

# **Living Up to Expectations: How Vocational Education Made Women Better Off but Left Men Behind**

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**Abstract:** This paper examines the interaction between vocational and soft skills training on labor market outcomes and expectations of youth in the Dominican Republic. Applicants to a training program were randomly assigned to one of three modalities: a full treatment consisting of vocational and soft skills training plus an internship, a partial treatment consisting of soft skills training plus an internship, or a control group with no training or internship. We find strong and lasting effects of the program on personal skills acquisition and expectations, but results are markedly different for men and women. Shortly after completing the program, all participants reported increased expectations for improved employment and livelihoods. This result is reversed for male participants after three and a half years, potentially explained by the program's negative short-run labor market effects for that group. On the other hand, female participants experience improved labor market outcomes in the short run and exhibit substantially higher levels of personal skills after three and a half years; the women in the study became more optimistic and reported higher self-esteem. Men experienced no such benefits. Our results suggest that job-training programs of this type can be transformative – for women, life skills mattered and made a difference. But they can also have a downside if, as was the case for men in this study, training creates expectations that are not met. Although, overall, impacts are similar for the full treatment and the partial treatment, the positive impacts on soft skills for women, and the adverse impacts on labor outcomes and expectations for men are stronger for the full treatment.

*JEL Classification:* J08, J24, J31, J68.

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## 1. INTRODUCTION

Vocational education programs have long been one of the mainstays of active labor market policies. The basic premise of these programs is that by providing skills rewarded in the labor market, the unemployed will find better paying jobs faster. In a simple labor supply model, the new skills raise the wage offers for program participants, generating job prospects above their reservation wages. The evidence on the effectiveness of these programs, however, is decidedly mixed (Blattman and Ralston, 2015; Brown and Koettl, 2015, McKenzie, 2017).<sup>1</sup>

Among the possible hypothesized reasons for these programs' mixed results is that the labor market may not value the specific skills the participants acquired. In particular, the curricula may lack important “soft” personal and social (“non-cognitive”) skills training (Heckman et al. 2006; Cunningham and Villaseñor 2014). Another concern with these programs is that they might generate expectations for better wages and employment conditions that do not materialize. Increased expectations might raise the reservation wage, but if training does not transfer skills that are sufficiently well-rewarded in the labor market, resulting wage offers may not match participants' enhanced expectations. In this case, the worker would not be able to find a job that matched her expectations and could become discouraged.

In this paper we use an at-scale randomized field experiment to examine the differential impact of vocational and soft skills job training for youth in the Dominican Republic. The program, “Programa Juventud y Empleo” (PJyE), was designed to improve the employment opportunities of at-risk youth,<sup>2</sup> given the relatively high level of unemployment among youth, especially young women. In 2009, the unemployment rate of youth ages 15 to 24 with secondary education or less was 16.6% overall and 28.1% for women. This was relatively high, compared to 5.9% for adults 25-40 (8.8 for women), and 3.8% for adults 41-64 (4.4% for women) (ENFT<sup>3</sup>). PJyE's main

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<sup>1</sup> For extensive reviews of job training programs see Betcherman, et al. 2004 and 2007, Card et al. 2010 and 2015, Greenberg et al. 2003, Heckman et al. 1999, J-PAL 2013, and Kluge 2010.

<sup>2</sup> PJyE, like many vocational education programs in low and middle-income countries, is targeted to low-income youth who have not completed secondary education (Veza, 2014).

<sup>3</sup> National Labor Force Survey (Encuesta Nacional de Fuerza de Trabajo, ENFT), Central Bank of the Dominican Republic ([https://www.bancentral.gov.do/estadisticas\\_economicas/mercado\\_trabajo/](https://www.bancentral.gov.do/estadisticas_economicas/mercado_trabajo/)). These figures refer to “extended unemployment”, including individuals that were either actively looking for a job in the last 4 weeks or available to work immediately.

objective was to improve the employment opportunities of at-risk youth by building their vocational and soft skills. The program provided in-classroom training and an internship in a private business, and participants had to complete both to graduate from the program. The program also financed participants' transportation, medical and accident insurance, and provided them with a small stipend. Between 2002 and 2013, the program conducted 3,627 courses training over 72,500 youth, of which 57% were women.

We consider two interventions randomly assigned to program applicants: (1) vocational education combined with soft skills training and an internship and (2) soft skills-only training with an internship. We study both the short (one year) and medium run (three and a half year) effects, testing the effectiveness of the two alternative curricula. Consistent with the program's objectives, we examine effects on skill development, future expectations, labor market outcomes, and well-being. For women, we find that both curricula have strong positive effects on soft skills and on expectations of future labor market and life success. For men, however, neither curriculum had an effect on skills, although the curriculum with vocational education resulted in a positive effect on expectations. Hence, for men, the program illustrates conditions where expectations may exceed the returns to acquired skills, leading to discouragement.

In fact, we found striking gender differences in the effects on short-run labor market outcomes. For women, both curricula were associated with higher employment rates in higher paying jobs with higher job satisfaction twelve months after program completion. Remarkably, there were no differences in effects between the vocational and the soft skills-only curricula, suggesting limited marginal value of the vocational education on top of soft-skills training, plus internship. However, while men who received only soft-skills curriculum saw no effect on labor market, those who received the vocational curricula did see a negative effect on short-run employment and were more likely to reject higher wage offers. This latter effect is consistent with the program having had no effect on skills but creating expectations of higher wage offers that did not materialize, which may have led to higher unemployment.

Three-and-a-half years after program completion (medium-run), neither curricula had an impact on employment or wages of either men or women. However, the interpretation of these results differs by gender. The training gave women skills that allowed them to find higher paying jobs faster than those in the control group. Over time, the women in the control group were able

to catch up to those who benefitted from the program. On the other hand, men in the vocational education treatment group were more likely to turn down jobs, despite higher wage offers.

The different labor market experiences of men and women led to different effects on medium-run welfare. After three-and-a-half years, women in the treatment group still had significantly higher positive expectations about their future life success and prospects in the labor market than did the control group. They also reported higher job satisfaction, self-esteem, and that they now needed higher salaries to meet their basic needs. On the other hand, men in the treatment group reported higher rates of active job search (even if employed), an increased likelihood of turning down higher paying jobs, lower self-esteem, and reported needing lower salaries to meet their basic needs. In other words, while the program positively improved women's lives, men ultimately experienced deterioration in the quality of their lives.

This paper makes several contributions to the literature. First, to our knowledge, this is the first study to shed light on why vocational education programs may have limited or negative impacts on labor market outcomes by focusing on how programs affect both expectations and skills.

Second, it helps to disentangle the marginal impact of the vocational component from the soft-skills component and the internship. Despite the popularity of training programs that combine different types of skill trainings (usually vocational, soft-skills, and apprenticeships), the evidence on the effectiveness of each of the components is very scarce. There are several experimental evaluations of training programs in low- and middle-income countries with a combination of different skills tracks and apprenticeships.<sup>4</sup> However, few of these studies separate out the marginal effects of the different components. An exception is Groh et al. (2016), which shows that a soft-skills training for women in Jordan increased the optimism and the expectations of the women about the future; however, the authors found no impact on labor outcomes. In a related study, Adhvaryu et al. (2018) study the effect of on-the-job soft skills training on a series of labor market outcomes for women garment workers in India. They also find increased extraversion and communication, and skill upgrading and higher productivity among beneficiaries, although they do not find evidence of increases in wages. To date, this is the first study that identifies the marginal

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<sup>4</sup> See for example, Adoho et al. (2014), Alzua et al. (2016), Attanasio (2011), Bandiera et. al (2019), Card et al. (2011), Ibararán et al. (2019), and Diaz and Rosas (2016).

impact of the vocational component. Since vocational training generally accounts for the bulk of the resources of these programs, this has practical implications in term of cost-effectiveness. We provide a simple cost-benefit analysis in the discussion section.

Third, our paper provides medium-term experimental evidence of the impact of training programs in developing countries. While the short-term effects of training programs have been studied extensively in developed countries,<sup>5</sup> longer run experimental evidence for developing countries is still scarce and mixed. Ibararán et al. (2019) followed a different cohort of the PJyE for six years and found sustained effects on formality for men but no effects on employment. Other longer-run studies include Attanasio et. al (2015), who use experimental data from a training program in 2005 in Colombia and find that even up to ten years later, the program had a positive and significant effect on the probability of working in the formal sector, and earnings were 11.8% higher. Hirshleifer et al. (2014) used administrative data to study the impacts of vocational education training in Turkey three years after the intervention finding that impacts in the short term dissipated with time; and Alzua et al. (2016) studied the effects of the program Entra 21 in Argentina four years after the completion of the project, finding similar results.

Finally, gender differences are widely studied in the literature,<sup>6</sup> but results remain inconclusive.<sup>7</sup> Our results on gender differences are consistent with findings described by Attanasio et al. (2011), who evaluated Colombia's *Jovenes en Acción* program, which has a similar curriculum as PJyE. Conducted 20 months after the beginning of the intervention, the authors found positive labor market effects for women but not for men.<sup>8</sup>

The paper is structured as follows. Section 2 describes the interventions considered in this study. Section 3 describes the experimental evaluation design including random assignment, data collection, descriptive statistics, and estimation strategy. Section 4 presents the results and the final section concludes.

## 2. INTERVENTION

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<sup>5</sup> For example see, Couch (1992), Cave et al. (1993), Schochet et al. (2008), and Flores- Lagunes et al. (2010)

<sup>6</sup> Card et al. (2011), Ibararán et al. (2014), Ibararán et al. (2019), Hirsheleifer et al. (2014), Diaz and Rosas (2016), Kugler et al. (2015).

<sup>7</sup> Card and Kluve (2015), Urzua and Puentes (2010), Ibararán and Rosas (2009).

<sup>8</sup> There are two other studies that look at female-only programs. Both studies found positive effects on employment outcomes (Maitra and Mani 2014; and Adoho et al. 2014).

We consider two interventions: (1) vocational education combined with soft skills training and an internship and (2) training on soft skills only and an internship. This allows us to identify the marginal impact of the vocational education, the most expensive part of the intervention. We study both the short (one year) and medium run (three and a half year) effects, testing the effectiveness of the two alternative curricula.

## **2.1. Training Curriculum and Internships**

PJyE built job skills through classroom training and internships offered by private institutes known as Operation Centers for the System (COS, by their Spanish acronym), which are authorized by the National Institute for Professional Training (INFOTEP). INFOTEP also determines and standardizes the curriculum content of courses offered in the PJyE. The Program Coordination Unit (UCP) of the Ministry of Labor monitors the COS in order to ensure that the courses and internships meet minimum standards.

The classroom component of the program consisted of vocational education (hard skills) and/or personal skills development (soft skills) and lasted two months. The vocational education module included 150 hours of occupational training, including: sales, beauty salon assistance, tourism and hospitality, carpentry and electricity, among others. The personal skills component consisted of 75 hours of coursework on self-esteem and self-realization, communication skills, conflict resolution, life planning, time management, teamwork, decision-making, hygiene and health, and coaching on risky behaviors. Once the in-classroom training phase was completed, all participants were also assigned to 240-hour internships at private companies, for which participants received a daily stipend of approximately US\$2 and basic insurance.<sup>9</sup> This phase also lasted two months. During this period, participants received oversight and job counseling from the program.

The curricula aimed to develop participant's "soft skills," contributing to their development as human beings and to provide participants with the tools to face and manage social risks. Major crosscutting themes in the curricula included values, attitudes and basic personal skills (self-fulfillment, basic cognitive abilities, and social skills) for a successful family, social and work life. Table 2 describes the personal skills development course content.

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<sup>9</sup> This makes up a total of US \$40 per month, which is relatively low compared to the average wage of US \$179 for individuals without completed primary education (ENFT).

PJyE follows what Card et al. (2011) call the “Chilean model” of vocational education programs in Latin America, where private institutions rather than employers provide classroom training and arrange for internships. The vocational education curricula were developed jointly with the private sector to cover the technical skills that participants would need for the subsequent internship phase. In 2009, the program offered 520 courses for 49 occupations. Over 91% of courses in 2009 targeted the commerce and service sectors, with only 3% in agriculture and 6% in others. Sixty percent of the courses were concentrated in six occupations: sales (23%), waiter-waitress (10%), beauty salon assistant (9%), pharmaceutical assistant (7%), sales assistant (7%) and secretarial assistant (6%). Other occupations available included graphic and web designer, network technician, network administrator, PC repair, agro-industry, manufacturing assistant, tractor operator and private security guard. Table 1 provides a breakdown of the main occupations of the courses and the percentage of participants in the study sample that applied for each of them. Sales and hospitality account for 58% of participants and both are roughly balanced in terms of gender. However, other courses such as professional services, beauty and health, added up to 29% of the participants and were mainly demanded by women.

## **2.2. Eligibility and Recruitment**

The COSs promoted the program, maintained applicant registries, and evaluated applicant eligibility. The UCP conducted a second review of the applicant registry and examined each candidate’s application for eligibility. Eligible program applicants were Dominican Republic citizens (and in possession of a personal identification card), ages 16 to 29 who were found to be at-risk. At-risk was defined as unemployed or underemployed and not having completed secondary school. Eligible applicants had to belong to households with a per capita income not exceeding US\$120 per month and located in regions known as Priority I and II according the SIUBEN index.<sup>10</sup> A special effort was made to reach out to enroll women. These criteria were meant to target PJyE to the poorest sectors of the population.

Each COS conducted a preliminary screening of candidates who expressed interest in enrolling to ensure that they met the program’s eligibility criteria. Eligibility screening included a

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<sup>10</sup> SIUBEN (Unified System of Beneficiaries by its Spanish acronym) is a database of poor households in the Dominican Republic that determines eligibility for social programs.



crosscheck of the applicant's identity card with the official national identity database, as well as other sources of auxiliary information. The UCP also intervened on occasion to help confirm an applicant's eligibility. The UCP supervised promotion of the program and pre-selection of youth by crosschecking each of the courses' participants with other available data, prior to enrollment. Of the more than 20,000 youth that applied for the program in 2009, 16,373 fulfilled the eligibility requirements and were chosen by their respective COS to be part of the selection process. Participants enrolled throughout 2009, though most began in January (3,481 candidates), February (994 candidates), July (6,024 candidates) and August (2,787 candidates), with the remaining candidates enrolling through October of the same year.

### **3. EXPERIMENTAL DESIGN**

One of the most innovative aspects of PJyE was the inclusion from the onset of an ongoing experimental enrollment process. Individuals applied to PJyE by filling out an application form that was used to check applicants' socioeconomic and work background in order to confirm eligibility. Following this initial screening, applicants were randomly assigned to either enroll in the program (treatment) or not (control).<sup>11</sup>

#### **3.1. Random Assignment**

Enrollment for this study was conducted in two waves, a first cohort enrolled between January 2009 and February 2009, and a second cohort between July 2009 and August 2009. As in previous editions of the program, the number of applicants exceeded the slots available in the program. In this context, eligible applicants were randomly assigned to the program through a lottery process, seen as an inherently fair way to allocate limited places. The primary innovation in 2009 relative to previous years was the expansion of the personal skills component. Participation in these courses was also randomly assigned within the pool of eligible applicants, allowing for the identification of differential impacts through the complete course package relative to the soft

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<sup>11</sup> This design was exploited in two experimental evaluations of previous editions of the PJyE for both the 2004 and the 2008 cohorts. The 2004 program included vocational education in the classroom and an internship. The program had no effects on employment but did have statistically significant but modest effects on salaries and benefits 10 to 14 months later (Card et al., 2011). In 2008, the program added a "soft" life skills training component. Results showed that 2008 PJyE also had no effect on employment, but significant positive effects on non-cognitive skills, salaries and benefits (Ibarrarán et al., 2014). A six-year follow-up of the same cohort found no effects on employment or job quality, although there are significant long run effects on formal work (Ibarrarán et al., 2019).

skills-only component and control. Both treatment groups also included internships with private employers.

The random assignment process was accomplished by means of a lottery under the coordination of the UCP. Each COS recruited 35 applicants per course and sent the list of names and ID numbers to the UCP. Next, applicants were randomly assigned to one of four groups using a computerized process, stratifying by gender to maintain a proportional number of men and women in each group relative to the original applicant pool.<sup>12</sup> From each course-cohort of 35 applicants, 20 individuals were randomly assigned to the vocational and soft skills course; five individuals, to the soft skills-only course; five individuals were placed on a waiting list (granted admission if a vacancy subsequently became available); and five individuals were put in the control group (not granted admission to the program).<sup>13</sup> The soft skills-only courses grouped five applicants from four separate course-cohorts, making up a total of 20 individuals per soft skills-only course. Figure 1 illustrates the random assignment process.

Of the more than 20,000 youth who applied for the program in 2009, 16,373 fulfilled the eligibility requirements and were selected by their respective COS to be part of the selection process. Of this group, by means of random assignment, 10,397 individuals were offered admission to a vocational and soft skills course and 1,604 were offered admission to a soft skills-only course, with the remainder either waitlisted or assigned to the control group. The enrollment level for controls was virtually nil, and the compliance in the treatment groups was close to 90%.

### **3.2. Data Collection**

Data were collected in three survey rounds (Table 3). Upon applying to PJyE, applicants completed an enrollment form that doubled as a baseline survey. The survey included questions covering socioeconomic and demographic characteristics, as well as employment and educational histories.

Follow-up surveys were conducted on a random sample of individuals from treatment and

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<sup>12</sup> In other words, if a third of the applicants were male, then a third of the spots would be randomly assigned to male applicants, and two thirds would be randomly assigned to female applicants.

<sup>13</sup> During the initial days of each course, the program replaced students who were absent or who dropped out with individuals randomly selected from the waitlist. The Information System of the PJyE (SIPJyE) only maintained registrations of selected applicants in treatment or control once replacements were made. Thus, the lottery used is not strictly the original lottery, but rather the selection in place 10 days following the start of the course.

control groups. The evaluation sample included a total of 4,700 youth, of whom 1,638 applicants had been offered admission to the vocational and soft skills course, 1,613 to the soft skills-only course and 1,449 applicants were assigned to the control group (see Figure 1).<sup>14</sup>

Three short telephone surveys were conducted within the first year of completing the program (see Figure 2). Surveys were conducted using Computer-Assisted Telephone Interviewing (CATI), which was supplemented by in-person interviews for a sub-sample of youth who could not be reached by telephone.<sup>15</sup> The purpose of these telephone surveys was to keep updated re-contact information for the evaluation sample and measure short-term results. The survey included a limited set of questions on job search and employment, number of hours worked, wages and job satisfaction, and future expectations. The response rate was over 90% when both telephone and personal interviews were used.

A final round of data was collected from the evaluation sample approximately 3.5 years after program completion. The survey covered both labor and non-labor medium-term outcomes including employment histories, risk behaviors, attitudes and expectations, participation in social networks, and life skills. While the survey's response rate was lower than in the telephone surveys, it still exceeded 80%. Comparing the final measurements with the baseline data shows that data loss in this study stayed at acceptable levels, and as detailed below, the attrition patterns were similar for the treatment and control groups.

### **3.3. Descriptive Statistics, Baseline Balance and Attrition**

Baseline data presented in Table 4 suggests that the program's selection process was successful in reaching its target population of young Dominicans from poor households with low education levels who were unemployed or underemployed. On average, applicants were 21 years old; 62% were female; and 79% of applicants were single. Almost all applicants had not completed secondary school, which reflected the program's focus on youth who had either dropped out or put off completion of their secondary education.

Confirming program eligibility rules, unemployment amongst applicants was substantially

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<sup>14</sup> Sample sizes were calculated to maximize power to detect minimal detectable effect sizes on the main outcomes of interest (labor market outcomes and cognitive and non-cognitive abilities), maintaining 5% significance and a power of 80%.

<sup>15</sup> The size of this sub-sample was approximately 10% of the total sample.

higher than for the same age group in the general population. About 60% of applicants reported being unemployed during the week before their application; by comparison, the national labor force survey (Encuesta Nacional de Fuerza de Trabajo-ENFT) reported 24% unemployment for the same age group during the first semester of 2009. Amongst those employed, however, the level of underemployment was similar between program applicants and the general population of the same age range, with 72% of employed applicants reporting temporary or occasional employment. Finally, only 19% of applicants were students—a number that complies with the participation quota for students.

Table 5 reports baseline characteristics for treatment and control groups. As expected, most characteristics are balanced, and there are no economically meaningful differences. Amongst men, a few notable exceptions include age and poverty score, which we attribute to chance. Despite these differences amongst men, we cannot reject the null hypothesis of the F-statistic of joint significance for these variables at a 95% level of confidence.<sup>16</sup> Moreover, an analysis of the attrition patterns for the telephone and household surveys is shown in Appendix 1. The results in columns (1) and (2) of Table A1.1 indicate that there was no correlation between treatment status and participation in the follow-up surveys.<sup>17</sup>

### **3.4. Estimation**

We estimate intention-to-treat (ITT) effects by comparing the outcomes of individuals randomly assigned to the treatment and the control groups irrespective of compliance with the treatment status. We argue that the ITT effects capture the policy relevant parameter, since policy makers in most cases can only offer vocational education, and participation is voluntary.

For the analysis, we work with the sample of individuals who responded to both the third round of the telephone survey (conducted 12 months after the end of the program) and to the final household survey (conducted three and a half years after the end of the program). We also excluded individuals that attended training centers that did not offer both the combined and soft skills-only

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<sup>16</sup> *P*-values for the F-statistic test of joint significance comparing control group vs. soft skills-only are 0.69 for women and 0.36 for men; control group vs. vocational and soft skills are 0.51 for women and 0.17 for men; and soft skills-only vs. vocational and soft skills are 0.23 for women and 0.95 for men.

<sup>17</sup> However, columns (3) and (4) indicate that while attrition is balanced between treatment groups, there are slight imbalances in some observable characteristics. As an additional robustness check, we replicated the main results of the paper by controlling for these few unbalanced characteristics at baseline. We find no significant differences with our main results. The results are available upon request.

training (VeZZa et al., 2014). The final analytic sample consists of 1,051 men and 1,728 women from 70 training institutes (COS). We present regressions of outcomes against binary variables representing each of the two treatment groups separately for men and women. Specifically, we estimate the following regression specification:

$$y_{ic} = \beta_f^{sk} T_i^{sk} f_{ic} + \beta_f^{vk} T_i^{vk} f_{ic} + \beta_m^{sk} T_i^{sk} (1 - f_{ic}) + \beta_m^{vk} T_i^{vk} (1 - f_{ic}) + \gamma f_{ic} + \iota_j + \xi_s + \alpha_c + \varepsilon_{ic}$$

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where:  $y_{ic}$  = outcome of individual  $i$  in course-cohort  $c$ ,  
 $T_i^{sk}$  = 1 if individual  $i$  was assigned to the soft skills course and 0 otherwise,  
 $T_i^{vk}$  = 1 if  $i$  was assigned to the vocational plus soft skills course and 0 otherwise,  
 $f_{ic}$  = 1 if individual  $i$  in course-cohort  $c$  is female,  
 $\iota_j$  = fixed effect for training institute (COS)  $j$ ,  
 $\xi_s$  = fixed effect for sector  $s$ ,  
 $\alpha_c$  = fixed effect for course-cohort  $c$ , and  
 $\varepsilon_{ic}$  = is a random error term.

We include fixed effects  $\iota_j$ ,  $\xi_s$  and  $\alpha_c$  as controls with the purpose of improving estimate precision (Duflo et al. 2008). We report  $p$ -values for two-sided tests of statistical significance adjusted to account for multiple hypotheses within each outcome category based on Romano and Wolf (2005).<sup>18</sup> We also present a series of tests for differences between estimated coefficients for men and women and for the different treatment groups, as well as a series of joint significance tests. To verify that our results are not driven by compositional differences in gender by course type (instead of gender), we run the main regressions on the subsample of gender-balanced courses. The additional results, presented in Appendix 2, confirm that our results still hold. Similarly, results are highly robust when we control for additional covariates that are not balanced at baseline (Appendix 3).

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<sup>18</sup> These  $p$ -values are reported for completeness. We only highlight these results when they signal a substantial discrepancy from the results based on conventional standard errors.

## 4. RESULTS

We report the effect of PyJE on skills, expectations, labor market outcomes and well-being measures for both 12 months and three and a half years after the intervention ended.<sup>19</sup>

### 4.1. Skills Acquisition

The program sought to improve participant's labor market prospects by building technical/vocational skills and improving so-called "soft" non-cognitive personal-social skills. Because vocational training varied from course to course, we were unable to construct a single standardized measure for vocational skills. We are, however, able to measure soft skills acquisition using a battery of tests adapted for the Dominican Republic from the Grit indices (Duckworth et al., 2007), which measure the tendency to sustain interest and effort in obtaining medium-term goals, and Social and Personal Competencies (CPS, its Spanish acronym) scales that measure personal and social skills, including leadership, conflict resolution, social skills, order, and empathy.<sup>20</sup> The soft-skills scales were based on a combination of validated survey modules from existing literature that were piloted and adapted by professional psychologists to suit the local context.<sup>21</sup> The definitions for the measures are presented in Figure 3. All indicators were rescaled in terms of standard deviations of the control group, and as such the means of the control group are all zero.

The results are presented in Table 6. Each column represents a different dependent variable measured in standard deviations. A first notable result is that, even measured three and a half years after program completion, women in both treatment groups exhibited substantially higher levels of soft skills than those in the control group. The impacts are positive for all measures and statistically significant for four out of seven indicators (perseverance, ambition, organization and communication) and for the combined index in the vocational and soft-skills group. The effects

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<sup>19</sup> The 12 month follow up survey was a telephone interview with a limited number of questions. It did not collect information on soft skills. We only have these measures in the substantially longer and more thorough household survey conducted three years and a half after the program.

<sup>20</sup> Because of the duration of the tests and because they had to be responded in person (instead of by phone), the measures were collected only in the medium-term follow up survey.

<sup>21</sup> The CPS scales were adapted modules from the *Positive Youth Development Student Questionnaire-Institute for Applied Research in Youth Development* (Lerner et al., 2005), the *Self-Description Questionnaire-II* (Marsh, 1990), the *Life Effectiveness Questionnaire* (Neill et. al., 1997), the *Review of Personal Effectiveness* (Richards et. al, 2002), the *Adolescent Coping Scale* (Frydenberg and Lewis, 1993), and the *Sense of Community Scale* (McMillan and Chavis, 1986). See Brea (2011) for details of the adaptation of these survey tools to the context of the Dominican Republic and the PJyE program.

are positive for three out of seven indicators (perseverance, social skills, organization) and for the combined index in the soft skills-only group. The results are larger for the combined treatment group and the Romano-Wolf p-values are all 0.05 or less, compared to levels of 0.191 or higher for the soft skills-only group. The joint tests of significance indicate that we can reject the equality of effects for women in the two groups at the 11% level for the combined soft skills index, and that we can reject the null that both coefficients are equal to zero.

On the other hand, for men we find no detectable effects on either treatment group for any of the soft skills measure. Estimated coefficients are close to zero with many of the signs being negative and not statistically significant for either treatment arm. This indicates that the program had no lasting effects on soft-skills acquisition for participating men. The joint tests of significance reinforce these results: estimates do not pick up any significant difference in soft skills for men in the control or in either of the two treatment groups.

#### **4.2. Short-Run Expectations**

While we do not have measures of soft skills at baseline or at the first 12-month follow up survey, we can probe the impact of the program on changes in optimism about the future. The short run follow-up survey gathered information on expectations for future employment and living standards. We present results for these two short-run outcomes (the percentage of respondents that answered positively) in Table 7. We find that participating in the training had positive and significant effects on expectations of improved future employment conditions (column 1) and of improved future living conditions (column 2) for both treatment groups for women. The coefficients, ranging between 3.1-3.7 percentage points, are very similar for women for the two outcomes and for the two treatment groups, as witnessed by the joint significance test. For men, only the combined training seems to have increased the expectations of improved employment conditions (by 5% for this group). Effects were smaller and not significant for the soft skills-only group; living standards for both male treatment groups saw smaller and insignificant improvement. Despite these results, the joint significance test does not allow us to reject the null hypotheses that the coefficients are equal for men and women in pairwise comparisons for both treatment groups, although this may be due to limited statistical power.

#### **4.3. Labor Market Outcomes in the Short and Medium Run**

The program's overall objective was to improve life conditions and prospects for disadvantaged youth, and it aimed to do so by increasing their employability. Both the soft skills and vocational training modules were designed to improve employment prospects. This section describes the program's impact on labor market outcomes.

Table 8 presents the impact of the program on employment (a binary work/does not work indicator), hours worked, log salary and job satisfaction measured at the 12 months follow-up survey. The first notable result is the impact of the program on employment for women. Women in the combined treatment are 6.7% more likely to have worked than those in the control group, and the effect is 5 percentage points for those in the soft skills training only (both statistically significant at the 5% level – the difference between the two coefficients is not statistically significant), which represent relative increases of 32% and 23.6% respectively given the low employment rate for women.

Both intervention arms are not only associated with women working more, but also higher quality employment in terms of salary and job satisfaction for the subset of those who work. We find a large and positive effect on women's salaries of 15-15.7%, with very similar effects for the two treatment arms (column 3), with the effect of combined treatment being statistically significant at 10% level and the effect of soft skills at 5%. We also find a large and positive effect on the share of women who are satisfied with their jobs, of 18.5 and 14.4 percentage points respectively, both statistically significant at standard levels, and again with very similar effect sizes for the two treatment arms (column 4).<sup>22</sup> Finally, neither of the two treatment arms had a statistically significant impact on hours of work for women.

These labor market effects are markedly different for men and are contingent on the type of treatment: the vocational and soft skills curriculum led to a negative and strongly-significant effect on short-run employment of -11.3 percentage points, a relative reduction of about 20% with respect to the control group. On the other hand, men in the soft skills-only group experienced no detectable changes in employment relative to the control group. We can reject the equality of coefficients at the 5% level between the combined and soft skills-only arms, which indicates that the negative effect on employment for men was caused by the vocational component of the

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<sup>22</sup> Although the adjusted Romano-Wolf p-value for the combined training is not significant at standard levels, we cannot reject that the combined and the soft skills coefficient are equal and the p-value for the Romano-Wolf of the pooled sample is also significant.



program's curricula. Men who participated in the soft skills-only training had no significant changes in the likelihood of holding a job. There are also no significant effects of either treatment on hours, salaries or job satisfaction for men who work.

Table 9 presents the effects of PJyE on the main employment outcomes three years after the program ended. In contrast with the results for the short term, there are no lasting effects of the program on the probability of working for women or men after three and a half years. Employment rates were 49% and 82.2% for women and men, irrespective of treatment status. For individuals who work, there was no significant difference in hours worked or salaries. The estimated coefficients for all groups are statistically insignificant and close to zero for these three outcomes (columns 1, 2, and 3).

To investigate the hypothesis that increased expectations led to higher reservation wages for men, we estimate the likelihood of rejecting a job offer because the salary offered was too low (column 4) and the value of the salary offer (column 5). Men in the combined treatment arm were more likely to report having rejected a job offer despite a higher wage offer (both effects significant at the 10% level), a result consistent with increased reservation wages. We observe no such effects for the other treatment groups. Furthermore, for men, both intervention arms had a positive and significant impact on the probability of searching for work while employed (12.3 percentage points for the combined treatment, and 8.6 p.p. for the soft skills-only group), with both coefficients strongly significant.

Taken together with the short-term employment findings above, these results indicate that the training contributed to large gains in employment, increased salaries and higher job satisfaction for women in the short term, but these effects dissipated in the medium term. For men, the vocational education component reduced the likelihood of working in the short run, and appears to have raised their reservation wage in the medium run. Men in the soft skills-only training course seem to have been largely unaffected by the program either in the short or medium terms.

Taken together, these results indicate that, in the short run, the intervention successfully increased employment in higher quality jobs for women but not for men, and the vocational skills training resulted in a nontrivial and negative short-run employment effect for men and no improvements in earnings. Given that the estimated coefficients for both groups are statistically indistinguishable for skills, employment, salary and job satisfaction, it is likely that the vocational

education component of the program did not contribute to the improved labor market outcomes for women. Rather, short-run employment effects appear to be generated by increased soft skills combined with labor market experience through internships. This suggests that the soft-skills training and internship, and not vocational education, led women to achieve higher employment in jobs with higher salaries that were more satisfying.

These labor market outcome effects are consistent with the results on skills and expectations. Women acquired more skills and were rewarded for these skills in the labor market. Men in the combined vocational and soft skills treatment, by comparison, did not acquire skills but did raise their expectations. Men in this group appear to have turned down job offers that they otherwise might have accepted because those jobs did not meet their higher expectations, hence leading to lower employment rates.

#### **4.4. Medium-run Well-being**

Finally, we explore effects of PJyE on the well-being of program beneficiaries 3.5 years after the training, measured in terms of job satisfaction (Table 9), future expectations (future salaries, children's life prospects, and own wealth prospects), and a standardized measure of self-esteem (Table 10). Women in the treatment group seem to be just as satisfied with their current employment as those in the control group in that they were not more likely to be searching for another job. However, men from both treatment groups who worked were more likely to be searching for better opportunities, and this effect was substantial.

Women in the treatment groups reported significantly higher optimism about the future compared to those in the control group even after three and a half years out of the program, as witnessed by the positive and statistically significant impact of the combined treatment on expected future salaries, on children's life prospects and on own wealth prospects (columns 1, 2 and 3, Table 10). The three effects are positive and statistically significant at the standard levels, with 6.6, 7.1 and 10.3 percentage point increases in the proportion of women reporting higher expectations. The coefficients for women in the soft skills-only group are also positive, but they are smaller and not statistically significant, although we cannot reject the null that the two coefficients are equal in the three pairwise comparisons.

In contrast, compared to the control group, men in the combined vocational and soft-skills treatment group report significantly lower expectations for salaries in the future and that their

children will be worse off, with effects of about 6.7 and 8.3 percentage points respectively, with no significant effects for men in the soft skills-only intervention arm.

Finally, we report results for the effect of the training on a standardized measure of self-esteem (column 4, Table 10). After three and a half years, women in both treatment groups report significantly higher self-esteem than those in the control group, with very similar coefficients between the two groups. In contrast, men in both treatment groups show negative (but not statistically significant) changes in self-esteem in the medium run.

These medium-run effects are consistent with the fact that, despite both women and men having finished the training with high future expectations (12 months), only women acquired skills and achieved results in the labor market after completion of the course. In the medium run, the effects in the labor market disappeared for women, but they still maintain the gains in soft skills acquired in the training, keeping their self-esteem high and maintaining higher expectations for a better future. Men, on the contrary, had increased labor market expectations, but failed to gain the soft skills and experienced reduced short-run employment in the combined training arm. While the program had no sustained medium-run employment effects other than increased job search amongst men, they show signs of discouragement in terms of reduced optimism about future employment and wealth for themselves and future generations.

We present some additional non-experimental evidence consistent with this interpretation of our results in Appendix 4. Tables A4.1, A4.2 and A4.3 report the correlations between our measures of soft skills and selected outcomes for individuals in the control group only (for the full sample, and for women and men respectively). A notable result is that labor force participation in both the short run and the medium run is positively correlated with our measure of perseverance, and negatively correlated with our measure of ambition, for the whole sample (controlling for gender, Table A4.1) and for women (Table A4.2) and men (Table A.4.3) separately. For the latter, the effect dissipates in the medium run, but the signs are the same.

## **5. Discussion**

Vocational education programs for poor and at-risk youth in developing countries are widespread, despite relatively weak empirical evidence as to their effectiveness and cost-effectiveness (Blattman and Ralston, 2015, McKenzie, 2017). While the specific curriculum and

quality of the interventions vary from program to program, these interventions have generally consisted of a mix of vocational skills and soft (i.e., inter-personal) skills that are meant to improve beneficiaries' job prospects, reduce poverty, and improve their well-being. One salient aspect of these programs that has received less attention is their potential to alter beneficiaries' expectations on employment and livelihood. If in fact these programs generate high expectations that are not met in reality, they could result in discouraged workers with worse medium-term outcomes.

We explore the short- and medium-term effects of a vocational and soft-skills training program in the Dominican Republic using a unique experiment that randomly assigned potential participants to receive a combined package of vocational education, soft skills and internship; a soft skills and internship only arm, or a control group. This design allows us to sort out the marginal contribution of the vocational education component, which makes up the bulk of time and costs related to most job-training programs.

Literature looking at similar programs in developing countries also differentiates effects by gender, mostly focus on labor outcomes, and show mixed results in the medium and long terms. Consistent with our findings, previous studies of the combined package of PJyE<sup>23</sup> using a different study cohort show that the program had different impacts across genders and that most of the effects dissipated with time. In the short run, Ibararán et al., 2014 found positive impacts of the PJyE on monthly income and expectations for women but not men, and an increase in formality for men. After six years, Ibararán et al. 2019 find no average effects on employment or earnings for men or women.<sup>24</sup> Thus, evidence from our study and previous research on PJyE consistently show that short term impacts on labor outcomes mostly disappear in the medium to long run. This result is strikingly similar to longer-run studies of similar programs in a diverse set of lower and middle-income country contexts, including Argentina (Alzua et al 2016), Turkey (Hirshleifer et al, 2014) and Uganda (Blattman et al, 2018).

Our findings add several insights to the existing body of evidence. We find that the program increased short-run expectations for both men and women, but that the effects on labor market

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<sup>23</sup> Studies of PJyE were conducted in a context of macroeconomic growth with high informality rates in the labor markets (Abdullaev et Estevao, 2013). The study of Ibararán et al. 2019 was conducted within two years of this study, therefore we assume that the same labor market conditions apply to both studies.

<sup>24</sup> The only sustained outcome in the labor market is formality for men, however this effect is driven by participants in Santo Domingo, where labor market conditions may differ substantially from other parts of the country. The authors also analyze a second proxy measure of formality, having a written contract, and find no significant effects.

outcomes are different for these two groups. Young women benefited from the program in the short run; men, however, did not experience improvements in employment. The interaction of these common expectations and different labor market results produce very different medium-run outlooks on life. For women, the increased short-term expectations are met with positive effects in terms of both soft skills acquisition and short-term employment. While women in the control group catch up to the treatment in terms of employment and salary over time, women in the treatment groups retain a more positive outlook for the future and have higher self-esteem in the medium run. For men, on the other hand, the increased short-run employment expectations are not born out in the labor market. In fact, men in the vocational education arm experience a reduced likelihood of employment in the short run, a sustained negative impact on their expectations, are more likely to reject job offers with higher wages and have no significant changes in wellbeing.

Our interpretation is that women benefited substantially from the soft skills (including internship) component of the training, and that the positive effects on expectations were further reinforced by the short-run positive effects on employment. While these expectations did not pan out in the labor market outcomes in the medium run, the lasting positive effect on skills seems to have been rewarded as reflected in the higher future expectations and self-esteem.

We find a completely different set of program effects for men. While the program seems to have induced higher employment expectations, these did not materialize even in the short run. One explanation for this is that men seem to have not acquired skills from the training but did experience an increase in their reservation wages. These unmet prospects are reflected in the negative effects of the program on expectations in general in the medium run, which were also probably reinforced by the relatively worse labor market outcomes in terms of non-satisfaction (on-the-job-search) and employment quality (lower employment). These results, taken together, might explain the pattern of program effects on self-esteem in the medium run, where we find no effects on men.

For women, the program implied a reinforcing pattern of skill acquisition and strengthened expectations despite the dissipation of positive short-run employment effects in the medium run. For men, on the other hand, the failure to acquire skills and the negative employment results in the short run seems to have reinforced a cycle of negative outcomes and expectations. Men seem to have waited to find better jobs because of their higher expectations, but they did not acquire

necessary skills, reflected in the lack of reward in the labor market, which in turn made them disillusioned. While there are effects from both types of training, vocational skills training seems to have induced a higher level of skill acquisition (even for soft skills) and higher expectations for women, although the lack of personal skills and the negative employment outcomes also implied higher levels of frustration for men in the medium run from this type of training. Women obtained skills and a better view of the future; men became discouraged and were left behind.

While our study cannot experimentally identify the origins and causes of the differential effects by gender, the initial conditions of women relative to men may shed some light on this question. Female's baseline work experience, soft skills and related demographic characteristics (for example women were more likely to have children and less likely to be single) indicate lower initial labor market attachment compared to men.<sup>25</sup> Thus, the content of the PJyE intervention may have been better suited to the initial conditions of young women who had less work experience and fewer soft skills, while young men, who started with relatively more experience and skills, gained little from the training. This idea seems to bear out empirically in the case of soft-skills training, where the magnitude of the program's effect essentially bridges the gap in soft skills between men and women.

A complementary interpretation, which we cannot directly test either, is that just as women seem to benefit more from the training, they might also benefit more than men from the program's internship component. Job experience also provides skills, and women's previous work experience is about half (11 vs. 22%) that of men in our experimental sample. The increased skills from increased work experience through the internship and through the positive impact on women's employment in the short run might also have contributed to higher overall skills, expectations and self-esteem in the medium run.<sup>26</sup>

Lastly, while differential effects between men and women do not appear to be driven by gender-specific preferences for different sectors (see Appendix 2), there are some indications that effects for women may have been strongest in female-dominant sectors such as health, professional services and beauty, where over 74% of applicants were female. For example, compared to the main effects on the combined skill index, expectations and employment, the estimated coefficients

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<sup>25</sup> While we don't observe soft skills at baseline, Table 6 shows significantly lower skills for women compared to men.

<sup>26</sup> We owe this interpretation to an anonymous referee.

in the sub-analysis on gender-balanced sectors tends to be of a smaller magnitude and reduced statistical significance, suggesting that effects for women may have been more pronounced in the predominantly female sectors. Unfortunately, rigorously identifying gender-differentiated effects by sector is limited by statistical power in the context of our study, but remains an important line of inquiry for future research.

In terms of efficiency, back-of-the-envelope calculations show that the combined training had a cost of \$320 per student, and the soft-skills-only training had a cost of \$160. Considering the impact of the program on employment rates and salaries for women after 12 months, the program seems to be cost-effective, showing a benefit-cost ratio of 1.29 for the combined training and 1.91 for the soft-skills-only training after the first year (since our estimates represent intention to treat effects, take up is implicitly accounted for).<sup>27</sup> Given that the program had negative or null impacts for men, the program was not cost-effective for them.

The main message of this paper is that programs of this type can be transformative – for women, soft skills training mattered and made a difference, but they can also have a downside if, like in this case for men, training creates expectations that are not met. Governments in both developed and developing countries will most likely continue carrying out programs of this type so it is very important that research efforts also identify their potential downsides and help inform their design and implementation to mitigate them. Further research could concentrate on the mechanisms through which these programs seem to be more effective for women than for men and attempt to derive conditions under which male youth could also benefit from training in both their vocational and soft skills. Finally, while we have provided evidence to disentangle the effects of vocational and soft skills training, future experimental designs could also attempt to isolate the effect of internships on labor market outcomes as well as on skills, expectations and self-esteem, since it is likely that these early work experiences can shape future career prospects and participants' well-being in general.

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<sup>27</sup> Assuming that at least half of the labor outcome impacts persist during a second year after the end of the program, the benefit-cost ratio for women would be of 1.86 and 2.76, respectively.

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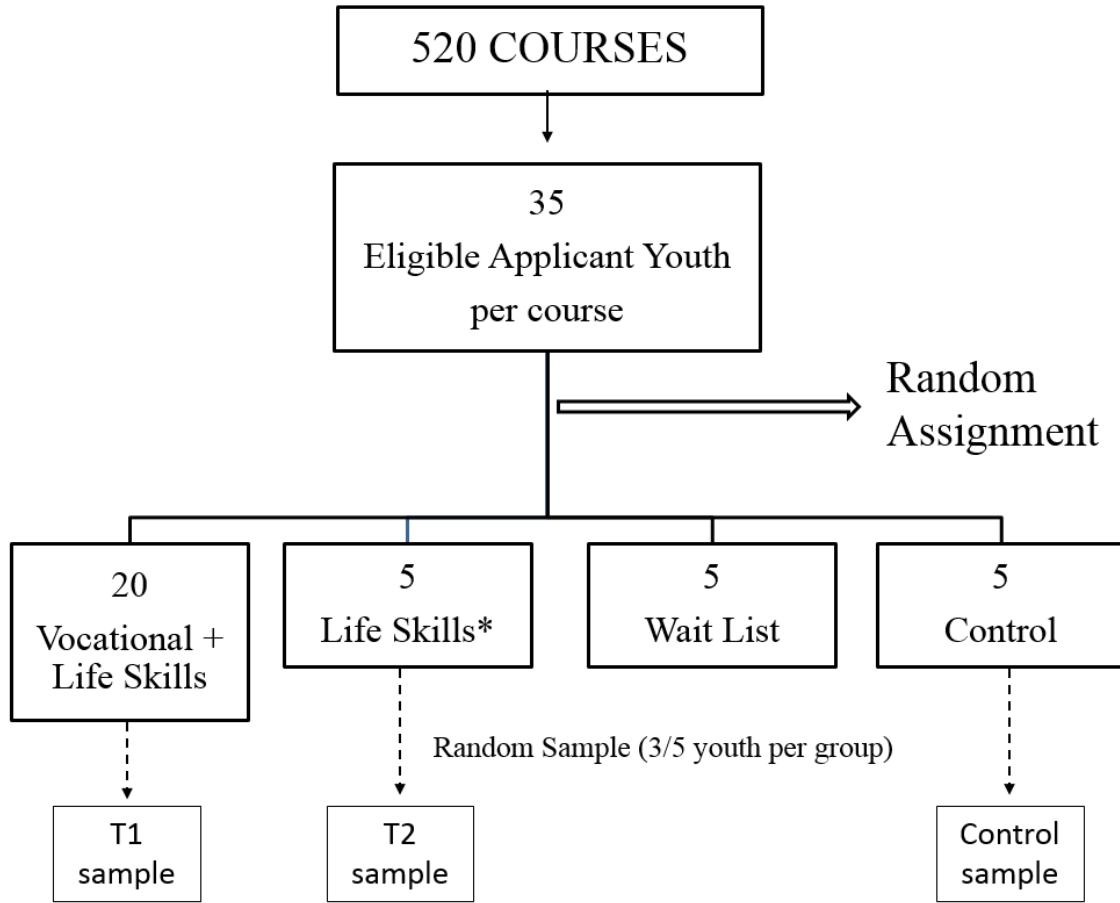
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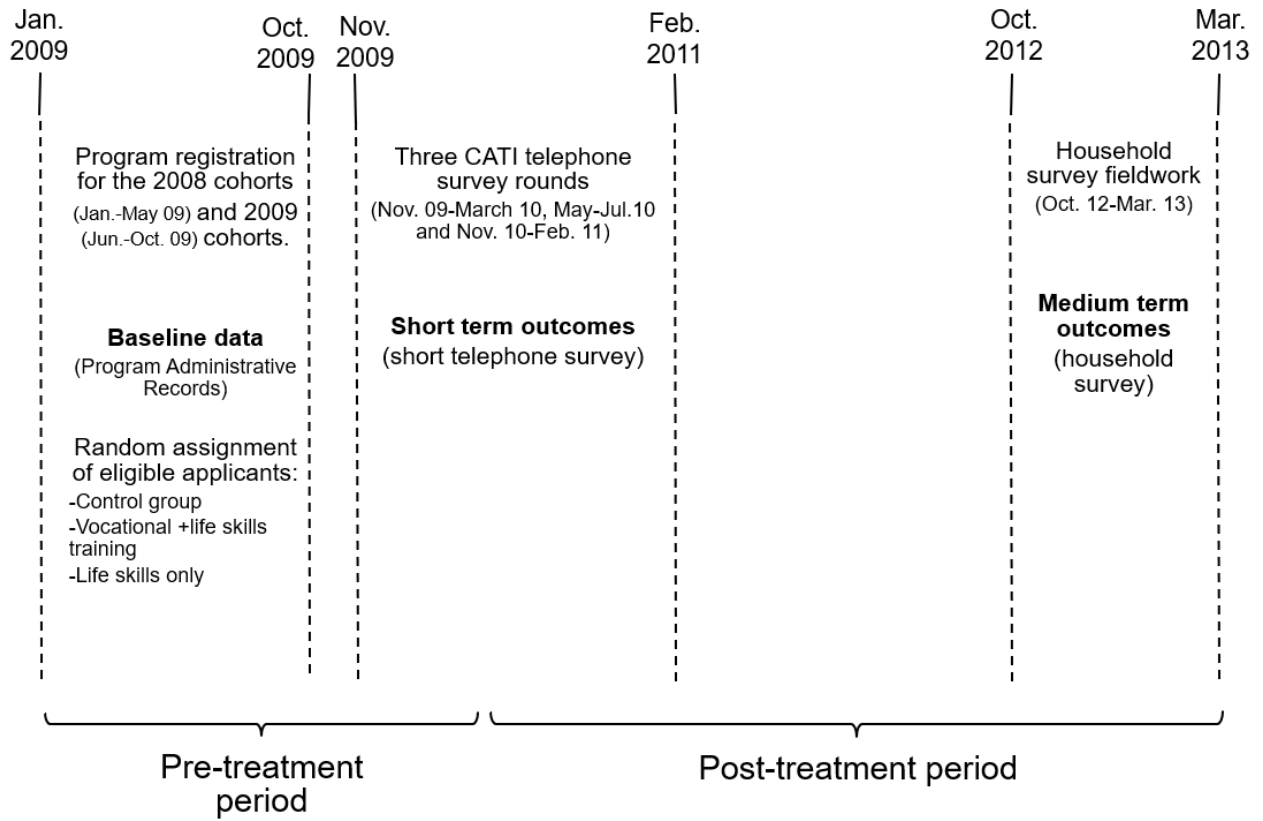
## Figures

Figure 1: Random assignment.



\* 341 courses of Life Skills-only were conducted

**Figure 2: Intervention and survey timeline**



**Figure 3: Definitions of Soft Skills Measures**

| <b>Skill</b>        | <b>Measure definition</b>   |
|---------------------|---|
| Perseverance        | The measure assesses the belief that it is important to sustain efforts to achieve long-term goals and complete plans. It is a true positive indicator of long-term success and disassociated with a disciplined and deeply rooted desire to achieve individual success.  |
| Ambition            | The measure assesses the desire for power or superiority.   |
| Leadership          | The measure assesses the ability to influence peers and work towards a common goal, to be known and admired by peers, willingness to actively participate in important community issues, and the ability to work with others and commit to come to agreement and coordinate activities with others.   |
| Conflict Resolution | The measure assesses the ability to recognize, express and manage emotions and before acting, as well as the ability to identify the source of a social or interpersonal conflict, to understand the perspectives of all parties involved in the conflict, and to propose solutions.  |
| Social Skills       | The measure assesses the ability to establish and maintain social ties and the knowledge of how to behave in a social context to function.  |
| Organization        | The measure assesses the ability to plan activities and the willingness to maintain the order of the tools and materials that are used in everyday development. It also implies a commitment to the goals set by the team and the social environment of the individual.   |
| Communication       | The measure assesses the ability to understand and accept other people, to empathize, to receive the views of others and be respectful (a) to people, ideas, values, and / or customs different from the individual's own. At the same time, it is also the ability to express and understand ideas or messages accurately and safely, which may subject you to maintain a good relationship and social adjustment. |

## Tables

**Table 1: Courses and Participants by Sectors (2009)**

| <b>Courses</b>        | <b>Percentage of Participants <sup>1</sup></b> | <b>% Males</b> | <b>% Females</b> |
|-----------------------|--|----------------|------------------|
| Sales                 | 38.0%  | 44.1%          | 55.9%            |
| Hotel and Restaurant  | 20.3%  | 46.2%          | 53.8%            |
| Professional Services | 11.2%  | 14.0%          | 86.0%            |
| Beauty                | 9.6%   | 11.1%          | 88.9%            |
| Health                | 8.6%   | 25.1%          | 74.9%            |
| Commerce              | 4.0%   | 92.6%          | 7.4%             |
| Agriculture           | 3.2%   | 61.8%          | 38.2%            |
| Computer/IT           | 2.6%   | 57.7%          | 42.3%            |
| Security              | 2.1%   | 45.5%          | 54.5%            |
| Construction          | 0.4%   | 94.4%          | 5.6%             |

<sup>1</sup> Participants are assigned to the course they applied for.

**Table 2: Competencies Addressed in Soft Skills Training**

| <b>Competencies</b>   | <b>Hours</b> |
|---|--------------|
| <b>Development of Self-Esteem, Personal Skills and Self-Fulfillment</b> | <b>20</b>    |
| <i>Self awareness</i>   |              |
| <i>Communication skills</i>   |              |
| <i>Management of human relationships</i>                                |              |
| <b>Development of Skills for Life and Work Success</b>                  | <b>35</b>    |
| <i>Development of a life project</i>                                    |              |
| <i>Working with quality and being productive</i>                        |              |
| <i>Decision making</i>  |              |
| <i>Hygiene, health, and labor rights</i>                                |              |
| <b>Development of Social Skills</b>                                     | <b>20</b>    |
| <i>Management of conflict resolution</i>                                |              |
| <i>Participation in social solidarity networks</i>                      |              |
| Total number of hours   | 75           |

**Table 3: Data Sources and Sample Sizes**

| Time after the training:  | Registration Form   | Telephone Survey |          |           | Household Survey |
|---------------------------|---------------------|------------------|----------|-----------|------------------|
|                           | Before the training | 0 months         | 6 months | 12 months | 3.5 years        |
| Treatment                 | 3,251               | 2,856            | 2,940    | 2,935     | 2,697            |
| Hard and Soft Skills      | 1,638               | 1,419            | 1,481    | 1,470     | 1,366            |
| Soft Skills               | 1,613               | 1,437            | 1,459    | 1,465     | 1,331            |
| Control                   | 1,449               | 1,259            | 1,298    | 1,286     | 1,176            |
| Total Number Observations | 4,700               | 4,115            | 4,238    | 4,221     | 3,873            |

Source: Baseline data came from the registration form filled out upon application. Short term follow-up data come from three rounds of telephone surveys: the first one was conducted immediately after the program finished following the rolling basis scheme of the program (from November 2009 to March 2010), the second was conducted six months after program completion (from May to July 2010), and the third round one was conducted one year after program completion (from November 2010 to February 2011). The medium-term follow-up data was collected in a household survey from October 2012 to March 2013, that is, approximately 3.5 years after the training concluded for our study sample.

**Table 4: Applicant Characteristics at Baseline**

|   | Mean study sample | Mean Population |
|---|-------------------|-----------------|
| Female  | 62.2%             | 50.0%           |
| Age   | 20.9              | 20.9            |
| Household Size  | 3.8               | 4.7             |
| Education (maximum level attained, not necessarily completed) |                   |                 |
| Elementary  | 25.0%             | 31.0%           |
| Secondary   | 72.3%             | 49.0%           |
| Tertiary  | 0.2%              | 17.0%           |
| College   | 0.0%              | 3.0%            |
| Don't Know  | 2.1%              | 0.0%            |
| Marital Status  |                   |                 |
| Single  | 78.7%             | 69.0%           |
| Civil Union   | 18.6%             | 22.0%           |
| Married   | 2.3%              | 3.0%            |
| Divorced  | 0.3%              | 6.0%            |
| Widowed   | 0.1%              | 0.0%            |

Source: Baseline study sample and National Labor Survey 2009

Note: The study sample is restricted to individuals in training facilities where the two treatments were offered, and to participants who were interviewed in both the 12 month's follow up telephone survey and the 3.5 years' follow-up household survey.



**Table 5: Baseline Balance**

|   | Mean at Baseline            |             |         | P-Values                        |                        |                                     |
|---|-----------------------------|-------------|---------|---------------------------------|------------------------|-------------------------------------|
|   | Hard Skills and Soft Skills | Soft Skills | Control | Hard and Soft Skills vs Control | Soft Skills vs Control | Hard and Soft Skills vs Soft Skills |
| <b>A. Females</b>                         |                             |             |         |                                 |                        |                                     |
| Age                                       | 21.18                       | 21.16       | 21.09   | 0.89                            | 0.78                   | 0.90                                |
| Family Size                               | 3.98                        | 3.84        | 3.82    | 0.04                            | 0.34                   | 0.17                                |
| Urban=1                                   | 0.78                        | 0.80        | 0.77    | 0.89                            | 0.65                   | 0.76                                |
| Sto. Domingo=1                            | 0.25                        | 0.22        | 0.26    | 0.90                            | 0.24                   | 0.17                                |
| Poverty Score                             | 60.36                       | 61.11       | 61.13   | 0.07                            | 0.92                   | 0.03                                |
| Years of Education                        | 9.90                        | 9.79        | 9.82    | 0.68                            | 0.53                   | 0.27                                |
| Studying=1                                | 0.27                        | 0.27        | 0.24    | 0.30                            | 0.19                   | 0.86                                |
| Literate head of household                | 0.89                        | 0.91        | 0.92    | 0.06                            | 0.77                   | 0.07                                |
| Literate spouse of head household         | 0.40                        | 0.44        | 0.40    | 0.73                            | 0.11                   | 0.21                                |
| Working                                   | 0.03                        | 0.02        | 0.03    | 0.84                            | 0.36                   | 0.48                                |
| Related Experience=1                      | 0.09                        | 0.11        | 0.12    | 0.61                            | 0.48                   | 0.20                                |
| Unemployed=1                              | 0.54                        | 0.55        | 0.55    | 0.98                            | 0.95                   | 0.97                                |
| Previous Work=1                           | 0.11                        | 0.11        | 0.10    | 0.23                            | 0.11                   | 0.77                                |
| Receive remittances                       | 0.04                        | 0.04        | 0.03    | 0.25                            | 0.18                   | 0.93                                |
| Has children=1                            | 0.55                        | 0.51        | 0.55    | 0.73                            | 0.11                   | 0.21                                |
| Number of children                        | 0.90                        | 0.82        | 0.94    | 0.28                            | 0.04                   | 0.34                                |
| Single=1                                  | 0.75                        | 0.72        | 0.71    | 0.12                            | 0.48                   | 0.30                                |
| Joint significance test of all covariates |                             |             |         | 0.51                            | 0.69                   | 0.23                                |
| <b>B. Males</b>                           |                             |             |         |                                 |                        |                                     |
| Age                                       | 20.31                       | 20.53       | 20.86   | 0.01                            | 0.12                   | 0.22                                |
| Family Size                               | 3.70                        | 3.74        | 3.70    | 0.98                            | 0.83                   | 0.86                                |
| Urban=1                                   | 0.79                        | 0.82        | 0.84    | 0.18                            | 0.66                   | 0.33                                |
| Sto. Domingo=1                            | 0.25                        | 0.29        | 0.24    | 0.95                            | 0.15                   | 0.17                                |
| Poverty Score                             | 62.95                       | 63.27       | 61.67   | 0.03                            | 0.02                   | 0.94                                |
| Years of Education                        | 9.63                        | 9.74        | 9.60    | 0.44                            | 0.23                   | 0.71                                |
| Studying=1                                | 0.26                        | 0.27        | 0.24    | 0.17                            | 0.14                   | 0.99                                |
| Literate head of household                | 0.90                        | 0.92        | 0.88    | 0.13                            | 0.02                   | 0.43                                |
| Literate spouse of head household         | 0.37                        | 0.38        | 0.37    | 0.96                            | 0.93                   | 0.98                                |
| Working                                   | 0.06                        | 0.06        | 0.06    | 0.32                            | 0.98                   | 0.30                                |
| Related Experience=1                      | 0.14                        | 0.16        | 0.12    | 0.83                            | 0.32                   | 0.45                                |
| Unemployed=1                              | 0.68                        | 0.68        | 0.72    | 0.09                            | 0.09                   | 0.89                                |
| Previous Work=1                           | 0.22                        | 0.22        | 0.18    | 0.11                            | 0.09                   | 0.98                                |
| Receive remittances                       | 0.06                        | 0.08        | 0.10    | 0.15                            | 0.66                   | 0.27                                |
| Has children=1                            | 0.12                        | 0.12        | 0.16    | 0.34                            | 0.09                   | 0.49                                |
| Number of children                        | 0.17                        | 0.16        | 0.22    | 0.37                            | 0.19                   | 0.72                                |
| Single=1                                  | 0.91                        | 0.90        | 0.88    | 0.11                            | 0.12                   | 0.86                                |
| Joint significance test of all covariates |                             |             |         | 0.17                            | 0.36                   | 0.95                                |

Source: Baseline study survey

Note: The study sample is restricted to individuals in training facilities where the two treatments were offered, and to participants who were interviewed in both the 12 month-follow up telephone survey and the 3.5 years' follow-up household survey.

Regressions include controls for the educational institution, the sector of the course, and the training cohort. Sto. Domingo does not control for educational institution because of collinearity.

**Table 6. Program Impact on Soft Skills, 3.5 years**

| VARIABLES  | (1)<br>Perseverance<br>(S.D.) | (2)<br>Ambition<br>(S.D.) | (3)<br>Leadership<br>(S.D.) | (4)<br>Conflict<br>Resolution<br>(S.D.) | (5)<br>Social Skills<br>(S.D.) | (6)<br>Organization<br>(S.D.) | (7)<br>Communication<br>(S.D.) | (8)<br>Combined<br>Index<br>(S.D.) |
|--|-------------------------------|---------------------------|-----------------------------|---|--------------------------------|-------------------------------|--------------------------------|------------------------------------|
| <i>Combined Vocational and Soft Skills Training x Female</i> |                               |                           |                             |   |                                |                               |                                |                                    |
| β1   | 0.202***                      | 0.188***                  | 0.097                       | 0.098                                   | 0.105*                         | 0.152**                       | 0.165***                       | 0.144***                           |
| Standard Error   | (0.061)                       | (0.061)                   | (0.065)                     | (0.064)                                 | (0.063)                        | (0.066)                       | (0.064)                        | (0.046)                            |
| Romano Wolf p-value  | 0.006                         | 0.006                     | 0.054                       | 0.054                                   | 0.051                          | 0.021                         | 0.013                          | 0.006                              |
| <i>Soft Skills Training Only x Female</i>                    |                               |                           |                             |   |                                |                               |                                |                                    |
| β2   | 0.106*                        | 0.094*                    | 0.055                       | 0.079                                   | 0.107*                         | 0.100                         | 0.028                          | 0.081*                             |
| Standard Error   | (0.056)                       | (0.056)                   | (0.060)                     | (0.059)                                 | (0.058)                        | (0.061)                       | (0.058)                        | (0.043)                            |
| Romano Wolf p-value  | 0.193                         | 0.193                     | 0.193                       | 0.193                                   | 0.193                          | 0.193                         | 0.309                          | 0.193                              |
| <i>Combined Vocational and Soft Skills Training x Male</i>   |                               |                           |                             |   |                                |                               |                                |                                    |
| β3   | -0.024                        | -0.051                    | 0.063                       | -0.007                                  | -0.009                         | -0.030                        | -0.072                         | -0.019                             |
| Standard Error   | (0.076)                       | (0.076)                   | (0.081)                     | (0.080)                                 | (0.079)                        | (0.082)                       | (0.079)                        | (0.058)                            |
| Romano Wolf p-value  | 1                             | 1                         | 1                           | 1                                       | 1                              | 1                             | 1                              | 1                                  |
| <i>Soft Skills Training Only x Male</i>                      |                               |                           |                             |   |                                |                               |                                |                                    |
| β4   | -0.057                        | -0.050                    | 0.018                       | 0.005                                   | -0.016                         | -0.004                        | -0.015                         | -0.017                             |
| Standard Error   | (0.071)                       | (0.071)                   | (0.075)                     | (0.074)                                 | (0.073)                        | (0.077)                       | (0.074)                        | (0.054)                            |
| Romano Wolf p-value  | 1                             | 1                         | 1                           | 1                                       | 1                              | 1                             | 1                              | 1                                  |
| <i>Female=1</i>  |                               |                           |                             |   |                                |                               |                                |                                    |
| β5   | -0.193***                     | -0.111                    | -0.109                      | -0.131*                                 | -0.157**                       | -0.216***                     | -0.214***                      | -0.162***                          |
| Standard Error   | (0.072)                       | (0.072)                   | (0.077)                     | (0.076)                                 | (0.075)                        | (0.078)                       | (0.075)                        | (0.055)                            |
| Romano Wolf p-value  | 0.014                         | 0.06                      | 0.062                       | 0.059                                   | 0.029                          | 0.014                         | 0.014                          | 0.014                              |
| Observations   | 2,779                         | 2,779                     | 2,779                       | 2,779                                   | 2,779                          | 2,779                         | 2,779                          | 2,779                              |
| R-squared  | 0.046                         | 0.041                     | 0.032                       | 0.037                                   | 0.032                          | 0.036                         | 0.053                          | 0.040                              |
| Control Mean:  | -0.001                        | -0.001                    | -0.001                      | 0.000                                   | 0.000                          | -0.002                        | 0.000                          | 0.000                              |
| Control Mean Female:   | -0.076                        | -0.050                    | -0.054                      | -0.057                                  | -0.069                         | -0.106                        | -0.072                         | -0.069                             |
| Control Mean Male:   | 0.109                         | 0.071                     | 0.077                       | 0.085                                   | 0.102                          | 0.151                         | 0.106                          | 0.100                              |
| P-value Coef.(TTP+DBC)*Female=(TTP+DBC)*Male:                | 0.021                         | 0.015                     | 0.741                       | 0.305                                   | 0.263                          | 0.087                         | 0.021                          | 0.029                              |
| P-value Coef (TTP+DBC)*Female=(TTP+DBC)*Male=0:              | 0.004                         | 0.008                     | 0.240                       | 0.308                                   | 0.251                          | 0.068                         | 0.024                          | 0.008                              |
| P-value Coef.(DBC)*Female=(DBC)*Male:                        | 0.071                         | 0.114                     | 0.705                       | 0.439                                   | 0.189                          | 0.289                         | 0.649                          | 0.153                              |
| P-value Coef.(DBC)*Female=(DBC)*Male=0:                      | 0.121                         | 0.196                     | 0.638                       | 0.406                                   | 0.179                          | 0.260                         | 0.873                          | 0.155                              |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female:                  | 0.079                         | 0.085                     | 0.463                       | 0.733                                   | 0.976                          | 0.373                         | 0.016                          | 0.129                              |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female=0:                | 0.004                         | 0.009                     | 0.327                       | 0.263                                   | 0.139                          | 0.066                         | 0.017                          | 0.008                              |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male:                      | 0.642                         | 0.982                     | 0.556                       | 0.865                                   | 0.920                          | 0.741                         | 0.436                          | 0.974                              |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male=0:                    | 0.714                         | 0.735                     | 0.726                       | 0.986                                   | 0.976                          | 0.925                         | 0.624                          | 0.936                              |

Notes: Standard errors in parenthesis. All regressions include controls for the educational institution, the sector of the course, and the training cohort. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 7. Program Impact on Expectations, 1 year**

| VARIABLES  | (1)<br>Expect Employment<br>Opportunities to<br>Improve | (2)<br>Expect Living<br>Standards to<br>Improve |
|--|---|---|
| <i>Combined Vocational and Soft Skills Training x Female</i> |   |   |
| β1   | 0.035**   | 0.031**   |
| Standard Error   | (0.015)   | (0.012)   |
| Romano Wolf p-value  | 0.017   | 0.017   |
| <i>Soft Skills Training Only x Female</i>                    |   |   |
| β2   | 0.037***  | 0.032***  |
| Standard Error   | (0.013)   | (0.011)   |
| Romano Wolf p-value  | 0.007   | 0.007   |
| <i>Combined Vocational and Soft Skills Training x Male</i>   |   |   |
| β3   | 0.050***  | 0.010   |
| Standard Error   | (0.018)   | (0.015)   |
| Romano Wolf p-value  | 0.013   | 0.337   |
| <i>Soft Skills Training Only x Male</i>                      |   |   |
| β4   | 0.029*  | 0.005   |
| Standard Error   | (0.017)   | (0.014)   |
| Romano Wolf p-value  | 0.205   | 0.567   |
| <i>Female=1</i>  |   |   |
| β5   | -0.008  | -0.014  |
| Standard Error   | (0.017)   | (0.014)   |
| Romano Wolf p-value  | 1   | 1   |
| Observations   | 2,779   | 2,779   |
| R-squared  | 0.037   | 0.027   |
| Control Mean:  | 0.920   | 0.948   |
| Control Mean Female:   | 0.917   | 0.943   |
| Control Mean Male:   | 0.924   | 0.955   |
| P-value Coef.(TTP+DBC)*Female=(TTP+DBC)*Male:                | 0.529   | 0.291   |
| P-value Coef (TTP+DBC)*Female=(TTP+DBC)*Male=0:              | 0.001   | 0.033   |
| P-value Coef.(DBC)*Female=(DBC)*Male:                        | 0.729   | 0.125   |
| P-value Coef.(DBC)*Female=(DBC)*Male=0:                      | 0.005   | 0.013   |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female:                  | 0.909   | 0.865   |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female=0:                | 0.014   | 0.008   |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male:                      | 0.221   | 0.716   |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male=0:                    | 0.023   | 0.800   |

Notes: Standard errors in parenthesis. All regressions include controls for the educational institution, the sector of the course, and the training cohort. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 8. Program Impact on Employment, 1 year**

| VARIABLES  | (1)<br>Working | (2)<br>Hours per<br>week | (3)<br>Log (Salary) | (4)<br>Satisfied with<br>job |
|--|----------------|--------------------------|---------------------|------------------------------|
| <i>Combined Vocational and Soft Skills Training x Female</i> |                |                          |                     |                              |
| β1   | 0.067**        | 1.732                    | 0.150*              | 0.185***                     |
| Standard Error   | (0.030)        | (2.348)                  | (0.083)             | (0.067)                      |
| Romano Wolf p-value  | 0.041          | 0.131                    | 0.055               | 0.025                        |
| <i>Soft Skills Training Only x Female</i>                    |                |                          |                     |                              |
| β2   | 0.050*         | 0.925                    | 0.157**             | 0.144**                      |
| Standard Error   | (0.027)        | (2.179)                  | (0.077)             | (0.062)                      |
| Romano Wolf p-value  | 0.087          | 0.202                    | 0.087               | 0.087                        |
| <i>Combined Vocational and Soft Skills Training x Male</i>   |                |                          |                     |                              |
| β3   | -0.113***      | 1.391                    | 0.048               | 0.075                        |
| Standard Error   | (0.037)        | (2.075)                  | (0.075)             | (0.059)                      |
| Romano Wolf p-value  | 0.009          | 0.636                    | 0.636               | 0.451                        |
| <i>Soft Skills Training Only x Male</i>                      |                |                          |                     |                              |
| β4   | -0.029         | -1.370                   | -0.048              | 0.005                        |
| Standard Error   | (0.035)        | (1.815)                  | (0.065)             | (0.052)                      |
| Romano Wolf p-value  | 1              | 1                        | 1                   | 1                            |
| <i>Female=1</i>  |                |                          |                     |                              |
| β5   | -0.326***      | -6.327***                | -0.394***           | -0.120*                      |
| Standard Error   | (0.035)        | (2.346)                  | (0.083)             | (0.066)                      |
| Romano Wolf p-value  | 0.001          | 0.005                    | 0.001               | 0.018                        |
| Observations   | 2,779          | 961                      | 958                 | 973                          |
| R-squared  | 0.101          | 0.114                    | 0.186               | 0.104                        |
| Control Mean:  | 0.351          | 43.320                   | 8.646               | 0.498                        |
| Control Mean Female:   | 0.220          | 39.700                   | 8.435               | 0.416                        |
| Control Mean Male:   | 0.541          | 45.460                   | 8.775               | 0.547                        |
| P-value Coef.(TTP+DBC)*Female=(TTP+DBC)*Male:                | 0.000          | 0.914                    | 0.369               | 0.221                        |
| P-value Coef (TTP+DBC)*Female=(TTP+DBC)*Male=0:              | 0.001          | 0.601                    | 0.155               | 0.009                        |
| P-value Coef.(DBC)*Female=(DBC)*Male:                        | 0.076          | 0.421                    | 0.0428              | 0.086                        |
| P-value Coef.(DBC)*Female=(DBC)*Male=0:                      | 0.138          | 0.689                    | 0.0972              | 0.066                        |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female:                  | 0.519          | 0.679                    | 0.920               | 0.455                        |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female=0:                | 0.067          | 0.761                    | 0.101               | 0.016                        |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male:                      | 0.015          | 0.160                    | 0.170               | 0.214                        |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male=0:                    | 0.006          | 0.365                    | 0.380               | 0.375                        |

Notes: Standard errors in parenthesis. All regressions include controls for the educational institution, the sector of the course, and the training cohort. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 9. Program Impact on Employment, 3.5 years**

| VARIABLES  | (1)<br>Working | (2)<br>Hours per<br>week | (3)<br>Log (Salary) | (4)<br>Refused offer<br>because of<br>low salary | (5)<br>Log (Salary<br>offer<br>refused) | (6)<br>Searching for<br>Work While<br>Employed |
|--|----------------|--------------------------|---------------------|--|---|--|
| <i>Combined Vocational and Soft Skills Training x Female</i> |                |                          |                     |  |   |  |
| β1   | 0.010          | 1.224                    | 0.018               | 0.087  | 0.164                                   | -0.047   |
| Standard Error   | (0.030)        | (1.832)                  | (0.085)             | (0.055)  | (0.241)                                 | (0.042)  |
| Romano Wolf p-value  | 1              | 1                        | 1                   | 1  | 1                                       | 1  |
| <i>Soft Skills Training Only x Female</i>                    |                |                          |                     |  |   |  |
| β2   | 0.013          | 0.558                    | -0.033              | 0.030  | 0.265                                   | -0.006   |
| Standard Error   | (0.027)        | (1.689)                  | (0.079)             | (0.051)  | (0.239)                                 | (0.039)  |
| Romano Wolf p-value  | 1              | 1                        | 1                   | 1  | 1                                       | 1  |
| <i>Combined Vocational and Soft Skills Training x Male</i>   |                |                          |                     |  |   |  |
| β3   | -0.016         | -0.259                   | -0.096              | 0.123*   | 0.525*                                  | 0.123***                                       |
| Standard Error   | (0.037)        | (1.786)                  | (0.080)             | (0.068)  | (0.310)                                 | (0.041)  |
| Romano Wolf p-value  | 0.545          | 0.545                    | 0.232               | 0.186  | 0.186                                   | 0.013  |
| <i>Soft Skills Training Only x Male</i>                      |                |                          |                     |  |   |  |
| β4   | 0.002          | 0.041                    | -0.036              | 0.073  | 0.163                                   | 0.086**  |
| Standard Error   | (0.035)        | (1.646)                  | (0.074)             | (0.063)  | (0.322)                                 | (0.037)  |
| Romano Wolf p-value  | 1              | 1                        | 1                   | 1  | 1                                       | 0.153  |
| <i>Female=1</i>  |                |                          |                     |  |   |  |
| β5   | -0.329***      | -9.112***                | -0.469***           | 0.043  | 0.093                                   | 0.099**  |
| Standard Error   | (0.035)        | (1.913)                  | (0.088)             | (0.065)  | (0.307)                                 | (0.044)  |
| Romano Wolf p-value  | 0.001          | 0.001                    | 0.001               | 0.253  | 0.341                                   | 0.019  |
| Observations   | 2,779          | 1,668                    | 1,553               | 768  | 166                                     | 1,692  |
| R-squared  | 0.134          | 0.114                    | 0.156               | 0.103  | 0.521                                   | 0.064  |
| Control Mean:  | 0.625          | 39.800                   | 8.525               | 0.179  | 8.105                                   | 0.251  |
| Control Mean Female:   | 0.490          | 35.060                   | 8.259               | 0.205  | 8.073                                   | 0.306  |
| Control Mean Male:   | 0.822          | 43.930                   | 8.746               | 0.143  | 8.167                                   | 0.203  |
| P-value Coef.(TTP+DBC)*Female=(TTP+DBC)*Male:                | 0.585          | 0.565                    | 0.339               | 0.680  | 0.363                                   | 0.004  |
| P-value Coef.(TTP+DBC)*Female=(TTP+DBC)*Male=0:              | 0.862          | 0.793                    | 0.485               | 0.0580   | 0.193                                   | 0.006  |
| P-value Coef.(DBC)*Female=(DBC)*Male:                        | 0.810          | 0.827                    | 0.977               | 0.597  | 0.801                                   | 0.089  |
| P-value Coef.(DBC)*Female=(DBC)*Male=0:                      | 0.891          | 0.947                    | 0.816               | 0.424  | 0.479                                   | 0.070  |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female:                  | 0.920          | 0.680                    | 0.507               | 0.235  | 0.612                                   | 0.266  |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female=0:                | 0.889          | 0.798                    | 0.791               | 0.262  | 0.543                                   | 0.443  |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male:                      | 0.600          | 0.857                    | 0.423               | 0.425  | 0.159                                   | 0.329  |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male=0:                    | 0.859          | 0.982                    | 0.486               | 0.195  | 0.170                                   | 0.007  |

Notes: Standard errors in parenthesis. All regressions include controls for the educational institution, the sector of the course, and the training cohort. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 10. Program Impact on Expectations and Self Esteem, 3.5 years**

| VARIABLES  | (1)<br>Log<br>(Expected<br>Future<br>Salary) | (2)<br>Expected<br>Children<br>Have Better<br>Life | (3)<br>Expected<br>Relative<br>Wealth in 10<br>Years | (4)<br>Self Esteem<br>(S.D.) |
|--|--|--|--|------------------------------|
| <i>Combined Vocational and Soft Skills Training x Female</i> |  |  |  |                              |
| β1   | 0.066**                                      | 0.071*   | 0.103**  | 0.148**                      |
| Standard Error   | (0.028)                                      | (0.038)  | (0.051)  | (0.064)                      |
| Romano Wolf p-value  | 0.047  | 0.047  | 0.047  | 0.047                        |
| <i>Soft Skills Training Only x Female</i>                    |  |  |  |                              |
| β2   | 0.040  | 0.053  | 0.009  | 0.132**                      |
| Standard Error   | (0.026)                                      | (0.035)  | (0.047)  | (0.059)                      |
| Romano Wolf p-value  | 0.153  | 0.153  | 0.268  | 0.112                        |
| <i>Combined Vocational and Soft Skills Training x Male</i>   |  |  |  |                              |
| β3   | -0.067*                                      | -0.083*  | 0.040  | -0.054                       |
| Standard Error   | (0.035)                                      | (0.048)  | (0.064)  | (0.080)                      |
| Romano Wolf p-value  | 0.194  | 0.194  | 0.365  | 0.365                        |
| <i>Soft Skills Training Only x Male</i>                      |  |  |  |                              |
| β4   | -0.002                                       | -0.048   | 0.085  | -0.042                       |
| Standard Error   | (0.033)                                      | (0.044)  | (0.059)  | (0.074)                      |
| Romano Wolf p-value  | 1  | 1  | 1  | 1                            |
| <i>Female=1</i>  |  |  |  |                              |
| β5   | -0.306***                                    | -0.021   | 0.017  | -0.183**                     |
| Standard Error   | (0.033)                                      | (0.045)  | (0.060)  | (0.076)                      |
| Romano Wolf p-value  | 0.001  | 0.637  | 0.637  | 0.025                        |
| Observations   | 2,779  | 2,779  | 2,779  | 2,779                        |
| R-squared  | 0.137  | 0.042  | 0.042  | 0.027                        |
| Control Mean:  | 9.339  | 4.540  | 3.929  | 0.000                        |
| Control Mean Female:   | 9.212  | 4.532  | 3.946  | -0.081                       |
| Control Mean Male:   | 9.523  | 4.550  | 3.903  | 0.120                        |
| P-value Coef.(TTP+DBC)*Female=(TTP+DBC)*Male:                | 0.003  | 0.012  | 0.442  | 0.050                        |
| P-value Coef (TTP+DBC)*Female=(TTP+DBC)*Male=0:              | 0.011  | 0.041  | 0.108  | 0.058                        |
| P-value Coef.(DBC)*Female=(DBC)*Male:                        | 0.312  | 0.076  | 0.317  | 0.068                        |
| P-value Coef.(DBC)*Female=(DBC)*Male=0:                      | 0.305  | 0.181  | 0.350  | 0.070                        |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female:                  | 0.295  | 0.601  | 0.040  | 0.783                        |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female=0:                | 0.062  | 0.157  | 0.068  | 0.038                        |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male:                      | 0.048  | 0.425  | 0.446  | 0.866                        |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male=0:                    | 0.086  | 0.216  | 0.352  | 0.773                        |

Notes: Standard errors in parenthesis. All regressions include controls for the educational institution, the sector of the course, and the training cohort. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Online Appendix

### Appendix 1. Attrition and Baseline Balance

**Table A1.1. Attrition**

**Dependent variable: Not found either in the follow up survey or in the final survey**

|  | (1)               | (2)               | (3)                  | (4)                  | (5)                  | (6)                 |
|--|-------------------|-------------------|----------------------|----------------------|----------------------|---------------------|
|  | Female            | Male              | Female               | Male                 | Female               | Male                |
| Hard skills and soft skills training   | -0.016<br>(0.023) | -0.018<br>(0.030) | -0.004<br>(0.025)    | -0.001<br>(0.032)    | -0.013<br>(0.023)    | -0.013<br>(0.030)   |
| Soft skills training only              | -0.014<br>(0.021) | -0.023<br>(0.028) | -0.005<br>(0.023)    | -0.015<br>(0.030)    | -0.012<br>(0.021)    | -0.022<br>(0.028)   |
| Age                                    |                   |                   | -0.010***<br>(0.004) | 0.001<br>(0.005)     | -0.008**<br>(0.003)  | 0.003<br>(0.005)    |
| Household Size                         |                   |                   | -0.014**<br>(0.007)  | -0.011<br>(0.009)    | -0.013**<br>(0.006)  | -0.006<br>(0.009)   |
| Urban=1                                |                   |                   | 0.061**<br>(0.026)   | 0.057<br>(0.039)     | 0.054*<br>(0.028)    | 0.053<br>(0.041)    |
| Sto. Domingo=1                         |                   |                   | 0.142<br>(0.132)     | -0.953***<br>(0.083) | 0.140<br>(0.200)     | -0.953**<br>(0.429) |
| Poverty Score                          |                   |                   | 0.001<br>(0.001)     | 0.001<br>(0.002)     | 0.000<br>(0.001)     | 0.000<br>(0.002)    |
| Years of Education                     |                   |                   | -0.017***<br>(0.006) | -0.016*<br>(0.008)   | -0.017***<br>(0.006) | -0.015*<br>(0.008)  |
| Studying=1                             |                   |                   | 0.003<br>(0.026)     | -0.043<br>(0.036)    | -0.000<br>(0.024)    | -0.035<br>(0.036)   |
| Literacy head of household             |                   |                   | 0.005<br>(0.035)     | -0.037<br>(0.050)    | 0.008<br>(0.034)     | -0.019<br>(0.046)   |
| Literacy spouse of head household      |                   |                   | -0.022<br>(0.021)    | -0.023<br>(0.030)    | -0.012<br>(0.020)    | -0.022<br>(0.029)   |
| Working                                |                   |                   | 0.010<br>(0.065)     | -0.049<br>(0.064)    | -0.020<br>(0.062)    | -0.044<br>(0.065)   |
| Related Experience=1                   |                   |                   | -0.025<br>(0.033)    | -0.020<br>(0.038)    | -0.031<br>(0.030)    | 0.000<br>(0.036)    |
| Unemployed=1                           |                   |                   | 0.044*<br>(0.025)    | -0.045<br>(0.041)    | 0.038<br>(0.024)     | -0.032<br>(0.042)   |
| Previos Work=1                         |                   |                   | 0.026<br>(0.032)     | -0.034<br>(0.037)    | 0.040<br>(0.030)     | -0.034<br>(0.034)   |
| Receive remittances                    |                   |                   | 0.126**<br>(0.055)   | 0.044<br>(0.050)     | 0.098**<br>(0.044)   | 0.037<br>(0.045)    |
| Has children=1                         |                   |                   | -0.050*<br>(0.030)   | -0.011<br>(0.076)    | -0.018<br>(0.029)    | -0.022<br>(0.068)   |
| Number of children                     |                   |                   | 0.045***<br>(0.017)  | 0.022<br>(0.050)     | 0.029**<br>(0.015)   | 0.027<br>(0.041)    |
| Single=1                               |                   |                   | -0.020<br>(0.024)    | 0.030<br>(0.048)     | 0.002<br>(0.023)     | 0.015<br>(0.046)    |
| Household Size (dummy for missing)     |                   |                   |                      |                      | 0.088<br>(0.087)     | 0.216*<br>(0.117)   |
| Years of Education (dummy for missing) |                   |                   |                      |                      | 0.235**<br>(0.118)   | 0.201<br>(0.136)    |
| Working (dummy for missing)            |                   |                   |                      |                      | -0.222*<br>(0.122)   | -0.293**<br>(0.139) |
| Observations                           | 2,144             | 1,374             | 1,914                | 1,195                | 2,144                | 1,374               |
| R-squared                              | 0.053             | 0.075             | 0.075                | 0.097                | 0.072                | 0.091               |
| Baseline Vars:                         | No                | No                | Yes                  | Yes                  | Yes                  | Yes                 |
| Imputed Missing Baseline Vars:         | No                | No                | No                   | No                   | Yes                  | Yes                 |

Notes: Standard errors in parenthesis. All regressions include controls for the educational institution, the sector of the course, and the training cohort. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table A1.2. Baseline Balance by gender and treatment (1/2)**

| VARIABLES    | (1)               | (2)  | (3)                       | (4)              | (5)  | (6)                       | (7)               | (8)  | (9)                       | (10)             | (11)   | (12)                      | (13)               | (14)   | (15)                      |
|--------------|-------------------|--|---------------------------|------------------|--|---------------------------|-------------------|--|---------------------------|------------------|--|---------------------------|--------------------|--|---------------------------|
|              | Age               |  |                           | Family Size      |  |                           | Urban=1           |  |                           | Sto. Domingo=1   |  |                           | Poverty Score      |  |                           |
|              | Control           | Combined Vocational and Soft Skills Training | Soft Skills Training Only | Control          | Combined Vocational and Soft Skills Training | Soft Skills Training Only | Control           | Combined Vocational and Soft Skills Training | Soft Skills Training Only | Control          | Combined Vocational and Soft Skills Training | Soft Skills Training Only | Control            | Combined Vocational and Soft Skills Training | Soft Skills Training Only |
| Female=1     | 0.427*<br>(0.251) | 1.080***<br>(0.248)                          | 0.869***<br>(0.206)       | 0.107<br>(0.136) | 0.358***<br>(0.133)                          | 0.115<br>(0.108)          | -0.035<br>(0.025) | 0.019<br>(0.028)                             | -0.014<br>(0.022)         | 0.002<br>(0.005) | 0.000<br>(0.000)                             | -0.000<br>(0.002)         | -1.256*<br>(0.686) | -3.919***<br>(0.665)                         | -2.050***<br>(0.565)      |
| Observations | 773               | 815  | 1,191                     | 762              | 799  | 1,168                     | 773               | 815  | 1,191                     | 773              | 815  | 1,191                     | 762                | 799  | 1,168                     |
| R-squared    | 0.150             | 0.121  | 0.117                     | 0.368            | 0.322  | 0.310                     | 0.505             | 0.406  | 0.421                     | 0.984            | 1.000  | 0.996                     | 0.264              | 0.275  | 0.210                     |
| Mean Male:   | 20.86             | 20.31  | 20.53                     | 3.699            | 3.699  | 3.744                     | 0.844             | 0.786  | 0.822                     | 0.239            | 0.246  | 0.285                     | 61.67              | 62.95  | 63.27                     |

| VARIABLES    | (16)               | (17)   | (18)                      | (19)              | (20)   | (21)                      | (22)                       | (23)   | (24)                      | (25)                              | (26)   | (27)                      | (28)               | (29)   | (30)                      |
|--------------|--------------------|--|---------------------------|-------------------|--|---------------------------|----------------------------|--|---------------------------|-----------------------------------|--|---------------------------|--------------------|--|---------------------------|
|              | Years of Education |  |                           | Studying=1        |  |                           | Literacy head of household |  |                           | Literacy spouse of head household |  |                           | Working            |  |                           |
|              | Control            | Combined Vocational and Soft Skills Training | Soft Skills Training Only | Control           | Combined Vocational and Soft Skills Training | Soft Skills Training Only | Control                    | Combined Vocational and Soft Skills Training | Soft Skills Training Only | Control                           | Combined Vocational and Soft Skills Training | Soft Skills Training Only | Control            | Combined Vocational and Soft Skills Training | Soft Skills Training Only |
| Female=1     | 0.204<br>(0.131)   | 0.137<br>(0.126)                             | 0.053<br>(0.118)          | -0.026<br>(0.033) | -0.026<br>(0.035)                            | -0.021<br>(0.027)         | 0.023<br>(0.024)           | -0.055**<br>(0.025)                          | -0.012<br>(0.018)         | 0.017<br>(0.040)                  | 0.052<br>(0.040)                             | 0.073**<br>(0.034)        | -0.031*<br>(0.018) | -0.018<br>(0.016)                            | -0.035***<br>(0.013)      |
| Observations | 690                | 732  | 1,062                     | 773               | 815  | 1,191                     | 762                        | 799  | 1,168                     | 762                               | 799  | 1,168                     | 693                | 728  | 1,064                     |
| R-squared    | 0.185              | 0.186  | 0.124                     | 0.286             | 0.213  | 0.272                     | 0.209                      | 0.199  | 0.241                     | 0.194                             | 0.176  | 0.119                     | 0.120              | 0.164  | 0.113                     |
| Mean Male:   | 9.596              | 9.629  | 9.736                     | 0.236             | 0.259  | 0.269                     | 0.883                      | 0.901  | 0.919                     | 0.372                             | 0.371  | 0.383                     | 0.0612             | 0.0554                                       | 0.0587                    |

Notes: Standard errors in parenthesis. All regressions include controls for the educational institution, the sector of the course, and the training cohort. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1



**Table A1.2. (cont.) Baseline Balance by gender and treatment (2/2)**

| VARIABLES    | (31)                 | (32)   | (33)                      | (34)                 | (35)   | (36)                      | (37)                 | (38)   | (39)                      | (40)                 | (41)   | (42)                      | (43)                | (44)   | (45)                      |
|--------------|----------------------|--|---------------------------|----------------------|--|---------------------------|----------------------|--|---------------------------|----------------------|--|---------------------------|---------------------|--|---------------------------|
|              | Related Experience=1 |  |                           | Unemployed=1         |  |                           | Previos Work=1       |  |                           | Receive remittances  |  |                           | Has children=1      |  |                           |
|              | Control              | Combined Vocational and Soft Skills Training | Soft Skills Training Only | Control              | Combined Vocational and Soft Skills Training | Soft Skills Training Only | Control              | Combined Vocational and Soft Skills Training | Soft Skills Training Only | Control              | Combined Vocational and Soft Skills Training | Soft Skills Training Only | Control             | Combined Vocational and Soft Skills Training | Soft Skills Training Only |
| Female=1     | -0.031<br>(0.026)    | -0.045*<br>(0.024)                           | -0.014<br>(0.022)         | -0.158***<br>(0.038) | -0.081**<br>(0.038)                          | -0.095***<br>(0.030)      | -0.078***<br>(0.026) | -0.074***<br>(0.026)                         | -0.071***<br>(0.022)      | -0.068***<br>(0.019) | -0.012<br>(0.017)                            | -0.043***<br>(0.015)      | 0.424***<br>(0.038) | 0.462***<br>(0.037)                          | 0.391***<br>(0.031)       |
| Observations | 773                  | 815  | 1,191                     | 693                  | 728  | 1,064                     | 773                  | 815  | 1,191                     | 773                  | 815  | 1,191                     | 773                 | 815  | 1,191                     |
| R-squared    | 0.197                | 0.221  | 0.176                     | 0.353                | 0.332  | 0.353                     | 0.274                | 0.289  | 0.276                     | 0.186                | 0.133  | 0.134                     | 0.264               | 0.260  | 0.214                     |
| Mean Male:   | 0.121                | 0.136  | 0.157                     | 0.723                | 0.675  | 0.683                     | 0.182                | 0.217  | 0.222                     | 0.0955               | 0.0550                                       | 0.0771                    | 0.156               | 0.123  | 0.121                     |

| VARIABLES    | (46)                | (47)   | (48)                      | (49)                 | (50)   | (51)                      |
|--------------|---------------------|--|---------------------------|----------------------|--|---------------------------|
|              | Number of children  |  |                           | Single=1             |  |                           |
|              | Control             | Combined Vocational and Soft Skills Training | Soft Skills Training Only | Control              | Combined Vocational and Soft Skills Training | Soft Skills Training Only |
| Female=1     | 0.814***<br>(0.325) | 0.770***<br>(0.269)                          | 0.673***<br>(0.231)       | -0.175***<br>(0.148) | -0.198***<br>(0.119)                         | -0.181***<br>(0.107)      |
| Observations | 773                 | 815  | 1,191                     | 773                  | 815  | 1,191                     |
| R-squared    | 0.262               | 0.219  | 0.210                     | 0.143                | 0.120  | 0.119                     |
| Mean Male:   | 0.217               | 0.165  | 0.164                     | 0.879                | 0.913  | 0.904                     |

Notes: Standard errors in parenthesis. All regressions include controls for the educational institution, the sector of the course, and the training cohort. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Appendix 2. Robustness Tests for Gender Preferences in Course Selection <sup>28</sup>

**Table A2.1. Gender Composition by Sector of the Course and Sample Sizes**

| Sector                | % Females Applicants (in Population) | No. Observations in the Sector (in our Sample) | No. of Observations After Dropping Sectors with [less than %-more than %] of |         |
|-----------------------|--------------------------------------|--|--|---------|
|                       |                                      |  | [10-90]  | [30-70] |
| Construction          | 5.6                                  | 7  | -  | -       |
| Commerce              | 7.4                                  | 70   | -  | -       |
| Agriculture           | 38.2                                 | 35   | 35   | 35      |
| Computer/IT           | 42.3                                 | 48   | 48   | 48      |
| Hotel and Restaurant  | 53.8                                 | 319  | 319  | 319     |
| Security              | 54.5                                 | 53   | 53   | 53      |
| Sales                 | 55.9                                 | 564  | 564  | 564     |
| Health                | 74.9                                 | 144  | 144  | -       |
| Professional Services | 86.0                                 | 216  | 216  | -       |
| Beauty                | 88.9                                 | 133  | 133  | -       |
| Total                 |                                      | 1589   | 1512   | 1019    |

<sup>28</sup> We present result for courses balanced at 30% of women or men, but we also conducted the calculations for courses balanced at 10%, 20%, and 40%, showing the same pattern. These results are available under request.

**Table A2.2. Impact of Skills after 3.5 Years**

Subsample of individuals that applied to courses with more than 30% of female and male applicants

|  | (1)                    | (2)                | (3)                  | (4)                              | (5)                     | (6)                    | (7)                     | (8)                         |
|--|------------------------|--------------------|----------------------|----------------------------------|-------------------------|------------------------|-------------------------|-----------------------------|
|  | Perseverance<br>(S.D.) | Ambition<br>(S.D.) | Leadership<br>(S.D.) | Conflict<br>Resolution<br>(S.D.) | Social Skills<br>(S.D.) | Organization<br>(S.D.) | Communication<br>(S.D.) | Combined<br>Index<br>(S.D.) |
| <i>Combined Vocational and Soft Skills Training x Female</i> |                        |                    |                      |                                  |                         |                        |                         |                             |
| β1   | 0.216***               | 0.242***           | -0.048               | 0.039                            | -0.026                  | 0.110                  | 0.047                   | 0.083                       |
| Standard Error   | (0.082)                | (0.082)            | (0.086)              | (0.086)                          | (0.084)                 | (0.087)                | (0.087)                 | (0.062)                     |
| Romano Wolf p-value  | 0.033                  | 0.025              | 0.713                | 0.713                            | 0.713                   | 0.454                  | 0.713                   | 0.454                       |
| <i>Soft Skills Training Only x Female</i>                    |                        |                    |                      |                                  |                         |                        |                         |                             |
| β2   | 0.087                  | 0.108              | -0.055               | 0.008                            | -0.004                  | 0.000                  | -0.066                  | 0.011                       |
| Standard Error   | (0.076)                | (0.076)            | (0.079)              | (0.079)                          | (0.077)                 | (0.080)                | (0.080)                 | (0.057)                     |
| Romano Wolf p-value  | 1                      | 1                  | 1                    | 1                                | 1                       | 1                      | 1                       | 1                           |
| <i>Combined Vocational and Soft Skills Training x Male</i>   |                        |                    |                      |                                  |                         |                        |                         |                             |
| β3   | -0.006                 | -0.034             | 0.073                | 0.025                            | -0.007                  | 0.006                  | -0.011                  | 0.007                       |
| Standard Error   | (0.088)                | (0.088)            | (0.092)              | (0.092)                          | (0.089)                 | (0.093)                | (0.093)                 | (0.066)                     |
| Romano Wolf p-value  | 1                      | 1                  | 1                    | 1                                | 1                       | 1                      | 1                       | 1                           |
| <i>Soft Skills Training Only x Male</i>                      |                        |                    |                      |                                  |                         |                        |                         |                             |
| β4   | 0.005                  | -0.023             | 0.072                | 0.049                            | 0.028                   | 0.088                  | 0.020                   | 0.034                       |
| Standard Error   | (0.081)                | (0.081)            | (0.085)              | (0.085)                          | (0.083)                 | (0.086)                | (0.086)                 | (0.061)                     |
| Romano Wolf p-value  | 1                      | 1                  | 1                    | 1                                | 1                       | 1                      | 1                       | 1                           |
| <i>Female=1</i>  |                        |                    |                      |                                  |                         |                        |                         |                             |
| β5   | -0.164*                | -0.116             | 0.004                | -0.038                           | -0.072                  | -0.118                 | -0.122                  | -0.090                      |
| Standard Error   | (0.088)                | (0.088)            | (0.092)              | (0.092)                          | (0.089)                 | (0.093)                | (0.093)                 | (0.066)                     |
| Romano Wolf p-value  | 0.496                  | 0.496              | 0.572                | 0.496                            | 0.496                   | 0.496                  | 0.496                   | 0.496                       |
| Observations   | 1781                   | 1781               | 1781                 | 1781                             | 1781                    | 1781                   | 1781                    | 1781                        |
| R-squared  | 0.063                  | 0.063              | 0.044                | 0.042                            | 0.039                   | 0.040                  | 0.058                   | 0.053                       |
| Control Mean:  | 0.009                  | -0.005             | 0.061                | 0.031                            | 0.061                   | 0.040                  | 0.035                   | 0.033                       |
|  | -0.056                 | -0.049             | 0.067                | 0.012                            | 0.033                   | -0.016                 | -0.009                  | -0.002                      |
|  | 0.074                  | 0.039              | 0.055                | 0.049                            | 0.089                   | 0.095                  | 0.080                   | 0.069                       |
| P-value Coef.(TTP+DBC)*Female=(TTP+DBC)*Male:                | 0.069                  | 0.023              | 0.345                | 0.911                            | 0.875                   | 0.420                  | 0.651                   | 0.405                       |
| P-value Coef (TTP+DBC)*Female=(TTP+DBC)*Male=0:              | 0.033                  | 0.013              | 0.634                | 0.866                            | 0.950                   | 0.452                  | 0.857                   | 0.405                       |
| P-value Coef.(DBC)*Female=(DBC)*Male:                        | 0.461                  | 0.241              | 0.279                | 0.728                            | 0.781                   | 0.459                  | 0.464                   | 0.787                       |
| P-value Coef.(DBC)*Female=(DBC)*Male=0:                      | 0.515                  | 0.349              | 0.555                | 0.842                            | 0.945                   | 0.595                  | 0.690                   | 0.840                       |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female:                  | 0.072                  | 0.060              | 0.927                | 0.679                            | 0.762                   | 0.147                  | 0.130                   | 0.182                       |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female=0:                | 0.029                  | 0.012              | 0.776                | 0.882                            | 0.940                   | 0.294                  | 0.306                   | 0.309                       |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male:                      | 0.895                  | 0.896              | 0.995                | 0.783                            | 0.686                   | 0.350                  | 0.727                   | 0.661                       |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male=0:                    | 0.991                  | 0.925              | 0.644                | 0.846                            | 0.907                   | 0.511                  | 0.937                   | 0.836                       |

Notes: Standard errors in parenthesis. All regressions include controls for the educational institution, the sector of the course, and the training cohort. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table A2.3. Impact on Expectations after 12 Months**

Subsample of individuals that applied to courses with more than 30% of female and male applicants,

|  | (1)  | (2)                                |
|--|--|------------------------------------|
|  | Expect Employment Opportunities to Improve | Expect Living Standards to Improve |
| <i>Combined Vocational and Soft Skills Training x Female</i> |  |                                    |
| $\beta_1$  | 0.006                                      | 0.021                              |
| Standard Error   | (0.019)                                    | (0.017)                            |
| Romano Wolf p-value  | 0.761                                      | 0.761                              |
| <i>Soft Skills Training Only x Female</i>                    |  |                                    |
| $\beta_2$  | 0.018                                      | 0.027*                             |
| Standard Error   | (0.018)                                    | (0.015)                            |
| Romano Wolf p-value  | 0.187                                      | 0.183                              |
| <i>Combined Vocational and Soft Skills Training x Male</i>   |  |                                    |
| $\beta_3$  | 0.060***                                   | 0.016                              |
| Standard Error   | (0.020)                                    | (0.018)                            |
| Romano Wolf p-value  | 0.007                                      | 0.233                              |
| <i>Soft Skills Training Only x Male</i>                      |  |                                    |
| $\beta_4$  | 0.037**                                    | 0.014                              |
| Standard Error   | (0.019)                                    | (0.017)                            |
| Romano Wolf p-value  | 0.104                                      | 0.258                              |
| <i>Female=1</i>  |  |                                    |
| $\beta_5$  | 0.022                                      | -0.002                             |
| Standard Error   | (0.020)                                    | (0.018)                            |
| Romano Wolf p-value  | 1  | 1                                  |
| Observations   | 1781                                       | 1781                               |
| R-squared  | 0.046                                      | 0.039                              |
| Control Mean:  | 0.928                                      | 0.947                              |
| Control Mean Female:   | 0.928                                      | 0.947                              |
| Control Mean Male:   | 0.934                                      | 0.947                              |
| P-value Coef.(TTP+DBC)*Female=(TTP+DBC)*M                    | 0.053                                      | 0.843                              |
| P-value Coef (TTP+DBC)*Female=(TTP+DBC)*M                    | 0.012                                      | 0.308                              |
| P-value Coef.(DBC)*Female=(DBC)*Male:                        | 0.444                                      | 0.548                              |
| P-value Coef.(DBC)*Female=(DBC)*Male=0:                      | 0.082                                      | 0.146                              |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female:                  | 0.461                                      | 0.651                              |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female=                  | 0.558                                      | 0.203                              |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male:                      | 0.239                                      | 0.898                              |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male=0:                    | 0.011                                      | 0.618                              |

Notes: Standard errors in parenthesis. All regressions include controls for the educational institution, the sector of the course, and the training cohort. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table A2.4. Impact on Labor Market Outcomes after 12 Months**

Subsample of individuals that applied to courses with more than 30% of female and male applicants,

|  | (1)       | (2)            | (3)          | (4)                |
|--|-----------|----------------|--------------|--------------------|
|  | Working   | Hours per week | Log (Salary) | Satisfied with job |
| <i>Combined Vocational and Soft Skills Training x Female</i> |           |                |              |                    |
| β1   | 0.085**   | 1.344          | 0.097        | 0.195**            |
| Standard Error   | (0.040)   | (3.180)        | (0.110)      | (0.089)            |
| Romano Wolf p-value  | 0.076     | 0.508          | 0.339        | 0.076              |
| <i>Soft Skills Training Only x Female</i>                    |           |                |              |                    |
| β2   | 0.024     | 1.340          | 0.100        | 0.127              |
| Standard Error   | (0.037)   | (3.015)        | (0.104)      | (0.084)            |
| Romano Wolf p-value  | 1         | 1              | 1            | 1                  |
| <i>Combined Vocational and Soft Skills Training x Male</i>   |           |                |              |                    |
| β3   | -0.168*** | 1.049          | 0.139        | 0.029              |
| Standard Error   | (0.043)   | (2.457)        | (0.086)      | (0.069)            |
| Romano Wolf p-value  | 0.001     | 0.513          | 0.19         | 0.513              |
| <i>Soft Skills Training Only x Male</i>                      |           |                |              |                    |
| β4   | -0.014    | -0.876         | 0.025        | 0.012              |
| Standard Error   | (0.040)   | (2.073)        | (0.072)      | (0.059)            |
| Romano Wolf p-value  | 1         | 1              | 1            | 1                  |
| <i>Female=1</i>  |           |                |              |                    |
| β5   | -0.349*** | -5.795*        | -0.289***    | -0.120             |
| Standard Error   | (0.043)   | (3.013)        | (0.104)      | (0.084)            |
| Romano Wolf p-value  | 0.001     | 0.039          | 0.01         | 0.08               |
| Observations   | 1,781     | 650            | 649          | 660                |
| R-squared  | 0.125     | 0.156          | 0.206        | 0.128              |
| Control Mean:  | 0.391     | 44.12          | 8.691        | 0.513              |
| Control Mean Female:   | 0.225     | 39.08          | 8.523        | 0.455              |
| Control Mean Male:   | 0.557     | 46.12          | 8.759        | 0.537              |
| P-value Coef.(TTP+DBC)*Female=(TTP+DBC)*Male:                | 2.38e-05  | 0.942          | 0.767        | 0.147              |
| P-value Coef (TTP+DBC)*Female=(TTP+DBC)*Male=0:              | 6.98e-05  | 0.830          | 0.177        | 0.0815             |
| P-value Coef.(DBC)*Female=(DBC)*Male:                        | 0.485     | 0.547          | 0.556        | 0.267              |
| P-value Coef.(DBC)*Female=(DBC)*Male=0:                      | 0.761     | 0.831          | 0.591        | 0.318              |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female:                  | 0.0836    | 0.999          | 0.970        | 0.343              |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female=0:                | 0.0831    | 0.892          | 0.596        | 0.0910             |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male:                      | 0.000159  | 0.409          | 0.164        | 0.798              |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male=0:                    | 7.78e-05  | 0.706          | 0.242        | 0.918              |

Notes: Standard errors in parenthesis. All regressions include controls for the educational institution, the sector of the course, and the training cohort. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table A2.5. Impact on Labor Market Outcomes after 3.5 Years**

Subsample of individuals that applied to courses with more than 30% of female and male applicants

|  | (1)       | (2)            | (3)          | (4)                           | (5)                  | (6)                               |
|--|-----------|----------------|--------------|-------------------------------|----------------------|-----------------------------------|
|  | Working   | Hours per week | Log (Salary) | Refused because of low salary | Log (Salary refused) | Searching for Work While Employed |
| <i>Combined Vocational and Soft Skills Training x Female</i> |           |                |              |                               |                      |                                   |
| β1   | 0.012     | 3.178          | 0.037        | 0.139*                        | 0.207                | -0.060                            |
| Standard Error   | (0.040)   | (2.452)        | (0.115)      | (0.073)                       | (0.320)              | (0.057)                           |
| Romano Wolf p-value  | 1         | 1              | 1            | 0.52                          | 1                    | 1                                 |
| <i>Soft Skills Training Only x Female</i>                    |           |                |              |                               |                      |                                   |
| β2   | 0.034     | -0.522         | -0.086       | 0.055                         | 0.343                | -0.021                            |
| Standard Error   | (0.037)   | (2.245)        | (0.105)      | (0.066)                       | (0.303)              | (0.052)                           |
| Romano Wolf p-value  | 1         | 1              | 1            | 1                             | 1                    | 1                                 |
| <i>Combined Vocational and Soft Skills Training x Male</i>   |           |                |              |                               |                      |                                   |
| β3   | -0.037    | 0.230          | -0.071       | 0.126                         | 0.552                | 0.127***                          |
| Standard Error   | (0.043)   | (2.032)        | (0.092)      | (0.079)                       | (0.367)              | (0.047)                           |
| Romano Wolf p-value  | 0.386     | 0.835          | 0.386        | 0.302                         | 0.302                | 0.044                             |
| <i>Soft Skills Training Only x Male</i>                      |           |                |              |                               |                      |                                   |
| β4   | -0.024    | -0.206         | -0.042       | 0.059                         | 0.173                | 0.119***                          |
| Standard Error   | (0.039)   | (1.856)        | (0.083)      | (0.072)                       | (0.356)              | (0.043)                           |
| Romano Wolf p-value  | 1.000     | 1.000          | 1.000        | 1                             | 1                    | 0.038                             |
| <i>Female=1</i>  |           |                |              |                               |                      |                                   |
| β5   | -0.357*** | -9.071***      | -0.454***    | 0.019                         | 0.051                | 0.123**                           |
| Standard Error   | (0.043)   | (2.349)        | (0.108)      | (0.077)                       | (0.369)              | (0.055)                           |
| Romano Wolf p-value  | 0.001     | 0.001          | 0.001        | 0.423                         | 0.423                | 0.020                             |
| Observations   | 1,781     | 1,099          | 1,032        | 491                           | 106                  | 1,114                             |
| R-squared  | 0.146     | 0.119          | 0.155        | 0.135                         | 0.614                | 0.084                             |
| Control Mean:  | 0.656     | 41.220         | 8.619        | 0.176                         | 7.979                | 0.242                             |
| Control Mean Female:   | 0.480     | 35.980         | 8.382        | 0.209                         | 7.928                | 0.319                             |
| Control Mean Male:   | 0.832     | 44.200         | 8.747        | 0.145                         | 8.050                | 0.199                             |
| P-value Coef.(TTP+DBC)*Female=(TTP+DBC)*Male:                | 0.413     | 0.360          | 0.467        | 0.899                         | 0.469                | 0.013                             |
| P-value Coef (TTP+DBC)*Female=(TTP+DBC)*Male=0:              | 0.666     | 0.428          | 0.706        | 0.0497                        | 0.285                | 0.016                             |
| P-value Coef.(DBC)*Female=(DBC)*Male:                        | 0.282     | 0.914          | 0.747        | 0.968                         | 0.711                | 0.039                             |
| P-value Coef.(DBC)*Female=(DBC)*Male=0:                      | 0.540     | 0.967          | 0.627        | 0.506                         | 0.485                | 0.020                             |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female:                  | 0.511     | 0.074          | 0.210        | 0.187                         | 0.614                | 0.422                             |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female=0:                | 0.610     | 0.185          | 0.422        | 0.153                         | 0.529                | 0.550                             |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male:                      | 0.750     | 0.822          | 0.739        | 0.384                         | 0.234                | 0.866                             |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male=0:                    | 0.681     | 0.975          | 0.733        | 0.285                         | 0.283                | 0.007                             |

Notes: Standard errors in parenthesis. All regressions include controls for the educational institution, the sector of the course, and the training cohort. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table A2.6. Impact on Expectations and Self Esteem after 3.5 Years**

Subsample of individuals that applied to courses with more than 30% of female and male applicants,

|  | (1)                             | (2)                                      | (3)   | (4)                   |
|--|---------------------------------|--|---|-----------------------|
|  | Log (Expected<br>Future Salary) | Expected<br>Children Have<br>Better Life | Expected<br>Relative<br>Wealth in 10<br>Years | Self Esteem<br>(S.D.) |
| <i>Combined Vocational and Soft Skills Training x Female</i> |                                 |  |   |                       |
| β1   | 0.097**                         | 0.122**                                  | -0.004  | 0.076                 |
| Standard Error   | (0.039)                         | (0.052)                                  | (0.068)                                       | (0.085)               |
| Romano Wolf p-value  | 0.042                           | 0.042                                    | 0.913   | 0.327                 |
| <i>Soft Skills Training Only x Female</i>                    |                                 |  |   |                       |
| β2   | 0.076**                         | 0.099**                                  | -0.035  | 0.062                 |
| Standard Error   | (0.036)                         | (0.048)                                  | (0.062)                                       | (0.078)               |
| Romano Wolf p-value  | 0.083                           | 0.083                                    | 0.401   | 0.4                   |
| <i>Combined Vocational and Soft Skills Training x Male</i>   |                                 |  |   |                       |
| β3   | -0.090**                        | -0.065                                   | 0.021   | -0.056                |
| Standard Error   | (0.041)                         | (0.056)                                  | (0.072)                                       | (0.091)               |
| Romano Wolf p-value  | 0.142                           | 0.567                                    | 0.931   | 0.931                 |
| <i>Soft Skills Training Only x Male</i>                      |                                 |  |   |                       |
| β4   | -0.014                          | 0.008                                    | 0.051   | 0.010                 |
| Standard Error   | (0.038)                         | (0.052)                                  | (0.067)                                       | (0.084)               |
| Romano Wolf p-value  | 1                               | 1  | 1   | 1                     |
| <i>Female=1</i>  |                                 |  |   |                       |
| β5   | -0.346***                       | -0.034                                   | 0.025   | -0.141                |
| Standard Error   | (0.042)                         | (0.056)                                  | (0.072)                                       | (0.091)               |
| Romano Wolf p-value  | 0.001                           | 0.565                                    | 0.577   | 0.22                  |
| Observations   | 1,781                           | 1,781                                    | 1,781   | 1,781                 |
| R-squared  | 0.154                           | 0.051                                    | 0.045   | 0.041                 |
| Control Mean:  | 9.373                           | 4.502                                    | 3.961   | 0.0438                |
| Control Mean Female:   | 9.209                           | 4.480                                    | 3.986   | -0.0192               |
| Control Mean Male:   | 9.538                           | 4.523                                    | 3.937   | 0.107                 |
| P-value Coef.(TTP+DBC)*Female=(TTP+DBC)*Male:                | 0.001                           | 0.015                                    | 0.800   | 0.293                 |
| P-value Coef (TTP+DBC)*Female=(TTP+DBC)*Male=0:              | 0.005                           | 0.035                                    | 0.956   | 0.559                 |
| P-value Coef.(DBC)*Female=(DBC)*Male:                        | 0.090                           | 0.198                                    | 0.349   | 0.654                 |
| P-value Coef.(DBC)*Female=(DBC)*Male=0:                      | 0.100                           | 0.115                                    | 0.641   | 0.724                 |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female:                  | 0.534                           | 0.625                                    | 0.594   | 0.845                 |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female=0:                | 0.033                           | 0.046                                    | 0.802   | 0.634                 |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male:                      | 0.052                           | 0.162                                    | 0.667   | 0.441                 |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male=0:                    | 0.064                           | 0.334                                    | 0.744   | 0.725                 |

Notes: Standard errors in parenthesis. All regressions include controls for the educational institution, the sector of the course, and the training cohort. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Appendix 3. Regression Estimates Including Controls for Additional Baseline Covariates

Table A.3.1. Program Impact on Soft Skills, 3.5 years

| VARIABLES  | (1)<br>Perseverance<br>(S.D.) | (2)<br>Ambition<br>(S.D.) | (3)<br>Leadership<br>(S.D.) | (4)<br>Conflict<br>Resolution<br>(S.D.) | (5)<br>Social Skills<br>(S.D.) | (6)<br>Organization<br>(S.D.) | (7)<br>Communication<br>(S.D.) | (8)<br>Combined<br>Index<br>(S.D.) |
|--|-------------------------------|---------------------------|-----------------------------|---|--------------------------------|-------------------------------|--------------------------------|------------------------------------|
| <i>Combined Vocational and Soft Skills Training x Female</i> |                               |                           |                             |   |                                |                               |                                |                                    |
| β1   | 0.194***                      | 0.179***                  | 0.091                       | 0.090                                   | 0.102                          | 0.145**                       | 0.168***                       | 0.138***                           |
| Standard Error   | (0.061)                       | (0.061)                   | (0.065)                     | (0.064)                                 | (0.064)                        | (0.066)                       | (0.064)                        | (0.047)                            |
| Romano Wolf p-value  | 0.011                         | 0.011                     | 0.066                       | 0.066                                   | 0.059                          | 0.024                         | 0.011                          | 0.011                              |
| <i>Soft Skills Training Only x Female</i>                    |                               |                           |                             |   |                                |                               |                                |                                    |
| β2   | 0.103*                        | 0.090                     | 0.059                       | 0.076                                   | 0.109*                         | 0.100*                        | 0.022                          | 0.080*                             |
| Standard Error   | (0.056)                       | (0.056)                   | (0.060)                     | (0.059)                                 | (0.058)                        | (0.061)                       | (0.058)                        | (0.043)                            |
| Romano Wolf p-value  | 0.214                         | 0.214                     | 0.214                       | 0.214                                   | 0.214                          | 0.214                         | 0.352                          | 0.214                              |
| <i>Combined Vocational and Soft Skills Training x Male</i>   |                               |                           |                             |   |                                |                               |                                |                                    |
| β3   | -0.019                        | -0.048                    | 0.075                       | -0.000                                  | -0.008                         | -0.022                        | -0.075                         | -0.014                             |
| Standard Error   | (0.077)                       | (0.077)                   | (0.081)                     | (0.080)                                 | (0.079)                        | (0.083)                       | (0.079)                        | (0.058)                            |
| Romano Wolf p-value  | 1                             | 1                         | 1                           | 1                                       | 1                              | 1                             | 1                              | 1                                  |
| <i>Soft Skills Training Only x Male</i>                      |                               |                           |                             |   |                                |                               |                                |                                    |
| β4   | -0.057                        | -0.050                    | 0.029                       | 0.010                                   | -0.016                         | -0.000                        | -0.020                         | -0.015                             |
| Standard Error   | (0.071)                       | (0.071)                   | (0.076)                     | (0.075)                                 | (0.074)                        | (0.077)                       | (0.074)                        | (0.054)                            |
| Romano Wolf p-value  | 1                             | 1                         | 1                           | 1                                       | 1                              | 1                             | 1                              | 1                                  |
| <i>Female=1</i>  |                               |                           |                             |   |                                |                               |                                |                                    |
| β5   | -0.189**                      | -0.111                    | -0.144*                     | -0.130*                                 | -0.170**                       | -0.227***                     | -0.182**                       | -0.165***                          |
| Standard Error   | (0.075)                       | (0.075)                   | (0.080)                     | (0.078)                                 | (0.078)                        | (0.081)                       | (0.078)                        | (0.057)                            |
| Romano Wolf p-value  | 0.025                         | 0.055                     | 0.047                       | 0.047                                   | 0.034                          | 0.021                         | 0.03                           | 0.021                              |
| Observations   | 2,779                         | 2,779                     | 2,779                       | 2,779                                   | 2,779                          | 2,779                         | 2,779                          | 2,779                              |
| R-squared  | 0.051                         | 0.046                     | 0.037                       | 0.042                                   | 0.034                          | 0.041                         | 0.061                          | 0.044                              |
| Control Mean:  | -0.001                        | -0.001                    | -0.001                      | 0.000                                   | 0.000                          | -0.002                        | 0.000                          | 0.000                              |
| Control Mean Female:   | -0.076                        | -0.050                    | -0.054                      | -0.057                                  | -0.069                         | -0.106                        | -0.072                         | -0.069                             |
| Control Mean Male:   | 0.109                         | 0.071                     | 0.077                       | 0.085                                   | 0.102                          | 0.151                         | 0.106                          | 0.100                              |
| P-value Coef.(TTP+DBC)*Female=(TTP+DBC)*Male:                | 0.031                         | 0.022                     | 0.882                       | 0.385                                   | 0.283                          | 0.116                         | 0.018                          | 0.042                              |
| P-value Coef.(TTP+DBC)*Female=(TTP+DBC)*Male=0:              | 0.007                         | 0.012                     | 0.245                       | 0.380                                   | 0.280                          | 0.088                         | 0.021                          | 0.012                              |
| P-value Coef.(DBC)*Female=(DBC)*Male:                        | 0.078                         | 0.124                     | 0.758                       | 0.488                                   | 0.186                          | 0.307                         | 0.649                          | 0.169                              |
| P-value Coef.(DBC)*Female=(DBC)*Male=0:                      | 0.136                         | 0.219                     | 0.575                       | 0.428                                   | 0.174                          | 0.258                         | 0.895                          | 0.167                              |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female:                  | 0.099                         | 0.103                     | 0.580                       | 0.820                                   | 0.902                          | 0.444                         | 0.010                          | 0.159                              |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female=0:                | 0.007                         | 0.014                     | 0.371                       | 0.316                                   | 0.144                          | 0.081                         | 0.012                          | 0.012                              |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male:                      | 0.600                         | 0.979                     | 0.541                       | 0.885                                   | 0.917                          | 0.774                         | 0.460                          | 0.988                              |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male=0:                    | 0.713                         | 0.748                     | 0.647                       | 0.986                                   | 0.976                          | 0.951                         | 0.617                          | 0.957                              |
| Clustered Standard Errors:                                   | No                            | No                        | No                          | No                                      | No                             | No                            | No                             | No                                 |
| Covariates:  | Yes                           | Yes                       | Yes                         | Yes                                     | Yes                            | Yes                           | Yes                            | Yes                                |

Notes: Standard errors in parenthesis. All regressions include controls for the educational institution, the sector of the course, and the training cohort. Additional covariates include baseline values for Age, Household size, Live in Sto Domingo =1, Poverty scale (0-100), Literacy of the head of the household, Literacy of the spouse of the head of the household, Unemployed =1, Previous worked =1, Has children =1, and Number of children. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1



**Table A.3.2. Program Impact on Expectations, 1 year**

| VARIABLES  | (1)<br>Expect<br>Employment<br>Opportunities to<br>Improve | (2)<br>Expect Living<br>Standards to<br>Improve |
|--|--|---|
| <i>Combined Vocational and Soft Skills Training x Female</i> |  |   |
| β1   | 0.035**  | 0.030**   |
| Standard Error   | (0.015)  | (0.012)   |
| Romano Wolf p-value  | 0.018  | 0.018   |
| <i>Soft Skills Training Only x Female</i>                    |  |   |
| β2   | 0.035***   | 0.031***  |
| Standard Error   | (0.013)  | (0.011)   |
| Romano Wolf p-value  | 0.01   | 0.01  |
| <i>Combined Vocational and Soft Skills Training x Male</i>   |  |   |
| β3   | 0.049***   | 0.011   |
| Standard Error   | (0.018)  | (0.015)   |
| Romano Wolf p-value  | 0.017  | 0.305   |
| <i>Soft Skills Training Only x Male</i>                      |  |   |
| β4   | 0.027  | 0.005   |
| Standard Error   | (0.017)  | (0.014)   |
| Romano Wolf p-value  | 0.283  | 0.539   |
| <i>Female=1</i>  |  |   |
| β5   | -0.002   | -0.005  |
| Standard Error   | (0.018)  | (0.015)   |
| Romano Wolf p-value  | 1  | 1   |
| Observations   | 2,779  | 2,779   |
| R-squared  | 0.041  | 0.034   |
| Control Mean:  | 0.920  | 0.948   |
| Control Mean Female:   | 0.917  | 0.943   |
| Control Mean Male:   | 0.924  | 0.955   |
| P-value Coef.(TTP+DBC)*Female=(TTP+DBC)*Male:                | 0.566  | 0.318   |
| P-value Coef (TTP+DBC)*Female=(TTP+DBC)*Male=0:              | 0.002  | 0.032   |
| P-value Coef.(DBC)*Female=(DBC)*Male:                        | 0.712  | 0.147   |
| P-value Coef.(DBC)*Female=(DBC)*Male=0:                      | 0.009  | 0.017   |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female:                  | 0.999  | 0.927   |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female=0:                | 0.018  | 0.010   |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male:                      | 0.205  | 0.692   |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male=0:                    | 0.029  | 0.768   |
| Clustered Standard Errors:                                   | No   | No  |
| Covariates:  | Yes  | Yes   |

Notes: Standard errors in parenthesis. All regressions include controls for the educational institution, the sector of the course, and the training cohort. Additional covariates include baseline values for Age, Household size, Live in Sto Domingo =1, Poverty scale (0-100), Literacy of the head of the household, Literacy of the spouse of the head of the household, Unemployed =1, Previous worked=1, Has children =1, and Number of children. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table A.3.3. Program Impact on Employment, 1 year**

| VARIABLES  | (1)<br>Working | (2)<br>Hours per<br>week | (3)<br>Log (Salary) | (4)<br>Satisfied with<br>job |
|--|----------------|--------------------------|---------------------|------------------------------|
| <i>Combined Vocational and Soft Skills Training x Female</i> |                |                          |                     |                              |
| β1   | 0.063**        | 1.492                    | 0.150*              | 0.183***                     |
| Standard Error   | (0.030)        | (2.349)                  | (0.083)             | (0.067)                      |
| Romano Wolf p-value  | 0.056          | 0.152                    | 0.076               | 0.025                        |
| <i>Soft Skills Training Only x Female</i>                    |                |                          |                     |                              |
| β2   | 0.046*         | 0.336                    | 0.137*              | 0.138**                      |
| Standard Error   | (0.027)        | (2.186)                  | (0.077)             | (0.062)                      |
| Romano Wolf p-value  | 0.122          | 0.282                    | 0.122               | 0.122                        |
| <i>Combined Vocational and Soft Skills Training x Male</i>   |                |                          |                     |                              |
| β3   | -0.112***      | 1.178                    | 0.046               | 0.070                        |
| Standard Error   | (0.037)        | (2.081)                  | (0.075)             | (0.060)                      |
| Romano Wolf p-value  | 0.013          | 0.752                    | 0.752               | 0.574                        |
| <i>Soft Skills Training Only x Male</i>                      |                |                          |                     |                              |
| β4   | -0.029         | -1.875                   | -0.069              | -0.001                       |
| Standard Error   | (0.035)        | (1.832)                  | (0.065)             | (0.053)                      |
| Romano Wolf p-value  | 1              | 1                        | 1                   | 1                            |
| <i>Female=1</i>  |                |                          |                     |                              |
| β5   | -0.316***      | -5.324**                 | -0.360***           | -0.115*                      |
| Standard Error   | (0.036)        | (2.417)                  | (0.085)             | (0.069)                      |
| Romano Wolf p-value  | 0.001          | 0.02                     | 0.001               | 0.039                        |
| Observations   | 2,779          | 961                      | 958                 | 973                          |
| R-squared  | 0.108          | 0.130                    | 0.209               | 0.110                        |
| Control Mean:  | 0.351          | 43.320                   | 8.646               | 0.498                        |
| Control Mean Female:   | 0.220          | 39.700                   | 8.435               | 0.416                        |
| Control Mean Male:   | 0.541          | 45.460                   | 8.775               | 0.547                        |
| P-value Coef.(TTP+DBC)*Female=(TTP+DBC)*Male:                | 0.000          | 0.921                    | 0.357               | 0.214                        |
| P-value Coef (TTP+DBC)*Female=(TTP+DBC)*Male=0:              | 0.001          | 0.689                    | 0.156               | 0.011                        |
| P-value Coef.(DBC)*Female=(DBC)*Male:                        | 0.092          | 0.439                    | 0.042               | 0.089                        |
| P-value Coef.(DBC)*Female=(DBC)*Male=0:                      | 0.177          | 0.586                    | 0.119               | 0.086                        |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female:                  | 0.514          | 0.556                    | 0.854               | 0.425                        |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female=0:                | 0.092          | 0.778                    | 0.139               | 0.020                        |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male:                      | 0.016          | 0.121                    | 0.104               | 0.213                        |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male=0:                    | 0.007          | 0.273                    | 0.241               | 0.399                        |
| Clustered Standard Errors:                                   | No             | No                       | No                  | No                           |
| Covariates:  | Yes            | Yes                      | Yes                 | Yes                          |

Notes: Standard errors in parenthesis. All regressions include controls for the educational institution, the sector of the course, and the training cohort. Additional covariates include baseline values for Age, Household size, Live in Sto Domingo =1, Poverty scale (0-100), Literacy of the head of the household, Literacy of the spouse of the head of the household, Unemployed =1, Previous worked=1, Has children =1, and Number of children. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table A.3.4. Program Impact on Employment, 3.5 years**

| VARIABLES  | (1)<br>Working | (2)<br>Hours per<br>week | (3)<br>Log (Salary) | (4)<br>Refused offer<br>because of<br>low salary | (5)<br>Log<br>(Salary<br>offer<br>refused) | (6)<br>Searching<br>for Work<br>While<br>Employed |
|--|----------------|--------------------------|---------------------|--|--|---|
| <i>Combined Vocational and Soft Skills Training x Female</i> |                |                          |                     |  |  |   |
| β1   | 0.012          | 1.296                    | 0.010               | 0.080  | -0.128                                     | -0.045  |
| Standard Error   | (0.030)        | (1.832)                  | (0.086)             | (0.056)  | (0.241)                                    | (0.042)   |
| Romano Wolf p-value  | 1              | 1                        | 1                   | 1  | 1  | 1   |
| <i>Soft Skills Training Only x Female</i>                    |                |                          |                     |  |  |   |
| β2   | 0.014          | 0.431                    | -0.042              | 0.027  | 0.052                                      | -0.002  |
| Standard Error   | (0.027)        | (1.689)                  | (0.079)             | (0.051)  | (0.235)                                    | (0.039)   |
| Romano Wolf p-value  | 1              | 1                        | 1                   | 1  | 1  | 1   |
| <i>Combined Vocational and Soft Skills Training x Male</i>   |                |                          |                     |  |  |   |
| β3   | -0.010         | -0.324                   | -0.083              | 0.129*   | 0.642**                                    | 0.113***  |
| Standard Error   | (0.037)        | (1.792)                  | (0.081)             | (0.069)  | (0.295)                                    | (0.041)   |
| Romano Wolf p-value  | 0.75           | 0.75                     | 0.298               | 0.107  | 0.087                                      | 0.031   |
| <i>Soft Skills Training Only x Male</i>                      |                |                          |                     |  |  |   |
| β4   | 0.008          | -0.109                   | -0.032              | 0.076  | 0.286                                      | 0.077**   |
| Standard Error   | (0.035)        | (1.654)                  | (0.074)             | (0.064)  | (0.314)                                    | (0.037)   |
| Romano Wolf p-value  | 1              | 1                        | 1                   | 1  | 1  | 0.327   |
| <i>Female=1</i>  |                |                          |                     |  |  |   |
| β5   | -0.348***      | -8.304***                | -0.417***           | 0.042  | 0.472                                      | 0.108**   |
| Standard Error   | (0.036)        | (1.983)                  | (0.091)             | (0.067)  | (0.312)                                    | (0.045)   |
| Romano Wolf p-value  | 0.001          | 0.001                    | 0.001               | 0.192  | 0.057                                      | 0.013   |
| Observations   | 2,779          | 1,668                    | 1,553               | 768  | 166  | 1,692   |
| R-squared  | 0.144          | 0.124                    | 0.165               | 0.114  | 0.663                                      | 0.070   |
| Control Mean:  | 0.625          | 39.800                   | 8.525               | 0.179  | 8.105                                      | 0.251   |
| Control Mean Female:   | 0.490          | 35.060                   | 8.259               | 0.205  | 8.073                                      | 0.306   |
| Control Mean Male:   | 0.822          | 43.930                   | 8.746               | 0.143  | 8.167                                      | 0.203   |
| P-value Coef.(TTP+DBC)*Female=(TTP+DBC)*Male:                | 0.658          | 0.531                    | 0.434               | 0.575  | 0.0453                                     | 0.007   |
| P-value Coef.(TTP+DBC)*Female=(TTP+DBC)*Male=0:              | 0.898          | 0.768                    | 0.589               | 0.0616   | 0.0861                                     | 0.012   |
| P-value Coef.(DBC)*Female=(DBC)*Male:                        | 0.897          | 0.820                    | 0.922               | 0.554  | 0.538                                      | 0.146   |
| P-value Coef.(DBC)*Female=(DBC)*Male=0:                      | 0.855          | 0.966                    | 0.788               | 0.433  | 0.654                                      | 0.124   |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female:                  | 0.933          | 0.593                    | 0.487               | 0.268  | 0.343                                      | 0.249   |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female=0:                | 0.873          | 0.764                    | 0.753               | 0.327  | 0.630                                      | 0.446   |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male:                      | 0.608          | 0.898                    | 0.497               | 0.389  | 0.164                                      | 0.331   |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male=0:                    | 0.876          | 0.983                    | 0.586               | 0.170  | 0.0803                                     | 0.017   |
| Clustered Standard Errors:                                   | No             | No                       | No                  | No   | No   | No  |
| Covariates:  | Yes            | Yes                      | Yes                 | Yes  | Yes  | Yes   |

Notes: Standard errors in parenthesis. All regressions include controls for the educational institution, the sector of the course, and the training cohort. Additional covariates include baseline values for Age, Household size, Live in Sto Domingo =1, Poverty scale (0-100), Literacy of the head of the household, Literacy of the spouse of the head of the household, Unemployed =1, Previous worked=1, Has children =1, and Number of children. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table A.3.5. Program Impact on Expectations and Self Esteem, 3.5 years**

| VARIABLES  | (1)<br>Log<br>(Expected<br>Future<br>Salary) | (2)<br>Expected<br>Children<br>Have Better<br>Life | (3)<br>Expected<br>Relative<br>Wealth in 10<br>Years | (4)<br>Self Esteem<br>(S.D.) |
|--|--|--|--|------------------------------|
| <i>Combined Vocational and Soft Skills Training x Female</i> |  |  |  |                              |
| β1   | 0.067**                                      | 0.067*   | 0.104**  | 0.141**                      |
| Standard Error   | (0.028)                                      | (0.038)  | (0.051)  | (0.064)                      |
| Romano Wolf p-value  | 0.06   | 0.06   | 0.06   | 0.06                         |
| <i>Soft Skills Training Only x Female</i>                    |  |  |  |                              |
| β2   | 0.036  | 0.048  | 0.003  | 0.131**                      |
| Standard Error   | (0.026)                                      | (0.035)  | (0.047)  | (0.059)                      |
| Romano Wolf p-value  | 0.213  | 0.213  | 0.309  | 0.122                        |
| <i>Combined Vocational and Soft Skills Training x Male</i>   |  |  |  |                              |
| β3   | -0.065*                                      | -0.079   | 0.022  | -0.057                       |
| Standard Error   | (0.035)                                      | (0.048)  | (0.064)  | (0.080)                      |
| Romano Wolf p-value  | 0.25   | 0.25   | 0.583  | 0.465                        |
| <i>Soft Skills Training Only x Male</i>                      |  |  |  |                              |
| β4   | -0.004                                       | -0.046   | 0.065  | -0.044                       |
| Standard Error   | (0.033)                                      | (0.044)  | (0.059)  | (0.075)                      |
| Romano Wolf p-value  | 1  | 1  | 1  | 1                            |
| <i>Female=1</i>  |  |  |  |                              |
| β5   | -0.278***                                    | -0.025   | 0.061  | -0.179**                     |
| Standard Error   | (0.034)                                      | (0.047)  | (0.062)  | (0.079)                      |
| Romano Wolf p-value  | 0.001  | 0.416  | 0.278  | 0.036                        |
| Observations   | 2,779  | 2,779  | 2,779  | 2,779                        |
| R-squared  | 0.146  | 0.047  | 0.055  | 0.030                        |
| Control Mean:  | 9.339  | 4.540  | 3.929  | 0.000                        |
| Control Mean Female:   | 9.212  | 4.532  | 3.946  | -0.081                       |
| Control Mean Male:   | 9.523  | 4.550  | 3.903  | 0.120                        |
| P-value Coef.(TTP+DBC)*Female=(TTP+DBC)*Male:                | 0.004  | 0.018  | 0.314  | 0.056                        |
| P-value Coef (TTP+DBC)*Female=(TTP+DBC)*Male=0:              | 0.011  | 0.058  | 0.118  | 0.072                        |
| P-value Coef.(DBC)*Female=(DBC)*Male:                        | 0.343  | 0.100  | 0.415  | 0.067                        |
| P-value Coef.(DBC)*Female=(DBC)*Male=0:                      | 0.377  | 0.236  | 0.545  | 0.074                        |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female:                  | 0.217  | 0.573  | 0.027  | 0.856                        |
| P-value Coef.(TTP+DBC)*Female=(DBC)*Female=0:                | 0.059  | 0.198  | 0.052  | 0.046                        |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male:                      | 0.059  | 0.457  | 0.462  | 0.859                        |
| P-value Coef.(TTP+DBC)*Male=(DBC)*Male=0:                    | 0.103  | 0.255  | 0.523  | 0.753                        |
| Clustered Standard Errors:                                   | No   | No   | No   | No                           |
| Covariates:  | Yes  | Yes  | Yes  | Yes                          |

Notes: Standard errors in parenthesis. All regressions include controls for the educational institution, the sector of the course, and the training cohort. Additional covariates include baseline values for Age, Household size, Live in Sto Domingo =1, Poverty scale (0-100), Literacy of the head of the household, Literacy of the spouse of the head of the household, Unemployed =1, Previous worked=1, Has children =1 , and Number of children. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Appendix 4. Observational Correlations Between Soft Skills Measures and Selected Outcomes

**Table A4.1. Observational Correlations Between Soft Skills Measures and Selected Outcomes (Sample of Controls, Men and Women)**

|                            | Expectations, 12 Months                                    |  | Labor Outcomes, 12 Months |                          |                        |                              | Labor Outcomes, 3.5 Years |                          |                        |  | Expectations, 3.5 Years                       |   |   |                        |
|----------------------------|--|--|---------------------------|--------------------------|------------------------|------------------------------|---------------------------|--------------------------|------------------------|--|---|---|---|------------------------|
|                            | (1)<br>Expect<br>Employment<br>Opportunities<br>to Improve | (2)<br>Expect<br>Living<br>Standards to<br>Improve | (3)<br>Working            | (4)<br>Hours per<br>week | (5)<br>Log<br>(Salary) | (6)<br>Satisfied<br>with job | (7)<br>Working            | (8)<br>Hours per<br>week | (9)<br>Log<br>(Salary) | (10)<br>Searching<br>for Work<br>While<br>Employed | (11)<br>Log<br>(Expected<br>Future<br>Salary) | (12)<br>Expected<br>Children<br>Have<br>Better Life | (13)<br>Expected<br>Relative<br>Wealth in<br>10 Years | (14)<br>Self<br>Esteem |
| Perseverance (S.D.)        | 0.020<br>(0.022)   | 0.008<br>(0.019)                                   | 0.094**<br>(0.037)        | 3.162<br>(2.825)         | 0.015<br>(0.115)       | 0.030<br>(0.086)             | 0.084**<br>(0.037)        | 3.599<br>(2.184)         | 0.270***<br>(0.092)    | 0.012<br>(0.048)                                   | 0.089**<br>(0.038)                            | 0.121**<br>(0.050)                                  | 0.094<br>(0.068)                                      | 0.045<br>(0.058)       |
| Ambition (S.D.)            | -0.017<br>(0.022)  | 0.001<br>(0.018)                                   | -0.086**<br>(0.036)       | -1.406<br>(2.815)        | -0.057<br>(0.115)      | 0.000<br>(0.086)             | -0.095***<br>(0.036)      | 1.179<br>(2.092)         | -0.080<br>(0.088)      | -0.056<br>(0.046)                                  | -0.024<br>(0.037)                             | -0.056<br>(0.048)                                   | 0.014<br>(0.066)                                      | -0.003<br>(0.056)      |
| Leadership (S.D.)          | -0.020<br>(0.016)  | -0.013<br>(0.013)                                  | -0.024<br>(0.027)         | -2.592<br>(1.817)        | 0.025<br>(0.074)       | -0.006<br>(0.055)            | 0.055**<br>(0.027)        | -1.835<br>(1.556)        | 0.015<br>(0.066)       | 0.020<br>(0.034)                                   | 0.046*<br>(0.028)                             | -0.016<br>(0.036)                                   | -0.024<br>(0.049)                                     | 0.177***<br>(0.042)    |
| Conflict Resolution (S.D.) | 0.026<br>(0.016)   | 0.000<br>(0.013)                                   | -0.011<br>(0.026)         | -1.870<br>(1.991)        | 0.114<br>(0.080)       | 0.024<br>(0.059)             | 0.001<br>(0.026)          | -1.363<br>(1.484)        | -0.063<br>(0.063)      | 0.006<br>(0.033)                                   | -0.029<br>(0.027)                             | -0.027<br>(0.035)                                   | 0.021<br>(0.048)                                      | 0.161***<br>(0.040)    |
| Social Skills (S.D.)       | -0.033**<br>(0.015)  | -0.014<br>(0.013)                                  | -0.018<br>(0.025)         | 0.868<br>(1.802)         | -0.156**<br>(0.074)    | -0.011<br>(0.055)            | -0.043*<br>(0.025)        | -0.346<br>(1.414)        | -0.015<br>(0.061)      | 0.024<br>(0.031)                                   | -0.002<br>(0.026)                             | 0.023<br>(0.034)                                    | 0.031<br>(0.046)                                      | 0.227***<br>(0.039)    |
| Organization (S.D.)        | 0.040***<br>(0.015)  | 0.026**<br>(0.012)                                 | 0.065***<br>(0.024)       | 1.985<br>(2.013)         | 0.003<br>(0.082)       | -0.005<br>(0.062)            | 0.009<br>(0.024)          | 0.359<br>(1.447)         | 0.012<br>(0.061)       | 0.020<br>(0.032)                                   | 0.027<br>(0.025)                              | 0.028<br>(0.032)                                    | -0.005<br>(0.044)                                     | 0.256***<br>(0.038)    |
| Communication (S.D.)       | 0.002<br>(0.011)   | 0.001<br>(0.009)                                   | 0.017<br>(0.018)          | 1.824<br>(1.317)         | 0.089*<br>(0.053)      | 0.010<br>(0.040)             | 0.005<br>(0.018)          | 0.546<br>(1.034)         | 0.033<br>(0.045)       | 0.007<br>(0.023)                                   | 0.021<br>(0.019)                              | -0.001<br>(0.024)                                   | 0.045<br>(0.033)                                      | 0.012<br>(0.028)       |
| Female=1                   | 0.009<br>(0.023)   | -0.009<br>(0.020)                                  | -0.285***<br>(0.039)      | -5.723**<br>(2.816)      | -0.391***<br>(0.114)   | -0.104<br>(0.085)            | -0.341***<br>(0.039)      | -7.512***<br>(2.343)     | -0.391***<br>(0.100)   | 0.123**<br>(0.051)                                 | -0.317***<br>(0.040)                          | -0.004<br>(0.052)                                   | 0.071<br>(0.072)                                      | -0.013<br>(0.061)      |
| Observations               | 773  | 773  | 773                       | 267                      | 264                    | 271                          | 773                       | 468                      | 436                    | 475  | 773   | 773   | 773   | 773                    |
| R-squared                  | 0.116  | 0.076  | 0.217                     | 0.390                    | 0.369                  | 0.309                        | 0.242                     | 0.246                    | 0.292                  | 0.162  | 0.257   | 0.118   | 0.115   | 0.562                  |

Notes: Standard errors in parenthesis. All regressions include controls for the educational institution, the sector of the course, and the training cohort. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table A4.2. Observational Correlations Between Soft Skills Measures and Selected Outcomes (Sample of Controls, Women)**

|                            | Expectations, 12 Months                                    |  | Labor Outcomes, 12 Months |                          |                        |                              | Labor Outcomes, 3.5 Years |                          |                        |  | Expectations, 3.5 Years                       |   |   |                        |
|----------------------------|--|--|---------------------------|--------------------------|------------------------|------------------------------|---------------------------|--------------------------|------------------------|--|---|---|---|------------------------|
|                            | (1)<br>Expect<br>Employment<br>Opportunities<br>to Improve | (2)<br>Expect<br>Living<br>Standards to<br>Improve | (3)<br>Working            | (4)<br>Hours per<br>week | (5)<br>Log<br>(Salary) | (6)<br>Satisfied<br>with job | (7)<br>Working            | (8)<br>Hours per<br>week | (9)<br>Log<br>(Salary) | (10)<br>Searching<br>for Work<br>While<br>Employed | (11)<br>Log<br>(Expected<br>Future<br>Salary) | (12)<br>Expected<br>Children<br>Have<br>Better Life | (13)<br>Expected<br>Relative<br>Wealth in<br>10 Years | (14)<br>Self<br>Esteem |
| Perseverance (S.D.)        | 0.041<br>(0.029)   | 0.018<br>(0.025)                                   | 0.077*<br>(0.043)         | -4.562<br>(6.571)        | 0.125<br>(0.326)       | 0.123<br>(0.183)             | 0.117**<br>(0.051)        | 3.596<br>(3.862)         | 0.324*<br>(0.168)      | 0.029<br>(0.083)                                   | 0.099*<br>(0.053)                             | 0.130**<br>(0.066)                                  | 0.116<br>(0.087)                                      | 0.046<br>(0.075)       |
| Ambition (S.D.)            | -0.042<br>(0.028)  | -0.007<br>(0.025)                                  | -0.072*<br>(0.042)        | 3.678<br>(6.852)         | -0.229<br>(0.339)      | -0.045<br>(0.191)            | -0.124**<br>(0.050)       | -0.933<br>(3.713)        | -0.117<br>(0.159)      | -0.098<br>(0.079)                                  | -0.018<br>(0.052)                             | -0.084<br>(0.064)                                   | -0.031<br>(0.085)                                     | -0.015<br>(0.073)      |
| Leadership (S.D.)          | -0.029<br>(0.022)  | -0.029<br>(0.019)                                  | -0.032<br>(0.032)         | -1.113<br>(3.306)        | 0.257<br>(0.164)       | -0.001<br>(0.092)            | 0.045<br>(0.038)          | 0.142<br>(2.713)         | 0.071<br>(0.112)       | 0.060<br>(0.058)                                   | 0.076*<br>(0.040)                             | -0.031<br>(0.049)                                   | -0.015<br>(0.065)                                     | 0.253***<br>(0.056)    |
| Conflict Resolution (S.D.) | 0.027<br>(0.021)   | -0.001<br>(0.018)                                  | -0.007<br>(0.032)         | 0.592<br>(3.921)         | 0.053<br>(0.191)       | 0.153<br>(0.108)             | 0.019<br>(0.037)          | -2.231<br>(2.639)        | -0.094<br>(0.108)      | -0.016<br>(0.057)                                  | -0.014<br>(0.039)                             | -0.041<br>(0.048)                                   | 0.026<br>(0.064)                                      | 0.135**<br>(0.055)     |
| Social Skills (S.D.)       | -0.026<br>(0.020)  | 0.002<br>(0.017)                                   | -0.026<br>(0.029)         | -2.146<br>(4.017)        | -0.259<br>(0.199)      | -0.042<br>(0.112)            | -0.061*<br>(0.034)        | -2.476<br>(2.306)        | -0.087<br>(0.096)      | 0.028<br>(0.049)                                   | -0.032<br>(0.036)                             | 0.013<br>(0.044)                                    | -0.012<br>(0.058)                                     | 0.188***<br>(0.051)    |
| Organization (S.D.)        | 0.050**<br>(0.019)   | 0.040**<br>(0.017)                                 | 0.059**<br>(0.029)        | 3.766<br>(4.850)         | 0.033<br>(0.242)       | -0.233*<br>(0.135)           | -0.027<br>(0.034)         | 1.367<br>(2.557)         | -0.042<br>(0.107)      | 0.027<br>(0.054)                                   | 0.018<br>(0.036)                              | 0.036<br>(0.044)                                    | 0.037<br>(0.058)                                      | 0.282***<br>(0.050)    |
| Communication (S.D.)       | 0.010<br>(0.015)   | -0.001<br>(0.013)                                  | 0.026<br>(0.022)          | 3.945<br>(2.873)         | 0.107<br>(0.152)       | 0.030<br>(0.079)             | -0.003<br>(0.026)         | 1.167<br>(1.824)         | -0.025<br>(0.082)      | -0.006<br>(0.039)                                  | -0.006<br>(0.027)                             | 0.018<br>(0.034)                                    | 0.074*<br>(0.045)                                     | 0.020<br>(0.039)       |
| Observations               | 459  | 459  | 459                       | 99                       | 99                     | 101                          | 459                       | 218                      | 198                    | 219  | 459   | 459   | 459   | 459                    |
| R-squared                  | 0.181  | 0.130  | 0.200                     | 0.603                    | 0.546                  | 0.649                        | 0.241                     | 0.338                    | 0.399                  | 0.301  | 0.245   | 0.187   | 0.182   | 0.605                  |

Notes: Standard errors in parenthesis. All regressions include controls for the educational institution, the sector of the course, and the training cohort. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table A4.3. Observational Correlations Between Soft Skills Measures and Selected Outcomes (Sample of Controls, Men)**

|                            | Expectations, 12 Months                                    |  | Labor Outcomes, 12 Months |                          |                        |                              | Labor Outcomes, 3.5 Years |                          |                        |  | Expectations, 3.5 Years                       |   |   |                        |
|----------------------------|--|--|---------------------------|--------------------------|------------------------|------------------------------|---------------------------|--------------------------|------------------------|--|---|---|---|------------------------|
|                            | (1)<br>Expect<br>Employment<br>Opportunities<br>to Improve | (2)<br>Expect<br>Living<br>Standards to<br>Improve | (3)<br>Working            | (4)<br>Hours per<br>week | (5)<br>Log<br>(Salary) | (6)<br>Satisfied<br>with job | (7)<br>Working            | (8)<br>Hours per<br>week | (9)<br>Log<br>(Salary) | (10)<br>Searching<br>for Work<br>While<br>Employed | (11)<br>Log<br>(Expected<br>Future<br>Salary) | (12)<br>Expected<br>Children<br>Have<br>Better Life | (13)<br>Expected<br>Relative<br>Wealth in<br>10 Years | (14)<br>Self<br>Esteem |
| Perseverance (S.D.)        | -0.017<br>(0.041)  | -0.022<br>(0.033)                                  | 0.141*<br>(0.078)         | 6.895*<br>(3.856)        | 0.093<br>(0.131)       | -0.035<br>(0.112)            | 0.061<br>(0.057)          | 6.661**<br>(3.010)       | 0.139<br>(0.130)       | -0.020<br>(0.070)                                  | 0.116*<br>(0.060)                             | 0.070<br>(0.090)                                    | 0.100<br>(0.127)                                      | 0.181*<br>(0.102)      |
| Ambition (S.D.)            | 0.023<br>(0.039)   | 0.025<br>(0.031)                                   | -0.128*<br>(0.074)        | -3.875<br>(3.681)        | -0.046<br>(0.127)      | -0.028<br>(0.109)            | -0.057<br>(0.054)         | 0.513<br>(2.862)         | -0.055<br>(0.124)      | 0.010<br>(0.067)                                   | -0.079<br>(0.056)                             | 0.014<br>(0.085)                                    | 0.058<br>(0.119)                                      | -0.083<br>(0.096)      |
| Leadership (S.D.)          | -0.020<br>(0.028)  | 0.007<br>(0.022)                                   | -0.029<br>(0.053)         | -2.949<br>(2.902)        | -0.042<br>(0.098)      | 0.023<br>(0.084)             | 0.075*<br>(0.039)         | -3.486<br>(2.149)        | -0.066<br>(0.095)      | -0.010<br>(0.050)                                  | 0.050<br>(0.041)                              | -0.029<br>(0.061)                                   | 0.002<br>(0.087)                                      | 0.084<br>(0.069)       |
| Conflict Resolution (S.D.) | 0.043<br>(0.026)   | 0.008<br>(0.021)                                   | -0.019<br>(0.050)         | -2.425<br>(2.910)        | 0.194**<br>(0.096)     | 0.015<br>(0.082)             | -0.036<br>(0.037)         | 0.123<br>(2.011)         | 0.037<br>(0.089)       | -0.005<br>(0.047)                                  | -0.062<br>(0.038)                             | -0.026<br>(0.057)                                   | -0.004<br>(0.081)                                     | 0.182***<br>(0.065)    |
| Social Skills (S.D.)       | -0.042<br>(0.028)  | -0.027<br>(0.022)                                  | -0.008<br>(0.053)         | 0.624<br>(2.773)         | -0.147<br>(0.095)      | -0.058<br>(0.081)            | -0.044<br>(0.039)         | -0.005<br>(2.111)        | 0.092<br>(0.096)       | 0.043<br>(0.050)                                   | 0.019<br>(0.041)                              | 0.047<br>(0.061)                                    | 0.019<br>(0.086)                                      | 0.244***<br>(0.069)    |
| Organization (S.D.)        | 0.027<br>(0.027)   | -0.003<br>(0.021)                                  | 0.081<br>(0.051)          | 1.082<br>(2.789)         | -0.099<br>(0.096)      | 0.103<br>(0.082)             | 0.084**<br>(0.037)        | -1.612<br>(1.947)        | -0.030<br>(0.084)      | 0.040<br>(0.046)                                   | 0.030<br>(0.039)                              | 0.050<br>(0.059)                                    | -0.069<br>(0.083)                                     | 0.228***<br>(0.066)    |
| Communication (S.D.)       | -0.011<br>(0.020)  | 0.009<br>(0.016)                                   | 0.016<br>(0.037)          | -0.299<br>(2.021)        | 0.145**<br>(0.069)     | 0.044<br>(0.059)             | -0.011<br>(0.027)         | 0.313<br>(1.498)         | 0.066<br>(0.065)       | 0.015<br>(0.035)                                   | 0.041<br>(0.028)                              | 0.007<br>(0.043)                                    | 0.070<br>(0.060)                                      | 0.036<br>(0.048)       |
| Observations               | 314  | 314  | 314                       | 168                      | 165                    | 170                          | 314                       | 250                      | 238                    | 256  | 314   | 314   | 314   | 314                    |
| R-squared                  | 0.230  | 0.199  | 0.212                     | 0.419                    | 0.456                  | 0.382                        | 0.279                     | 0.354                    | 0.342                  | 0.254  | 0.347   | 0.222   | 0.267   | 0.635                  |

Notes: Standard errors in parenthesis. All regressions include controls for the educational institution, the sector of the course, and the training cohort. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1