

# Can community service grants foster social and economic integration for youth? A randomized trial in Kazakhstan\*

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## Abstract

Integrating young people into communities and labor markets is a major challenge for developing countries, and incentives for community service are an increasingly popular tool for facilitating this integration process. We use a randomized controlled trial to evaluate the Kazakhstan Youth Corps (KYC), a program comprising cash grants for community service projects and life skills training. The pre-specified outcomes include life skills (encompassing non-cognitive skills and measures of subjective well-being), social capital, labor market engagement, human capital, and socioeconomic welfare. We find little evidence of any positive effects one year post-intervention; the confidence interval for the average standardized treatment effect ranges from -.09 to .03 standard deviations for life skills, from -.05 to .06 standard deviations for social capital, and from -.18 to .02 standard deviations for labor market engagement. There is some evidence of a negative effect of the training intervention on the probability of reporting any income-earning activity.

**Keywords:** Community service grants; non-cognitive skills training/mentorship; social integration; labor market integration; field experiment; Kazakhstan.

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# 1 Introduction

Young people under the age of 25 constitute approximately 50 percent of the population of developing countries, the largest youth cohort in history (Bongaarts, 2009). Successfully integrating this cohort into society is a major challenge, and requires identifying innovative strategies to develop the skills youth require to engage productively in their communities and in the broader labor market. By contrast, evidence from a range of contexts suggests that young people with low levels of skill and low levels of community engagement are potentially an important source of social discontent and economic and political dislocation (World Bank, 2006, 2013; Hilker and Fraser, 2009).

One strategy employed by governments to foster social and economic integration is the provision of grants or stipends for youth to engage in community-based service. A 2010 review identified publicly-supported community service programs in 101 countries across six continents (Innovations in Civic Participation, 2010), including Nigeria's National Youth Service Corps, the Philippines's National Youth Service, Brazil's Civilian Volunteer Service, the United States' AmeriCorps, and the German Bundesfreiwilligendienst. Proponents of these programs argue that they lead to increased civic engagement, improved non-cognitive skills and labor market success. However the existing evidence is minimal, drawn from observational studies conducted only in rich countries (Frumkin et al., 2009; Spera et al., 2013, 2015).

In developing countries, programs providing grants for youth have also increasingly supplemented these strategies with more targeted human development (e.g., training or mentorship), in order to encourage the development of skills and preferences conducive to economic engagement and pro-social behavior (Blattman et al., 2016, 2017; Lyall et al., 2020). However, the question of whether there are complementarities between targeted skills development and other youth interventions remains largely unanswered.

This paper presents evidence from a randomized controlled trial in Kazakhstan, the largest economy in Central Asia and a context in which youth demonstrate high rates of disconnectedness from social institutions and a high prevalence of risky behaviors. For example, Kazakh youth between the ages of 15 and 19 are at high risk for suicide, reporting the highest suicide rate in the world as of 2008; the mortality rate for youth aged 20 to 24 is also one of the highest in the world (UNICEF, 2014). Recent evidence suggests that less than ten percent of youth report that they are engaged in solving a community problem through volunteering (Umbetaliyeva et al., 2016), compared to 23 percent in OECD countries (OECD, 2015b). The same report reveals that only a quarter of youth consider it important to engage in politics and civil society (Umbetaliyeva et al., 2016). While Kazakhstan has been relatively stable in recent decades, partly due to the

politically repressive Nazarbayev regime, analysts have noted an increasing risk that high rates of youth disaffection could erupt into political unrest (Lillis, 2013; Marat, 2019), or could render youth easier targets for religious radicalization (Standish, 2017a).

In the context of these challenges, the Kazakhstan government developed the Kazakhstan Youth Corps (KYC) program, seeking to enhance life skills and build social capital for youth aged 18 to 29. The KYC program was comprised of two interventions. The first intervention was a grant for community-based service, in which a group of three to five youth received up to \$3000 to design and implement a community service project for six months, in addition to receiving a monthly wage of between \$100 and \$200. The second intervention entailed life skills training and mentorship, in which youth attended two week-long training sessions and interacted regularly with trained mentors over a period of six months, with the objective of developing skills such as critical thinking, goal-setting, collaboration, team-building, and creativity. Both interventions were primarily focused on enhancing life skills and building social capital, targeting existing youth challenges identified by policymakers. However, given the growing evidence that there are positive returns to life or non-cognitive skills (defined more specifically later in the paper) in the labor market, and given generally weak employment outcomes for youth in Kazakhstan, the theory of change also envisioned positive effects on labor market engagement via the causal channel of enhanced non-cognitive skills.<sup>1</sup>

We conducted a randomized controlled trial as part of the pilot phase of the program, implemented between 2017 and 2018, in four regions selected based on their high concentration of vulnerable youth. The objective was to test the independent and combined effects of the program's two interventions—grants and training / mentorship—on life skills, social capital, and labor market outcomes, using a two-by-two factorial design. The baseline sample included 3,783 youth, screened out of over 4,000 applicants, and constituted into 1,113 proposal groups that applied jointly for inclusion in the program. Randomization was conducted at the group level, with each group assigned to one of four experimental arms of approximately equal size: training only, grants only, joint treatment (grants plus training), and control. A follow-up survey collected detailed information from 3,367 youth (89% of the original sample) approximately twelve months following the conclusion of all program activities.

We begin by documenting participant engagement with the program and find evidence for generally high engagement in both interventions, though higher engagement in the grants intervention. Over 91% of participants who were randomized to an experimental arm including a grant successfully completed their proposed project. In addition, 88%

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<sup>1</sup>Of course, it is also possible that the program would have unintended negative labor market effects, since the time participants spend on life skills training and project engagement could have been used to search for employment.

of participants randomized into the grant and training treatment arm reported attending every mentorship meeting (98% attended at least one meeting), and 96% reported attending both week-long training sessions, conducted at the beginning and the end of the program. However, participants who were randomized into the training-only arm, an arm that did not include any financial incentives, reported lower engagement: 41% attended all mentorship meetings (though 80% attended at least one meeting), and 58% attended both training sessions.

We then estimate treatment effects for three families of primary outcomes and three families of secondary outcomes, following a registered pre-analysis plan. Primary outcomes include life skills (self-esteem / locus of control, subjective well-being, patience and goal orientation, and ability to work in groups), social capital, and labor market engagement. Secondary outcomes include additional life skills, human capital, and economic welfare.

We find little evidence that either intervention provided as part of the KYC program had a positive effect on any of the measured outcomes. Effects on life skills and social capital are generally small and not statistically significant. The only exception is a small negative average standardized effect on life skills for the training only arm, where we observe a statistically significant decline of about .02 standard deviations. For labor market engagement, our results are suggestive of a decline in the labor market activities amongst treated participants. Specifically, days worked, hours worked and income all decreased for youth in the three treatment arms, though the coefficients are only statistically significant for the training-only arm. These results are overwhelmingly due to the fact that treated youth are between three and six percentage points less likely to report participating in any economic activity, relative to a mean in the control arm of 70%.

For secondary outcomes, we find evidence of small positive effects on human capital for the grants and joint treatment arms. However, these results should be interpreted cautiously, as they are largely due to shifts in a self-reported measure of skills, while the effects on reported level of education are small in magnitude. We also find no statistically significant evidence of effects on additional life skills (encompassing risky behavior and self-control) or economic welfare.

To explore the mechanism behind the unexpected adverse effect on labor market outcomes, we conduct additional analysis that was not pre-specified. Using limited data on time allocation, we evaluate the hypothesis that respondents have substituted away from the labor market to invest more time in volunteerism and/or education, and find no evidence of any such pattern. We also analyze whether respondents in the treatment arms may have shifted their preferences toward employment with different characteristics, potentially with a higher salary or greater prestige. Here, we find some evidence of a

shift toward a preference for self-employment that could be consistent with the observed deterioration in labor market outcomes, if treated youth reduce their job search intensity in the hope of pursuing self-employment opportunities.

Our results constitute early experimental evidence on the effect of grants for community engagement, with potentially important implications for policy. Public funding for community service activities is often justified, at least partially, by its supposed positive effects on community and civic engagement, non-cognitive skills, and labor market outcomes for participants (Innovations in Civic Participation, 2010; Spera et al., 2013).<sup>2</sup> The evidence presented in this paper suggests that, for the type of community service activities promoted by the KYC program, these effects may be small or non-existent. The observed null is particularly noteworthy given that KYC was a relatively intensive program: the total program cost was estimated to be around \$1500 for each person receiving the grants intervention, and \$330 for each person receiving the training intervention.<sup>3</sup> While this does not imply that youth service programs are generally unproductive, it suggests that they may need to be justified by their benefits for the recipients of services and not by their effects on those included in the program.

More broadly, our results also contribute to the literature on effects of non-cognitive skills training and mentoring. A review paper by Blattman and Ralston (2015) notes that in developing country contexts, soft skills or non-cognitive skills training has demonstrated significant benefits for social outcomes, but not for labor market outcomes.<sup>4</sup> In this literature, Blattman et al. (2017) finds that cognitive behavioral therapy targeting non-cognitive skills and preferences substantially reduced participation in crime and violence among a sample of at-risk Liberian youth, at least in the short term; the effect was persistent when therapy was offered in conjunction with cash. Similarly, Ashraf et al. (2020) presents evidence that an intervention targeting negotiating skills among adolescent girls in Zambia significantly enhanced educational and human capital outcomes over a three-year horizon, and Edmonds et al. (2020) similarly reports a positive effect of non-cognitive skills training on reducing dropout among girls in rural India. Adhvaryu et al. (2018) finds that on-the-job soft skills training led to a large increase in produc-

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<sup>2</sup>For instance, a recent review of the World Bank’s community-driven development activities (Adams and Oshima, 2014) emphasizes the goal of fostering youth community engagement, but finds little existing evidence on this outcome, as most studies of community-driven development (CDD) programs focus on the effects on the wider community rather than participants in the CDD process (e.g. Casey et al. (2012); King and Samii (2014); Nguyen and Rieger (2017).)

<sup>3</sup>The training and mentoring intervention included two full-scale trainings as well as weekly mentoring, with an estimated total cost of \$623,141, excluding administrative costs to develop training materials and quality monitoring. The grants intervention entailed an investment of around \$3,000 in each group, plus monthly stipends for each grantee of around \$130 per participant on average.

<sup>4</sup>There are also a growing number of studies on non-cognitive skills training and mentoring in industrialized countries, some of which find substantial positive effects on outcomes for at-risk youth (e.g. Rodriguez-Planas (2012); Lewis et al. (2016); Peaslee and Teye (2015).

tivity among female garment workers in India. Acevedo et al. (2020) concludes that a soft-skills training has meaningful effects on soft skills and labor market outcomes (in the short term) in the Dominican Republic, but only for women. By contrast, we find no evidence that the life skills training and mentoring component of the KYC program had a positive effect on the wide range of outcomes we measure, despite the fact there are a number of curricular similarities between this program and other, successful interventions (described in more detail in Section 5).

Importantly, there is relatively little evidence in the existing literature around the effect of non-cognitive training programs on economic outcomes such as labor market engagement and income. Blattman et al. (2017), Acevedo et al. (2020), and Adhvaryu et al. (2018) are the only papers to report effects on income, labor market outcomes, and productivity, respectively. Thus, our work joins this nascent literature estimating the economic effects of a non-cognitive skills training program in a developing country.

Finally, our results also contribute to the literature around the effects of cash grants on non-economic outcomes such as non-cognitive skills, anti-social behavior, and civic participation. The evidence here is generally limited, and focuses on cash grants for private enterprise or consumption, as opposed to grants for community service. Lyall et al. (2020) finds that a combination of vocational training and cash grants increased pro-government sentiment among at-risk youth in Afghanistan. Blattman et al. (2013) finds no evidence that cash grants distributed by the Ugandan Youth Opportunities Program had any effect on anti-social behavior, social cohesion or participation in protests; by contrast, Blattman et al. (2017) presents evidence that cash diminishes crime and violence in the short-term in Liberia, and has persistent effects when offered in conjunction with therapy. Our results are most consistent with Blattman et al. (2013), and suggest that cash grants for community service are not necessarily more successful at enhancing non-cognitive and social capital outcomes than cash grants that support for-profit activities.

The rest of the paper proceeds as follows. Section 2 provides background and an overview of the interventions of interest. Section 3 describes the experimental design. Section 4 presents empirical findings and analysis, and Section 5 discusses the mechanisms for the observed pattern. Section 6 concludes.

## 2 Background

### 2.1 Setting

Kazakhstan is the largest economy in Central Asia and has one of the fastest growing youth populations in the region. The share of youth out of school and out of work was

estimated at 9.5% in 2016, a rate that compares favorably to other countries in the region, and the youth unemployment rate was estimated at a relatively low 4% in the same year (Alimkhanova, 2018). Nonetheless, the percentage of youth who are NEET (not in education, employment or training) has been growing since 2012, and there remain significant disparities across regions, income levels and gender in youth employment opportunities (Alimkhanova, 2018). In addition, youth in Kazakhstan face significant challenges beyond obtaining employment, demonstrating high rates of disconnectedness from social institutions and high prevalence of risky behaviors.

More specifically, existing evidence suggests that minimal engagement by youth in their communities poses challenges for social and political cohesion. Qualitative evidence from a recent report suggests that less than 10 percent of young people report that they are engaged in solving a community problem through volunteering, compared to 23 percent on average in OECD countries (OECD, 2015b), and only a quarter consider citizen engagement important (Umbetaliyeva et al., 2016). In addition, Kazakhstan has among the highest suicide and mortality rates for youth in the world (UNICEF, 2014). In recent years, media reports have emphasized the role of youth in rising political protests (Marat, 2019), and the potential risks of an increase in Islamic extremism (Standish, 2017b).

With respect to economic outcomes, youth labor force participation in Kazakhstan ranges between 55% and 70%, and is somewhat higher in rural areas, a pattern that reflects higher engagement in education for urban youth (Nesporova, 2015); there are also significant disparities between men and women. However, rural employment often entails low-quality informal employment, self-employment or engagement in household-based subsistence farming, and thus high rural youth employment may mask longer-run youth labor market challenges. A weak unemployment insurance system — just over 2% of all unemployed youth between the ages 16 and 29 received unemployment benefits in 2014 (OECD, 2017) — further encourages youth to engage in low-quality employment (OECD, 2015a). Moreover, despite the fact that secondary school completion is near universal in Kazakhstan, analyses of NEET youth have highlighted the weakness in both hard and soft skills as a significant barrier to achieving employment (Alimkhanova, 2018).

To sum up, evidence available to policymakers and non-governmental organizations engaged in youth development in Kazakhstan prior to the development and launch of this intervention suggested that two challenges were salient for this population. First, they were experiencing a high level of social and political disaffection, posing a potential risk for broader social cohesion. Second, their level of engagement in the labor market was suboptimal in terms of both quantity (the percentage of youth who were not engaged in education or training) and quality (high engagement in informal employment), and this

low engagement reflected at least in part a skills gap.

## 2.2 Interventions

In response to these challenges, the government of Kazakhstan initiated the Youth Corps program (funded by the World Bank) with the objective of promoting social and labor market engagement of youth through grants for community service and a training and mentorship program designed to develop life skills. The pilot phase of the program was implemented by the Coordinating Agency (CA), a consortium of non-governmental agencies engaged in youth development that managed the program under the oversight of the Ministry of Education and Sciences. Implementation of a pilot began in 2017 and targeted approximately 4000 youth across four regions (oblasts): Almaty, Pavlodar, South Kazakhstan and Karaganda, as shown in Figure 1. These regions were chosen for the pilot phase based on the following criteria: a high stock of vulnerable young people, a high share of young people relative to the total population, and a high share of rural youth (World Bank, 2014).<sup>5</sup>

The program pilot was comprised of two separate interventions, evaluated both individually and jointly using a randomized controlled trial. The first intervention was a grant for community service, in which a group of three to five youth received up to \$3,000 to design and implement a community service project for six months. Each participant also received a monthly stipend, designed to be comparable to an entry-level wage (around \$200 for university graduates and \$100 for non-graduates). The primary goal of the grant intervention was to build youth life skills and enhance social capital and social engagement by fostering ties between participating youth and their community. More specifically, the initial project document stated that benefits from the intervention would include an “increase [in] both the skills and the life satisfaction of young people,” as well as positive community externalities “including reduced antisocial behavior and contribution to the generation of public goods (such as participation in decision-making and solving collective action problems)” (World Bank, 2014).

The second intervention in the KYC program entailed life skills training and mentorship, through which youth interacted regularly with trained mentors. The main objective of this intervention was to develop behavioral and life skills, including critical thinking, goal-setting, collaboration, team-building, and creativity; there was also some training provided around project management. More broadly, the project defined life skills as

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<sup>5</sup>Pavlodar and Karaganda are among the regions with the highest share of vulnerable young people in the country, with 56.2% and 46.7% of youth, respectively, earning less than a subsistence level of income (defined as \$68 a month, or \$2.2 a day). South Kazakhstan has also experienced the largest increase in “ruralization” of its youth population between 2010 and 2012 (World Bank, 2014).



“psychosocial abilities for adaptive and positive behavior that enable individuals to deal effectively with the demands and challenges of everyday life,” and noted that the training was “centered around life skills necessary for young people to participate in community based services, particularly in community projects, and to improve their competitiveness at the labor market” (Ministry of Science and Education, 2017).

In addition, the training intervention mapped out a series of goals and competencies for beneficiaries to achieve following engagement in the program. The first is that they should have enhanced knowledge and understanding of their own personal traits (strengths), knowledge of their own emotions and emotions of others, and knowledge of their future prospects. The second is that they should have the ability to make decisions and assess risks, set goals and plan for the future to effectively achieve these goals, and negotiate / coordinate with other individuals in order to manage conflict. The third is that they should achieve attitudinal change: viewing the future positively, viewing their community with care, and viewing their own commitments with responsibility.

This intervention had three phases: a one-week training module focused on life skills and project management, six bi-monthly sessions with a mentor, and a concluding one-week module aimed at planning future activities. In total, around 82 contact hours were provided, and the Appendix provides a detailed overview of the curriculum and topics included. Importantly, there was no financial incentive provided to youth enrolled in training only. However, all youth (grant recipients and non-recipients) participated in the same training sessions jointly; those who had been assigned to receive training only were encouraged to interpret and apply the training and associated skills in the context of the plan for a community project that they had developed in their initial application, and to potentially implement the project in the future. For concision, we will subsequently refer to the KYC training and mentoring program simply as a training intervention.

## **2.3 Theory of change**

In order to structure the subsequent analysis, it is useful to map out the theory of change for both interventions. We begin by describing the theory of change as envisioned by the program organizers, and then discuss other potential mechanisms through which the interventions may have affected the outcomes presented in this paper.

The program’s official theory of change envisioned that both interventions would affect youth life skills, broadly defined to include a range of psycho-social abilities, and also promote pro-social behaviors and community-oriented attitudes; moreover, by strengthening life skills that had positive returns in the labor market, the interventions would enhance employment outcomes. For the grant intervention, the project overview highlighted that providing “groups of young people the space and technical and financial support to try

out an idea, even at the risk of failure, provides them with the platform to develop their experience in responsibility, autonomy, and collaboration.” The applicant-driven and team-based structure of the service grants was thus designed to build skills linked to self-initiative, teamwork, and aspirations; at the same time, the deployment of these skills in a community project was hypothesized to enhance pro-social attitudes (World Bank, 2014). For the training intervention, similar skills were targeted in a more explicitly didactic framework through the curriculum and mentor interactions. Accordingly, both interventions targeted the development of similar skills, but the grants intervention used a more experiential methodology, while the training intervention utilized a more traditional classroom-based structure.

The second step in the theory of change linked enhanced life skills to improved labor market engagement. (Here, we differentiate life skills from social capital or pro-social attitudes; the latter attributes will be separately measured and evaluated, and the key channel for labor market effects was via life skills.) As previously noted, while the definition of life skills is broad, the interventions were particularly focused on life skills relevant to the labor market, including but not limited to initiative, creativity, teamwork, self-esteem or knowledge of strengths, aspirations and future planning. Existing evidence from Kazakhstan suggests that the absence of these skills is a barrier to youth labor market success (Alimkhanova, 2018). Moreover, a large existing scholarly literature from both developed and developing countries corroborates the hypothesis that life skills or non-cognitive skills (diversely defined) can have positive returns in the labor market (Carneiro et al., 2007; Heckman and Rubinstein, 2001; Heckman et al., 2006; Cobb-Clark and Tan, 2011; Heckman and Kautz, 2012; Huyse-Gaytandjieva et al., 2015), though the evidence from developing countries is more limited (Díaz et al., 2013; Glewwe et al., 2017; Adhvaryu et al., 2018; Macours and Laajaj, 2019; Acevedo et al., 2020). Further details about how life skills are defined in this evaluation will be provided in Section 3.2. We also find that many of the skills we define and measure are in fact positively correlated with variables capturing labor market success in data from our sample, evidence presented subsequently in Section 5.

In addition to this causal effect as hypothesized by policymakers, there may be more direct links between the interventions and labor market outcomes. First, it is possible that successful projects in the grant treatment arm could have created employment opportunities for the project organizers. For example, some projects could have identified outside funding following the completion of the KYC project period, allowing the youth beneficiaries to continue to work for the project as paid employees; however, we regard this channel as plausibly of second-order importance *ex ante*. Second, an alternate mechanism is more consistent with adverse effects: namely, the diversion of individuals’ time, energy

or preferences away from the labor market and toward community-focused activities. The channel of time reallocation is clearly more salient for the grants intervention, entailing full-time work for six months, than for the training intervention, where the time commitment was more modest. However, both interventions could plausibly shift participants' preferences and encourage them to prioritize community-oriented goals over engagement in the labor market. The evaluation was designed to also measure the program's labor market effects through this additional channel.

## 3 Empirical strategy

### 3.1 Evaluation design

The KYC interventions were rolled out in a two by two factorial randomized design in order to ascertain the effects of each intervention as well as their joint effects.

**Randomization** The randomization for this study followed an oversubscription design. All young people between ages of 18 and 29 in pilot regions of Kazakhstan were eligible to constitute a group of three to five people and apply to the program, as long as they officially resided in the pilot region and had been resident there over the preceding six months. Note that applicants were applying specifically for the full program, including community service grants, but were advised that given capacity constraints, they would not necessarily be offered the full program. Following a two-month information campaign conducted through mass and social media, billboards, posters, and public meetings at universities and local youth centers in targeted regions, 1,320 project proposals were submitted. Following an evaluation of the social importance of the proposals by a committee of local stakeholders, 1,113 proposal groups were deemed eligible to enter the randomization stage. The 3,784 youth in those 1,113 groups constituted the sample of interest.

Randomization was conducted at the group level using Stata, assigning all individuals in a group to one of three treatment arms (grant only, training only and joint treatment of grant plus training) or the control arm. For administrative reasons, the minimum targeted number of individuals to receive grants was 2000. The randomization proceeded as follows: each group was assigned a random number and ranked accordingly, and the first  $n$  groups were randomized into receiving grants, such that these groups jointly constituted 2000 individuals. Ultimately, 589 groups were randomized to receive grants, while 524 groups were randomized into non-receipt of grants. Within the subsamples randomly allocated to receive grants or not, the first 50% of groups listed in each were assigned to

receive the training and mentoring intervention.

Figure 2 summarizes the evaluation design and sample size across arms. Power calculations were conducted in order to estimate the minimum detectable effect size comparing each treatment arm vis-a-vis the control arm. Given varying assumptions about the intra-cluster correlation ( $\rho$  between .05 and .2), the minimum detectable effect size ranges between .15 and .2 standard deviations. These calculations are summarized in Table A1 in the Appendix.<sup>6</sup>

**Data collection** Data collection combined administrative data from the implementing agency (the Ministry of Education and Science) and a follow-up survey conducted approximately 12 months post-intervention. Due to time constraints linked to a rapid timeline for program launch, a full baseline survey was not conducted. Rather, a brief demographic questionnaire was administered to each respondent who submitted a program application. The follow-up survey was conducted between November 2018 and April 2019, with some mop-up surveying continuing through June. The survey firm collected data using computer-assisted personal interviewing under the oversight of the research team. Figure 3 summarizes the timeline of the project and data collection.

At endline, the attrition rate was 11% (comprising 417 youth from the original baseline sample). Of the original sample, 5% attrited because they could not be located (usually, because contact information they had provided at the point of application to the Youth Corps was no longer valid), 2% could not be surveyed due to illness or death, military service, or permanent long-distance migration, and 4% declined consent for the survey. An extensive discussion of patterns of attrition across arms and analysis of potential bias is provided in Section 4.4.

## 3.2 Outcomes of interest

This evaluation seeks to analyze the effects of cash grants and non-cognitive training on three families of primary outcomes: life skills, social capital, and labor market engagement.<sup>7</sup> We also analyze three families of secondary outcomes: secondary life skills, human capital, and economic welfare.

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<sup>6</sup>Since randomization was conducted at the group level, the power calculations had to take into account possible intra-group clustering of outcomes. Out of 1,113 eligible groups, 63.7% consisted of three members, 19.2% consisted of four members and 17.1% consisted of five members; the average size of the groups was 3.5, with a variance of 0.59. We conduct power calculations for three scenarios with low, medium and high intra-group correlation ( $\rho = 0.05, 0.1$  and  $0.2$  respectively), and present minimum detectable effects for both 80% and 90% power.

<sup>7</sup>The hypotheses and the primary and secondary outcomes of interest were pre-specified in an analysis plan registered prior to the initiation of analysis (Bhanot et al., 2019).

The primary outcomes are designed to map closely to the theory of change as described in Section 2.3. The first two outcome families seek to measure the effect of the interventions on life skills as well as social capital, encompassing pro-social attitudes and community engagement. The third outcome family analyzes the next step of the causal chain, labor market outcomes. The secondary outcomes allow us to identify additional experimental effects on outcomes that were not explicitly identified in the theory of change, including human capital and economic welfare. The interventions may increase youth self-reported skills as well as their demand for further education, leading to a positive effect on human capital; in addition, any effect on labor market outcomes may have additional effects on measures of economic welfare (e.g., assets and consumption).

More specifically, our first primary outcome family is life skills, consisting of the following indices: a self-esteem / locus of control index, Cantril’s ladder (subjective well-being), a mental health index (the MHI-5), an index of patience / goal orientation, and an index of propensity to work in groups or teams. These indices were chosen to correspond to the key competencies identified as targets for the training intervention (described above in Section 2.2). They were also chosen to measure non-cognitive or life skills that have been shown to have positive labor market returns in the previous literature, as discussed below.

The second primary outcome family is social capital, consisting of seven indices: organizational membership, contribution to collective action, interpersonal trust, attitudes around social inclusion, attitudes toward vulnerable groups, civic engagement, and political participation.<sup>8</sup> These indices were designed to capture attributes of pro-social behavior and community engagement that the interventions were intended to foster.

The third primary outcome family is labor market engagement, including the following three variables: hours worked in the last week, days worked in the last month, and income over the last month. To further explore these effects, we also report three additional labor market variables that were not pre-specified: a binary variable capturing engagement in any income-generating activity, and binary variable capturing engagement in wage labor and self-employment. This family of outcomes captures the hypothesized downstream effects of the enhancements in life skills measured in the first primary outcome family, and as previously noted, evidence in the existing literature suggests that the hypothesis of positive labor market returns to these skill attributes is *ex ante* plausible. Focusing specifically on the measures of life skills we evaluate, there is some suggestive evidence of positive returns in the labor market for each measure. Self-esteem has been shown to be predictive of labor market outcomes in China (Glewwe et al., 2017) and Chile (Gallego et

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<sup>8</sup>The variable capturing political participation was originally included as part of the secondary non-cognitive outcomes family, but has been moved to social capital given that it is more congruent with the other social capital outcomes. This shift does not affect the results.

al., 2018). Subjective well-being is linked to depression and emotional stability, shown to be predictive of labor market outcomes in China (Glewwe et al., 2017) and Peru (Díaz et al., 2013). Other target competencies captured by our life skills measure include future planning, ambition, and patience/self-control, predictive of productivity and/or labor market outcomes in the Dominican Republic (Acevedo et al., 2020), India (Adhvaryu et al., 2018) and Ghana (Fafchamps et al., 2014). Finally, our index of propensity to work in teams is closely related to measures of social skills and extraversion, linked to economic outcomes in Acevedo et al. (2020) and Adhvaryu et al. (2018).

For secondary life skills we analyze two indices: an index of risky and anti-social behavior and an index of self-control. (Life skills were identified as primary or secondary based on their salience in the program’s theory of change, as identified by the implementing agency.) For human capital, we analyze three variables: the respondent’s reported years of education attained, a binary variable for whether the respondent received training, and a binary variable for whether the respondent has skills they would like to use in employment. Finally, for economic welfare, we analyze three variables: a summary index of consumption on basic and luxury goods over the past 30 days, an index of durable assets owned, and a self-reported poverty ranking.<sup>9</sup>

**Definition of life skills** In interpreting the results, it is useful to note that both the primary and secondary outcome families deemed life skills encompass a range of different variables. This includes first, measures often known as non-cognitive skills or soft skills and presumed to be relevant to the labor market (e.g., self-esteem and locus of control, patience / goal orientation, and propensity to work in groups); second, indices that capture psychological well-being (Cantril’s ladder, the mental health index); and third, measures of underlying preferences that may be relevant to economic decision-making and labor market performance (anti-social behavior, self-control). The definition of these variables, and the strategies used to measure them, are related to outcomes used in a number of recent papers and diversely described as non-cognitive skills, soft skills, preferences, or social skills or outcomes (Blattman et al., 2013, 2017; Adhvaryu et al., 2018; Edmonds et al., 2020; Acevedo et al., 2020).

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<sup>9</sup>Consumption is calculated as the sum of self-reported expenditure in the last 30 days on rent, food, medical expenses, transportation, utilities, communication, personal care items, education, leisure, clothes, other services, and forage for livestock and other animals. Given the salience of outliers, each subcomponent of consumption is trimmed above the 95th percentile. The assets index is calculated as the mean of the following variables, standardized to have a mean of zero and a standard deviation of one: the number of large assets owned (central water supply, toilet, car or motorcycle), the number of livestock owned, the number of electronic equipment owned, a dummy for house ownership, and a variable capturing the number of housing-related investments made over the past year (buying or building a new house, renovating a house, adding to a house, purchasing land, renting out a house, or investing in property).

Given this breadth, we have opted to use the term “life skills” to encompass the full range of variables that were targeted by the intervention, and that are measured and analyzed in this evaluation. (Life skills is also the term employed by the program designers, though their concept of life skills is even broader, including a number of variables that we analyze as part of the social capital outcome family.) We regard the concept of life skills as closely linked to non-cognitive skills as widely analyzed in the existing literature (e.g., Carneiro et al. (2007)), while also inclusive of other constructs often analyzed separately, such as mental well-being.

### **3.3 Baseline balance**

At baseline, the implementing agency collected basic demographic information about youth applicants, including their age, gender, marital status, whether or not they had pursued higher education, whether they were employed at baseline, and whether they were resident in an urban area. This data allows us to test for balance of observable characteristics across experimental arms.

Table 1 reports the results from six regressions of baseline covariates on treatment groups. In general, we cannot reject the hypothesis that covariates are balanced across arms; the only exception is that the fraction of the sample that is urban is significantly lower in the training-only arm. In each column, we also report the p-value for hypothesis that characteristics are equal across all four experimental arms ( $\beta_1 = \beta_2 = \beta_3 = 0$ ), and at the bottom of the table, we report the p-value for a joint test that all variables are balanced across all experimental arms. The hypothesis that the sample is balanced on observable characteristics at baseline cannot be rejected. This is true for the entire sample of program applicants, as well as for the sub-sample of individuals who participated in the follow-up survey (i.e., the non-attriters).

## **4 Empirical findings**

### **4.1 Program engagement**

Before presenting the main results, we briefly present some evidence around perceptions of and engagement in the program among those youth randomized into the treatment arms. In the two treatment arms that included grants for community service, engagement was generally high. This pattern presumably reflects the fact that provision of stipends was contingent on strict reporting requirements. Out of the 589 groups that were randomized

into a grant-receiving treatment arm, 536 (91%) successfully completed their projects.<sup>10</sup> The most common service projects entailed the organization of a club (e.g., sports, music, arts and crafts) or extracurricular class (e.g., computer, languages, sewing) for children and adolescents, orphans, the elderly, or the disabled; more details are provided in Table A2 in the Appendix. Note that one condition of grant receipt was that all services be offered for free.

The youth groups that received a grant generally received around 1 million KZT (or \$3,000) per group for their project. On average, 95% of those disbursed grant amounts were spent by the end of the program.<sup>11</sup> In addition, every youth member of a group that received a grant was entitled to a stipend based on their educational status, and roughly 94% of these planned stipend amounts were received by participants.

Among those youth randomized into the grant and training treatment arm, 88% reported attending every mentorship meeting out of the ten required (98% attended at least one meeting), and 96% reported attending both week-long training sessions at the initiation and conclusion of the program.<sup>12</sup> On the other hand, individuals who were randomized into the training-only treatment arm (and therefore did not have grant-related incentives) reported lower engagement. Specifically, only 41% attended all mentorship meetings (though 80% attended at least one meeting), and 58% attended both training sessions.<sup>13</sup>

We can draw on surveys of the mentors themselves for summary statistics in order to more fully characterize the training and mentoring intervention. The vast majority (72%) of the 148 mentors engaged are male, with an average age of 41. 93% report that they were employed prior to serving as a mentor, and unsurprisingly more than half of the employed mentors report working in the educational sector; only 2% of mentors report that they are engaged in unskilled work. Among mentors, 7% report secondary education, 34% report a bachelor's degree, and 60% report a graduate degree, and the average monthly salary reported is about 80,000 KZT, or nearly double the average monthly income reported in the follow-up survey among youth. In general, this evidence is consistent with the hypothesis that mentors exhibited a significantly higher level of educational and professional attainment than the youth participating in the program, and meet plausible criteria to serve as mentors.

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<sup>10</sup>Fifty three projects were canceled due to non-compliance in reporting or implementation of planned activities.

<sup>11</sup>Note that the grant amounts allocated varied by group; while 95% of youth groups received 900,000 KZT (around \$2,700) or more, there were projects that received as little as 332,000 KZT (around \$996).

<sup>12</sup>Administrative data suggests 77% average attendance at mentorship sessions, and 90% average attendance at training.

<sup>13</sup>The administrative data reports significantly lower attendance, however, as those not receiving cash grants were not subject to the same level of monitoring.



In terms of participant perceptions, 88% of grant recipients rated the quality of cooperation in their groups as seven or higher (out of ten). In the follow-up survey, over 94% of grant recipients reported continued contact with some or all of the participants from their project group. In addition, more than 90% of participants in both the training only and the training and grant arm reported that the training was useful or very useful, though there was some evidence of a small gap in satisfaction: 70% of grant recipients reported that the skills and experiences gained were very useful, while only 48% in the training-only treatment arm felt the same.

## 4.2 Empirical strategy

Given the experimental design, the primary specification of interest is an intent-to-treat specification. The outcomes of interest  $Y_{ig}$  for individual  $i$  in group  $g$  are regressed on three binary treatment variables:  $Tr_{ig}$ ,  $Gr_{ig}$ , and  $Joint_{ig}$  for the training only, grants only, and grants and training interventions respectively (for concision, the grants and training intervention arm will be referred to as the “joint arm” in this discussion). The specification also controls for baseline covariates  $\chi_{ig}$  and standard errors are clustered at the group level.

$$Y_{ig} = \beta_1 Tr_{ig} + \beta_2 Gr_{ig} + \beta_3 Joint_{ig} + \chi_{ig} + \epsilon_{ig} \quad (1)$$

In addition, we report the average standardized treatment effect (ASTE) across all variables within each outcome family. To estimate the ASTE, we first express all outcomes in terms of standard deviations from their control group mean. We then sum all standardized outcomes in a family into an index, switching signs if necessary to ensure the index can be interpreted in a consistent direction. We estimate the ASTE by using this index as the outcome in the regression described above. For each ASTE coefficient, we also report a q-value adjusted for multiple hypothesis testing following the methodology of Benjamini et al. (2006), to account for the fact that we report three primary outcome families and three coefficients of interest for each family.

**Primary outcomes** Tables 2 through 4 report the experimental effects for primary outcomes. Tables 2 and 3 show no evidence that the interventions of interest had any significant effect on life skills or social capital. The self-esteem / locus of control index is weakly lower in all three treatment arms relative to the control (a decline of 1 to 2 percentage points on a mean of .9), and there is some evidence of a decline in civic engagement.<sup>14</sup>

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<sup>14</sup>The decline in the self-esteem / locus of control index is primarily driven by a decline in positive responses to three component questions: do you feel you can solve problems by yourself; do you feel you have control over what happens in your life; and do you feel you can achieve anything if you are dedicated.

However, the average standard treatment effects are generally not statistically significant for both families of outcomes, particularly when adjusted for multiple hypothesis testing. The only exception is a significant and negative average standard treatment effect for life skills observed for the training-only arm, where we observe a decline of about .072 standard deviations.

For labor market outcomes, however, there is more robust evidence of adverse effects. The first three columns of Table 4 report the pre-specified variables; hours worked, days worked, and income are all consistently lower in the treatment arms, though only the coefficients for the training-only arm are statistically significant. In Columns (4) through (6) of Table 4, we report treatment effects on additional outcome variables in order to explore these effects. It is evident that the decline in time worked and income is driven by a decline in the probability of any income-generating activity, and in particular wage employment; these effects are statistically significant for the training-only and (to a lesser extent) the joint intervention arms. The coefficients on self-employment, by contrast, are essentially zero and not statistically significant, suggesting that there is no effect of the interventions on self-employment.

The average standard treatment effect is reported for the pre-specified outcomes only (Columns (1) through (3)), and shows a coefficient that is negative and significant (magnitude around .1) for the training-only arm. For the other two arms, the coefficients are slightly smaller in magnitude and not statistically significant at conventional levels. (When examining the q-values adjusted for multiple hypothesis testing, none of the average standard treatment effects are statistically significant.)

**Secondary outcomes** Tables 5 through 7 report the results for secondary outcomes. Table 5 reports the results for the secondary measures of life skills, where there is little evidence of any significant treatment effects. The average standardized treatment effect is calculated inverting the first index (the index of anti-social and risky behavior) such that both indices can be interpreted with a more positive value corresponding to a more positive welfare effect, and again there is no evidence of any significant effects on average.

Table 6 reports the results for human capital. Here, the coefficients are generally positive, but small in magnitude and noisily estimated. There is an increase in reported education level for the training-only arm, and an increase in the self-report of skills that the respondent would like to use in employment in the grant-only and joint treatment arms (albeit statistically significant only in the latter arm). The ASTE is significant and positive for the grants and joint treatment arms, suggesting an increase on average of .07-.09 standard deviations relative to the control arm. While potentially promising, these results should be interpreted cautiously given that they are substantially driven by

shifts in a self-reported measure of skills, while the effects on level of education are small in magnitude.

Finally, Table 7 reports the results for three measures of economic welfare. Effects on consumption reported in Column (1) are noisy and not statistically significant; this pattern is also consistent if log consumption is employed as the dependent variable.<sup>15</sup> In Column (2), there is some evidence of an increase in the assets index, while Column (3) shows no effect on self-reported poverty level. Column (1) also shows that the average standard treatment effects are again uniformly null effects. In light of the increase in the assets index, Table 8 reports regressions for each component of the assets index. This analysis was not pre-specified, but it suggests that the increase in the assets index is primarily driven by an increase in reported livestock owned, as well as an increase in housing-related investments. These positive effects on assets presumably reflects beneficiaries using stipends provided by the program in the grants arms to build up their asset stock. Overall, there is some weak evidence of enhanced economic welfare, but the effects seem to be small in magnitude and, if anything, only marginally significant.

### 4.3 Heterogeneous effects

The analysis plan pre-specified an analysis of heterogeneity with respect to gender, urban status and age. For reasons of concision, we pool the heterogeneity analysis of urban status and gender, analyzing the treatment effects for rural men, urban men, rural women and urban women in a single regression. The specification of interest is parallel to equation (1). We separately analyze heterogeneity with respect to age.

In addition, in all analysis of heterogeneous effects we utilize a single treatment indicator for pooled treatment. This makes it easier to interpret the results, and seems plausible in light of the previously presented evidence that there is minimal heterogeneity in effects across treatment arms.

**Gender and urban status** Tables A3 through A7 in the Appendix present the results. There is, in general, no clear pattern of heterogeneity for life skills (presented in Appendix Table A3) and social capital (presented in Appendix Table A4), consistent with the previously presented null results. However, there is some weak evidence that effects on social capital may be slightly positive for rural men. For labor market outcomes presented in Appendix Table A5, it seems clear that the observed negative effects are driven by urban residents (both men and women), who show a significant decline in days worked in Column (2), in any economic activity in Column (4), and in the probability of

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<sup>15</sup>The results are also consistent if the simple consumption sum is employed, without trimming outliers.

wage employment in Column (5), though the latter coefficient is statistically significant only for urban women. There is little evidence of any meaningful effects for rural men or women.<sup>16</sup>

The results for heterogeneous effects for secondary outcomes are presented in Appendix Table A7. Again, the evidence of heterogeneity is somewhat sparse, but the positive effects on human capital seem to be concentrated among rural men and women: education level increases significantly only for rural men, and the self-report of skills desired for use in employment increases only for rural women. The assets index increases significantly only for rural men, consistent with the previous evidence that this is primarily driven by increases in livestock owned (an implausible asset for urban residents).

Overall, the evidence around heterogeneity is consistent with the hypothesis that the KYC interventions had weakly positive effects for rural residents, both men and women: social capital may be somewhat enhanced, the labor market effects are null, and human capital and economic welfare show some minimal increases. The effects for urban residents seem to be clearly negative in the labor market, and null for other outcomes of interest. The potential mechanisms for these observed patterns are explored in more detail in Section 5 below.

**Age** In order to analyze heterogeneity with respect to age, we analyze a binary variable equal to one for youth who are under the age of 22, corresponding roughly to the target age for tertiary education. Our objective is to analyze whether the intervention had heterogeneous effects for youth for whom further education is a plausible outside option, vis-a-vis youth who are unlikely to pursue further education.

The results are reported in Tables A8 through A11 in the Appendix. In general, there is relatively little evidence of any systematic heterogeneity in experimental effects by age. Appendix Table A11 does suggest that positive treatment effects on secondary life skills and human capital are entirely concentrated among older youth; these youth report an increased education level and are more likely to report having skills they would like to use, while there is no evidence of any such effects for younger youth. This constitutes tentative evidence that the intervention may be effective in stimulating the accumulation of human capital for youth above the traditional age range for higher education.

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<sup>16</sup>We further probe heterogeneity in labor market outcomes for urban and rural youth in each of the three treatment arms in Table A6. It is evident that the average standardized treatment effects are large in magnitude and statistically significant only for urban youth in the training and joint treatment arms. However, the hypothesis that the effects are equal in magnitude for urban and rural youth in each arm cannot be rejected.

## 4.4 Attrition

At endline, 3,366 youth from the original sample were successfully surveyed, corresponding to an attrition rate of 11%. However, there are notable differences across arms. Among youth assigned to the control arm, attrition was significantly higher (15.7%) than for the treatment groups (11.1% in the training-only arm, and around 9% in both arms with grants). Anecdotally, the higher rates of attrition observed among youth who did not receive a grant reflects their reduced level of engagement with the KYC program, making it more challenging for the survey team to identify appropriate contact information or successfully encourage their participation in the survey.

While attrition is significantly higher in the control arm, the hypothesis that the rate of attrition is consistent across all three treatment arms cannot be rejected. To further analyze patterns of attrition, we estimate a series of specifications regressing a binary variable for attrition on treatment indicators, baseline covariates and the interaction between the two, again clustering standard errors at the group level.

$$Attrited_{ig} = \sum_{i=1}^3 \beta_i Treat_g \times X_{ig} + \sum_{i=1}^3 \alpha_i Treat_g + X_{ig} + \epsilon_{ig} \quad (2)$$

The results are reported in Table 9. In general, the estimated coefficients on the interaction terms  $\beta_i$  are not statistically significant, with some exceptions. In Column (5), for example, it is evident that youth who are employed at baseline are significantly less likely to attrite, but this pattern is attenuated in the two arms including grants: i.e., relatively more employed youth are attriting in these two arms. In Column (6), it is evident that urban youth are significantly more likely to attrite (perhaps reflecting higher levels of mobility), but this pattern is attenuated in the joint intervention arm: urban youth are attriting with a lower probability in this arm.

We conduct two robustness tests to explore whether imbalance in attrition can explain the negative labor market effects of the KYC interventions. First, we explore regional differences in the extent and imbalance of attrition. Table A15 in the Appendix shows that attrition was substantially higher and more unbalanced across treatment and control groups in two of the four study regions: Karaganda and South Kazakhstan. To test whether our results are driven by imbalanced attrition, we restrict our sample to the other two regions, Almaty and Pavlodar, where attrition was low and balanced across experimental arms. Table A16 in the Appendix reports the average standardized treatment effects for the three primary outcome families (life skills, social capital, and labor market outcomes) are similar when restricted to the regions that are not characterized by unbalanced condition; the ASTE for labor market outcomes remains negative, and significant at the ten percent level for the training only arm. (The ASTEs for the other

outcome families are again not statistically significant.)

Second, in order to further evaluate potential bias introduced by attrition, we estimate bounds on the treatment effects using the method proposed by Lee (2009). This method entails trimming the sample in each treatment arm to generate a pattern in which an equal share of individuals are observed in each arm. To construct the upper bound, observations are dropped from the left tail of the distribution for each outcome; to construct the lower bound, observations are dropped from the right tail of the distribution for each outcome.

The results are reported in Tables A12 through A14 in the Appendix. For life skills and social capital, primarily null effects were observed in the main results, and unsurprisingly the estimated bounds encompass zero. For labor market effects, in general the upper bounds are slightly negative and not statistically different from zero. However, for the training only arm, the estimated coefficient for the upper bound is negative and statistically significant for hours and days worked and the probability of wage employment, suggesting that the observed pattern of adverse effects is robust to bias induced by attrition. For the intervention arms including grants, the evidence is more mixed, and the negative effects may partially reflect differential attrition.

## 5 Mechanisms

The primary results suggest that the Youth Corps program was generally not effective in building life skills or strengthening social capital for participants. There is some evidence of weakly positive effects on human capital and economic welfare, but there is also evidence of weakly adverse effects in the labor market: youth who participated in the intervention are less likely to report engagement in economic activity, and report a lower level of income. As noted in the previous subsection, the hypothesis that these patterns of results are generated by differential attrition cannot be fully ruled out, but the adverse effects of the training-only intervention in particular seem robust to bias induced by attrition. In addition, while we cannot rule out that there may have been shorter-term positive effects on life skills or social capital that have dissipated within a year, it seems plausible to conclude that effects that do not persist for a year are of limited interest from a welfare or policymaking perspective.

Relative to the existing literature, our results suggest that grants for community service have very different effects vis-a-vis unrestricted cash grants or grants for entrepreneurial development, shown to have substantial positive effects for economic welfare and/or non-cognitive skills for households and youth in developing countries (Blattman et al., 2013; Haushofer and Shapiro, 2016; Blattman et al., 2017; Lyall et al., 2020). Our results are similarly inconsistent with previous evidence suggesting that there are positive

effects of non-cognitive or life skills training (Blattman and Ralston, 2015; Adhvaryu et al., 2018; Acevedo et al., 2020), though some previous training programs have targeted youth in school (Ashraf et al., 2020; Edmonds et al., 2020; Dhar et al., 2018), or youth characterized by high levels of risky or antisocial behavior ex-ante (Blattman et al., 2017). By contrast, our evidence suggests that in a sample of older and predominantly out-of-school youth in a context not characterized by post-conflict disruptions or high levels of crime, training was ineffective in stimulating development of life skills or non-cognitive skills, and in fact had adverse effects on labor market engagement.

In order to situate our intervention in the broader literature, it may be useful to elaborate on the characteristics of both the grant and the training program in comparison to other evaluated programs. The cash grant entailed an average of \$130 stipend monthly for six months or \$900, plus a grant of \$3000 for the project itself for a group of four youth. Thus the cash per youth is \$780 for the stipend only and \$1530 for the stipend and grant, relative to GDP per capita of \$24,860 in 2017 (in purchasing power terms). This is a transfer of 3.1% of per capita GDP for the stipend only, or 6.2% for the stipend and grant. This magnitude is similar to the transfer of around 3.8% of per capita GDP in Afghanistan analyzed in Lyall et al. (2020), though meaningfully lower than the transfers analyzed in Uganda by Blattman et al. (2013), corresponding to around 20% of per capita GDP, in Liberia by Blattman et al. (2017), corresponding to around 15% of per capita GDP, or in Kenya by Haushofer and Shapiro (2018), corresponding to between 16% and 60% of per capita GDP.<sup>17</sup> The fact that the cash transfer is not as large in proportional terms is consistent with the observed weak pattern of effects; this may highlight the challenge of designing effective cash transfer programming in middle-income contexts, where a substantial cash transfer would be extremely costly.

The training provided through KYC also has notable similarities to non-cognitive training interventions evaluated in previous literature. There is a substantial emphasis on negotiating skills, similar to Ashraf et al. (2020), and the focus on aspirations, future planning, and communication and negotiation is also similar to the non-cognitive training evaluated in Edmonds et al. (2020).<sup>18</sup> Arguably the most similar intervention is evaluated by Adhvaryu et al. (2018), who analyze an on-the-job soft skills training program that highlighted a similar set of topics (communication skills and negotiation, problem

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<sup>17</sup>In Afghanistan, the cash transfer provided was \$75, relative to GDP per capita of \$1980 in PPP terms in the implementation year of 2016. In Uganda, the transfer provided is \$382, relative to GDP per capita of \$1926 in the implementation year of 2008. In Liberia, the transfer provided is \$200, relative to GDP per capita of \$1292 in the implementation year of 2015. In Kenya, the transfer provided is either \$404 or \$1525, relative to GDP per capita of \$2530 in the implementation year of 2012.

<sup>18</sup>The intervention evaluated in Liberia in (Blattman et al., 2017), by contrast, is somewhat different given that it targets youth with a history of criminal and antisocial behavior; the only point of similarity is that self-control, a major focus of the Liberia program, is also identified as a competency for KYC.

solving, execution and working in teams, stress management, financial literacy and management); the KYC training parallels this focus on imparting life skills in a vocational context, but the context centers around community service and engagement, rather than for-profit work. The total contact hours for the KYC training and mentoring intervention was 82, rendering it among the most intensive non-cognitive training program analyzed in the literature. This compares to 96 hours for cognitive behavioral therapy in Liberia (Blattman et al., 2017), 48 hours for non-cognitive training for adolescents in India (Edmonds et al., 2020), 14 hours for negotiating skills training for adolescents in Zambia (Ashraf et al., 2020), and 80 hours for on-the-job soft skills training for factory workers in India (Adhvaryu et al., 2018).

Despite the fact that our interventions seem to be broadly consistent with the structure of other interventions that have previously been successful in enhancing individual outcomes, we observe null effects or (weakly) adverse effects on labor market outcomes. For the latter, we hypothesize that these adverse effects may be consistent with three channels. The first is that returns to the life skills targeted by this intervention, and measured by the evaluation, are in fact zero in this context (though this would still raise the question of why a negative effect on labor market outcomes is observed, especially given the null effect on measured life skills in the first step of the causal chain). The second is a time allocation channel: given the emphasis of the KYC program on building social capital and engaging in community service, youth who were included in the program may have substituted away from employment search and labor market activity toward other forms of volunteerism. Again, it is important to note that given that the primary results do not show any evidence of shifts in attitudes or norms linked to community service, this may be a priori implausible, but it is also possible the null effect for these attitudinal variables reflects challenges in measurement.

The third channel relates to aspirations: youth who were included in the program may have shifted their preferences around employment, and may be searching for different forms of employment or perhaps employment characterized by a higher salary or greater prestige. Depending on the underlying conditions in the labor market, this may result in these youth being less likely to be successfully employed.<sup>19</sup>

We first explore the question of the association between life skills and labor market outcomes, acknowledging that only correlational evidence can be presented, as this project

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<sup>19</sup>It is also possible that in particular, youth who were randomized into the training only arm shifted their aspirations or goals out of frustration with their failure to receive a grant. However, given that the endline survey was conducted around a year after program activities were concluded, it is not obvious that dissatisfaction with a one-time program could be the primary channel for adverse labor market effects. Moreover, while training participants may have declined to develop their community project or engage more broadly in pro-social behavior out of anger around their failure to receive a grant, it seems implausible they would deliberately reduce their own income for this reason.



was not designed to estimate the returns to non-cognitive skills. However, we can analyze simple correlational regressions using the sample of youth from the control arm, regressing the labor market variables of interest on the seven measures capturing life skills analyzed in the main evaluation, in order to generate some suggestive evidence.

These regressions are reported in Table A17, and show there are significant and positive correlations between several measures of life skills — most notably self-esteem / locus of control, Cantril’s ladder, and patience / goal orientation — and multiple dimensions of labor market engagement. The index capturing a propensity to work in groups is generally uncorrelated with labor market performance (with the exception of a negative correlation with self-employment, suggesting disutility from working alone), and the two secondary outcome measures (anti-social behavior and self-control) are similarly uncorrelated. The mental health index is negatively correlated with labor market outcomes, possibly reflecting a pattern of reverse causality: some existing literature suggests that engagement in work decreases well-being, particularly if it is low-quality work (Harvey et al., 2017). In the final row of the table, we report the p-value corresponding to a F test of joint significance across all coefficients estimated, as well as the same test for the coefficients excluding the mental health index; the hypothesis that life skills are not predictive of labor market outcomes can generally be rejected.

This evidence is not causal, but it suggests that the hypothesis of potentially positive returns to life skills reflected in the theory of change is plausible in this context, especially given the literature on the returns to these skills drawn from other sources (Carneiro et al., 2007; Heckman and Rubinstein, 2001; Heckman et al., 2006; Cobb-Clark and Tan, 2011; Heckman and Kautz, 2012; Huysse-Gaytandjieva et al., 2015; Díaz et al., 2013; Glewwe et al., 2017; Adhvaryu et al., 2018; Macours and Laajaj, 2019). While not all the constructs measured appear to capture skills with positive returns in the labor market, several do seem to be positively correlated with labor market outcomes. Accordingly, it is unlikely that any undetected treatment effect on the development of life skills could somehow have generated negative labor market effects; if anything, those effects should be positive.

Next, we explore the time allocation channel. The survey instrument did not collect detailed data on youth time allocation. However, respondents who were not currently employed were asked to report if they were currently searching or currently engaged in education, and all respondents reported if they had engaged in volunteerism or made a donation over the last 30 days. (Note that information about time allocated to education or employment searches was not collected from respondents who report that they are currently employed.) Using this information, we construct six binary variables, namely: a dummy for employment search (conditional on non-employment); a dummy for educa-

tion (conditional on non-employment); a dummy for engaging in search or employment; a dummy for engaging in search, employment, or education; a dummy for reported volunteerism; and a dummy for reported donations. For each variable, we then re-estimate specification (1).

The results are reported in Appendix Table A18. It is evident in Columns (1) and (2) that there is no significant effect on engagement in an employment search or education. There is some evidence of negative effects on the composite variables reported in Columns (3) and (4), consistent with the reduction in any economic activity reported in the primary results. In Columns (5) and (6), the estimated coefficients for volunteerism and donations are small in magnitude and not statistically significant. In general, the results do not suggest any evidence that the reduction in employment is associated with a shift into time allocated to another activity. In addition, the endline survey was conducted at least twelve months following the conclusion of all intervention activities (not the initiation), suggesting that any immediate effects of the program on time allocation would almost certainly have dissipated. Moreover, the labor market effects are largest for the training-only arm, entailing a more limited time commitment (two weeks of in-person training, and weekly meetings), suggesting that a time constraint is unlikely to be binding for youth who participated.

Finally, we examine the third channel around aspirations. The survey includes a series of questions around employment aspirations: expected salary in the future, whether the respondent prefers salaried employment or self-employment, whether the respondent perceives that young people face challenges in obtaining ideal employment, and whether the respondent perceives that young people face challenges in starting a small business. However, all of these questions are characterized by substantial patterns of non-response, as between 20% and 25% of respondents state that they don't know or don't wish to respond to each question.

Accordingly, we examine five variables of interest: log of expected wage in the future, a dummy for the expected wage falling above the median of the distribution, and three binary variables for self-employment preference, perception of employment obstacles, and perception of self-employment obstacles. We also analyze the same variables with values imputed for those who declined to respond. We impute the median of the salary distribution, and assign the remaining binary variables to be equal to zero.

The results are reported in Appendix Table A19; Panel A reports the simple variables, and Panel B reports the imputed variables. In general, we observe in Columns (1) and (2) that the intervention did not increase salary expectations, and, in fact, salary expectations seem to be somewhat lower in the grants arm, an effect that is consistent with and without imputation. It is evident in Column (3) that there is a substantial increase in

the stated preference for self-employment in the grant treatment arms. This probability is very high even in the control arm (80%), and it increases another 5 percentage points for youth exposed to grants. In Columns (4) and (5), there is no strong evidence that youth perceptions of challenges around obtaining employment or self-employment are significantly increased, though there is a significant increase only in the joint treatment arm when imputation is used.

Accordingly, one interpretation of the observed effects of the grant interventions on labor market outcomes is that youth exposed to these interventions shift their preferences toward self-employment and accordingly forgo opportunities in the labor market that they might have otherwise accessed. At the same time, there is no evidence of an increase in self-employment, suggestive of other barriers in substituting into this sector. It is not clear whether this mechanism can also explain the labor market effects of the training-only treatment, since the increased preference for self-employment in this arm is substantially smaller and not statistically significant. It should, however, be noted that the confidence interval does not allow us to rule out an increase in self-employment preferences of over 5 percentage points in the training-only arm, approximately the same size as for the grant arms. We thus cannot reject the hypothesis that youth in the training-only arm also shifted their preferences around employment, though it is possible that there is another mechanism at play.<sup>20</sup>

## 6 Conclusion

This paper presents novel evidence around the effects of cash grants for community-based service and life skills training in Kazakhstan, using a randomized evaluation of the Kazakhstan Youth Corps program. The evaluation provides the first rigorous analysis of the effects of youth engagement in community service, a widespread intervention in both developing and developed countries, and adds to a small but growing literature analyzing the potential returns to non-cognitive skills training or life skills training.

In general, the evidence suggests that the Youth Corps interventions were not effective in building youth life skills or social capital, and may have had negative effects on labor market engagement. While we cannot rule out that there may have been more short-term effects, effects that are not persistent for at least a year are arguably of little interest from a welfare perspective. These results may be surprising given that other

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<sup>20</sup>There is also some similarity between the pattern we observe here and the evidence presented in Acevedo et al. (2020), who finds that vocational training in conjunction with soft skills training led to a deterioration in labor market outcomes attributable to higher expectations and thus higher reservation wages for youth in the Dominican Republic. However, they observe this effect only for men, and it is not observed in a second treatment arm that provided soft skills training only.

interventions have shown positive effects of interventions providing cash transfers (unrestricted or for entrepreneurial development) as well as non-cognitive skills training (in some contexts, offered in conjunction with cash). However, these evaluations have generally been conducted in sub-Saharan Africa (e.g., Liberia, Uganda, Kenya, and Zambia) or South Asia (India and Afghanistan). One intriguing hypothesis for future research is that Kazakhstan may simply be characterized by too high an income level for these interventions to be effective, particularly given that unemployment for youth aged 15-24 has been falling steadily in Kazakhstan and was estimated at less than 4% in 2017 (International Labor Organization, 2017). In this context, providing youth with grants and/or training may simply impede their engagement in the labor market.

## References

- Acevedo, Paloma, Guillermo Cruces, Paul Gertler, and Sebastian Martinez,** “How vocational education made women better off but left men behind,” *Labour Economics*, 2020, *65*, 101824.
- Adams, S and K Oshima,** “Engaging youth through community-driven development operations: Experiences, findings, and opportunities,” *Social Development Department, World Bank, Washington, DC*, 2014.
- Adhvaryu, Achyuta, Namrata Kala, and Anant Nyshadham,** “The skills to pay the bills: Returns to on-the-job soft skills training,” Technical Report, National Bureau of Economic Research 2018.
- Alimkhanova, Dinara,** “Understanding the Rising NEET Phenomenon in Southern Kazakhstan,” 2018. CAP Paper 206 (CAAF Fellows Papers),.
- Ashraf, Nava, Natalie Bau, Corinne Low, and Kathleen McGinn,** “Negotiating a better future: How interpersonal skills facilitate inter-generational investment,” *Quarterly Journal of Economics*, 2020, *135* (2), 1095—1151.
- Benjamini, Yoav, Abba M. Krieger, and Daniel Yekutieli,** “Adaptive Linear Step-up Procedures That Control the False Discovery Rate,” *Biometrika*, 2006, *93* (3), 491–507.
- Bhanot, Syon, Benjamin Crost, Jessica Leight, Eric Mvukiyehe, and Bauyrzhan Yedgenov,** “Promoting community and labor force engagement through service grants and non-cognitive skills training: A randomized control trial in Kazakhstan,” <https://doi.org/10.1257/rct.4708-1.0> 2019. AEA RCT Registry.
- Blattman, Christopher and Laura Ralston,** “Generating employment in poor and fragile states: Evidence from labor market and entrepreneurship programs,” *Available at SSRN*, 2015.
- , **Eric P. Green, Julian Jamison, M. Christian Lehmann, and Jeannie Annan,** “The Returns to Microenterprise Support among the Ultrapoor: A Field Experiment in Postwar Uganda,” *American Economic Journal: Applied Economics*, 2016, *8* (2), 35–64.
- , **Julian C. Jamison, and Margaret Sheridan,** “Reducing Crime and Violence: Experimental Evidence from Cognitive Behavioral Therapy in Liberia,” *American Economic Review*, 2017, *107* (4), 1165–1206.

- , **Nathan Fiala**, and **Sebastian Martinez**, “Generating Skilled Self-Employment in Developing Countries: Experimental Evidence from Uganda,” *The Quarterly Journal of Economics*, 12 2013, 129 (2), 697–752.
- Bongaarts, John**, “Human population growth and the demographic transition,” *Philosophical Transactions of the Royal Society B: Biological Sciences*, 2009, 364 (1532), 2985–2990.
- Carneiro, Pedro, Claire Crawford, and Alissa Goodman**, “The impact of early cognitive and non-cognitive skills on later outcomes,” 2007.
- Casey, Katherine, Rachel Glennerster, and Edward Miguel**, “Reshaping institutions: Evidence on aid impacts using a preanalysis plan,” *The Quarterly Journal of Economics*, 2012, 127 (4), 1755–1812.
- Cobb-Clark, Deborah A and Michelle Tan**, “Noncognitive skills, occupational attainment, and relative wages,” *Labour Economics*, 2011, 18 (1), 1–13.
- Dhar, Diva, Tarun Jain, and Seema Jayachandran**, “Reshaping Adolescents’ Gender Attitudes: Evidence from a School-Based Experiment in India,” 2018.
- Díaz, Juan José, Omar Arias, and David Vera Tudela**, “Does perseverance pay as much as being smart?: The returns to cognitive and non-cognitive skills in urban Peru,” 2013.
- Edmonds, Eric, Benjamin Feigenberg, and Jessica Leight**, “Advancing the agency of adolescent girls,” 2020. NBER Working Paper 27513.
- Fafchamps, Marcel, David McKenzie, Simon Quinn, and Christopher Woodruff**, “Microenterprise growth and the flypaper effect: Evidence from a randomized experiment in Ghana,” *Journal of Development Economics*, 2014, 106, 211–226.
- Frumkin, Peter, JoAnn Jastrzab, Margaret Vaaler, Adam Greeney, Robert T Grimm Jr, Kevin Cramer, and Nathan Dietz**, “Inside national service: AmeriCorps’ impact on participants,” *Journal of Policy Analysis and Management*, 2009, 28 (3), 394–416.
- Gallego, Francisco, Cristian Larroulet, and Andrea Repetto**, “What’s behind her smile? Looks, self-esteem, and labor market outcomes,” 2018.
- Glewwe, Paul, Qiuqiong Huang, and Albert Park**, “Cognitive skills, noncognitive skills, and school-to-work transitions in rural China,” *Journal of Economic Behavior and Organizations*, 2017, 134, 141–164.

- Harvey, Samuel B, Matthew Modini, Sadhbh Joyce, Josie S Milligan-Saville, Leona Tan, Arnstein Mykletun, Richard A Bryant, Helen Christensen, and Philip B Mitchell**, “Can work make you mentally ill? A systematic meta-review of work-related risk factors for common mental health problems,” *Occupational and Environmental Medicine*, 2017, *74* (4), 301–310.
- Haushofer, Johannes and Jeremy Shapiro**, “The Short-term Impact of Unconditional Cash Transfers to the Poor: Experimental Evidence from Kenya,” *The Quarterly Journal of Economics*, 2016, *131* (4), 1973–2042.
- **and** – , “The long-term impact of unconditional cash transfers: experimental evidence from Kenya,” Working Paper, Busara Center for Behavioral Economics, Nairobi, Kenya 2018.
- Heckman, James J and Tim Kautz**, “Hard evidence on soft skills,” *Labour economics*, 2012, *19* (4), 451–464.
- **and Yona Rubinstein**, “The importance of noncognitive skills: Lessons from the GED testing program,” *American Economic Review*, 2001, *91* (2), 145–149.
- Heckman, James J., Jora Stixrud, and Sergio Urzua**, “The effects of cognitive and noncognitive abilities on labor market outcomes and social behavior,” *Journal of Labor Economics*, 2006, *24*, 411–482.
- Hilker, LM and Erika Fraser**, “Youth exclusion, violence, conflict and fragile states,” *Social Development Direct*, 2009, *30*.
- Huyse-Gaytandjieva, Anna, Wim Groot, Milena Pavlova, and Catelijne Joling**, “Low Self-Esteem Predicts Future Unemployment,” *Journal of Applied Economics*, 2015, *18* (2), 325–346.
- Innovations in Civic Participation**, “Youth civic participation in action: Meeting community and youth development needs worldwide,” Technical Report 2010.
- International Labor Organization**, “LFS - Sample Survey of Employment,” [https://www.ilo.org/shinyapps/bulkexplorer0/?lang=en&segment=indicator&id=UNE\\_TUNE\\_SEX\\_AGE\\_NB\\_A](https://www.ilo.org/shinyapps/bulkexplorer0/?lang=en&segment=indicator&id=UNE_TUNE_SEX_AGE_NB_A) 2017. Online; accessed 12 January 2020.
- King, Elisabeth and Cyrus Samii**, “Fast-track institution building in conflict-affected countries? Insights from recent field experiments,” *World Development*, 2014, *64*, 740–754.

- Kling, Jeffrey R, Jeffrey B Liebman, and Lawrence F Katz**, “Experimental analysis of neighborhood effects,” *Econometrica*, 2007, 75 (1), 83–119.
- Lee, David S.**, “Training, Wages, and Sample Selection: Estimating Sharp Bounds on Treatment Effects,” *The Review of Economic Studies*, 07 2009, 76 (3), 1071–1102.
- Lewis, Vivian, Camille A Martina, Michael P McDermott, Paula Trief, Steven R Goodman, Gene D Morse, Jennifer G LaGuardia, Daryl Sharp, and Richard M Ryan**, “A randomized controlled trial of mentoring interventions for underrepresented minorities,” *Academic medicine: journal of the Association of American Medical Colleges*, 2016, 91 (7), 994.
- Lillis, Joanna**, “Widening Social Divide Fuels Protest Mood in Kazakhstan,” Technical Report 2013.
- Lyall, Jason, Yang-Yang Zhou, and Kosuke Imai**, “Can Economic Assistance Shape Combatant Support in Wartime? Experimental Evidence from Afghanistan,” *American Political Science Review*, 2020, 114 (1), 126–143.
- Macours, Karen and Rachid Laajaj**, “Measuring skills in developing countries,” 2019. Forthcoming, Journal of Human Resources.
- Marat, Erica**, “Kazakhstan’s police are cracking down on protesters – as political activism keeps rising,” *Washington Post*, 2019.
- Ministry of Science and Education**, “TERMS OF REFERENCE KZYCP-CA/CS-CQS-1,” 2017.
- Nesporova, Alena**, *Jobs and Skills for Youth: Review of Policies for Youth Employment of Kazakhstan*, Geneva: International Labour Organization, 02 2015.
- Nguyen, Tu Chi and Matthias Rieger**, “Community-driven development and social capital: Evidence from Morocco,” *World Development*, 2017, 91, 28–52.
- OECD**, *OECD Employment Outlook 2015*, Paris: OECD Publishing, 2015.
- , “Proportion of people who volunteered time to an organization in the past month,” <http://www.oecd.org/els/family/C04.1-Participation-voluntary-work.pdf> 2015. Online; accessed 12 January 2020.
- , *Building Inclusive Labour Markets in Kazakhstan: A Focus on Youth, Older Workers and People*, Paris: OECD Publishing, 2017.



**Peaslee, Liliokanaio and Amanda C Teye**, “Testing the Impact of Mentor Training and Peer Support on the Quality of Mentor-Mentee Relationships and Outcomes for At-Risk Youth,” 2015.

**Rodriguez-Planas, Nuria**, “Longer-term impacts of mentoring, educational services, and learning incentives: Evidence from a randomized trial in the United States,” *American Economic Journal: Applied Economics*, 2012, 4 (4), 121–39.

**Spera, Christopher, Robin Ghertner, Anthony Nerino, and Adrienne DiTommaso**, *Volunteering as a pathway to employment: Does volunteering increase odds of finding a job for the out of work?*, Office of Research & Evaluation, Corporation for National and Community Service, 2013.

– , – , – , and – , “Out of work? Volunteers have higher odds of getting back to work,” *Nonprofit and Voluntary Sector Quarterly*, 2015, 44 (5), 886–907.

**Standish, Reid**, “‘Our Future Will Be Violent Extremism’: Kazakhstan – Central Asia’s most stable state – is waking up to the fact that Islamic extremism has planted its roots and is here to stay,” *Foreign Policy*, 2017.

– , “‘Our Future Will Be Violent Extremism’,” 2017. *Foreign Policy*, retrieved January 2021.

**Umbetaliyeva, Tolganay, Botagoz Rakisheva, and Peer Teschendorf**, *Youth in Central Asia: Kazakhstan*, Almaty: Friedrich Ebert Foundation Kazakhstan, 2016.

**UNICEF**, “Study on prevalence, underlying causes, risk and protective factors in respect to suicides and attempted suicides in Kazakhstan,” Technical Report, The UN Children’s Fund (UNICEF) in the Republic of Kazakhstan 2014.

**World Bank**, “World Development Report 2007: Development and the Next Generation,” Technical Report, The World Bank 2006.

– , “Inclusion Matters: The Foundations for Shared Prosperity,” Technical Report, The World Bank 2013.

**World Bank**, “Project appraisal document on proposed loan to the Republic of Kazakhstan for a Youth Corps Project,” 2014. Report No: 77131-KZ.

Figure 1: Map of Kazakhstan and coverage by regions in 2017 pilot phase



Figure 2: Evaluation design

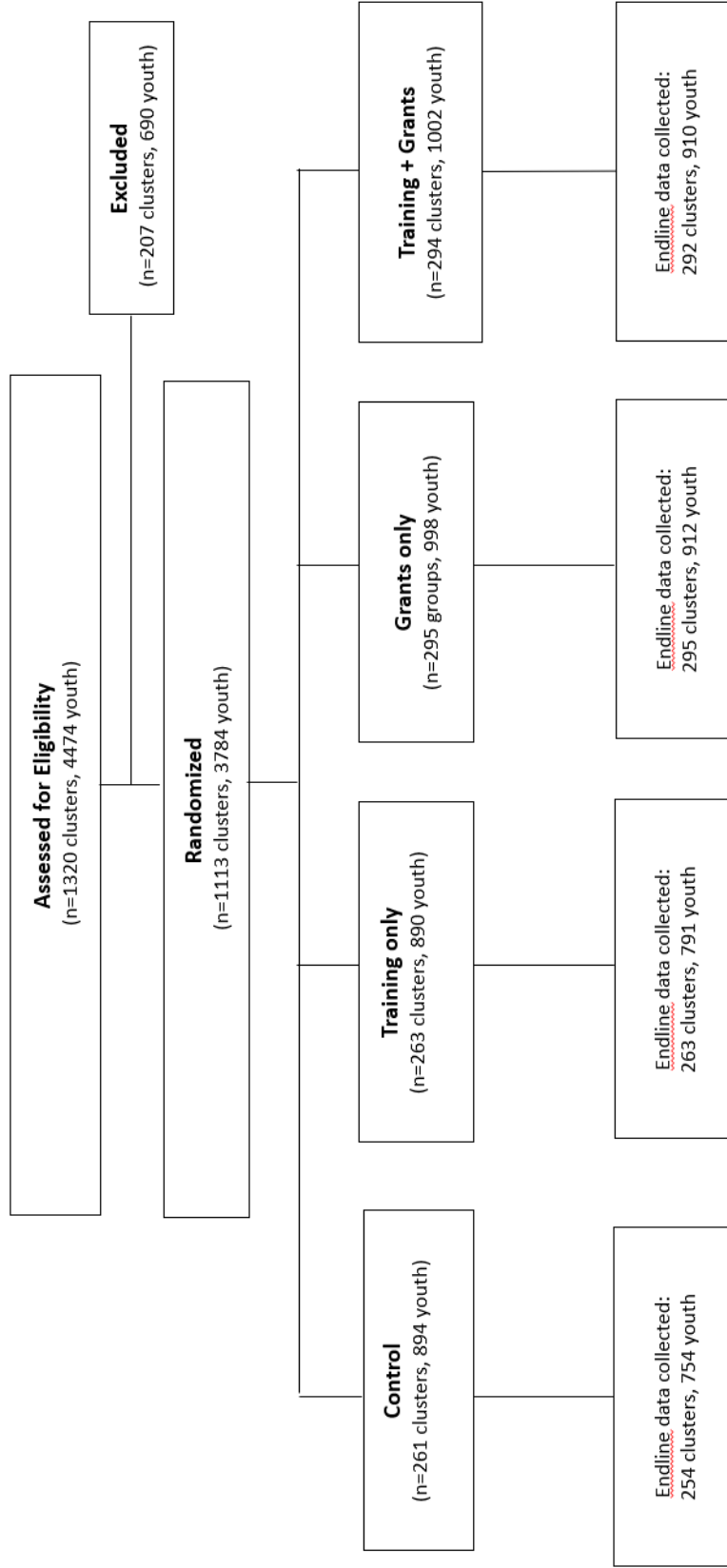


Figure 3: Kazakhstan Youth Corps impact evaluation timeline

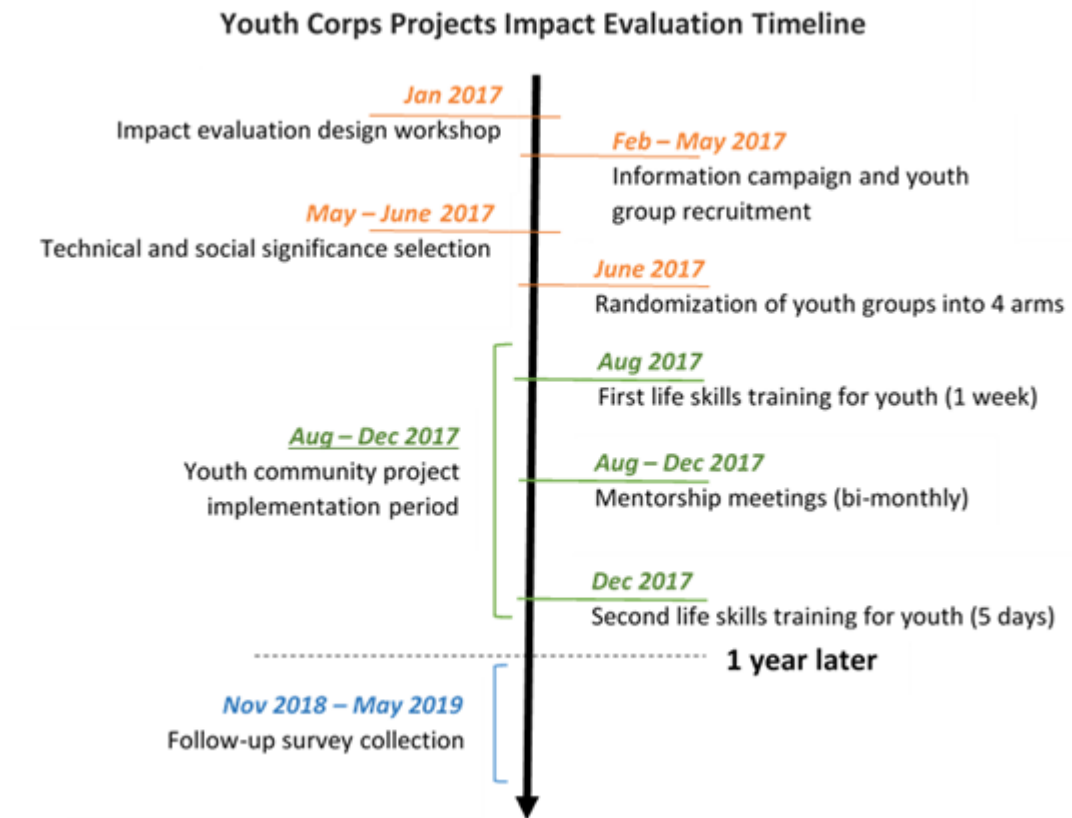


Table 1: Balance on baseline covariates

	Age (1)	Male (2)	Married (3)	Higher educ. (4)	Employed (5)	Urban (6)
<b>Full sample</b>						
Training only	-.136 (.205)	.015 (.030)	-.013 (.028)	.020 (.029)	.013 (.030)	-.084** (.040)
Grant only	-.115 (.195)	-.0002 (.029)	-.014 (.026)	.024 (.029)	-.015 (.028)	.011 (.038)
Grants + training	-.142 (.196)	-.023 (.029)	.006 (.026)	.004 (.029)	-.011 (.029)	-.034 (.039)
$\beta_1 = \beta_2 = \beta_3 = 0$	.877	.672	.821	.809	.78	.075
Mean control arm	23.226	.512	.272	.647	.352	.625
Obs.	3780	3783	3782	3783	3782	3781
Joint test	.877					
<b>Non-attrited sample</b>						
Training only	-.103 (.216)	.009 (.032)	-.026 (.029)	.033 (.031)	.004 (.032)	-.092** (.042)
Grant only	-.108 (.204)	-.003 (.030)	-.022 (.027)	.026 (.030)	-.032 (.030)	.017 (.040)
Grants + training	-.130 (.205)	-.036 (.031)	.0004 (.028)	.016 (.030)	-.025 (.031)	-.014 (.040)
Mean control arm	23.286	.52	.287	.646	.375	.611
$\beta_1 = \beta_2 = \beta_3 = 0$	.924	.518	.671	.736	.554	.040
Obs.	3364	3366	3366	3366	3366	3365
Joint test	.924					

Notes: The dependent variable is the specified baseline covariate. The independent variables are binary variables for assignment to the training only, grants only, or grants and training treatment arms. All regressions are estimated clustering standard errors at the group level. In Panel A, the full sample is employed; in Panel B, the analysis is restricted to the non-attrited sample. Asterisks indicate significance at the ten, five and one percent level.

Table 2: Primary outcomes: Life skills

	Self-esteem / locus of control index (1)	Cantril's ladder (2)	Mental health index (3)	Patience / goal orientation index (4)	Working in groups index (5)
$\beta_1$ : Training only	-.017** (.008)	-.106 (.115)	-.021 (.016)	-.006 (.012)	-.006 (.008)
$\beta_2$ : Grants only	-.016** (.007)	.146 (.105)	-.002 (.015)	-.008 (.011)	-.008 (.007)
$\beta_3$ : Grants + training	-.012* (.007)	-.014 (.104)	.003 (.015)	-.006 (.011)	.0006 (.007)
Mean control arm	.937	5.629	.796	.835	.942
St. dev. control arm	.121	1.777	.261	.220	.127
Obs.	3321	3251	3334	3333	3301
ASTE: $\beta_1$	-.072** (.034)	[.694]			
ASTE: $\beta_2$	-.031 (.029)	[1.000]			
ASTE: $\beta_3$	-.024 (.030)	[1.000]			

Notes: The dependent variables include five indices: an index capturing self-esteem and aspirations; Cantril's ladder capturing self-reported well-being; a mental health index; an index of goal orientation; and an index capturing the respondent's propensity to work in groups. The independent variables are binary variables following assignment to the training only, grants only, or grants and training treatment arms. All regressions are estimated conditional on baseline covariates (age, gender, marital status, whether or not they had pursued higher education, whether they were employed at baseline, and whether they were resident in an urban area), clustering standard errors at the group level. We also report the average standard estimated effect (ASTE) across all variables presented, estimated by aggregating all outcomes in the table into a mean effects index following Kling et al. (2007) and estimating the effect of the treatments on this index; q-values corresponding to the ASTEs adjusted across all three primary outcome families are reported in brackets. Asterisks indicate significance at the ten, five and one percent level.

Table 3: Primary outcomes: Social capital

	Org. membership index	Contribution to coll action index	Interpersonal trust index	Social inclusion index	Attitudes toward vulnerable social groups index	Civic engagement index	Political participation index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
$\beta_1$ : Training only	.019 (.015)	.027 (.017)	.002 (.009)	-.006 (.005)	-.003 (.003)	-.027* (.014)	.007 (.005)
$\beta_2$ : Grants only	.014 (.014)	.025* (.015)	.003 (.009)	-.001 (.005)	-.0001 (.003)	-.019 (.014)	.009** (.005)
$\beta_3$ : Grants + training	.024* (.014)	.013 (.015)	.004 (.009)	-.003 (.005)	-.005 (.003)	.0001 (.013)	.001 (.004)
Mean control arm	.128	.206	.922	.972	.990	.735	.131
St. dev. control arm	.250	.275	.175	.092	.060	.227	.082
Obs.	3363	3312	3326	3339	3292	3170	3343
ASTE: $\beta_1$	.004 (.029)	[1.000]					
ASTE: $\beta_2$	.026 (.028)	[1.000]					
ASTE: $\beta_3$	.008 (.027)	[1.000]					

Notes: The dependent variables include seven indices: an index of organizational membership; an index capturing contribution to collective action; an index of attitudes around social inclusion; an index of attitudes toward vulnerable social groups; an index of civic engagement; and an index of political participation. The independent variables are binary variables for assignment to the training only, grants only, or grants and training treatment arms. All regressions are estimated conditional on baseline covariates (age, gender, marital status, whether or not they had pursued higher education, whether they were employed at baseline, and whether they were resident in an urban area), clustering standard errors at the group level. We also report the average standard estimated effect (ASTE) across all variables presented, estimated by aggregating all outcomes in the table into a mean effects index following Kling et al. (2007) and estimating the effect of the treatments on this index; q-values corresponding to the ASTEs adjusted across all three primary outcome families are reported in brackets. Asterisks indicate significance at the ten, five and one percent level.

Table 4: Primary outcomes: Labor market outcomes

	Hours worked	Days worked	Total income	Any econ. activity	Any wage	Any self- emp.
	(1)	(2)	(3)	(4)	(5)	(6)
$\beta_1$ : Training only	-3.087*** (1.164)	-1.662*** (.600)	-6285.974* (3433.271)	-.063*** (.024)	-.066*** (.025)	.004 (.016)
$\beta_2$ : Grants only	-1.512 (1.112)	-.984* (.545)	-3691.647 (3135.497)	-.030 (.022)	-.018 (.024)	-.002 (.016)
$\beta_3$ : Grants + training	-.952 (1.127)	-.651 (.588)	-4550.062 (3431.665)	-.034 (.024)	-.043* (.025)	.023 (.016)
Mean control arm	27.871	15.003	57684.2	.704	.594	.119
St. dev. control arm	21.913	11.178	60897.679	.457	.491	.324
Obs.	3131	3160	2753	3324	3363	3363
ASTE: $\beta_1$	-.131*** (.049)	[.425]				
ASTE: $\beta_2$	-.073 (.045)	[.859]				
ASTE: $\beta_3$	-.058 (.047)	[1.000]				

Notes: The dependent variables include hours reported worked in the last week, days reported worked in the last month, income reported over the last month, a binary variable capturing engagement in any income-generating activity, a binary variable capturing engagement in wage labor, and a binary variable capturing engagement in self-employment. The variables in Columns (1) through (3) were pre-specified, and the variables in Columns (4) through (6) were not pre-specified. The independent variables are binary variables for assignment to the training only, grants only, or grants and training treatment arms. All regressions are estimated conditional on baseline covariates (age, gender, marital status, whether or not they had pursued higher education, whether they were employed at baseline, and whether they were resident in an urban area), clustering standard errors at the group level. We also report the average standard estimated effect (ASTE) across all variables presented, estimated by aggregating all outcomes in the table into a mean effects index following Kling et al. (2007) and estimating the effect of the treatments on this index; q-values corresponding to the ASTEs adjusted across all three primary outcome families are reported in brackets. Asterisks indicate significance at the ten, five and one percent level.



Table 5: Secondary outcomes: Additional non-cognitive characteristics

	Risky / anti-social behavior (1)	Self- control (2)
$\beta_1$ : Training only	.0008 (.002)	.011 (.015)
$\beta_2$ : Grants only	-.001 (.002)	.002 (.014)
$\beta_3$ : Grants + training	.001 (.002)	.016 (.014)
Mean control arm	.006	.352
St. dev. control arm	.035	.243
Obs.	3337	3341
ASTE: $\beta_1$	.012 (.040)	
ASTE: $\beta_2$	.021 (.035)	
ASTE: $\beta_3$	.015 (.037)	

Notes: The dependent variables include an index of risky and anti-social behavior and an index of self-control. The independent variables are binary variables for assignment to the training only, grants only, or grants and training treatment arms. All regressions are estimated conditional on baseline covariates (age, gender, marital status, whether or not they had pursued higher education, whether they were employed at baseline, and whether they were resident in an urban area), clustering standard errors at the group level. We also report the average standard estimated effect (ASTE) across all variables presented, estimated by aggregating all outcomes in the table into a mean effects index following Kling et al. (2007) and estimating the effect of the treatments on this index. Asterisks indicate significance at the ten, five and one percent level.

Table 6: Secondary outcomes: Human capital

	Education level (1)	Received training (2)	Skills to use (3)
$\beta_1$ : Training only	.096* (.050)	.013 (.018)	-.012 (.033)
$\beta_2$ : Grants only	.066 (.044)	.021 (.018)	.049 (.031)
$\beta_3$ : Grants + training	.006 (.044)	.021 (.018)	.079*** (.030)
Mean control arm	4.732	.118	.601
St. dev. control arm	.811	.323	.490
Obs.	3349	3255	2694
ASTE: $\beta_1$	.044 (.038)		
ASTE: $\beta_2$	.083** (.035)		
ASTE: $\beta_3$	.078** (.034)		

Notes: The dependent variables include the respondent's reported years of education attained, a binary variable for whether the respondent received training, and a binary variable for whether the respondent has skills s/he would like to use. The independent variables are binary variables for assignment to the training only, grants only, or grants and training treatment arms. All regressions are estimated conditional on baseline covariates (age, gender, marital status, whether or not they had pursued higher education, whether they were employed at baseline, and whether they were resident in an urban area), clustering standard errors at the group level. We also report the average standard estimated effect (ASTE) across all variables presented, estimated by aggregating all outcomes in the table into a mean effects index following Kling et al. (2007) and estimating the effect of the treatments on this index. Asterisks indicate significance at the ten, five and one percent level.

Table 7: Secondary outcomes: Economic welfare

	Consumption	Assets index	Self-reported poverty ranking
	(1)	(2)	(3)
$\beta_1$ : Training only	147.267 (3300.180)	.054** (.027)	-.052 (.050)
$\beta_2$ : Grants only	67.737 (3126.275)	.032 (.025)	.0002 (.048)
$\beta_3$ : Grants + training	3457.976 (3132.978)	.050** (.025)	-.029 (.047)
Mean control arm	80159.996	.236	3.742
St. dev.	55280.588	.416	.821
Obs.	3366	3366	3274
ASTE: $\beta_1$ : Training only	.023 (.043)		
ASTE: $\beta_2$ : Grants only	.026 (.040)		
ASTE: $\beta_3$ : Grants + training	.049 (.040)		

Notes: The dependent variables include a summary index of consumption on basic and luxury goods over the past 30 days, an index of durable assets owned, and a self-reported poverty ranking. The independent variables are binary variables for assignment to the training only, grants only, or grants and training treatment arms. All regressions are estimated conditional on baseline covariates (age, gender, marital status, whether or not they had pursued higher education, whether they were employed at baseline, and whether they were resident in an urban area), clustering standard errors at the group level. We also report the average standard estimated effect across all variables presented in Panel A, estimated by aggregating all outcomes in the table into a mean effects index following Kling et al. (2007) and estimating the effect of the treatments on this index. Asterisks indicate significance at the ten, five and one percent level.

Table 8: Variables constituting asset index

	Major assets (1)	Livestock (2)	Electronic goods (3)	Owns house (4)	Housing-related investments (5)
$\beta_1$ : Training only	.050 (.052)	.064 (.047)	.108 (.136)	-.0007 (.025)	.061* (.034)
$\beta_2$ : Grant only	.012 (.049)	.031 (.042)	.014 (.132)	.018 (.022)	.046 (.033)
$\beta_3$ : Grant + training	.011 (.048)	.084* (.043)	.133 (.128)	.011 (.023)	.035 (.032)
Mean control arm	2.028	.337	7.415	.78	.281
St. dev. control arm	.852	.785	2.100	.415	.581
Obs.	3366	3366	3366	3307	3366

Notes: The dependent variables include the following: the number of large assets owned (central water supply, toilet, car or motorcycle), the number of livestock owned, the number of electronic equipment owned, a dummy for house ownership, and a variable capturing the number of housing-related investments made over the past year (buying or building a new house, renovating a house, adding to a house, purchasing land, renting out a house, or investing in property). Note these variables are the components of the index of durable assets owned, and were not pre-specified for separate analysis. The independent variables are binary variables for assignment to the training only, grants only, or grants and training treatment arms. All regressions are estimated conditional on baseline covariates (age, gender, marital status, whether or not they had pursued higher education, whether they were employed at baseline, and whether they were resident in an urban area), clustering standard errors at the group level. Asterisks indicate significance at the ten, five and one percent level.

Table 9: Attrition

	Age	Male	Married	Higher educ.	Employed	Urban
	(1)	(2)	(3)	(4)	(5)	(6)
<b>Attrition by treatment arm</b>						
Covariate	-.006 (.004)	-.025 (.028)	-.063** (.031)	.006 (.031)	-.087*** (.023)	.052* (.030)
Covariate x Training only	-.003 (.006)	.020 (.035)	.053 (.039)	-.051 (.041)	.031 (.031)	.029 (.037)
Covariate x Grants only	-.001 (.005)	.009 (.034)	.031 (.037)	-.008 (.036)	.059** (.029)	-.022 (.035)
Covariate x Grants + training	-.001 (.005)	.045 (.033)	.021 (.036)	-.049 (.037)	.050 (.030)	-.074** (.037)
Training Only	.020 (.134)	-.056** (.028)	-.060** (.024)	-.011 (.033)	-.056** (.026)	-.057** (.026)
Grants Only	-.047 (.124)	-.075*** (.027)	-.079*** (.023)	-.065** (.030)	-.092*** (.024)	-.057** (.026)
Grants + Training	-.042 (.126)	-.087*** (.026)	-.071*** (.023)	-.032 (.031)	-.084*** (.024)	-.020 (.029)
Obs.	3780	3783	3782	3783	3782	3781
<b>Attrition with respect to pooled treatment arm</b>						
Covariate	-.006 (.004)	-.025 (.028)	-.063** (.031)	.006 (.031)	-.087*** (.023)	.052* (.030)
Covariate x Any Treatment	-.002 (.005)	.025 (.030)	.034 (.033)	-.036 (.033)	.048* (.026)	-.025 (.032)
Any Treatment	-.024 (.110)	-.074*** (.024)	-.071*** (.021)	-.037 (.027)	-.078*** (.022)	-.044* (.024)
Covariate	Age	Male	Married	Higher educ.	Employed	Urban
Obs.	3780	3783	3782	3783	3782	3781

Notes: The dependent variables is a dummy equal to one if the respondent attrited from the sample. The independent variables are the specified covariate, the covariate interacted with the specified treatment indicator, and the treatment indicator. All regressions include standard errors clustered at the group level. Asterisks indicate significance at the ten, five and one percent level.

# Appendix

## Description of Youth Corps training and mentoring intervention

The training and mentoring intervention implemented as part of YCP includes three phases. The first phase is a six-day life skills and project management training conducted prior to the implementation of youth projects for those youth also receiving grants (August 2017). The second phase is a five month mentoring period entailing bimonthly meetings with mentors (August-December 2017), and the third phase is a second six-day following the conclusion of project implementation (December 2017).

**Phase 1** The first phase was implemented for youth in the capital of each of the four regions; training was offered in Russian or Kazakh to groups of 20–30 youth, as appropriate. The trainers themselves received a preparatory three day training. The topics included in each day of the training were as follows.

1. Team building, communication and leadership.
2. Community engagement (interaction and communication with the community)
3. Project development and management
4. Project evaluation
5. Conflict management, negotiation and decision-making
6. How to apply skills in the community

**Phase 2** The mentoring phase included five months of bimonthly meetings, or ten sessions in total. The following are the topics covered by mentors in each session, in order.

1. Community development map (assessment of community assets, and development of an asset plan)
2. Communication and teamwork: 2 sessions (conducting focus groups and interviews, decision-making, business management, building an effective team)
3. Project management (development, budgeting, risk assessment)
4. Implementation: 2 sessions (management and monitoring, capacity building of stakeholders and leaders)

5. Leadership: 2 sessions (team building; negotiation)
6. Personal development, career development and aspirations: 2 sessions

**Phase 3** The final training was again offered in each regional capital, and included the following topics over the six days

1. Analysis of teamwork dynamics: identify the different roles in the team during the project, evaluate performance, and analyze any interpersonal and team conflicts that arose
2. Evaluation of projects: evaluate the effectiveness of the project in reaching beneficiaries and enhancing community outcomes
3. Project sustainability and future planning: identify at least two potential strategies to enhance and continue the project, and assess community resources to sustain the project
4. Self-assessment: Assess your personal growth in skills following the project
5. Aspirations and career planning, part 1: Consider your values, interests and skills in order to incorporate these characteristics into plans for your future professional career
6. Aspirations and career planning, part 2: Strengthen skills including communication, decision-making, self-regulation, and teamwork

**Target skills** The objective of the intervention was to develop the following specific skills.

1. Communication skills
  - (a) Describe and demonstrate active listening skills (including body language, follow-up questions, information synthesis).
  - (b) Demonstrate communication skills with different audiences (peers, mentors, community leaders) including clarity in verbal communication and effective storytelling to clarify their point of view.
  - (c) Identify your own strengths and weaknesses in communication skills (including body language, active listening, clarity in verbal communication, and effective storytelling).

## 2. Self-control skills

- (a) Identify the challenges their peers face in self-control and management of emotions
- (b) Describe episodes where they did and did not exhibit self-control, and identify two strategies for effective self-regulation

## 3. Decision-making skills

- (a) Describe the steps in decision making, including: requesting, analyzing options, potential consequences, influencing various stakeholders, making decisions and communicating the decision to the team or stakeholders.
- (b) Use strategies for making team decisions through role play

## 4. Teamwork skills

- (a) Describe the principles of effective teamwork.
- (b) Identify the different roles in the team and demonstrate the ability to work effectively in at least two of these roles.
- (c) Determine the strengths and assets of themselves and team members; assign team members and manage teams.
- (d) Use team building activities to build rapport with new and existing teams.
- (e) Describe strategies for building community trust.

## 5. Conflict resolution and negotiation skills

- (a) Analyze interpersonal and team conflicts to identify key issues and different perspectives.
- (b) Recognize the nature of the conflict and explain its impact on interpersonal relationships and the team.
- (c) Describe the conflict in which he / she was involved, explain the main problems from all sides and propose a plan for how he / she will resolve this conflict in different ways.
- (d) Describe and use two intervention strategies for resolving interpersonal conflicts using role play.

## 6. Project management skills

- (a) Use a community mapping process and tools to identify assets and needs in local communities.



- (b) Write project objectives and project activities based on the strengths of the team members and the map of community assets
- (c) Write a project implementation plan for a community initiative
- (d) Plan the budget as well as the process of risk assessment and management

Throughout the training, interactive games and activities were included to encourage participants to develop and deploy key life skills. While we will not fully enumerate these activities, we can provide some examples.

1. **Sustainable Pyramid:** The training participants are divided into two teams; each includes a captain, two assistants, and workers. Leaders seek to organize their team, working in complete silence, to build a pyramid of six chairs; the winner is the team whose pyramid is higher and more stable. The objective is to develop skills around teamwork and role-sharing.
2. **Describe the Task:** The trainer divides the participants into pairs, and each pair is assigned the same task: use one minute write instructions for a subordinate to purchase shoes. The participants then exchange sheets, read the instructions provided, and discuss whether the instructions would enable successful execution of the task. The trainer prompts participants to recognize that in the absence of sufficient detail (size, color, cost and timing), the purchase may not be successful. The objective is to enhance communication and planning skills.
3. **Negotiation Game:** Participants imagine that they are a group of youth who have registered a youth association for the purposes of providing services to elderly individuals who are lonely and in need. The association requires an office, and an appointment has been scheduled with an administrator of a business center in order to obtain a suitable space. The administrator offers two options: a small office with minimal facilities, and a large office with adequate facilities at double the cost. The team should develop a negotiating plan that uses the principles of effective negotiation: proactive behavior, the establishment of a trusting relationship, and an attentive and friendly attitude towards the interlocutor. The objective is to develop negotiation skills.

Table A1: Power calculations

Significance level	Power	Number of clusters per arm	Mean cluster size	Variance cluster size	Intra-cluster correlation	MDE (st. dev.)
0.05	0.8	260	3	0.59	0.05	0.15
0.05	0.9	260	3	0.59	0.05	0.18
0.05	0.8	260	3	0.59	0.1	0.16
0.05	0.9	260	3	0.59	0.1	0.19
0.05	0.8	260	3	0.59	0.2	0.18
0.05	0.9	260	3	0.59	0.2	0.21

Notes: This table reports power calculations conducted for the primary outcomes of interest.

Table A2: Characteristics of the community service projects designed and implemented by the participants

	Almaty		Karaganda		Pavlodar		South Kazakhstan		Overall	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Educational projects	258	19%	109	22%	291	24%	218	33%	876	23%
Sport and healthy lifestyle	230	17%	80	16%	242	20%	79	12%	631	17%
Culture and leisure	134	10%	73	14%	182	15%	52	8%	441	12%
Village development	220	16%	24	5%	112	9%	51	8%	407	11%
Volunteering	76	5%	74	15%	80	7%	36	6%	266	7%
Environment	51	4%	38	8%	62	5%	27	4%	178	5%
Tourism	56	4%	11	2%	15	1%	25	4%	107	3%
Science and technology	29	2%	9	2%	31	3%	27	4%	96	3%
Other	331	23%	86	17%	214	17%	139	21%	770	20%

Table A3: Heterogeneous effects (gender and urban status): Life skills

	Self-esteem / locus of control index (1)	Cantril's ladder (2)	Mental health index (3)	Patience / goal orientation index (4)	Working in groups index (5)
Urban men (N=591)	-.010 (.009)	.037 (.140)	-.015 (.019)	-.020 (.015)	-.020** (.010)
Urban women (N=735)	-.015 (.010)	.050 (.156)	-.0001 (.021)	-.007 (.015)	-.004 (.009)
Rural men (N=483)	-.009 (.013)	-.046 (.163)	-.013 (.025)	-.006 (.019)	.010 (.011)
Rural women (N=802)	-.030** (.012)	-.015 (.157)	.007 (.026)	.016 (.018)	.002 (.012)
Mean control arm	.937	5.629	.796	.835	.942
Obs.	3321	3251	3334	3333	3301

Notes: The dependent variables include five indices: an index capturing self-esteem and aspirations; Cantril's ladder capturing self-reported well-being; a mental health index; an index of goal orientation; and an index capturing the respondent's propensity to work in groups. The independent variables are binary variables for assignment to any treatment, interacted with binary variables for rural men, urban men, rural women, and urban women. All regressions are estimated conditional on baseline covariates (age, gender, marital status, whether or not they had pursued higher education, whether they were employed at baseline, and whether they were resident in an urban area), clustering standard errors at the group level. Asterisks indicate significance at the ten, five and one percent level.

Table A4: Heterogeneous effects (gender and urban status): Social capital

	Org. membership index	Cont. to coll action index	Interpersonal trust index	Social inclusion index	Attitudes vulnerable social groups index	Civic engagement index	Political participation index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Urban men (N=591)	.028 (.027)	.007 (.021)	-.016 (.011)	-.012* (.007)	-.007 (.005)	-.004 (.019)	.010* (.006)
Urban women (N=735)	.017 (.026)	.014 (.021)	.008 (.013)	.002 (.008)	.001 (.005)	-.023 (.018)	-.001 (.005)
Rural men (N=483)	.062** (.031)	.049** (.024)	.007 (.014)	-.002 (.007)	-.004 (.004)	-.020 (.021)	.010 (.008)
Rural women (N=802)	.045 (.028)	.025 (.023)	.021 (.016)	-.001 (.008)	-.002 (.005)	-.013 (.021)	.007 (.008)
Mean control arm	.128	.206	.922	.972	.990	.735	.131
Obs.	2684	3312	3326	3339	3292	3170	3343

Notes: The dependent variables include seven indices: an index of organizational membership; an index capturing contribution to collective action; an interpersonal trust index; an index of attitudes around social inclusion; an index of attitudes toward vulnerable social groups; an index of civic engagement; and an index of political participation. The independent variables are binary variables for assignment to any treatment, interacted with binary variables for rural men, urban men, rural women, and urban women. All regressions are estimated conditional on baseline covariates (age, gender, marital status, whether or not they had pursued higher education, whether they were employed at baseline, and whether they were resident in an urban area), clustering standard errors at the group level. Asterisks indicate significance at the ten, five and one percent level.

Table A5: Heterogeneous effects (gender and urban status): Labor market outcomes

	Hours worked	Days worked	Total income	Any econ. activity	Any wage	Any self- emp.
	(1)	(2)	(3)	(4)	(5)	(6)
Urban men (N=591)	-2.347 (1.509)	-1.238* (.737)	-7781.153 (5544.711)	-.054* (.028)	-.036 (.034)	.017 (.025)
Urban women (N=735)	-2.446 (1.525)	-1.324* (.800)	-7661.786* (4062.341)	-.063* (.035)	-.069** (.034)	.002 (.018)
Rural men (N=483)	-.931 (1.912)	-.641 (.980)	-4294.122 (5277.981)	-.006 (.039)	-.003 (.041)	.007 (.027)
Rural women (N=802)	-.877 (1.760)	-.898 (.948)	2636.801 (4640.909)	-.027 (.040)	-.047 (.042)	.007 (.023)
Mean control arm	27.871 3131	15.003 3160	57684.2 2753	.704 3324	.594 3363	.119 3363

Notes: The dependent variables include hours reported worked in the last week, days reported worked in the last month, income reported over the last month, a binary variable capturing engagement in any income-generating activity, a binary variable capturing engagement in wage labor, and a binary variable capturing engagement in self-employment. The variables in Columns (1) through (3) were pre-specified, and the variables in Columns (4) through (6) were not pre-specified. The independent variables are binary variables for assignment to any treatment, interacted with binary variables for rural men, urban men, rural women, and urban women. All regressions are estimated conditional on baseline covariates (age, gender, marital status, whether or not they had pursued higher education, whether they were employed at baseline, and whether they were resident in an urban area), clustering standard errors at the group level. Asterisks indicate significance at the ten, five and one percent level.

Table A6: Heterogeneous effects: Urban and rural areas by treatment arm

	Hours worked	Days worked	Total income	Any econ. activity	Any wage	Any self- emp.
	(1)	(2)	(3)	(4)	(5)	(6)
Rural x Training	-1.436 (1.827)	-.897 (.951)	-2408.360 (4790.125)	-.027 (.039)	-.046 (.040)	.010 (.024)
Urban x Training	-4.475*** (1.495)	-2.329*** (.770)	-9523.434* (4903.115)	-.091*** (.031)	-.081** (.033)	-.002 (.022)
Rural x Grant	-.807 (1.859)	-.609 (.917)	1317.661 (4822.137)	.006 (.037)	.016 (.040)	-.011 (.025)
Urban x Grant	-1.293 (1.457)	-.572 (.742)	-6771.735 (4808.311)	-.041 (.030)	-.047 (.031)	.025 (.021)
Rural x Grant + training	-.443 (1.775)	-.755 (.951)	-1639.214 (4761.743)	-.023 (.038)	-.036 (.041)	.020 (.025)
Urban x Grant + training	-1.293 (1.457)	-.572 (.742)	-6771.735 (4808.311)	-.041 (.030)	-.047 (.031)	.025 (.021)
Mean control arm	27.871	15.003	57684.2	.704	.594	.119
St. dev. control arm	21.913	11.178	60897.679	.457	.491	.324
Obs.	3131	3160	2753	3324	3363	3363
ASTE: $\beta_1$	-.060 (.066)					
ASTE: $\beta_2$ :	-.178 (.068)***					
ASTE: $\beta_3$ :	-.021 (.065)					
ASTE: $\beta_4$ :	-.107 (.058)*					
ASTE: $\beta_5$ :	-.075 (.064)					
ASTE: $\beta_6$ :	-.086 (.062)					

Notes: The dependent variables include hours reported worked in the last week, days reported worked in the last month, income reported over the last month, a binary variable capturing engagement in any income-generating activity, a binary variable capturing engagement in wage labor, and a binary variable capturing engagement in self-employment. The variables in Columns (1) through (3) were pre-specified, and the variables in Columns (4) through (6) were not pre-specified. The independent variables are binary variables for assignment to the training only, grants only, or grants and training treatment arms, interacted with binary variables for rural and urban status. All regressions are estimated conditional on baseline covariates (age, gender, marital status, whether or not they had pursued higher education, whether they were employed at baseline, and whether they were resident in an urban area), clustering standard errors at the group level. We also report the average standard estimated effect (ASTE) across all variables presented, estimated by aggregating all outcomes in the table into a mean effects index following Kling et al. (2007) and estimating the effect of the treatments on this index. Asterisks indicate significance at the ten, five and one percent level.

Table A7: Heterogeneous effects (gender and urban status): Secondary outcomes

	(1)	(2)	(3)	(4)	(5)
<b>Panel A: Life skills and human capital</b>					
	Risky / anti-social behavior	Self- control	Education level	Received training	Skills to use
Urban men (N=591)	-.0006 (.004)	.008 (.018)	.044 (.063)	.015 (.025)	.007 (.042)
Urban women (N=735)	-.002 (.002)	.008 (.021)	-.004 (.061)	.027 (.024)	.040 (.043)
Rural men (N=483)	.002 (.002)	.006 (.021)	.124* (.073)	-.002 (.025)	.029 (.049)
Rural women (N=802)	.003 (.002)	.019 (.022)	.086 (.070)	.036 (.029)	.110** (.051)
Mean control arm	.006	.352	4.732	.118	.601
Obs.	3337	3341	3349	3255	2694
<b>Panel B: Economic welfare</b>					
	Consumption	Self ranking	Assets index		
Urban men (N=591)	4815.157 (4082.090)	-.013 (.062)	.035 (.034)		
Urban women (N=735)	1940.349 (4520.616)	-.062 (.064)	.012 (.030)		
Rural men (N=483)	-323.701 (4783.513)	-.023 (.077)	.098** (.043)		
Rural women (N=802)	-4022.840 (4632.399)	.013 (.076)	.053 (.043)		
Mean control arm	80159.996	.236	3.742		
Obs.	3363	3271	3363		

Notes: The dependent variables in Panel A include an index of risky and anti-social behavior, an index of self-control, the respondent's reported years of education attained, a binary variable for whether the respondent received training, and a binary variable for whether the respondent has skills s/he would like to use. The dependent variables in Panel B include a summary index of consumption on basic and luxury goods over the past 30 days, an index of durable assets owned, and a self-reported poverty ranking. The independent variables are binary variables for assignment to any treatment, interacted with binary variables for rural men, urban men, rural women, and urban women. All regressions are estimated conditional on baseline covariates (age, gender, marital status, whether or not they had pursued higher education, whether they were employed at baseline, and whether they were resident in an urban area), clustering standard errors at the group level. Asterisks indicate significance at the ten, five and one percent level.



Table A8: Heterogeneous effects (age): Life skills

	Self-esteem / locus of control index (1)	Cantril's ladder (2)	Mental health index (3)	Patience / goal orientation index (4)	Working in groups index (5)
Treatment	-.014** (.007)	-.025 (.109)	-.012 (.016)	-.004 (.012)	-.004 (.007)
Treatment x Age 18–22 (N=1404)	-.002 (.010)	.095 (.157)	.014 (.024)	-.007 (.019)	-.001 (.011)
Mean control arm	.937	5.629	.796	.835	.942
Obs.	3321	3251	3334	3333	3301

Notes: The dependent variables include five indices: an index capturing self-esteem and aspirations; Cantril's ladder capturing self-reported well-being; a mental health index; an index of goal orientation; and an index capturing the respondent's propensity to work in groups. The independent variables are binary variables for assignment to the training only, grants only, or grants and training treatment arms. The independent variables are binary variables for assignment to any treatment, interacted with a binary variable for age 18–22 at baseline. All regressions are estimated conditional on baseline covariates (age, gender, marital status, whether or not they had pursued higher education, whether they were employed at baseline, and whether they were resident in an urban area), clustering standard errors at the group level. Asterisks indicate significance at the ten, five and one percent level.

Table A9: Heterogeneous effects (age): Social capital

	Org. membership index (1)	Cont. to coll action index (2)	Interpersonal trust index (3)	Social inclusion index (4)	Attitudes vulnerable social groups index (5)	Civic engagement index (6)	Political participation index (7)
Treatment	.038* (.020)	.029* (.016)	-.0009 (.009)	-.006 (.004)	-.007** (.003)	-.0009 (.014)	.005 (.005)
Treatment x Age 18-22 (N=1404)	-.007 (.029)	-.019 (.025)	.009 (.015)	.006 (.008)	.010* (.006)	-.034* (.020)	.002 (.007)
Mean control arm	.128	.206	.922	.972	.990	.735	.131
Obs.	2684	3312	3326	3339	3292	3170	3343

Notes: The dependent variables include seven indices: an index of organizational membership; an index capturing contribution to collective action; an interpersonal trust index; an index of attitudes around social inclusion; an index of attitudes toward vulnerable social groups; an index of civic engagement; and an index of political participation. The independent variables are binary variables for assignment to any treatment, interacted with a binary variable for age 18-22 at baseline. All regressions are estimated conditional on baseline covariates (age, gender, marital status, whether or not they had pursued higher education, whether they were employed at baseline, and whether they were resident in an urban area), clustering standard errors at the group level. Asterisks indicate significance at the ten, five and one percent level.

Table A10: Heterogeneous effects (age): Labor market outcomes

	Hours worked	Days worked	Total income	Any econ. activity	Any wage	Any self- emp.
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	-2.111* (1.183)	-.850 (.619)	-6319.745 (3923.286)	-.033 (.023)	-.053** (.027)	.026 (.018)
Treatment x age 18–22 (N=1404)	.785 (1.884)	-.534 (1.008)	3708.902 (5188.522)	-.022 (.041)	.029 (.042)	-.044 (.027)
Mean control arm	27.871	15.003	57684.2	.704	.594	.119
Obs.	3131	3160	2753	3324	3363	3363

Notes: The dependent variables include hours reported worked in the last week, days reported worked in the last month, income reported over the last month, a binary variable capturing engagement in any income-generating activity, a binary variable capturing engagement in wage labor, and a binary variable capturing engagement in self-employment. The variables in Columns (1) through (3) were pre-specified, and the variables in Columns (4) through (6) were not pre-specified. The independent variables are binary variables for assignment to any treatment, interacted with a binary variable for age 18–22 at baseline. All regressions are estimated conditional on baseline covariates (age, gender, marital status, whether or not they had pursued higher education, whether they were employed at baseline, and whether they were resident in an urban area), clustering standard errors at the group level. Asterisks indicate significance at the ten, five and one percent level.

Table A11: Heterogeneous effects (age): Secondary outcomes

	(1)	(2)	(3)	(4)	(5)
<b>Panel A: Life skills and human capital</b>					
	Risky / anti-social behavior	Self- control	Education level	Received training	Skills to use
Treatment	.0007 (.002)	.017 (.015)	.114** (.048)	.018 (.019)	.085** (.033)
Treatment x age 18–22	-.001 (.003)	-.019 (.021)	-.145** (.070)	.003 (.029)	-.114** (.048)
(N=1404)					
Mean control arm	.006	.352	4.732	.118	.601
Obs.	3337	3341	3349	3255	2694
<b>Panel B: Economic welfare</b>					
	Consumption	Self ranking	Assets index		
Treatment	-1110.331 (3338.977)	-.068 (.053)	.024 (.024)		
Treatment x Age 18–22	5684.459 (4921.375)	.104 (.074)	.052 (.040)		
(N=1404)					
Mean control arm	80159.996	.236	3.742		
Obs.	3363	3271	3363		

Notes: The dependent variables in Panel A include an index of risky and anti-social behavior, an index of self-control, the respondent's reported years of education attained, a binary variable for whether the respondent received training, and a binary variable for whether the respondent has skills s/he would like to use. The dependent variables in Panel B include a summary index of consumption on basic and luxury goods over the past 30 days, an index of durable assets owned, and a self-reported poverty ranking. The independent variables are binary variables for assignment to any treatment, interacted with a binary variable for age 18–22 at baseline. All regressions are estimated conditional on baseline covariates (age, gender, marital status, whether or not they had pursued higher education, whether they were employed at baseline, and whether they were resident in an urban area), clustering standard errors at the group level. Asterisks indicate significance at the ten, five and one percent level.

Table A12: Lee bounds: Life skills

	Self-esteem / locus of control index (1)	Cantril's ladder (2)	Mental health index (3)	Patience / goal orientation index (4)	Working in groups index (5)
$\beta_1$ : Lower bound	-.021** (.008)	-.315*** (.108)	-.032** (.016)	-.015 (.012)	-.010 (.008)
$\beta_1$ : Upper bound	.007 (.006)	.085 (.107)	.014 (.015)	.020* (.011)	.018*** (.006)
$\beta_2$ : Lower bound	-.022*** (.007)	-.146 (.099)	-.018 (.015)	-.021* (.011)	-.013* (.007)
$\beta_2$ : Upper bound	.011* (.006)	.389*** (.102)	.047*** (.013)	.032*** (.010)	.018*** (.006)
$\beta_3$ : Lower bound	-.017** (.007)	-.260*** (.098)	-.012 (.015)	-.018 (.012)	-.004 (.007)
$\beta_3$ : Upper bound	.014** (.006)	.213** (.099)	.048*** (.014)	.033*** (.010)	.026*** (.006)
Mean control arm	.937	5.629	.796	.835	.942
Obs.: Lower bound	3163	3096	3175	3174	3143
Obs.: Upper bound	3166	3099	3178	3177	3146

Notes: The dependent variables include five indices: an index capturing self-esteem and aspirations; Cantril's ladder capturing self-reported well-being; a mental health index; an index of goal orientation; and an index capturing the respondent's propensity to work in groups. The independent variables are binary variables for assignment to the training only, grants only, or grants and training treatment arms. All regressions are estimated conditional on baseline covariates (age, gender, marital status, whether or not they had pursued higher education, whether they were employed at baseline, and whether they were resident in an urban area), clustering standard errors at the group level. The upper and lower bound corresponded to estimated Lee bounds are presented. Asterisks indicate significance at the ten, five and one percent level.

Table A13: Lee bounds: Social capital

	Org. membership index	Contribution to coll action index	Interpersonal trust index	Social inclusion index	Attitudes toward vulnerable social groups index	Civic engagement index	Political participation index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Lower: $\beta_1$	-.007 (.012)	-.009 (.015)	-.001 (.009)	-.008 (.006)	-.004 (.003)	-.041*** (.014)	-.008** (.004)
Upper: $\beta_1$	.027** (.013)	.038** (.017)	.026*** (.008)	.011** (.004)	.010*** (.002)	.003 (.013)	.011** (.005)
Lower: $\beta_2$	-.022* (.011)	-.025* (.014)	-.003 (.009)	-.004 (.005)	-.0009 (.003)	-.040*** (.014)	-.012*** (.004)
Upper: $\beta_2$	.030** (.013)	.042*** (.016)	.036*** (.007)	.020*** (.004)	.011*** (.002)	.021* (.013)	.015*** (.005)
Lower: $\beta_3$	-.015 (.012)	-.034** (.013)	-.002 (.009)	-.005 (.005)	-.006* (.003)	-.018 (.013)	-.016*** (.004)
Upper: $\beta_3$	.038*** (.013)	.028* (.015)	.036*** (.008)	.016*** (.004)	.011*** (.002)	.035*** (.012)	.006 (.004)
Mean control arm	.128	.206	.922	.972	.990	.735	.131
Obs.: Lower bound	3602	3153	3167	3180	3135	3018	3184
Obs.: Upper bound	3605	3157	3170	3183	3139	3021	3187

Notes: The dependent variables include seven indices: an index of organizational membership; an index capturing contribution to collective action; an interpersonal trust index; an index of attitudes around social inclusion; an index of attitudes toward vulnerable social groups; an index of civic engagement; and an index for political participation. The independent variables are binary variables for assignment to the training only, grants only, or grants and training treatment arms. All regressions are estimated conditional on baseline covariates (age, gender, marital status, whether or not they had pursued higher education, whether they were employed at baseline, and whether they were resident in an urban area), clustering standard errors at the group level. The upper and lower bound corresponded to estimated Lee bounds are presented. Asterisks indicate significance at the ten, five and one percent level.

Table A14: Lee bounds: Labor market outcomes

	Hours worked	Days worked	Total income	Any econ. activity	Any wage	Any self- emp.
	(1)	(2)	(3)	(4)	(5)	(6)
$\beta_1$ : Lower bound	-5.282*** (1.120)	-2.448*** (.596)	-14608.990*** (3063.365)	-.080*** (.025)	-.056** (.025)	-.034*** (.013)
$\beta_1$ : Upper bound	-1.977* (1.177)	-1.068* (.611)	-3941.148 (3465.178)	-.034 (.024)	-.013 (.025)	.013 (.015)
$\beta_2$ : Lower bound	-4.759*** (1.030)	-2.120*** (.545)	-13172.810*** (2855.147)	-.053** (.023)	-.008 (.024)	-.060*** (.011)
$\beta_2$ : Upper bound	.229 (1.122)	-.099 (.560)	-329.726 (3193.132)	.015 (.023)	.058** (.024)	.016 (.015)
$\beta_3$ : Lower bound	-3.960*** (1.074)	-1.766*** (.584)	-15852.870*** (2901.938)	-.054** (.024)	-.034 (.025)	-.031** (.013)
$\beta_3$ : Upper bound	.648 (1.144)	.171 (.590)	-1550.579 (3508.578)	.006 (.024)	.029 (.025)	.037** (.015)
Mean control arm	27.871	15.003	57684.2	.704	.594	.119
Obs.: Lower bound	2981	3009	2620	3166	3602	3603
Obs.: Upper bound	2984	3012	2623	3168	3605	3606

Notes: The dependent variables include hours reported worked in the last week, days reported worked in the last month, income reported over the last month, a binary variable capturing engagement in any income-generating activity, a binary variable capturing engagement in wage labor, and a binary variable capturing engagement in self-employment. The variables in Columns (1) through (3) were pre-specified, and the variables in Columns (4) through (6) were not pre-specified. The independent variables are binary variables for assignment to the training only, grants only, or grants and training treatment arms. All regressions are estimated conditional on baseline covariates (age, gender, marital status, whether or not they had pursued higher education, whether they were employed at baseline, and whether they were resident in an urban area), clustering standard errors at the group level. The upper and lower bound corresponded to estimated Lee bounds are presented. Asterisks indicate significance at the ten, five and one percent level.

Table A15: Attrition by region

	Attrition	Almaty	Karaganda	Pavlodar	South Kazakhstan
	(1)	(2)	(3)	(4)	(5)
$\beta_1$ : Training only	-.044** (.020)	-.025 (.029)	.006 (.062)	.014 (.017)	-.188*** (.056)
$\beta_2$ : Grants only	-.073*** (.018)	-.033 (.027)	-.106* (.055)	.008 (.015)	-.247*** (.054)
$\beta_3$ : Grants + training	-.066*** (.019)	-.036 (.027)	-.116** (.058)	.022 (.017)	-.213*** (.059)
Obs.	3779	1394	503	1228	654

Notes: The table reports average standard treatment effects for the three primary outcome families (life skills, social capital, and labor market outcomes) for the restricted sample in Almaty and Pavlodar, the regions in which no selective attrition was observed. Asterisks indicate significance at the ten, five and one percent level.

Table A16: Average standardized treatment effects: Restricted sample

	Life skills	Social capital	Labor market
	(1)	(2)	(3)
ASTE: $\beta_1$	-.048 (.04)	.004 (.03)	-.112* (.064)
ASTE: $\beta_2$	-.001 (.033)	.031 (.029)	-.058 (.058)
ASTE: $\beta_3$	-.011 (.036)	-.013 (.03)	-.085 (.061)
Obs.	2412	2625	2371

Notes: This table reports average standard treatment effects for the three primary outcome families of interest, restricting the sample to Almaty and Pavlodar provinces. Asterisks indicate significance at the ten, five and one percent level.



Table A17: Life skills and labor market outcomes

	Hours worked	Days worked	Total income	Any econ. activity	Any wage	Any self- emp.
	(1)	(2)	(3)	(4)	(5)	(6)
Self-esteem / locus of control index	10.127 (8.148)	5.096 (4.154)	42837.660** (17945.300)	.304* (.171)	.239 (.178)	.074 (.087)
Cantril's ladder	.298 (.484)	.425* (.257)	1994.516 (1451.532)	.007 (.010)	.011 (.011)	.003 (.007)
Mental health index	-10.992*** (3.318)	-3.473** (1.768)	-4562.141 (9063.556)	-.169** (.067)	-.170** (.067)	-.009 (.050)
Patience / goal orientation index	9.066** (4.084)	4.193** (2.119)	28296.890** (11631.530)	.136 (.087)	.037 (.090)	.134** (.057)
Working in groups index	-8.682 (6.423)	-2.960 (3.311)	-35421.370 (23866.070)	-.102 (.130)	-.046 (.150)	-.261** (.112)
Risky / anti-social behavior	-23.559 (19.363)	-8.263 (10.512)	50243.260 (138212.700)	-.214 (.480)	-.623 (.451)	.754 (.459)
Self-control	-3.166 (3.699)	.232 (1.960)	6994.663 (10553.090)	.047 (.077)	.040 (.084)	-.007 (.048)
Joint test	.002	.031	.013	.028	.109	.069
Joint test (excluding mental health index)	.051	.063	.007	.217	.44	.042
Obs.	669	671	579	701	706	706

Notes: The dependent variables include hours reported worked in the last week, days reported worked in the last month, income reported over the last month, a binary variable capturing engagement in any income-generating activity, a binary variable capturing engagement in wage labor, and a binary variable capturing engagement in self-employment. The independent variables include the primary and secondary measures of life skills reported in Tables 2 and 5. All regressions are estimated conditional on baseline covariates (age, gender, marital status, whether or not they had pursued higher education, whether they were employed at baseline, and whether they were resident in an urban area), clustering standard errors at the group level; the sample is restricted to the control arm. Asterisks indicate significance at the ten, five and one percent level.

Table A18: Time allocation

	(1)	(2)	(3)	(4)	(5)	(6)
	Searching	Educ.	Any activity or searching	Any activity, searching, educ.	Donated	Volunteered
$\beta_1$ : Training only	-.019 (.042)	-.022 (.054)	-.046* (.024)	-.036* (.020)	.022 (.025)	.012 (.020)
$\beta_2$ : Grants only	.015 (.040)	.023 (.052)	-.020 (.022)	-.012 (.018)	.027 (.025)	.010 (.019)
$\beta_3$ : Grants + training	.011 (.040)	-.051 (.052)	-.029 (.023)	-.036* (.020)	.007 (.024)	.002 (.018)
Mean control arm	.276	.367	.785	.868	.284	.128
Obs.	1087	1092	3327	3327	3278	3292

Notes: The dependent variables include six binary variables: a dummy for employment search (conditional on non-employment); a dummy for education (conditional on non-employment); a dummy for engaging in search or employment; a dummy for engaging in search, employment, or education; a dummy for reported volunteerism; and a dummy for reported donations. The independent variables are binary variables for assignment to the training only, grants only, or grants and training treatment arms. All regressions are estimated conditional on baseline covariates (age, gender, marital status, whether or not they had pursued higher education, whether they were employed at baseline, and whether they were resident in an urban area), clustering standard errors at the group level. Asterisks indicate significance at the ten, five and one percent level.

Table A19: Aspirations

	High expected wage (1)	Log expected wage (2)	Prefer self emp. (3)	Challenges emp. (4)	Challenges business (5)
<b>Panel A: Restricted sample</b>					
$\beta_1$ : Training only	-.017 (.030)	.0009 (.054)	.004 (.025)	.002 (.026)	.009 (.027)
$\beta_2$ : Grants only	-.070** (.029)	-.158*** (.055)	.054** (.023)	-.010 (.025)	-.006 (.025)
$\beta_3$ : Grants + training	-.037 (.029)	-.084 (.056)	.047** (.023)	.021 (.024)	.019 (.025)
Mean control arm	.59	12.697	.791	.781	.784
Obs.	2839	2838	2939	2700	2453
<b>Panel B: Larger sample with imputed observations</b>					
$\beta_1$ : Training only	-.009 (.029)	.004 (.045)	-.004 (.028)	.012 (.029)	.017 (.029)
$\beta_2$ : Grants only	-.054** (.027)	-.130*** (.047)	.051* (.026)	-.012 (.027)	.011 (.026)
$\beta_3$ : Grants + training	-.024 (.027)	-.069 (.047)	.060** (.026)	.056** (.027)	.057** (.026)
Mean control arm	.493	12.683	.687	.614	.553
Obs.	3363	3362	3363	3363	3363

Notes: The dependent variables include a dummy for the expected wage falling above the median of the distribution, the expected log wage in future, and three binary variables for self-employment preference, perception of challenges in wage employment, and perception of challenges in self-employment. In Panel A, missing observations are excluded; in Panel B, missing variables have values imputed for those who declined to respond. (We impute the median of the salary distribution, and assign the remaining binary variables to be equal to zero.) The independent variables are binary variables for assignment to the training only, grants only, or grants and training treatment arms. All regressions are estimated conditional on baseline covariates (age, gender, marital status, whether or not they had pursued higher education, whether they were employed at baseline, and whether they were resident in an urban area), clustering standard errors at the group level. Asterisks indicate significance at the ten, five and one percent level.