

# **The Short-Term Impact of Inter-Community Volunteering Activities and Soft Skills**

## **Training on Self-Reported Social Cohesion Values:**

Quasi-Experimental Evidence from Lebanon

Jumana Alaref (World Bank)

Rene Leon Solano (World Bank)

Carlos Asenjo (United Nations Organization on Drugs and Crime)

Marwan Alawiye (Ministry of Social Affairs, Lebanon)

Marwa El-Kik (Ministry of Social Affairs, Lebanon)

*Keywords:* social cohesion, civic engagement, employment, employability, volunteering, soft skills, impact evaluation, Lebanon

*JEL classification:* quantitative methods, econometrics, experiment, data collection

## INTRODUCTION

Volunteerism has been examined in research in broader terms as part of civic engagement and falls within the existing literature on social capital, with the latter defined as a structure of relations between actors, connections, and networks among individuals and organizations (Coleman, 1988; Kapucu, 2008; Kapucu, 2011). Putnam (2000) emphasizes the importance of trust and reciprocity within networks and between individuals as one of the possible ways to enhance social capital in terms of collaboration and engagement. Uslaner and Brown (2005) argue that community participation is often influenced by citizens' perceptions of equality and trust in others. Those involved in associational activities are more likely to become civic participants when they hold trusting attitudes towards others. Such activities are also reported to have positive effects on the participating individual in terms of better physical and mental health, longer life, and reduced anti-social behavior (Wilson and Musick, 2000; Kwak, Shah, and Holbert, 2004).

The evidence of positive effects of volunteering, as one form of civic engagement, on enhancing civic values and social cohesion remains rather limited and tentative in developing countries. The notion that volunteering may affect positively youth's sense of social cohesion has gained policy relevance since the publication of the *World Development Report 2013: On Jobs*, which stresses that in countries affected by conflict situations, creating the types of productive opportunities that strengthen social cohesion can help reduce the volatility of economic growth and achieve international development goals by defusing tensions and building trust among the different communities involved.

This paper provides novel empirical evidence on the impact of volunteering on enhancing social cohesion values in Lebanon, a country with a fragile and highly complex political, religious and social landscape, as well as high degrees of social and economic exclusion among its young population. To our knowledge, this is the first impact evaluation that rigorously addresses this research question in Lebanon and in the Middle East and North Africa (MENA) region. The main results show that youth who were selected to participate in a volunteering program that consisted of 80 hours of inter-community volunteering activities and 20 hours of soft skills training were more likely to report higher and improved values of social cohesion in the short term. In specific, they were more likely to report higher tolerance values as well as a stronger sense of belonging to

the Lebanese community. The results show that the selection to the program had no impacts on improving volunteers' soft skills that were thought to further contribute to social cohesion, implying that the mechanism for improved social cohesion values most likely came from the program's innovative feature that required 20 percent of selected youth to come from communities outside where the project is implemented. Finally, the selection into the program had no impact on other secondary measures, namely employability and employment outcomes.

The remainder of the paper is organized as follows: Section 1 provides context and an overview of the intervention. Section 2 provides a description of study timeline and data. Section 3 details the empirical identification strategy. Section 4 provides the main results of the intervention on social cohesion values as well as employment outcomes. Section 5 presents results on other outcomes, namely attitudes towards volunteering. Section 6 concludes.

## SECTION 1: CONTEXT & INTERVENTION

Lebanon's political development system since Independence has been heavily influenced by its confessional system. While originally established to balance the competing interests of Lebanon's diverse religious communities, it is seen as an impediment to inclusive growth and effective governance (World Bank, 2016), and has been closely tied to the economic and social inclusion challenges facing Lebanese youth today.

The confessional system of governance has heavily impeded the equitable and efficient distribution of investments and public services. Provision and targeting of public services tend to be guided by considerations of confessional quotas and electoral geography rather than needs-based service delivery that favors the poor. In the absence of effective state institutions, sectarian organizations have played a key role in the provision of social services such as education, health, and welfare support to the most vulnerable groups linked to their electorates, thus deepening a sense of discriminatory and inequitable system (World Bank, 2016; Kraft et al., 2008). Regional disparities are stark, with the bulk of the poor living in peripheral areas (particularly the North and the South), with visible inequality in access to and quality of social services. According to the 2012 Institutional Profiles report, the quality of public services and its territorial coverage, which was weak to being with, have significantly deteriorated since 2006.<sup>1</sup>

A combination of rising poverty, rising insecurity, and deteriorating public services have further strained inter-communal relations and contributed to deteriorations in social cohesion. Many Lebanese youth do not trust their state and become disillusioned as they are not able to affect their own life or contribute productively to society at large.<sup>2</sup> Political and civic engagement is reported to be low (Status of Women in the Middle East and North Africa Survey Project, 2010).<sup>3</sup> In an already fragile context with a highly complex political, religious and social landscape consisting of 18 religious sects, numerous political parties, and large numbers of refugees, many Lebanese

---

<sup>1</sup> On the quality of public services indicator, Lebanon's score declined from 2.5 in 2006 to 0.8 in 2012 on a 4-point scale. On the territorial coverage indicator, its score went down from 2.7 in 2006 to 1.5 in 2012.

<sup>2</sup>In a Gallup World Poll, Lebanese reported low confidence in (a) their national government (37 percent) and the judiciary, (b) the honesty of elections (15 percent), and (c) the honesty of government (4 percent) (World Bank, 2016).

<sup>3</sup> According to the SWMENA survey, only 18 percent of Lebanese women are members of an organization, compared to 34 percent of men. Men are more likely to be members of a political organization than women (21 percent of men vs. 7 percent of women), whereas women are more likely to be active in religious groups and charity organizations than men.

youth today remain unexposed to other parts of their country before they enter the world of education or work.

The confessional system and the inequalities it breeds have also played a key role in perpetuating inequality of economic opportunity among youth, placing further strains on social cohesion. Youth in areas where services and infrastructure are inadequate are more likely to have limited access to economic opportunities and improvements in quality of life. Evidence indicates that area of residence and parents' education at birth<sup>4</sup> largely contribute to youth exclusion and limit their socio-economic mobility (World Bank, 2016). The poor quality of public school education generates large inequality of opportunity among youth with regards to human capital accumulation and obtaining high-quality jobs. Additionally, for many young Lebanese, finding job opportunities is more a function of confessional policy and 'wasta' (connections) rather than meritocracy.<sup>5</sup>

Youth economic exclusion is manifested in worsening labor market outcomes. In 2010, youth (15-24) unemployment reached 34 percent, and the percentage of youth not in education, employment, or training (NEET) reached 21 percent in 2007. These poor labor market outcomes have likely worsened as a result of the sluggish economic growth of the past few years, which can be partly explained by the impact of the Syrian conflict on Lebanon's economy. Challenges around skill mismatch exacerbate exclusion, as many young Lebanese lack the skills and competencies demanded by private sector employers, particularly 'soft skills'.

To address some of these challenges, the Lebanese government (GOL) identified volunteerism as a mechanism to enable diverse youth to work together for improved community assets and service delivery as well as increased employability. In September 2012, the GOL issued a Decree (Number 8924/2012) that created a new extra curriculum program that requires secondary school students to complete 60 hours of civil work. In addition, the Ministry of Social Affairs (MOSA), through its Volunteering Department, launched annual action plans for the implementation of youth volunteer summer camps across Lebanon.

---

<sup>4</sup> Father's education and residence (region and location of school) are the two largest contributors to inequality of opportunity in students' math test scores, accounting for 44 and 23 percent of total inequality, respectively (World Bank, 2016).

<sup>5</sup> According to the 2013 Gallup Poll, 90 percent of respondents in Lebanon agreed with the statement that knowing people in high positions is critical to getting a job.

Against this backdrop and as part of the GOL efforts to promote volunteerism in Lebanon, the World Bank, through a US\$2 million grant from the State and Peace Building Fund, supported the MOSA to conceive the National Volunteer Service Program (NVSP). The NVSP, launched in 2013 for a period of 3 years, sought to promote social cohesion among Lebanese youth aged 15-24 through the financing of volunteering activities and the provision of soft skills.<sup>6</sup> The benefits of volunteering as a promising pathway to social integration for youth are well documented in the literature. Besides the intrinsic rewards obtained from the act of helping others, studies show that volunteering has positive effects on the individuals who volunteer in terms of better physical and mental health, longer life, reduced anti-social behavior, and increased civic participation and social trust (Wilson and Musick, 2000; Perry and Katula, 2001; Laurence and Heath, 2008; UN Volunteers, 2011).

The project's theory of change relied on the idea that volunteering has the potential to defuse social tensions by bringing youth from communities other than their own together to work around shared goals and to find solutions to the most pressing problems affecting their communities. One of the most innovative features of NVSP is that at least 20 percent of youth who participate in an NVSP-financed project must come from communities outside where the project is implemented. Volunteering outside one's own community is considered a best practice by development psychologists who claim that a change in context is a prerequisite for improved trust, respect, and cooperation among people from different backgrounds. On the other hand, the provision of soft skills is thought to further contribute to social cohesion by fostering among participating youth qualities such as teamwork, leadership, communication, and conflict resolution skills.

A secondary objective of the NVSP was to enhance the employability of participating youth, by strengthening their soft skills as well as by providing them hands-on experience through volunteerism, which they can add to their resumes to signal to employers that they have become more employable. However, rigorous evidence on the impact of volunteering on employability and successful youth transition to jobs in developing countries is scarce. There is some evidence in developed countries (Powel and Bratovic, 2007; Spera et al, 2013; Paine, McKay and Moro,

---

<sup>6</sup> NVSP created a 20-hour soft-skills training curriculum tailored specifically for Lebanon, which is available online through the program's portal, and which enables all interested youth to improve their conflict-management, life and career planning, business, and entrepreneurship skills.

2013), but it focuses on case studies describing programs and their outcomes (Graham and Perold, 2013) rather than causally measuring their impacts.

The NVSP launched its volunteering activities through the Small Grants Program (SPG) in 2015. After a Call for Proposals (CfP), 38 different proposals were received. 22 proposals were selected for financing, which benefited 1,293 youths (of which 54% females and 46% males) across five different regions in the country (North, Mt. Lebanon, Beirut, Bekaa, and South). Thirty-eight percent of these volunteers came from communities outside the ones where projects were implemented.<sup>7</sup>

All projects selected for funding received a \$30,000 grant, which was used to buy project materials and provide incentives (transportation and meals) as well as soft-skills training to participating volunteers. On average, selected projects lasted about 3 months, and participating youths were required to complete 20 hours of employability/soft skills training and 80 hours of volunteering. Financed projects included: launching of communication campaigns to raise awareness on the needs of people with special needs; implementation of recreational activities for the benefit of children; renovating and rehabilitating public places, such as libraries and handicapped friendly spaces; delivering trainings on topics such as fire management & prevention techniques, environmental practices such as solid waste management & recycling, and the importance of beach and marine life; donating and distributing winter clothes for children in need in the Bekaa region; carrying out blood donation campaigns; and coordinating the participation of disabled individuals in the Beirut marathon.

With regards to the soft-skills training delivered, the NVSP partnered with the International Youth Foundation (IYF) to develop and deliver a 30h soft skills training to participating youth. The delivery of the soft skills training relied on a series of Training of Trainers (ToT) sessions for staff from MOSA and participating NGOs, to enable them to then deliver the soft skills training to youth during the implementation of volunteering activities. IYF used its world renowned “Passport to Success” (PTS) curriculum, which focuses on a core group of widely endorsed life skills, such

---

<sup>7</sup> The NVSP implemented a second CfP in spring 2016 targeting public schools and universities. Eleven projects were selected for financing. This impact evaluation report focuses only on the first CfP.

as self-confidence, responsibility, and respect. Additionally, the curriculum includes workplace readiness skills, such as interviewing and time management.

## SECTION 2: STUDY TIMELINE & DATA

A quasi experimental impact evaluation design was embedded into the NVSP. As mentioned before, the NVSP received 38 applications from eligible NGOs. Per well-developed selection criteria,<sup>8</sup> the highest 22 ranked proposals were selected to receive funding. Each of the 38 proposals included a list of 50 youth (the minimum number of youth set by the NVSP) who would benefit from the project if selected for funding. However, as mentioned before, the 22 selected projects benefited a total of 1,296 youth, exceeding the set target of 1,100 volunteers.

Of the 50 volunteers included in each of the 38 proposals, 22 youth per proposal were randomly selected to participate in the impact evaluation study. Therefore, the initial sample size of the study comprised a total of 825 youth: 473 youth who served as the treatment group (representing the 22 selected NGOs that received NVSP funding) and 352 youth who served as the comparison group (representing the 16 non-selected NGOs). However, two NGOs refused to participate in the study once informed that their proposals had not been selected for funding. Therefore, the final sample size consisted of 759 youth, of which 473 treatment and 286 comparison.

Detailed baseline data were collected through face-to-face interviews from July to September 2015 prior to implementation. The actual implementation varied between projects and ranged between the second half of August and end of December 2015. Sampled youth from both selected and non-selected NGOs were invited to fill out a questionnaire with detailed information on volunteers' socio-economic backgrounds, education levels, interests and attitudes towards volunteering, employment, soft skills, as well as social cohesion values.

Follow-up data were collected between November 2016 and March 2017, approximately one year following the start of implementation, through phone and face-to-face interviews. The questionnaire contained the same modules asked and collected at baseline. Despite the high

---

<sup>8</sup> Proposals were ranked based on four main selection criteria: institutional appraisal (25 points), technical appraisal (40 points), project impact (25 points), and financial appraisal (10 points). There was also a fifth criterion related to sustainability of volunteering activities, which was assigned a bonus score (5 points).

mobility of sampled volunteers, thorough tracking procedures led to relatively low non-response rates at follow-up: 88 percent of the 759 youth were tracked and completed the follow-up survey.

### SECTION 3: EMPIRICAL IDENTIFICATION STRATEGY

Identification of program impacts relies on a difference-in-difference (DiD) estimation, where outcomes are observed for the treatment and comparison groups for two time periods: at baseline, prior to the launching of the selected projects, and at follow up, one year following the implementation of the selected projects.

The DiD estimator compares the changes in outcomes over time between selected and non-selected youth. The **first difference** is the difference in before-and-after outcomes for selected youth to control for factors that are constant over time in that group. **The second difference** is the difference in before-and-after change in outcomes for non-selected youth who did not enroll in the program, but were exposed to the same set of environmental conditions. Subtracting both differences averages out any constant (time-invariant) observable & unobservable differences between both groups to attribute the impact estimate to program participation.

The report focuses on intent-to-treat (ITT) estimates, measuring the impact of offering volunteering opportunities and soft skills training independently of actual take-up.<sup>9</sup> We estimate the following individual-level intent-to-treat regression:

$$Y_{it} = \alpha + \mu_n + \beta T_t + \gamma D_i + \delta (T * D)_{it} + \varepsilon_{it} \quad (1)$$

where  $Y_{it}$  is the outcome of interest for respondent  $i$  in period  $t$ ,  $T_t$  is a post-treatment year binary variable,  $D_i$  is a binary variable for being assigned to the treatment, and  $\mu_n$  is a fixed effect for NGOs.  $\alpha$  represents the baseline average for the outcome of interest for non-selected youth.  $\beta$  is the difference in after-and- before intervention in outcomes for non-selected youth.  $\beta + \delta$  is the difference in after-and- before intervention in outcomes for selected youth.  $\gamma$  is the difference in

---

<sup>9</sup> Due to some procurement delays that caused a big time-lag between baseline data collection and actual NGO project implementation, many of the volunteers who belonged to selected NGOs and who were randomly selected to participate in the impact evaluation study dropped out after their baseline data were collected and were replaced by other volunteers. Project monitoring data reveal that 23 percent of volunteers assigned to treatment did not actually end up participating in the NVSP. Given the relatively high number of non-compliance, we are unable to perform Local Average Treatment Effects (LATE) analyses to understand the impact of participating in NVSP on outcomes of interest.

outcomes between selected and non-selected youth at baseline.  $\delta$  is the DiD estimator.  $\varepsilon_{it}$  is a mean-zero error term. Standard errors are robust and allow for intra-cluster correlation at the NGO level.<sup>10</sup>

The DiD estimator can be derived from the above regression as follows:

$$E(Y_{i1}|D_i = 1) = \alpha + \mu_n + \beta \cdot 1 + \gamma \cdot 1 + \delta(1 \cdot 1) + E(\varepsilon_{i1}|D_i = 1) = \alpha + \mu_n + \beta + \gamma + \delta$$

$$E(Y_{i0}|D_i = 1) = \alpha + \mu_n + \beta \cdot 0 + \gamma \cdot 1 + \delta(0 \cdot 1) + E(\varepsilon_{i0}|D_i = 1) = \alpha + \mu_n + \gamma$$

$$E(Y_{i1}|D_i = 0) = \alpha + \mu_n + \beta \cdot 1 + \gamma \cdot 0 + \delta(1 \cdot 0) + E(\varepsilon_{i1}|D_i = 0) = \alpha + \mu_n + \beta$$

$$E(Y_{i0}|D_i = 0) = \alpha + \mu_n + \beta \cdot 0 + \gamma \cdot 0 + \delta(0 \cdot 0) + E(\varepsilon_{i0}|D_i = 0) = \alpha + \mu_n$$

Hence, the DiD estimate is  $(E(Y_{i1}|D_i = 1) - E(Y_{i0}|D_i = 1)) - (E(Y_{i1}|D_i = 0) - E(Y_{i0}|D_i = 0)) = (\beta + \delta) - \beta = \delta$ .

The DiD estimator relies on the “Equal Trend Assumption” that does not require both selected and non-selected youth to be on average balanced at baseline on key observable & unobservable characteristics. **Table 1** shows that both groups differ on some key characteristics. Non-selected youth are more likely to be older, more educated (hold more academic degrees), come from Beqaa and Nabatiye, and have parents with intermediate education (grade 7 to 9). Selected youth are more likely to be males, younger, students, come from Mount Lebanon and the North, and have mothers with university education. Both groups appear balanced on key outcomes related to soft skills, tolerance values, and labor market outcomes. The exception is that non-selected youth exhibited a better sense of belonging to the Lebanese community and selected youth were more likely to have been unpaid employees (interns) at the time of baseline data collection.

In addition to comparing means of observable characteristics, the study also tested for the differences in the statistical distributions of key outcomes using two sample Kolmogorov-Smirnov tests of the equality of distributions. Results indicate that the only key outcome for which there is a statistically significant difference in its distribution between the treatment and comparison groups at baseline is the sense of belonging to the Lebanese community. The largest difference between the distribution functions in the direction that the comparison group contains larger values

---

<sup>10</sup> Standard errors are clustered at the NGO level because that was the unit of allocation into treatment and comparison groups. Abadie et al. 2017 argue that clustering is generally needed even if NGO fixed effects are included in the regression.

than the treatment for this key outcome is 0.1043. The approximate p-value for this small difference is 0.021.

What the DiD estimator requires, however, is that both selected and non-selected youth are subject to the same time trends and that differencing removes any confounding factors. The study was not able to obtain pre-intervention data from previous years on both groups to check for this assumption. The implication of this is that if there are other factors that affect the difference in trends over time between the two groups, then the estimation will be biased. This may be particularly the case due to time varying non-response (attrition), which means that even if one is to assume that the “Equal Trend Assumption” holds on the original full sample for the previous years prior to the implementation of the NVSP program, non-random attrition at follow-up biases this assumption.

In this regard, attrition was not balanced between both groups with the comparison group more likely to drop out of the sample at follow-up than treatment.<sup>11</sup> It appears that there are few statistical differences between the treatment and comparison groups with regards to some key characteristics of volunteers who were more likely to drop out in each group. **Table 2** presents estimates of a probit model with an indicator on attrition as the dependent variable. This variable is regressed on an interaction for being assigned to treatment dummy and covariates of characteristics and key outcomes at baseline, per the following equation:

$$Y_i = \alpha D_i + \beta X_i * D_i + \varepsilon_i \quad (2)$$

$Y_i$  captures the estimated probability of attrition and  $X_i$  represents the covariate at baseline. This equation is estimated separately for several covariates: gender, education, region, previous experience with volunteering, previous experience with various trainings (soft & technical skills), mother’s & father’s education, employment & student status at baseline, and being offered a paid job.  $\alpha$  captures the probability of attrition estimates for the covariate dummy when  $D_i=0$  and  $\beta$  is the difference in estimated probabilities of attrition for the covariate dummy between the treatment and comparison groups.

---

<sup>11</sup> Regressing attrition on treatment status yielded a coefficient of (-) 0.03 with a standard error of 0.01 (P-value=0.011, N=1,427).

Results in table 2 indicate, for instance, that males from the treatment group were not more likely to drop out when compared to males from the comparison group. The only statistically significant results are found on three variables (two of which do not vary by time): being a student at baseline, region, and father’s education. Those youth who were studying at baseline were more likely to drop out among selected NGOs than among non-selected NGOs. On the other hand, volunteers from the Mount Lebanon region were more likely to drop out in the comparison group than in the treatment group. The opposite result holds for the North region, where volunteers there were more likely to drop out from the pool of selected NGOs. Finally, volunteers whose father holds a secondary degree were more likely to drop out among the selected NGOs.

Evidence of some asymmetric selective attrition by treatment status biases the OLS estimates. Given the concern of a correlation between entity’s error term (in this case, volunteers in our sample) and the predictor variable (in this case, the treatment variable), individual fixed effects (FE) are utilized. FE remove the effect of individual-specific time-invariant characteristics so as the net effect of the predictor variable on outcome variables can be assessed, per the following equation:

$$Y_{it} = \alpha + \mu_n + \beta T_t + \gamma D_i + \delta (T * D)_{it} + \theta_2 E_2 + \dots + \theta_n E_n + \varepsilon_{it} \quad (3)$$

where  $E_n$  is entity n (i.e. the individual volunteer). Since they are binary (dummies), there are n-1 included in the model (i.e. 758 individual volunteers).  $\theta_2$  is the coefficient for the binary regressors (the 758 volunteers).

Additionally, we propose dealing with attrition in two ways. First, we utilize the standard “Manski Bounds” approach (Horowitz and Manski, 2000) by imputing upper and lower bound estimates for missing data on estimated outcomes of interest at follow-up, where lower bound estimates take the lowest possible value and upper bound estimates take the highest possible value for individuals who could not be tracked over time. This allows us to provide the two extreme possible scenarios for estimated impacts had data been successfully collected for attritors. Second, we use the Inverse Probability Weighting (IPW) procedure to establish narrower bounds that might provide a better sense of whether there is a robust treatment effect. This entails first estimating a probit model that predicts the probability of data being observed (i.e. not attrition) using a set of covariates at

baseline that were found to be uncorrelated with the treatment in Table 1.<sup>12</sup> Observations are then weighted by the inverse of their probability of having data observed. Therefore, those who had a small chance of being observed are given increased weight, to compensate for those similar observations who are missing. The pseudo R-squared from the probit model suggests that those baseline covariates explain about 8 percent of the probability of data being observed. A Wald test confirmed that those variables are jointly statistically different from zero (the P-value is 0.000). However, this still leaves a large percentage of attrition (around 92 percent) unexplained.<sup>13</sup> Therefore, we note that the results in the following section should be interpreted with caution.

We present results in the next section for four specifications. Specification 1 presents OLS estimates from equation 1. Specification 2 presents results that control for individual fixed effects from equation 3. Specification 3 presents OLS estimates for the full sample by imputing missing observations for attritors at follow-up using lower and upper bound estimates. Specification 4 presents OLS estimates with the estimated constructed weights.

## SECTION 4: MAIN RESULTS

Based on the outlined theory of change, this section presents the main results with regards to three research questions:

- i) Does assignment to inter-community volunteering activities enhance the social cohesion values of selected youth? Specifically, are selected youth more tolerant to differences? Do they have a greater sense of belonging to the Lebanese community?
- ii) Does assignment to NVSP-supported projects increase selected youth's soft skills? More specifically, compared to the youth who were not selected to benefit from NVSP support,

---

<sup>12</sup> In specific, the set of baseline covariates are: spoke more than one language, lived for at least one year outside the district they lived in at the time of the baseline survey, education level of intermediate certification, education level of completed vocational or complementary education studies, previous volunteering experience, previous technical/professional training, previous soft skills training, previous volunteering training, coming from Beirut, coming from South Lebanon, mother's highest education as elementary, mother's highest education as secondary, father's highest education as elementary, father's highest education as secondary, father's highest education as university, unemployed, inactive, self-employed, wage employed, offered a paid job in the month before the baseline survey, leadership skills score, communication score, confidence score, and tolerance of other opinions' score.

<sup>13</sup> Many research studies have identified the quality of the interview or enumerator quality as strongly associated with attrition (Thomas et al. 2012). Unfortunately, our study did not collect such information and we acknowledge that it is an area of improvement for future work.

do selected volunteers increase their teamwork/leadership and their communication skills? Do they increase their self-esteem/self-satisfaction?

iii) As a result of their assignment to NVSP volunteering experience, are selected youth more likely to find a job than non-selected ones?

#### (a) IMPACTS ON SOCIAL COHESION VALUES

The two main indicators that measure improvements in social cohesion values are tolerance and a sense of belonging to the Lebanese community. Measuring social cohesion values in large-scale surveys is challenging. We are unable to use extensive measures, but rely instead on brief measures adapted from Harb (2010). The tolerance measure relies on a series of 12 questions, each of which is ranked on a four-point scale, which makes the total possible score range between 12 and 48 points. The sense of belonging to the Lebanese community measure consists of 18 questions, each of which is ranked on a seven-point scale, which makes the total possible score range between 18 and 126. Thus, higher scale values indicate higher tolerance values and a stronger sense of belonging to the Lebanese community. Both values are internally standardized so that they have a mean of 0 and a standard deviation (S.D.) of 1 in the comparison group at baseline. Therefore, all coefficients can be interpreted in terms of standard deviations from the average ‘level’ in the comparison group at baseline. Both measures have been piloted ahead of data collection to test their validity and reliability.

The main findings on impact on social cohesion values are reported in **table 3**. Results from specifications 1 and 2 indicate that offering inter-community volunteering opportunities to Lebanese youth is statistically significantly associated with a 0.3 – 0.4 S.D. increase in perceptions of belonging to the Lebanese community (see the  $\delta$  estimate for column 2). The impact holds and is robust across both specifications.<sup>14</sup> The positive impact is explained by the worsening of those perceptions one year later for non-selected youth (by almost 0.8 S.D.) at a much higher magnitude than for selected youth (by 0.4 S.D.) (see the  $\beta$  estimate and the  $\beta + \delta$  estimate for column 2). This is interesting given that at baseline, non-selected youth had a stronger sense of belonging than

---

<sup>14</sup> Fixed effects estimates do not vary that much from OLS estimates (specifications 1 and 2), as the number of observable characteristics in Table 2 for which there are statistical differences between the treatment and comparison groups in terms of probability of dropping out of the sample is limited to three. The rest of baseline covariates, while some have large magnitudes, are found to be statistically not significant.

selected youth (by 0.2 S.D., see table 1). The worsening of results for both groups could be explained by the broader country environment, including the continued deterioration of the Lebanese economy, poor service delivery, as well as strong perceptions of limited governance and accountability, all of which can contribute to alienating Lebanese youth and their sense of identity with the state. Assignment to the NVSP program, through inter-community civic engagement opportunities, appears to have mitigated those negative perceptions in a statistically significant manner, albeit by a small margin as selected youth's perceptions also got worse over time.

**Table 3** also illustrates that offering NVSP opportunities to Lebanese youth is statistically significantly associated with a 0.2 S.D. increase in tolerance values for specifications 1 & 2 (see the  $\delta$  estimate for column 1). The positive impact is driven by the fact that tolerance values appear to have gotten worse over time for non-selected youth (by 0.3 S.D.), while they remained the same for selected youth without witnessing further improvements (see the  $\beta$  estimate and the  $\beta + \delta$  estimate for column 1). A big share of volunteers from both groups come from the North (22 percent) and Beqaa (17 percent) – the two regions with the highest number of Syrian refugees and thus experiencing increased social tensions– which might explain the result. Assignment to NVSP, however, does appear to have buffered selected youth from witnessing deteriorations in their tolerance values in an already fragile context.

Results from specification 3 show that the impact on both measures holds for the lower bound estimates but not for the upper bound estimate (see the  $\delta$  estimate). As previously mentioned, non-selected youth who were tracked exhibited worse values over time, which then drove the positive impact in specifications 1 & 2. Since the comparison group was more likely to drop out from the sample at follow-up, it is not surprising to see the impact disappear when imputing missing data with upper bound values.

Results from specification 4 report that the impact on both measures after weighting the observations by the inverse probability of being observed at follow-up hold and the coefficients do not vary much from what was estimated in specifications 1 & 2. This could be due to the limitations of the baseline covariates that we used in predicting attrition, as discussed earlier.

## (b) IMPACTS ON SOFT SKILLS

Improvements in soft skills are measured through three brief indicators taken from the literature and that were seen during discussions with government counterparts as the most aligned with the project's theory of change. The first indicator is leadership/teamwork, which was constructed by adapting the American Camp Association (2012) youth survey.<sup>15</sup> It consists of 16 different questions that can be ranked on a five-point scale. The scale's maximum value is 80 and its minimum value is 16. The second indicator is communication skills, constructed based on Barkman and Machtmes (2002),<sup>16</sup> and which assesses youth's ability to communicate well by examining how frequent youth use the skills included in effective communication practices.<sup>17</sup> The indicator consists of 23 questions that can each be ranked from 0 to 5, which makes the total possible score range from a maximum value of 92 to a minimum value of 0. The third indicator is confidence skills, which is adapted from Rosenberg's (1965) self-esteem measure.<sup>18</sup> The indicator consists of 10 questions that can each be ranked on a four-point scale, which makes the total possible score range from a maximum value of 40 to a minimum value of 10. Similar to social cohesion measures, soft skills indicators are internally standardized. They have also been piloted ahead of data collection to test their validity and reliability.

Results in **table 4** indicate that assignment to NVSP has no impact on the three indicators for soft skills among selected youth for specifications 1 & 2 (see the  $\delta$  estimate for columns 1, 2, & 3). The leadership skills measure appears to have worsened for both selected and non-selected youth over time, which is somewhat puzzling given that both groups are active volunteers and members in their communities (see the  $\beta + \delta$  estimate and the  $\beta$  estimate for column 1). Any changes for the communication and confidence scores one year following NVSP were not statistically

---

<sup>15</sup> The selection of the indicator for this study was based on its extensive utilization (to maximize the chance for the scale to be reliable when calculating Cronbach's Alpha with the data of the pilot), on the availability of detailed information regarding how the indicator was designed, and of how the scales should be interpreted once data have been collected.

<sup>16</sup> This scale had been tested with youth aged 12-18 showing high levels of internal consistency. Additionally, it was a relatively simple scale with no need for special training to administer it or to analyze the results of the scale.

<sup>17</sup> These skills include: awareness of one's own styles of communication; understanding and valuing different styles of communication; practicing empathy; adjusting one's own styles of communication to match others' styles. (communicative adaptability); and communication of essential information; Interaction management.

<sup>18</sup> This scale has been used extensively in the psycho-social / soft skills literature, ensuring possible comparability with other studies of the soft skills literature.

significant for both selected and non-selected youth (see the  $\beta + \delta$  estimate and the  $\beta$  estimate for columns 2 & 3).

Lack of results also holds for specification 3, where imputing missing data with upper and lower bound estimates to account for the potential bias introduced by attrition did not alter the lack of impact of the program, as well as for specification 4 (see the  $\delta$  estimate).

**Figures 1, 2, and 3** plot the distribution of soft skills scores at baseline for both selected and non-selected youth. The figures indicate that scores across the three skills are concentrated towards the end of the scale, suggesting that soft skills training offered by NVSP might have been ineffective or too basic for this pool of volunteers.<sup>19</sup> Indeed, as **table 1** shows, a high percentage of selected youth (71 percent) and non-selected youth (63 percent) had taken previous training in soft skills prior to NVSP. Results from a process evaluation conducted separately support this explanation. The majority of NVSP volunteers in focus group discussions and interviews mentioned that they would have welcomed more advanced trainings on soft skills, as well as on technical topics and job-relevant skills that can support their employability. These may include skills on how to write a CV, prepare for job interviews, business and entrepreneurial skills to start a business, etc.

In this regard, the mechanism for improving social cohesion values appears to have come from inter-community volunteering activities, rather than improvements in soft skills.

### (c) IMPACTS ON LABOR MARKET OUTCOMES

While the NVSP was designed primarily to improve social cohesion values among participating Lebanese youth, it was also hoped that engaging them in volunteering activities, coupled with soft skills training, would enhance their employability and thus increase their chances of employment.

At baseline, half of the selected and non-selected volunteers were active and searching for a job. Among them, 49 percent reported being unemployed, 31 percent wage employed, 13 percent employed in unpaid jobs, and 7 percent self-employed (see **table 1**). Those active volunteers were older in age than the rest of volunteers who reported being inactive in the study's sample (with an average age of 21 and closer to labor market insertion). One year later, it appears that many of

---

<sup>19</sup> Our interpretation that offered soft skills are likely too basic for this pool of volunteers is provided given the scale that we used in the questionnaire to test their knowledge on soft skills. We cannot rule out the possibility that had we used a different scale, we might have found an impact, either negative or positive.

them found jobs. **Table 5** (specifications 1 & 2) shows that both selected and non-selected active youths are statistically significantly less likely to be unemployed and more likely to be wage employed (see the  $\beta + \delta$  estimate and the  $\beta$  estimate for columns 2 & 6). Additionally, selected youth are less likely one year later to be unpaid employees, presumably because they were more successful in obtaining wage employment (see the  $\beta + \delta$  estimate and the  $\beta$  estimate for column 4). Finally, selected and non-selected youth were less likely to be offered a job in the last month (see the  $\beta + \delta$  estimate and the  $\beta$  estimate for column 5), potentially due to many of them having found employment during the same period.

However, it appears that NVSP is not responsible for the increase in employment levels among participating youth, as reported in **table 5** across the two specifications (see the  $\delta$  estimate in columns 2 & 6). In other words, there is no evidence that because of their assignment to the NVSP, selected youth were more likely to improve their employment status in the labor market, when compared to non-selected youth. Additionally, it appears that NVSP had no impact on youth employability, as measured by the probability of being offered a job in the last month and labor market participation rates (see the  $\delta$  estimate for columns 1 & 5).

Lack of results on employability also holds for specification 3, where imputing missing data with upper and lower bound estimates to account for the potential bias introduced by attrition did not alter the observed lack of program impact, as well as for specification 4 (see the  $\delta$  estimate).

The NVSP lack of impact on employability and labor market outcomes is not surprising given that the project's primary objective was to improve social cohesion values. The employability component was very small and consisted of offering soft skills training, which as previously discussed, was not effective in further improving their skills. Increased volunteering opportunities, which was also perceived as an intermediary channel to enhanced employability, appears to be ineffective and unlikely to work in isolation without a comprehensive approach to addressing both demand and supply-side driven youth employability challenges in Lebanon.

While we find no impact that selected youth who have had improvements in their social cohesion values would also be likely to improve their employment outcomes because of their assignment to NVSP, another question worth examining is whether selected youth who were wage employed at

baseline developed higher levels of social cohesion values.<sup>20</sup> This research question examines whether employment can lead to social cohesion and the implications that this would have on designing programs that aim at improving social cohesion. We find no evidence that selected youth employed at baseline were more likely to experience improvements in their social cohesion values when compared to selected youth not employed at baseline.<sup>21</sup>

## SECTION 5: IMPACTS ON OTHER OUTCOMES: ATTITUDES TOWARDS VOLUNTEERING

Both groups of volunteers were active members in their communities, even before their assignment to the NVSP. At baseline, 65 percent of non-selected youth and 61 percent of selected youth had volunteering experience. Additionally, 81 percent of non-selected youth and 83 percent of selected youth had volunteering training. At baseline, both groups exhibited strong attitudes towards volunteering (**figure 4**). Yet, it is still pertinent to assess whether assignment to the NVSP played a role in further strengthening those attitudes and perceptions towards volunteering among selected youth.

**Table 6** presents results on the 10 measures of attitudes and perceptions towards volunteering, which were ranked on a seven-point scale (seven being ‘totally agree’ and one being ‘totally disagree’). Each measure is internally standardized with a mean of 0 and S.D. of 1 for non-selected youth at baseline. Results indicate that for both selected and non-selected youth, perceptions on volunteering got paradoxically worse over time on some of the measures that were ranked very favorably at baseline, namely “volunteering allows those who volunteer to participate in helpful activities”, “volunteering enables those who volunteer to learn how to use their time more effectively”, “volunteering allows those who volunteer to develop skills such as teamwork and leadership”, and “volunteering contributes to improving the self-satisfaction of those who volunteer” (see the  $\beta + \delta$  estimate and the  $\beta$  estimate for columns 3, 4, 5 & 10). Those perceptions

---

<sup>20</sup> This research question was posed by the *World Development Report 2013: On Jobs*.

<sup>21</sup> To examine this question, we estimated the following equation for selected youth only:  $Y_{it} = \alpha + \mu_n + \beta T_i + \gamma E_i + \delta (T * E)_{it} + \varepsilon_{it}$ . The coefficient of interest,  $\delta$ , can be interpreted as:  $(E(Y_{i1}|E_i = 1) - E(Y_{i0}|E_i = 1)) - (E(Y_{i1}|E_i = 0) - E(Y_{i0}|E_i = 0))$ , where  $Y_{i1}$  is the outcome of interest at follow-up,  $Y_{i0}$  is the outcome of interest at baseline, and  $E_i$  is a dummy variable that takes on the value 1 if employed at baseline and 0 if not employed at baseline. In other words, it can be understood as the difference between selected youth employed at baseline and selected youth non-employed at baseline in their differences in outcomes post-pre-assignment for NVSP. The estimated coefficient in specification 4 was -0.11 (0.14) with a P-value of 0.568.

are related somewhat to measures of soft skills and may be consistent with earlier findings on the lack of NVSP impact on improving those skills.

Results for both specifications 1 and 2 show that non-selected youth's perceptions got worse on two more measures, namely "volunteering contributes to the happiness of others" and "volunteering may contribute to increasing understanding across communities" (see the  $\beta$  estimate for columns 1 & 6). Selected youth's perceptions witnessed a decline on one additional measure, namely "volunteering may contribute to improving social cohesion in Lebanon" (see the  $\beta + \delta$  estimate for column 9). Those perceptions may be consistent with earlier findings on the worsening of social cohesion values among both groups over time, but at a much higher magnitude for non-selected youth compared to the selected ones.

In terms of improvements, for both specifications 1 and 2, both groups strengthened their perceptions on the role of volunteering in improving the chances of volunteers to find a job, which scored somewhat less favorably at baseline (see the  $\beta + \delta$  estimate and the  $\beta$  estimate for column 8). Selected youth also witnessed an increase in their perceptions on two more measures, "volunteering contributes to expanding the professional networks of those who volunteer" and "volunteering contributes to increasing the wealth of communities" (see the  $\beta + \delta$  estimate for columns 2 & 7). Improvements in those perceptions may be picking up the effect that both groups are more likely to be employed one year following NVSP implementation, although as previously discussed, NVSP assignment had no impact on employment and employability measures.

In terms of the impact of NVSP assignment on those measures, it appears that selected youth were more likely to strengthen their perceptions towards volunteering compared to non-selected youth on two main measures only: "volunteering contributes to the happiness of others" and "volunteering allows those who volunteer to develop skills such as teamwork and leadership" (see the  $\delta$  estimate for columns 1 & 5). However, the impact no longer holds for specification 3. In short, it appears that NVSP did not have much of an impact on strengthening a broad range of attitudes and perceptions among selected youth at follow-up.

## SECTION 6: CONCLUSION

NVSP showed that a small pilot intervention can help to defuse tensions by bringing diverse youth together around shared goals. In doing so, NVSP may have contributed in a small way to restoring trust and rebuilding the social fabric of Lebanese local communities, which is especially important in fragile and conflict-afflicted states like Lebanon.

The results of the impact evaluation shed light on the importance of implementing and evaluating innovative pilots to inform government policies and scale-up decisions. The results of the NVSP impact evaluation have contributed to inform youth inclusion policies in Lebanon. For example, the 2018 National Youth Policy of the Ministry of Youth and Sports included two pillars dedicated solely to the promotion of volunteerism and of youth participation in social cohesion programs in the country. On the other hand, MOSA is in the process of institutionalizing the NVSP within the Ministry. Specifically, the MOSA has started to develop tools, processes and procedures, as well as to enhance the capacity of its staff and that of implementing partners to effectively and efficiently manage volunteering activities at the central and local levels. In addition, the MOSA is planning on scaling-up volunteering community projects, as well as on linking volunteerism with social entrepreneurship to enhance the sustainability and increase the impact of volunteerism on social cohesion and service delivery.

The positive results of the NVSP on social cohesion are encouraging for the ongoing NVSP pilot benefiting both Lebanese and Syrian refugee youth. The influx of 1.5 million Syrian refugees in Lebanon has had significant social consequences in the country, which coupled with the already fragile social fabric, is threatening the country's social peace. In 2017, the MOSA decided to leverage NVSP and launch a second pilot to address the fragile inter-communal relations and social tensions between Lebanese citizens and Syrian refugees living in the selected host communities. Specifically, this second NVSP pilot is enabling Lebanese youth to volunteer together with Syrian refugees for improved social stability and social service delivery in targeted host communities. It is hoped that this second pilot yields similar results as the first one in terms of improved social stability throughout Lebanon.

The lack of results on improving employability and employment outcomes among youth highlights the need for a comprehensive approach to addressing both demand and supply-side driven youth employability challenges in Lebanon. A review of the evidence from fragile and conflict-affected contexts seems to suggest that skills training and microfinance have shown little impact, whereas capital-centric programs -- cash, capital goods, or livestock -- seem to work in stimulating self-employment and raising long-term earning potential (Blattman and Ralston). Integrating some of those interventions proven to work in fragile settings into the NVSP framework may be one possible next step. However, strengthening the NVSP's link to better labor market outcomes requires first understanding the multiple barriers facing youth in the labor market and for policy makers to pilot small-scale pilots before launching large programs.

Finally, it is hoped that the positive results of the NVSP can influence the decision of other MENA countries facing similar social challenges to adopt volunteerism for improving social cohesion. Many MENA countries are facing increasing social tensions as a result of different economic and political shocks. Volunteerism is certainly not a panacea, but it is a mechanism that, in the short-term, could alleviate social tensions and, in the medium to long-term, serve as the basis for youth citizenship development. Developing responsible citizens, especially among youth, is vital for the social, political, and economic development of MENA countries and beyond.

## REFERENCES

- Abadie, Alberto, Athey, Susan, Imbens, Guido, and Wooldridge, Jeffrey (2017). When Should You Adjust Standard Errors for Clustering. Accessible at: <https://arxiv.org/pdf/1710.02926.pdf>
- ACA (2012). Youth Outcomes Surveys for Administration in Camps and Other Youth Settings.
- Barkman, Susan and Machtmes, Krisanna (2002). Youth Life Skills Evaluation Project at Penn State / CYFAR Life Skills Project at Texas A&M University.
- Blattman, Chris and Ralston, Laura (2015). Generating Employment in Poor and Fragile States: Evidence from Labor Market and Entrepreneurship Programs. Available at SSRN: <https://ssrn.com/abstract=2622220> or <http://dx.doi.org/10.2139/ssrn.2622220>
- Coleman, James S. (1988). Social Capital in the Creation of Human Capital. Supplement, American Journal of Sociology 94: 95–120.
- Graham, Lauren A. and Perold, Helene (2013). National Youth Service, Employability, Entrepreneurship and Sustainable Livelihoods: Promising Practices from Sub-Saharan Africa. Johannesburg, South Africa.
- Harb, Charles (2010). Describing the Lebanese Youth: A National and Psycho-Social Survey. American University of Beirut.
- Horowitz, Joel L., and Manski, Charles F. (2000). Nonparametric analysis of randomized experiments with missing covariate and outcome data. Journal of the American statistical Association 95(449): 77-84.
- Kapucu, Naim (2008). Network Analysis in Nonprofit Management. Political Science and Public Administration Journal (AUSBF) 63(2): 65-89.
- Kapucu, Naim (2011). Social Capital and Civic Engagement. International Journal of Social Inquiry 4 (1): 23-43.
- Kraft, Martin, Al-Mazri, Muzna, Wimmen, Heiko, and Zupan, Natascha. (2008). Walking the Line: Strategic Approaches to Peacebuilding in Lebanon. Working Group on Development and Peace (FriEnt), Bonn.
- Laurence, James and Heath, Anthony (2008). Predictors of Community Cohesion: Multi-level Modelling of the 2005 Citizenship Survey. Department for Communities and Local Government. London, UK.
- Paine, Angela Ellis, McKay, Stephen, and Moro, Domenico (2013). Does volunteering improve employability? Evidence from the British Household Panel Survey, Third Sector Research Centre. Birmingham, UK.
- Perry, James L. and Katula, Michael C. (2001). Does service affect citizenship? Administration & Society 33 (3).
- Powell, Steve and Bratović, Esad (2007). The Impact of Long-Term Youth Voluntary Service in Europe: A Review of Published and Unpublished Research Studies. Association of Voluntary Service Organisations. Brussels.
- Putnum, Robert (2000). Bowling Alone: The Collapse and Revival of American Community. New York: Simon & Schuster.

Presentation of the Institutional Profiles Database 2012 (IPD 2012). (2013). Available at: <https://www.tresor.economie.gouv.fr/Ressources/File/390142>

Rosenberg, Morris (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.

Spera, Christopher, Ghertner, Robin, Nerino, Anthony, and DiTommaso, Adrienne (2013). *Volunteering as a Pathway to Employment: Does Volunteering Increase Odds of Finding a Job for the Out of Work?* Corporation for National and Community Service, Office of Research and Evaluation. Washington, DC, US.

The International Foundation for Electoral Systems (IFES) and The Institute for Women's Policy Research (IWPR). (2010). *The Status of Women in the Middle East and North Africa (SWMENA) Project*. Available at: [http://www.ifes.org/sites/default/files/20100218\\_lebanon\\_civic\\_political\\_participation\\_0.pdf](http://www.ifes.org/sites/default/files/20100218_lebanon_civic_political_participation_0.pdf)

Thomas, Duncan, Witoelar, Firman, Frankenberg, Elizabeth, Sikoki, Bondan, Strauss, John, Sumantri, Cecep, and Suriastini, Wayan (2012). *Cutting the costs of attrition: Results from the Indonesia Family Life Survey*. *Journal of Development Economics* 98(1): 108-123.

UN Volunteers (2011). *Youth Volunteering, Social Integration and Decent Work: Inspiring Leadership*. Discussion paper prepared for the 48<sup>th</sup> Session of the Commission for Social Development. United Nations. New York.

Uslaner, Eric and Brown, Mitchell (2005). *Inequality, Trust, and Civic Engagement*. *American Politics Research* 33 (6): 868-894.

Wilson, John and Musick, Marc (2000). *The Effects of Volunteering on the Volunteer*. *Law and Contemporary Problems* 62 (4).

World Bank (2013). *World Development Report: Jobs*. Washington, DC: World Bank. Accessible at: [https://siteresources.worldbank.org/EXTNWDR2013/Resources/8258024-1320950747192/8260293-1322665883147/WDR\\_2013\\_Report.pdf](https://siteresources.worldbank.org/EXTNWDR2013/Resources/8258024-1320950747192/8260293-1322665883147/WDR_2013_Report.pdf)

World Bank (2016). *Lebanon: Promoting Poverty Reduction and Shared Prosperity*. Systematic Country Diagnostic. Washington, DC: World Bank. Accessible at : <http://documents.worldbank.org/curated/en/951911467995104328/pdf/103201-REPLACEMENT-PUBLIC-Lebanon-SCD-Le-Borgne-and-Jacobs-2016.pdf>

## TABLES

**Table 1. Characteristics at baseline (full sample including attritors)**

	Mean Comparison	Mean Treatment	Mean Difference
Male	0.42	0.5	0.08**
Speaks more than one language	0.9	0.86	(-)0.04
Has children	0.01	0.002	(-)0.01*
Lived (for at least 1 year) anywhere else than the district where they presently live	0.15	0.11	(-)0.04
Age	20	19	(-)1.05***
Education: Intermediate Certification Lebanese Brevet (end of grade 9).	0.98	0.98	0.005
Education: Lebanese General Secondary Certificate (end of General Secondary school)	0.6	0.52	(-)0.08**
Education: Baccalaureat Technique (end of Technical Secondary school)	0.07	0.04	(-)0.03**
Education: University 3-5 year level diploma (BA, BS, Licence...)	0.26	0.13	(-)0.14***
Education: End of vocational or complementary education studies	0.02	0.01	(-)0.01
Current status: student	0.78	0.87	0.09***
Previous volunteer training	0.81	0.83	0.01
Previous technical/professional training	0.46	0.39	(-)0.06
Previous soft skills training	0.63	0.71	0.08
Previous volunteering experience	0.65	0.61	(-)0.04
Region: Beirut	0.08	0.07	(-)0.02
Region: Mount Lebanon	0.37	0.46	0.09**
Region: North	0.12	0.28	0.17***
Region: Bekaa	0.28	0.1	(-)0.18***
Region: South Lebanon	0.09	0.09	0.002
Region: Nabatiye	0.06	0.002	(-)0.06***
Mother's highest education is elementary	0.06	0.07	0.01
Mother's highest education is intermediate	0.3	0.17	(-)0.12***
Mother's highest education is secondary	0.31	0.32	0.01
Mother's highest education is university	0.28	0.35	0.08**
Father's highest education is elementary	0.09	0.07	(-)0.02
Father's highest education is intermediate	0.24	0.18	(-)0.06*
Father's highest education is secondary	0.25	0.25	(-)0.002
Father's highest education is university	0.28	0.33	0.05
<u>Outcome variables</u>			
Current status: Unemployed	0.51	0.47	(-)0.05
Current status: unpaid employee (job or internship)	0.08	0.16	0.08**
Current status: wage employed (job / internship)	0.36	0.29	(-)0.07
Current status: self employed	0.05	0.08	0.04
Current status: Inactive	0.48	0.5	0.02
Leadership skills score (normalized score)	0	0.09	0.09

Communication score (normalized score)	0	(-)0.04	(-)0.04
Confidence score (normalized score)	0	(-)0.05	(-)0.05
Tolerance score (normalized score)	0	0.03	0.03
Perceptions of belonging to the Lebanese community score (normalized score)	0	(-)0.19	(-)0.19***
Offered a paid job in the last month	0.13	0.11	(-)0.02

Note: \*significant at 10%. \*\* significant at 5%. \*\*\* significant at 1%

**Table 2. Estimates of a probit model regressing attrition on the following interaction terms (dummy covariates at baseline with a dummy for being assigned to treatment)**

	(1) Attrition
Male * treatment	(-)0.28 (0.214)
Lebanese General Secondary Education * treatment	(-)0.14(0.21)
University education * treatment	0.01(0.27)
<b>Student * treatment</b>	<b>0.55* (0.33)</b>
Previous volunteering training * treatment	0.46 (0.41)
Previous technical/professional training * treatment	(-)0.13 (0.35)
Previous soft skills training * treatment	(-)0.36(0.35)
Previous volunteering experience * treatment	0.07(0.24)
Beirut * treatment	(-)0.04(0.40)
<b>Mount Lebanon * treatment</b>	<b>(-)0.46*(0.24)</b>
<b>North * treatment</b>	<b>0.77*(0.40)</b>
Bekaa * treatment	(-)0.26(0.39)
Mother has elementary education * treatment	(-)0.33(0.51)
Mother has intermediate education * treatment	0.18(0.29)
Mother has secondary education * treatment	0(0.25)
Mother has university education * treatment	(-)0.04 (0.26)
Father has elementary education * treatment	(-)0.07(0.44)
Father has intermediate education * treatment	0.46(0.28)
<b>Father has secondary education * treatment</b>	<b>0.55**(0.28)</b>
Father has university education * treatment	(-)0.34(0.27)
Unemployed * treatment	0.44 (0.33)
Wage employed (job / internship) * treatment	(-)0.55 (0.36)
Self employed * treatment	(-)0.34 (0.77)
Inactive * treatment	(-)0.05 (0.24)
Offered a paid job in the last month * treatment	0.04 (0.06)

Note: the values represent the estimated coefficients with standard errors in parenthesis (equation 2). The interaction terms can be interpreted as the differences in estimated probabilities of attrition for the various covariate dummies between the treatment and comparison groups. For example, the coefficient on the interaction term, male \* treatment, is understood as:  $(E(Y_m|D_m = 1) - E(Y_f|D_f = 1)) - (E(Y_m|D_m = 0) - E(Y_f|D_f = 0))$ , where  $Y_m$  is the estimated probability of attrition for males,  $Y_f$  is the estimated probability of attrition for females,  $D_m$  is a dummy variable for males that takes on the value 1 if assigned to treatment and 0 if assigned to comparison group,  $D_f$  is a dummy variable for females that takes on the value 1 if assigned to treatment and 0 if assigned to comparison.

**Table 3. Impacts on social cohesion values**

	(1) Tolerance Values (Normalized)	(2) Sense of belonging to the Lebanese community (Normalized)
Specification 1 (OLS Estimate)		
Difference in mean outcome post and pre intervention for non-selected youth( $\beta$ )	-0.30*** (0.08)	-0.80*** (0.16)
Difference in mean outcome post and pre intervention for selected youth( $\beta + \delta$ )	-0.05 (0.07)	-0.45*** (0.07)
DiD estimator ( $\delta$ )	0.26** (0.11)	0.35* (0.17)
Specification 2 (Individual fixed effects)		
Difference in mean outcome post and pre intervention for non-selected youth( $\beta$ )	-0.29*** (0.09)	-0.80*** (0.16)
Difference in mean outcome post and pre intervention for selected youth( $\beta + \delta$ )	-0.05 (0.08)	-0.45*** (0.07)
DiD estimator ( $\delta$ )	0.23* (0.12)	0.35* (0.18)
Specification 3a. (OLS estimate with imputed missing data as lower bound estimates)		
Difference in mean outcome post and pre intervention for non-selected youth( $\beta$ )	-1.06*** (0.21)	-1.56*** (0.29)
Difference in mean outcome post and pre intervention for selected youth ( $\beta + \delta$ )	-0.56*** (0.15)	0.11 (0.09)
DiD estimator ( $\delta$ )	0.50* (0.26)	0.62* (0.33)
Specification 3b. (OLS estimate with imputed missing data as upper bound estimates)		
Difference in mean outcome post and pre intervention for non-selected youth( $\beta$ )	0.03 (0.14)	1.04** (0.50)
Difference in mean outcome post and pre intervention for selected youth ( $\beta + \delta$ )	0.11 (0.09)	0.66** (0.30)
DiD estimator ( $\delta$ )	0.08 (0.17)	-0.37 (0.58)
Specification 4 (OLS estimate with Inverse Probability Weighting)		
Difference in mean outcome post and pre intervention for non-selected youth( $\beta$ )	-0.27*** (0.09)	-0.80*** (0.17)
Difference in mean outcome post and pre intervention for selected youth ( $\beta + \delta$ )	-0.05 (0.08)	-0.45*** (0.07)
DiD estimator ( $\delta$ )	0.22* (0.12)	0.36* (0.18)

*Note:* the values represent the estimated coefficients in standard deviations with standard errors in parenthesis.

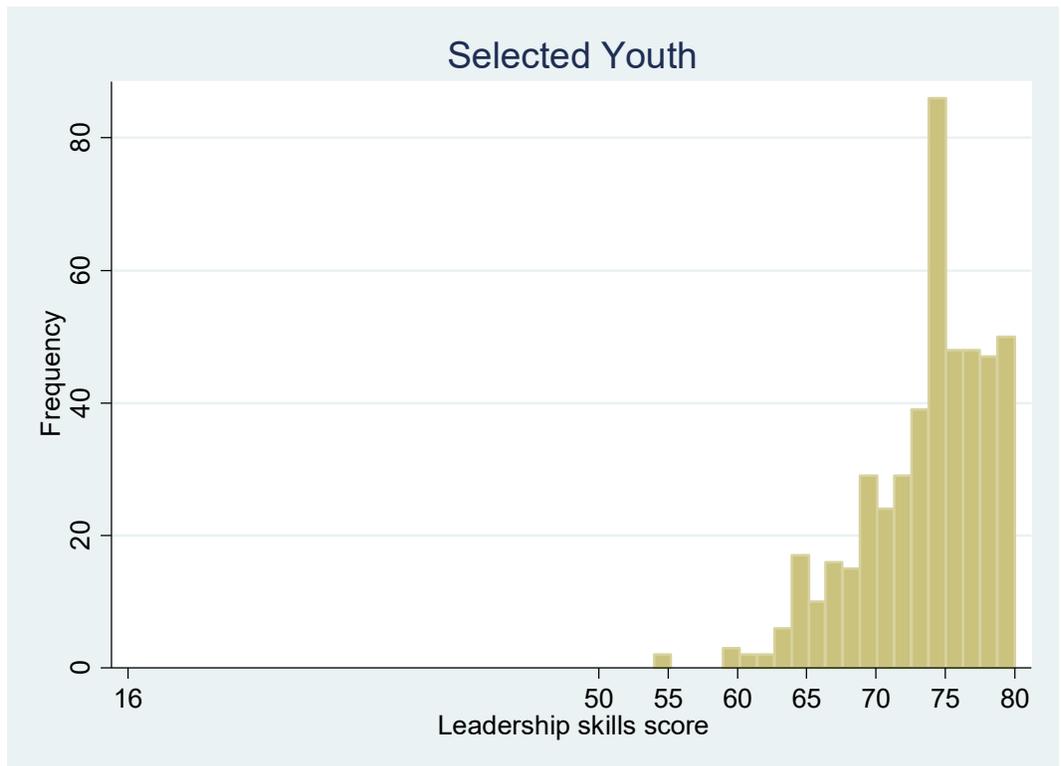
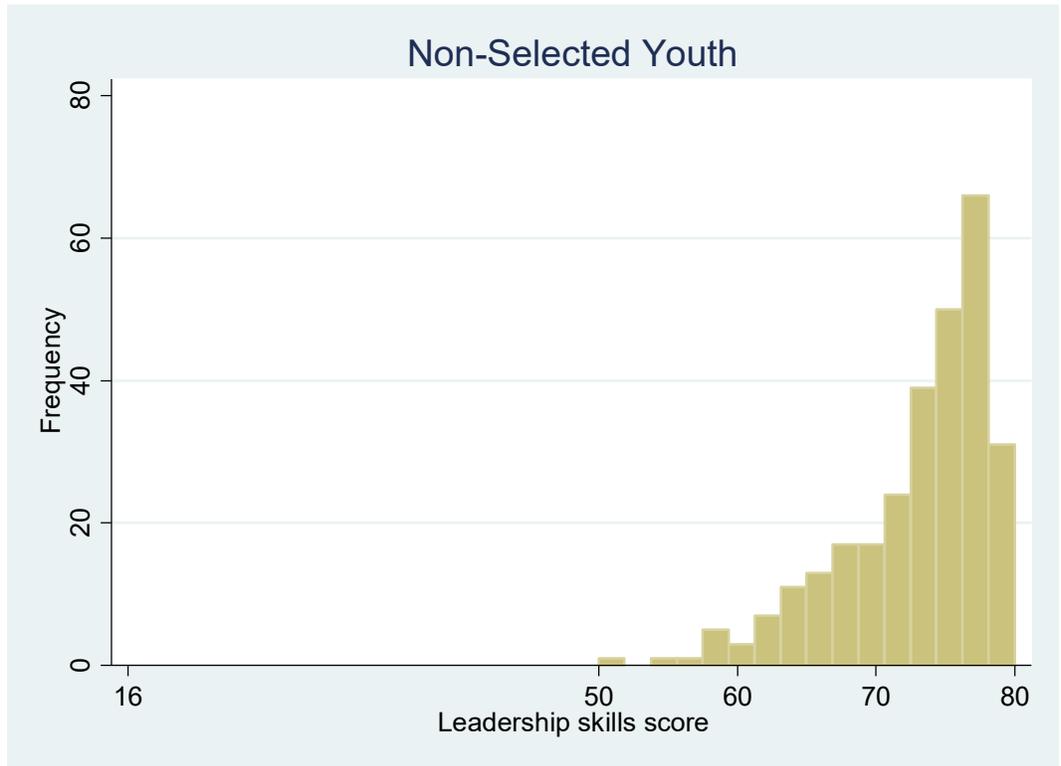
Specification 1 is an OLS estimation that includes assignment to treatment dummy, post-intervention year dummy, interaction term between those two variables, and NGO fixed effects (equation 1). Specification 2 is an individual fixed effects estimation Specification 3 presents OLS estimates from equation 1 but includes lower and upper bounded- imputed data for individuals who could be tracked at follow-up. Specification 4 is an OLS estimation that includes the same independent variables as specification 1, but weights the observations by the inverse probability of being observed at follow-up. Note that in specification 4, the sample is only restricted to the complete cases that were tracked at follow-up (i.e. N=1,336)

**Table 4. Impacts on Soft Skills**

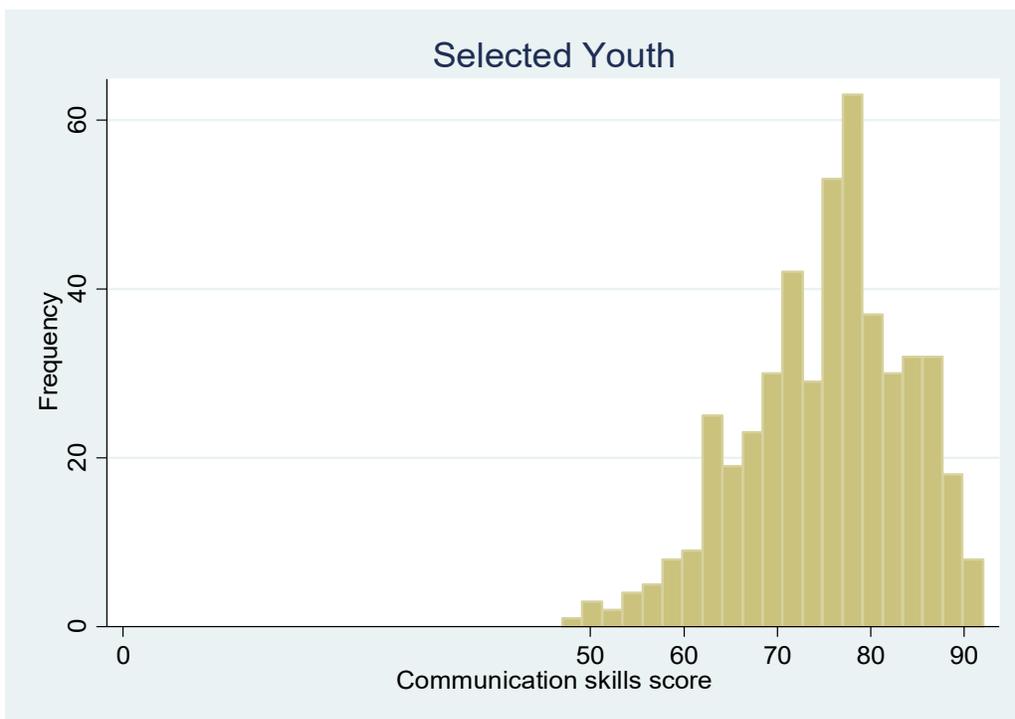
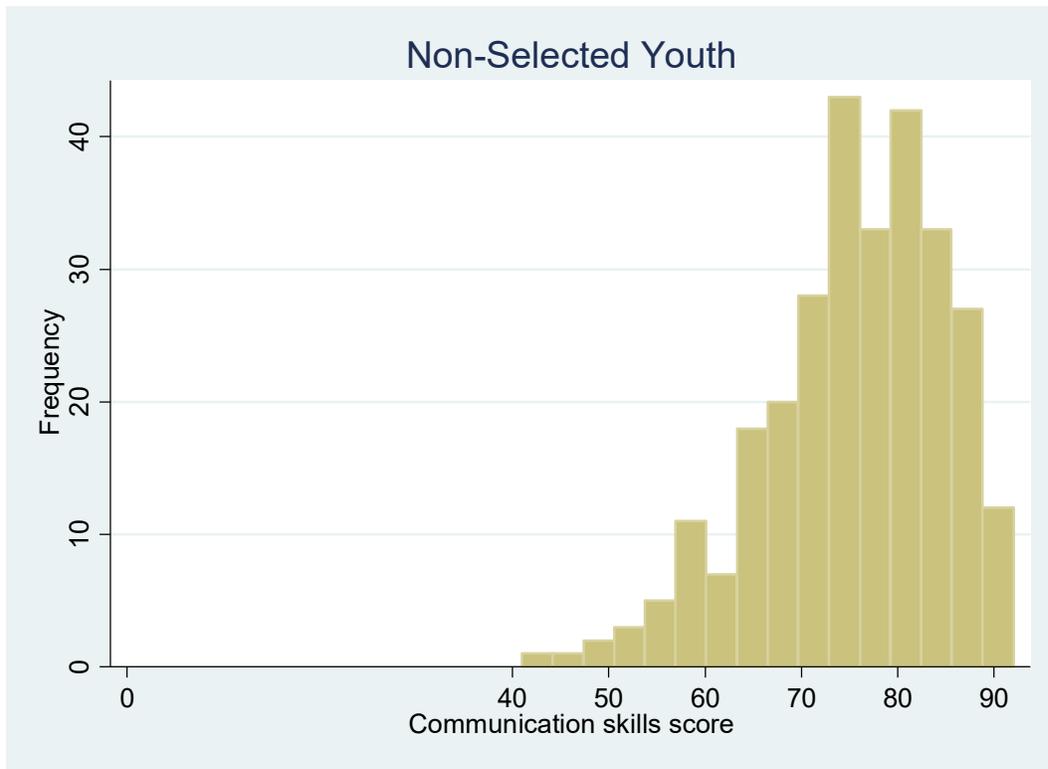
	(1) Leadership (Normalized)	(2) Communication (Normalized)	(3) Confidence (Normalized)
Specification 1 (OLS Estimate)			
Difference in mean outcome post and pre intervention for non-selected youth( $\beta$ )	-0.34*** (0.09)	-0.11 (0.10)	-0.10 (0.11)
Difference in mean outcome post and pre intervention for selected youth( $\beta + \delta$ )	-0.36*** (0.07)	0.08 (0.08)	0.07 (0.09)
DiD estimator ( $\delta$ )	-0.02 (0.11)	0.19 (0.12)	0.17 (0.14)
Specification 2 (Individual fixed effects)			
Difference in mean outcome post and pre intervention for non-selected youth( $\beta$ )	-0.33*** (0.09)	-0.08 (0.09)	-0.09 (0.11)
Difference in mean outcome post and pre intervention for selected youth( $\beta + \delta$ )	-0.38*** (0.07)	0.08 (0.08)	0.03 (0.09)
DiD estimator ( $\delta$ )	-0.05 (0.11)	0.16 (0.12)	0.13 (0.14)
Specification 3a. (OLS Estimate with imputed missing data as lower bound estimates)			
Difference in mean outcome post and pre intervention for non-selected youth( $\beta$ )	-1.87*** (0.43)	-1.32*** (0.34)	-1.17*** (0.31)
Difference in mean outcome post and pre intervention for selected youth( $\beta + \delta$ )	-1.34*** (0.26)	-0.70*** (0.24)	-0.61** (0.22)
DiD estimator ( $\delta$ )	0.54 (0.50)	0.62 (0.41)	0.56 (0.39)
Specification 3b. (OLS Estimate with imputed missing data as upper bound estimates)			
Difference in mean outcome post and pre intervention for non-selected youth( $\beta$ )	-0.06 (0.12)	0.22 (0.14)	0.27* (0.16)
Difference in mean outcome post and pre intervention for selected youth( $\beta + \delta$ )	-0.21** (0.09)	0.26*** (0.08)	0.29*** (0.09)
DiD estimator ( $\delta$ )	-0.16 (0.15)	0.04 (0.16)	0.01 (0.18)
Specification 4 (OLS estimate with Inverse Probability Weighting)			
Difference in mean outcome post and pre intervention for non-selected youth( $\beta$ )	-0.33*** (0.09)	-0.7 (0.10)	-0.07 (0.12)
Difference in mean outcome post and pre intervention for selected youth( $\beta + \delta$ )	-0.37*** (0.08)	0.09 (0.08)	0.05 (0.09)
DiD estimator ( $\delta$ )	-0.04 (0.12)	0.16 (0.12)	0.12 (0.15)

Note: the values represent the estimated coefficients in standard deviations with standard errors in parenthesis.

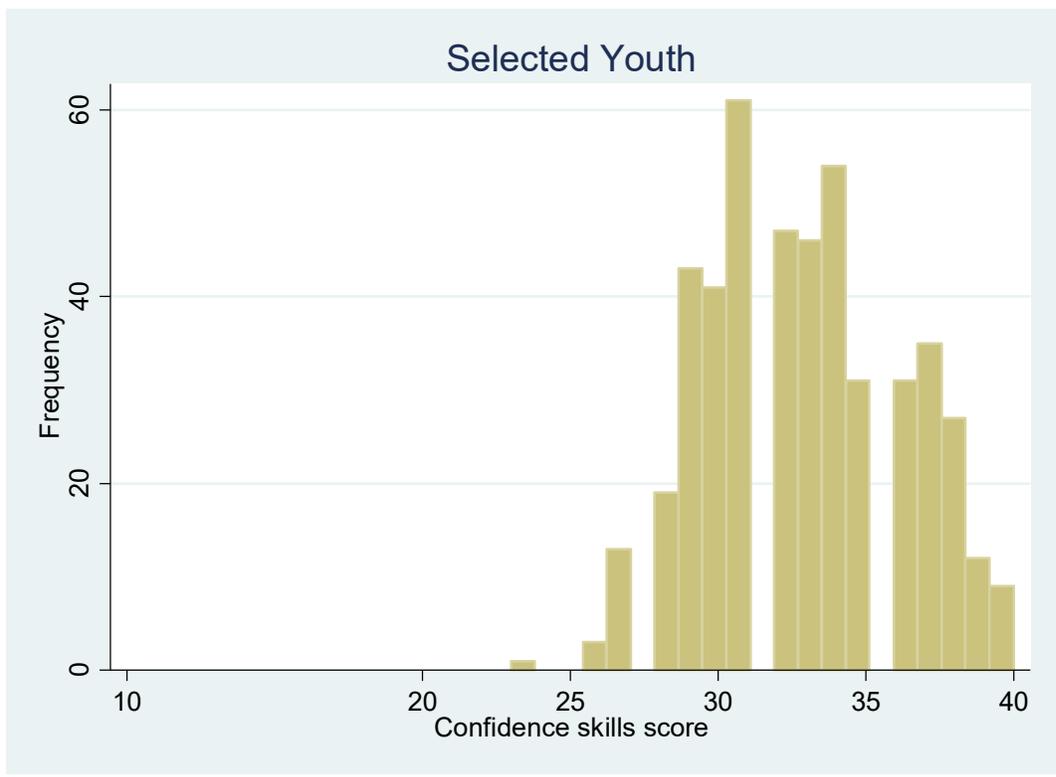
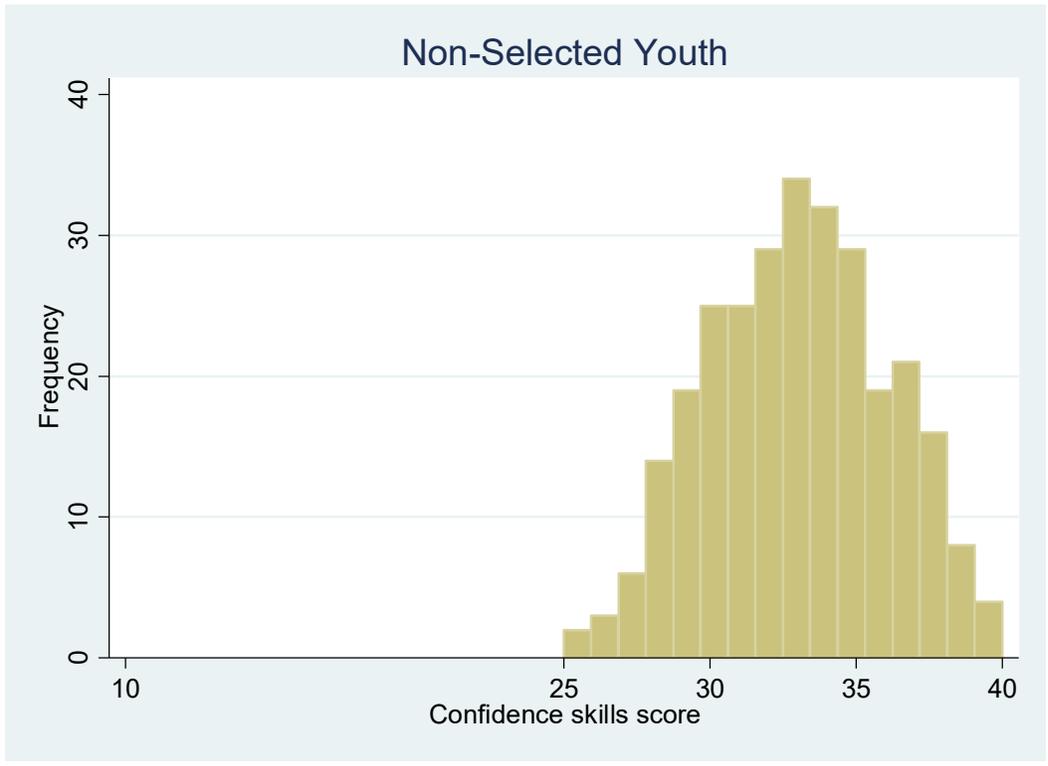
**Figure 1. Distribution of leadership skills scores for non-selected and selected youth at baseline**



**Figure 2. Distribution of communication skills scores for non-selected and selected youth at baseline**



**Figure 3. Distribution of confidence skills scores for non-selected and selected youth at baseline**



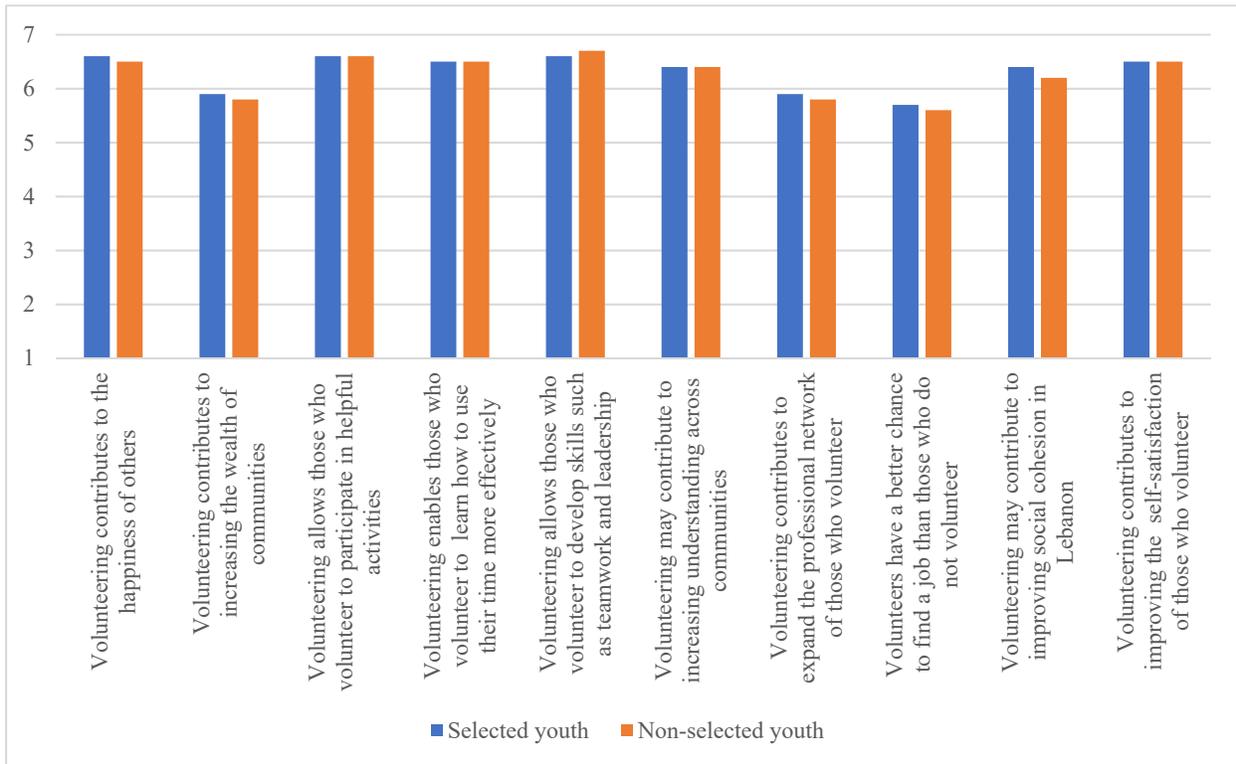
**Table 5. Impacts on labor market outcomes**

	(1) Labor market participation	(2) Wage employment	(3) Self employment	(4) Unpaid employment (job or internship)	(5) Offered a job in the last month	(6) Unemploy ment
Specification 1 (OLS Estimate)						
Difference in mean outcome post and pre intervention for non-selected youth( $\beta$ )	0.02 (0.04)	0.30*** (0.05)	0.02 (0.02)	-0.03 (0.04)	-0.10*** (0.03)	-0.30*** (0.04)
Difference in mean outcome post and pre intervention for selected youth( $\beta + \delta$ )	-0.05 (0.04)	0.28*** (0.05)	0.05 (0.03)	-0.09* (0.05)	-0.07*** (0.02)	-0.24*** (0.05)
DiD estimator ( $\delta$ )	-0.07 (0.06)	-0.02 (0.07)	0.03 (0.03)	-0.06 (0.06)	0.02 (0.04)	0.06 (0.06)
Specification 2 (Individual fixed effects)						
Difference in mean outcome post and pre intervention for non-selected youth( $\beta$ )	0.02 (0.04)	0.29*** (0.04)	0.01 (0.02)	-0.06* (0.03)	-0.11*** (0.03)	-0.24*** (0.03)
Difference in mean outcome post and pre intervention for selected youth( $\beta + \delta$ )	-0.04 (0.04)	0.22*** (0.05)	0.02 (0.03)	-0.07 (0.04)	-0.08*** (0.03)	-0.17*** (0.04)
DiD estimator ( $\delta$ )	-0.07 (0.06)	-0.07 (0.06)	0.01 (0.03)	-0.01 (0.05)	0.03 (0.04)	0.07 (0.05)
Specification 3a. (OLS Estimate with imputed missing data as lower bound estimates)						
Difference in mean outcome post and pre intervention for non-selected youth( $\beta$ )	0.09** (0.04)	-0.03 (0.07)	-0.02 (0.02)	-0.06 (0.04)	-0.40*** (0.05)	-0.10*** (0.03)
Difference in mean outcome post and pre intervention for selected youth( $\beta + \delta$ )	0.01 (0.04)	-0.03 (0.04)	-0.03 (0.02)	-0.14** (0.05)	-0.35*** (0.04)	-0.08*** (0.02)
DiD estimator ( $\delta$ )	-0.09 (0.06)	0.01 (0.08)	0 (0.02)	-0.08 (0.07)	0.05 (0.06)	0.02 (0.04)
Specification 3b. (OLS Estimate with imputed missing data as upper bound estimates)						
Difference in mean outcome post and pre intervention for non-selected youth( $\beta$ )	-0.06 (0.05)	0.49*** (0.05)	0.49*** (0.07)	0.46*** (0.08)	0.06 (0.05)	0.12* (0.07)
Difference in mean outcome post and pre intervention for selected youth( $\beta + \delta$ )	-0.09* (0.04)	0.52*** (0.05)	0.52*** (0.05)	0.41*** (0.05)	0.02 (0.03)	0.20*** (0.07)
DiD estimator ( $\delta$ )	-0.03 (0.06)	0.04 (0.07)	0.03 (0.08)	-0.05 (0.09)	-0.04 (0.06)	0.08 (0.09)
Specification 4 (OLS estimate with Inverse Probability Weighting)						
Difference in mean outcome post and pre	0.02 (0.04)	0.32*** (0.05)	0.02 (0.02)	-0.03 (0.04)	-0.10 (0.03)	-0.31*** (0.03)

intervention for non-selected youth( $\beta$ )						
Difference in mean outcome post and pre intervention for selected youth( $\beta + \delta$ )	-0.04 (0.04)	0.27*** (0.05)	0.04 (0.03)	-0.09* (0.05)	-0.07*** (0.02)	-0.22*** (0.05)
DiD estimator ( $\delta$ )	-0.06 (0.06)	-0.06 (0.07)	0.03 (0.03)	-0.06 (0.06)	0.03 (0.04)	0.09 (0.06)

*Note:* the values represent the estimated coefficients with standard errors in parenthesis

**Figure 4. Attitudes and Perceptions of Selected and Non-Selected Youth Towards Volunteering at baseline**



*Note:* The scale of each indicator is as follows: 7 = totally agree, 6 = strongly agree, 5 = somewhat agree, 4 = neutral, 3 = somewhat disagree, 2 = strongly disagree, 1 = totally disagree

**Table 6. Impacts on attitudes towards volunteering**

	(1) Volunteering contributes to the happiness of others (Normalized)	(2) Volunteering contributes to increasing the wealth of communities (Normalized)	(3) Volunteering allows those who volunteer to participate in helpful activities (Normalized)	(4) Volunteering enables those who volunteer to learn how to use their time more effectively (Normalized)	(5) Volunteering allows those who volunteer to develop skills such as teamwork and leadership (Normalized)	(6) Volunteering may contribute to increasing understanding across communities (Normalized)	(7) Volunteering contributes to expand the professional network of those who volunteer (Normalized)	(8) Volunteers have a better chance to find a job than those who do not volunteer (Normalized)	(9) Volunteering may contribute to improving social cohesion in Lebanon (Normalized)	(10) Volunteering contributes to improving the self-satisfaction of those who volunteer (Normalized)
Specification 1 (OLS Estimate)										
Difference in mean outcome post and pre intervention for non-selected youth( $\beta$ )	-0.42*** (0.10)	0.14 (0.10)	-0.33*** (0.10)	-0.38*** (0.09)	-0.46*** (0.10)	-0.21*** (0.06)	0.09 (0.08)	0.24*** (0.05)	-0.07 (0.05)	-0.39*** (0.11)
Difference in mean outcome post and pre intervention for selected youth( $\beta + \delta$ )	-0.14 (0.09)	0.15** (0.07)	-0.28** (0.11)	-0.19** (0.08)	-0.21* (0.10)	-0.10 (0.08)	0.21** (0.08)	0.28*** (0.08)	-0.14* (0.07)	-0.17* (0.09)
DiD estimator ( $\delta$ )	0.28** (0.13)	0.01 (0.12)	0.05 (0.15)	0.18 (0.12)	0.25* (0.14)	0.11 (0.10)	0.12 (0.11)	0.04 (0.10)	-0.07 (0.09)	0.22 (0.14)
Specification 2 (Individual fixed effects)										
Difference in mean outcome post and pre intervention for non-selected youth( $\beta$ )	-0.39*** (0.09)	0.17 (0.11)	-0.34*** (0.09)	-0.42*** (0.09)	-0.47*** (0.10)	-0.20*** (0.06)	0.10 (0.08)	0.22*** (0.05)	-0.09 (0.06)	-0.38*** (0.11)
Difference in mean outcome post and pre intervention for	-0.14 (0.09)	0.12* (0.07)	-0.26** (0.11)	-0.21** (0.09)	-0.21* (0.10)	-0.10 (0.08)	0.21** (0.09)	0.27*** (0.08)	-0.14* (0.07)	-0.16* (0.10)

selected youth( $\beta + \delta$ )										
DiD estimator ( $\delta$ )	0.25* (0.13)	-0.05 (0.13)	0.08 (0.15)	0.21 (0.12)	0.26* (0.15)	0.10 (0.10)	0.11 (0.12)	0.05 (0.09)	-0.05 (0.09)	0.21 (0.15)
Specification 3a. (OLS Estimate with imputed missing data as lower bound estimate)										
Difference in mean outcome post and pre intervention for non-selected youth( $\beta$ )	-1.63*** (0.38)	-0.43** (0.17)	-1.63*** (0.40)	-1.61*** (0.37)	-1.88*** (0.44)	-1.16*** (0.30)	-0.63*** (0.23)	-0.48** (0.21)	-0.81*** (0.21)	-1.50*** (0.35)
Difference in mean outcome post and pre intervention for selected youth( $\beta + \delta$ )	-0.90*** (0.26)	-0.21* (0.11)	-1.09*** (0.27)	-0.95*** (0.24)	-1.08*** (0.28)	-0.70*** (0.20)	-0.24 (0.15)	-0.16 (0.14)	-0.61*** (0.17)	-0.86*** (0.21)
DiD estimator ( $\delta$ )	0.72 (0.46)	0.22 (0.20)	0.54 (0.48)	0.66 (0.44)	0.79 (0.52)	0.46 (0.35)	0.39 (0.28)	0.32 (0.25)	0.20 (0.27)	0.63 (0.41)
Specification 3b. (OLS Estimate with imputed missing data as upper bound estimate)										
Difference in mean outcome post and pre intervention for non-selected youth( $\beta$ )	-0.25*** (0.09)	0.27** (0.11)	-0.16* (0.09)	-0.21** (0.09)	-0.29*** (0.09)	-0.08 (0.06)	0.24*** (0.07)	0.41*** (0.07)	0.07 (0.07)	-0.22** (0.10)
Difference in mean outcome post and pre intervention for selected youth( $\beta + \delta$ )	-0.05 (0.08)	0.22*** (0.07)	-0.18* (0.10)	-0.09 (0.08)	-0.11 (0.09)	-0.03 (0.08)	0.30*** (0.09)	0.38*** (0.09)	-0.07 (0.06)	-0.07 (0.09)
DiD estimator ( $\delta$ )	0.20 (0.12)	-0.05 (0.13)	-0.02 (0.13)	0.12 (0.12)	0.19 (0.13)	0.05 (0.09)	0.05 (0.11)	-0.02 (0.11)	-0.14 (0.09)	0.14 (0.13)
Specification 4 (OLS estimate with Inverse Probability Weighting)										

Difference in mean outcome post and pre intervention for non-selected youth( $\beta$ )	-0.41*** (0.09)	0.17 (0.11)	-0.36*** (0.09)	-0.43*** (0.09)	-0.48*** (0.11)	-0.22*** (0.06)	0.10 (0.08)	0.23*** (0.05)	-0.09 (0.06)	-0.39*** (0.11)
Difference in mean outcome post and pre intervention for selected youth( $\beta + \delta$ )	-0.14 (0.09)	0.13* (0.07)	-0.27** (0.11)	-0.21** (0.09)	-0.21* (0.11)	-0.09 (0.08)	0.22** (0.09)	0.28*** (0.08)	-0.13* (0.07)	-0.16 (0.10)
DiD estimator ( $\delta$ )	0.27** (0.13)	-0.03 (0.13)	0.09 (0.15)	0.22* (0.13)	0.28* (0.15)	0.12 (0.10)	0.12 (0.12)	0.06 (0.10)	-0.04 (0.09)	0.23 (0.15)

*Note:* The values represent the estimated coefficients in standard deviations with standard errors in parenthesis