importance of randomized control trials in assessing the impact of the program.

Spillover: Due to the geographic proximity, we know of at least one beneficiary of the training-only treatment group who was in touch with beneficiaries of the training and counseling treatment group and asked them what they learned during counseling sessions and exchanged information about counseling. Such spillover effect is expected to lead to us underestimating the impact of the counseling sessions, but we expect this spillover to be small, given that the counseling advice was personalized for each individual.

5. NGO2: AYB-SD (Focused on Wage Employment)

5.1. The Intervention and Evaluation

As indicated above, intervention from NGO2 focused more on supporting young people's transitions to wage employment. Besides the control group (241 beneficiaries), which received no services, the treatment consisted of two arms. The first arm (250 beneficiaries) provided job-matching and on-the-job training, while the second (241 beneficiaries) provided job-matching and training as well as individual counseling. The pool of program applicants was randomly assigned to one of the treatment groups and the control group. The average cost per beneficiary served was approximately EGP 3500 for the training group and EGP 4100 for the training and counseling group. A detailed description of the different intervention components is given below:

Training

Soft Skills Training: Individuals were provided a four-day training program that aimed to improve youth personal and life skills. It was conducted before the start of the employment process to increase their chances of getting interviews. Later on, this setting changed, and the soft skills training was offered after beneficiaries had been matched with a job. Participants were provided a small stipend for each training day attended.

Job Matching: AYB contracted with private sector employers who had jobs to fill and offered these job opportunities to the youth. AYB paid the employers a subsidy on the condition that

the employers provided on the job training and signed formal work contracts with the trainees. These contracts provided social insurance to the trainee for at least a six-months after the training. The duration of the on-the-job training programs varied from one employer to another (from one to six weeks). The total subsidy averaged 1,200 EGP (68 USD) per trainee. All these jobs fulfilled the MSMEDA criterion of being formal jobs (i.e., have a formal work contract and social security insurance plan).

On-the-Job Training (OTJ): The training aimed at improving the technical competence of the program beneficiaries by providing technical and vocational training. The training was implemented by the firms with whom the young people were matched, was conducted at the workplace and lasted between one week and 41 days, according to job type.

Counseling

The counseling took the form of one-on-one sessions between the counselor and each beneficiary. Each beneficiary was supposed to receive 6 sessions that would last 30-60 minutes each. The sessions were usually conducted at the beneficiaries' workplace during their break or on the phone after the work hours. During these sessions, the counselor posed several open-ended questions to the beneficiary to help him/her set his/her life and work goals. The sessions were planned so that each beneficiary had the same counselor for all the sessions to maintain some form of mentor-mentee relation. After each session, the counselor submitted a summary report of the session. The counselor was a certified expert on career coaching or mentoring. The NGO used some of its in-house staff as counselors in addition to outsourcing external counselors.

5.2. Sample Characteristics and Baseline Balance

Table 3 reports the characteristics of the sample. As in NGO1, most of the sample is female (80%). The age criterion of the program is between 18 and 29 as it was set by MSMEDA however, there was an exception made for Cairo participants to extend the age limit to 35 years for a maximum of 25% of the total sample for those exceeding the age limit. The average age was 26.

The most common type of education was graduating from a vocational high school with about 40% of the sample doing so. About 12% of the sample only completed primary school while 12% of the sample are university degree holders. The average household income for sample participants is the 1,001-1,500 interval. About 8% of the sample reported household income of more than 2,000 and about 3% of the sample reported household income of less than 500 EGP.

Annex C, Table.1 shows the differences between the groups. Overall there are no statistically significant differences between the two treatment groups and the control group. The similarities are measured in terms of education, marital status, age, household size, household income, self-employment preference, previous work, migration preference and work status at baseline. We implement a joint test of significance, comparing all the characteristics listed in the table for each treatment group to the control group and cannot reject that they are statistically equivalent.

Table 3: NGO2 Sample Characteristics

	Control	Training	Training and Counseling
	(1)	(2)	(3)
Age	25.84	25.62	25.99
Female	80%	78%	78%
Vocational Education	40%	41%	38%
Married	47%	42%	41%
Household Size	5.29	5.18	5.24
Average Household Income in EGP	1,330	1,290	1,297
Working for an Income	1%	2%	0%
Observations	234	250	241

Note: Differences in characteristics across the three groups are not statistically significant.

Implementation Check (First Stage Regression)

Table 4 reports checks made on program implementation. The regression results show significant differences between each of the treatment groups and the control group in terms of on the job training completion and employment. About 83% of the treatment groups were actually matched with an employer and about 60% of the groups actually completed the on the job training that came with the match. Annex C, Table 2 reports a significant difference between the training and counseling group and each of training only and the control group in terms of the number of counseling sessions. On average the counseling group got 2 counseling sessions, less than the intended 6-8, due to problems with implementation. Nonetheless, this result indicates that the services of training and counseling were correctly given to their designated treatment groups.

Table 4: NGO2 Implementation Across Groups

	Control	Training		Training and Counseling	
	(1)	(2)		(3)	
Completed OTJ Training	0%	66.10%	***	70.20%	***
Employed	0%	62.60%	***	66.70%	***
Number of Counseling Sessions	0	0.022		1.75	***
Observations	234	250		241	

5.3. Results of Impact Evaluation

Given the balance across all three groups, and the fact that the randomization protocol was correctly followed, we can now estimate the impacts of the program by comparing the average outcomes of each group to each other. Annex C, Table 3 and Figures 10 through 13 show the impact of the intervention on primary labor market outcomes and finds relatively large and positive impacts.

5.3.1. Impact on Labor Market Outcomes

Employment: The table shows that the share of those currently working increased by 12 percentage points after the intervention relative to the control group. This represents an increase of 34% compared to the control group. Similar impacts were found for the training and counseling group.

Income: Total personal income increased by 99 EGP (34.6%) for the training group and by 104 EGP (36%) for the training and counseling group relative to the average of 286 EGP in the control group. Similarly, the share of individuals who report having no income decreased in the two treatment groups relative to the control group: 18% of the control group claim to have no income, which goes down by 7 percentage points in the training and counseling group, and by 3 percentage points in the training group.

Working time: The amount of work (measured by weekly hours worked) increased slightly for the treatment groups. Weekly working hours increased by 2.7 hours for the training group and by 3.6 hours for the training and counseling group relative to the control group average of about 14 hours a week.

Wealth: Unlike the case in NGO1 (which focused on self-employment), there seems to be a negative impact on the wealth index for NGO2 (which focused on wage employment). Annex C, Table 3 shows that the wealth index score is higher for the control group beneficiaries that that for the two treatment group beneficiaries, but these differences are small and not statistically significant.

Figure 10: NGO2 impacts on employment status

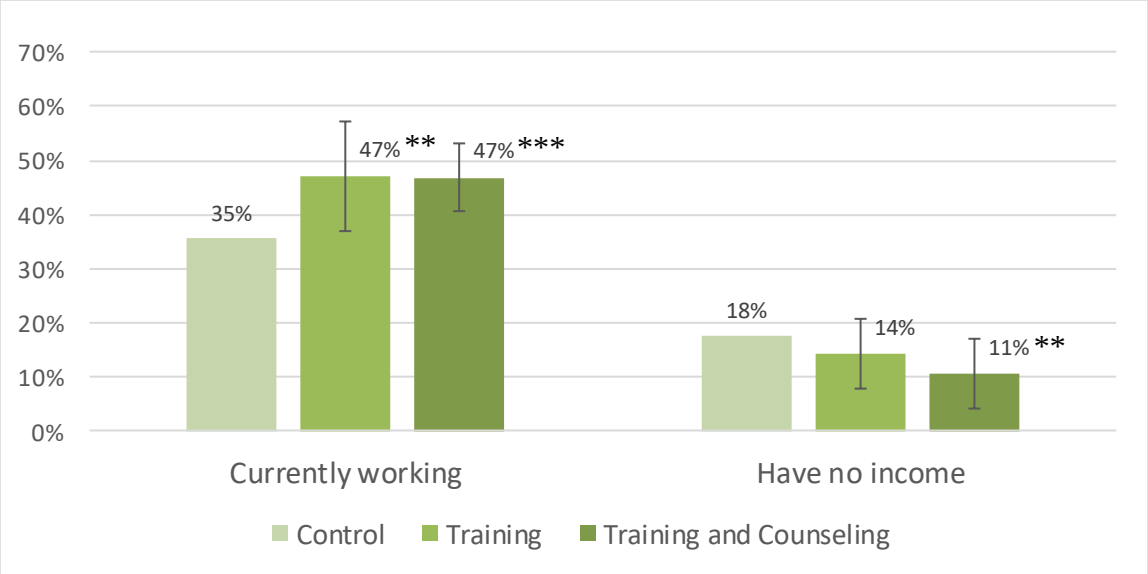


Figure 11: NGO2 impact on income

5.3.2. Impact on Secondary Outcomes

Annex C, Table 4 and Figures 12 and 13 explore the impacts on other outcomes.

Migration: Similar to NGO1, we see that the share of individuals who are willing to migrate decreased relative to the control group by 7 percentage points (12%) for the training only and 9 percentage points (15%) for the training and counseling group.

Perception about the role of government: 51% of participants in the control group believe that the government is responsible for providing them with jobs. The percentage decreases to 48% in the training group while it increases to 53% in the training and counseling group.

Well-being: Similar to the case in NGO1, participants in the treatment group think that they are doing well and are "happy" with their lives more than those in the control group. The positive difference is not statistically significant with respect to their happiness level now. Unlike the case in NGO1, training group participants are slightly less optimistic about the future.

Empowerment of women: 70% of the control group said that they decide for themselves how to spend their own income. There is no statistically significant difference for those in the treatment groups.

Figure 12: NGO2 impact on secondary outcomes

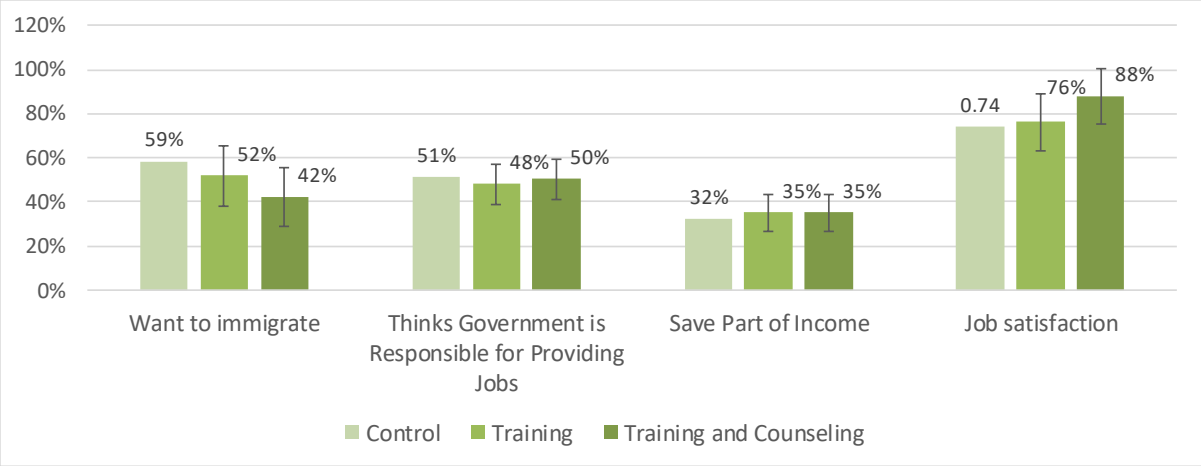
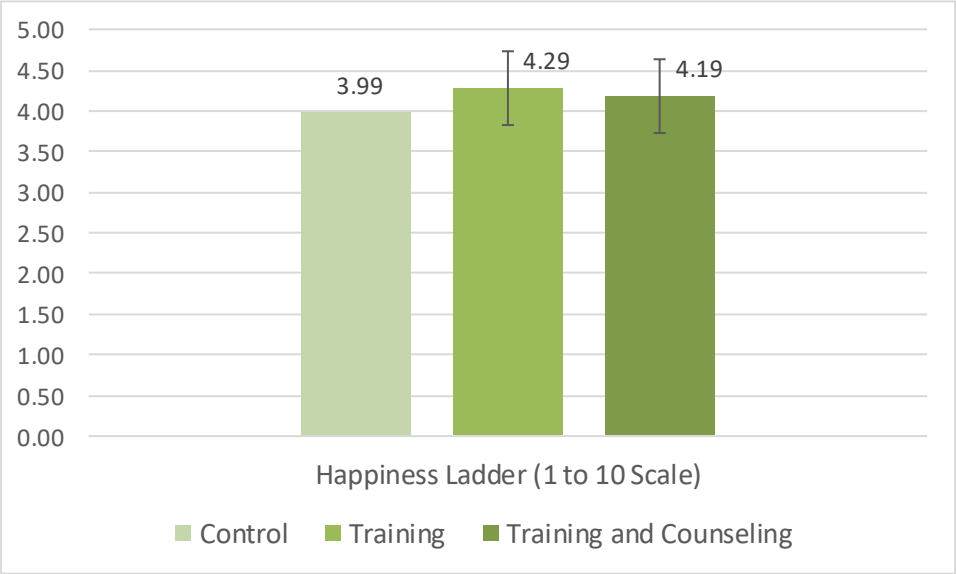


Figure 13: NGO2 impact on well being



Annex C, tables 5 and 6 limit the analysis to the set of participants that had at least 10 months between the end of the intervention and the endline survey We find that the impact of the intervention on the probability of being currently employed, and log personal income is still there (and even stronger). This suggests that the findings are not driven by a short-term pattern and could reflect longer-term behavior of treated workers. The likelihood to save a part of their income increases in the 10+ months case, while the migration impact goes away. These longer-term estimates are very imprecisely estimated because only about a third of the sample was able to be interviewed under this time frame.

5.3.3. Heterogeneous Impacts by Gender

Annex C, Table 7 and Figures 14 and 15 showcase the differential impacts of the program by gender. The table takes a different format from most of the earlier tables. It combines the two treatment groups into one. As above, we do this because we found no real difference between the group that got training and the group that got training and counseling. This improves our ability to detect differences across genders.

Similar to NGO1 we find that the impacts are much more pronounced for women, and in this case, it seems that there may be no average impact for men. The increase in employment for women is 15 percentage points off of a base of 34% (so a 44% increase in employment), while the estimate for men is -0.03 percentage points off of a base of 43% in the control group. We see large and statistically significant increases in personal income for women but only half as large or men and imprecisely estimated.

Figure 14: NGO2 impacts on labor market outcomes by gender

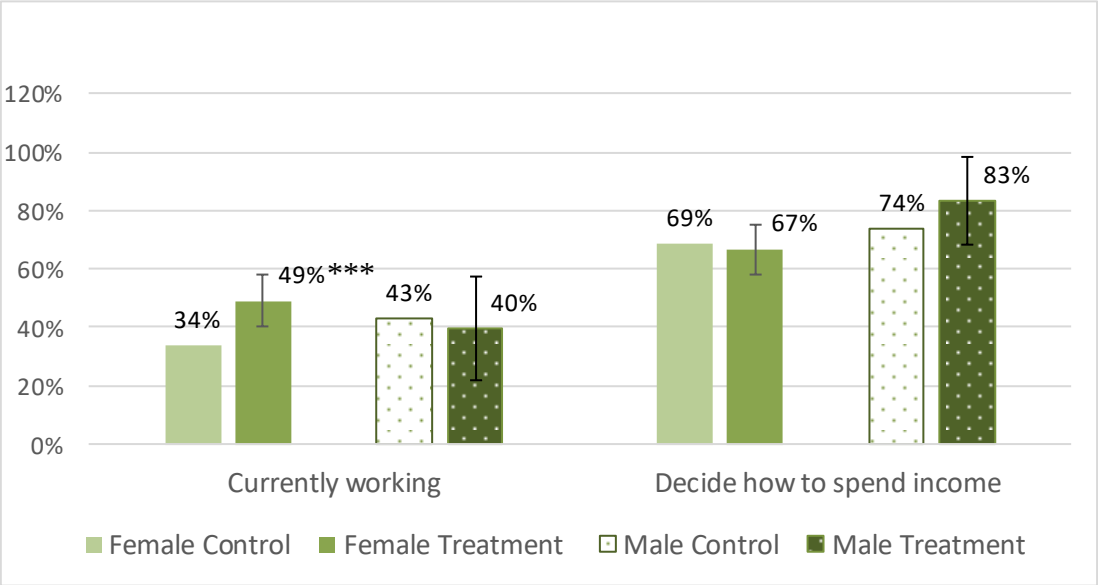
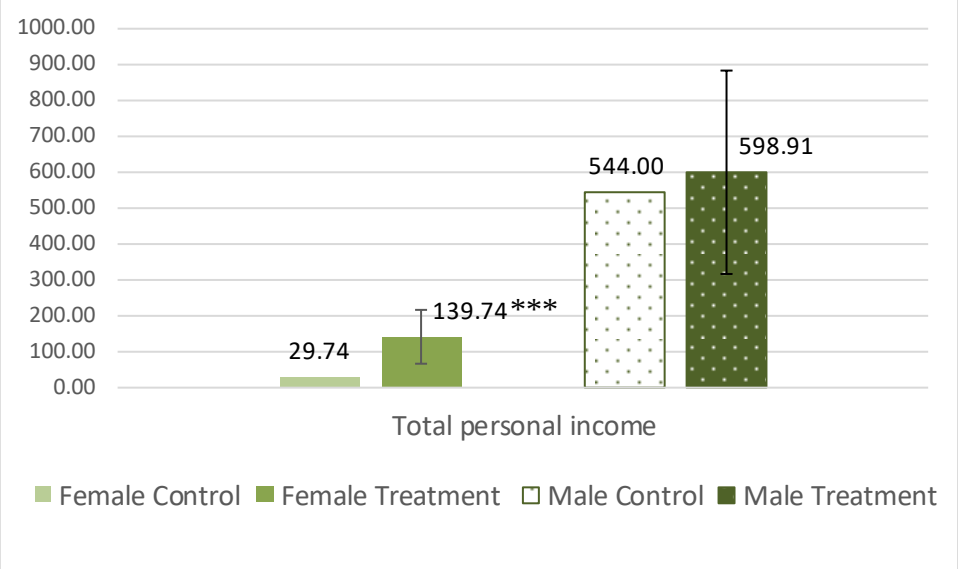


Figure 15: NGO2 impact on income by gender



5.4. Interpretation

The intervention focusing mainly on wage employment produced a very similar pattern of findings as those obtained from the intervention on self-employment. The intervention had a positive impact on labor market outcomes. Individuals in the two treated groups are more likely to be currently working, earn higher income, and be less inclined to leave the country and migrate.

The impacts were not nearly as large as those for NGO1 (who was focused on self-employment) but the contexts were very different. NGO1 was focused on more rural areas while NGO2 was more focused on urban areas. NGO1 focused on self-employment while focused on wage employment. Nonetheless the impacts from NGO2 are impressive in their own right. When compared to the other evaluations of these types of programs outlined in McKenzie (2017), NGO2's impacts are larger than every study other than the Jordan study whose impacts evaporated quickly.

The findings at NGO2 again show no difference in the outcomes of the two treatment groups, suggesting that counseling did not add much to the success of regular training intervention, but as above this may be due to the impacts taking longer to manifest, positive spillovers between groups, and also potentially due to the small number of counseling sessions implemented on average due to delays in the program.

The impacts from NGO2 are more starkly positive for women relative to men than was the case for NGO1. In the urban setting of NGO2, employment rates in the control group were much higher than in the rural setting of NGO1. This could indicate that the urban labor market for NGO2 was more robust, meaning that there was less need for their services. Nonetheless, their support made a large difference in the employment prospects of women, who likely face additional difficulties due to their gender even in a more robust labor market.

Finally, considering that the soft-skills and the counseling components faced design and implementation challenges (see next section), one might argue that the main value added of the program was the matching of jobseekers with employers. If true, then the program was more a job matching intervention than a training intervention, and future research may want to further investigate the relative impacts of the two approaches, as a simple job matching intervention could likely be delivered at lower cost.

5.5. Challenges

5.5.1. Implementation Challenges

Take up issues: During outreach, NGO2 (AYB) resorted to paid advertising on Facebook to attract applicants. This outreach strategy was not very successful as it only attracted a small number of applicants. Another issue was the nature of the target areas. Some of the areas were very difficult to infiltrate by the organization due to the culture of its residents who do not trust outside organizations, and because young women in the socially conservative settings targeted often preferred home-based self-employment (lack of husband consent for wage-employment). To address take-up issues, NGO2 replaced several target areas and started to work more with intermediary NGOs and community development associations to improve the outreach to youth and facilitate implementation. On the other hand, working through local organizations also created coordination challenges and led to sometimes inconsistent implementation of activities.

Drop out: Not all beneficiaries were committed to the different program components. Many beneficiaries dropped out of the program after they had received the soft skills training. At first, NGO2 (AYB) used to offer soft skills training and then offer job matching service for those who completed the training. There was a small stipend for each training day attended. This led to many dropouts as some applicants were only interested in the stipend not in the

employment program. Although this set up was altered later to offer the soft skills training after the job matching, the early batches of the program suffered from a large proportion of dropouts. Other applicants dropped out due to the low salaries of their matched jobs offered by NGO2 or did not accept the jobs offered because of distance and transportation costs. In the end, these dropouts made it difficult for NGO2 to keep up with its employment target set by MSMEDA in a timely manner.

Design and implementation of soft-skills and coaching components: The qualitative assessment found that the soft-skills training was generally too short and too theoretical to maximize its effects. Moreover, coaching sessions faced difficulties in several target areas, as many employers did not allow for sessions to take place during work hours and many young women did not want to be contacted in the afternoons or evenings to prevent potential conflicts with their husbands. Also, the quality of the coaches was not always clear.

Logistics and staff turnover: Due to budget limitations (incl. restrictions on administrative costs), NGO 2 (AYB) adopted a different staffing structure than originally intended, such as fewer coordinators and increased outsourcing of trainers and coaches. The organization also lost its project manager half way through the implementation leading to the normal difficulties that come with transitions in leadership (misunderstandings, delays, missed opportunities, etc.).

Overall, one can say that NGO2 faced several implementation issues that likely affected the effectiveness of the program. In light of these challenges, the very positive results found through the evaluation may come as a surprise, suggesting that in the absence of these issues this kind of intervention could achieve even higher impacts for disadvantaged youth.

5.5.2. Evaluation Challenges

Attrition: The main issue that the research team faced during follow up data collection was inaccurate recording of contact information details of beneficiaries, especially phone numbers. Since phone is the main means of communication with the beneficiaries for subsequent follow up surveys, failure to collect phone numbers correctly and accurately made it challenging for enumerators to contact these beneficiaries for the midline survey. The team was able to overcome this issue with the help of the NGO and its partners grassroot NGOs. These small local NGOs are closely connected to the people in the small communities and managed to connect us to some of the beneficiaries with missing contact information. Eventually, the attrition rate for the endline survey was 8.7%.

6. Conclusions and Recommendations

This randomized impact evaluation of two NGO-implemented youth employment programs in Egypt provides several important lessons. Below we outline what we see as the main takeaways from this work:

- **Active Labor Market Programs in Egypt can show strong impacts on employment and should therefore be part the broader policy mix to foster inclusive growth.** Critics have argued that *"Active labour market policies are not likely to create additional employment, substantially upgrade skills or facilitate job matching in the Egyptian context"*(Assaad and Krafft 2018). These worries were justified given the lack of robust evidence in Egypt so far and the large variation in local capacity to implement high quality work in this space. Nonetheless, this evaluation shows that ALMPs can be effective in improving labor market outcomes for youth, and they even have the potential to be *more* effective in Egypt than in other developing countries. We see large increases in employment and income, especially for women, mirroring the global literature that these kinds of programs are often most effective for disadvantaged groups. Based on the short-term impact estimates available, the costs for the programs would be recuperated within approximately 3-4 years. Hence, these results show that investing in young people's transitions to wage- and self-employment should be a focus of public policy, complementing demand-side policies to improve the business environment and increase investments.

- **Public-private partnerships are a promising implementation modality for ALMPs.** EEIP was implemented as a partnership between MSMEDA, a government agency, and over 40 NGOs. MSMEDA provided the general principles for programming (e.g. target districts, eligibility criteria for youth, etc.) while giving a lot of flexibility to the NGOs to select the type of interventions best suited for the specific target group and local context. Importantly, NGOs had to meet clear employment targets, which were further emphasized through performance-based contracts (part of the contract value was paid upon independent verification of employment results achieved). The positive results from the evaluation may suggest that such public-private partnerships for employment promotion, which are still a very novel approach in Egypt, hold promise for the future, especially when the reach or implementation capacity of government institutions is weak. Indeed, international experience suggests that collaborations with local NGOs and/or private services providers can be an effective implementation modality, especially for specialized services or in order to reach particularly disadvantaged groups.

- **Conducting robust impact evaluations of ALMPs is possible, even for smaller organizations.** One of the limiting factors of employment programs in Egypt and the MENA region more broadly has been the lack of quality monitoring and evaluation. As a result, policymakers and practitioners have had little credible information based on which to design future initiatives. Improving the evidence-base of youth employment programs in Egypt and beyond is therefore contingent on a more widespread use of robust evaluation methods, such as randomized impact evaluations. Yet, many organizations often argue that these types of methods are not feasible for their programs. This evaluation has shown that committed government agencies and NGOs,

with technical support of a research team and adequate financial assistance, can conduct rigorous impact evaluations. Indeed, all entities involved in this evaluation left with an increased understanding of how to implement rigorous evaluations and the benefits of doing so. Both the government partner and the local partners expressed interest in implementing more randomized evaluations in the future. We hope that this experience will encourage more organizations in Egypt to conduct robust evaluations on their programs. One important lesson in this regard is that programs should ideally be sufficiently mature and well-established before engaging in a robust evaluation. This would make it more likely that implementation is relatively smooth and that the additional effort of undergoing an evaluation can be well managed by the implementing organization.

- **There is still much to learn about how to optimize design and delivery of ALMPs.** While this study has shown the potential of ALMPs in Egypt, there is clearly scope for further research on what types of programs are most effective, for which parts of the population, and under what conditions. Returning to the current sample to collect longer term data would be a productive initial step for additional learning on the long-term effects and cost-effectiveness of ALMPs in Egypt. While we did not find impacts from the counseling intervention we believe that counseling can still be a cost-effective tool for policy makers to consider, when designed and implemented in an appropriate way. By cultivating a culture of experimentation and rigorous evaluation governments and NGOs can test and enhance different approaches and interventions, gaining valuable input for smart policy decisions in the future.

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Annexes

Annex A: Survey Response Rates

Panel A: NGO1 Midline Sample Outreach Broken down by Governorate

Call result	Beni Suef	Minya	Total
Unable to reach beneficiary	79	86	165
Successfully reached beneficiary	314	474	788
Wrong number	36	22	58
Total	429	582	1,011

Panel B: NGO2 Midline Sample Outreach Broken down by Governorate

Call result	Beni Suef	Minya	Cairo	Giza	Total
Unable to reach beneficiary	66	0	60	52	178
Successfully reached beneficiary	76	0	134	138	348
Wrong number	30	2	30	12	74
Total	172	2	224	202	600

Panel C: NGO1 Endline Sample Outreach Broken down by Governorate

Status	Beni Suef	Minya	Total
Refusal	0	42	42
Completion	428	547	975
Unreachable	1	0	1
Total	429	582	1,011

Panel D: NGO2 Endline Sample Outreach Broken down by Governorate

Status	Beni Suef	Minya	Cairo	Giza	Total
Refusal	0	0	8	55	63
Completion	232	8	244	178	662
Unreachable	3	2	0	0	5
Total	235	9	252	229	725

Annex B: NGO1 Tables

Table 1: NGO1 Sample Characteristics and Balance Check

	Control Average	Training	Training and Counseling	Observations
	(1)	(2)	(3)	(4)
Age	24.36	-0.08	-0.23	1011
	{3.40}	(0.25)	(0.25)	
Female	0.84	-0.02	0.00	1011
	{0.37}	(0.02)	(0.02)	
Primary Education	0.12	0.01	0.00	1011
	{0.33}	(0.02)	(0.02)	
College Education	0.14	-0.03	-0.01	1011
	{0.35}	(0.02)	(0.02)	
Married	0.59	0.01	-0.01	1011
	{0.49}	(0.04)	(0.04)	
Household Size	6.00	0.06	0.05	1011
	{2.78}	(0.20)	(0.20)	
Average Household Income	778.00	9.12	-3.42	1011
	{373.94}	(27.86)	(26.74)	
Working for an Income	0.05	0.00	0.00	1011
	(0.01)	(0.02)	(0.02)	
P-Value for Joint Test		0.650	0.550	
Cohort Fixed Effects		Y	Y	
Participants in Each Group	337	335	339	

Notes: This table reports the baseline balance for the sample. Each row is a regression of the dependent variable on binary variables for each treatment group. Robust standard errors in parentheses clustered by cohort. Standard deviations of the control group are reported in brackets. The P-value for the joint test comes from a regression of treatment status on all the balance variables at once. Significance * .10; ** .05; *** .01.

Table 2: NGO1 Implementation Check (First Stage)

	Control Average	Training		Training and Counseling		Observations
	(1)	(2)		(3)		(4)
Days of Business Training	0.00	2.58	***	2.65	***	1011
	-	(0.05)		(0.05)		
Days of Vocational Training	0.00	8.42	***	8.71	***	1011
	-	(0.26)		(0.25)		
Number of Counseling Sessions	0.05	-0.04		4.32	***	1011
	{0.56}	(0.06)		(0.13)		
Total Borrowed	4.5	1320.0	***	1310.0	***	1011
	{81.7}	(77.1)		(70.7)		
Total Grant	4.5	1000.0	***	995.0	***	1011
	{81.7}	(34.1)		(32.4)		
Obersvations	337	335		339		

Notes: This table reports the differences between each treatment group and the control group across several implementation variables. Each row is the result of a regression of treatment assignment on the dependent variable. Standard errors in parentheses, standard deviations in brackets. Cohort fixed effects are included. Standard errors are clustered by cohort. Significance * .10; ** .05; *** .01.

Table 3: Impacts of NGO1 Intervention on Labor Market Outcomes

	Control Average	Training		Training and Counseling		Observations
	(1)	(2)		(3)		(5)
Currently working	0.15	0.45	***	0.43	***	971
	{0.36}	(0.05)		(0.05)		
Looking for work	0.65	-0.07		-0.06		971
	{0.48}	(0.04)		(0.04)		
Total personal income	139.00	91.44	**	63.31		971
	{444.64}	(38.75)		(37.99)		
Total personal income (log)	1.01	1.57	***	1.20	***	971
	{2.54}	(0.27)		(0.23)		
Have a secondary job	0.01	0.04	**	0.03	*	971
	{0.23}	(0.02)		(0.02)		
Average working hours per week	6.02	7.85	***	8.63	***	971
	{16.23}	(1.39)		(1.56)		
Wealth index	4.19	0.17	*	0.19	**	971
	{0.00}	(0.08)		(0.09)		
Have no income	0.32	-0.17	***	-0.19	***	971
	{0.00}	(0.03)		(0.03)		

Notes: Column 1 reports control group average, with standard deviation in brackets. Columnds 2 and 3 report the difference between each treatment group and control. Robust standard errors in parentheses. All regressions include cohort fixed effects and control for baseline value of the outcome variable when possible. Each row is the result of a regression of treatment assignment on the dependent variable while controlling for the baseline value of the variable when available. Significance * .10; ** .05; *** .01.

Table 4: Impacts of NGO1 Intervention on Secondary Outcomes

	Control Average	Training		Training and Counseling		Observations
	(1)	(2)		(3)		(4)
Want to immigrate	0.59	-0.07	*	0.00		971
	{0.49}	(0.04)		(0.04)		
Think government is responsible for providing jobs	0.66	-0.07	*	-0.08	**	971
	{0.47}	(0.04)		(0.04)		
Save part of income	0.29	0.09	**	0.13	***	971
	{0.45}	0.04		0.04		
Have employees at private business	0.00	0.00		0.01	***	971
	.	(0.01)		(0.01)		
Happiness ladder (1 to 10 scale)	3.93	0.20		0.14		971
	{2.31}	(0.04)		(0.04)		
Happiness ladder in 1 year (1 to 10 scale)	6.58	0.47	**	0.32		971
	{2.63}	(0.20)		(0.20)		
Decide how to spend own income	0.46	0.12	***	0.10	***	971
	{0.00}	(0.04)		(0.04)		
Mobility index	6.93	-0.03		-0.15		809
	{4.32}	(0.27)		(0.27)		

Notes: Column 1 reports control group average, with standard deviation in brackets. Columnds 2 and 3 report the difference between each treatment group and control. Robust standard errors in parentheses. All regressions include cohort fixed effects and control for baseline value of the outcome variable when possible. Each row is the result of a regression of treatment assignment on the dependent variable while controlling for the baseline value of the variable when available. Significance * .10; ** .05; *** .01.

Table 5: Impacts of NGO1 Interventions on Labor Market Outcomes for Those Surveyed at Least 10 Months Post-Intervention

	Control Average	Training		Training and Counseling		Observations
	(1)	(2)		(3)		(4)
Currently working	0.12	0.39	***	0.42	***	374
	{0.59}	(0.09)		(0.07)		
Looking for work	0.65	-0.02		-0.03		374
	{0.48}	(0.08)		(0.07)		
Total personal income	156.00	65.70		90.73		374
	{498.31}	(73.29)		(54.54)		
Total personal income (log)	1.03	1.71	***	1.70	***	374
	{2.59}	(0.49)		(0.31)		
Have a secondary job	0.00	0.06	*	0.02		374
	-	(0.03)		(0.01)		
Average working hours per week	5.73	5.46	**	8.26	***	374
	{15.60}	(2.14)		(2.08)		
Wealth index	4.05	0.22		0.35	**	374
	{0.95}	(0.13)		(0.12)		
Have no income	0.33	-0.21	***	-0.20	***	374
	{0.00}	(0.05)		(0.05)		

Notes: Column 1 reports control group average, with standard deviation in brackets. Columnds 2 and 3 report the difference between each treatment group and control. Robust standard errors in parentheses. All regressions include cohort fixed effects and control for baseline value of the outcome variable when possible. Each row is the result of a regression of treatment assignment on the dependent variable while controlling for the baseline value of the variable when available. Significance * .10; ** .05; *** .01.

Table 6: Impacts of NGO1 Interventions on Secondary Outcomes for Those Surveyed at Least 10 Months Post-Intervention

	Control Average	Training		Training and Counseling		Observations
	(1)	(2)		(3)		(4)
Want to immigrate	0.57	0.00		0.00		374
	{0.50}	(0.04)		(0.06)		
Think government is responsible	0.63	0.00		-0.05		374
for providing jobs	{0.48}	(0.06)		(0.06)		
Save part of income	0.27	0.07		0.08		374
	{0.45}	(0.06)		(0.06)		
Have employees at private business	0.00	0.00		0.02	**	374
	-	(0.01)		(0.01)		
Happiness ladder (1 to 10 scale)	4.12	-0.02		0.01		374
	{0.48}	0.25		0.32		
Happiness ladder in 1 year (1 to 10	6.82	0.10		-0.06		374
scale)	{2.76}	(0.32)		(0.31)		
Decide how to spend own income	0.44	0.21	***	0.08		374
	{0.50}	(0.06)		(0.06)		
Mobility index	5.15	0.45		0.12		315
	{4.94}	(0.52)		(0.50)		

Notes: Column 1 reports control group average, with standard deviation in brackets. Columnds 2 and 3 report the difference between each treatment group and control. Robust standard errors in parentheses. All regressions include cohort fixed effects and control for baseline value of the outcome variable when possible. Each row is the result of a regression of treatment assignment on the dependent variable while controlling for the baseline value of the variable when available. Significance * .10; ** .05; *** .01.

Table 7: NGO1 Impacts by Gender

	Female (N=809)			Male (N=162)				
	Control Average	Treatment Effect		Control Average	Treatment Effect		Observations	P-value of equal means t-test
	(1)	(2)		(3)	(4)		(5)	(6)
Currently working	0.09	0.51	***	0.48	0.10		971	0.000
		(0.03)			(0.08)			
Looking for work	0.64	-0.08	**	0.69	0.03		971	0.208
		(0.04)			(0.08)			
Total personal income (log)	0.50	1.56	***	3.67	0.31		971	0.068
		(0.17)			(0.66)			
Total personal income	29.74	101.00	***	704.00	-60.40		971	0.264
		(15.02)			(143.00)			
Have a secondary job	0.00	0.04	***	0.02	0.04		971	0.994
		(0.01)			(0.03)			
Average working hours per week	6.02	9.11	***	22.19	3.29		971	0.198
		(0.95)			(4.41)			
Wealth index	4.22	0.15	*	4.00	0.25		971	0.577
		(0.08)			(0.15)			
Have no income	0.37	-0.22	***	0.10	-0.01		971	0.000
		(0.03)			(0.05)			
Want to immigrate	0.56	-0.01		0.79	-0.17	**	971	0.055
		(0.04)			(0.07)			
Think government is responsible	0.68	-0.08	**	0.56	0.00		971	0.386
for providing jobs		(0.04)			(0.08)			
Save part of income	0.30	0.11	***	0.23	0.12	*	971	0.867
		(0.04)			(0.07)			
Job satisfaction	0.50	0.37	**	0.60	0.08		66	0.228
		(0.16)			(0.17)			
Have employees at private business	0.00	0.01	*	0.00	0.02		971	0.337
		(0.00)			(0.01)			
Happiness ladder (1 to 10 scale)	4.14	0.00		2.87	1.03	***	971	0.009
		(0.18)			(0.35)			
Happiness ladder in 1 year (1 to 10	6.71	0.41	**	5.90	0.42		971	0.976
scale)		(0.19)			(0.49)			
Decide how to spend own income	0.44	0.12	***	0.58	0.08		971	0.626
		(0.04)			(0.08)			

Notes: Column 1 reports control group average, with standard deviation in brackets. Column 2 reports the difference between a combined treatment group and control. Robust standard errors in parentheses. All regressions include cohort fixed effects and control for baseline value of the outcome variable when possible. Significance * .10; ** .05; *** .01.

Annex C: NGO2 Tables

Table 1: NGO2 Sample Characteristics and Balance Check

	Control Average	Training	Training and Counseling	Observations
	(1)	(2)	(3)	(4)
Age	25.84	-0.22	0.14	725
	{4.85}	(0.36)	(0.38)	
Female	0.80	-0.02	-0.02	725
	{0.40}	(0.03)	(0.03)	
Vocational Education	0.40	0.01	-0.02	725
	{0.49}	(0.04)	(0.04)	
Married	0.47	-0.05	-0.06	725
	{0.50}	(0.04)	(0.04)	
Household Size	5.29	-0.11	-0.05	725
	{1.18}	(0.11)	(0.10)	
Average Household Income	1330.00	-40.20	-33.60	725
	{659.17}	(40.36)	(40.25)	
Working for an Income	0.01	0.01	-0.01	725
	{0.11}	(0.01)	(0.01)	
P-Value for Joint Test		0.522	0.364	
Cohort Fixed Effects		Y	Y	
Observations	234	250	241	

Notes: This table reports the baseline balance for the sample. Each row is a regression of the dependent variable on binary variables for each treatment group. Robust standard errors in parentheses clustered by cohort. Standard deviations of the control group are reported in brackets. The P-value for the joint test comes from a regression of treatment status on all the balance variables at once. Significance * .10; ** .05; *** .01.

Table 2: NGO2 Sample Implementation Check (First Stage)

	Control Average	Training		Training and Counseling		Observations
	(1)	(2)		(3)		(4)
Completed OTJ training	0.004	0.657	***	0.698	***	725
	{0.065}	(0.026)		(0.025)		
Employed	0.004	0.622	***	0.663	***	725
	{0.065}	(0.028)		(0.027)		
Counseling sessions	0.000	0.022		1.750	***	725
	.	(0.060)		(0.157)		
Obersvations	234	250		241		

Notes: This table reports the differences between each treatment group and the control group across several implementation variables. Each row is the result of a regression of treatment assignment on the dependent variable. Standard errors in parentheses, standard deviations in brackets. Cohort fixed effects are included. Standard errors are clustered by cohort. Significance * .10; ** .05; *** .01.

Table 3: Impacts of NGO2 Intervention on Labor Market Outcomes

	Control Average	Training		Training and Counseling		Observations
	(1)	(2)		(3)		(4)
Currently working	0.35	0.12	**	0.11	***	662
	{0.48}	(0.05)		(0.04)		
Looking for work	0.56	-0.01		-0.05		660
	{0.50}	(0.03)		(0.04)		
Total personal income (log)	2.49	0.86	**	0.81	***	662
	{3.47}	(0.36)		(0.23)		
Total personal income	286.00	99.18	**	104.00	***	662
	{506.60}	(46.78)		(34.24)		
Have a secondary job	0.01	0.00		0.01		662
	{0.16}	(0.01)		(0.01)		
Average working hours per week	14.11	2.70		3.55	**	662
	{22.07}	(2.16)		(1.37)		
Wealth index	4.62	-0.11		-0.12		662
	{1.10}	(0.10)		(0.10)		
Have no income	0.18	-0.03		-0.07	**	662
	{0.38}	(0.03)		(0.03)		

Notes: Column 1 reports control group average, with standard deviation in brackets. Columnds 2 and 3 report the difference between each treatment group and control. Robust standard errors in parentheses. All regressions include cohort fixed effects and control for baseline value of the outcome variable when possible. Significance * .10; ** .05; *** .01.

Table 4: Impacts of NGO2 Intervention on Secondary Outcomes

	Control Average	Training	Training and Counseling	Observations
	(1)	(2)	(3)	(4)
Want to immigrate	0.59	-0.07	-0.09	422
	{0.49}	(0.07)	(0.07)	
Thinks Government is Responsible for Providing Jobs	0.51	-0.03	0.02	662
	{0.50}	(0.05)	(0.05)	
Save Part of Income	0.32	0.03	0.03	662
	{0.47}	(0.04)	(0.04)	
Job satisfaction (1-5 scale)	0.74	0.02	0.14 **	227
	{0.44}	(0.07)	(0.06)	
Have employees at private business	0.01	0.00	0.00	662
	{0.15}	(0.01)	(0.01)	
Happiness Ladder (1 to 10 Scale)	3.99	0.30	0.20	662
	{2.20}	(0.23)	(0.23)	
Happiness Ladder in 1 Year (1 to 10 Scale)	6.55	-0.01	0.09	662
	{2.66}	(0.24)	(0.25)	
Decide how to spend income	0.70	-0.01	0.03	662
	{0.46}	(0.04)	(0.04)	
Mobility index	6.37	0.43	0.27	524
	{4.54}	(0.34)	(0.34)	

Notes: Column 1 reports control group average, with standard deviation in brackets. Columnds 2 and 3 report the difference between each treatment group and control. Robust standard errors in parentheses. All regressions include cohort fixed effects and control for baseline value of the outcome variable when possible. Each row is the result of a regression of treatment assignment on the dependent variable while controlling for the baseline value of the variable when available. Significance * .10; ** .05; *** .01.

Table 5: Impacts of NGO2 Intervention on Labor Market Outcomes Those Surveyed at Least 10 Months Post-Intervention

	Control Average	Training		Training and Counseling		Observations
	(1)	(2)		(3)		(4)
Currently working	0.26	0.21		0.16	*	224
	{0.46}	(0.11)		(0.07)		
Looking for work	0.56	0.02		-0.03		224
	{0.50}	(0.05)		(0.07)		
Total personal income (log)	1.86	1.49		1.49		224
	{3.14}	(0.77)		(0.77)		
Total personal income	1758.03	152.00	*	108.00		224
	{53.31}	(72.81)		(70.74)		
Have a secondary job	0.00	0.01		0.03		224
	-	(0.01)		(0.02)		
Average working hours per week	8.37	6.40	*	4.68	*	224
	{16.05}	(2.83)		(2.04)		
Wealth index	4.36	0.11		0.07		224
	{0.98}	(0.06)		(0.12)		
Have no income	0.23	-0.08		-0.12	**	224
	{0.41}	(0.06)		(0.06)		

Notes: Column 1 reports control group average, with standard deviation in brackets. Columnds 2 and 3 report the difference between each treatment group and control. Robust standard errors in parentheses. All regressions include cohort fixed effects and control for baseline value of the outcome variable when possible. Significance * .10; ** .05; *** .01.

Table 6: Impacts of NGO2 Intervention on Secondary Outcomes for Those Surveyed at Least 10 Months Post-Intervention

	Control Average	Training		Training and Counseling		Observations
	(1)	(2)		(3)		(4)
Want to immigrate	0.35	0.07		0.10		162
	{0.38}	(0.07)		(0.08)		
Thinks Government is Responsible for Providing Jobs	0.53	0.06		0.13		224
	{0.50}	(0.08)		(0.08)		
Save Part of Income	0.23	0.16	**	0.16	**	224
	{0.42}	(0.07)		(0.07)		
Job satisfaction (1-5 scale)	3.00	0.05		0.08		67
	{0.11}	(0.13)		(0.13)		
Have employees at private business	0.00	0.01		0.00		224
	-	(0.01)		(0.01)		
Happiness Ladder (1 to 10 Scale)	3.96	0.04		-0.23		224
	{2.16}	(0.34)		(0.37)		
Happiness Ladder in 1 Year (1 to 10 Scale)	6.39	-0.23		-0.23		224
	{2.63}	(0.42)		(0.35)		
Decide how to spend income	0.67	0.01		0.07		224
	{0.47}	(0.07)		(0.07)		
Mobility index	2.68	0.58		-0.10		175
	{4.27}	(0.64)		(0.66)		

Notes: Column 1 reports control group average, with standard deviation in brackets. Columnds 2 and 3 report the difference between each treatment group and control. Robust standard errors in parentheses. All regressions include cohort fixed effects and control for baseline value of the outcome variable when possible. Each row is the result of a regression of treatment assignment on the dependent variable while controlling for the baseline value of the variable when available. Significance * .10; ** .05; *** .01.

Table 7: NGO2 Impacts by Gender

	Female (N=524)			Male (N=138)				
	Control Average	Treatment Effect		Control Average	Treatment Effect		Observations	P-value of Female vs Male
	(1)	(2)		(3)	(4)		(5)	(6)
Currently working	0.34	0.15	***	0.43	-0.03		662	0.069
		(0.04)			(0.09)			
Looking for work	0.54	-0.03		0.62	-0.05		662	0.874
		(0.05)			(0.09)			
Total personal income (log)	2.32	1.08	***	3.18	-0.06		662	0.150
		(0.31)			(0.73)			
Total personal income	29.74	110.00	***	544.00	54.91		662	0.715
		(39.04)			(145.00)			
Have a secondary job	0.00	0.02	**	0.07	-0.05		662	0.116
		(0.01)			(0.04)			
Average working hours per week	12.18	4.38	**	22.14	-2.23		662	0.240
		(1.83)			(5.31)			
Wealth index	4.44	-0.17	*	5.36	-0.01		662	0.506
		(0.09)			(0.22)			
Have no income	0.19	-0.05		0.10	-0.04		662	0.973
		(0.04)			(0.05)			
Want to immigrate	0.53	-0.10	**	0.81	-0.05		662	0.573
		(0.05)			(0.07)			
Thinks government is responsible for providing jobs	0.50	0.00		0.57	-0.02		662	0.884
		(0.05)			(0.09)			
Save part of income	0.31	-0.02		0.36	0.17	*	662	0.057
		(0.04)			(0.09)			
Job satisfaction	0.75	0.11		0.71	0.11		227	0.996
		(0.07)			(0.15)			
Have employees at private business	0.00	0.00		0.05	-0.03		662	0.413
		(0.00)			(0.04)			
Happiness ladder (1 to 10 scale)	4.06	0.26		3.71	0.41		662	0.719
		(0.22)			(0.35)			
Happiness ladder in 1 year (1 to 10 scale)	6.70	-0.09		5.90	0.74	*	662	0.093
		(0.25)			(0.42)			
Decide how to spend income	0.69	-0.02		0.74	0.10		662	0.205
		(0.04)			(0.08)			

Notes: Column 1 reports control group average, with standard deviation in brackets. Column 2 reports the difference between a combined treatment group and control. Robust standard errors in parentheses. All regressions include cohort fixed effects and control for baseline value of the outcome variable when possible. Significance * .10; ** .05; *** .01.