

Via: Pathways to Work Program

Multi-endpoint comparison group study Tanzania

Final Report

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## **LIST OF ACRONYMS**

CASEL	Collaborative for Academic, Social, and Emotional Learning
EI	Emotional Intelligence
FGD	Focus Group Discussion
HDI	Human Development Index
IYF	International Youth Foundation
KII	Key informant interviews
OECD	Organization for Economic Cooperation and Development
PTS	Passport to Success
SD	Standard Deviation
SEL	Social and Emotional Learning
TVET	Technical and Vocational Education and Training
UN	United Nations
VETA	Vocational Education and Training Authority

## EXECUTIVE SUMMARY

This report provides findings, conclusions and recommendations from a three-month ex-post data collection process conducted as part of a multi-endpoint comparison group study for the Via: Pathways to Work program in Tanzania. This section provides a summary of the report.

## METHODOLOGY

The study was an impact evaluation conducted using a quasi-experimental design. The study included an intervention group and a control group. Data collection for the impact evaluation was conducted at three intervals. Baseline data collection was conducted prior to course commencement, one month after graduation and three months after graduation. The study collected data using an individual survey questionnaire, key informant interviews, and focus group discussions and human-interest story documentation. The average age for respondents was 22.97 years and 22.78 years for the intervention group and the comparison group respectively. 30.8% of intervention group participants and 23.3% of control group respondents were females.

## FINDINGS

### *Primary Findings*

The regression analysis reveals a broad pattern in which the intervention program is associated with greater growth in socioemotional outcomes such as self-confidence, self-efficacy, and self-assessed emotional intelligence, relative to the comparison group. This pattern is not reflected in economic or employment outcomes, however, in which there are no statistically significant differences. The report concludes that the short timeline to follow up (three months post training) is likely insufficient to observe downstream improvements in economic status. There are no noticeable differences in the estimated impact by gender or type of geographic location (i.e., rural/non-rural). Respondents from focus group discussions reported experiencing some transformations because of improved skills and competencies. A respondent who completed a driving course indicated that *“after completing my course I managed to get a better paying job and I have started to buy myself things I could not buy before”*.

### *Income*

There are no significant changes in personal income between baseline and endline as well as between intervention and comparison groups. However, household income increased significantly for the intervention group ( $p=0.0185$ ). Some qualitative respondents though reported either getting better paying jobs or making more income from their enterprises. A respondent who completed a hairdressing course reported being able to *“charge a bit more because I have gone to school and have new skills. When I had not gone to school it was difficult to charge more because hairdressing is something I had only learnt at home”*. There were no significant changes over time for the comparison group.

### *Other Income*

Insights from qualitative interviews which showed that where respondents were mostly pre-occupied with basics such as food, they had progressed and were focusing on priorities that include asset accumulation as one graduate remarked that she was *“focusing on making sure that my shop is well stocked, and my dream is to be able to go to China or Dubai to buy stock”*.

### *Preference between Entrepreneurship / Self-Employment*

Most participants would prefer formal full-time employment at both baseline and endline. For the intervention, 58 percent opted for formal employment at baseline. The percent decreased to 53 percent at endline. For the comparison group participants who opted formal employment increased significantly from 45 percent to 53 percent ( $p=0.0082$ ). Qualitative discussions further corroborated respondents' preference for employment and the most cited reason was the *“urgent need to earn an income”* and *“take care of immediate needs”*. Respondents outlined preferring employment shortly after graduating so that they would raise enough money to set up entrepreneurship ventures. A respondent who completed a course in carpentry highlighted that *“after completing my course I got a job at another workshop so that I can get money to survive. At the same time, I can also raise money to set up my own workshop. Working in another workshop also helps me to get experience”*.

### *Entrepreneurship*

While the percent of participants running a business from October to April increased by 4% from 12 percent to 16 percent, for the intervention and increased from 7 percent to 10 percent for comparison group, the change however was not significant. This can be explained by key informants and FGD participants who outlined that the operating environment was not as conducive for running a business and although the country's leadership had taken less measures against COVID-19 pandemic, opportunities such as capital and workspaces to set up businesses were limited especially for young people who would have recently graduated, lacking experience and with minimal access to funding. There was also no significant change between baseline and endline in access to funding.

The average number of months intervention participants have been operating business decreased significantly from 13 months to 7 months for the intervention ( $p=0.0035$ ) at endline. The decline could also be attributed to overall macroeconomic challenges. During June and July 2020, a World Bank study estimated that firms reported an average decline in sales of 36%, which has jeopardized the solvency of more than three-quarters of small and medium enterprises<sup>1</sup>.

### *Employment*

There was a statistically significant increase in the percentage of those employed from 5 percent to 8 percent for the intervention group ( $p=0.0152$ ). For the comparison group there was an increase from 9 percent to 14 percent, but the increase was not significant. There are still ongoing effects of COVID-19 related closures which affected businesses even if Tanzania had not enforced any lockdown at the time. The World Bank study estimated that about 140,000 formal jobs were lost in June 2020, and another 2.2 million nonfarm informal workers suffered income losses<sup>2</sup>.

### *Program Satisfaction*

Participants in Dar Es Salaam (mean score of 4.44) were most satisfied with the technical portion of the program whilst in Dodoma (mean score of 4.21) were most satisfied by life skills. In Mtwara they were mostly satisfied with the mentorship provided through the program (mean score of 4.35). One respondent highlighted that *“the technical training portion of the program differentiates us from those who were self-trained or learned in the streets, it gives us an extra edge to perfect our work and therefore invite more clients.”*

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<sup>1</sup> <https://www.worldbank.org/en/country/tanzania/overview>



### *Coping with COVID-19*

The study documented qualitative insights around how participants were coping with the COVID-19 pandemic. Although the country acknowledges the existence of Covid-19 pandemic, it did not 100 percent conform to WHO's protocols to fighting the pandemic rather came up with more customized approach that include the emphasis on usage of traditional herbals. However, there were challenges including economic contraction, loss of employment opportunities, limited access to entrepreneurship and fear of contracting the virus. However, participants from the intervention group reported being able to deal with adverse events.

### **SUMMARY OF OBJECTIVES, FINDINGS AND RECOMMENDATIONS**

<b>OBJECTIVE</b>	<b>KEY FINDINGS</b>	<b>RECOMMENDATION</b>
To establish the extent to which the program participants gained a meaningful increase in socio-emotional skills.	The program contributed towards improving participants' socio-emotional skills. Participants in the intervention group showed better socio-emotional skills than those in the comparison group.	Continue providing support towards building socio-emotional skills as part of broad technical skills training.
To assess the extent to which TVET trainees gained market-responsive technical or vocational skills. To further the extent to which these skills facilitated employment (formal, non-formal, self-employment, etc)	The program contributed towards attainment of skills but there are no differences on employment between intervention and control group participants. Assessment was constrained by the COVID-19 pandemic, macro-economic challenges along with limited employment opportunities within the operating environment.	Explore possibilities of investing in designs that measure economic outcomes linked to socio-emotional at intervals that provide for more time (maybe 6 months) ex-post.
To ascertain how the program participants gained a clear and actionable pathway to a livelihood.	Socio-emotional skills gained allowed participants to have clear pathways to livelihoods. However, conditions within the operating environment constrained the extent to which they could pursue selected pathways.	Future program designs may need to consider adding components such as paid internships for those interested in employment and start-up capital for those interested in entrepreneurship.
To establish the impact of the program, measured by socio-emotional learning, labor market outcomes, and income.	The program contributed towards improved socio-emotional learning. However, its impact on labor market outcomes and income was not yet discernable at the time of measurement.	<p>Invest in intervention designs that move beyond socio-emotional skills development towards facilitating transformation of the broader ecosystem that includes the labor market and entrepreneurship context.</p> <p>Explore possibilities of investing in designs that measure economic outcomes linked to socio-emotional at intervals that provide for more time (maybe 6 months) ex-post.</p>

## **INTRODUCTION**

This report provides findings, conclusions and recommendations from an endline study conducted as part of a multi-endpoint comparison group study for the Via: Pathways to Work program in Tanzania. Data collection for the endline study was conducted between March and April 2021 in six regions.

## **BACKGROUND**

The International Youth Foundation (IYF) invests in the extraordinary potential of young people. Founded in 1990, IYF builds and maintains a worldwide community of businesses, governments, and civil society organizations committed to empowering youth to be healthy, productive, and engaged citizens. IYF programs are catalysts of change that help young people obtain a quality education, gain employability skills, make healthy choices, and improve their communities.

In partnership with the Mastercard Foundation, IYF is implementing Via: Pathways to Work (hereafter, “the program”), a five-year initiative that aimed to improve economic opportunities for underserved youth in Mozambique and Tanzania through sustainable changes in the national technical and vocational (TVET) and entrepreneurship systems. The program, which launched in October 2015, employs systems change approach, intending to influence the collective behavior of TVET system actors and seeks to reach over 20,000 youth directly with enhanced technical and vocational training and related services, including life skills training. The legacy of the program will be the systemic changes made at the institutional level and across an array of stakeholders that lead to mutual benefit for Mozambican and Tanzanian young people and the TVET ecosystem. Benefits to youth are expected to include improved life skills (e.g, social, and emotional learning), and improved general job preparedness.

The Collaborative for Academic, Social, and Emotional Learning (CASEL) defines Social and Emotional Learning (SEL) as “the process through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions”. It is a process that assists young people and sometimes adults develop the fundamental competences for life effectiveness.

The Organization for Economic Cooperation and Development (OECD) defines SEL as a construct with three overarching competences. The OECD report (2015) regards SEL competences as essential to succeed at school, at work, and in life overall in the 21st century, and mentions character skills, non-cognitive skills and soft skills as alternative expressions for social and emotional skills. Key competencies include the ability to pursue goals, being able to work with others and managing emotions.

Social and Emotional Learning has been gaining currency with increasing convergence around the idea that for youth to achieve their full potential as productive adult citizens, parents, and volunteers in a pluralistic society, educators must focus explicitly on promoting SEL. Evidence has shown that SEL programmes have various advantages with meta-analyses (Durlak et al. (2011); Sklad et al (2012)) showing that SEL interventions were effective in increasing students’ academic performance and positive self-image; in reducing emotional distress, such as anxiety or depression; in improving positive attitudes towards oneself and others, including higher academic

motivation, stronger bonding with school and teachers, and more positive attitudes towards school in general; in improving self- management and classroom behavior, such as following classroom rules and in decreasing misbehavior and aggression.

The OECD report (2015) presents evidence that skills such as perseverance, sociability and self-esteem, among others, increase subjective wellbeing, improve mental and physical health (reducing depression, obesity and vulnerability to becoming victimized), and reduce the odds of engaging in conduct problems. SEL skills were also shown to have a positive impact on educational attainment and grades.

A key feature of SEL is its effectiveness in preparing young people with problem solving competencies that are critical in a rapidly evolving work context. Corroborating this, Nganga (2014) observes that at least 50% of the graduates produced by East African universities are “half baked” for the job market. In addition, findings by the Inter-University Council for East Africa reveal that, in Tanzania, at least 61% of graduates were found to lack marketable skills. A key component of SEL is its contribution towards building Emotional Intelligence (EI) which is characterized by (1) the ability to perceive accurately, appraise and express emotion; (2) the ability to access and/or generate feelings when they facilitate thought; (3) the ability to understand emotion and emotional knowledge; and (4) the ability to regulate emotions to promote emotional and intellectual growth.

Evidence has shown that effective education involves development of personal responsibility skills while proper education experience should encompass specific learning experiences to help students develop the EI skills essential to academic achievement, personal well-being and career/life effectiveness. Basu and Mermillod (2011) argue that the key feature of developing EI is to educate two minds with a focus on how the cognitive and emotional mind work. Emotionally intelligent behavior is reflected in the ability to think constructively and behave wisely. Being deliberate about prioritizing building emotional intelligence is a critical step in transitioning from the traditional focus on recall and retention.

Such findings raise serious questions about the standards and skills offered by universities to students, with growing incompatibility between theoretical learning and employer skill requirements. As at the end of 2017, the UN Human Development Index report estimated that unemployment was around 12.9%. Although the country’s labor market has been boosted by growing opportunities in oil, gas and telecommunication sectors for graduates with technical expertise, there are still skills gaps, with private employers recruiting abroad (Mutagwaba and Kyetema, 2017).

An estimated 700,000 graduates enter the labor market in Tanzania every year but only 40,000 (5.7%) find employment in the formal sector. The need for SEL becomes more critical for purposes of strengthening problem solving skills which are necessary for innovation. In addition, SEL is highly likely to build the resilience of graduates who can potentially be easily frustrated by an employment market the reality of possessing qualifications that are not aligned to labor market needs. The country is prioritizing innovation and industrialization thus vocational training is central to that development aspiration. Integrating SEL within vocational training then provides scope to move towards building more rounded professionals and citizens.

The new economy requires innovation, training, reinventing education, and entrepreneurship that significantly favors youth. One of the goals of Tanzania higher education is the acquisition of both physical and intellectual skills which will enable individuals to be self-reliant and useful members of the society. The TVET development programme is guided by the Tanzania Development Vision 2025 and has four priority areas including (1) Improving Access and Equity; (2) Improving the quality of outputs; (3) Improving the Capacity to provide Quality TVET; and (4) Improving Monitoring and Evaluation of TVET Subsector.

It is the statutory duty of the Tanzania higher education to groom the required human capital through relevant manpower training, abilities, attitudes, skills and knowledge as Education is one of eight priority areas under Tanzania's "Big Results Now" (World Bank, 2014). An outstanding human capital assumption is that after finishing their higher education, graduates should be able to make a successful transition from these institutions of higher learning to become productive workers, self-reliant entrepreneurs, responsible, good citizens, and selfless leaders (Ndyali, 2016).

### **THE VIA PROGRAM MODEL AND GOALS**

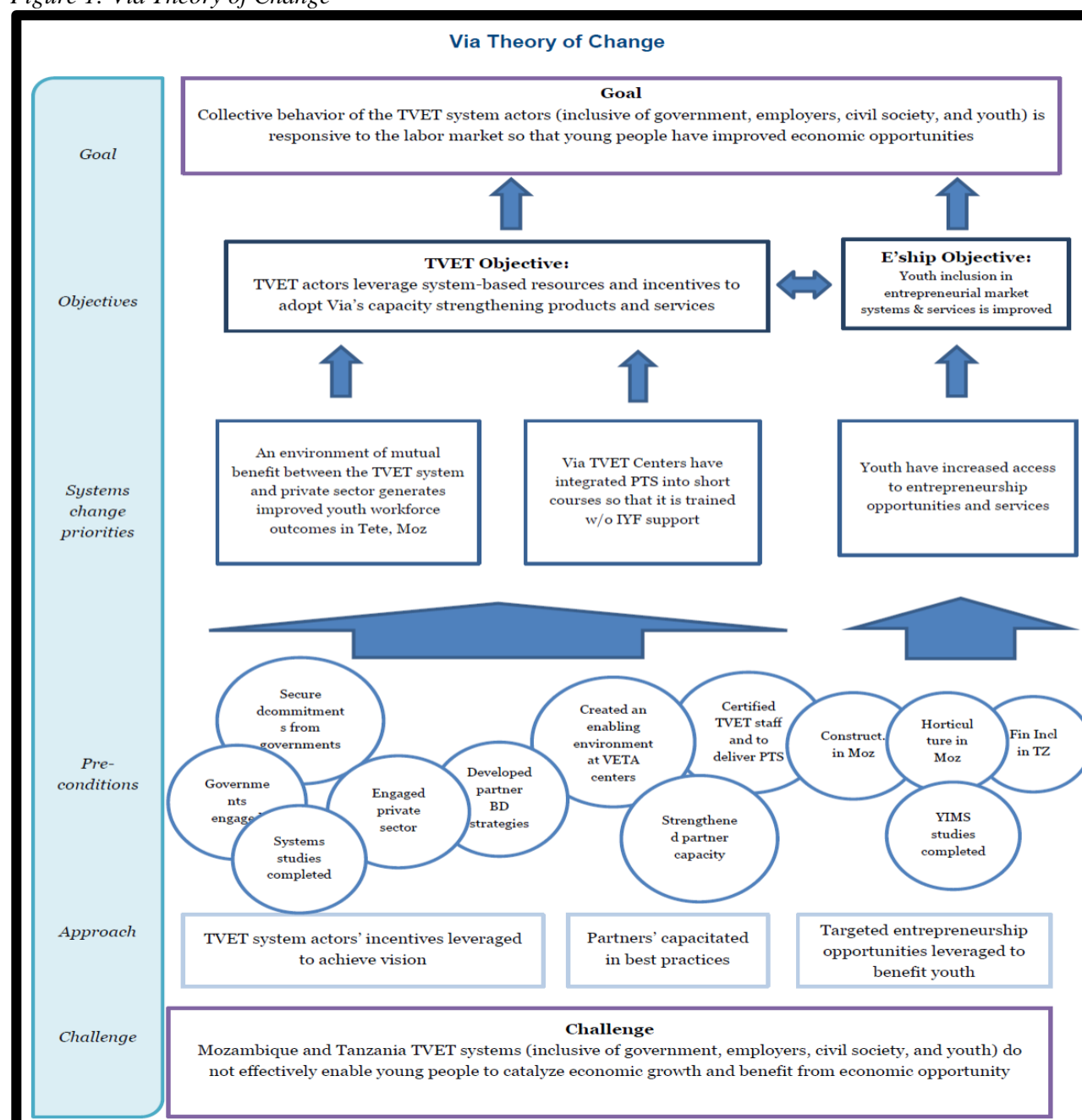
The program seeks to improve economic opportunities for underserved youth in Tanzania through sustainable changes in the technical and vocational training and entrepreneurship systems, including improved SEL training. The stated goal of the program is that the collective behaviour of the TVET system actors (inclusive of government, employers, civil society, and youth) is responsive to the labor market so that young people are better prepared for the workplace and have improved economic opportunities.

Program objectives are:

- TVET actors to leverage systems-based resources and incentives to adopt Via's capacity strengthening products and services, including SEL training.

The program seeks to achieve the objective through capacity strengthening of partner organizations. This includes the development and support of capacity strengthening plans for internal systems, processes, and technical capabilities, as well as the incorporation of IYF's signature life skills curriculum, Passport to Success (PTS), which applies a youth-focused pedagogy and experiential learning to delivering training on key soft skills, and innovative approaches to provide training and support for young entrepreneurs. Capacity strengthening of TVET partners includes enhancements to career guidance and job placement services. The Via theory of change/theoretical framework is provided below.

Figure 1: Via Theory of Change



### The multi-endpoint comparison group study

IYF commissioned an impact evaluation using a quasi-experimental design to identify outcomes of youth participants, that have completed training delivered by TVET system partners in Tanzania. This study included participants of the Via program from the three partner VETA Centers as well as youth that enroll in training in non-Via VETA Centers<sup>2</sup>. The program's implementing partners for TVET in Tanzania are detailed below:

<sup>2</sup> Lindi for Southern zone, Singida for Central Zone and VETA Kibaha for Dar es salaam Zone

Vocational Education and Training Authority (VETA) Headquarters

- VETA Dar es Salaam
- VETA Dodoma
- VETA Mtwara.

Comparison group respondents were drawn from VETA centers in the following regions:

- Singida
- Lindi
- Pwani

### **Study Objectives**

The impact evaluation was commissioned to identify youth-level outcomes for TVET programming and to answer the youth-level questions on the program's learning agenda. Specific objectives are as follows:

1. To establish the extent to which the program participants gained a meaningful increase in socio-emotional skills;
2. To assess the extent to which TVET trainees gained market-responsive technical or vocational skills. To further the extent to which these skills facilitated employment (formal, non-formal, self-employment, etc);
3. To ascertain how the program participants gained a clear and actionable pathway to a livelihood; and
4. Establish the impact of the program, measured by socio-emotional learning, labor market outcomes, and income.

### **Study Methodology**

The impact evaluation was conducted through a quasi-experimental study design, employing survey data and qualitative data collection. The evaluation identified a comparison group to collect both quantitative and qualitative data from and contrast with those enrolled and graduates of the program. The design collected data from cohorts of young people (Via and non-Via cohort) who were enrolled in VETA centres and graduated at least three months before data collection for the study. The profile of three months expost/endline study respondents by region is provided in Table 1 below.

*Table 1: Respondents Profile*

REGION	DESIGNATION	3 MONTHS EX-POST / ENDLINE CASES COMPLETED	CASES COMPLETED AT BASELINE	KIIs	FGDs	Case Stories
Dar Es Salaam	Intervention	407	431	4	5	3
Dodoma	Intervention	140	149	2	3	2
Singida	Comparison	41	44	1	1	
Lindi	Comparison	44	44	2	1	
Pwani	Comparison	48	48	2	1	
Mtwara	Intervention	17	19	1	2	1
<b>Total</b>		<b>697</b>	<b>735</b>	<b>10</b>	<b>13</b>	<b>6</b>

### Statistical techniques

The endline study used descriptive statistics, specifically frequencies, percentages and means. The significance of the difference between the baseline study and endline study within the intervention and comparison groups was done using the z-test for differences in proportions (percentages) and t-test for differences in means. The study used a level of significance of 0.05, that is, a p-value <0.05 was considered statistically significant. The program effect size was measured using the Cohen's D. Cohen's D effect size is measured by calculating the mean difference between the baseline and end line divided by the pooled variance of the treatment group. A Cohen's effect size of 0.02 or less than is regarded as a small effect size, 0.05 is medium effect size and 0.08 is considered as a large effect size. Regression analysis was conducted to measure the overall program effect. Regression analysis also included difference in differences to compare the change in the difference between the intervention and comparison groups between the baseline and the endline.

### Limitations

- Students graduated resulting in challenges with follow up and interviewing. The original plan for the study was to have a 6-month follow-up but delays in obtaining clearances meant the study could only collect data 3-month ex-post.
- Given the small sample size of the comparison group, propensity score matching, and matched diff-in-diff analysis was not feasible.

## FINDINGS

### 3.1 Balance

We first consider balance between intervention and comparison samples on key demographic measures of interest. Table 2 below shows the means for each group, along with the p-value for a t-test of difference in group means. Notably, the intervention group has slightly more women than the comparison group (borderline statistically significant at the 10% level). In addition, the comparison group has significantly more rural residents than the intervention group ( $p = 0.001$ ), with the intervention group having more participants describing themselves as peri-urban. Later in this report, we conduct heterogeneity analyses by gender and rural status to examine further whether these differences in sample demographics may be driving observed treatment effects.

*Table 2: Baseline Balance Summary Statistics*

Covariate	Intervention	Comparison	P-value
Age	22.97	22.78	0.71
Female	30.8%	23.3%	0.07
Married	4.8%	5.3%	0.82
Years of Education	9.75	9.74	0.99
Muslim	41.9%	41.4%	0.90
Urban	66.0%	63.2%	0.54
Rural	5.5%	16.5%	0.001

### 3.2 Household Information

Table 3 shows that the average number of children per respondent in the intervention group increased from 1.69 at baseline to 1.77 at endline. The value did not change for comparison (1.54) group between baseline and endline. The average household size decreased from 5.18 to 5.17 for the intervention group and decreased from 5.45 to 5.38 for the comparison group from baseline to endline. The average number of people working in a household also increased from 1.78 to 1.79 in the intervention and decreased from 1.86 to 1.92 for the comparison group. The average number of dependents for the intervention group slightly increased from 0.73 to 0.74 whilst for the comparison group it greatly increased from 0.40 to 0.56.

*Table 3: Household Information*

Variable	Intervention	Comparison
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	Baseline	Endline	Baseline	Endline
How many children do you have?	1.69	1.77	1.54	1.54
How many people, including you, live in your household?	5.18	5.17	5.45	5.38
How often do you talk with household members about your thoughts and troubles? <sup>3</sup>	1.66	1.85	1.88	2.03
How many people in your household are working?	1.78	1.79	1.86	1.92
How many dependents do you have, not including your own children?	0.73	0.74	0.40	0.56

### *Other Household Information*

Table 4 displays summary statistics of the household information on parent status and who the participant is currently living with. The proportion of participants still living with both parents decreased from 65.55 percent to 64.65 percent for intervention and from 72.06 percent to 71.97 percent for comparison. The proportion of participants with only mother living increased from 21.07 percent to 22.20 percent for intervention and decreased from 16.91 percent to 16.67 percent.

*Table 4: Other Household Information*

Variable	Intervention		Comparison	
	Baseline %	Endline %	Baseline %	Endline %
<b>What is your parent status?</b>				
Both parents are living	65.55	64.65	72.06	71.97
Father deceased, only mother is living	21.07	22.20	16.91	16.67
Mother deceased, only father is living	7.19	6.39	5.88	6.06
Orphan	3.70	6.75	7.00	5.30
<b>Currently who are you living with?</b>				
Father	30.27	33.51	38.97	42.86
Mother	42.98	45.92	50.74	54.14
Siblings	43.31	55.85	60.29	66.92
Your child or children	6.02	7.80	4.41	3.75
Spouse/ partner	7.36	7.26	3.68	4.51
Aunt/Uncle	7.86	8.69	8.09	6.77
Grandparents	3.68	4.43	9.56	9.02
Friends	3.18	3.20	5.15	4.51
Other	1.84	0.53	7.35	1.5
Nobody/Live alone	7.02	6.38	2.21	4.51

### *3.3 Assets*

Table 5 displays statistics about housing and household assets. Most of the participants come from households who own their dwelling place. There was an increase in the proportion of participants who own their dwelling place from 52.51 percent to 57.4 percent for the intervention group from baseline to endline compared to the decrease from 72.06 percent to 70.7 percent for the comparison group, which was also not significant. There was a significant increase in the proportion of

<sup>3</sup> Scale 1-4: 1.Often 2.Sometimes 3.Rarely 4.Never

intervention participants whose roof is made of metal, aluminium, tin or zinc from 93.65 percent at baseline to 96.6 percent at endline ( $p=0.0201$ ). There are significant increases on the proportion of households in the intervention group who own the following five assets, all with large program effect sizes: radio ( $p<0.0001$ , Cohen's  $D=5.1398$ )<sup>4</sup>, television ( $p=0.0008$ , Cohen's  $D=2.5543$ ), motorcycle ( $p=0.0142$ , Cohen's  $D=2.8065$ ), mobile phone ( $p=0.0120$ , Cohen's  $D=0.1519$ ), computer ( $P=0.0333$ , Cohen's  $D=2.2137$ ). Respondents from focus group discussions reported experiencing some transformations because of improved skills and competencies. A respondent who completed a driving course indicated that *"after completing my course I managed to get a better paying job and I have started to buy myself things I could not buy before"*. Further, respondents also cited the purchase of household assets as a key aspiration and one of the things they prioritized whenever they had some income. There was only one significant change on comparison group which was an increase in the proportion of households owning radio ( $p=0.0156$ ).

Table 5: Assets

Variable	Intervention				Comparison		
	Baseline	Endline	P value	Cohen's D effect Size	Baseline	Endline	P value
<b>Is the dwelling where you sleep owned by your household, rented, subsidized, provided free to you, or occupied without authorization [squatting]?</b>							
Owned	52.51	57.4	0.0941	0.8114	72.06	70.7	0.8051
Rented	32.94	34.4	0.5986	0.2603	21.32	24.1	0.5863
Subsidized	0.50	0.7	0.6583	0.5170	2.21	2.3	0.9603
Free	12.21	6.6	<b>0.0011</b>	5.0686	2.94	2.3	0.7427
Squatting							
No response	1.84	0.9	0.1704	2.0956	1.47	0.8	0.6046
<b>What is the roof of your dwelling made of?</b>							
Metal, aluminium, tin or zinc	93.65	96.6	<b>0.0201</b>	2.9101	93.4	94.7	0.6524
Tiles	1.51	1.4	0.8757	3.922	0.74	1.5	0.5530
Shingles	2.17	1.1	0.1525	2.1960	3.68	3.0	0.7564
Thatch or grass	0.33	0.4	0.8430	0.1949			
Plastic sheets	0.17	0.2	0.9052	0.1078			
Asbestos							
Multiple materials	1	0.4	0.2230	1.8308	2.21	1.5	0.6664
Concrete	1.17	0.7	0.4071	1.3045			
Another material	0.50	0.2	0.3897	1.2918			
<b>Which of the following items does your household own?</b>							
Radio	67.39	81.0	<b>&lt;0.0001</b>	5.1398	63.97	77.4	<b>0.0156</b>

<sup>4</sup> To interpret the magnitude of Cohen's D, refer to the guidelines below:

0.02 small effect size

0.05 medium effect size

0.08 large effect size (Cohen, 1988, 1992) as cited in Field (2013)

Variable	Intervention				Comparison		
	Baseline	Endline	P value	Cohen's D effect Size	Baseline	Endline	P value
Television	66.05	75.0	<b>0.0008</b>	2.5543	64.71	63.9	0.8897
Car	20.07	17.7	0.3026	2.1372	15.44	13.5	0.6512
Motorcycle	15.72	21.3	<b>0.0142</b>	2.8065	22.79	21.8	0.8454
Mobile phone	82.78	88.0	<b>0.0120</b>	0.1519	85.29	91.5	0.1123
Computer	21.74	27.1	<b>0.0333</b>	2.2137	16.18	15.0	0.7897
Bicycle	22.41	19.9	0.2954	2.2093	45.59	41.4	0.4883

**What toilet facility does your household use?**

Bush					0		
Uncovered pit latrine	4.01	2.7	0.2164	2.0058	4.41	4.5	0.9715
Covered pit latrine (private)	16.72	14.4	0.2760	2.1446	24.26	23.3	0.8533
Covered pit latrine (shared)	5.69	8.3	0.0805	2.0921	7.35	7.5	0.9626
Flush toilet (private)	63.55	66.8	0.2453	0.2852	60.29	58.6	0.7777
Flush toilet (shared)	10.03	7.8	0.1832	2.3207	3.68	6.0	0.3748

### 3.8 Income

Tables 6 and 7 show details about personal and household income respectively for both baseline and endline by respondent type. There are no significant changes in personal income between baseline and endline and also between intervention and comparison groups. However, household income increased significantly for the intervention group ( $p=0.0185$ ), from baseline to endline, with large program effect size (Cohen's  $D=0.1821$ ). Some qualitative respondents though reported either getting better paying jobs or making more income from their enterprises. A respondent who completed a hairdressing course reported being able to “charge a bit more because I have gone to school and have new skills. When I had not gone to school it was difficult to charge more because hairdressing is something I had only learnt at home”. There were no significant differences for the comparison group.

Table 6: Income

Variable	Intervention				Comparison		
	Baseline	Endline	P value	Effect Size	Baseline	Endline	P value
What is your monthly personal income in local currency?	58177	77761	0.3007	0.0608	48026	82726	0.0546
What is your monthly household income in local currency?	210625	342775	<b>0.0020</b>	.1821	248405	312801	0.3173

### Other Income

Table 7 shows other measures of income such as access to food, clean water, medical treatment and income in cash. The responses are reverse coded since minimum amount of time spend without

these resources is a positive measure of income. There was a significant increase in the intervention group for participants who never go without enough food ( $p=0.0048$ ) with a large program effect size (Cohen's  $D=0.1659$ ). There was also a significant increase for participants never going without clean water for home use ( $p<0.0001$ ) and going without medical treatment ( $p=0.0022$ ) with large program effect sizes (Cohen's  $D=0.314$  and  $0.197$  respectively). Findings are consistent with insights from qualitative interviews which showed that where previously respondents were mostly pre-occupied with basics such as food, they had progressed and were focusing on components such as asset accumulation as one graduate remarked that she was *"focusing on making sure that my shop is well stocked and my dream is to be able to go to China or Dubai to buy stock"*. There was however no significant increase in participants going without cash income. They were slight increases in the access to food, water, medical treatment for the comparison group but the changes were not significant.

Table 7: Other Income

Variable	Intervention				Comparison		
	Baseline	Endline	P value	Cohen's D Effect size	Baseline	Endline	P value
In the past year, how often have members of your household gone...							
5							
without enough food to eat?	4.27	4.44	<b>0.0048</b>	0.1659	4.17	4.14	0.8143
without enough clean water for home use?	4.29	4.60	<b>&lt;0.0001</b>	0.3147	4.33	4.35	0.8656
without medicines or medical treatment?	4.38	4.56	<b>0.0022</b>	0.1798	4.53	4.51	0.8661
without a cash income?	4.29	4.18	0.7615	0.017	4.20	3.86	<b>0.0017</b>

### Case Study-Avula Chaula

*After taking this course I got many changes in my life like gaining confidence and being able to present in various PTS meetings. I also have confidence in my work and how to communicate with my clients, old people, how to dress according to area, working hard etc. I have benefited from life studies by opening my own salon and managing my life and family life. Through my salon I am able to make 300,000 TZS per day like on weekends with 20 or 15 clients. My salon is different from other salon starting from the customer services and everything. I am planning to open branches in Mawasiliano or Sinza to be close to the city centre. Apart from the salon I was able to buy a car from the money generated from the salon. I bought a Toyota Vox which I am using for my salon activities.*

5 Scale: 1-5: 1. Always 2. Many times 3. Several times 4. Just once or twice 5. Never



### 3.9 Preference between Entrepreneurship / Self-Employment

Table 8 shows that most participants would prefer formal full-time employment at both baseline and endline. For the intervention, 58.36 percent opted for formal employment at baseline. The percent decreased to 53.72 percent at endline. For the comparison group participants who opted formal employment increased significantly from 44.85 percent to 52.6 percent ( $p=0.0082$ ). The number of participants preferring formal employment due to stability of income increased from 77.60 percent to 88.62 percent ( $p=0.0001$ ) with a large program effect size (Cohen's  $D=0.2581$ ). Qualitative discussions further corroborated respondents' preference for employment and the most cited reason was the urgent need to earn an income and "take care of immediate needs". Further, qualitative interviews further brought insights showing links between employment and entrepreneurship. Respondents outlined preferring employment shortly after graduating so that they would raise enough money to set up entrepreneurship ventures. A respondent who completed a course in carpentry highlighted that *"after completing my course I got a job at another workshop so that I can get money to survive. At the same time, I can also raise money to set up my own workshop. Working in another workshop also helps me to get experience"*.

Table 8: Preference between Entrepreneurship / Self-Employment

Variable	Intervention				Comparison		
	Baseline	Endline	P value	Cohen's D Effect size	Baseline	Endline	P value
<b>In an ideal world, what would be your preferred form of work?</b>							
Formal full-time employment	58.36	53.72	0.1096	3.8592	44.85	52.6	<b>0.0082</b>
Formal part-time employment	5.85	5.50	0.7967	0.7097	6.62	4.5	0.1159

Variable	Intervention				Comparison		
	Baseline	Endline	P value	Cohen's D Effect size	Baseline	Endline	P value
Full-time business owner	19.90	23.23	0.1712	1.1977	32.35	30.8	0.5700
Self-employed, but not running a full-time or formal business	12.37	15.43	0.1350	1.5507	14.71	10.5	<b>0.0310</b>
Occasional/as-needed work	1.84	1.24	0.3743	1.4274	0.74	.8	0.9069
Stay-at-home/unpaid work	1.67	0.89	0.2462	1.7937	0.74	.8	0.9069

<b>Why do you prefer formal employment?</b>	<b>N=384</b>	<b>N=334</b>			<b>N=70</b>	<b>N=76</b>	
Stability of income	77.60	88.62	<b>0.0001</b>	0.2781	72.86	81.58	0.2053
Can earn higher wages than in self-employment	13.80	19.46	<b>0.0412</b>	1.7188	5.71	14.47	<b>0.0461</b>
Benefits	5.21	9.58	<b>0.0242</b>	2.4683	2.86	3.95	0.6972
Better fit for my personality	9.64	11.97	0.3142	0.5061	18.57	19.74	0.8517
Other	2.08	1.20	0.3588	1.6211	2.86	1.32	0.5303
<b>Why do you prefer self-employment?</b>	<b>N=193</b>	<b>N=218</b>			<b>N=64</b>	<b>N=55</b>	
I have a good business idea	39.38	47.71	<b>0.0246</b>	3.9414	25.00	32.73	0.3039
Can earn higher wages than in formal employment	27.98	26.61	0.6812	0.6272	48.00	21.82	<b>0.0009</b>
Being my own boss	34.72	50.91	<b>&lt;0.0001</b>	6.2539	23.44	45.45	<b>0.0053</b>
Better fit for my personality	12.44	15.14	0.2939	1.8090	17.19	27.27	0.1447
Other	8.29	3.21	<b>0.0040</b>	2.7805	4.69	5.45	0.8346

### 3.10 Entrepreneurship

#### Overview of Entrepreneurship

Table 9 displays statistics about business activities by respondent type. The percent of participants running a business increased from 11.87 percent to 15.43 percent for the intervention and increased from 6.62 percent to 9.77 percent for comparison group, the change however was not significant. Key informants and FGD participants outlined that the operating environment was not as conducive for running a business and although the country's leadership had imposed less measures against COVID-19 pandemic, opportunities to set up businesses were limited especially for young people who would have recently graduated, lacking experience and with minimal access to funding. There was also no significant change between baseline and endline in access to funding.

Table 9: Entrepreneurship / Self-Employment

Variable	Intervention				Comparison		
	Baseline	Endline	P value	Cohen's D Effect size	Baseline	Endline	P value
Do you run a business?	11.87	15.43	0.0768	0.9179	6.62	9.77	0.3188
Which business sector are you in?	N=71	N=87			N=9	N=13	
Retail	74.65	58.62	<b>0.0346</b>	0.4810	44.44	38.46	0.7791
Manufacturing	9.86	5.75	0.3321	0.8778	11.11	7.69	0.7838
Services	9.86	20.68	0.0637	3.3646	33.33	38.46	0.8057
Agriculture	5.63	4.60	0.7689	0.0024	11.11	15.38	0.7741
Tourism							
Other							
Have you ever accessed funding from any financial institution to support the business?	5.63	6.90	0.7443	0.9180	0	15.38	0.2172

### Other Entrepreneurship

Table 10 shows that the average months the intervention participants have been operating business decreased significantly from 12.8 months to 6.94 months for intervention ( $p=0.0035$ ) at endline. The decline could also be attributed to the overall macroeconomic challenges. During June and July 2020, the World Bank conducted a COVID-19 Business Pulse Survey (COV-BPS) covering 1,000 small and medium enterprises in Tanzania. The study outlined that firms reported an average decline in sales of 36%, which has jeopardized the solvency of more than three-quarters of small and medium enterprises. Most affected firms have not benefited from any type of government support, and respondents suggested that tax deferrals for firms in the most severely affected sectors, including tourism and related services, could help mitigate the disruptive effect of the crisis and enable a swift recovery<sup>6</sup>. The number of months also decreased for the comparison group however the change was not significant.

Table 10: Other Entrepreneurship / Self-Employment

Variable	Intervention				Comparison		
	Baseline (N=87)	Endline (N=71)	P value	Cohen's D Effect size	Baseline (N=11)	Endline (N=13)	P value
How many months have you been operating your business?	12.77	6.94	<b>0.0035</b>	0.445	11.78	10.38	0.8137
How many people are you currently employing (including yourself)?	1.51	1.33	0.7476	0.0515	1.22	1.77	0.2368
What are your monthly revenues in TSh?	245965	196996	0.5664	0.0919	158889	243846	0.5462

<sup>6</sup> <https://www.worldbank.org/en/country/tanzania/overview>

What is your  
monthly profit in  
TSh?

47966      29117      0.2267      0.1941      102222      128462      0.7804

### 3.11 Employability

#### Overview of Employability

Table 11 gives an overview of changes in employment status from baseline to endline. There was a significant increase in the percentage of those employed from 4.68 percent to 8.16 percent for the intervention group ( $p=0.0152$ ) with a large program effect size (Cohen's  $D=1.5085$ ). For the comparison group there was also an increase from 8.82 percent to 13.53 percent but the increase was not significant. There are still ongoing effects of COVID-19 related closures which affected businesses even if Tanzania had not enforced any lockdown at the time. The World Bank study estimated that about 140,000 formal jobs were lost in June 2020, and another 2.2 million nonfarm informal workers suffered income losses. It further highlighted that Tanzanians employed in informal nonfarm microenterprises tend to be especially exposed to economic shocks, as they often have limited savings to draw on in a crisis<sup>7</sup>.

Table 11: Employment

Variable	Intervention		P value	Cohen's D effect size	Comparison		P value
	Baseline	Endline			Baseline	Endline	
Are you currently employed?	4.68	8.16	<b>0.0152</b>	1.5085	8.82	13.53	0.2198
Which business sector are you employed in?	N=28	N=46			N=12	N=18	
Food and beverages	14.29	15.22	0.9132	1.3422	0	0	
Tourism		4.35	0.2632		0	0	
Mining	7.14	4.35	0.6067	0.0013	0	0	
Transport	7.14	30.43	<b>0.0183</b>	4.6072	41.67	44.44	0.8808
Telecommunications	3.57	2.17	0.7186	0.0014	8.33	0	0.2130
Information Technology	3.57	4.35	0.8690	0.8024	0	0	
Financial	7.14	6.52	0.9179	0.6391	0	0	
Non-Governmental Organization (NGOs)	17.86	0	<b>0.0030</b>		0	5.55	0.4065
Other, specify _____	39.29	32.61	0.5594	1.3465	50.0	50.00	1
Which type of institution do you work for?	N=28	N=46			N=12	N=18	
Private sector (Big company)	28.57	15.22	0.1659	0.4127	66.67	0	<b>0.0001</b>
Private sector (Small / medium company)	25.00	52.17	<b>0.0216</b>	5.6217	8.33	66.66	<b>0.0016</b>
Local NGO (National)	3.57	2.17	0.7186	0.0014	0	0	
International NGO		2.17	0.4326			5.55	0.4065
Government	17.86	8.70	0.2424	0.5108	8.33	16.66	0.5108
Other	25.00	19.57	0.5821	0.7857	16.67	11.11	0.6808

<sup>7</sup> <https://www.worldbank.org/en/country/tanzania/overview>



Variable	Intervention		P value	Cohen's D effect size	Baseline	Comparison Endline	P value
	Baseline	Endline					
Are you employed in the profession for which you were trained?	35.71	58.70	0.0551	5.5516	75.0	72.22	0.8660

Table 12 shows employment measures on duration of employment and monthly gross salary. Both duration of employment and monthly gross salary decreased at endline for intervention and comparison group. There are no significant changes from baseline to endline in both intervention and comparison groups.

Table 12: Other Employment

Variable	Intervention				Comparison		
	Baseline (N=28)	Endline (N=46)	P value	Cohen's D Effect size	Baseline (N=12)	Endline (N=18)	P value
How long have you been employed in months?	24.43	16.70	0.3145	0.2427	15.33	14.28	0.8633
What is your monthly gross salary in TSh?	249303	214032	0.6553	0.1074	249917	282778	0.7441

### 3.12 Free Time Activity

Table 13 shows details about how participants spend their free hours. On average, participants in the intervention group reported a significant increase in having 8-9 free hours each day at baseline to 10-11 hours ( $p<0.0001$ ) at endline with a large program effect size (Cohen's  $D=0.2706$ ). The comparison group also reported an increase from 14 to 15-16 hours however the increase was not significant.

Table 13: Free Time Activity

Variable	Intervention				Comparison		
	Baseline	Endline	P value	Cohen's D Effect size	Baseline	Endline	P value
How many hours each day do you have free time?	8.38	10.10	<0.0001	0.2706	13.90	14.53	0.5381

### Other Free Time activity

Table 14 shows other free time activity by respondent type. There are no significant changes to the extent which both the intervention and comparison group agree that in general their lives are too busy. There is however a significant increase in the intervention group on how often they watch TV ( $p<0.0001$ ), meet with their friends ( $p<0.001$ ), drink alcohol ( $p<0.001$ ), go on dates ( $p<0.0001$ ). For the comparison group significant changes were a decrease in how they drink alcohol ( $p<0.0001$ ) and go on dates ( $p<0.0001$ ). Respondents in qualitative interviews outlined that after completing their courses and without employment or entrepreneurship ventures running, they generally had more free time since they had "nothing to do".

Table 14: Other Free Time activity

Variable	Intervention	Comparison
----------	--------------	------------

	Baseline	Endline	P value	Cohen's D Effect size	Baseline	Endline	P value
To what extent do you agree with the following statement: "In general, my life is too busy?" <sup>8</sup>	2.63	2.69	0.3704	0.0526	2.18	2.61	<b>0.0035</b>
Which of the following activities do you do in your free time and how often? <sup>9</sup>							
Watch TV	1.89	2.08	<b>&lt;0.0001</b>	0.2992	2.06	2.08	0.8321
Watch sports game	2.01	2.03	0.5252	0.0373	2.06	2.00	0.4716
Drink alcohol	2.85	1.12	<b>&lt;0.0001</b>	4.6095	2.92	1.11	<b>&lt;0.0001</b>
Meet with friends	1.83	2.11	<b>&lt;0.0001</b>	0.4755	1.90	2.02	0.1161
Go on dates	2.53	1.52	<b>&lt;0.0001</b>	1.687	2.57	1.46	<b>&lt;0.0001</b>

### 3.14 Risk-Taking

Tables 15 and 16 show different risk-taking behavior by respondent type. Table 15 show risk-taking behavior towards investment or money-related situations. The proportion of intervention group participants who are willing to invest despite the possibility of losing all their investment increased significant from 54.01 percent at baseline to 74.1 percent at endline ( $p<0.0001$ ) with a large program effect size (Cohen's  $D=8.3642$ ). This could be attributed to the information received through the training and respondents' acknowledgements that life skills they learnt were important especially "*in ensuring that they could do much more with the technical training*". This illustrated the importance of PTS in catalyzing confidence and a desire to explore self-empowerment possibilities among participants. There is also a significant increase in the Comparison group from 37.50 to 50.4 ( $p=0.0330$ ).

Table 15: Risk-Taking

Variable	Intervention				DID Coefficient	DID P- Value	Comparison		
	Baseline %	Endline %	P value	Cohen's D Effect size			Baseline %	Endline %	P value
We'd like to play a short mental game with you. Imagine that you get 10 USD. You may now invest this money in a lottery. If you invest, a coin flip will decide whether you gain 50 USD or lose the money. If you do not invest, you keep the 10 USD. What is your decision?	54.01	74.11	<b>&lt;0.0001</b>	8.3642	0.3651299	0.189	37.50	50.37	<b>0.0330</b>

### 3.15 Other Risk-taking

Table 16 shows other risk-taking behaviors by respondent type. On a scale from one to ten, the intervention increased willingness to take risk in general from 7.49 to 8.45 ( $p<0.0001$ ) with a large program effect size (Cohen's  $D=0.3305$ ). The risk-taking behavior of the intervention group increased significantly when driving a car ( $p=0.0002$ ), when investing money ( $p<0.0001$ ), when planning career ( $p=0.0052$ ). All with large program effect sizes (Cohen's  $D>0.08$ ). The

<sup>8</sup> Scale1-5: 1. Strongly disagree 2. Disagree 3. Neither disagree nor agree 4. Agree 5. Strongly agree

<sup>9</sup> Scale1-3:1.Frequently 2.Occasionally 3.Never

Comparison group significantly increased all measures that is when driving a car ( $p=0.0224$ ), when investing money ( $p<0.0001$ ), playing sports ( $p=0.0346$ ) and planning their careers ( $p=0.0064$ ).

Table 16: Other Risk-taking

Variable	Intervention				Comparison		
	Baseline	Endline	P value	Cohen's D Effect size	Baseline	Endline	P value
On a scale from 0 (very unwilling) to 10 (very willing): How willing are you to take risks, in general?	7.49	8.45	<b>&lt;0.0001</b>	0.3305	6.96	7.61	0.0765
On a scale from 0 (very unwilling) to 10 (very willing): How willing are you to take risks the following domains?							
While driving a car,	7.58	8.17	<b>0.0002</b>	0.2201	6.29	7.14	<b>0.0224</b>
When investing money	6.55	7.32	<b>&lt;0.0001</b>	0.2409	4.62	6.44	<b>&lt;0.0001</b>
When playing sports	8.31	8.58	0.0621	0.1095	7.20	7.90	<b>0.0346</b>
When planning my career	7.39	7.89	<b>0.0052</b>	0.1644	6.32	7.38	<b>0.0064</b>

### Self-Confidence & Rosenberg

Table 17 shows self-confidence (and the Rosenberg self-confidence scale) by respondent type. Most participants reported positive self-confidence, with those in the intervention group reporting a significant increase from 3.73 to 3.84 ( $p<0.0001$ ) with a large program effect size (Cohen's  $D=0.2485$ ). The comparison group also reported a significant increase from 3.55 to 3.59 ( $p=0.0418$ ). Some participants said through the life skills training they were able to find respectful ways in which to say their opinion even if they don't agree with their friends and there had become more confident around others. Another respondent reported that "*they could even speak to the President if the opportunity arises*". Improvements in confidence are in contrast with pre-training circumstances where respondents felt they were not confident in themselves.

Table 17: Self Confidence & Rosenberg

Variable	Intervention <sup>10</sup>				Comparison		
	Baseline	Endline	P value	Cohen's D Effect size	Baseline	Endline	P value
I am able to express my opinion and discuss sensitive issues.	3.92	4.18	<b>&lt;0.0001</b>	0.3402	3.96	4.08	0.1731
I stand up for what I think is right, even if my friends disagree or want me to do something that is wrong	4.00	4.21	<b>0.0001</b>	0.2354	3.96	4.04	0.4252
I am confident in my future.	3.98	4.27	<b>&lt;0.0001</b>	0.3525	3.57	3.98	<b>0.0001</b>

<sup>10</sup> Scale1-5: 1. Strongly disagree 2. Disagree 3. Neither disagree nor agree 4. Agree 5. Strongly agree

Variable	Intervention <sup>10</sup>				Comparison		
	Baseline	Endline	P value	Cohen's D Effect size	Baseline	Endline	P value
I feel confident and prepared to go for a job interview.	4.04	4.29	<0.0001	0.3165	3.60	4.05	<0.0001
On the whole, I am satisfied with myself.	3.62	3.96	<0.0001	0.3229	3.34	3.71	0.0011
At times I think I am no good at all.	3.35	3.23	0.0853	0.1010	3.09	2.80	0.0390
I feel that I have a number of good qualities.	3.99	4.25	<0.0001	0.3382	3.79	4.08	0.0014
I am able to do things as well as most other people.	4.08	4.21	0.0064	0.1605	3.88	4.16	0.0004
I feel I do not have much to be proud of.	3.27	3.22	0.5594	0.0342	3.10	2.81	0.0264
I certainly feel useless at times.	2.61	2.85	0.0030	0.1748	2.24	2.27	0.8217
I feel that I'm a person of worth, at least on an equal plane with others.	4.08	4.03	0.3343	0.0567	3.86	3.98	0.2599
I wish I could have more respect for myself.	3.97	3.76	0.0019	0.1827	4.18	3.87	0.0014
All in all, I am inclined to feel that I am a failure.	3.12	3.07	0.1234	0.0408	2.94	2.74	0.4874
I take a positive attitude toward myself.	4.24	4.34	0.0167	0.1407	4.18	4.29	0.1234
<b>Overall</b>	3.73	3.84	<0.0001	0.2485	3.55	3.59	0.0418

### *Self-Efficacy & Locus of Control*

Self-efficacy and locus of control were measured using ten variables as shown in Table 18. Most participants reported positive self-efficacy and locus of control at endline, with the intervention group having a significant increase in the overall score from 3.78 at baseline to 3.90 at endline ( $p < 0.0001$ ) with a large program effect size (Cohen's  $D = 0.4838$ ). Respondents in qualitative discussions said that getting a job it was a matter of opportunity and capacity, as some said after acquiring the skills all you need is an opportunity, being at the right place where the opportunity is and at the right time. After the training they reported feeling like they were now able to do their job well and to find solutions than heighten the problems.

*Table 18: Self-Efficacy & Locus of Control*

Variable	Intervention <sup>11</sup>				Comparison		
	Baseline	Endline	P value	Cohen's D Effect size	Baseline	Endline	P value
I can always manage to solve difficult problems if I try hard enough.	4.04	4.14	0.0212	0.1355	3.71	4.19	<0.0001
If someone opposes me, I can find the means and ways to get what I want.	4.08	4.18	0.0237	0.1329	3.96	4.16	0.0065

<sup>11</sup> Scale 1-5: 1. Strongly disagree 2. Disagree 3. Neither disagree nor agree 4. Agree 5. Strongly agree

Variable	Intervention <sup>11</sup>				Comparison		
	Baseline	Endline	P value	Cohen's D Effect size	Baseline	Endline	P value
I am certain that I can accomplish my goals.	4.32	4.44	<b>0.0023</b>	0.1795	3.94	4.17	<b>0.0022</b>
I am confident that I could deal efficiently with unexpected events.	4.04	4.20	<b>0.0002</b>	0.2222	3.84	4.08	<b>0.0020</b>
When I make plans, I am almost certain that I can make them work.	4.11	4.24	<b>0.0009</b>	0.1956	3.84	4.03	<b>0.0101</b>
Getting people to do the right things depends upon ability; luck has nothing to do with It.	3.83	4.05	<b>&lt;0.0001</b>	0.2627	3.96	4.17	<b>0.0074</b>
What happens to me is my own doing.	3.46	3.98	<b>&lt;0.0001</b>	0.4705	3.12	3.64	<b>&lt;0.0001</b>
Many of the unhappy things in people's lives are partly due to bad luck.	3.21	3.57	<b>&lt;0.0001</b>	0.3317	2.82	3.38	<b>&lt;0.0001</b>
Getting a good job depends mainly on being in the right place at the right time.	3.73	3.91	<b>0.0011</b>	0.1922	3.57	3.72	0.1685
Many times I feel that I have little influence over the things that happen to me.	2.99	3.40	<b>&lt;0.0001</b>	0.3496	2.95	2.55	<b>0.0022</b>
Overall	3.78	4.01	<b>&lt;0.0001</b>	0.4838	3.57	3.80	<b>&lt;0.0001</b>

### Information

Table 19 shows that the participants were between not at all interested and not very interested in information related to economic matters and public affairs for both intervention and comparison group. The participants in the intervention group reported a significant decrease from 3.07 to 1.43 ( $p<0.0001$ ). The comparison significantly decreased from 3.38 to 1.35 on economic matters ( $p=0.0050$ ). The intervention group also decreased significantly on interest in public affairs from 2.89 to 1.54 ( $p<0.0001$ ) with a large effect size. The comparison group also decreased from 3.03 to 1.62 ( $p=0.0011$ ). A key informant outlined that planning for economic and public affairs is often left to politicians and bureaucrats “*therefore young people end up with limited interest in those things*”

Table 19: Information

Variable	Intervention <sup>12</sup>				Comparison		
	Baseline	Endline	P value	Cohen's D effect size	Baseline	Endline	P value
How interested are you in economic matters?	3.07	1.43	<b>&lt;0.0001</b>	0.544862	3.38	1.35	<b>0.0050</b>
How interested are you in public affairs?	2.89	1.54	<b>0.0001</b>	0.6075053	3.03	1.48	<b>&lt;0.0001</b>

<sup>12</sup> Scale 1-4: 1. Not at all interested 2. Not very interested 3. Somewhat interested 4. Very interested

Table 20 shows the greatest challenges being faced by participants at baseline and endline. Needing a job or business is the greatest challenge for both intervention and comparison group. The percent of those needing a job/business significantly increased from 50.5 percent at baseline to 58.69 percent ( $p=0.0050$ ) for intervention group and from 52.94 to 70.7 ( $p=0.0027$ ) for the comparison group. This could be attributed to job losses attributed to the COVID-19 pandemic. The percentage of participants who needed education decreased significantly for the intervention group from 13.04 percent to 7.1 percent ( $p=0.0008$ ). Within the context, employment and entrepreneurship provide the key pathways towards securing income.

Table 20: Other Information

Variable	Intervention				Comparison		
	Baseline %	Endline %	P value	Cohen's D Effect size	Baseline %	Endline %	P value
<b>What is your greatest challenge or need now?</b>							
Jobs or business	50.50	58.69	<b>0.0050</b>	2.4244	52.94	70.68	<b>0.0027</b>
Money or income	31.44	32.45	0.7257	0.4442	25.00	21.80	0.5355
Education	13.04	7.09	<b>0.0008</b>	5.2219	8.09	3.76	<b>0.01376</b>
Keeping busy	3.51	1.77	0.0712	2.8249	9.56	1.50	<b>0.0040</b>
Other (specify)	1.51				4.41	2.26	0.3374

### 3.20 Collective Action

Table 21 shows that participants from the intervention group reported a significant decrease from baseline to endline in how often they contacted a government Councilor ( $p=0.0225$ ), member of parliament ( $p=0.0450$ ), an official of a government agency (1.67 at baseline to 1.37 at endline;  $p<0.0001$ ), traditional leaders (from 1.27 at baseline to 1.18 at endline;  $p=0.0305$ ). For the comparison group there was a significant change on contacting a traditional leader from 1.31 to 1.11 ( $p=0.0099$ ).

Table 21: Collective Action

Variable	Intervention <sup>13</sup>				Comparison		
	Baseline	Endline	P value	Cohen's D Effect Size	Baseline	Endline	P value
<b>During the past year, how often have you contacted any of the following persons about some important problem or to give them your views?</b>							
A local government Councilor	1.40	1.29	<b>0.0225</b>	0.1341	1.19	1.19	0.9663
A Member of Parliament	1.21	1.14	<b>0.0450</b>	0.1178	1.06	1.08	0.7103
An official of a government agency	1.67	1.37	<b>&lt;0.0001</b>	0.3086	1.62	1.48	0.2364
Traditional Leaders	1.27	1.18	<b>0.0305</b>	0.1272	1.31	1.11	<b>0.0099</b>
Religious leaders	2.12	1.99	0.0569	0.1119	1.82	1.68	0.3335

<sup>13</sup> Scale: 1.Never 2.Once 3. A few times 4.Often

### *Other Collective action*

Table 22 shows other collective action measures. Participants in the intervention group reported a significant increase in the likelihood to attend a public meeting (3.00 at baseline to 3.30 at endline;  $p < 0.0001$ ) with a large project effect size (Cohen's  $D = 0.3746$ ) and in agreeing that obedience and respect for authority is most important to learn (4.21 at baseline to 4.43 at endline;  $p < 0.0001$ ) with a large program effect size (Cohen's  $D = 0.3059$ ). For the comparison group the mean response on the likelihood to attend a public meeting increased significantly from 3.21 at baseline to 3.44 at endline ( $p = 0.0166$ ). However, there was a significant decrease from 3.77 to 3.47 on young people getting rebellious ideas ( $p = 0.0187$ ).

*Table 22: Other Collective Action*

Variable	Intervention <sup>14</sup>				Comparison		
	Baseline	Endline	P value	Cohen's D Effect size	Baseline	Endline	P value
To what extent do you agree with the following statement: "The duty of every citizen of Tanzania is to participate in national and community affairs?"	3.94	4.18	<b>&lt;0.0001</b>	0.2443	4.12	4.17	0.6047
If a community development group held a public meeting near your community, how likely is it that you would attend?	3.00	3.30	<b>&lt;0.0001</b>	0.3746	3.21	3.44	<b>0.0166</b>
Obedience and respect for authority are the most important people should learn.	4.21	4.43	<b>&lt;0.0001</b>	0.3059	4.22	4.22	0.9731
Young people sometimes get rebellious ideas, but as they grow up they ought to get over them and settle down.	3.91	3.94	0.5778	0.0327	3.77	3.47	<b>0.0187</b>

### *3.22 Close Friends*

The intervention group reported a slightly decreased number of close friends from 4.48 at baseline to 4.38 at endline which was however not significant. The comparison reported an increase from 2.90 to 3.12 which was also not significant.

*Table 23: Close Friends*

Variable	Intervention		P value	Baseline	Comparison	
	Baseline	Endline			Endline	P value
How many close friends do you have?	4.48	4.38	0.8184	2.90	3.12	0.6602

<sup>14</sup> Scale: 1. Strongly disagree 2. Disagree 3. Neither disagree nor agree 4. Agree 5. Strongly agree

### 3.23 Work and Income

The participants in the intervention group had a significant increase in the percent of people who did any type of work of at least one hour in duration in the previous week (37.12 percent at baseline to 64.01 percent at one month endline;  $p<0.0001$ ) with a large program effect size (Cohen's  $D=11.97$ ). Similarly in the comparison group, there was a significant increase in the percent of people who did any type of work of at least one hour in duration in the previous week (31.62 percent at baseline to 49.62 percent at endline;  $p=0.0026$ ).

Table 24: Work and Income

Variable	Intervention						Comparison		
	Baseline	Endline	P value	Cohen's D Effect size	DID Coefficient	DID P-Value	Baseline	Endline	P value
Did you do any type of work of at least one hour in duration last week?	37.12	64.01	<0.0001	11.97	0.3462222	0.218	31.62	49.62	0.0026
Though you responded that you did not work in the previous week, do you operate your own business or cooperative or did you do any odd jobs or ad hoc work?	8.78	6.40	0.1267	2.5611	0.1823962	0.797	9.68	5.97	0.2579

### 3.24 Self-Perceived Skills

Table 25 shows measures of self-perceived skills. On the overall perception of skills, the intervention group reported significant increase in rating level of experience from 1.96 to 2.57 at endline ( $p<0.0001$ ) with a large program effect size (Cohen's  $D = 0.6190$ ) and a significant increase in rating skill level from 2.44 to 3.30 ( $p<0.0001$ ) with a large program effect size (Cohen's  $D=0.6190$ ). The intervention group reported significant improvements on ten measures of perceived skills compared to two measures in the comparison group including skills such as being able calm down when feeling nervous, being able to work well in a team. The comparison reported a significant increase on rating level of experience from 2.10 to 3.04 ( $p<0.0001$ ) and level of skill ( $p<0.0001$ ).

Table 25: Self-Perceived Skills

Variable	Intervention				Comparison		
	Baseline	Endline	P value	Cohen's D Effect size	Baseline	Endline	P value
How would you rate your level of experience in [AREA OF COURSE – e.g. hairdressing or carpentry]? <sup>15</sup>	1.96	2.57	<0.0001	0.6190	2.10	3.04	<0.0001

<sup>15</sup> Scale: 1.No experience 2. A little experience 3. Some experience 4.A great deal of experience



Variable	Intervention				Comparison		
	Baseline	Endline	P value	Cohen's D Effect size	Baseline	Endline	P value
How would you rate your skill level in [AREA OF COURSE – e.g. hairdressing or carpentry] from 1 to 5, with 1 being beginner and 5 being expert? <sup>16</sup>	2.44	3.30	<0.0001	0.6190	2.63	3.63	<0.0001
I have the personal skills – such as communication, ability to work with others, problem solving, self-presentation – I need to have a successful career or business.	3.94	3.84	0.0644	0.1087	3.96	4.14	0.0411
I have the communication skills – verbally, written, and listening – I need to succeed in the workplace.	3.99	3.91	0.1486	0.0848	3.84	4.00	0.0282
I work well in a team.	4.14	4.29	0.0005	0.2061	4.15	4.26	0.1476
I understand the rules and expectations in interacting with others and am able to interact with others in a harmonious manner.	3.86	4.11	<0.0001	0.2947	3.90	4.04	0.0397
Compared to my peers, I am satisfied with my abilities and performance.	3.80	4.22	<0.0001	0.4678	3.57	4.01	<0.0001
I believe there is a solution for any problem and I know how to find the causes of and solutions to a problem.	4.06	4.19	0.0019	0.1829	3.93	4.10	0.0245
I am able to calm down when I feel nervous or angry.	4.19	4.30	0.0106	0.1502	3.80	4.11	0.0001
I have the technical or vocational skills I need to secure and maintain work.	3.66	4.16	<0.0001	0.5648	3.32	3.84	<0.0001
I have the management skills I need to have a successful career or business.	3.72	4.14	<0.0001	0.4914	3.35	3.65	0.0068
I have the financial literacy skills I need to have a successful career or business.	3.58	3.95	<0.0001	0.3733	3.15	3.24	0.4753

### 3.25 Self-Reported Emotional Intelligence (Optional)

Participants in the intervention group reported a significant increase in positive emotional intelligence from the overall mean score of 3.93 at baseline to 4.04 at endline ( $p < 0.0001$ ) with a large program effect size (Cohen's  $D = 0.2558$ ). There was a significant increase from 3.73 to 3.82 for the comparison group ( $p = 0.0350$ ). Respondents in qualitative interviews showed improvements in emotional intelligence with one respondent reporting being able to “*make the right decision especially ensuring that I don't make any decisions when I am angry. It also assisted me to control my emotions. I am now able to assist my family and friends when they need advice*”.

<sup>16</sup> Scale 1-5: 1. Beginner – 3. Intermediate – 5. Expert

Table 26: Self-Reported Emotional Intelligence (Optional)

Variable	Intervention		P value	Cohen's D Effect size	Comparison		
	Baseline (598)	Endline (564)			Baseline (N=136)	Endline (133)	P value
I know when to speak about my personal problems to others	4.14	4.01	<b>0.0069</b>	0.1589	3.96	4.09	0.1739
When I am faced with obstacles, I remember times I faced similar obstacles and overcame them.	4.03	4.10	0.1078	0.0944	3.90	4.02	0.1064
I expect that I will do well on most things I try.	4.21	4.33	<b>0.0017</b>	0.1842	3.96	4.15	<b>0.0086</b>
Other people find it easy to confide in me.	3.84	3.96	<b>0.0463</b>	0.1171	3.55	3.50	0.6281
I find it hard to understand the non-verbal messages of other people.	3.20	3.40	<b>0.0048</b>	0.1660	2.96	2.63	<b>0.0203</b>
Some of the major events of my life have led me to re-evaluate what is important and not important.	3.96	3.96	0.9052	0.0070	3.76	3.74	0.8515
When my mood changes, I see new possibilities.	3.89	4.12	<b>0.0001</b>	0.2388	3.60	3.69	0.3523
Emotions are one of the things that make my life worth living.	4.08	4.07	0.9217	0.0058	3.71	3.71	0.9931
I am aware of my emotions as I experience them.	4.22	4.34	<b>0.0037</b>	0.1709	4.04	4.16	0.1711
I expect good things to happen.	4.22	4.35	<b>0.0028</b>	0.1758	4.07	4.30	0.0005
I like to share my emotions with others.	3.50	3.78	<b>&lt;0.0001</b>	0.2512	3.38	3.39	0.9477
When I experience a positive emotion, I know how to make it last.	4.06	3.98	0.9540	0.1048	3.88	3.89	0.0744
I arrange events others enjoy.	3.92	4.20	<b>&lt;0.0001</b>	0.3155	3.67	3.79	0.2121
I seek out activities that make me happy.	4.12	4.22	<b>0.0139</b>	0.1445	3.89	4.10	<b>0.0042</b>
I am aware of the non-verbal messages I send to others.	4.00	4.09	0.0606	0.1102	3.70	4.04	<b>0.0001</b>
I present myself in a way that makes a good impression on others.	4.03	4.05	0.6364	0.0278	3.82	4.04	<b>0.0070</b>
When I am in a positive mood, solving problems is easy for me.	4.18	4.15	0.5809	0.0324	3.82	3.73	0.3738
By looking at their facial expressions, I recognize the emotions people are experiencing.	3.74	3.98	<b>&lt;0.0001</b>	0.2758	3.78	4.05	<b>0.0019</b>
I know why my emotions change.	4.05	4.29	<b>&lt;0.0001</b>	0.3103	3.84	4.05	<b>0.0182</b>
When I am in a positive mood, I am able to come up with new ideas.	4.09	3.99	<b>0.0139</b>	0.1446	3.82	3.66	0.1296
I have control over my emotions.	4.22	4.32	<b>0.0220</b>	0.1347	3.99	4.21	<b>0.0027</b>
I easily recognize my emotions as I experience them.	4.14	4.18	0.4366	0.0457	3.95	4.12	<b>0.0267</b>

Variable	Intervention		P value	Cohen's D Effect size	Comparison		
	Baseline (598)	Endline (564)			Baseline (N=136)	Endline (133)	P value
I motivate myself by imagining a good outcome to tasks I take on.	4.03	4.10	0.1233	0.0905	4.01	4.08	0.3516
I compliment others when they have done something well.	4.27	4.28	0.7513	0.0186	4.18	4.20	0.8572
I am aware of the non-verbal messages other people send.	3.96	4.12	<b>0.0032</b>	0.1733	3.85	4.08	<b>0.0081</b>
When another person tells me about an important event in his or her life, I almost feel as though I have experienced this event myself.	3.96	4.05	0.0990	0.969	3.93	4.10	<b>0.0323</b>
When I feel a change in emotions, I tend to come up with new ideas.	4.01	4.09	0.0790	0.1032	3.68	3.61	0.4736
When I am faced with a challenge, I give up because I believe I will fail.	2.61	2.96	<b>&lt;0.0001</b>	0.2651	2.25	2.29	0.7607
I know what other people are feeling just by looking at them.	3.61	4.02	<b>&lt;0.0001</b>	0.4132	3.58	3.82	<b>0.0227</b>
I help other people feel better when they are down.	4.04	4.14	<b>0.0133</b>	0.1456	3.89	4.04	<b>0.0601</b>
I use good moods to help myself keep trying in the face of obstacles.	4.21	4.23	0.5351	0.0364	4.07	4.17	0.1741
I can tell how people are feeling by listening to the tone of their voice.	3.71	3.93	<b>&lt;0.0001</b>	0.2450	3.76	4.02	<b>0.0017</b>
It is difficult for me to understand why people feel the way they do.	3.59	3.54	0.4667	0.0427	3.04	2.65	<b>0.0060</b>
Overall	3.93	4.04	<b>&lt;0.0001</b>	0.2558	3.73	3.82	<b>0.0350</b>

### 3.26 Program Satisfaction

In general, intervention participants were satisfied with the program. Participants in Dar Es Salaam (mean score of 4.44) were most satisfied with the technical portion of the program whilst in Dodoma (mean score of 4.21) were most satisfied by life skills. In Mtwara they were mostly satisfied with the mentorship experience through the program (mean score of 4.35). One respondent highlighted that *“the technical training portion of the program differentiates us from those who were self-trained or learned in the streets, it gives us an extra edge to perfect our work and therefore invite more clients.”*

Table 27: Program Satisfaction

	Dar Es Salaam		Dodoma		Mtwara	
	Mean <sup>17</sup>	Sd	Mean	Sd	Mean	Sd
I am _____ with the technical training portion of the program.	4.44	.677	4.12	.985	4.29	.470
I am _____ with the life skills training portion of the program.	4.01	1.046	4.21	.993	4.18	.951
I am _____ with the level of employment support offered through the program.	3.12	1.473	2.94	1.248	3.53	1.281
I am _____ with my mentorship experience through the program.	3.56	1.471	3.98	1.128	4.35	.493
I am _____ with the level of financial services support offered through the program.	3.18	1.518	2.69	1.347	4.29	.470

### *Coping with COVID-19*

The study documented qualitative insights around how participants were coping with the COVID-19 pandemic. Although the country acknowledges the existence of Covid-19 pandemic, it did not 100 percent conform to WHO's protocols to fighting the pandemic rather came up with more customized approach that include the emphasis on usage of traditional herbals. However, there were challenges including economic contraction, loss of employment opportunities, limited access to entrepreneurship and fear of contracting the virus. However, participants from the intervention group reported being able to deal with adverse events. Assessment of extent to which young people could deal with COVID-19 was limited as the country did not have a comprehensive response and this may have affected the amount of information that was available.

### **Regression analysis**

To assess the effect of the program at  $t = 2$ , the study estimated the following difference-in-difference linear model using Ordinary Least Squares.

$$Outcome_{it} - Outcome_{it-2} = \beta_0 + \beta_1 Treatment_i + \beta_2 X_i + Outcome_{it-2} + \varepsilon_i$$

where the dependent variable is the difference in the *Outcome* for individual  $i$  at point  $t$  (the three month endline) less the outcome at point  $t-2$  (the baseline). Covariate vector  $X$  includes age, gender, marital status, years of education, religion (comparison category = traditional or other), and urban/rural status (comparison category = peri-urban). All outcomes in the socioemotional indices table were standardized with mean of zero and a standard deviation of one. All models control for the baseline value of the outcome.

<sup>17</sup> Scale: 1. Very dissatisfied 2. Dissatisfied 3. Neither dissatisfied nor satisfied 4. Satisfied 5. Very Satisfied

The study begins by assessing the effect of the program on economic outcomes. As Table 28 shows, at three months, there are few noticeable effects on the major economic measures of interest. Finally, self-assessed skill-levels are lower in the treatment group. On average, beneficiaries report a change that is -0.23 (out of 5) smaller on the self-assessed skill-level index (significant at the 10 percent level). In sum, we thus conclude that we detect few noticeable economic changes at this point in time. The significant economic struggles, however, make it unlikely to pick up such effects at this point in any event.

*Table 28: Diff-in-Diff Regression Estimations for Income and Employment Outcomes*

	<i>Dependent variable:</i>				
	Personal Income	Current Business Owner	Currently Employed	Currently Employed in Area of Training	Self-Assessed Skill Level in Training Area (1-5)
	(1)	(2)	(3)	(4)	(5)
Treatment	-4,551.979 (28,889.690)	0.026 (0.030)	-0.034 (0.024)	-0.020 (0.021)	-0.226* (0.124)
Age	12,762.940*** (2,432.641)	0.010*** (0.002)	0.001 (0.002)	-0.002 (0.002)	-0.013 (0.010)
Female	-6,654.127 (25,042.490)	0.027 (0.026)	-0.057*** (0.021)	-0.063*** (0.018)	-0.018 (0.107)
Married	-13,624.030 (57,465.210)	0.126** (0.059)	0.135*** (0.049)	0.091** (0.042)	0.584** (0.248)
Years of Ed	-1,265.134 (3,413.320)	-0.004 (0.003)	-0.004 (0.003)	-0.005** (0.002)	0.003 (0.015)
Islam	681.680 (45,549.500)	0.018 (0.046)	0.086** (0.038)	0.057* (0.033)	-0.368* (0.196)
Christianity	-23,309.240 (45,109.790)	0.042 (0.046)	0.080** (0.038)	0.038 (0.032)	-0.596*** (0.194)
Urban	32,634.950 (25,519.030)	-0.0003 (0.026)	0.028 (0.021)	0.010 (0.018)	0.059 (0.109)
Rural	7,447.432 (46,192.240)	0.023 (0.047)	-0.022 (0.038)	-0.028 (0.033)	0.426** (0.198)
Constant	-223,758.2*** (79,770.140)	-0.164** (0.081)	0.017 (0.065)	0.124** (0.056)	4.191*** (0.350)
Observations	698	698	698	698	698

*Note:* \* p<0.1, \*\* p<0.05, \*\*\* p<0.01

Next, the study analyzed socioemotional measures, which are reported in Table 29. As in the prior report, outcomes in this domain look significantly better. All the six major outcome indices reported in Table 29 are significantly higher in the treatment group. Thus, while economic outcomes are moving very slowly, more immediate socio-emotional outcomes are significantly and positively affected by the program. Beneficiaries grow by 0.21 standard deviations more on a self-confidence index, a significant and substantively meaningful difference. The Rosenberg index (Column 2) similarly shows growth of 0.15 standard deviations higher in the treatment group as compared to the control group. The self-efficacy index (Column 3) grows by 0.11 standard deviations more in the treatment group. The locus of control index, too, rises 0.20 standard deviations more in the treatment group. The self-assessed personal skill index is also significantly improved, which marks a noteworthy counterpoint to the finding in Table 28 (Column 5). Finally, self-assessed emotional intelligence grows by 0.18 standard deviations more in the treatment group compared to the control group.

*Table 29: Diff-in-Diff Regression Estimations for Socioemotional Outcomes*

	<i>Dependent variable:</i>					
	Self-Confidence Index	Rosenberg Index	Self-Efficacy Index	Locus of Control Index	Self-Assessed Personal/Professional Skill Index	Self-Assessed Emotional Intelligence Index
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	0.214*** (0.064)	0.145*** (0.049)	0.114* (0.066)	0.196*** (0.054)	0.195*** (0.053)	0.176*** (0.044)
Age	0.001 (0.005)	0.008** (0.004)	0.007 (0.005)	0.003 (0.004)	0.001 (0.004)	0.001 (0.004)
Female	0.126** (0.054)	0.117*** (0.042)	0.049 (0.057)	0.043 (0.047)	0.102** (0.046)	0.065* (0.038)
Married	-0.331*** (0.125)	-0.238** (0.097)	-0.003 (0.131)	-0.232** (0.108)	-0.115 (0.105)	-0.127 (0.087)
Years of Ed	0.003 (0.007)	0.002 (0.006)	-0.003 (0.008)	0.0004 (0.006)	0.007 (0.006)	0.014*** (0.005)
Islam	-0.460*** (0.099)	-0.082 (0.077)	-0.400*** (0.103)	0.079 (0.085)	-0.109 (0.083)	0.130* (0.069)
Christianity	-0.366*** (0.098)	-0.041 (0.076)	-0.295*** (0.102)	0.058 (0.084)	-0.099 (0.083)	0.061 (0.068)
Urban	-0.004 (0.056)	-0.097** (0.043)	-0.011 (0.058)	-0.014 (0.048)	-0.017 (0.047)	-0.072* (0.039)
Rural	-0.086 (0.101)	-0.083 (0.078)	0.009 (0.105)	-0.102 (0.086)	-0.061 (0.084)	-0.056 (0.070)
Constant	0.152	-0.223* (0.101)	0.081 (0.105)	-0.271* (0.086)	-0.158 (0.084)	-0.286** (0.070)

	(0.172)	(0.133)	(0.180)	(0.148)	(0.146)	(0.120)
Observations	698	698	698	698	698	698

Note: \*p<0.1, \*\*p<0.05, \*\*\*p<0.01

## Heterogeneity Analysis

### *Heterogeneity by Gender*

To examine any differences in treatment effect by gender, we augment the OLS model above with an interaction term between the treatment indicator and the indicator for female. The results for income and employment outcomes are shown below in Table 30. As in the above models, the full vector of covariate controls is included, although the coefficients are omitted for brevity. While women in both groups on average have higher growth in personal income and entrepreneurship, there is no significant difference in treatment effects for men and women. As demonstrated by the high standard errors on the estimates, there is quite a bit of variance of impact *within* gender.

Table 30: Diff-in-Diff Regression Estimations for Income and Employment Outcomes, by Gender

	Dependent variable:				
	Personal Income	Current Business Owner	Currently Employed	Currently Employed in Area of Training	Self-Assessed Skill Level in Training Area (1-5)
	(1)	(2)	(3)	(4)	(5)
Treatment	4,047.802 (33,036.710)	0.019 (0.034)	-0.023 (0.028)	-0.012 (0.024)	-0.238* (0.143)
Female	12,748.730*** (2,434.045)	0.010*** (0.002)	0.001 (0.002)	-0.002 (0.002)	-0.013 (0.010)
Treatment:Female	-35,388.950 (65,834.590)	0.029 (0.067)	-0.043 (0.055)	-0.032 (0.047)	0.047 (0.284)
Observations	698	698	698	698	698

Note: \*p<0.1, \*\*p<0.05, \*\*\*p<0.01

Next we consider heterogeneity by gender in socioemotional outcomes. The results are shown below in Table 31. As with the income and employment outcomes, there are no significant differences in treatment effect by gender. Given that the two samples differed slightly in their gender composition, with the treatment group having more women than the comparison group, the lack of significant interaction effects provides some confidence that the underlying difference in demographics is not driving the observed treatment effect.

Table 31: Diff-in-Diff Regression Estimations for Socioemotional Outcomes, by Gender

	Dependent variable:					
	Self-Confidence Index	Rosenberg Index	Self-Efficacy Index	Locus of Control Index	Self-Assessed Personal/Professional Skill Index	Self-Assessed Emotional Intelligence Index
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	0.199*** (0.073)	0.153*** (0.056)	0.145* (0.076)	0.211*** (0.062)	0.181*** (0.061)	0.172*** (0.050)
Female	0.001 (0.005)	0.008** (0.004)	0.007 (0.005)	0.003 (0.004)	0.001 (0.004)	0.001 (0.004)
Treatment:Female	0.060 (0.143)	-0.031 (0.111)	-0.124 (0.150)	-0.058 (0.123)	0.058 (0.120)	0.018 (0.100)
Observations	698	698	698	698	698	698

Note:

\*p<0.1, \*\*p<0.05, \*\*\*p<0.01

#### Heterogeneity by Rural Area Status

Finally, we consider heterogeneity by whether or not participants reported living in a rural area, given that peri-urban/rural status was another significant demographic difference between samples. The results on income and employment outcomes are displayed below in Table 32. Again, we see no significant interactions between the treatment indicator and the rural area indicator. Notably, however, there is a directionally positive interaction in the effect of treatment on self-assessed skill level in training area (Column 5). This suggests that it is possible that the negative main effect observed on this measure might be ameliorated if the two groups had an equal number of rural residents.

Table 32: Diff-in-Diff Regression Estimations for Income and Employment Outcomes, by Rural

	Dependent variable:				
	Personal Income	Current Business Owner	Currently Employed	Currently Employed in Area of Training	Self-Assessed Skill Level in Training Area (1-5)
	(1)	(2)	(3)	(4)	(5)
Treatment	3,812.948 (30,763.460)	0.029 (0.031)	-0.042 (0.026)	-0.027 (0.022)	-0.292** (0.132)
Rural	33,100.430 (25,532.680)	-0.0001 (0.026)	0.027 (0.021)	0.010 (0.018)	0.055 (0.109)
Treatment: Rural	-69,172.770	-0.020	0.066	0.056	0.543



	(87,250.760)	(0.089)	(0.073)	(0.062)	(0.374)
Observations	698	698	698	698	698

*Note:* \*p<0.1, \*\*p<0.05, \*\*\*p<0.01

We last consider the heterogeneity by rural area status on changes in socioemotional outcomes. While socioemotional indices grew more slowly in rural residents, on average, we see no significant differences in treatment effect by rural status. As with the gender heterogeneity analysis, this provides some confidence that the underlying differences between the samples in terms of rural/peri-urban status is not underlying the observed treatment effects.

*Table 33: Diff-in-Diff Regression Estimations for Socioemotional Outcomes, by Rural*

	<i>Dependent variable:</i>					
	Self-Confidence Index	Rosenberg Index	Self-Efficacy Index	Locus of Control Index	Self-Assessed Personal/Professional Skill Index	Self-Assessed Emotional Intelligence Index
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	0.218*** (0.068)	0.174*** (0.052)	0.129* (0.071)	0.208*** (0.058)	0.199*** (0.056)	0.155*** (0.047)
Rural	-0.003 (0.056)	-0.095** (0.043)	-0.010 (0.058)	-0.013 (0.048)	-0.016 (0.047)	-0.073* (0.039)
Treatment: Rural	-0.035 (0.190)	-0.237 (0.147)	-0.121 (0.198)	-0.097 (0.163)	-0.032 (0.159)	0.176 (0.132)
Observations	698	698	698	698	698	698

*Note:* \*p<0.1, \*\*p<0.05, \*\*\*p<0.01

### Discussion: Regression Analysis

The regression analysis broadly reflects significant treatment effects observed in socioemotional outcomes, with little difference observed in downstream economic outcomes. We suggest that this pattern of results may be largely attributable to the short timeline used to collect endline outcomes (3 months following completion of the course). This timeline is plausibly quite soon to observe downstream effects generated by the treatment's observed growth in socioemotional skills. It would be of interest to test a) whether the observed effects on socioemotional skills are persistent one to two years following the course and b) whether these additional skills translate into positive effects on income and employment as time goes on.

In the occasional cases where the bivariate differences in outcomes differ from the estimated treatment effects seen in the regression analyses, the inferences suggested by the regression analysis should generally be privileged. This is due to the non-randomized nature of the design and the fact that the regression analysis corrects for underlying demographic differences between

samples. The differences-in-differences nature of the regression analysis (i.e., that the outcome measures changes within individual subjects) also provides better precision on the estimated effects of the treatment program.

## **CONCLUSIONS**

The study concluded that the intervention has contributed towards few economic changes at this point in time. The significant economic struggles, however, make it unlikely to pick up such effects so soon after the intervention in any event. The study further concluded that the intervention has an impact on improving socio-emotional outcomes. The study concluded that the time between intervention implementation and measurement restricted the extent to which economic outcomes could be visible. The broader macro-economic environment contributes towards the direction of outcomes.

The impact evaluation concluded that the program has positive impacts on life skills. While economic impacts are not yet visible, socio-emotional skills prepare young people for potential opportunities that may arise within the operating environment. The study further concluded that socio-emotional skills development may not result in immediate economic outcomes.

The study concluded that while socio-emotional outcomes are influenced by the program, economic outcomes are more likely to be influenced by the broader ecosystem. The scope and complexity of the macro-economic environment means influencing economic outcomes may require support and program designs that include specific economic strengthening components

Little differences in economic outcomes could be attributed to challenges emanating from the COVID-19 pandemic where despite the country not putting in place a lockdown, there were challenges including economic contraction, loss of employment opportunities, limited access to entrepreneurship and fear of contracting the virus.










There is high preference of full employment across intervention and comparison sites. This could be attributed to the challenges associated with entrepreneurship and self-employment. Challenges of insufficient experience, weak networks, limited access to start-up capital, minimal entrepreneurial exposure and low levels of education may all contribute towards the inclination to full time employment among the sample.

After graduation respondents in both the intervention group and comparison group prioritized seeking employment or getting into business which translates into entrepreneurship. Findings illustrate that life skills may not necessarily change people's desire to either seek employment or get into entrepreneurship. The key motivating factor is the potential to earn an income that is associated with attainment of skills.

## RECOMMENDATIONS

FINDING/CONCLUSION	RECOMMENDATION
The endline study showed positive socio-emotional outcomes illustrating that the program influences these. The study could not find noticeable changes within economic outcomes which could point to the short time between graduation and measurement as well as the general macro-economic decline.	Explore possibilities of investing in designs that measure economic outcomes linked to socio-emotional at intervals that provide for more time (maybe 6 months) ex-post.
The study concluded that the project contributed towards improving socio emotional outcomes, but respondents outlined those measures such as self-confidence are also affected by realities within the operating environment including income levels.	Future program designs may need to consider adding components such as paid internships for those interested in employment and start-up capital for those interested in entrepreneurship.
There is high preference for getting an income across both the intervention and comparison groups. While the study timeframe may provide opportunities to measure contributions of soft skills towards access to employment and entrepreneurship, it may not be enough to assess contributions of soft skills towards recipients excelling.	Future designs may need to include longer timeframes to measure and illustrate the effect of soft skills on recipients' potential to excel in their chosen field.
Qualitative insights show that despite positive socio-emotional outcomes, they are contextual barriers to prospective entrepreneurs including capital, and access to markets.	Entrepreneurship support should include components that address barriers to entry which restricts opportunities for many young people.

## ANNEXES

Title of Document	Link
Baseline Questionnaire	 1. Baseline_Draft_v4_Fi
One-month ex-post questionnaire	 2. One_Month_Ex-posi
Endline questionnaire	 3. Endline_Draft_v4_Fi
Eye test baseline	 1. eyes_baseline.doc
Eye test one month-ex post	 2. eyes_exit.doc
Eye test endline	 3. eyes_expost.doc
Key informant interview guide baseline	 Key_Informant_Inter view_Guide_Baselin
Key Informant Interview guide endline	 Key_Informant_Inter view_Guide_Endline
Youth FGD Guide	 Youth_FGD_Guide_ Endline_Final061020

### Annex 2: Muhamed's Story

#### MUHAMED's Story

I was enrolled for a course in the Driving course and it was the same time I was taking PTS, I studied it almost for 3 weeks; in the morning we were studying driving and evening PTS. After some time I got to understand it is important to study life as was the case with PTS. I really understood that course when for example I got to understand the importance of sharing, i.e during our studies we had some conflict with our driving teacher, we didn't know what to do since he was teacher and we are students, but since we were told to have confidence and also sharing our problems, we shared with our teachers and they told us that they cannot solve our problem, so they talked with the short course coordinator who talked with him and the problem was solved.

There changes I got since this is a life study so when you learn this course you understand the importance of trying to do better and to be better. I learnt about decision making and that you are supposed to make the right decision when you are not angry. I also learnt how to control my emotions, and also how to share with others in order to solve problems, asking advice, how to engage with people as well as talking and living well with the people surrounding me or family. This will help you to get benefits in future.

In my personal life study has also helped me to be able being employed by the catholic church in their project of making small bags. It is something i am doing in addition to my other job. When I am done, I shift to my other job as a bike taxi driver because I know how to keep time, I do wake up on time, working on time and finishing my work on time. I also learnt money management, how to respect your income and not to use more money than you earn. I am now budgeting, and I am able to save more money.

I would like to comment that you should keep teaching these studies because they help. Currently the jobs are not easy, there are many youth graduated colleges but are at home watching TV but if they got this education they would have employ themselves instead of being jobless. You should not only teach vocational colleges, but you should also go in the street and teach the youth in streets, for example at my bike work site.

### **Muksin's Story**

I was enrolled in the driving course which is a basic driving course for class D. That is when I started taking PTS. I really liked this course and it was is not hard subjects. It also had practical things like games, so we also learnt through simple things that made it easy to understand.

There are many changes I have seen in my life after taking this course. I have created many friends of different ages through this course. These friends include students who were attending. Although were of different ages, we found ourselves enjoying class and being joyful, friendly and easy to connect in various things. This allowed us to help each other as friends and to support each other as brothers and sisters. It has also helped me to meaningfully engage with different people.

PTS has given me confidence even when I am speaking like in the interview and other discussions. When I look at myself and others who didn't study PTS I can see a difference between I have more confidence than them. I would like to advice you that this course has to be taught in the street, people have to be educated so all the youths get opportunities for a better life.