

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

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Abstract

Integrating youth into communities and labor markets is a major challenge for developing countries, and incentives for community service are an increasingly popular tool to achieve this goal. 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, on social capital for a sample of youth aged 18–29. We find little evidence that engaging youth in civic service and training has any positive effects one year post-intervention; there is no shift in attitudinal indices of social capital and no reported increase in volunteering or donations. Moreover, there is no effect of the intervention on secondary outcomes (life skills and human capital), and some evidence of a negative effect of the training-only 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 comprise 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, given that evidence from a range of contexts suggests that young people with low levels of community engagement and/or labor force participation are 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 subsidized community service; a recent 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, and the United States’ AmeriCorps. Proponents of these programs argue that they can lead to increased civic engagement, but the existing evidence is minimal and drawn from observational studies conducted only in rich countries (Frumkin et al., 2009; Spera et al., 2013, 2015).

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. Recent evidence suggests that less than ten percent of Kazakh youth are engaged in solving a community problem through volunteering (Umbetaliyeva et al., 2016), compared to 23 percent in OECD countries (OECD, 2015). The same report reveals that only a quarter of youth consider it important to engage in politics and civil society (Umbetaliyeva et al., 2016).

In this context, the Kazakhstan government developed the Kazakhstan Youth Corps (KYC), seeking to subsidize civic service in order to build social capital for youth 18 to 29. KYC encompassed two interventions: the first 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 a training designed to build social capital and life skills, in which youth attended two week-long training sessions and interacted regularly with trained mentors over a period of six months. Both interventions were primarily focused on building social capital via engagement in community experiences. However, policymakers also hypothesized that the interventions could enhance life skills (primarily via project experience) and thus potentially lead to downstream effects on labor market outcomes. While there is very limited evidence for these channels in the existing economics literature, these speculative theories of change often inform policy, and are therefore useful to rigorously investigate. Moreover, it is also possible that the causal

effect on labor market outcomes would be in the opposite direction of that postulated by policymakers; the program could have unintended negative labor market effects by diverting participants' time away from employment search or labor market activity.

We conducted a randomized controlled trial as part of the pilot phase of the program (2017–2018), testing the independent and combined effects of the two interventions—grants and training / mentorship—on social capital and other outcomes of interest using a two-by-two factorial design. The baseline sample included 3,783 youth, 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: 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 and successful execution of the proposed service projects. Over 91% of participants who were randomized to an experimental arm that included a grant did in fact complete their proposed project. More than 90% of them accurately reported the amount of funds received (1,000,000 tenge), and 95% of funds received were utilized, as verified by the disbursing agency. The mean reported duration of a grant project was 5.3 months (consistent with the target length of six months), and respondents reported spending an average of four days a week on the project during this period (i.e., nearly equivalent to full-time employment). The average number of beneficiaries served per project was 150. In addition, 88% 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 social capital as well as secondary outcomes (life skills, labor market outcomes, human capital, and economic welfare).¹ Most importantly, we find little evidence that either intervention provided as part of the KYC program had an effect on measured social capital one year later. Despite the successful engagement in civic service, we find no lasting effects on any of our pre-specified measures of social capital, including membership in community organizations, contribution to public goods, interpersonal trust, attitudes around social inclusion and toward vul-

¹In the pre-analysis plan, life skills, social capital and labor market outcomes are pre-specified as primary, while the other outcomes of interest are designated as secondary.

nerable groups, civic engagement, and political participation. In addition, there was no increase in the probability that youth reported volunteering or donating to any voluntary cause. However, we observe outcomes only 12 months following the conclusion of program activities, and thus note that there may be meaningful effects on a longer time horizon.

Moving beyond social capital, we also find little evidence of any effects on other ancillary outcomes. There is generally no evidence of effects on life skills, while labor market engagement, days worked, hours worked and income were all lower in the three treatment arms relative to the control (though the coefficients are only statistically significant for the training-only arm). These results primarily reflect the fact that treated youth are between three and six percentage points less likely to report participating in any economic activity, relative to the control arm mean of 70%. At the same time, there are weak positive effects on human capital, and no significant effects on economic welfare.

Our findings 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 social capital, non-cognitive skills, and labor market outcomes for participants (Innovations in Civic Participation, 2010; Spera et al., 2013).² 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.³ 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.

Our results also contribute to the literature on effects of non-cognitive skills training and mentoring, though as will be noted in more detail later in the paper, the training provided as part of this program was somewhat distinct in its emphasis on community service. 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. In this literature, Blattman

²For 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).)

³The 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.

et al. (2017) finds that cognitive behavioral therapy targeting non-cognitive preferences substantially reduced participation in crime and violence among at-risk Liberian youth. Similarly, Ashraf et al. (2020) presents evidence that an intervention targeting negotiating skills among adolescent girls in Zambia significantly enhanced human capital outcomes over a three-year horizon, and Edmonds et al. (2020) 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 increases productivity 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 KYC life skills training had any positive effects on measured outcomes, despite the fact there are a number of similarities between this program and other, successful interventions (described in more detail in Section 5).

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; again, it is important to note that this intervention is unique in that it provides cash grants for civic service, and the existing literature does not speak directly to the effects of subsidized 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. 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. Youth in Kazakhstan also face significant challenges, demonstrating high rates of disconnectedness from social institutions and high prevalence of risky behaviors. 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, 2015), 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, 2017).

With respect to economic outcomes, 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 (Alimkhanova, 2018). Nonetheless, the percentage of youth who are NEET (not in education, employment or training) has been growing since 2012. 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 significant barriers to achieving employment (Alimkhanova, 2018).

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. The pilot phase of the program was implemented by the Coordinating Agency (CA), a consortium of non-governmental agencies engaged in youth development, 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 1.⁴

The 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

⁴These 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).

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 social capital and enhance social engagement by fostering ties between participating youth and their community, as well as strengthen life skills.⁵

The second intervention was a training and mentorship program designed to develop social capital 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 “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).

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. In total, around 82 contact hours were provided, and Section A in the Appendix provides a detailed overview of the curriculum and topics included and the target competencies. 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. 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 this theory as envisioned by the program organizers, and then discuss other potential mechanisms.

The program’s theory of change envisioned, as a first step, an effect of both interventions on pro-social behaviors and community-oriented attitudes. The causal channel here for the grant intervention is fairly direct: compensating youth for engagement in a community service project was hypothesized to have a persistent positive effect on their level of community engagement as well as their pro-social attitudes. For the training and mentorship intervention, similar skills and attitudes were targeted through a more

⁵More specifically, the initial project document stated that benefits from the intervention would include 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)” as well as an “increase [in] both the skills and the life satisfaction of young people,” as well as (World Bank, 2014).

explicitly didactic framework in the classroom.

The second, more speculative step linked the interventions to enhanced youth life skills, broadly defined to include a range of psycho-social abilities. The third step, also speculative, hypothesized that the positive effect on enhanced life skills would lead to improved labor market outcomes, assuming there were positive returns to these skills in the labor market. While there is only weak evidence for the latter two steps in this causal chain in the economics literature, at least in developing countries, it is a common theory of change employed by policymakers. As previously noted, while the definition of life skills is broad, the interventions were particularly focused on skills that were hypothesized to be relevant to the labor market, including but not limited to initiative, creativity, teamwork, self-esteem or knowledge of strengths, aspirations and future planning.⁶ Further details about how life skills are defined will be provided in Section 3.2.

In addition to this hypothesized causal channel, there is a plausible alternate mechanism that is more consistent with adverse effects on labor market outcomes: namely, the diversion of individuals' time, energy or preferences away from the labor market. 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, as long as they officially resided in the pilot region and had been resident there over the preceding six months. Note that

⁶There is some evidence from developed countries that 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).

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 (ρ 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.⁷

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

⁷Since 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.

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 migration, and 4% declined consent. An extensive discussion of patterns of attrition across arms and analysis of potential bias is provided in Section 4.3.

3.2 Outcomes of interest

This evaluation seeks to analyze the effects of cash grants and supplementary training on the primary outcome – social capital – as well as life skills, labor market outcomes, human capital and economic welfare.⁸ Social capital is measured employing seven indices: organizational membership, contribution to collective action, interpersonal trust, attitudes around social inclusion, attitudes toward vulnerable groups, civic engagement, and political participation.⁹ These indices were designed to capture attributes of pro-social behavior and community engagement that the interventions were intended to foster. We also report two related indicators that were not pre-specified: a binary variable equal to one if the respondent reports any volunteer work, and a binary variable equal to one if the respondent reports making any donations.

The second 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. These indices were chosen to broadly correspond to the key competencies identified as targets for the training intervention. We also analyze two indices for secondary life skills: an index of risky and anti-social behavior and an index of self-control. More details about the definition of life skills and the relationship between these measures of life skills and labor market outcomes is provided in Section B in the Appendix.

The third 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. We also report three additional labor market variables that were not pre-specified: a binary variable capturing engagement in any income-generating activity,

⁸The 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). In the PAP, life skills, social capital and labor market outcomes are specified as primary, while the other outcomes of interest are designated as secondary.

⁹In the pre-analysis plan, the variable capturing political participation was 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.

and binary variable capturing engagement in wage labor and self-employment.

For human capital, we analyze the respondent’s reported years of education, 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 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.¹⁰

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.

¹⁰Consumption 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).

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.¹¹ 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, as verified by the disbursing agency.¹² 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. The mean reported duration of a grant project was 5.3 months (consistent with the target length of six months), and respondents reported spending an average of four days a week on the project during this period (i.e., nearly equivalent to full-time employment).

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 training sessions at the initiation and conclusion of the program.¹³ 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.¹⁴

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

¹¹Fifty three projects were canceled due to non-compliance in reporting or implementation of planned activities.

¹²Note 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).

¹³Administrative data suggests 77% average attendance at mentorship sessions, and 90% average attendance at training.

¹⁴The administrative data reports significantly lower attendance, however, as those not receiving cash grants were not subject to the same level of monitoring.

reported that the skills and experiences gained were very useful, while only 48% in the training-only treatment arm felt the same.

We can draw on several other sources of data in order to more fully characterize intervention implementation: administrative data on project beneficiaries, surveys of mentors, and surveys of local leaders. Within the sample of 589 implemented projects, 523 participated in administrative data collection that recorded the number of beneficiaries directly served by their project. The mean number of beneficiaries was around 150, with some variation; 12% of projects reported serving more than 200 direct beneficiaries.

Surveys were also conducted with mentors. The vast majority (72%) of the 148 mentors engaged were male, with an average age of 41. 93% reported that they were employed prior to serving as a mentor, and unsurprisingly more than half of the employed mentors were working in the educational sector. Among mentors, 7% had secondary education, 34% had a bachelor's degree, and 60% had a graduate degree, and the average monthly salary was about 80,000 KZT, or nearly double the average monthly income reported in the follow-up survey among youth. In general, this evidence suggests 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.

In addition, a separate survey was conducted with community and local government leaders who had no direct involvement in the program and received no compensation. Some of these leaders were from communities in which projects were implemented, and some were from communities in which participating youth resided (but without any active projects). Within the sample of leaders identifying KYC projects in their community, they reported generally positive perceptions of the program. Two thirds of leaders reported that most or all projects were completed (of the remainder, 20% stated they had no knowledge of completion). 90% reported that the project had at least some community impact, and 40% reported the impact was substantial; similar patterns were observed in questions probing about the impacts for certain target populations including youth, vulnerable children, the elderly, and the disabled. These patterns are again consistent with the hypothesis that the grant-funded projects were implemented with fidelity and generally well-received in the participating communities.

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 χ_{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 (social capital, life skills and labor market outcomes) and three coefficients of interest for each family.

Tables 2 reports the effects of the interventions on social capital. There is little evidence of any effect on the pre-specified social capital indices, reported in Columns (1) through (7), though there is some weak evidence of positive effects (on organizational membership, contribution to collective action, and political participation) for the interventions including grants. The average standard treatment effects are, however, small in magnitude and uniformly insignificant. Columns (8) and (9) report two additional behavioral variables that were not pre-specified, capturing whether the youth reports engaging in any volunteering activity (separate from the KYC program) or donations to any charity over the previous year; there is no evidence of any effect on these outcomes. In general, we cannot conclude that the interventions enhanced pro-social behaviors or attitudes approximately one year later.

For other outcomes of interest, the results presented in Table 3 again suggest there is no evidence that the interventions had any significant effect on life skills.¹⁵ The self-esteem / locus of control index is weakly lower in all three treatment arms relative to the control arm (a decline of 1 to 2 percentage points on a mean of .9), but the average standard treatment effect is significant only for the training only arm, and is not statistically significant when adjusted for multiple hypothesis testing.¹⁶

For labor market outcomes as reported in Table 4, there is more robust evidence of

¹⁵This table jointly reports all pre-specified life skills variables, including those designated as primary and those designated as secondary.

¹⁶The 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.

adverse effects. The first three columns 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), 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. The average standard treatment effect is reported for the pre-specified outcomes only (Columns (1) through (3)), and shows a coefficient of .1 standard deviations that is negative and significant for the training-only arm. (When examining the q-values adjusted for multiple hypothesis testing, none of the average standard treatment effects are statistically significant.)

Finally, Tables 5 and 6 report the results for human capital and economic welfare. The coefficients for the estimated effects on human capital 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; however, these results should be interpreted cautiously given that they are substantially driven by shifts in a self-reported measure of skills.

For economic welfare, the estimated treatment effects are generally noisy and not statistically significant, though there is some evidence of an increase in the assets index reported in Column (2) of Table 6.¹⁷ Table A3 in the Appendix 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 housing-related investments, presumably reflecting 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.

Pre-specified analyses of heterogeneous effects of the intervention with respect to gender, urban status, and age are reported in Section C in the Appendix.

¹⁷The results for consumption are also consistent if log consumption is employed as the dependent variable, or if the simple consumption sum is employed, without trimming outliers.

4.3 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 7. In general, the estimated coefficients on the interaction terms β_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 A16 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 A17 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 A14 through A15 in the Appendix. For social capital and life skills, 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 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 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 that dissipated within a year, it seems plausible to conclude that effects that do not persist for a year are of limited interest from a policy-making perspective.

It is also possible that some positive effects materialized more than 12 months after the end of the grant intervention and were therefore not captured by our follow-up survey. Such a long lag between intervention and effect appears most plausible for labor-market effects – for instance, some previous studies have found that labor market effects of vocational training programs increase several years after the program (Lechner et al., 2011; Kaplan et al., 2015; Huber et al., 2018). However, there is little evidence for a similar lagged effect of interventions that target social capital, pro-social behavior or

non-cognitive outcomes (Calero and Rozo, 2016; Groh et al., 2016; Blattman et al., 2017).

In order to situate our intervention in the literature, it may be useful to elaborate on the characteristics of both the grants and the training in comparison to other evaluated programs. The transfers provided an average of \$780 per youth 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 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), in Liberia by Blattman et al. (2017), or in Kenya by Haushofer and Shapiro (2018), corresponding to between 15% and 60% of per capita GDP.¹⁸ The fact that the cash transfer is not large in proportional terms is consistent with the observed weak pattern of effects.

The training provided through KYC also has some 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).¹⁹ 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 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, 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 programs analyzed in the literature.²⁰

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 could reflect two channels. The first is a time allocation channel: given the emphasis of the KYC program on build-

¹⁸In 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.

¹⁹The 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.

²⁰This 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).

ing 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. However, this channel has already been largely ruled out given the absence of any experimental effect on self-reported volunteerism.²¹ The second 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.²²

To test this second channel, we employ data from a series of questions in the end-line survey 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. 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

²¹Unfortunately, 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 there is no evidence on the probability of search or education, conditional on non-employment.

²²It 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.

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 forgo opportunities in the labor market. 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.²³

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 social capital, and may have had negative effects on labor market engagement. Accordingly, we conclude that directly subsidizing youth community service — a popular public policy tool designed to build social cohesion — may in fact not be effective in enhancing pro-social attitudes or behaviors.

²³There 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.

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



Figure 2: Evaluation design

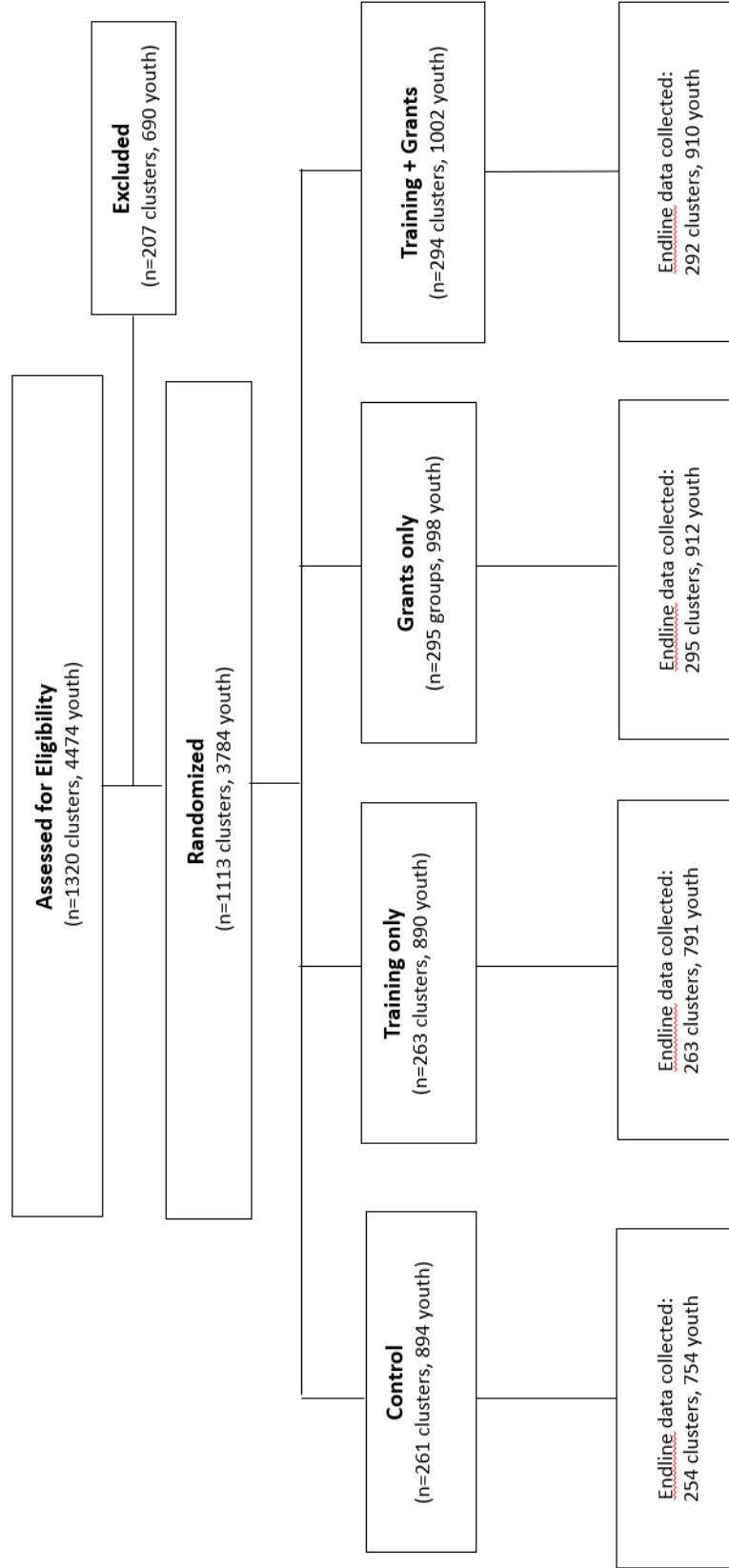


Figure 3: Kazakhstan Youth Corps impact evaluation timeline

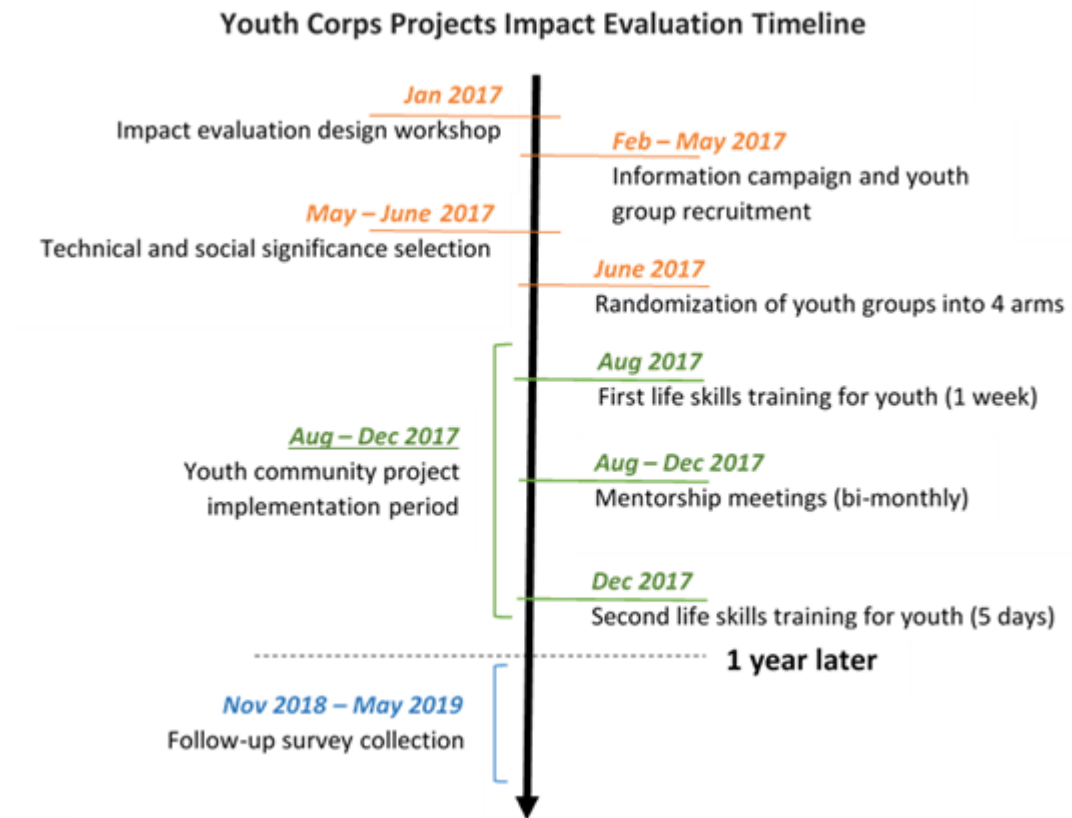


Table 1: Balance on baseline covariates

	Age (1)	Male (2)	Married (3)	Higher educ. (4)	Employed (5)	Urban (6)
Full sample						
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					
Non-attrited sample						
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: Social capital

	Org. membership index (1)	Cont. to col action index (2)	Inter-personal trust index (3)	Social inclusion index (4)	Attitudes vulnerable groups index (5)	Civic engagement index (6)	Political part. index (7)	Donated (8)	Volunteered (9)
β_1 : Training only	.019 (.015)	.027 (.017)	.002 (.009)	-.006 (.005)	-.003 (.003)	-.027* (.014)	.007 (.005)	.027 (.025)	.012 (.020)
β_2 : Grants only	.014 (.014)	.025* (.015)	.003 (.009)	-.001 (.005)	-.0001 (.003)	-.019 (.014)	.009** (.005)	.031 (.024)	.013 (.019)
β_3 : Grants + training	.024* (.014)	.013 (.015)	.004 (.009)	-.003 (.005)	-.005 (.003)	.0001 (.013)	.001 (.004)	.014 (.024)	.005 (.018)
Mean control arm	.128	.206	.922	.972	.990	.735	.131	.284	.128
St. dev. control arm	.250	.275	.175	.092	.060	.227	.082	.451	.334
Obs.	3363	3312	3326	3339	3292	3170	3343		
ASTE: β_1	.004 (.029)	[1.000]							
ASTE: β_2	.026 (.028)	[1.000]							
ASTE: β_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 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. Two binary variables for behavior are also reported: a binary variable for reporting any volunteering in the last year, and a binary variable for reporting any 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. We also report the average standard estimated effect (ASTE) across Columns (1) through (7), estimated by aggregating these outcomes 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 three primary outcome families (social capital, life skills and labor market outcomes) are reported in brackets. Asterisks indicate significance at the ten, five and one percent level.

Table 3: 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)	Risky / anti-social behavior index (6)	Self- control index (7)
β_1 : Training only	-.017** (.008)	-.106 (.115)	-.021 (.016)	-.006 (.012)	-.006 (.008)	.0008 (.002)	.011 (.015)
β_2 : Grants only	-.016** (.007)	.146 (.105)	-.002 (.015)	-.008 (.011)	-.008 (.007)	-.001 (.002)	.002 (.014)
β_3 : Grants + training	-.012* (.007)	-.014 (.104)	.003 (.015)	-.006 (.011)	.0006 (.007)	.001 (.002)	.016 (.014)
Mean control arm	.937	5.629	.796	.835	.942	.006	.352
St. dev. control arm	.121	1.777	.261	.22	.127	.035	.243
Obs.	3321	3251	3334	3333	3301	3337	3341
ASTE: β_1	-.048** (.024)	[.768]					
ASTE: β_2 :	-.016 (.021)	[1.000]					
ASTE: β_3	-.013 (.021)	[1.000]					

Notes: The dependent variables include seven 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; an index capturing the respondent's propensity to work in groups; an index of risky and anti-social behavior; and an index of self-control. 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 three primary outcome families (social capital, life skills and labor market outcomes) are reported in brackets. Asterisks indicate significance at the ten, five and one percent level.

Table 4: Labor market outcomes

	Hours worked	Days worked	Total income	Any econ. activity	Any wage	Any self- emp.
	(1)	(2)	(3)	(4)	(5)	(6)
β_1 : Training only	-3.087*** (1.164)	-1.662*** (.600)	-6285.974* (3433.271)	-.063*** (.024)	-.066*** (.025)	.004 (.016)
β_2 : Grants only	-1.512 (1.112)	-.984* (.545)	-3691.647 (3135.497)	-.030 (.022)	-.018 (.024)	-.002 (.016)
β_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: β_1	-.131*** (.049)	[.254]				
ASTE: β_2	-.073 (.045)	[.589]				
ASTE: β_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 three primary outcome families (social capital, life skills and labor market outcomes) are reported in brackets. Asterisks indicate significance at the ten, five and one percent level.

Table 5: Human capital

	Education level (1)	Received training (2)	Skills to use (3)
β_1 : Training only	.096* (.050)	.013 (.018)	-.012 (.033)
β_2 : Grants only	.066 (.044)	.021 (.018)	.049 (.031)
β_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: β_1	.044 (.038)		
ASTE: β_2	.083** (.035)		
ASTE: β_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 6: Economic welfare

	Consumption	Assets index	Self-reported poverty ranking
	(1)	(2)	(3)
β_1 : Training only	147.267 (3300.180)	.054** (.027)	-.052 (.050)
β_2 : Grants only	67.737 (3126.275)	.032 (.025)	.0002 (.048)
β_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: β_1 : Training only	.023 (.043)		
ASTE: β_2 : Grants only	.026 (.040)		
ASTE: β_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 7: Attrition

	Age	Male	Married	Higher educ.	Employed	Urban
	(1)	(2)	(3)	(4)	(5)	(6)
Attrition by treatment arm						
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
Attrition with respect to pooled treatment arm						
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

A 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 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. Specific target skills for the training are enumerated below.

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.

B Definition of life skills

The variables linked to life skills analyzed in this evaluation encompass a range of different concepts. 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). In recent papers, these outcomes have been 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).

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.

Focusing specifically on the measures of life skills we evaluate, the existing literature provides some evidence about the relationship between these life skills and labor market outcomes, though in many cases this evidence is correlational. Self-esteem has been shown to be predictive of labor market outcomes in China (Glewwe et al., 2017) and Chile (Gallego et 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 related to measures of social skills and extraversion, linked to economic outcomes in Acevedo et al. (2020) and Adhvaryu et al. (2018).

We can also explore the question of the association between life skills and labor market

outcomes in our sample, acknowledging that only correlational evidence can be presented, as this project was not designed to estimate the returns to non-cognitive skills. We regress 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, and report these regressions in Table A18.

The results suggest 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 may be 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.

C 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 A5 through A8 in the Appendix present the results. There is, in general, no clear pattern of heterogeneity for life skills (presented in Appendix Table A5) 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 A6, 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 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.²⁴

The results for heterogeneous effects for secondary outcomes are presented in Appendix Table A8. 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.

²⁴We further probe heterogeneity in labor market outcomes for urban and rural youth in each of the three treatment arms in Table A7. 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.

The results are reported in Tables A10 through A12 in the Appendix. In general, there is relatively little evidence of any systematic heterogeneity in experimental effects by age. Appendix Table A12 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.

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: Variables constituting asset index

	Major assets (1)	Livestock (2)	Electronic goods (3)	Owns house (4)	Housing-related investments (5)
β_1 : Training only	.050 (.052)	.064 (.047)	.108 (.136)	-.0007 (.025)	.061* (.034)
β_2 : Grant only	.012 (.049)	.031 (.042)	.014 (.132)	.018 (.022)	.046 (.033)
β_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 A4: Heterogeneous effects (gender and urban status): Social capital

	Org. membership index (1)	Cont. to col action index (2)	Inter- personal trust index (3)	Social inclusion index (4)	Attitudes vulnerable groups index (5)	Civic engagement index (6)	Political part. index (7)	Donated (8)	Volunteered (9)
Urban men (N=591)	.028 (.027)	.007 (.021)	-.016 (.011)	-.012* (.007)	-.007 (.005)	-.004 (.019)	.010* (.006)	-.018 (.036)	-.002 (.024)
Urban women (N=735)	.017 (.026)	.014 (.021)	.008 (.013)	.002 (.008)	.001 (.005)	-.023 (.018)	-.001 (.005)	.038 (.032)	.001 (.025)
Rural men (N=483)	.062** (.031)	.049** (.024)	.007 (.014)	-.002 (.007)	-.004 (.004)	-.020 (.021)	.010 (.008)	.039 (.038)	.039 (.031)
Rural women (N=802)	.045 (.028)	.025 (.023)	.021 (.016)	-.001 (.008)	-.002 (.005)	-.013 (.021)	.007 (.008)	.051 (.037)	.009 (.031)
Mean control arm	.128	.206	.922	.972	.990	.735	.131	.284	.128
Obs.	2684	3312	3326	3339	3292	3170	3343	3275	3289

Notes: The dependent variables include indices as described in the notes to Table 2. 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): 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)	Risky / anti-social behavior index (6)	Self- control index (7)
Urban men (N=591)	-0.010 (.009)	.037 (.140)	-0.015 (.019)	-0.020 (.015)	-.020** (.010)	-.0006 (.004)	.008 (.018)
Urban women (N=735)	-0.015 (.010)	.050 (.156)	-0.001 (.021)	-.007 (.015)	-.004 (.009)	-.002 (.002)	.008 (.021)
Rural men (N=483)	-.009 (.013)	-.046 (.163)	-.013 (.025)	-.006 (.019)	.010 (.011)	.002 (.002)	.006 (.021)
Rural women (N=802)	-.030** (.012)	-.015 (.157)	.007 (.026)	.016 (.018)	.002 (.012)	.003 (.002)	.019 (.022)
Mean control arm	.937	5.629	.796	.835	.942	.006	.352
Obs.	3321	3251	3334	3333	3301	3337	3341

Notes: The dependent variables include seven indices as described in the notes to Table 3. 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 (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 are described in the notes to Table 4. 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 A7: 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: β_1	-.060 (.066)					
ASTE: β_2 :	-.178 (.068)***					
ASTE: β_3 :	-.021 (.065)					
ASTE: β_4 :	-.107 (.058)*					
ASTE: β_5 :	-.075 (.064)					
ASTE: β_6 :	-.086 (.062)					

Notes: Notes: The dependent variables are described in the notes to Table 4. 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 A8: Heterogeneous effects (gender and urban status): Secondary outcomes

	(1)	(2)	(3)
Panel A: Human capital			
Education	Received training	Skills to use	
Urban men (N=591)	.044 (.063)	.015 (.025)	.007 (.042)
Urban women (N=735)	-.004 (.061)	.027 (.024)	.040 (.043)
Rural men (N=483)	.124* (.073)	-.002 (.025)	.029 (.049)
Rural women (N=802)	.086 (.070)	.036 (.029)	.110** (.051)
Mean control arm	4.732	.118	.601
Obs.	3349	3255	2694
Panel B: Economic welfare			
	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 are described in the notes to Table 5 and Table 6. 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 A9: Heterogeneous effects (age): Social capital

	Org. membership index (1)	Cont. to col action index (2)	Inter- personal trust index (3)	Social inclusion index (4)	Attitudes vulnerable groups index (5)	Civic engagement index (6)	Political part. index (7)	Donated (8)	Volunteered (9)
Treatment	.038* (.020)	.029* (.016)	-.0009 (.009)	-.006 (.004)	-.007** (.003)	-.0009 (.014)	.005 (.005)	.045* (.026)	.014 (.019)
Treatment x Age 18-22 (N=1404)	-.007 (.029)	-.019 (.025)	.009 (.015)	.006 (.008)	.010* (.006)	-.034* (.020)	.002 (.007)	-.053 (.039)	-.008 (.029)
Mean control arm	.128	.206	.922	.972	.990	.735	.131	.284	.128
Obs.	2684	3312	3326	3339	3292	3170	3343	3275	3289

Notes: The dependent variables are described in the notes to Table 2. 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): 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)	Risky / anti-social behavior index (6)	Self- control index (7)
Treatment x Age 18-22 (N=1404)	-0.025 (.007)	-0.012 (.109)	-0.004 (.016)	-0.004 (.012)	.0007 (.007)	.017 (.002)	(.015)
	-0.002 (.010)	.095 (.157)	.014 (.024)	-0.007 (.019)	-0.001 (.011)	-0.001 (.003)	-0.019 (.021)
Mean control arm	.937	5.629	.796	.835	.942	.006	.352
Obs.	3321	3251	3334	3333	3301	3337	3341

Notes: The dependent variables are described in the notes to Table 3. 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): 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 are described in the notes to Table 4. 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 A12: Heterogeneous effects (age): Secondary outcomes

	(1)	(2)	(3)
Panel A: Human capital			
	Education level	Received training	Skills to use
Treatment	.114** (.048)	.018 (.019)	.085** (.033)
Treatment x age 18-22 (N=1404)	-.145** (.070)	.003 (.029)	-.114** (.048)
Mean control arm	4.732	.118	.601
Obs.	3349	3255	2694
Panel B: Economic welfare			
	Consumption	Self ranking	Assets index
Treatment	-1110.331 (3338.977)	-.068 (.053)	.024 (.024)
Treatment x Age 18-22 (N=1404)	5684.459 (4921.375)	.104 (.074)	.052 (.040)
Mean control arm	80159.996	.236	3.742
Obs.	3363	3271	3363

Notes: The dependent variables are described in the notes to Tables 5 and 6. 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 A13: Lee bounds: Social capital

	Org. membership index (1)	Cont. to col action index (2)	Inter- personal trust index (3)	Social inclusion index (4)	Attitudes vulnerable groups index (5)	Civic engagement index (6)	Political part. index (7)	Donated (8)	Volunteered (9)
Lower: β_1	-.007 (.012)	-.009 (.015)	-.001 (.009)	-.008 (.006)	-.004 (.003)	-.041*** (.014)	-.008** (.004)	-.007 (.025)	-.029 (.018)
Upper: β_1	.029** (.013)	.037** (.017)	.026*** (.008)	.010** (.004)	.010*** (.002)	.003 (.013)	.011** (.005)	.042* (.025)	.018 (.020)
Lower: β_2	-.022* (.011)	-.025* (.014)	-.003 (.009)	-.004 (.005)	-.0009 (.003)	-.040*** (.014)	-.012*** (.004)	-.020 (.024)	-.052*** (.016)
Upper: β_2	.030** (.013)	.042*** (.015)	.037*** (.008)	.020*** (.004)	.011*** (.002)	.021* (.013)	.014*** (.005)	.054** (.025)	.023 (.019)
Lower: β_3	-.014 (.012)	-.033** (.013)	-.002 (.009)	-.005 (.005)	-.006* (.003)	-.018 (.013)	-.016*** (.004)	-.036 (.023)	-.055*** (.016)
Upper: β_3	.038*** (.013)	.027* (.015)	.036*** (.008)	.016*** (.004)	.011*** (.002)	.035*** (.012)	.006 (.004)	.034 (.024)	.014 (.019)
Mean control arm	.128	.206	.922	.972	.990	.735	.131		
Obs.: Lower bound	3603	3153	3167	3180	3135	3018	3184	3118	3132
Obs.: Upper bound	3605	3157	3170	3183	3138	3021	3187	3121	3135

Notes: The dependent variables are described in the notes to Table 2. 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: 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)	Risky / anti-social behavior index (6)	Self- control index (7)
β_1 : Lower bound	-.021** (.008)	-.315*** (.109)	-.032** (.016)	-.014 (.012)	-.009 (.008)	-.006*** (.001)	-.012 (.015)
β_1 : Upper bound	.007 (.006)	.086 (.107)	.013 (.015)	.019* (.011)	.017*** (.006)	.001 (.002)	.028* (.015)
β_2 : Lower bound	-.022*** (.007)	-.148 (.098)	-.018 (.015)	-.021* (.011)	-.013* (.007)	-.006*** (.001)	-.032** (.013)
β_2 : Upper bound	.011* (.006)	.390*** (.103)	.047*** (.013)	.032*** (.010)	.018*** (.006)	-.0009 (.002)	.028** (.014)
β_3 : Lower bound	-.018** (.007)	-.261*** (.098)	-.012 (.015)	-.018 (.012)	-.003 (.007)	-.006*** (.001)	-.013 (.013)
β_3 : Upper bound	.013** (.006)	.215** (.100)	.048*** (.014)	.032*** (.010)	.026*** (.006)	.002 (.002)	.041*** (.014)
Mean control arm	.937	5.629	.796	.835	.942	.006	.352
Obs.: Lower bound	3162	3096	3175	3174	3143	3178	3183
Obs.: Upper bound	.937	5.629	.796	.835	.942	.006	.352

Notes: The dependent variables are described in the notes to Table ???. 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: 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)
β_1 : Lower bound	-5.282*** (1.120)	-2.448*** (.596)	-14608.990*** (3063.365)	-.080*** (.025)	-.056** (.025)	-.034*** (.013)
β_1 : Upper bound	-1.977* (1.177)	-1.068* (.611)	-3941.148 (3465.178)	-.034 (.024)	-.013 (.025)	.013 (.015)
β_2 : Lower bound	-4.759*** (1.030)	-2.120*** (.545)	-13172.810*** (2855.147)	-.053** (.023)	-.008 (.024)	-.060*** (.011)
β_2 : Upper bound	.229 (1.122)	-.099 (.560)	-329.726 (3193.132)	.015 (.023)	.058** (.024)	.016 (.015)
β_3 : Lower bound	-3.960*** (1.074)	-1.766*** (.584)	-15852.870*** (2901.938)	-.054** (.024)	-.034 (.025)	-.031** (.013)
β_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 are described in the notes to Table 4. 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 A16: Attrition by region

	Attrition	Almaty	Karaganda	Pavlodar	South Kazakhstan
	(1)	(2)	(3)	(4)	(5)
β_1 : Training only	-.044** (.020)	-.025 (.029)	.006 (.062)	.014 (.017)	-.188*** (.056)
β_2 : Grants only	-.073*** (.018)	-.033 (.027)	-.106* (.055)	.008 (.015)	-.247*** (.054)
β_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 A17: Average standardized treatment effects: Restricted sample

	Life skills	Social capital	Labor market
	(1)	(2)	(3)
ASTE: β_1	.005 (.029)	-.022 (.027)	-.112* (.064)
ASTE: β_2	.032 (.029)	-.006 (.022)	-.058 (.058)
ASTE: β_3	-.012 (.03)	.011 (.024)	-.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 A18: 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 3 and ???. 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 A19: Aspirations

	High expected wage (1)	Log expected wage (2)	Prefer self emp. (3)	Challenges emp. (4)	Challenges business (5)
Panel A: Restricted sample					
β_1 : Training only	-.017 (.030)	.0009 (.054)	.004 (.025)	.002 (.026)	.009 (.027)
β_2 : Grants only	-.070** (.029)	-.158*** (.055)	.054** (.023)	-.010 (.025)	-.006 (.025)
β_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
Panel B: Larger sample with imputed observations					
β_1 : Training only	-.009 (.029)	.004 (.045)	-.004 (.028)	.012 (.029)	.017 (.029)
β_2 : Grants only	-.054** (.027)	-.130*** (.047)	.051* (.026)	-.012 (.027)	.011 (.026)
β_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.