

POLICY NOTE

Psychological Support and Labor Market Performance for Youth in Addis Ababa

Carolina Mejía-Mantilla* and James Walsh^{†‡}

May 28, 2020

FOR CIRCULATION

*World Bank, cmejiamantilla@worldbank.org

[†]University of Oxford and eMBED Unit (World Bank), james.walsh@nuffield.ox.ac.uk.

[‡]We would like to thank Sabhya Gupta for her excellent research assistance. In addition, we would like to thank Stefan Dercon, Julien Labonne, Iman Kalyan Sen, Ruby Mittal, Javier Baez and Tomomi Tanaka for their comments and contributions, all remaining errors are ours. We would like to thank Aha Psychologists and Zerihun Associates for their excellent work and partnership in implementing the workshops and collecting data.

CONTENTS

1	Introduction	4
2	Literature Review	5
2.1	Behavioral Insights	6
2.2	Active Labor Market Policies	6
2.3	Labor Market Interventions in Ethiopia	7
3	Experimental Design	8
3.1	Participant Selection and Randomization	8
3.2	Workshops	9
3.3	Compliance	10
3.4	Summary Statistics	11
3.5	Follow-up data collection	11
4	Methodology	14
4.1	Empirical Strategy	14
4.2	Outcomes of Interest	15
4.2.1	Primary Outcomes	15
4.2.2	Secondary Outcome	16
4.2.3	Mechanisms	16
5	Results	17
5.1	Average Intent-to-Treat Effects of Interventions	17
5.2	Heterogeneity: Gender and Locus of Control	19
6	Conclusion	28
A	Appendix: Diagnostic work	33
B	Appendix: Additional materials	35

MAIN MESSAGES

1. We provide evidence from a randomized field experiment in urban Ethiopia on the effects of providing idle youth with psychological supports. We show that one-off interventions had a positive effect on labor market outcomes in the short term. Two interventions were tested: a three-hour workshop to enhance individuals' sense of self-integrity and a three-hour workshop that also included a goal-setting exercise. On the entire sample and the men, the self-affirmation intervention increased job search efforts, mainly on the intensive margin. In the case of men with low locus of control at baseline, the treatment is particularly effective.
2. The effects of the intervention for men and women differed considerably: the self-affirmation workshop was effective for men but *not for women*. For men, invitation to the workshop (e.g., intention-to-treat) increased both job search efforts and actual employment. However, there was no treatment effect for women. These results are consistent with the set of constraints that men and women report in accessing labor market opportunities at baseline. It suggests that labor activation policies must address the norms and institutional constraints that women face in relation to household tasks if they are to be inclusive for women.
3. Large treatment effects were observed for men with low locus of control at baseline. For this sub-sample, being invited to the workshops (combined treatment) has a large effect on economic activity (employment), close to 30 percent, and profits, around 33 percent with respect to the control group. Unsurprisingly, for these men we observe major increases in the locus of control measure. This is consistent with previous studies showing that psychological supports are most effective for vulnerable populations.
4. The results provide important lessons for the design of active labor market policies in urban Ethiopia as well as other urban African contexts. First, well-targeted behavioral interventions can be a highly cost effective policy tool (the cost of the treatment was less than \$10 USD per person). Second, interventions that aim to activate women in the labor market need to tackle the household responsibilities that often fall fully on women: housework and care-giving (for children and others). Third, implementation matters. Sometimes, too much material and/or the emphasis on various psychological constructs can be counter-productive for participants, with negative implications for effectiveness.

1 INTRODUCTION

The performance of the Ethiopian economy in recent years contains a paradox. On the one hand, the country has one of the fastest rates of economic growth in the world. On the other, the labor market outcomes in urban areas of Ethiopia – where the majority of productivity growth is taking place – are surprisingly poor. Work opportunities for young people – and especially young women – are precarious, poorly paid, and surprisingly scarce. As of 2015, one in four young (ages 15-29) people were unemployed in 2015 (World Bank Group, 2016). The unemployment rate among urban youth has slightly increased from 2015 to 2018. Among young, urban males, the rate has increased from 12.9 percent in April 2016 to 19 percent in June 2018 (Urban Employment Unemployment Survey 2018, 2018).¹ For those participating in the labor market, monthly income is often lower than the national poverty line. Women have systematically worse outcomes in the labor market than men: participation rates are lower, unemployment rates are higher, and wages for employed women are lower.

One salient concern of Ethiopia’s labor market is that approximately one in three of the unemployed are not actively looking for a job. An important consideration for policymakers is understanding why people are not searching and whether cost effective intervention can help. To develop a preliminary understanding of this, we conducted a behavioral diagnostics (qualitative work with youth in Addis and a desk analysis). The results suggested that many young people do not search because they lack motivation and belief in their ability to change their circumstances.² To explore this hypothesis further, we conducted a randomized field experiment to investigate the effects of providing psychological supports to young people on their on employment outcomes.

As laid out in our pre-analysis plan, we test if one-off workshops intended to increase the psychological agency of out-of-work vulnerable youth have an effect on job search and employment outcomes in Addis Ababa.³ Participants were randomly assigned to either a control group or one

¹For the purposes of this study, we define young people or “youths” as people between the ages of 18 and 30. The Urban Employment Unemployment Survey statistics are for young people between the ages of 15 and 29. We assume that the unemployment rate for young people between ages 18 to 30 isn’t significantly different from the reported statistics.

²For discussion of diagnostic work, see [Appendix A](#)

³The registration can be found at: Mejia-Mantilla, Carolina and Walsh, James. 2019. "Psycho-social supports for job search in Ethiopia." AEA RCT Registry. March 10. <https://doi.org/10.1257/rct.3863-1.0> .

of two treatment arms. The first treatment group was invited to attend a three-hour workshop focused on self-affirmation. The second group was invited to a workshop that, in addition to self-affirmation, also focused on a goal-setting exercise. We follow all individuals fortnightly, through phone calls, for the subsequent four months, collecting data on job search, employment and other outcomes.

Our results suggest that interventions that target how people think may enhance labor market activation policies, particularly when targeted at psychologically vulnerable populations. We find that the workshops are effective in increasing both job-search and employment for men, but not for women. This is consistent with the difference in the constraints that men and women face in accessing labor market opportunities at baseline. Women primarily report normative and structural constraints to searching for work: roughly two thirds report childbearing or other family obligations. On the other hand, 60 percent of men report lack of hope or motivation as reasons for not searching for work.

These findings are informative for the design of public policies in Addis Ababa, and likely the rest of urban Ethiopia, as well as in other urban African contexts. First, psychological supports can help individuals to overcome psychological constraints that may be preventing them from entering the labor market. Second, these are most effective when targeted at those individuals with a low locus of control, and they can significantly increase their economic prospects. Third, the activation of women in the labor market requires addressing access to childcare as well as shifting the normative expectations that women should take primary responsibility for household obligations.

2 LITERATURE REVIEW

Our study relates to two areas of policy. First, it is connected to an emerging body of work focused on using targeted psychological interventions to improve people's well-being. Second, it contributes to the evidence investigating the effectiveness of active labor market policy. It also builds on a growing body of experimental work on labor market interventions conducted in Addis Ababa, Ethiopia.

2.1 BEHAVIORAL INSIGHTS

There is growing body of evidence suggesting that psychologically, informed interventions can support development outcomes across a wide variety of domains (World Bank, 2015). Various studies suggest that encouraging self-affirmation has positive results in academic performance (Sherman and Cohen, 2006), boosting executive functions (Harris et al., 2017), reducing health information avoidance (Howell and Shepperd, 2017) and, self-control over snacking (Churchill et al., 2018). Similarly, the promotion of goal-setting has been shown to enhance performance in a wide variety of activities, from weight loss to academic accomplishment (for a summary of research in this area see (Gary and Latham, 2013)).

In the case of Ethiopia, a video-based intervention was conducted to boost villagers' aspirations and self-efficacy with positive results (Tanguy et al., 2014). Similar studies in Africa have looked at the impact of cognitive behavioral therapy on economic activity and personal initiative training (Blattman et al., 2017; Campos et al., 2017).

In terms of the behavioral informed interventions to enhance labor market outcomes, these have been mainly implemented in high income countries. Such interventions are reported to have positive impacts on intention, search behaviors, and employment probabilities in the Netherlands (Van Hooft and Noordzij, 2009) and on the likelihood of finding employment in Sweden (Hägglund, 2006) and the UK (Behavioural Insights Team, 2015). Similarly, well defined job search plans with weekly goals increased the number of job applications in South Africa (Abel et al. (2019)). It is now well understood that setting a clear target and outlining implementations intentions is central in job search (Liu et al., 2014).

2.2 ACTIVE LABOR MARKET POLICIES

Much of the evidence on labor market interventions, mostly focused on vocational training in high-income countries⁴, suggests that they are not especially effective (Crépon and Van den Berg, 2016), Heckmen et al. (1999), Martin and Grubb (2001). While they consume a sizeable portion of government expenditure in OECD countries, with the exception of a small number of success stories, the general outlook on their effectiveness is unfavourable.

⁴In some cases these intervention also include apprenticeships that provide participants with some practical experience.

Recent evidence from randomized experiments in developing countries is mixed but slightly more positive, indicating that labor market activation interventions have modest impacts (Card et al., 2010; McKenzie, 2017), Attanasio et al. (2011). On average, effects on employment and earnings tend to be moderate, and these effects tend to be larger during recessions. In some cases, the effects are long-lasting, as documented by Attanasio et al. (2017) for Colombia, and by Hirshleifer et al. (2015) for Turkey. Moreover, there is considerable heterogeneity of the impact, depending on socio-demographic characteristics of the beneficiaries and the implementation capacity of the institution delivering the intervention.

Some studies that analyze demand-side programs, which focus on wage subsidies for the hiring firms, also find positive modest results in increasing employment over the short-term (around six months). This is the case of Galasso et al. (2004) in Argentina, Levinsohn et al. (2014) in South Africa, and De Mel et al. (2016) in Sri Lanka. However, Groh et al. (2016) argue that in South Africa, the gains in employment are not sustained beyond the duration of the program. Also, Bruhn et al. (2016) find no effect in Mexico. Overall, these programs seem to be attractive in the short run, especially during periods of crisis.

Another group of studies evaluate the impact of interventions aimed at overcoming search and matching friction in the labor market. Dammert et al. (2015) find positive and statistically significant effects of providing information on employment opportunities (via text messages) to job seekers in Peru. Garlick (2018) provides job seekers in South Africa with the results of psychometric tests, which results in a 17 percent rise in employment and 32 percent increase in earnings.

2.3 LABOR MARKET INTERVENTIONS IN ETHIOPIA

A number of interventions have been tested in Ethiopia to understand what are the binding constraints to sustainable employment. Franklin (2015) found that search costs (transport costs) constrain job seekers. He finds that transport subsidies increase the likelihood of finding permanent employment by 6 percentage points in the short run. In a related intervention, Abebe et al. (2018) find positive effects (4 years later) of job application workshops. They helped applicants signal their skills to their potential employers. Remarkably, four years later, workshop attendees have significantly higher earnings, job satisfaction and employment duration.

Blattman and Dercon (2018) compare the economic impacts of employment in the manufacturing sector against a cash grant with business training in Addis. Their results suggest that the impact on incomes of gaining permanent employment at the manufacturing firm was nil, and that turnover was extremely high: 77 percent left their job. Those who received the grant and training however, started businesses, saw their earnings increase by a third, and reported higher level of well-being.

3 EXPERIMENTAL DESIGN

3.1 PARTICIPANT SELECTION AND RANDOMIZATION

Participants were recruited from seven Woredas in two of the poorest sub-cities of Addis Ababa. In the sub-city of Kolfe-Keranio, participants were recruited from Woredas 2, 3, 8, 11 and 13, while in the Lideta sub-city participants were recruited from Woredas 3 and 4. According to World Bank estimates, the poverty rate under the national poverty line was above 25 percent of the population for 2015/16 in all listed Woredas.

Around 2,500 individuals were screened using three conditions: i) between 18-30 years of age, ii) not enrolled or attending school (of any kind) and iii) not engaged full time in an economic productive activity in the last week. At the end, 1,979 individuals were eligible and were invited to participate in the program. Of those, 1,766 individuals provided consent and were then recruited into the program and administered the baseline questionnaire.

Recruited participants were stratified by gender and randomly allocated into one of three arms: (i) a pure control (**C**); (ii) a self-affirmation workshop (**SA**); or (iii) a self-affirmation + goal setting (**GS**). A separate randomization took place for each Woreda, meaning that we are implicitly blocking by Woreda.

The procedure followed was: (a) enumerators conducted a listing exercise to assess eligibility and consent; (b) once the listing was completed for each Woreda, participants were randomized into three groups (one control and two treatment groups); (c) the baseline survey was administered to all consenting participants; (d) individuals were informed of the lottery results immediately after the survey and (e) participants assigned to the treatment groups were given time slots for the

corresponding workshops. This was done sequentially Woreda by Woreda, so that recruitment occurred at different dates for each Woreda.

3.2 WORKSHOPS

The two treatment arms were designed on the basis of psychological interventions that have been found to be effective before in other contexts (see [Cohen and Sherman \(2014\)](#) and [Oettingen \(2015\)](#) for a summary of the literature on self-affirmation theory and on goal setting through mental contrasting/implementation intentions (MCII), respectively). To ensure that the workshops were suitable for the context, we worked closely on the curriculum with a local organization that specializes in youth counseling and this same organization implemented the workshops. On this basis, we added discussions on role models to help participants focus on goals and on locus of control to address the obvious external constraints that participants faced. All workshops were led by a facilitator trained in therapy, with the support of two volunteer assistants that worked in the respective Woreda office. They took place in a local community space such as the youth center or a nearby school, and lasted approximately three hours (for both SA and GS).

1. The self-affirmation (SA) workshop: The workshop applied insights from self-affirmation theory to encourage youths to develop a belief in their own capacity to affect change in their economic lives. Self-affirmation entails mentalizing aspects of one's self-identity that one is proud of and values. The activities for this were based on the procedures set out in the Supporting Online Materials by [Cohen et al. \(2006\)](#) . The workshop included modules in which the individual (i) reflected on the role models in their lives, (ii) how their role model relates to their values, and (iii) the external and internal constraints they face to getting a job.
2. The goal-setting (GS) workshop: The workshop included identical material on self-affirmation and was supplemented with an additional module on goal setting. The particular application of goal setting was informed by the theory of mental contrasting and implementation intentions by Gabriele Oettingen (for summary, see [Oettingen \(2015\)](#); for practical online examples see [woopmylife.org](#)). Through this module, participants went through four specific steps: (i) establishing a wish or goal; (ii) determining the aspects of their wish that they would value; (iii) picturing the obstacles to the goal; and (iv) determining a plan.

The interventions took place either in the morning or in the afternoon. In each Woreda, we

varied which workshops took place in the morning and afternoon (e.g., if the self-affirmation workshop is in the morning on one day, it would be in the afternoon on the next day). Participants were provided lunch but were not paid to attend the workshop. The workshops were delivered by the same implementing organization but different facilitators. [Table 1](#) below shows the implementation dates for the workshops in the different Woredas.

Table 1: Implementation period

Woreda	Date of implementation	n
Woreda 1 (Lideta 03)	17- 19 April, 2018	221
Woreda 2 (Kolfe13)	02-03 May, 2018	242
Woreda 3 (Kolfe 11)	16-27 May, 2018	265
Woreda 4 (Kolfe 08)	30-31 May, 2018	249
Woreda 5 (Kolfe 02)	13-14 June, 2018	231
Woreda 6 (Kolfe 03)	04-05 July, 2018	302
Woreda 7 (Lideta 04)	18-19 July, 2018	256

3.3 COMPLIANCE

Overall, around 58 percent of the sample assigned to the treatment status attended the workshop. We note that the rate is lower than anticipated, partly because we did not provide financial incentives to attend the workshop due to the concern that it would not be a scalable policy component⁵. However, other reasons like the duration of the workshop or low interest in participating may have also contributed to the low participation rates.⁶ Thus, the intent-to-treat effects that we report are likely a conservative estimates of the impact of the program. The compliance within the treatment allocation was also successful and with the exception of one person, all participants attended the workshop to which they were assigned. Similarly, as [Table 2](#) shows, only 2 people allocated to the control attended a workshop.

⁵The workshops were conducted in the neighborhood (woredas) and were imparted in locations that were walking distance from all participants, such as school or the woreda offices.

⁶Note that the response rate for the follow-up surveys, which was incentivized by airtime of 15 Birr per call, was approximately 90 percent

Table 2: Assignment and compliance

	Control	Treatment (GS+SA)	Goal-Setting	Self-Affirmation
Assigned to treatment	601	1165	587	578
Complied		677	330	347
(% that complied)		58%	56%	60%
Miss-compliance	2		0	1
(% of treatment share)	0%		0%	0%

3.4 SUMMARY STATISTICS

The baseline questionnaire collected data on basic demographic and socioeconomic characteristics (such as gender, education level, civil status, etc.), time use, employment and job search for 1,766 youth. [Table 3](#) below shows the covariates of interest. In our sample, 58 percent are women, one third are married, and two-thirds were born in Addis Ababa. Almost all participants are literate and the average years of education is 8.4. This means that, on average, participants completed the primary cycle (level) and almost half a year of secondary level.⁷

We find that our sample is balanced across treatments and control group, virtually across all dimensions of interest (both covariates and outcomes), as can be seen in [Table 3](#) and [Table 4](#). For each variable of interest, we present the test of the null hypothesis that all experimental groups are balanced. We only reject this hypothesis for a 6 percent difference between the literacy rate of the control and the SA treatment group. Overall, we feel confident that the samples are balanced.⁸

3.5 FOLLOW-UP DATA COLLECTION

After the workshop date, we conducted a total of six phone follow-up interviews approximately two weeks apart over a period of four months (16 weeks). After the sixth follow-up took place for a particular individual, no further data was collected (despite the fact that in some cases

⁷Available at https://wenr.wes.org/wp-content/uploads/2018/11/WENR-1118-Country_Profile-Ethiopia-1.png.

⁸Note that the survey and the intervention was restricted to people who didn't have a full time job. People with part time jobs were included in the sample. Hence, the indicator for employment in the last 7 days is not zero. Moreover, there was a lag of about 2 weeks between the initial screening and baseline survey during which some individuals may found jobs. In addition, individuals may have under-reported their employment status hoping to take advantage of the program benefits.

Table 3: Summary statistics and balance check for covariates at baseline

Variable	(1)	(2)	(3)	(4)	T-test		
	Control Mean/SE	Goal setting Mean/SE	Self affirmation Mean/SE	Total Mean/SE	(1)-(2)	(1)-(3)	(2)-(3)
Age	23.180 (0.142)	23.095 (0.141)	23.261 (0.146)	23.178 (0.083)	0.674	0.689	0.414
Female	0.579 (0.020)	0.588 (0.020)	0.581 (0.021)	0.583 (0.012)	0.761	0.937	0.824
Married	0.331 (0.019)	0.334 (0.019)	0.318 (0.019)	0.328 (0.011)	0.919	0.640	0.571
Born in Addis Ababa	0.671 (0.019)	0.639 (0.020)	0.670 (0.020)	0.660 (0.011)	0.251	0.971	0.271
Years of education	8.379 (0.151)	8.446 (0.149)	8.668 (0.143)	8.496 (0.085)	0.752	0.166	0.283
Training programs	0.166 (0.015)	0.187 (0.016)	0.166 (0.015)	0.173 (0.009)	0.343	0.989	0.341
Can read and write	0.932 (0.010)	0.937 (0.010)	0.957 (0.008)	0.942 (0.006)	0.718	0.062*	0.133
N	601	587	578	1766			

Notes: The value displayed for t-tests are p-values. ***, **, and * indicate significance at the 1, 5, and 10 percent critical level.

Table 4: Summary statistics and balance check for dependent variables at baseline

Variable	(1)		(2)		(3)		(4)		T-test		
	N	Control Mean/SE	N	Goal setting Mean/SE	N	Self affirmation Mean/SE	N	Total Mean/SE	(1)-(2)	(1)-(3)	(2)-(3)
Searched for work in last 7 days?	601	0.286 (0.018)	587	0.302 (0.019)	578	0.280 (0.019)	1766	0.289 (0.011)	0.562	0.822	0.425
Number of days spent searching (last week)	172	3.244 (0.121)	177	3.017 (0.106)	162	3.241 (0.114)	511	3.164 (0.066)	0.159	0.984	0.151
Number of hours spent searching (last time searching)	172	2.145 (0.091)	177	2.102 (0.090)	162	2.284 (0.115)	511	2.174 (0.057)	0.733	0.343	0.209
Worked last 7 days	601	0.183 (0.016)	587	0.162 (0.015)	578	0.161 (0.015)	1766	0.169 (0.009)	0.334	0.315	0.965
Days worked last week	110	2.945 (0.179)	95	3.063 (0.193)	93	2.806 (0.180)	298	2.940 (0.106)	0.655	0.587	0.332
Number of hours worked, last day spent working	110	5.300 (0.296)	95	5.274 (0.280)	93	5.022 (0.315)	298	5.205 (0.171)	0.949	0.521	0.550
Amount earned in last week	110	315.909 (31.056)	95	352.105 (39.839)	93	355.914 (44.219)	298	339.933 (21.931)	0.469	0.450	0.949

Notes: The value displayed for t-tests are p-values. ***, **, and * indicate significance at the 1, 5, and 10 percent critical level.

the project continued to run in the other Woredas). As can be seen in [Table 5](#), attrition stood at around 10 percent for any given wave, and there was no heterogeneity across treatments. In sum, the entire project ran for approximately 7 months (roughly 30 weeks), although, as mentioned, for a given individual the span of the reporting does not exceed a 4 month period (roughly 16 weeks).

Table 5: Response rates by treatment status and wave

	Control	%	Treatment 1	%	Treatment 2	%	Total
Baseline	601	100	587	100	578	100	1766
Wave 1	547	91	529	90.1	517	89.4	1593
Wave 2	554	92.2	539	91.8	522	90.3	1615
Wave 3	557	92.7	526	89.6	509	88.1	1592
Wave 4	545	90.7	530	90.3	527	91.2	1602
Wave 5	530	88.2	542	92.3	541	93.6	1613
Wave 6	552	91.8	525	89.4	534	92.4	1611
Total	3886		3778		3728		11392

All follow-up surveys contained questions on job search and economic activity, our two main outcomes of interest. Moreover, we rotated modules on locus of control, conscientiousness, and time preferences through the waves. The outcome measures collected in each wave are described in [Table 6](#). The latter set of measures were captured for the purpose of identifying the potential psychological mechanisms through which the workshop might affect job search and employment outcomes.

Table 6: Outcome measures by wave

	Job Search	Economic Activity	Locus of Control	Conscientiousness	Time Preferences
Baseline	X	X	X	X	X
Wave 1	X	X	X		
Wave 2	X	X		X	
Wave 3	X	X			X
Wave 4	X	X	X		X
Wave 5	X	X		X	
Wave 6	X	X			X

4 METHODOLOGY

4.1 EMPIRICAL STRATEGY

To estimate the effects of providing psychological tools on individual level outcomes related to job search and employment, we opted for an ANCOVA specification, following [McKenzie \(2012\)](#). Our choice is based on the low auto-correlation of the outcome variables⁹, and it takes advantage of all the follow-up surveys collected. A base specification pools both treatment groups as follows:

$$Y_{ir,t} = \beta \cdot T_i + \delta_t + \gamma_r + \lambda_{rt} + \tau_w + \alpha \cdot Y_{i,0} + \eta \cdot X_{i,0} + \mu_{i,t} \quad (1)$$

Here $Y_{ir,t}$ is the outcome of interest for individual i in Woreda (district) r at week t of the project (out of a total of 28 weeks). T_i indicates that the individual was invited to attend a workshop, capturing the intent to treatment effect (ITT), δ_t are time (week) fixed effects, γ_r are Woreda fixed effects, λ_{rt} are Woreda time-variant effects, τ_w are wave fixed effect (where $w = 1, \dots, 6$ describing which follow-up was collected for individual i at time t) and $Y_{i,0}$ is the baseline measure of the outcome of interest. Additionally, following the recommendations of [Bruhn and McKenzie \(2009\)](#), we will control for a set of baseline covariates $X_{i,0}$.¹⁰ Errors are clustered at the individual level.

Our preferred specification separately identifies the effect of the self-affirmation workshop (SA) and the goal-setting (GS) workshop, as follows:

$$Y_{ir,t} = \beta_1 \cdot TSA_i + \beta_2 \cdot TGS_i + \delta_t + \gamma_r + \lambda_{rt} + \tau_w + \alpha \cdot Y_{i,0} + \eta \cdot X_{i,0} + \mu_{i,t} \quad (2)$$

Where TSA_i indicates that the individual was invited to the self-affirmation workshop, while TGS_i refers to the goal setting workshop. We continue to cluster errors at the individual level. We test if the effect of the two treatment arms are statistically different. In addition, we explore how the impact of the intervention at the individual level varies along two dimensions: gender and locus of control.

⁹Job search intensity is known to vary throughout the unemployment spell and permanent stable employment is rare in Ethiopia.

¹⁰Our list of baseline controls include the following characteristics: age, gender, born in Addis Ababa, marital status, education level, literate and has received training in the past.

4.2 OUTCOMES OF INTEREST

The outcomes of interest are categorized as follows: (i) primary outcomes of interest, (ii) secondary outcome of interest, and (iii) intermediate outcomes (or mechanisms). The exact details of the construction of the variables are summarized in Tables 14 and 15 in the [Appendix B](#). For the primary outcomes we use the procedure proposed by [Anderson \(2008\)](#) to construct summary indexes for the different categories. The summary index is a weighted mean of several standardized outcomes (by the control group standard deviation), where the weights are designed to maximize the information contained in the index. In addition, when studying the primary outcomes, we use sharpened q-values to adjust for multiple hypothesis testing (see Benjamini et al., 2006). This was not implemented when looking at the mechanisms.

4.2.1 PRIMARY OUTCOMES

We study the effects of the intervention on two primary families of outcomes: (i) job search and (ii) economic activity or employment. We expect the psychological tools provided by the intervention to encourage youths to participate in the labor market, either by looking for a job, getting a job, or engaging in self-employment.

1. *Job search*: standardized summary index of extensive and intensive margin measures of job search. More specifically:
 - (a) Actively searched for a job last week.
 - (b) Number of days searched for a job last 7 days.
 - (c) Number of hours searched for a job last time (day).
2. *Employment*: standardized summary index of extensive and intensive margin measures of economic activity. More specifically:
 - (a) Engaged in productive activity last week (includes wage and self employment).
 - (b) Number of days engaged in productive activity (includes wage and self employment) last 7 days.
 - (c) Number of hours engaged in productive activity (includes wage and self employment) last time (day).

4.2.2 SECONDARY OUTCOME

In a secondary analysis we will look at the earnings (both from wage employment and self-employment) of individuals in the past seven days.

4.2.3 MECHANISMS

The channel through which we hypothesize behavioral change takes place is psychological. To capture and investigate the psychological mechanisms, we look at three outcomes: (i) locus of control, (ii) conscientiousness, and (iii) time preferences.

1. *Locus of control*: Locus of control is a construct that measures the degree to which people believe that they have control over the outcome of events in their lives, as opposed to external forces beyond their control. It is conceptualized on a spectrum from internal (a belief that one has personal control over their life) to external (a belief that one's life is controlled by factors that he or she cannot influence).

We follow [Caliendo et al. \(2015\)](#) to construct a summary index of locus of control, where a higher value represents that the individual believes she has more control over their life. Participants were asked their level of agreement with 9 statements (see [Table 24](#) in the [Appendix B](#)) on a 4 point scale (strongly disagree, disagree, agree, strongly agree), and the index was constructed by summing the values of responses in line with the psychological construct and subtracting those in conflict.¹¹

2. *Conscientiousness*: We also measured Conscientiousness, a personality construct which captures the tendency to desire to do tasks well and to honour the obligations one has made to others.¹² We applied the battery of ten questions used by [Blattman and Dercon \(2018\)](#) presented in [Table 25](#) of the Appendix 1). As with locus of control, a summary index was constructed by summing the values (out of a four point scale) from statements affirming behaviors predicted to be in line with the construct and subtracting statements affirming behaviors predicted to be in conflict with the construct (see signs in [Table 25](#)). A higher value of the index signals a higher degree of conscientiousness.

¹¹The questions used to construct the indices were tested for internal consistency and the Chronbac Alpha value is low as reported in the Appendix B. However, we also used a reduced index that produced an Alpha close to 0.7 and the results remained unchanged.

¹²It is part of the Big Five model (Five Factor Model) of personality, which also includes extraversion, neuroticism, openness to experience, and agreeableness.

3. *Time preferences*: Similarly, we measured participants' time preferences. Time preferences (time discounting) is the relative value participants put on receiving a good (benefit) now compared to receiving it at a later date. To obtain individuals' discount rate (impatience), we follow Falk et al. (2016). This is a method created for surveys that has been validated in the lab to be applied to surveys, and has been applied globally Falk et al. (2018). More specifically, we used a staircase procedure (see Figure 3), on which a person lands at a particular time discounting level. Higher levels of this measure reflects a higher level of impatience.

5 RESULTS

5.1 AVERAGE INTENT-TO-TREAT EFFECTS OF INTERVENTIONS

We first investigate the average treatment effect of the interventions on primary and secondary outcomes. For all tests, we use the regression specification outlined in subsection 4.1. We employ an 'intention to treat' analysis. In other words, we assess the impact of *being invited* to the workshops, independent of whether the person actually attended. Since only 58 percent of invited individuals attended the workshop, it is likely that the intent to treat estimates are underestimating the effect of the treatment on those who were treated.

Table 7 presents the results for the primary outcomes. We find that the SA workshop has a significant positive effect on job search, but not on employment and profit (third column). In addition, we find no effect of the GS workshop or when we pool both arms of the interventions -combined treatment- (first and second columns). The ITT effect identified are of limited magnitude, and they are not robust to the multiple hypothesis testing adjustment (q-values in brackets).

As discussed above, the GS workshop contained the same material of the SA workshop plus an additional goal-setting exercise. Thus, augmenting the content of the intervention appears to have dampened its efficacy. One explanation, often cited in the psychology literature, is that combining psychological constructs can have a cancelling effect, undermining the effectiveness of the intervention. Another explanation is that the GS workshop attempted to fit too much material into a restricted time frame (recall that the two workshops were the same length by design). Similarly, the effects of GS intervention may not be tangibly visible in the short run and

Table 7: Main outcomes

	Combined Treatment	Goal Setting	Self Affirmation	Control Mean	N
Job search index	0.044 (0.114) [0.227]	0.019 (0.549) [0.549]	0.069** (0.034) [0.204]	-0.000	9620
Work index	0.050 (0.157) [0.227]	0.059 (0.157) [0.440]	0.041 (0.321) [0.440]	0.000	9618
Profits	9.736 (0.227) [0.227]	10.785 (0.261) [0.440]	8.662 (0.367) [0.440]	92.112	9618

^a This table presents the intent-to-treat estimates of the intervention. Below each coefficient estimate we report the s.e. in parenthesis and the a q-value in brackets. q-values, which adjust for multiple hypothesis testing, are obtained using the simes approach. ***: $p < 0.01$, **: $p < 0.05$, * : $p < 0.10$.

further follow ups would have been required to observe the effects. Overall, this is a potentially important lesson for the application of behavioral insights – while the marginal financial cost of adding materials is low, other costs, more challenging to observe and measure such as time and focus, may impact the effectiveness of policy design choices.

The effect of the SA workshop on job search is explained by an increase in the intensity of job search rather than an increase at the extensive margin. The number of days individuals searched for a job (during the last week) increased by almost 8 percent for those invited to the workshops, reaching 1.64 days (see [Table 8](#)). Note that the time spent searching remains consistently low across all groups. On days that people search for jobs, they spend nearly 2 hours on average. The combined treatment increases the time spent by 5.8 percent, adding only 4 minutes per day on average. Within treatment arms, the effects are still being driven by changes at the intensive margin. In terms of employment, we find that an invitation to the GS workshop increases the days of employment by 16.37 percent, but this is not capture at the aggregate employment index.

In terms of mechanisms, the findings suggest that workshop increased conscientiousness, the desire to do well and honor obligations, by around 5.8 percent (see [Table 9](#)). The results are consistent for the two treatment arms. In all cases, the impact is statistically significant at a 10

Table 8: Main outcomes, components

	Combined Treatment	Goal Setting	Self Affirmation	Control Mean	N
Job search indicator	0.003 (0.822)	-0.011 (0.496)	0.017 (0.277)	0.574	9620
Job search days	0.119*** (0.007)	0.100* (0.054)	0.138*** (0.008)	1.523	9620
Job search hours	0.066** (0.043)	0.034 (0.370)	0.100** (0.011)	1.138	9620
Work indicator	0.016 (0.237)	0.020 (0.211)	0.012 (0.445)	0.205	9618
Work days	0.106 (0.116)	0.138* (0.086)	0.073 (0.347)	0.843	9618
Work hours	0.136 (0.167)	0.146 (0.204)	0.125 (0.278)	1.255	9618

^a This table presents the intent-to-treat estimates of the intervention. Below each coefficient estimate we report the s.e. in parenthesis. ***: $p < 0.01$, **: $p < 0.05$, * : $p < 0.10$.

percent confidence level.¹³

Table 9: Mechanisms

	Combined Treatment	Goal Setting	Self Affirmation	Control Mean	N
Locus of control	0.140 (0.264)	0.181 (0.214)	0.098 (0.505)	-3.355	3193
Conscientiousness	0.257* (0.053)	0.253* (0.096)	0.261* (0.088)	4.469	3223
Time preferences	-0.093 (0.684)	-0.237 (0.376)	0.054 (0.838)	7.101	4803

^a This table presents the intent-to-treat estimates of the intervention. Below each coefficient estimate we report the s.e. in parenthesis. ***: $p < 0.01$, **: $p < 0.05$, * : $p < 0.10$.

5.2 HETEROGENEITY: GENDER AND LOCUS OF CONTROL

We first conduct a sub-group analysis by gender. There was no effect of being invited to the workshop for women on the outcome variables (see Table 10 below). This reflects the distinct nature of the constraints faced by women: social norms and the role that women are expected

¹³As mentioned above, all questions were used in the construction of the index but the results are robust to a reduced index that reached a Chronbac Alpha of 0.78.

to play by society. At baseline, almost 50 percent of women report that they are not searching for work because they are fulfilling family responsibilities (which includes looking after children/elderly, among other things), compared to just 19 percent of men, as seen in [Figure 1](#) and [Figure 2](#). Thus, to address the exclusion of women from the labor market, balancing household responsibilities between genders and childcare alternatives may be necessary ¹⁴.

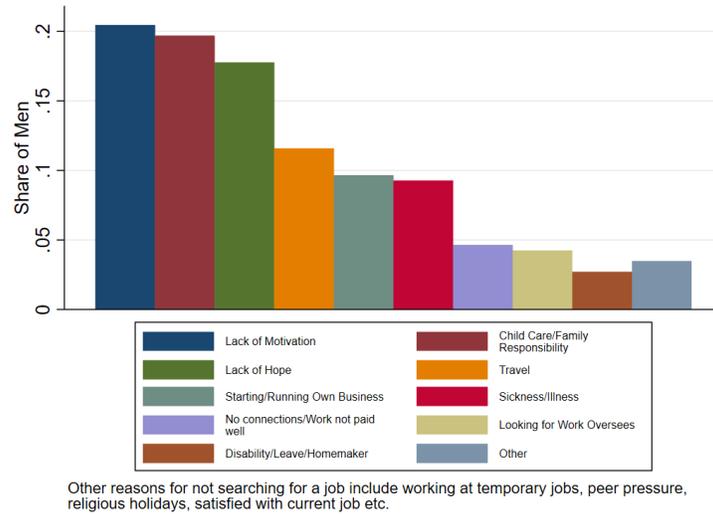
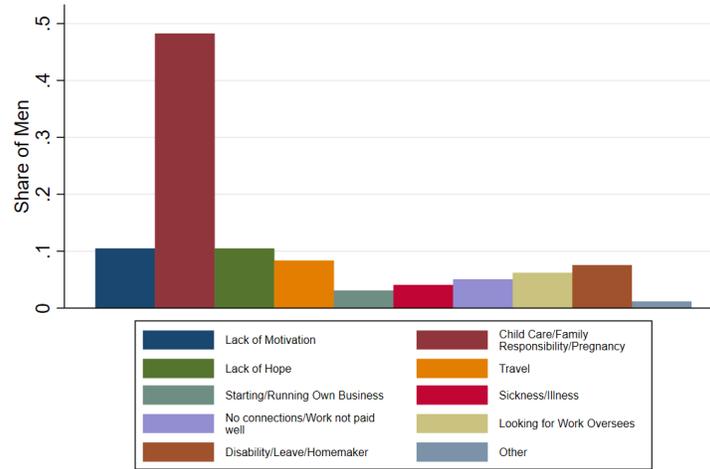


Figure 1: Reasons for Not Searching for Jobs, as Reported by Men

For men, we find a large and statistically significant combined treatment effect on job search (see [Table 11](#) below). This is consistent with the effects of the treatment on the entire sample. In terms of the separate treatment arms, we find no effect of the GS workshop, while the SA workshop drives the combined effect. In addition, the SA has a positive effect on employment (work index), as seen in column 3. As before, the results are not robust to the adjustment for multiple hypothesis testing.

Looking at the breakdown in [Table 12](#), the increase in job search for men is once more explained by an effect on the intensive margin. In particular, the combined treatment effect increases the number of days searched by 9.7 percent and the numbers of hours spent searching per day by

¹⁴The effect of the treatment is insignificant for women with and without children. This suggests that the added responsibility of taking care of children doesn't explain the lack of effect among women, and that there are additional psychological, cultural and social barriers unique to women. It is important to note that while the treatment wasn't designed specifically for women, gender was an important part of curriculum design, some instructors were women and children were allowed to accompany their parents. However, an intervention exclusively addressing specific constraints faced by women may be more effective in the future



Other reasons for not searching for a job include working at temporary jobs, peer pressure, religious holidays, satisfied with current job etc.

Figure 2: Reasons for Not Searching for Jobs, as Reported by Women

Table 10: Women: Main outcomes

	Combined Treatment	Goal Setting	Self Affirmation	Control Mean	N
Job search index	0.010 (0.770) [0.770]	-0.017 (0.679) [0.817]	0.039 (0.361) [0.722]	-0.125	5664
Work index	0.026 (0.534) [0.770]	0.069 (0.164) [0.722]	-0.018 (0.708) [0.817]	-0.128	5664
Profits	6.823 (0.410) [0.770]	11.300 (0.258) [0.722]	2.146 (0.817) [0.817]	60.406	5664

^a This table presents the intent-to-treat estimates of the intervention. Below each coefficient estimate we report the s.e. in parenthesis and the a q-value in brackets. q-values, which adjust for multiple hypothesis testing, are obtained using the simes approach. ***: $p < 0.01$, **: $p < 0.05$, * : $p < 0.10$.

9.6 percent. In terms of economic activity, the combined treatment has a significant effect on the intensive margin but no effect on the extensive margin. In particular, the hours worked increased by 15.8 percent, an effect driven by the SA treatment (which increased the time on the job by 24 percent).

In terms of the observed mechanisms for men, we observe that the workshops had a large effect

Table 11: Men: Main outcomes

	Combined Treatment	Goal Setting	Self Affirmation	Control Mean	N
Job search index	0.091** (0.038) [0.114]	0.075 (0.146) [0.292]	0.108** (0.034) [0.204]	0.177	3955
Work index	0.074 (0.196) [0.291]	0.033 (0.626) [0.626]	0.116* (0.090) [0.270]	0.182	3953
Profits	15.416 (0.291) [0.291]	9.576 (0.585) [0.626]	21.355 (0.230) [0.345]	136.832	3953

^a This table presents the intent-to-treat estimates of the intervention. Below each coefficient estimate we report the s.e. in parenthesis and the a q-value in brackets. q-values, which adjust for multiple hypothesis testing, are obtained using the simes approach. ***: p<0.01, **: p<0.05, * : p<0.10.

Table 12: Men: Main outcomes, components

	Combined Treatment	Goal Setting	Self Affirmation	Control Mean	N
Job search indicator	0.025 (0.217)	0.010 (0.663)	0.041* (0.088)	0.647	3955
Job search days	0.179** (0.015)	0.193** (0.026)	0.165* (0.052)	1.846	3955
Job search hours	0.127** (0.021)	0.106 (0.102)	0.150** (0.022)	1.320	3955
Work indicator	0.023 (0.319)	0.008 (0.764)	0.037 (0.165)	0.289	3953
Work days	0.116 (0.275)	0.062 (0.621)	0.171 (0.175)	1.084	3953
Work hours	0.265* (0.098)	0.129 (0.494)	0.404** (0.038)	1.672	3953

^a This table presents the intent-to-treat estimates of the intervention. Below each coefficient estimate we report the s.e. in parenthesis. ***: p<0.01, **: p<0.05, * : p<0.10.

on men’s locus of control measure, of 16 percent at a 1 percent level of significance (see [Table 13](#)). The SA workshops also increased the conscientiousness index by almost 10.9 percent.

Table 13: Men: Mechanisms

	Combined Treatment	Goal Setting	Self Affirmation	Control Mean	N
Locus of control	0.572*** (0.002)	0.522** (0.017)	0.622*** (0.005)	-3.376	1315
Conscientiousness	0.326 (0.109)	0.188 (0.422)	0.469** (0.045)	4.301	1330
Time preferences	-0.035 (0.908)	-0.323 (0.362)	0.261 (0.451)	4.276	1973

^a This table presents the intent-to-treat estimates of the intervention. Below each coefficient estimate we report the s.e. in parenthesis. ***: $p < 0.01$, **: $p < 0.05$, * : $p < 0.10$.

Finally, within the men we analyze whether there was any differential effect based on the degree of locus of control at baseline. We report the effect of the workshops for men with a low locus of control [Table 14](#).¹⁵ For this sub-sample we find that while there is no effect on job search, there are considerable positive combined treatment effects on both employment and profits. For the former, the magnitude of the effect of the SA workshop on the work index is almost 2 times the effect for the entire sub-sample of men. The change in the work index is driven by both extensive and intensive margins. Similarly, profits increase considerably by a third for the combined treatment, mainly explained by the goal-setting workshop. The results on employment (work index) as well as profits for the combined treatment *are robust* to the multiple hypothesis testing adjustment.

For this particular sub-group, the treatments have an effect on both the extensive margin of employment (employment status) as well as the intensive margin (number of days and hours worked), as shown in [Table 15](#). In terms of mechanisms and unsurprisingly, the evidence points that both workshops had a positive effect on the locus of control of men (combined effect is 19.3 percent), see [Table 16](#).

Among men with high locus of control, we only find a significant effect on job search; as opposed

¹⁵That is men with a locus of control measure in the bottom the 50 percent of the distribution among men at baseline.

Table 14: Men (low LoC): Main outcomes

	Combined Treatment	Goal Setting	Self Affirmation	Control Mean	N
Job search index	0.014 (0.824) [0.824]	0.016 (0.834) [0.862]	0.013 (0.862) [0.862]	0.205	1769
Work index	0.230*** (0.007) [0.021]	0.227** (0.023) [0.081]	0.235** (0.027) [0.081]	0.158	1769
Profits	42.478** (0.033) [0.049]	43.862* (0.065) [0.130]	40.845 (0.115) [0.173]	126.388	1769

^a This table presents the intent-to-treat estimates of the intervention. Below each coefficient estimate we report the s.e. in parenthesis and the a q-value in brackets. q-values, which adjust for multiple hypothesis testing, are obtained using the simes approach. ***: p<0.01, **: p<0.05, * : p<0.10.

Table 15: Men (low LoC): Main outcomes, components

	Combined Treatment	Goal Setting	Self Affirmation	Control Mean	N
Job search indicator	-0.012 (0.706)	-0.025 (0.473)	0.004 (0.919)	0.658	1769
Job search days	0.049 (0.663)	0.104 (0.434)	-0.014 (0.914)	1.954	1769
Job search hours	0.063 (0.418)	0.073 (0.421)	0.051 (0.570)	1.311	1769
Work indicator	0.085** (0.016)	0.085** (0.036)	0.086** (0.047)	0.290	1769
Work days	0.371** (0.016)	0.362** (0.044)	0.381** (0.045)	1.018	1769
Work hours	0.687*** (0.003)	0.662** (0.015)	0.716** (0.014)	1.527	1769

^a This table presents the intent-to-treat estimates of the intervention. Below each coefficient estimate we report the s.e. in parenthesis. ***: p<0.01, **: p<0.05, * : p<0.10.

Table 16: Men (low LoC): Mechanisms

	Combined Treatment	Goal Setting	Self Affirmation	Control Mean	N
Locus of control	0.947*** (0.001)	0.725** (0.030)	1.197*** (0.001)	-4.913	592
Conscientiousness	0.353 (0.278)	0.252 (0.486)	0.477 (0.216)	3.431	602
Time preferences	0.336 (0.451)	-0.182 (0.716)	0.921* (0.078)	4.290	878

^a This table presents the intent-to-treat estimates of the intervention. Below each coefficient estimate we report the s.e. in parenthesis. ***: $p < 0.01$, **: $p < 0.05$, * : $p < 0.10$.

to men with low locus of control (for which the invitation to the workshop resulted in higher employment and profits). The effect on job search is about 60 percent higher than for the entire sub-sample of men and is again primarily driven by the SA treatment (see [Table 17](#)). It must be noted that men with a higher locus of control are more educated at baseline; thus while the treatment may increase job search, it is possible that the individuals are not readily accepting jobs given that they have higher reservation wages or higher overall expectations. [Table 18](#) shows that both the extensive and the intensive margin of job search (days per week and hours per day), increases. The effect is largely driven by the SA workshop in both cases. Not surprisingly, for this group the psychological dimension that improves is conscientiousness (as opposed to locus of control), mostly as a result of the SA intervention (see [Table 19](#)).

Table 17: Men (high LoC): Main outcomes

	Combined Treatment	Goal Setting	Self Affirmation	Control Mean	N
Job search index	0.143** (0.023) [0.069]	0.093 (0.191) [0.566]	0.190*** (0.010) [0.060]	0.157	2186
Work index	-0.008 (0.921) [0.988]	-0.089 (0.318) [0.566]	0.070 (0.431) [0.566]	0.199	2184
Profits	0.290 (0.988) [0.988]	-13.828 (0.562) [0.566]	13.607 (0.566) [0.566]	144.169	2184

^a This table presents the intent-to-treat estimates of the intervention. Below each coefficient estimate we report the s.e. in parenthesis and the a q-value in brackets. q-values, which adjust for multiple hypothesis testing, are obtained using the simes approach. ***: p<0.01, **: p<0.05, * : p<0.10.

Table 18: Men (high LoC): Main outcomes, components

	Combined Treatment	Goal Setting	Self Affirmation	Control Mean	N
Job search indicator	0.048* (0.100)	0.026 (0.436)	0.068** (0.040)	0.640	2186
Job search days	0.258*** (0.010)	0.207* (0.072)	0.306*** (0.010)	1.771	2186
Job search hours	0.192** (0.017)	0.116 (0.191)	0.263*** (0.007)	1.325	2186
Work indicator	-0.013 (0.665)	-0.043 (0.210)	0.016 (0.644)	0.289	2184
Work days	-0.018 (0.902)	-0.122 (0.471)	0.081 (0.634)	1.130	2184
Work hours	0.068 (0.755)	-0.185 (0.468)	0.307 (0.231)	1.774	2184

^a This table presents the intent-to-treat estimates of the intervention. Below each coefficient estimate we report the s.e. in parenthesis. ***: p<0.01, **: p<0.05, * : p<0.10.

Table 19: Men (high LoC): Mechanisms

	Combined Treatment	Goal Setting	Self Affirmation	Control Mean	N
Locus of control	0.352 (0.163)	0.403 (0.151)	0.305 (0.314)	-2.312	723
Conscientiousness	0.414 (0.114)	0.241 (0.426)	0.577* (0.051)	4.931	728
Time preferences	-0.125 (0.765)	-0.240 (0.630)	-0.016 (0.973)	4.267	1095

^a This table presents the intent-to-treat estimates of the intervention. Below each coefficient estimate we report the s.e. in parenthesis. ***: p<0.01, **: p<0.05, * : p<0.10.

6 CONCLUSION

A large proportion of young people in urban Ethiopia are neither employed nor searching for work, despite a fast growing economy. As suggested by qualitative work, low motivation and a perceived helplessness over their fate is a constraint for young people, particularly males. This study explores whether providing psychological support to vulnerable youth can affect young people's labor market outcomes and mindsets in the short term. We find that the supports have effects over a 4 month period on job search, employment and earnings.

We find that interventions that target how people think, and particularly that seek to enhance self-affirmation or the belief that one has control over one's life, enhance labor market outcomes. When looking at the entire sample, being invited to the workshop increases job search efforts, mainly on the intensive margin albeit with small intent-to-treat effects on average. However, this hides an important difference between men and women. Our results show that the workshops are effective for men, but they have *no effect for any women's outcomes*. For men, getting invited to the workshop increases job search efforts. This gender gap is consistent with the set of constraints that men and women report in trying to access labor market opportunities.

Interestingly, we find that both for the entire sample and the male sample, the GS workshop (which included the SA material) was not effective. Given that intentionally, both workshops had the same duration, we attribute this result to an attempt to combine two psychological constructs and/or fit too much material in a restricted time frame. In addition, goal-setting techniques function better when there are periodical reminders, a characteristic that was missing from our experimental design. Similarly, for the entire sample the intervention seems to be operating through an increase in conscientiousness, or the desire to do tasks well and honour obligations, among participants. In the case of men, it also seems to be operating through an increase in the locus of control, the degree to which individuals believe they are in control of the outcomes in their lives.

When we analyze the effect of the intervention on the men with low locus of control (at baseline), we find it strikingly effective. Being invited to the workshop had a large effect on economic activity/employment and on earnings which increase by 30 percent and 33 percent respectively. Unsurprisingly, for these men we observe major improvements in the locus of control measure.

Our results provide important lessons for the design of active labor market policies in urban Ethiopia as well as other urban African contexts. First, interventions that aim to activate women in the labor market require to tackle the household responsibilities that often fell fully on women: housework and care-giving (for children and others). Without addressing these structural constraints, policies will likely be ineffective. Second, implementation matters in behavioral interventions. Sometimes, too much material or the focus on multiple psychological constructs can result counterproductive for participants, with negative implications for the effectiveness of the intervention. Finally, as with most policies, behaviorally informed intervention seems to work more effectively for those who need it the most, in this particular case, men with low psychological agency.

REFERENCES

- Abebe, G., S. Caria, M. Fafchamps, P. Falco, S. Franklin, and S. Quinn (2018). Anonymity or Distance? Job Search and Labour Market Exclusion in a Growing African City. (13136).
- Abel, M., R. Burger, E. Carranza, and P. Piraino (2019). Bridging the Intention-Behavior Gap? The Effect of Plan-Making Prompts on Job Search and Employment. American Economic Journal: Applied Economics 2(11), 284–301.
- Anderson, M. L. (2008). Multiple inference and gender differences in the effects of early intervention: A reevaluation of the Abecedarian, Perry Preschool, and Early Training Projects. Journal of the American statistical Association 103(484), 1481–1495.
- Behavioural Insights Team (2015). Update Report 2013-2015. Technical report, Behavioural Insights Team.
- Blattman, C. and S. Dercon (2018). The Impacts of Industrial and Entrepreneurial Work on Income and Health: Experimental Evidence from Ethiopia. American Economic Journal: Applied Economics 10(3), 1–38.
- Blattman, C., J. C. Jamison, and M. Sheridan (2017). Reducing Crime and Violence: Experimental Evidence on Adult Noncognitive Investments in Liberia. American Economic Review 107(4), 1165–1206.
- Bruhn, M. and D. McKenzie (2009). In pursuit of balance: Randomization in practice in development field experiments. American economic journal: applied economics 1(4), 200–232.
- Caliendo, M., D. A. Cobb-Clark, and A. Uhlendorff (2015). Locus of control and job search strategies. Review of Economics and Statistics 97(1), 88–103.
- Campos, F., M. Frese, M. Goldstein, L. Iacovone, H. C. Johnson, D. McKenzie, and M. Mensmann (2017). Teaching personal initiative beats traditional training in boosting small business in West Africa. Science 357(6357), 1287–1290.
- Card, D., J. Kluve, and A. Weber (2010). Active labour market policy evaluations: A meta-analysis. The economic journal 120(548), F452–F477.
- Churchill, S., D. C. Jessop, R. Green, and P. R. Harris (2018). Self-affirmation improves self-control over snacking among participants low in eating self-efficacy. Appetite 123, 264–268.

- Cohen, G. L., J. Garcia, N. Apfel, and A. Master (2006). Reducing the racial achievement gap: A social-psychological intervention. Science 313(5791), 1307–1310.
- Cohen, G. L. and D. K. Sherman (2014). The Psychology of Change: Self-Affirmation and Social Psychological Intervention. Annual Review of Psychology 65(1), 333–371.
- Crépon, B. and G. J. Van den Berg (2016). Active labor market policies. Annual Review of Economics 8, 521–546.
- Falk, A., A. Becker, T. Dohmen, B. Enke, D. Huffman, and U. Sunde (2018). Global evidence on economic preferences. The Quarterly Journal of Economics 133(4), 1645–1692.
- Falk, A., T. Dohmen, and D. Huffman (2016). The preference survey module: A validated instrument for measuring risk, time, and social preferences. IZA Discussion Paper No. 9674(9674).
- Franklin, S. (2015). Location, search costs and youth unemployment: A randomized trial of transport subsidies in Ethiopia. (March).
- Gary, L. and E. Latham (2013). New developments in goal setting and task performance. Routledge.
- Hägglund, P. (2006). Are there pre-programme effects of Swedish active labour market policies? Evidence from three randomised experiments. Technical report.
- Harris, P. S., P. R. Harris, and E. Miles (2017). Self-affirmation improves performance on tasks related to executive functioning. Journal of Experimental Social Psychology 70, 281–285.
- Howell, J. L. and J. A. Shepperd (2017). Social exclusion, self-affirmation, and health information avoidance. Journal of Experimental Social Psychology 68, 21–26.
- Liu, S., J. L. Huang, and M. Wang (2014). Effectiveness of job search interventions: A meta-analytic review. Psychological bulletin 140(4), 1009.
- McKenzie, D. (2012). Beyond baseline and follow-up: The case for more T in experiments. Journal of development Economics 99(2), 210–221.
- McKenzie, D. (2017). How effective are active labor market policies in developing countries? a critical review of recent evidence. The World Bank Research Observer 32(2), 127–154.

- Oettingen, G. (2015). Rethinking positive thinking: Inside the new science of motivation. Current.
- Sherman, D. K. and G. L. Cohen (2006). The psychology of self-defense: Self-affirmation theory. Advances in experimental social psychology 38, 183–242.
- Tanguy, B., S. Dercon, K. Orkin, and A. Taffesse (2014). The future in mind: Aspirations and forward-looking behaviour in rural Ethiopia.
- Urban Employment Unemployment Survey 2018 (2018). Key Findings on the 2018 Urban Employment Unemployment Survey. Federal Democratic Republic of Ethiopia Central Statistical Agency.
- Van Hooft, E. A. and G. Noordzij (2009). The Effects of Goal Orientation on Job Search and Reemployment: A Field Experiment Among Unemployed Job Seekers. Journal of Applied Psychology 94(6), 1581–1590.
- World Bank (2015). World Development Report 2015 : Mind, Society, and Behavior. Technical report, World Bank, Washington, DC: World Bank.
- World Bank Group (2016). Why so idle? Wages and Employment in a Crowded Labor Market, 5th Ethiopia Economic Update.

A APPENDIX: DIAGNOSTIC WORK

The Ethiopian economy has been rapidly growing for the past decade. The country is going through a period of fast-paced urbanization, which is changing the labor market structure: urban workers are more likely to be wage-employed (49 versus 39 percent) but are at greater risk of unemployment (17 percent is the urban average rate versus a 5 percent at the national level), particularly in larger cities: in 2014, the unemployment rate reached 24 percent in Addis Ababa. Young people are the most likely group to be unemployed - as a way of comparison, the rate of unemployment is 22 percent for men below the age of 29 and 12 percent for men aged 30-50. Unemployment rates are also highest among those with some or completed secondary education, and lowest for those with tertiary education.

The public sector has a large influence in the labor market of Ethiopia: one in five urban workers, and half of all wage-employed, work in the public sector. In Addis Ababa, a third of wage employees work in the public sector. These jobs are generally inaccessible to low-educated youths. Only 5 and 8 percent of those with no education and primary education are employed in the public sector.

Despite significant advances in educational access over the last decade, educational attainment remains low. Less than half of the labor force have more than a primary school education: 36 percent have primary school but no more, 15 percent have no education. This is observed despite the fact that there is a significant wage premium associated with educational attainment—in 2014, degree holders earned more than double those with a secondary education. For the past decade, average and median real wages have been declining (with the exception of a slight increase in 2014). These changes are likely driven by changes in public sector wages, given its importance as an employer in urban labor markets.

A large proportion of the unemployed are not actively searching for a job. According to the official definition of unemployment in Ethiopia, an individual falls under this category if he is not engaged in a productive activity (wage, self-employed, etc.) and is available for work. Under this definition, 17 percent of the urban population is unemployed. Amongst this group, one in three individuals are not actively searching for a job. Thus, under the ILO definition of unemployment in which the individual is considered unemployed if he is without work and

looking for a job, unemployment falls to 12 percent. This includes low-income individuals: a survey of unemployed youth in Addis Ababa, showed that 32 percent of unemployed with primary-school education were not looking for work.

Previous analysis has identified several structural factors that contribute to the high rates of urban unemployment observed.

1. Crowding out: The large public sector with wage and quality premiums encourages educated workers to queue for public sector jobs. While waiting, they take temporary low-skilled jobs that low-skilled individuals would otherwise take in order to finance the high costs of searching for a permanent job. By lowering the availability of low skill jobs, this creates a crowd out effect amongst the low skilled workers.
2. Low productivity: Low productivity in the private sector translates into very low wage levels for the less skilled, preventing wages from adjusting to clear the market.
3. High search costs: Locational mismatch between the unemployed and the location of firms, together with a lack of an efficient and comprehensive matching system, makes job search an expensive activity. This is particularly true for the low-educated, who cannot fully take advantage of job boards (a more centralized source of information for job opportunities).

In addition to these factors, our diagnostic works indicated that behavioral factors are also at play:

- The youths we spoke to do want to work but are unhappy with the opportunities immediately available to them.
- Youths had little trouble identifying occupations that they would be interested in working in the mid-term (mostly to work in self-employment activities) but stated they were prevented from achieving these goals because they lacked upfront capital, either as collateral to apply for a loan or as payment for skills acquisition or training.
- Despite their unpopularity, entry level jobs do have the capacity to help youths accrue savings necessary to achieve their goals.

- A binding constraint, therefore may be that the youths lack the psychological supports necessary to develop action plans necessary to achieve their goals and sustain the motivation and grit. None had made plans to take the necessary steps to achieve their goals (e.g., searching for employment, working, saving).
- In sum, we hypothesize that if individuals were to focus on their aspirations, the barriers to those goals, and develop implementation strategies, then their search efforts would intensify. Thus, by helping young people reframe the current jobs as a step in the path towards achieving their goals, they might actively search and take job opportunities, even if they do not consider them to be ideal (either in terms of wage, and affinity).

B APPENDIX: ADDITIONAL MATERIALS

Table 20: Time elapsed since intervention (by wave)

Wave	1	2	3	4	5	6
Weeks after workshop	2.5	4.6	6.9	9.3	11.4	13.9

Table 21: Response rates by woreda and wave

	Woreda 1	Woreda 2	Woreda 3	Woreda 4	Woreda 5	Woreda 6	Woreda 7	Total
Baseline	231	302	249	265	242	256	221	1766
Wave 1	201	272	229	243	216	232	200	1593
Wave 2	216	284	228	223	224	235	205	1615
Wave 3	214	276	229	210	218	237	208	1592
Wave 4	219	281	229	217	230	217	209	1602
Wave 5	224	285	224	237	226	220	197	1613
Wave 6	213	282	223	236	224	233	200	1611
Total	1518	1982	1611	1631	1580	1630	1440	11392

Table 22: Primary outcome variables

Primary Outcomes	Family	Definition	Notes
Job Search			
1	Job search	Summary index (weighted standardized) of the following sub-components.	
1.1	job search	Actively searched for a job last week	Dummy variable.
1.2	days search	Number of days searched for a job last 7 days.	Zero for those not working and not searching.
1.3	hours search	Number of hours searched for a job last time (day).	Zero for those not working and not searching. Winzorized at 99 percent.
Economic activity			
2	Work	Summary index (weighted standardized) of the following sub-components.	
2.1	productive work	Engaged in productive activity last week (includes wage and self employment)	Dummy variable.
2.2	days worked 7days	Number of days engaged in productive activity last 7 days.	Zero for those not working.
2.3	hours per day	Number of hours engaged in productive activity last time (day).	Zero for those not working. Winzorized at 99 percent.
2.4	hours worked yesterday	Hours spent yesterday in productive activity (time use section)	Zero for those not working.

Table 23: Secondary outcome variable

Secondary Outcome	Family	Definition	Notes
1.1	day profit	Earnings in the last 7 days.	Takes the value of zero for those not working. Win-zorized at 99 percent.

INTERNAL CONSISTENCY TESTS FOR INTERMEDIATE OUTCOMES

Locus of control

Table 24: Locus of Control Measures

Item	Obs	Sign	item- test corr.	item- rest corr.	interitem cov.	alpha
My life's direction depends on me.	1766	-	0.26	0.04	0.15	0.58
In comparison with others, I haven't achieved what I deserved to achieve.	1766	+	0.44	0.21	0.13	0.53
What can be achieved in life is mainly a result of fate or luck.	1766	+	0.42	0.17	0.13	0.55
If you are socially or politically active, you can influence social circumstance	1766	+	0.35	0.11	0.14	0.56
I often find that other people dictate my life.	1766	+	0.67	0.50	0.09	0.43
You must work hard to achieve success.	1766	-	0.29	0.17	0.14	0.54
When I encounter difficulties in life, I often doubt my abilities.	1766	+	0.67	0.50	0.09	0.44
The options that I have in life are determined by social circumstances.	1766	+	0.40	0.15	0.14	0.55
I don't have much control over what happens in my life.	1766	+	0.66	0.48	0.09	0.44
Test scale (Unstandardized mean)					0.12	0.55

Table 25: Conscientiousness Measures

Item	Obs	Sign	item- test corr.	item- rest corr.	interitem cov.	alpha
I am always prepared	1766	-	0.53	0.42	0.25	0.78
I get chores done right away	1766	-	0.29	0.1	0.27	0.82
I complete tasks successfully	1766	-	0.52	0.40	0.24	0.78
I waste my time	1766	+	0.54	0.36	0.23	0.79
I shirk my duties	1766	+	0.73	0.62	0.20	0.75
I leave things unfinished	1766	+	0.78	0.70	0.20	0.74
I don't put my mind on the task at hand	1766	+	0.77	0.67	0.20	0.75
I make a mess of things	1766	+	0.78	0.70	0.20	0.74
I need a push to get started	1766	+	0.64	0.48	0.21	0.77
Test scale (unstandardized mean)					0.22	0.79

Time preference tree

Figure 3: Time preference tree

