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Enhancing Youth Employment Opportunities in Rural Economies in Ethiopia

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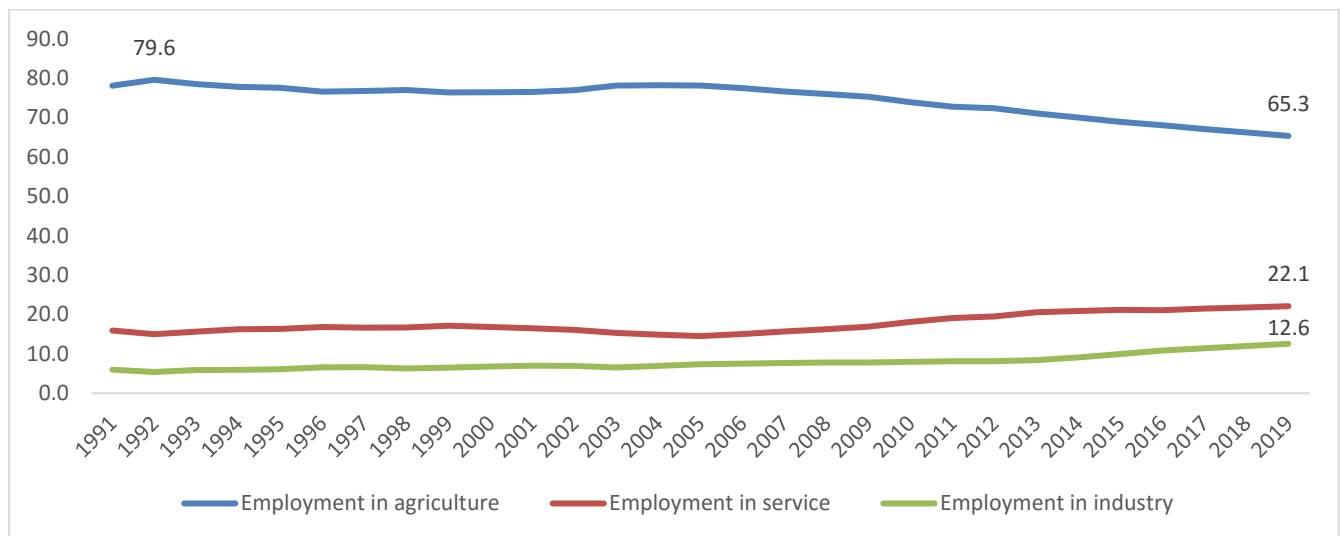
Abstract

This report aims to examine the youth employment conditions in rural Ethiopia and to assess the performance of the rural youth employment creation initiatives. The reports also address untapped youth employment opportunities and the reasons as to why they remain untapped in rural areas. We conducted key informant interviews and collected primary data from 626 respondents living in rural areas of the two most populous regions in Ethiopia. Two-third of the respondents were beneficiaries of government youth employment initiatives while the rest of them were the youth registered as unemployed. The beneficiaries were primarily selected from the Youth Revolving Fund program, a government youth employment creation initiative that provides fund and capacity building trainings for the youth to create self-employed jobs. The results show that 54% of the non-beneficiary youth never had jobs. Around 85% of female and 97% of male beneficiary respondents received fund and established self-employment businesses using the fund. They earned income that was higher than the average salary in many industries in Ethiopia. Youth working alone received more than double per capita fund than the per capita fund that the youth working in groups received. Respondents noted that it took them, on average, around five months to receive the fund after they submitted their application for the fund. Regarding untapped and under-tapped employment opportunities, around 64% of the youth identified at least one untapped opportunity for employment, and cited credit inaccessibility, unfavorable government regulations, lack of skilled labor and lack of complementary investments as the main factors for the untapped opportunities to remain untapped. Containing these problems could boost rural youth employment and reduces the excess rural to urban migration.

Introduction

Ethiopia has been registering remarkable economic growth since the last couple of years despite being the most populous landlocked country in the world with ever increasing population size (UNDP, 2018). The economy has been featuring the initial stage of transformation, in that the share of agriculture to the gross domestic product is gradually decreasing, as does the share of the labor force engaged in agriculture. For instance, data compiled from the World Bank shows that the share of employment in agriculture decline from around 79.6% in 1991 to 65.3% in 2019, around 0.51 percentage points decline per year, on average, as shown in Figure 1.

Figure 1. Share of employment by sector (Ethiopia)



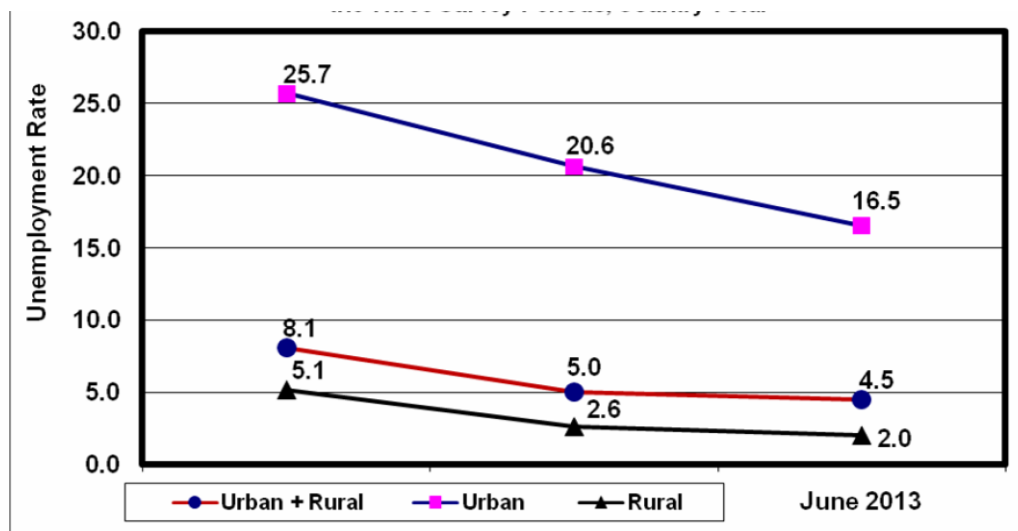
Source 1 Compiled from the World Bank data

However, the country is facing critical challenges of youth unemployment and underemployment problems, partly, because of the substantial increase of the national labor force in the last couple of decades; the total labor force of the country tripled over the last three decades (CSA, 2013). Employment creation for such a rapidly increasing labor force has become increasingly challenging.

The youth unemployment and underemployment problems have been particularly worrisome in rural areas since little attention has been given to the rural youth employment problem by the government (Woldehanna et al., 2018). It was in 2016 that the government established a government structure at federal level to be exclusively responsible for increasing rural job creation opportunities (Woldehanna et al., 2018). As a result, and because of other factors, there has been insignificant wage employment opportunity in rural areas (Rizzo, 2011). This has created high underemployment and growing youth landlessness. Moreover, there has been poor rural infrastructure developments and limited financial access for the youth to start own business, leading to an increase in excess internal migration to urban areas and migration abroad (Bezu and Holden, 2014; Broussara and Tekleselassie, 2012; CSA et al., 2017; Shaw, 2007).

Indeed, the unemployment rate in rural areas has been lower than that of urban areas in the last three national surveys as shown in Figure 2. However, the number of the unemployed population in rural areas has been greater than that of urban areas since around 80% of the population has been residing in rural areas of the country. Moreover, the 2015/2016 National Socioeconomic Survey showed that underemployment was high in rural areas and that around 98% of the rural households depended on agriculture, indicating little livelihood diversifications in rural areas (CSA and the World Bank, 2017). Non-farm activities are limited in rural areas, primarily because of lack of financial services (35%), poor access to markets (30%) and poor transportation (14%) (CSA et al., 2017). The available relatively profitable non-farm income diversification in rural Ethiopia have also been used as a strategy by wealthier households to accumulate wealth (Weldegebriel et al., 2016).

Figure 2. Unemployment rate in rural and urban Ethiopia over three survey periods.



Source 2 Ethiopian socio-economic survey, 2013

The national surveys and other studies show that the youth in Ethiopia has been the most hard-hit by poverty and have had the highest unemployment rate. For instance, the 2013 socio-economic survey shows that unemployment rate was the highest for the youth in both rural and urban areas. The results in Table 1 show that the unemployment rate was the highest in both urban and rural areas for the youth aged between 15 and 30 years old.

This high unemployment and the associated growing frustration of the youth have been attributed to as two of the main factors for the violence and political instability that the country experienced in recent years. To curtail youth unemployment problem, the Ethiopian government has been undertaking various activities including developing youth-specific policies and development packages, and establishing agencies that aim at increasing youth employment and ensuring active participation of the youth in the country’s political and socio-economics activities. Most of the youth interventions have been, however, urban focused.

Table 1. Unemployment rate by age group and gender

Age Group	Urban			Rural			Urban + Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
All Ages	16.5	10.5	23.0	2.0	1.1	2.9	4.5	2.7	6.5
10-14	10.0	9.7	10.3	1.3	1.0	1.7	1.7	1.3	2.2
15-19	23.1	21.9	24.0	3.1	1.8	4.7	5.6	3.8	7.5
20-24	25.8	20.4	30.2	4.0	2.6	5.5	9.1	6.4	11.8
25-29	17.2	10.4	24.2	2.1	1.4	2.8	6.0	3.8	8.1
30-34	13.9	6.4	23.4	1.6	0.5	2.8	4.5	2.0	7.3
35-39	12.6	5.9	20.2	1.2	0.5	1.9	3.6	1.7	5.5
40-44	11.8	5.7	20.1	1.4	0.6	2.4	3.4	1.6	5.5
45-49	10.8	4.8	18.0	1.0	0.4	1.7	2.7	1.2	4.5
50-54	11.2	4.4	19.5	1.1	0.2	2.1	2.7	0.9	4.9
55-59	10.9	7.0	17.8	0.9	0.4	1.5	2.5	1.6	3.7
60-64	12.8	9.4	18.7	1.0	0.5	1.9	2.6	1.7	4.1
65+	10.4	8.5	14.4	1.1	0.7	2.2	2.3	1.6	3.9

Source 3. Ethiopian socio-economic survey, 2013

The aim of this report is to assess one of the employment opportunities created for the youth, to examine the challenges and the barriers that hinder the youth to fully benefit from youth employment opportunities created for them and to suggest recommendations for better success of future and existing initiatives. We also explore under-untapped and untapped employment opportunities and the factors that lead to the untapped opportunities to remain untapped. To this end, we conducted surveys in seven districts (woredas) in rural Ethiopia to address the research aims. Note, however, that the samples selected for this study were not representatives of the youth population nor the rural youth in Ethiopia. This study should be considered as a pilot study for future study using representative samples. We primarily considered the Youth Revolving Fund program that has been running since 2017 to select our samples. This is because it is neither too short to observe the performance of the project nor it is too long to trace the beneficiaries. We also collected data from other projects (the Agricultural Growth Program and the micro and small businesses supported by microfinance institutions) and from the youth who were waiting for their turn to benefit from the programs.

Research Questions and Objectives

The aim of this report is to examine the employment opportunities created for the youth, to assess the challenges and the barriers that hinder the youth to fully benefit from youth employment opportunities created for them, and to provide insights for future similar interventions and for further study. We also explored under-untapped and untapped employment opportunities and the factors that lead to the untapped opportunities to remain untapped. The specific research objectives include:

Examine the types of trainings that the youth in rural Ethiopia have been receiving related to employment opportunity creation and strengthening their businesses

Assess the employment history of the rural youth

Examine whether the employment packages include provision of consultancy and trainings for the youth.

Identify the favorable and unfavorable conditions to establish profitable self-employment jobs in rural Ethiopia

Examine the effect of the amount of fund the youth are receiving to run their business on their business performance (the amount of income they are obtaining from the business).

To investigate the factors that affect the returns from the self-employment business

Methodology

Sampling

This report is based on primary data that were collected from 626 youth living in rural and semi-rural areas in seven woredas (districts) in Ethiopia. The data were collected from the two populous regions of the country, Oromia and Amhara. The selection of these two regions were based on both the high youth population size and total population size. Even though the data are not representatives of the population of interest (unemployed rural youth and youth who benefited from interventions), the data provides considerable insight.

Multistage sampling techniques was used to select the samples for the study. First, we selected two regions having the 1st (Oromia) and 2nd (Amhara) largest rural youth population size in Ethiopia. Second, we selected two zones from each of the two regions. The selected zones were West Gojjam and North Wello from Amhara region, and West Shewa and Arsi Zone from Oromia region. Zones in which we could get enough sample size of the program beneficiaries were selected, and which are relatively easier to access. Third, we asked the concerned zonal officials to select three woredas which have had the largest number of youth beneficiaries of the Youth Revolving Fund (YRF). Each of the four zonal officials selected and forwarded list of three woredas, resulting in total of 12 woredas. Woreda level officials were requested to send the number of beneficiaries of the program in their respective woredas. Six woredas (one from each of the zones and two from two zones) were selected based on the highest number of beneficiaries. An additional woreda was selected from Oromia to make up for insufficient number of available beneficiaries, as some beneficiaries appear to exist in records but not physically available. In all, data was collected from seven woredas.

We received the list of all beneficiaries from each of the seven woredas in soft copy and the list of registered unemployed youth that are on the waiting list for YRF or similar initiatives. Data was collected from all accessible beneficiaries in the 4 selected woredas in Oromia region because the population size was smaller, and from a sample of beneficiaries which were selected based on stratified random sampling technique, whereas gender and type of business served as strata from the three woredas in

Amhara region. Non-beneficiaries were selected from the same kebeles which satisfied the youth age criteria (18 to 40 years old).

Two supervisors (one for each region) and seven enumerators (one for each of the woredas) were exposed to five days of intensive training before the data collection. The enumerators then collected data from the youth using Computer Assisted Personal Interviewing (CAPI) technique from October 01 to November 01, 2019.

Data

Table 2 presents the samples sizes categorized by region, gender and treatment status (i.e., whether the youth was a beneficiary of the YRF and other related program (treated) or was registered as unemployed and waiting for her/his return to be beneficiary (control)). Data were collected from 143 male and 77 female beneficiaries (treatment group) in Amhara region and from 148 male and 50 female beneficiaries in Oromia region, making a total of 418 beneficiaries. Data was also collected from 208 non-beneficiaries (control group).

Table 2. Samples by region, treatment status and gender

Treatment type	Regions				Total
	Amhara		Oromia		
	Male	Female	Male	Female	
Treatment (beneficiary)	143	77	148	50	418 (67%)
Control (non- beneficiary)	62	58	72	16	208 (33%)
Total	205	135	220	66	626

Analytical approach

Descriptive analysis methodology was utilized. The results are presented in tables and graphs. Where necessary, t-tests were conducted to compare the results by gender and treatment status. Ordinary Least Square regression was also used to investigate the determinants of the returns from self-employment business where logarithm of after-tax per capita income was the dependent variable and firm characteristics and the characteristics of respondents were considered as independent (explanatory) variables as given below:

$$\ln(y_i) = \alpha + f\beta + r_i\delta + \eta_i + \varepsilon_i$$

Where $\ln(y_i)$ denotes the after-tax monthly per capita income of respondent i who had self-employment business. The letter ' f ' denotes a vector of business characteristics including natural logarithm of the amount of per capita fund (i.e., the average amount of fund per individual beneficiary) received from government to start the business, months of operation of the business, number of youth employed per business and regional location of the business. The letter ' r ' denotes a vector of characteristics of respondents including age, gender, years of schooling, years of work experience, the

use of mobile and social media for business purpose and for professional networks. The parameter, η_i denotes district (woreda) effects which was included to control for infrastructural and other differences across the seven woredas that data collected were from. The parameters α , β and δ denote population parameters to be estimated and the last terms ε_i denote unobserved factors affecting the income of respondent i . Detailed explanation of the variables used in the regression results are presented in the appendix.

Results

This section, shows results obtained from data analysis. The results include characteristics of the respondents, employment history, youth's quest for job and the responses from government officials. It also includes current employment status, trainings obtained by respondents, favorable conditions for business, the amount of fund the beneficiary youth got from employment programs, the performance of the businesses in terms of income returns as well as information about untapped opportunities that the youth identified in their woredas and the reasons why such opportunities to remain untapped. The section concludes with suggested options to exploit the untapped opportunities to create employment for the youth.

Characteristics of respondents

The characteristics of the control and treatment groups were compared to observe if the program favored some categories of the youth. Mean equality t-test was conducted to examine if the mean differences of the characteristics of the control and treatment groups were statistically significant. Table 3 shows the results. With the average age of 24 years old, the youth in the control group were younger by two years, on average, than the treatment groups. The difference was statistically significant at 1% level of significance. This was consistent with our prior expectation – the youth had to be between 18 and 34 years old to be eligible for the YRF, and, thus, we expected the beneficiaries to be at least as old as the non-beneficiaries, controlling for other factors that may affect selection to the beneficiary group. The Table shows also that the two groups significantly differed by marital status, household size, years of schooling, duration of apprenticeship and entrepreneurial and skill development trainings. They also differed in terms of knowledge about the availability of government supported youth employment programs. The treatment and control groups did not, however, significantly differ in terms of number of children they have, years of work experience and access to mobile phones.

Table 3. Mean difference between control and treatment groups

Variables	Control		Treatment		Mean difference	P-value
	N	Mean/percent	N	Mean/percent		
Male, %	208	64.4	418	69.6	-5.2	0.1910
Age	208	24.2	417	26.1	-1.9	0.0000
Married, %	208	26.0	418	45.2	-19.3	0.0000
Household size	208	4.4	416	3.9	-0.5	0.0072
Number of children	208	1.0	418	1.1	-0.1	0.3643
Years of schooling	203	12.1	396	10.5	1.6	0.0000
Years of work experience	95	4.5	415	4.4	0.1	0.8040
Had been in apprentice, %	208	39.9	418	19.2	20.7	0.0000
Attended any entrepreneurial and skill development training	208	17.8	416	51.4	33.7	0.0000
Household has mobile with internet access	208	61.1	418	55.0	6.0	0.1520
Household has mobile without internet access	208	85.1	418	79.9	5.2	0.1150
Has >100 Facebook friends	208	43.3	418	34.7	8.6	0.0370
Ever got job of any type	208	45.7	418	99.3	-53.6	0.0000
Ever got job of any type in the last 30 days	208	47.1	416	95.2	-48.1	0.0000
No. of jobs they have had (for those who have had job)	80	1.21	415	1.54	-0.33	0.0000
Income/wage from work	48	2957	415	5900	-2944	0.0680
Know about gov't supported youth employment programs	208	43.3	415	91.6	-48.3	0.0000
Ever benefited from gov't supported youth employment programs	90	3.3	381	95	-91.7	0.0000

Source. PARI-Youth cluster survey, 2019

Employment history of the respondents

This section addresses the employment history of the samples and their employment status as at the time of the data collection.

The results show that all but one respondent from the treatment group reported to have work experience. However, only 95% had worked in any job including family work, self-employed job and wage employment in the last 30 days preceding the interview period. Whereas around 46% of the youth from the control group reported to have ever had a job or created income generating activities of their own. It was noted that 47% of the control group had worked in any job including family work, self-employment job and wage employment in the last 30 days preceding the interview period.

Table 4 presents the types of income generating activities that those who have had job/worked for the first time. Around 50% of the control group and 89% of the treatment groups reported to have had self-employed job in their first income generating employment.

Table 4. Types of jobs that the respondents (have) worked at their first job

Type of first-time job	Control	Treatment	Total
Self-employment	50.0	89.4	82.8
Salaried employment	21.4	6.7	9.2
Contributing to family work	14.3	3.1	5.0
Other (coffee making, casual work)	13.1	0.5	2.6
Domestic employee	1.2	0.2	0.4

Source. PARI-Youth cluster survey, 2019

Around 5.8% of the control group and 4.8% of the treatment group samples reported to have a job (wage employment) at the time of the data collection. Around 59% of these youth who were working at the time of the interview reported that they did not have formal employment contract. These youth earned on average 2,339 ETB (74.9 USD) monthly salary (2,358 ETB (75.4 USD) for the control group and 2,327 ETB (74.5 USD) for the treatment group). More than half of the respondents got the job through friends or relatives (56%) and 19% got their jobs at vacancy boards; 13% found the jobs by visiting companies, 9% got theirs by directly contacting the employers while 3% secured jobs through professional networks. These youth were asked about the main reason to leave their jobs in the future, and 90% indicated that if they were to leave the job in the future, they would leave for exploring better job (50%) or because of low wage (40%). The features of the job they liked included the service the employers provide (19%) and the less stressful jobs (16%).

Table 5 presents the unemployment duration and unemployment condition of the unemployed youth in our data (the control group). Around 74% of female and 79% of male respondents reported that they were available for work in the next 30 days of the interview period.

Youth in the control group indicated their unavailability for jobs within 30 days because they were already self-employed, engaged in waged jobs and family work, and that they would require some time to disengage from their current jobs and be involved in a new job.

The results also show that female and male respondents sought for jobs for 14.7 and 12.9 months on average, respectively. And that it was not the first time for about 48% of female and 60% of male respondents to seek for jobs, and only few of them (13.6% female and 9.5% male) were invited for

interview. There was significant difference in the types of jobs male and female respondents sought. While around 53% of female preferred paid employment to self-employment, only 31% of male respondents had similar preference.

Table 5. Unemployment duration and unemployment conditions (control respondents)

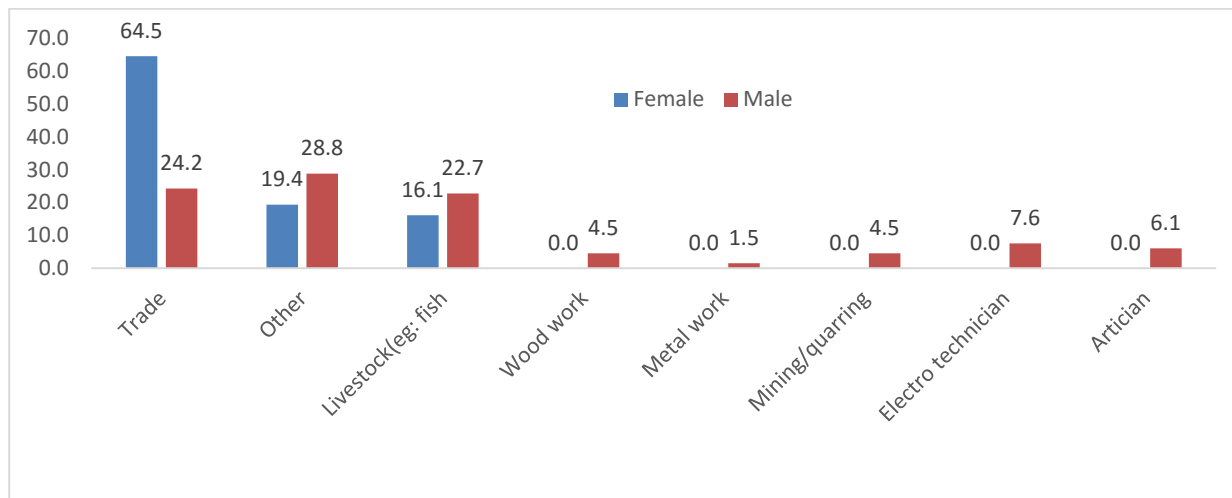
Characteristics	Female (N)	Male (N)	Mean/percent (female)	Mean/percent (male)	Mean difference	P-value
Available for work in the next 30 days	66	95	74.3	78.9	-4.6	.488
Months since looking for job	66	95	14.7	12.9	1.8	.552
First time to look for job	66	95	51.5	40.0	11.5	.15
Prefer paid employment to self-employment	66	95	53.0	30.5	22.5	.004
Average minimum acceptable monthly wage to accept job offer	66	95	3,137	3,885	-748	0.0446
Number of sources of information they are using to look for job	66	95	2.32	2.37	-0.05	0.7974
Ever invited for job interview	66	95	13.6	9.5	4.1	0.4129

Source. PARI-Youth cluster survey, 2019

The survey sought to know the types of self-employment activities unemployed respondents preferred and planned to engage in if fund was available. Figure 5 presents the results disaggregated by gender. The results show substantial gender difference in the types of activities they preferred to engage in. For instance, while around 65% of the female respondents preferred to engage in trade, the figure was only around 24% for male respondents. Around 19% of female and 29% of male respondents preferred to engage in various activities including coffee making, producing construction inputs such as bricks, etc. Surprisingly, none of the youth preferred to engage in crop farming. However, around 23% of male and

16% of female respondents stated that they preferred to engage in livestock farming including livestock fattening, milk production and honey production.

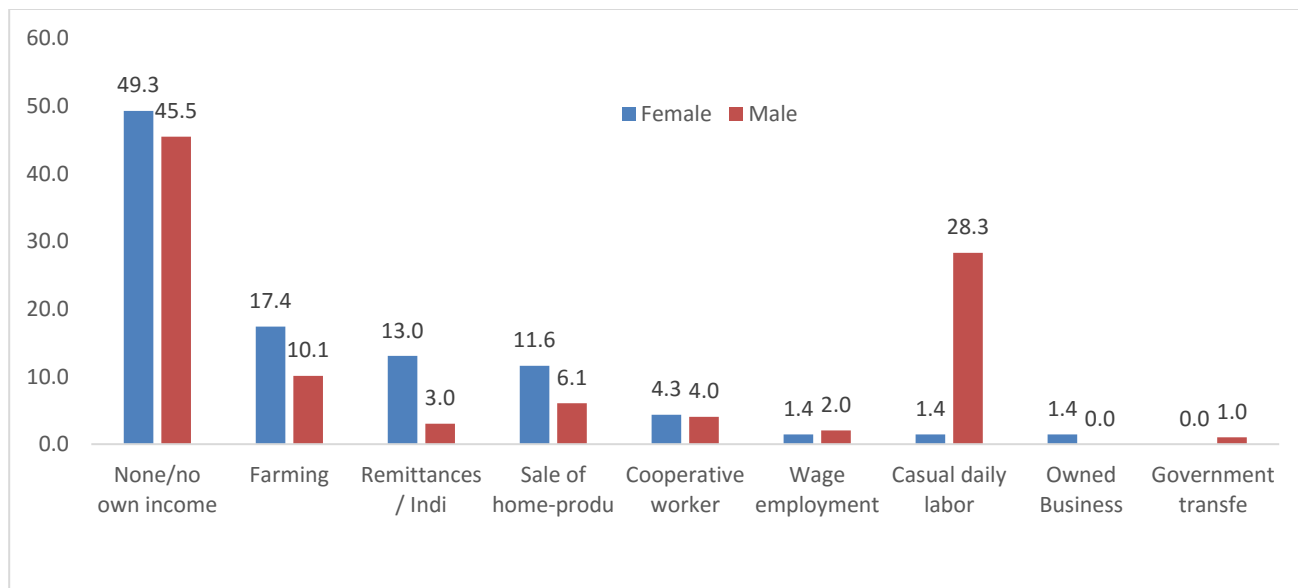
Figure 3. Types of self-employment activities the unemployed prefer to engage in



Source. PARI-Youth cluster survey, 2019

Finally, data were collected on source of income of. About half of the respondents reported that they did not have any source of income of their own, but depended on family income. Figure 5 shows the results. Around 28.3% of male and 1.4% of female respondents responded that they did various casual daily labor activities to partly cover their living expenses while around 17.4% of female and 10.1% of male respondents engaged in farming activities. Others were covering their living expenses through various means which included remittance, selling home products, engagement in self-employment, wage employment and so on as shown in Figure 5.

Figure 4. Sources of income for the unemployed

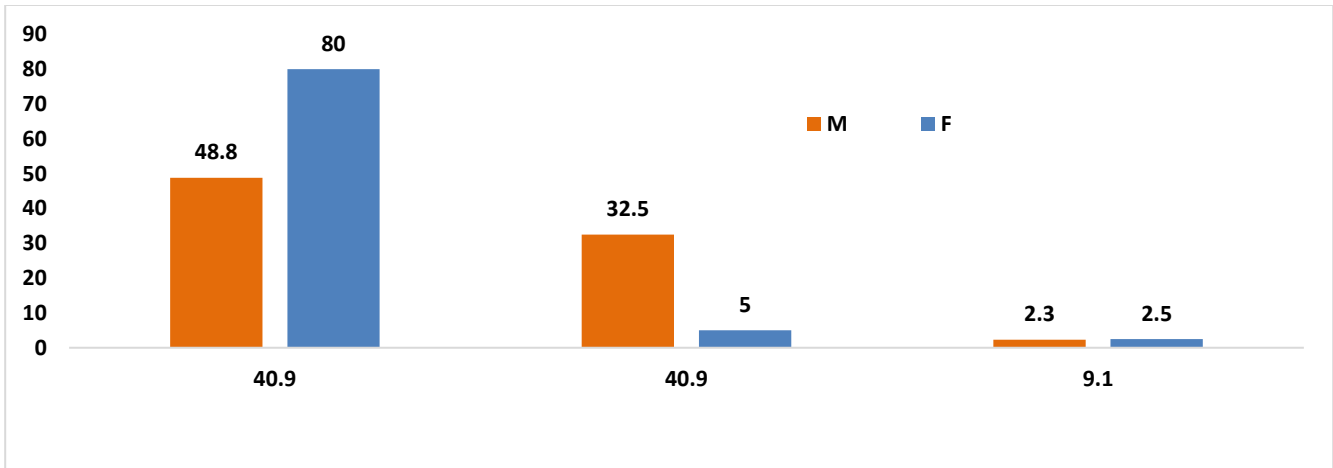


Source. PARI-Youth cluster survey, 2019

Youth's quest for job and responses

Respondents were asked if they requested for the support of local and district officials to get jobs. As shown in Figure 6, around 72% of the control group and around 88% of the treatment group responded that they asked the local and district officials for jobs. Around a quarter of the treatment group responded that they did not ask the government officials since they did not know that the government provides support while around 4% of the control group and 3% of the treatment group reported that they did not ask and they did not want to ask for support. The results show that some of the youth did not consider the credit access (at relatively lower interest rate) and the quest for this credit access as government support for the youth to get job. We expected all the youth to respond that they asked for the officials support for job since the youth in the treatment group already got credit access facilitated by the government and those in the control group were registered and were waiting for their turn to get credit access or other supports.

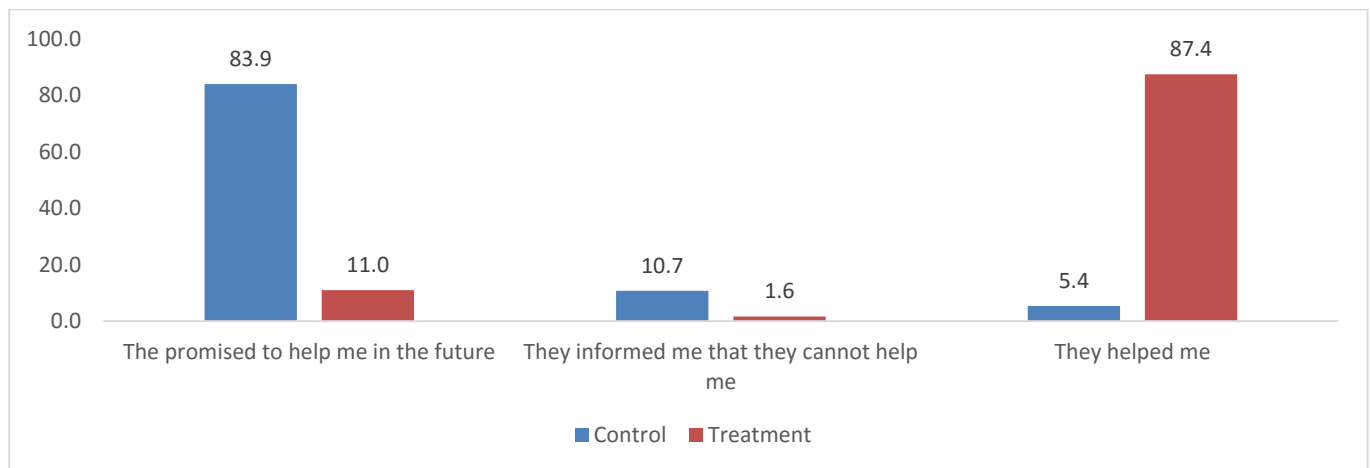
Figure 5. Youth's quest for local government officials' support to get jobs, by treatment status



Source. PARI-Youth cluster survey, 2019

The respondents were further asked about the responses they got from government officials when they requested for the officials' support to get job. Figure 7 shows the results. Expectedly, around 84% of the respondents from the control group reported that the officials gave them promise to help them in the future while around 87% of the respondents from the treatment group reported that government officials assisted them to get jobs. Around 11% of the respondents from the treatment group reported that the government officials gave them promise to support them in the future; most of these respondents did not benefit from the Youth Revolving Fund, but got loans from microfinance institutions and other programs which have been partly supported by the government.

Figure 6. Response received from government officials for the youth's quest for support



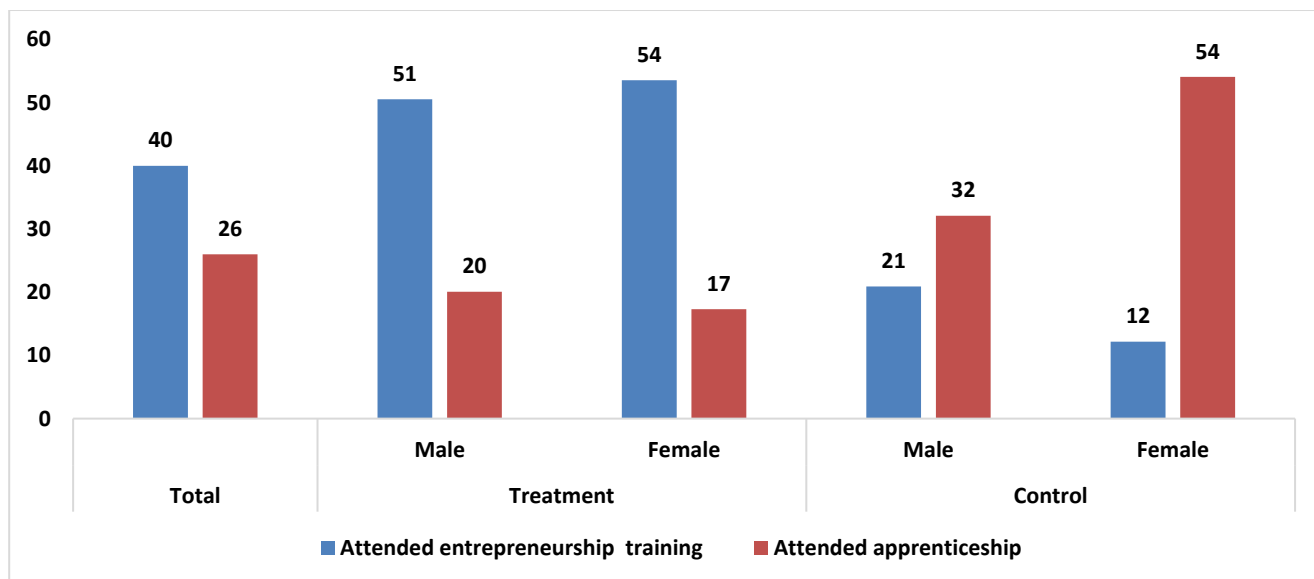
Source. PARI-Youth cluster survey, 2019

Entrepreneurship and apprenticeship trainings

Apprenticeship and entrepreneurship trainings are considered as key bridges between the theoretical knowledge that individuals acquired at schools and the practical skills required at work. Respondents were asked if they received such trainings; the types of specific trainings they received; and whether the trainings were relevant as self-evaluated by the respondents.

The results on Figure 8 show that, overall, 40% and 26% of the respondents received entrepreneurship and apprenticeship trainings, respectively. There were major differences between the treatment and control groups and some differences between male and female youth in terms of the types of trainings they received. While a relatively larger percentage of the youth from the treatment group received entrepreneurship trainings, it was vice versa for apprenticeship trainings. While a relatively larger percentage of male in the treatment group (51%) received entrepreneurship trainings than the percentage of male in the control groups received, it was vice versa for apprenticeship training.

Figure 7. Percent of youth who ever attended entrepreneurship and apprenticeship by treatment status and gender



Source. PARI-Youth Cluster survey, 2019

Respondents who received trainings were asked about the specific types of trainings they received. Table 6 shows the results. Around 51% of the respondents stated that they received professional skills, where the figure was highest for female respondents from the control group (80%). A quarter of the respondents received trainings on construction, health (mid-wife), auto-mechanic and the likes. Female respondents had the highest figure of 41%. Electro-technician and trainings about livestock were the third and the fourth types of skills, respectively, that the respondents received in the entrepreneurship and apprenticeship trainings. There was major percentage difference between female respondents of the control and the treatment groups while the difference between control and treatment groups of male respondents was relatively small.

Table 6. Type of skill/knowledge the youth learned (apprenticeship)

Type of profession learnt	Treatment		Control		Total
	Male	Female	Male	Female	
Professional skill	50.0	40.9	48.8	80.0	51.4
Other skills (construction, health, auto, ...)	22.4	40.9	32.5	5.0	26.3
Electro technician	12.4	9.1	8.8	2.5	9.8
Livestock rearing	6.9	4.5	0.0	2.5	4.4
Metal work	5.2	0.0	4.7	0.0	3.4
Crop farming	1.7	4.5	0.0	10.0	2.9
Artisan	1.7	0.0	7.0	0.0	2.3
Wood work	0.0	0.0	4.7	0.0	1.0
Mining/quarrying	1.4	0.8	0.0	0.0	0.8

Source. PARI-Youth cluster survey, 2019

Respondents were asked about the relevance of the trainings. Table 8 presents the results disaggregated by whether the training was apprenticeship or entrepreneurship, treatment status and by gender. As shown in the table, 90% of the respondents reported that the apprenticeship helped them to get new knowledge or skill. Out of those who attended apprenticeship, about 5% of them reported that the training they received helped them to start their own business, and only around 2% of them responded that the training helped them to get new job. On the other hand, 41% of the respondents who acquired entrepreneurship trainings responded that the training helped them to start their own business. Around 8% of the respondents who had entrepreneurship trainings reported also that the training helped them to get jobs. These differences between the job impacts of the apprenticeship and entrepreneurship trainings could be partly because entrepreneurship training has been one of the packages of the youth employment programs. Those who received the entrepreneurship training could be youth who were to receive fund, implying that it may not necessarily

be that entrepreneurship trainings helped to get job, rather the employment packages induced the youth to receive the training as part of the criteria to get government support.

Table 7. Relevance of the trainings by treatment status and gender (Respondents self-assessment)

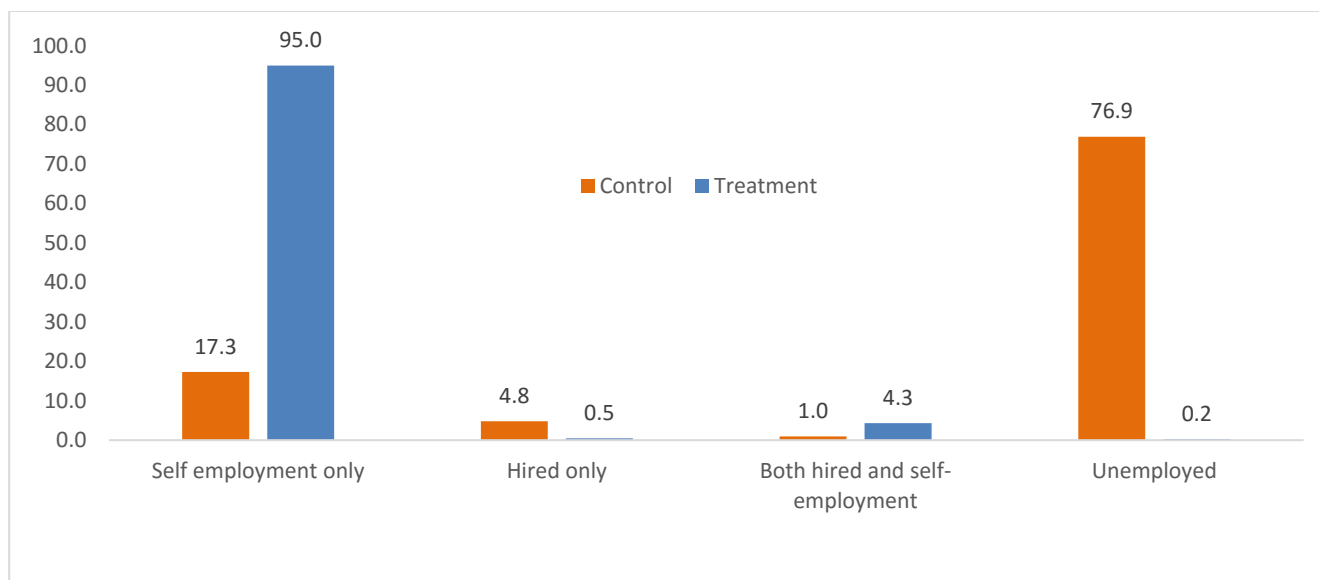
Relevance of the knowledge and skills acquired, self-assessment	Apprenticeship					Entrepreneurship				
	Total	Treatment		Control		Total	Treatment		Control	
		M	F	M	F		M	F	M	F
The training helped me to get new knowledge or skill	91	91	82	91	97	50	42	44	82	100
The training helped me to start my own business	5	9	9	2	0	41	47	43	14	0
The training helped me to get job	2	0	9	5	0	8	9	9	4	0
It was not relevant	1	0	0	2	3	1	2	4	0	0

PARI-Youth cluster survey, 2019

Current employment status and the returns from employment

Figure 9 presents the current employment status of the respondents by treatment status. As mentioned earlier, list of beneficiaries (the treatment group) and the unemployed who were waiting for their turn to get employment support from the woredas was acquired. Accordingly, all the treatment group should be working (should have job) and most of the control group were expected to be unemployed except for the youth who found job after they registered as unemployed and whose data were not updated at woredas. Consistently, around 99.8% of the treatment respondents reported that they had jobs; 95% having self-employment job, 0.5% wage employment and around 4.3% working in both self-employment and wage employment. Around 77% of the control respondents reported that they were unemployed while around 17% reported that they were self-employed.

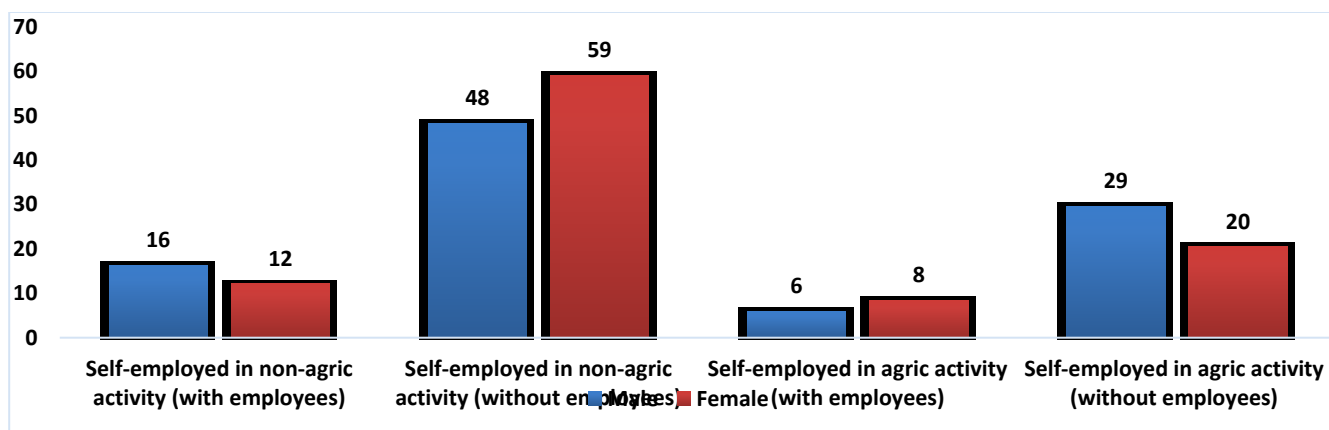
Figure 8. Current employment status of the sample by respondents



PARI-Youth cluster survey, 2019

Figure 10 presents the types of businesses (agriculture versus non-agriculture) that the youth who were engaged in self-employment are involved in and whether they created job for additional workers, disaggregated by gender. Overall, around 64% of male and 71% of female respondents engaged in non-agriculture sector. Moreover, around 22% of male and 20% of female respondents reported that they created job for other youth. Relatively, larger percentage of the youth engaged in non-agriculture business than in agriculture business created job for other individuals.

Figure 9. Areas of businesses for self-employment and whether they created job for other youth



PARI-Youth cluster survey, 2019

Respondents were asked about the specific type of businesses they were engaged in. The results, which are disaggregated by treatment status and gender are presented on Table 9.. Respondents were engaged in business activities which included livestock rearing, trade, crop farming, providing transport service, providing other service, wood and metal works, preparation and selling of food and beverages, and so on. There were differences between treatments and gender in the types of businesses they were

engaged in. For instance, while the largest percentage of male respondents from the treatment group were engaged in livestock rearing business, the largest percentage of females in both groups and the males in the control group engaged in trade. None of the female respondents engaged in transport service and in wood work.

Table 8. Types of self-employment business activities

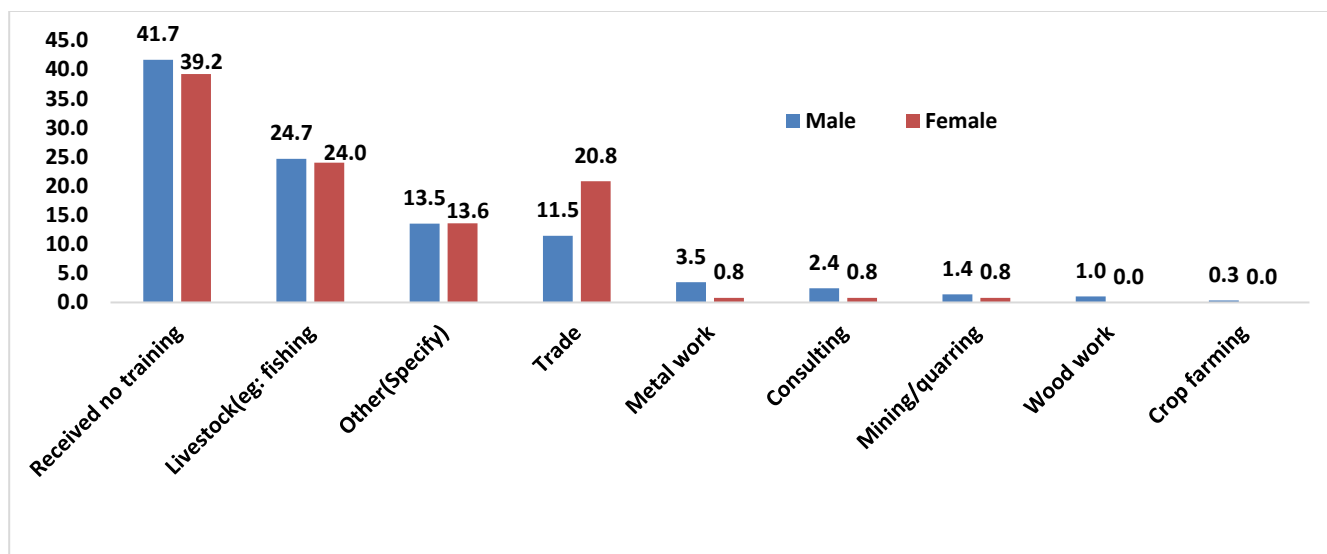
Types of self-employment business activities	<u>Treatment</u>		<u>Control</u>	
	Male	Female	Male	Female
Livestock	34.4	36.0	9.7	0.0
Trade	23.6	45.6	35.5	57.1
Crop farming	11.5	1.6	29.0	14.3
Transport service	7.6	0.0	0.0	0.0
Service	6.3	6.4	9.7	14.3
Wood work	4.2	0.0	3.2	0.0
Metal work	4.2	0.8	0.0	0.0
Food & beverage	2.4	8.0	3.2	14.3
Artist	2.1	0.0	3.2	0.0
Agro-forestry	2.1	0.0	0.0	0.0
Mining/quarrying	1.4	0.8	0.0	0.0
Electro technician	0.3	0.0	6.5	0.0
Number of observations	288	125	31	7

PARI-Youth cluster survey, 2019

Trainings about business before and after the allocation of the fund

The survey examined whether the youth received training specific to the businesses they established before and after the establishment of their businesses. The Youth Revolving Fund by its mandate was expected to train the youth and provide continuous consultations. The results show that around 42% of male and 39% of female beneficiaries did not receive trainings before they established their businesses. This indicated that a significant percentage of the implementors did not fully implement the program. The rest of the respondents reported that they received trainings of various type which included livestock rearing, trading, metal work, mining, etc. Most of the respondents received training on livestock rearing, which was consistent with the result shown in Table 8 above that the largest percentage of youth engaged in livestock farming.

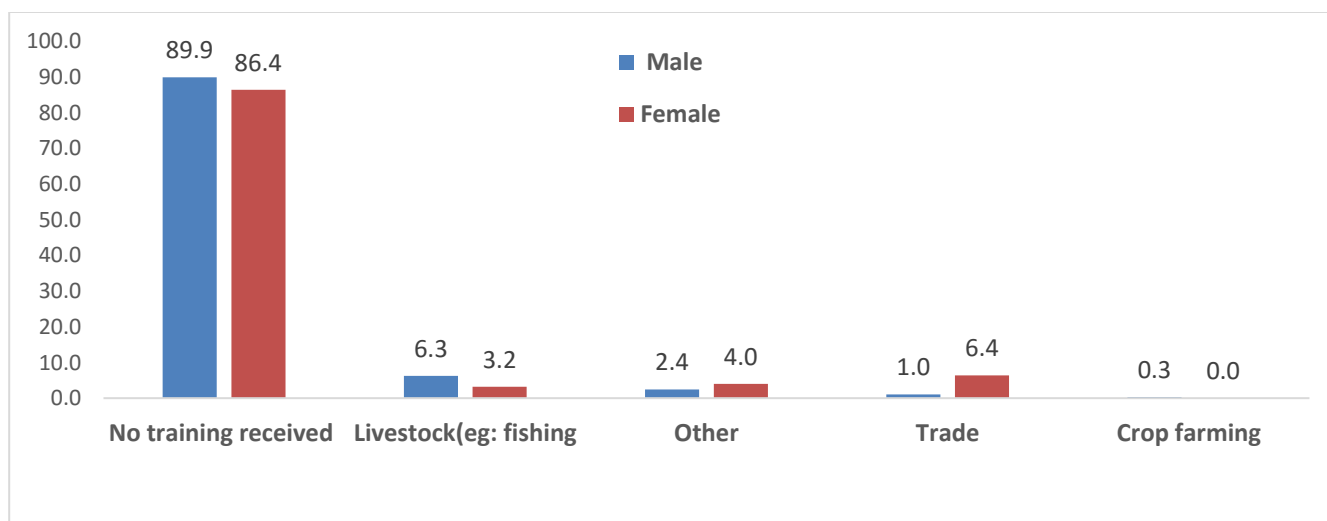
Figure 10. Types of trainings they received before starting business



PARI-Youth Cluster survey, 2019

Figure 12 presents the percentage of beneficiaries who did (not) receive training and the types of trainings they received after they established their businesses. Unfortunately, most of the youth engaged in self-employment business did not receive training after they started their business; around 90% of male and 86% of female respondents reported that they did not receive trainings. On the other hand, around 6% of male and 6% of female respondents received trainings about livestock and trade, respectively.

Figure 11. Types of trainings they received after starting business



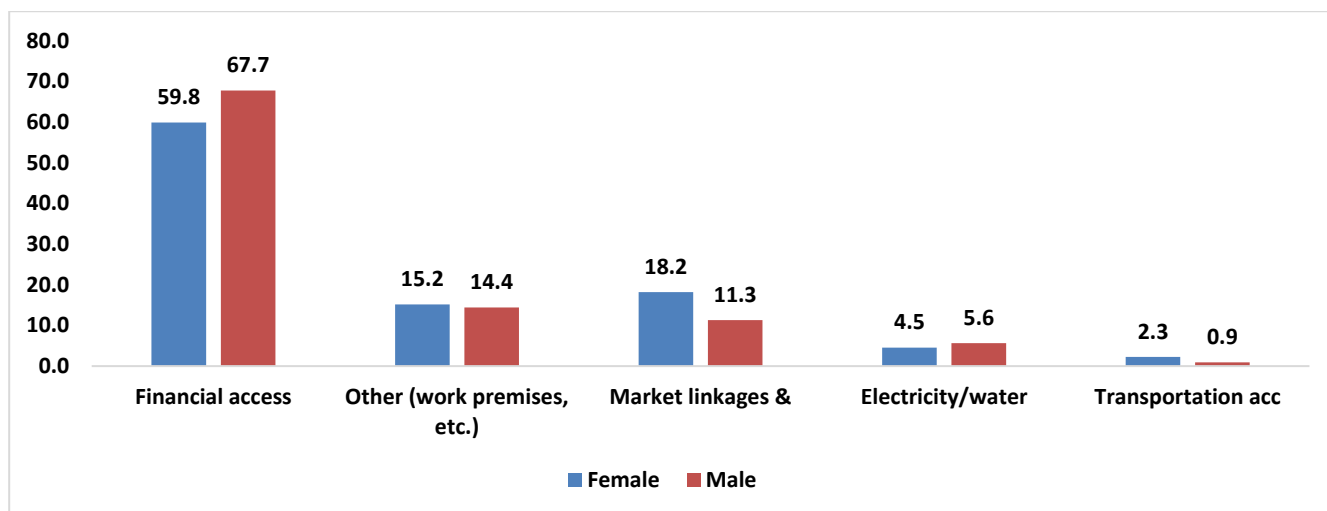
Source. PARI-Youth Cluster survey, 2019

Favorable and unfavorable conditions for business performance

Data was also collected from respondents with self-employment businesses about the conditions favoring their businesses and the main challenges they faced. Figures 13 and 14, respectively, presented the favorable and unfavorable conditions that the respondents reported, disaggregated by gender.

Figure 13 shows that financial access was rated as the main favorable condition for business performance; around 60% of female and 68% of male respondents reported that they had good financial access. This was not surprising since most of the respondents received financial access at relatively low interest rate. The work premises and the market linkages were reported as the second (by around 15% respondents) and the third (by about 13% of the respondents) favorable conditions.

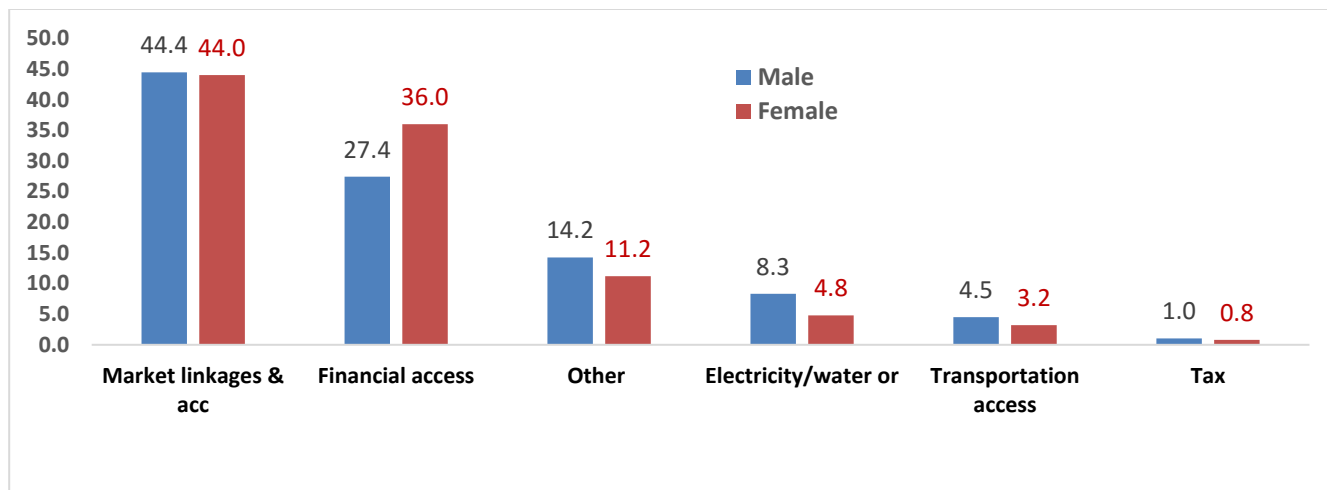
Figure 12. Favorable conditions for self-employment



Source. PARI-Youth cluster survey, 2019

Figure 14 presents the main challenges for the self-employment business that the respondents identified. Around 44% of the respondents stated that market linkage and access were their primary challenges. This was consistent with the result that Alebel et al. (2019) also observed in the Agricultural Growth Program, youth employment subcomponent. Finance problem was identified as the primary challenge by about 27% of male and 36% female respondents. Electricity, water and transportation access were also identified as main challenges to the businesses of a considerable percentage of respondents.

Figure 13. Unfavorable conditions (challenges) for self-employment business



Source. PARI-Youth cluster survey, 2019

Fund amount and returns from self-employment businesses

Table 9 presents the percentage of youth who received fund, the average amount of fund they received, the average number of members in a business owned in groups, the number of months it took them, on average, to get the loan after they applied for and the average monthly earned per-capita income from the businesses.

Fund amount received

The results in Table 9 show that around 85% of female and 97% of male respondents from the treatment group (and none from the control group) received fund. As stated earlier, the list of the beneficiaries from the woredas we sampled from was acquired, and all of the respondents from the beneficiary groups were expected to have received fund. However, 15% female and 3% male respondents responded that they did not receive fund; probably they got other types of supports from the government such as working premises and training.

Table 9 also shows that there was statistically significant gender difference in the average amount of fund received; male beneficiaries in a business group received about 43,105 ETB (1380 USD at 1USD = 31.2425 ETB, a rate on 9 December 2019) more fund than their female counterparts. To observe whether part of this gender difference in the average amount of the fund was because of the difference in the group size of the female and male youth engaged in a business, the average number of members in a business group and the per capita loan by gender were compared. Indeed, the average number of members in a business group was discovered to be higher among the male respondents than among the female respondents and the difference was significant though only at 10% level of significance. Consequently, the gender difference in the per capita amount of fund they received was 12,114 ETB, which was smaller than 43,105 ETB (the gender difference in the amount of fund received without control for the group sizes in a business). Table 9 also shows that around 47% of female and 44% of male respondents worked alone in the self-employment business. Both male and female youth working

alone received more than double per capita fund than the per capita fund that the youth working in groups received.

Respondents noted that it took them, on average, around five months to receive the fund after they had submitted their application for the fund. This may have resulted in additional cost for the youth since they may have to rented premises and/or other inputs such as land before receiving the fund.

Working hours and underemployment

Respondents reported that they worked for an average 8.4 hours a day and around 6 days a week. They also worked about 10 months in their self-employment jobs in the last 12 months. However, around 60% of female and 71% of male respondents reported that they needed additional job of about 30 and 28 hours per week, respectively; they demanded a minimum wage of 1,259 ETB and 1,688 ETB, respectively for the extra hours they have, with which they were willing to do additional jobs. This, probably indicated that there was disguised employment in the businesses, which is consistent with the observation of Alebel et al. (2019) for similar youth employment program where the youth worked in groups – a requirement to get support. Moreover, 30% female and 28% male respondent indicated to change their self-employed jobs. There was no significant difference in working hours and days based on gender

Table 9. Fund amount and performance of the businesses

Indicators	No. of obs.		Mean/percent (female)	Mean/percent (male)	Mean/percentage difference	P- value
	Female	Male				
Received fund (beneficiaries), %	106	279	85	97	-12	0.0000
Average amount of fund obtained for the business, ETB	106	279	138,592	181,696	-43,105	0.0082
Average No. of group size working in the same business in the self-employment job	132	319	2.9	3.5	-0.6	0.0870
Average per-capita fund	106	279	66,403	78,517	12,114	0.0686

Average per-capita fund for youth working in groups	64	165	45,097	51,339	-6,242	0.3209
Average per-capita fund for youth working alone	42	114	98,871	117,855	-18,985	0.0698
Youth working alone in the self-employment job, %	62	140	47	44	3	
Months it took to get the loan after application	106	279	5.04	5.4	-.36	.455
Average working hours per day	132	319	8.3	8.5	-0.2	0.5716
Average working days per week	132	319	6.1	5.9	0.2	0.3674
No. of months worked at the self-employment job in the last 12 months	132	319	10	9.8	0.2	0.5511
Need new job to replace the current self-employing job, %	36	68	38	27	9	
Need new job in addition to the current self-employing job	58	180	60	71	-11	
No. of additional hours of work needed per week	58	180	30	28	2	0.4201
Average minimum acceptable wage demanded for the additional hours of work	58	180	1259	1688	-430	0.2151

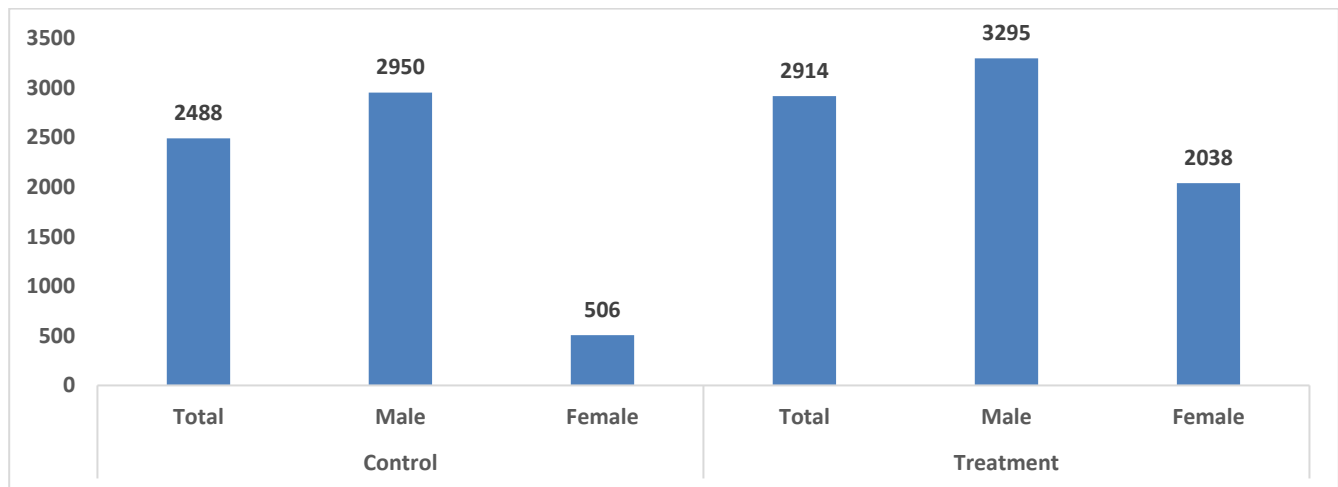
Source. PARI-Youth cluster survey, 2019

Income from self-employment and its determinants

Income from self-employment

Figure 15 presents the income (after tax) that respondents obtained from self-employment, by treatment status and gender. It must be noted that none of the control group respondents who had self-employment jobs received fund. Note also that there were only seven female and 30 male respondents from the control group who stated that they had self-employment job. The results are presented in Figure 15. The respondents reported that they obtained, on average, 2,879 ETB (92.2 USD)¹ per month. This income was slightly higher than the average salary at leather and agro-processing factories in Ethiopia (Abebe et al., 2019²). The respondents from the treatment group earned around 17% more monthly income than what respondents from the control groups earned, but the difference was not significant. The difference between the control and the treatment groups was higher for female respondents, in that female respondents from the treatment group earned around 4 times more income than what female respondents in the control group obtained, probably because female respondents from the treatment group obtained loan while those in the control group did not. There was also substantial gender earning difference within the same treatment status. For instance, male respondents in the control and treatment groups earned respectively 5.8 and 1.6 times more than female respondents from the control and the treatment groups earned, respectively. This could be partly because of the economies of scale associated with relatively higher per capita fund that male respondents obtained than that of female respondents obtained.

Figure 14. After tax monthly income from self-employment by gender and treatment status.



Source. PARI-Youth Cluster survey, 2019

¹ 1 USD = 31.2425 ETB – the USD buying rate on 09 December 2019.

² Girum Abebe, Gebeyehu Manie and Tigabu D. Getahun (2019). A baseline report for the ILO programme “Advancing Decent Work and Inclusive Industrialization in Ethiopia

Determinants of income

Two Ordinary Least Square (OLS) regressions were carried out to investigate the variations of income. The first regression involved the regression of after-tax income from self-employment that the beneficiaries earned. This regression was conducted only for beneficiaries since we were interested in investigating the impact of the per capita loan (fund) amount, which only beneficiaries received on the return from self-employment. The results are presented in the middle column of Table 10. The second OLS regression involved the factors affecting the after-tax income from both self-employment and from wage employment. We excluded the amount of fund that the youth obtained from the regression equation and instead included a beneficiary (treatment) dummy to investigate any variations in income between the control and the treatment groups. We only considered samples from the control group who stated that they had self-employment or wage employment income since our interest was to assess the impact of the treatment on income for youth who had jobs. The results are presented in the last column of Table 10. The dependent variables are the natural logarithm of the above stated incomes. We controlled for the characteristics of the self-employment business, the characteristics of the respondent and district (woreda) heterogeneities. The results should be considered with reservation since failed businesses were not included in our sample and since the results suffered from the common limitation of cross-sectional data, including inconsistencies because of unobserved and time-invariant and time-varying individual heterogeneities.

The models fit well in both regressions. The independent variables were jointly significant in both regression results (p -value = 0.0000) as can be seen in the last rows of the table. Moreover, most of the covariates had the expected sign. When taken separately many of the independent variables were not, however, statistically significant at the standard significance levels.

The results presented in the middle column of Table 10 show that income per group member decreased with the group size. Specifically, the result shows that after-tax income that each youth decreased by about 10%, on average, as the group size of the youth working in jointly owned businesses increased by one, controlling for other factors. This could be because the sizes of the businesses were too small to create full-time job for each of the shareholders of the business. In a qualitative study about the performance of self-employment businesses established by the common interest groups in the Agricultural Growth Program (running since 2011), one of the most frequent complaints about the project was that the size of the loan has been too small to fully employ the group members of the businesses. We also found statistically and economically significant gender difference in earning. The results show that male respondents earned, on average, around 30% more income than the female respondents. This was consistent with the descriptive results presented earlier. Unexpected result was that the youth who had higher work experience earned less income. However, most of the covariates were statistically insignificant. For instance, the logarithm of the per capita funding amount and the length of months of operation of the business had positive but statistically insignificant effects on net income.

The last column presents the regression results that show the variations in the natural logarithm of income that the youth obtained from wage and self-employment. The results show that the youth who

benefited from interventions particularly from YRF earned, on average, 47.1% more income than the non-beneficiaries, with other factors controlled. This is intuitive as the beneficiary youth received either fund or training about business, which may increase the income from the self-employment job. The results further show that male youth earned, on average, 48%, more income than female, ceteris paribus. This could be partly because male youth received higher loan than female youth. Except work experience (which had an expected result) the rest of the independents had statistically insignificant effects.

Table 1. Determinants of after-tax income from self-employment and from both wage and self-employment

Independent variables	OLS	
	Log of income from self-employment	Log of income from self-employment and wage employment
Beneficiary (treatment) dummy		0.471** (2.61)
Log of per capita fund received	0.156 (1.58)	
Months of business operation	0.00339 (1.46)	0.00273 (1.42)
Amhara region	0.0448 (0.20)	-0.0358 (-0.18)
Group size in a business	-0.100** (-3.31)	-0.100*** (-4.52)
Received training before starting the business	-0.208 (-1.42)	-0.162 (-1.21)
Received training after starting the business	0.112 (0.69)	0.0788 (0.51)
Attended apprenticeship training	0.0427 (0.27)	0.0813 (0.60)
Took entrepreneurship training	0.0347 (0.28)	0.0774 (0.68)
Male respondent	0.300* (2.48)	0.484*** (4.41)

Age of respondent	0.0143 (1.11)	0.00944 (0.72)
Household size	0.0212 (0.64)	0.0167 (0.52)
Number of children	-0.0366 (-0.55)	0.0308 (0.50)
Years of work experience of the respondents	-0.0397* (-2.37)	-0.0372* (-2.25)
Knows how to browse internet	0.0810 (0.61)	0.139 (1.16)
Uses Facebook for business contact	-0.241 (-0.90)	-0.140 (-0.58)
District dummies	Yes	Yes
Constant	5.861*** (4.66)	7.085*** (18.64)
<i>N</i>	374	442
	F(20, 353) = 7.81	F(20, 421) = 7.64
	Prob > F = 0.0000	Prob > F = 0.0000
	R-squared = 0.2473	R-squared = 0.2303

t statistics from robust standard error in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Youth employment initiatives available and known to youth

In this section, results about the availability and implementation performance of youth employment initiatives that the respondents were aware of in their districts (woredas) are presented. The results were disaggregated by treatment status since the level of knowledge and satisfaction of the control and treatment groups may vary. The results are presented in Tables 11 and 12 as well as in Figure 16.

Table 11 presents the types of youth employment programs that the respondents identified in their districts and their satisfaction level about the programs. The respondents identified the Youth Revolving Fund (YRF), Common Interest Group (CIG) (part of the Agricultural Growth Program), the credits by the microfinance institutions (MFI) and a number of other programs as programs they know about in their districts. The YRF is the most frequently identified primary program by both the control (43%) and treatment (73%) respondents. Moreover, around 14.6% of the treatment group and 4.3% of the control group respondents mentioned MFI as job creating programs. Respondents were asked how much satisfied they were with the performance of the programs they identified in their districts. Around 32% of the respondents from the treatment group and 20% from the control group

responded that they were very satisfied with YRF program. Also, about two-third of the control group respondents and 59% of the treatment group were satisfied with the performance of the YRF. More than half of the respondents from the two groups responded that they were also satisfied with the performance of MFIs.

Table 2. Availability and level of satisfaction of programmers implemented in the districts

Initiatives	Percent of respondents who know about youth employment initiatives in their district		Satisfaction levels about the programs					
			<u>Very Satisfied</u>		<u>Satisfied</u>		<u>Not satisfied</u>	
			Control	Treatment	Control	Treatment	Control	Treatment
YRF	43.3	72.5	20.0	32.3	66.7	59.4	13.3	8.3
MFI	4.3	14.6	11.1	21.3	44.4	63.9	44.4	14.8
CIG	0.0	1.4	-	83.3	-	16.7	-	0.0
Other	6.3	6.9	23.1	24.1	53.8	72.4	23.1	3.4

Source. PARI-Youth cluster survey, 2019

Table 12 presents the self-reported benefits that the respondents mentioned from the youth job opportunity creation programs that they identified. Around 13% of the respondents from the treatment group and 8% from the control group mentioned that they got employment benefit from the YRF. Expectedly, around 84% of the youth from the treatment group and around 2% from the control group noted that they benefited credit access from the YRF. Probably, the 2% respondents from the control group who mentioned that they received fund from the YRF were registered again as unemployed to get more fund or because the districts failed to update the list of the unemployment youth they registered. Around 89% of the respondents expectedly responded that they did not individually benefit from the YRF. Moreover, while none of the respondents who mentioned MFI as one of the employment programs from the control group reported that they got any benefit from MFI, around 90% of the respondents mentioned fund benefit from MFIs.

Table 3. Benefits respondents received from the initiatives

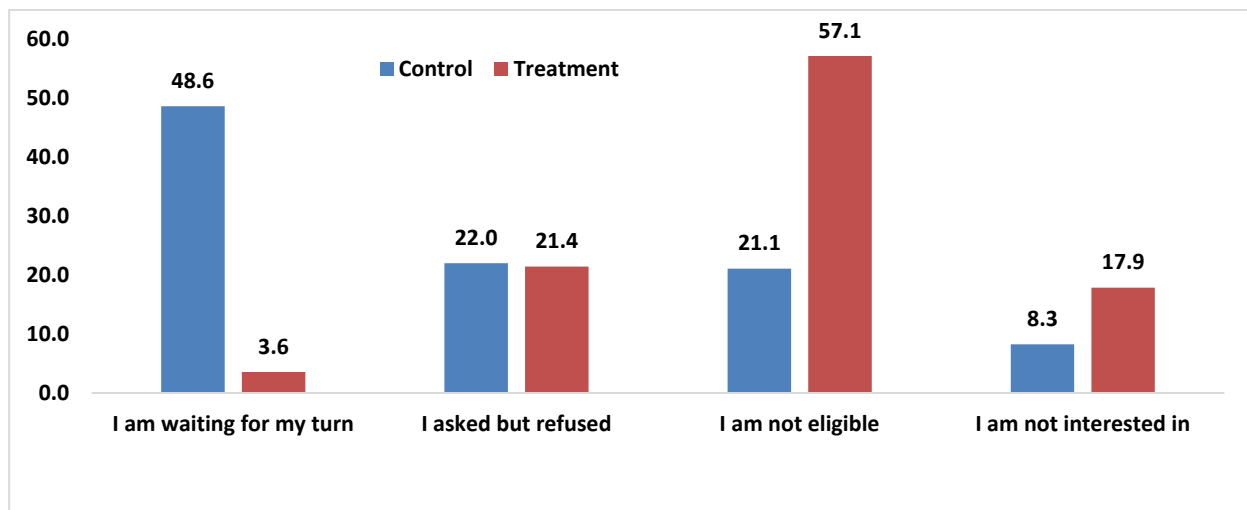
Initiatives	Types of benefits they got as individuals*							
	Employment Benefit		Training Benefits		Cash/fund benefit		No benefit as individual	
	Control	Treatment	Control	Treatment	Control	Treatment	Control	Treatment
YRF	7.8	12.5	1.1	0.3	2.2	83.5	88.9	3.6
MFI	0.0	0.0	0.0	0.0	0.0	90	100.0	8.2
CIG	-	16.7	-	16.7	-	66.7	-	0.0
Other	0.0	3.4	23.1	10.3	0.0	20.7	76.9	37.9

Note: * indicates that the percentages are computed among the youth who reported awareness of the program.

Source. PARI-Youth cluster survey, 2019

Respondents who indicated that they did not benefit from the programs were asked the reasons why they were yet to benefit from the programs. Figure 16 presents the results disaggregated by treatment status. Around 49% of the youth from the control group and around 4% from the treatment group who claimed that they did not benefit from the programs stated that they applied for and were waiting for their turn to benefit from the programs. Whereas, around 22% of the control group and 21% from the treatment group stated that their applications to benefit from the programs were rejected. The largest percentage of the respondents from the treatment group reported that they did not benefit directly from the programs since they were not eligible to benefit. Around 8% from the control group and 18% from the treatment group stated that they did not benefit from the programs since they were not interested in the programs.

Figure 15. Reasons identified as the factors for youth not to benefit from empowerment programs



Source. PARI-Youth cluster survey, 2019

Untapped opportunities

Untapped opportunities that the respondents identified in their areas, the reasons why they are untapped, disaggregated by treatment status and gender of the respondent is presented in this section.

Around 64% of the youth identified at least one untapped opportunity for employment and business for the youth in their districts while around 26% of the respondents failed to identify any untapped opportunity in their districts. The main business and employment areas that the respondents mentioned as untapped opportunities include:

Farming (both crop and livestock) and farm trading including inputs for farming

Mining

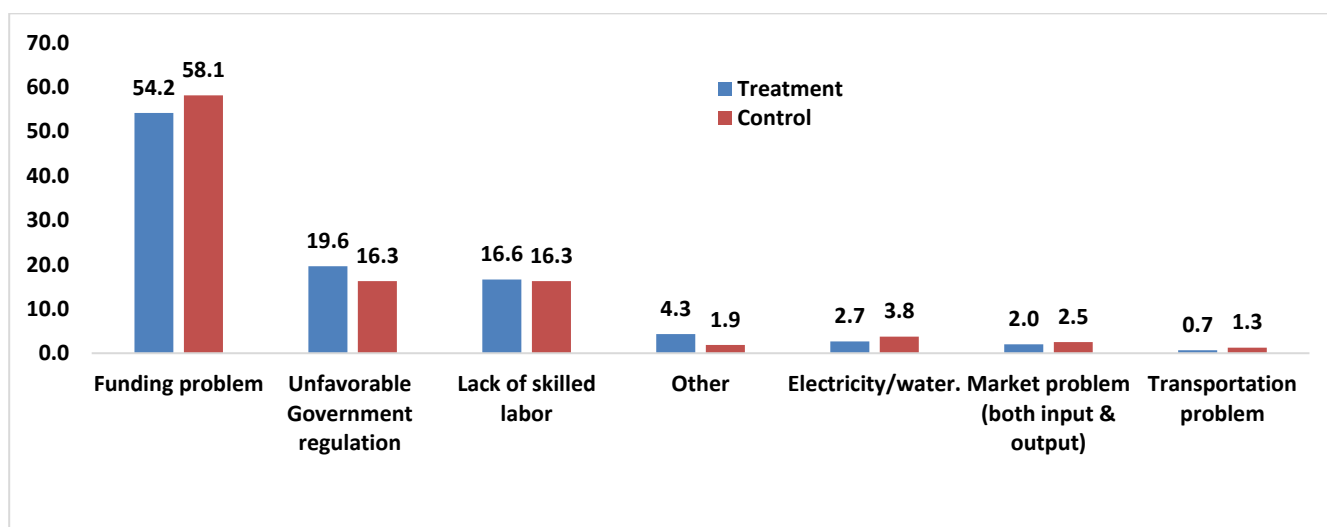
Electronics maintenance and retail

Hotel and food processing

Various types of service provisions

Figure 17 presents the reasons why the respondents thought that the opportunities remain untapped. Working capital shortage and credit inaccessibility were considered major reasons hindering exploitation of untapped opportunities. Around 54% of the treatment group and 58% of the control group respondents cited this problem as the primary factor for the untapped employment and business opportunities to have remained untapped. Unfavorable government regulations and bureaucracies cited as the second most important factor hindering the exploitation of untapped opportunity while lack of skilled labor was mentioned as the third largest obstacle. Other cited factors contributing to the untapped employment potentials to have remained untapped included access to utilities (electricity and water), input and output market; and transportation challenges.

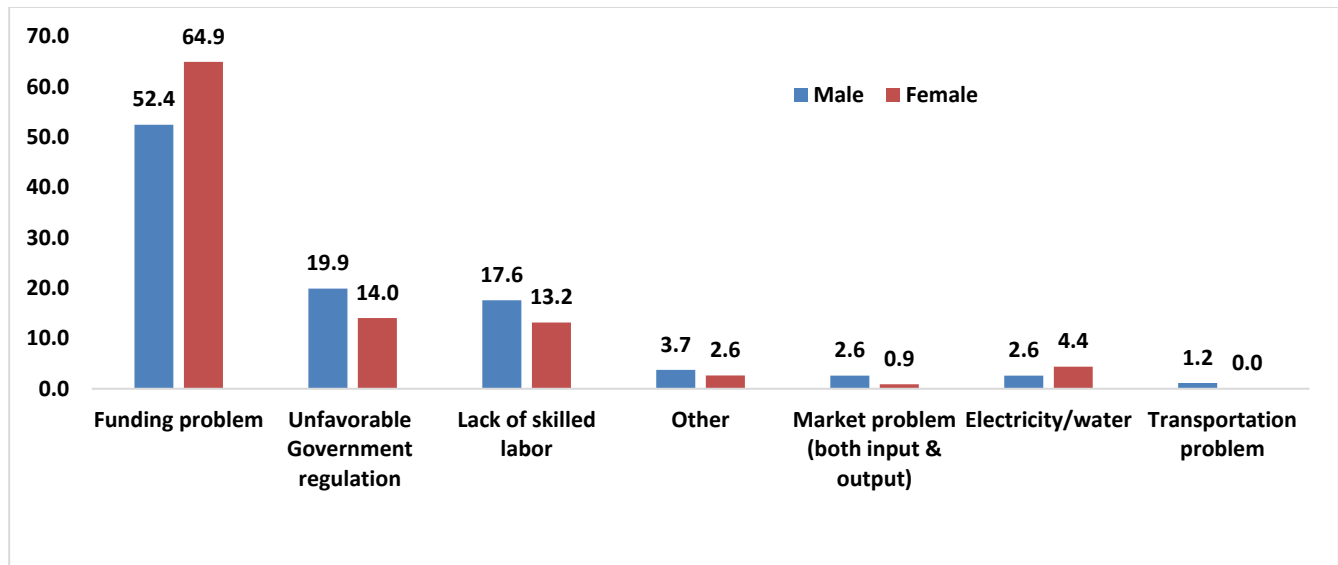
Figure 16. Reasons why untapped opportunities were still untapped



Source. PARI-Youth cluster survey, 2019

To examine the factors hindering exploitation of untapped opportunities by gender, we disaggregated the mentioned factors by gender of the respondents as shown in Figure 18. The results show that higher percentage of female respondent than male respondents faced financial access problem. The rest of the factors affecting exploitation of untapped opportunities were fairly similar for female and male respondents.

Figure 17. Reasons why untapped opportunities are still untapped



Source. PARI-Youth cluster survey, 2019

As a solution to exploit the untapped opportunities, create job opportunities and to improve the welfare of the rural youth, the respondents suggested the need to address the problems they identified.

Conclusion and Recommendations

Data from 626 respondents from rural areas of the two most populous regions in Ethiopia were used to examine the employment conditions of the youth and to assess the performance of the rural youth employment creation initiatives. The survey also identified untapped employment opportunities and to find the reasons as to why they remain untapped. Around two-third of the respondents were selected from the sampling frame we received from woreda government officials as youth who benefited from job creation opportunities created by the government. The rest were selected from the sampling frame of registered youth who were waiting for their turn to benefit from the interventions.

The results show that all but one respondent from the treatment group reported that they had work experience. Whereas around 46% of the youth from the control group reported that they ever had a job or created income generating activities of their own. Also, 47% of the control group indicated that they worked in any job including family work, self-employment job and wage employment in the last 30 days preceding the interview period.

Around 72% of the control group and 88% of the treatment group responded that they asked local officials to support and help them to get jobs. Around 84% of the respondents from the control group reported that the officials promised to help them in the future while around 87% of the respondents from the treatment group reported that government officials helped them to secure jobs.

The implementation guideline of the YRF requires that government officials to arrange and provide training; and consultation for the youth to access funds, and to provide continuous support and consultation. Results show, however, that only around 58% of male and 61% of female beneficiaries received trainings before they established their businesses. Unfortunately, most of the youth who engaged in businesses did not receive training after they started their businesses; around 90% of male and 86% of female respondents reported that they did not receive

Regarding access to fund, around 85% of female and 97% of male respondents from the treatment group (and none from the control group) received fund used to establish their self-employment businesses. It was observed that significant difference existed in the average amount of fund received based on gender. Male beneficiaries in a business group received, on average, 43,105 ETB (1,380 USD at 1USD = 31.2425 ETB, a rate on 9 December 2019). This was more than the fund that their female counterparts received. The gender difference in the per capita amount of fund received declined to 12,114 ETB, however, when we controlled for the gender difference in the number of members in businesses run by groups; the average number of group members in male-operated businesses (3.5) was larger than female-operated businesses (2.9).

Around 47% of female and 44% of male respondents worked alone in self-employed businesses. Both male and female youth who worked alone received more than double per capita fund than the per capita fund that youth who worked in groups received. Respondents noted that it took them, on average, around five months to receive the fund after they had submitted their application for the fund. This may have resulted in additional cost for the youth since they might have had to rent premises and/or other inputs such as land to before accessing fund.

The respondents identified the Youth Revolving Fund (YRF), Common Interest Group (CIG) (part of the Agricultural Growth Program), the credits by the microfinance institutions (MFI) and a number of other programs as programs being implemented in their districts. More than half of the respondents from the two groups also indicated their satisfaction with the performances of YRF and MFIs. Around 49% of the youth from the control group and around 4% from the treatment group who claimed that they did not benefit from the programs stated that they applied and were waiting for their turn to benefit from the programs. Whereas, around 22% of the control group and 21% from the treatment group reported that their applications were rejected. The largest percentage of the respondents from the treatment group reported that they did not benefit directly from the programs since they were not eligible to benefit.

Regarding untapped and under-tapped employment opportunities, around 64% of the youth identified at least one untapped opportunity for employment and business for the youth in their districts while around 26% of the respondents failed to identify any untapped opportunity in their districts. Business and employment areas that the respondents mentioned as untapped opportunity included farming, mining, electronics, hotel and food processing and provision of various services.

The respondents identified working capital shortage and credit inaccessibility as the major reasons hindering exploitation of untapped opportunities. Around 54% of the treatment group and 58% of the control group respondents cited this problem as the primary factor why untapped employment and

business opportunities remained untapped. Unfavorable government regulations and bureaucracies were cited as the second most important factor hindering the exploitation of untapped opportunity while lack of skilled labor was mentioned as the third largest obstacle. Other cited factors why untapped employment potentials to remained unexploited included access to utilities (electricity and water), input and output market problem; and transportation problems.

Based on the results of this study and key informant interviews conducted at the districts, the following are our recommendations.

Some of the youth are performing great in that they even created job opportunities for others. These youth should be encouraged and lessons from these youth should be shared (through experience sharing programs, media, etc.) for other youth who are struggling in their businesses.

We suggest that the full employment packages should be properly implemented. As observed, less than two-third and less than 10% of the beneficiaries (i.e., who received fund) received training, respectively before and after they established their businesses while the implementation guideline of the programs required that the youth should have been trained and offered consultation services both before and after they established their businesses.

Most of the youth identified untapped opportunities in their districts and they cited lack of financial access, unfavorable government regulations and lack of skilled labor as the three top reasons why untapped opportunities remained untapped. Addressing these constraints along with complementary investments such as improving electricity access and transportation could create job opportunities.

Our study and previous similar studies indicated that the youth, having little business experience, usually faced challenges to get both input and output market access after they had established their businesses. Therefore, creating market linkages and providing business related skills for the youth could improve the performance of the businesses been established by them.

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Appendix

Table 4. Explanation of variables used on the regression functions

Variable	Explanation	Mean	Std. Dev.
Treatment	A dummy variable taking the value one of the youth if a beneficiary of employment program, and zero otherwise	0.92	0.28
income from self-employment	Per youth average income earned from self-employment	2924.14	6832.03
Income from self or wage employment	Income from self or wage employment per youth	3011	6739
Per capita fund amount received, ETB	Amount of fund received per youth	75706	58571
Months of business operation	Months of business operation	26.46	30.29
Amhara region	A dummy variable taking the value one if the respondent is from Amhara region and zero otherwise	0.54	0.50
Group size in a business	The number of members of shareholders in the self-employment business	3.30	3.43
Received training before starting the business	A dummy variable taking the value one if the youth received training before starting business, and zero otherwise	0.39	0.49
Received training after starting the business	A dummy variable taking the value one if the youth received training after starting business, and zero otherwise	0.08	0.27
Attended apprenticeship training	A dummy variable taking the value one if the youth attended apprenticeship, and zero otherwise	0.26	0.44
Took entrepreneurship training	A dummy variable taking the value one if the youth attended entrepreneurship training and zero otherwise	0.40	0.49

Male respondent	A dummy variable taking the value one if the respondent is male, and zero otherwise	0.68	0.47
Age of respondent	Age in years of the respondent	25.47	4.28
Household size	Number of household members living in the same house	4.05	2.21
Number of children	Number of children the respondent has	1.05	1.15
Years of work experience of the respondents	Years of work experience of the respondents	4.46	3.93
Knows how to browse internet	A dummy variable taking the value one if the respondent can browse internet and zero otherwise	0.36	0.48
Use facebook for business contact	A dummy variable taking the value one if the respondent uses Facebook for business contact and zero otherwise	0.14	0.34