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Factors Affecting Youth Employment in Ethiopia: A combination of attitudes, behaviors, interventions, and context

Report by

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USAID Cooperative Agreement

AID-663-A-15-00006 and the implementation team includes Save the Children (SCI) and its partners Education Development Center, Inc. (EDC), HUNDEE-Oromo Grassroots Development Initiative (HUNDEE), Professional Alliance for Development in Ethiopia (PADet), Relief Society of Tigray (REST) and Facilitator for Change Ethiopia (FCE). The contents of this report are the responsibility of authors and do not necessarily reflect the views of USAID or the United States Government.

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Executive Summary

The United States Agency for International Development (USAID) program, Building the Potential of Youth Activity (POTENTIAL) was designed to address unemployment and underemployment of youth 15 to 29 years of age in rural areas and towns (peri-urban settlements), to attain skills, knowledge, and social capital that leads to increased income and long-term economic self-sufficiency for youth and their households. POTENTIAL plans to directly benefit 34,537 youth in Afar, Amhara, Oromia, SNNP, Somali, and Tigray Regional States with a total budget of \$5 million USD over five and one-half years. Youth POTENTIAL (here after referred to as YP Activity, or YPA) is guided by the principles of meaningful youth engagement, leveraging community, public and private partnerships, collaboration, learning, gender equity, and market orientation.

In 2017, USAID contracted with Social Impact (SI) to implement the Ethiopia Performance Monitoring and Evaluation Service (EPMES) Activity, which a youth cohort study (YCS) of the same 458 youth 15-29 years of age in the YPA was conducted over a period of 12 months. In 2018, the EPMES concluded YPA, "*A significant increase in self-employment was recorded among study respondents between the time of enrollment in the YP Activity and twelve months following the enrollment.*" However, the YCS did not examine factors associated with youth gaining employment, especially self-employment, which was larger than gains in wage employment. Using data from interviews from a randomly selected representative sample of youth in the YPA in 2017, multivariate regression analysis was used to investigate factors that were meaningfully related to helping youth gaining self-employment after graduating from YPA.

Study design – Six-months after graduating from YPA in 2017, a follow-up outcome study was conducted from a randomly selected, representative sample of 2,072 from 5,000 youth ranging from 15 to 29 years of age.

Sample – Of these 2,072 sampled youth, 1,501 (732 young women and 769 young men) had entered YP unemployed and, thus, were included in this analysis on predictors of obtaining self-employment.

Research Questions and Analytic Strategy – This analysis attempts to answer three questions:

- 1) *Was the rate of unemployed young women gaining self-employment significantly different than unemployed men gaining self-employment 6-months after completing YPA training?*
- 2) *What are the best predictors of young women who entered YPA unemployed gaining self-employment 6-months after completing the training?*
- 3) *What are the best predictors of young men who entered the YPA unemployed gaining self-employment 6-months after completing the training?*

The analytic strategy is based on the use of multivariate logistic regression models to test the statistical significance of a set of factors to predict the probability of self-employment among young women and young men who entered YPA unemployed.

Main findings – Young women were 35% less likely to have gained new employment than young men (OR 0.650, CI: 0.52 to 0.81), but the effect-size of this difference is very small ($\eta^2 = 0.001$) and, thus, is not

considered meaningfully significant; therefore, separate analyses were conducted to examine predictors of self-employment for young women and men separately.

Predictors of Self-Employment Among Young Women – Five factors were found to be statistically significant as well as having a meaningful effect-size on gaining self-employment:

- 1) Gaining critical employment attitudes, especially regarding self-employment, such as a desire to start saving & putting away money, acceptance that it is possible to develop or improve one's livelihood and employment opportunities, awareness of how to interact with customers, taking initiative to seek resources and opportunities.
- 2) Having a practice of saving money.
- 3) Participating in YPA's post-training support activity of individual coaching.
- 4) Receiving financial support from family, group saving, and/or local microfinance institutions.
- 5) Residing in particular regions of the program area more than other regions.

Predictors of Self-Employment Among Young Men – Four factors were found to be statistically significant as well as having a meaningful effect-size on gaining employment:

- 1) Participating in YPA's post-training support activity of individual coaching.
- 2) Gaining critical employment attitudes, especially for self-employment.
- 3) Having a habit (behavior) of saving money.
- 4) Residing in particular regions of the program area more than other regions.

Conclusion

YPA uses a positive youth development approach, which promotes trainings and activities that help instill within youth a belief in their capability (self-efficacy) to plan and achieve short- to long-term goals. These trainings and activities include 1) developing positive, but realistic, attitudes toward one-self and capabilities by use of self-appraisal, reflection and behavioral change, 2) knowledge of where and how to search or generate a job, sources for financial support, 3) experiential training through work-based learning, 4) successful entrepreneurial models mentoring youth, 5) post-training follow-up and coaching to provide support to youth in fulfilling their personal development plan, and 6) family and community support.

Young women and men in this study had the following factors meaningfully associated with becoming self-employed after completing YPA: **gaining a belief and new attitudes about the possibility to creating their own, or finding, employment within their community or nearby where they lived; previous practice or learning to save during YPA; after completing the YPA, having a coach to provide both advice and encouragement in finding employment.**

The main difference between young women and men in this study was that receiving financial resources was significantly associated with gaining self-employment for young women but not young men.

A critical finding was that context matters! That is, for both young women and men, the region where they lived was statistically significantly related to gaining self-employment. All though more investigation is needed to better understand why region differences exist in obtaining self-employment, most likely these differences are due to disproportionate opportunities and barriers related to economic conditions (e.g., availability of wage labor), service infrastructure, community support, cultural norm and practices, level of social cohesion, as well as natural environmental conditions.

Recommendations Based on Findings

1. *Support youth to develop new attitudes toward self-employment* – many YPA youth had the attitude that they will gain skills but then wait for employment opportunities to come to them through an opening in government related job or a private business hiring new workers; however, these employment opportunities are rare and few. Those YPA youth who develop a new and positive attitude and outlook about the potential for identifying employment opportunities and creating a livelihood for themselves in their community, and nearby area, were much more likely to be self-employed. **Therefore, youth employment programming in Ethiopia must focus on changing the attitudes of youth to being actively engaged in identifying and creating their own employment opportunities where they live, that is, in their own**

community and local area.

2. *Support youth to develop a habit of saving* – YPA youth who started savings on their own or were involved in the Youth Economic and Social Groups, which included a saving component, were more likely to be self-employed. **Therefore, future youth employment programs in Ethiopia should explicitly include a savings component.**

3. *Support youth after the initial training through dedicated and active coaching* – training is a necessary but not sufficient by itself to help youth find new employment or diversify their employment opportunities. YPA youth who received post-training coaching were much more likely to be self-employed; however, having coaches requires having a substantial number of coaching volunteers who are willing to dedicate the necessary time to actively tutor and advise many youth. **Therefore, youth employment programs should be designed with a post-training coaching component that is adequately staffed and funded.**

4. *Increase access to informal and formal financial resources for young women* – one characteristic meaningfully associated with self-employment only among young women and not young men was access to financial resources, both informal (family) and formal (micro-credit). **Future employment programs for young women need to include a behavioral change component to change the socio-cultural and institutional barriers that hinder supporting young women in entrepreneur activities as well as addressing structural constraints that directly obstruct young women from accessing formal credit.**

5. *Support an incubation period for youth to explore different employment opportunities* – during the program, youth investigated various employment opportunities within their communities, but often youth were uncertain which opportunity was suitable to their interest and skills. **Therefore, youth employment programs should consider an incubation period where youth can, with appropriate support and coaching, try out work in different sectors and determine an employment pathway that best suits their skills and interest.**

6. *Adapt youth employment programs to address regional differences* – for both young women and men, context mattered in successfully gaining self-employment. Youth employment programs need to recognize that regional contexts provide different economic, social, cultural, and environmental opportunities and barriers for youth employment. **Therefore, youth employment programs in Ethiopia need to be tailored for the context where youth reside.**

Youth POTENTIAL

YPA is a cross-sectoral activity involving both human and social capital development and business development for youth in six regions, 30 Woredas (district) and 233 Kebeles (smallest government administrative unit) of Ethiopia. YPA supports USAID's economic growth and agriculture strategic results framework to demonstrate the potential of market-based agricultural development to reduce poverty and promote sustainable livelihoods for food insecure households and underutilized labor in productive and pastoral Ethiopia. YPA's strategic objective and intermediate results are designed to contribute to USAID Mission's Development Objective (DO) 3 for 2011 – 2018: Improved Learning Outcomes; Intermediate Result (IR)3.2: Improved Workforce Skills Development. YPA also has strong linkages to DO 1: Increased Economic Growth and Resiliency in Rural Ethiopia; IR 1.1: Improved performance of the agricultural sector and IR 1.2: Increased livelihood transition opportunities.

YPA's Theory of Change & Interventions

YPA's Theory of Change involves providing training for youth in self-awareness, social skills, and financial competencies through training youth with the expectation that youth will acquire these attitudes and skills, and once youth have these attitudes and skills they must be exposed to the world of work through mentor- and work-based learning opportunities. Skill acquisition and exposure to the world of work is assisted through group support, linkages with youth services, including job information, networking, individualized coaching, and mentoring.

YPA locally adapted a learning and training curriculum that support youth to achieve self-awareness, gain social-emotional skills, and learn financial competencies that are critical to youth empowerment and employability. Since 2015, YPA refined five trainings and experiences, which are listed below in the sequence that youth take them upon entering:

1. Positive Youth Development (PYD)

PYD involve youth reflecting and discussing two issues that best fit with YPA's objectives, which are:

- *Myself* – youth reflect and discuss a) dreaming and making one's dream a reality, b) planning and saving to realize ones' dreams, c) creating safe spaces for the realization of self-dreams, d) learning from the achievement of others (role models), e) managing resources to achieve success, f) differentiating need and want while planning savings and spending, and g) decision making.
- *My Community* – youth map their community, learning about their community's resources, and how they can contribute to their community.

2. Work Ready Now! (WRN!) Modules

WRN!, which is a curriculum and approach to deliver effective work readiness training to youth. WRN assists young people, especially in emerging economies, acquire transferable (soft) life skills needed to succeed in the workplace or in a livelihood. WRN has the following four sub-themes:¹

- *A Personal Development Module* that consists of values and skills, setting goals and making plans, earning new skills.
- *Interpersonal Communication Module* that encompasses skills of listening and speaking effectively, cooperating with others and skills of customer care.
- *Work Habits and Conduct Module* involving the acquisitions of skills of finding jobs and developing appropriate workplace behaviors and attitudes.
- *Leadership and Teamwork Module* containing skills of leadership (that we are all leaders), leading team (group cooperation) and leading problem solving processes and decision makings.

3. Be Your Own Boss (BYOB)

BYOB is a type of business venture where people individually or as a group operate their own businesses as self-directed entrepreneurs. This activity involves youth learning:

- *Business Owners* must be prepared, persistent, risk-takers, passionate, and visionaries.
- *Business Challenges* occur daily requiring the owner (s) to be prepared to tackle old and new challenges with creativeness and with unique business ideas.
- *Entrepreneurship* must acquire skills through market research and direct experiences (familiar with product demand, focus on customers, have an appropriate work place, ability to estimate prices, conduct product promotion, and production processes).
- *Business Operations* issues in which partnership and networking, identification of production and supply chains, and ensuring the security of the business are key elements.
- *Finance Handling/Business Budgeting* that includes separating personal and business expenses, allocating start-up capital, and using an accounting book, to mention a few.
- *The Business Plan*, which provides information about the business, products' marketing plan, design strategies on how to deal with competitors, regular monitoring of the business progress, and re-planning.

4. Work Based Learning (WBL)

WBL focuses on a) learning technical, academic, and employability skills by working in real work environments that is carried-out inside or outside the learning or training institute and integrates classroom curriculum and training with work place experiences.

The different types of WBL include:

- Job shadowing (school or institute sponsored career exploration).

¹ All of modules were properly adapted to the Ethiopian context, translated into the languages in the regions (i.e., Amharic, Affan Oromo, Tigrigna), and Woreda Officers and Youth Facilitators were trained in Trainer of Trainers sessions on them so that they could train youth in their respective woredas and kebeles

- Internship (transcending trainees from school/institute to workplace by offering hands-no experiences).
- Cooperative education (a cooperative agreement b/n training institutes and companies for joint practical training for trainees in the workshops of the companies).
- Mentorship (attaching an experienced employee with a group of trainees or pairing an experienced employee of a company with an individual trainee for practical guidance in certain skills).
- Apprenticeship (a contractual agreement between Technical Training Institutes and industries/companies so that trainees acquire skills and workplace ethics).
- Field trips to business or industries to enable trainees learn by observations and demonstrations;
- Learning through the provision of services to communities and institutions.
- School/institute-based learning where training and production units are located in the same institute.

5. Aflateen

Aflateen is designed for youth from 15 to 18 years of age. It focuses on social education (e.g., roles and responsibilities) and financial education (e.g., saving, spending, planning, and budgeting) with the aim of empowering young people to lead responsible lives and be positive agents of change.

Rational for Study & Analysis

In 2017, USAID contracted with Social Impact (SI) to implement the Ethiopia Performance Monitoring and Evaluation Service (EPMES) Activity, which a youth cohort study (YCS) of the same 458 youth 15-29 years of age in the YPA activity over a period of 12 months. In 2018, the EPMES concluded YP, “A significant increase in self-employment was recorded among study respondents between the time of enrollment in the YP Activity and twelve months following the enrollment.” Youth stated that self-employment was their primary “choice” of an income activity over wage employment because of the following reasons: I) greater income-generating potential; (ii) better and continuous source of income; and (iii) satisfaction of being one’s own “boss” and not having to report to somebody else. Wage employment opportunities are limited in these rural areas, which does leave few opportunities other than self-employment. Therefore, although there was a significant increase in self-employment, no investigation has been conducted regarding which factors are meaningfully associated with gaining self-employment.

In addition, one of the three Intermediate Results of YPA is to develop rigorous evidence to inform USAID and its development partners that include youth, Government of Ethiopia and NGOs, on appropriate, effective, and sustainable market-driven youth workforce development interventions. After 4-years of implementation, to date, no specific study has been conducted to investigate which characteristics of youth are the best predictors for obtaining employment after entering YPA. Knowing which characteristics are the best predictors of empowerment and employment among young women and men will inform YPA’s future programming and other youth workforce development interventions in Ethiopia.

Study Design

In 2017, YPA conducted its own Outcome Study to investigate the current status of youth who had completed YPA in the previous six months. The Outcome Study used a stratified, multistage random sampling technique. Out of 30 YPA woredas, 11 woredas were randomly selected in two strata, pastoralist and productive agriculture woredas. The sampling frame included almost 5000 youth who had completed YPA at least 6-months prior, that is by June 2017. Based on a confidence level of 95% and a confidence interval of 3% (or margin-of-error of +/- 1.5%), a sample of 2072 from 5000 youth were randomly selected for an interview.

In addition, since this study focuses on gaining employment, of these 2072 youth, 1501 youth had entered YPA unemployed and, thus, were included in this analysis.

Learning Objective and Research Questions

Learning objective: *To know which characteristics of young women and men entering YPA unemployed are the best predictors for gaining employment 6-months after completing the training?*

Research questions:

1. Was the rate of unemployed young women gaining employment significantly different than unemployed young men gaining employment 6-months after completing the training?
2. What factors are the best predictors of young women who entered Potential unemployed gaining employment 6-months after completing the training?
3. What factors are the best predictors of young men who entered Potential unemployed gaining employment 6-months after completing the training?

Analysis Plan

To answer the first research question, *Was the rate of obtaining self-employment significantly different between young women and men?* a Chi-square analysis of expected and observed values was used to test the association between gender and self-employment among youth who reported being employed 6-months after graduating from training and if there was a significant difference, how much.

To answer the second and third research questions, binomial logistic regression was used because the outcome variable, self-employment, is dichotomous (1=employed or 0=unemployed) and logistic regression finds the equation that best estimates the contribution of a set of variables that best predict each of the two self-employment groups. Other advantages to using logistic regression for these data are that it does not: 1) assume a linear relationship, 2) does not require normal distribution of the independent variables, and 3) generally, has no stringent requirements. Logistic regression is less robust when the binary outcome variable has less than a 25% / 75% response distribution. In this analysis, the response distribution is 35% unemployed and 65% self-employed, thus allowing for a more relatively robust logistic regression model.

Separate logistic regression models were run: one for young women and one for among young men. The set of variables that were included in the regression model, to predict the status of being employed among these youth, are described below. Logistic regression coefficients indicate whether or not a characteristic statistically significantly increases or decreases the odds of being employed or not. Statistical significance was based on the conventional p-values levels of 0.05 or lower.

Because of the large number of cases (1501 youth) included in this analysis, small differences in averages can be statistically significant even though they may not be practically meaningful (e.g., size of the effect).

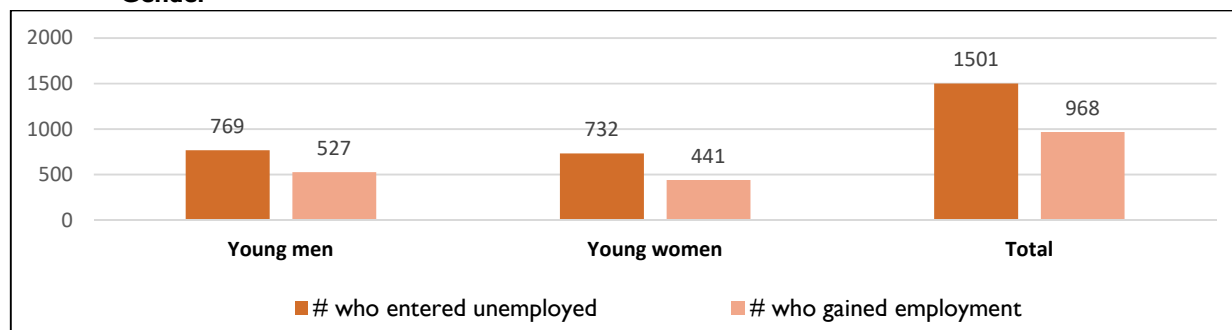
Therefore, the effect-size was examined for each statistically significant finding, using η^2 (eta squared) to assess how meaningful the finding is in practical terms. Cohen's rule-of-thumb is that an η^2 effect-size of 0.02 is small, 0.13 is medium, and 0.26 are large.² For this analysis, any effect-size greater than 0.07, which is the lower end of a medium or greater effect size will be considered a meaningful finding. Finally, 95% confidence intervals (CI) for each finding are reported.

Description of Outcome (Employment) Among Youth

Employment Outcomes - Young women – 15 to 29 years of age, comprise 48.8% (732 of the 1501) of the sampled youth who entered YPA unemployed are included in this analysis. Of these 732 young women, 441 (60.2%) gained new employment. Young men – 15 – 29 years of age, comprise 51.2% (769 of the 1501) of the youth who entered YPA unemployed are included in this analysis. Of these 769 young men, 527 (68.5%) gained new employment.

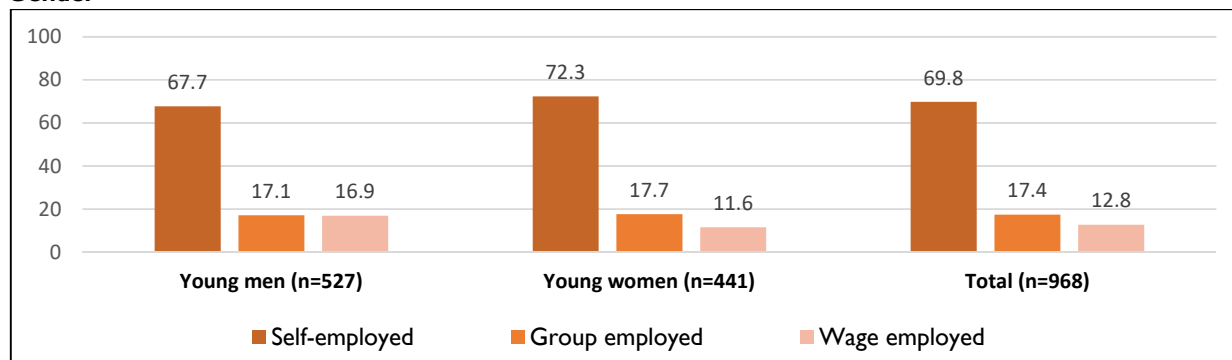
² Cohen, J (1988) Statistical power analysis for the behavioral sciences (2nd ed.). Hillsdale, NJ: Erlbaum.

Figure 1: Number of Youth Entering YPA Unemployed in 2017 & Gaining Employment 6-Months Later by Gender



Types of Employment - Young Women – Of the 441 young women who gained employment, 319 (72.3%) reported being self-employed, 78 (17.7%) group employed, and 51 (11.6%) wage-employed. A small percentage, (1.6% or 7), of young women reported being involved in two types of employment. For example, one young woman had her own small grocery store in addition to being employed by an NGO as a facilitator in a local education program. **Young men** – Of the 527 young men who became employed, 67.7% (or 357) reported being self-employed, 17.1% (or 90) reporting being group employed, and 16.9% (or 89) being wage employed. Similar to the young women, a small percentage (1.7% or 9) employed young men reported two types of employment.

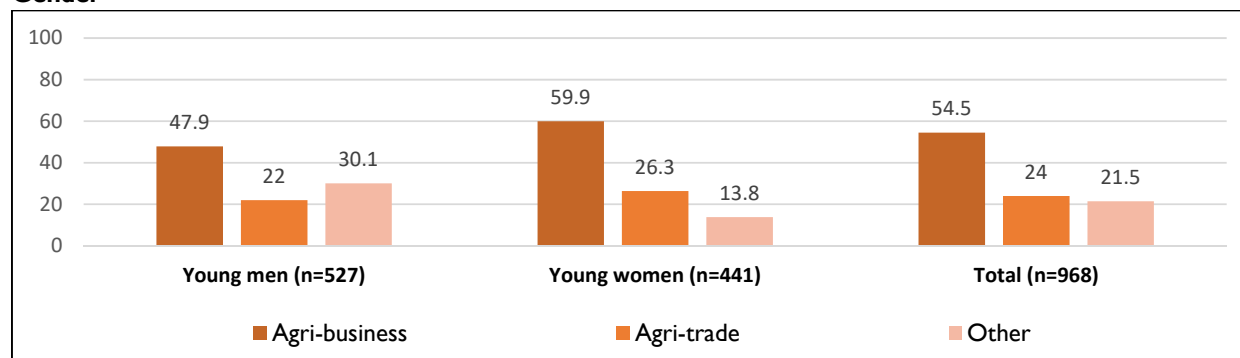
Figure 2: Percentage of YPA Youth in 2017 Who Gained Employment by Type of Employment and Gender



Sector of Employment – Most young women and men were self-employed in agribusiness because it is the most readily available type of business opportunity. As youth reported, “agriculture is a good opportunity because there are no other viable opportunities,” “most of us have a strong background in the agricultural sector” and “Agriculture is a good option because it is productive; it is possible to work in this area with low inputs and in the absence of loans.”

Young women – Almost two-thirds (59.9% or 264 of 441) of these young women are involved in (1) agribusiness, such as cattle fattening, poultry production, small pig rearing, honey production, vegetable and crop production. The remaining young women involved in (2) agri-trade (26.3% or 116), such as cattle feed, fruits, and vegetables; (3) consumer trade (10.9% or 48), such as food and clothing; (4) private sector employment (10% or 44), such as a local metal work company; (5) government employment (7.7% or 33); (6) transportation services (7.0% or 31), such as bicycle rental or cattle cart hire; (7) providing personal services (5% or 22), such as tea and/or coffee sales, shoe shine, electronic repair; (8) construction work (3.9% or 17); (9) hair dressing (3.9% or 17), (10) carpentry (2.3% or 10), (11) metal work (1.6% or 7), such as hand forging metal; (12) tailoring (1% or 4), and (13) employment with an NGO (1.0% or 4). **Young men** – Slightly less than two-fifths (47.9% or 264 of 551) of employed young men reported being involved in (1) agri-business, others reporting (2) agri-trade (22.0% or 116), (3) consumer trade (9.1% or 48), (4) private sector (8.3% or 44), (5) government (6.5% or 34), (6) transportation services (4.4% or 23), (7) providing personal services (4.2% or 22), (8) hair dressing (2.7% or 14), (9) construction work (3.2% or 17), (10) carpentry (1.9% or 10), (11) mechanics/metal work (1.3% or 7), (12) tailoring (0.8% or 4), and NGO (0.8% or 4).

Figure 3: Percentage of YPA Youth in 2017 Who Gained Employment by Sector of Employment and Gender



Predictors Investigated

Based on a discussion of YPA staff, the following youth characteristics were considered potentially crucial factors associated with gaining self-employment, which were included in the analysis.

1. **Age - Young women** – young women ranged from 15 – 29 years of age, and were on average 20.5 years of age. **Young men** – young men ranged from 15 – 29 years of age, and were on average, 21.9 years of age, thus about one year older than the young women.
2. **Level of Education - Young women** – almost one in ten (11.7%) young women reported not ever attending school, with 7.7% completing grades 1- 4, 22.3% completing grades 5-8, 42.9% completing grades 9-10, and 15.5% completing grades 11-12 or TVET. **Young men** – young men had slight more education than young women, with less than one of ten (8.6%) young men reported not ever attending school, with 6.5% completing grades 1- 4, 25.4% completing grades 5-8, 45.9% completing grades 9-10, and 18.3% completing grades 11-12 or TVET.
3. **Marital Status - Young women** – the vast majority was single (69.1%), with 29.1% married, 1.6% divorced or separated, and 0.1% widow. **Young men** – similar to young women, the vast majority of young men were single (77.4%), with 22.1% married and 0.5% divorced or separated.
4. **Location** – Youth in this study came from six regions: Afar, Amhara, Oromia, SNNPR, Somali, and Tigray, which are YPA area of implementation. Regional, and not woredas, differences are analyzed because some woredas had too few youths to include in the analysis. **Young women** – the percentage representation of young women by region were 25.8% from Somali, 23.4% from Oromia, 20.4% from SNNPR, 14.9% from Amhara, 10.8% from Tigray, and 4.8% from Afar. **Young men** – the percentage representation of young women by region were 28.5% from Oromia, 27.8% from Somali, 14.4% from Tigray, 14.3% from SNNPR, 11.6% from Amhara, and 3.4% from Afar.
5. **Rural/peri-urban - Young women** – the percentage representation of young women in rural and semi-urban areas were 55.7% in rural and 44.3% in semi-urban. **Young men** – the percentage representation of young women in rural and semi-urban areas were 47.2% in rural and 52.8% in semi-urban.
6. **Length of Participation in YPA** – Interventions include capacity building and on-going coaching and mentoring for the youth that last from a minimum of 6 to a maximum of 12 months. However, youth can extend this by continuing to be involved in visiting youth centers or by calling youth facilitators to obtain information or support. PYD, WRN!, and BYOB trainings range from 1-3 months, coaching lasts 3-6 months, WBL ranges from 2-4 months, mentoring ranges 2-6 months, hard skills training ranges from 3-9 months, and YES service is for about 1 month. **Young women** – The length of time participating in YPA was similar for both employed and unemployed young women. Of the 291 young women who remained unemployed, they reported participating from 2 to 27 months, with an average length of participation being 12.7 months. Of the 441 young women who became employed, their participation ranged from 2 to 30

months, with an average of 12.9 months. **Young men** – The length of participation in YPA for the 242 young men who remain unemployed ranged from 2 to 30 months, for an average of 13.4 months of participation. Among the 441 young men who became employed, their participation ranged from 2 to 29 months, with an average of 13.2 months.

7. Types of YPA Activities Participated In – YPA provides 10 different types of training and support activities. Youth may be involved in one or more trainings and support activities. **Young women** – Basically, all (99.3%) young women reported being involved WRN!, with 68.0% participating in Coaching, 64.5% in Be Your Own Boss, 47.0% in Positive Youth Development, 26.6% in Activity Monitoring, 26.1% in Linkages to Support, 24.9% in Linkage to Finances, 12.6% in Job Shadowing, 6.4% in Technical Training, and 4.1% in Word-Based Learning. **Young men** – Similar to young women, basically all (99.6%) young men reported being involved WRN! with 69.1% in Be Your Own Boss, 68.9% in Coaching, 49.0% in Positive Youth Development, 34.5% in Activity Monitoring, 32.0% in Linkages to Support, 28.0% in Linkage to Finances, 17.0% in Job Shadowing, 7.8% in Technical Training, and 5.6% in Word-Based Learning.
8. Total Number of YPA Activities Participated In – YPA provides up to 10 different interventions, which includes 1) Positive Youth Development, 2) WRN!, 3) Be Your Own Boss, , 4) Technical Training, 5) Work based learning, 6) Coaching, 7) Link to finance, 8) Linkages to support, and 9) Activity monitoring. **Young women** – The number of interventions unemployed young women participated in ranged from 1 to 9 interventions for an average of 3.2. Employed young women participation ranged from 1 to 10 interventions with an average of 4.2. **Young men** – From the 10 different interventions YPA provides (mentioned earlier), the number of interventions unemployed young men participated in ranged from 1 to 9, with an average of 3.3 interventions. Employed young men participation ranged from 1 to 10 with an average of 4.5 interventions, thus participating on average in one more intervention than unemployed young men.
9. Number of New Employment Knowledge and Skills Learned – Youth were also asked about the new knowledge and skills they gained related to employment, such as communication, work habits, self-confidence, personal development, start-up skills, decision-making, job search, saving, business skills, mapping and use of resources, team work, and knowledge of others. Gaining new knowledge and skills empowers youth to access and use information and resources to make informed choices and decisions and connect with others. **Young women** – Unemployed young women reported gaining 5.2 new skills and knowledge areas from participating in YPA compared to employed young women reported gaining 6.8 new skills and knowledge areas. **Young men** – Unemployed young men reported gaining 5.4 new skills and employed young men reported gaining 7.2.
10. Number of New Attitudes Toward Employment Learned – In addition to knowledge, youth were asked about the attitudes toward employment that they had learned, like a) the desire to start saving & putting away money, b) believing it is possibility of creating a livelihood or employment opportunity where they live, c) customer handling, d) taking the initiative, e) having a habit of saving and personal resource management, and f) self-confidence. **Young women** – When asked, unemployed and employed women reported gaining 2.8 and employed young women reported gaining 4.2 new attitudes toward employment. **Young men** – When asked about the number of new attitudes and behaviors gained by participating in YPA, unemployed young men reported gaining 3.1 and employed young men reported gaining 4.5.
11. Saving Money as a Habit (Behavior) – During the training youth received information about savings practices and are encouraged to start saving from any income they have or family support. In the current policies of financial institutions, saving become mandatory requirement to access loan and lease financing opportunities (capital goods). Youth self-help groups also follow the same rule to provide loan for the members of the group; traditionally known as *equib* (i.e., traditional and voluntary saving). Members of the group has to demonstrate their commitment for regular saving to access loan from any loan provider. **Young women** – Among unemployed young women, less than one-half (47%) reported having the skill and behavior of saving compared to the majority (79%) of employed young women. When asked about the amount of current savings, 14.3% (62 of 441) of employed young women report none (0 birr) with the remaining 85.7% reporting 20 birr (~\$1) to 40,000 birr (\$1500), for an average of 3055 birr (\$110) for young employed women with current savings. The total amount of current savings, reported by the 515 young women with current savings, comes to 1,237,550 birr (\$45,000). **Young men** – Among unemployed

young men 50% reported saving as a skill or behavior compared to 82% of employed young men. When asked about the amount of current savings, 12.0% (63 of 527) of employed young men reported none (0 birr) with the remaining 88.0% reporting 20 birr (\$1) to 60,000 birr (\$2200) in savings, for an average of 5700 birr (\$200) for young men with current savings. The total amount of savings, reported the 464 young men with current savings, comes to 2,729,070 birr (\$99,000).

2. **Received Financial Support** – Financial support available to young women in the regions include one or more sources, such as family or group savings (known as *equib*, which as mentioned above is a traditional and voluntary form of saving), local microfinance institutions. **Young women** – When asked if they had applied and received financial resources since your participation in YPA only 1.4% (or 4) of unemployed young women had done so compared to 23.6% (or 104) of employed young women. **Young men** – When asked if they had applied and received financial resources since participating in YPA only 4.5% (or 11) of unemployed young men had compared to 36.0% (or 104) of employed young men.

Table 1: Summary Table of Factors Used in the Analysis of Self- Employment.

Predictor Variables	Description	Measurement	Young women (N=732)	Young men (N=769)
1. Age	Age (# of years)	Range Mean Standard deviation	15 to 29 yrs 20.5 yrs 3.0 yrs	15 to 29 21.9 yrs 3.1 years
2. Level of Education	Level of education (last grade completed)	No schooling Grades 1 to 4 Grades 5 to 8 Grades 9 to 10 Grades 11+	11.7% 7.7% 22.3% 42.9% 15.5%	4.3% 6.5% 25.4% 45.9% 18.3%
3. Marital Status	Marital status (single includes never married, divorced, widow)	Single Married	70.9% 29.1%	77.4% 22.6%
4. Location	Region	Amhara Oromia SNNPR Somali Tigray Afar (excluded)	10.8% 28.7% 14.3% 27.9% 10.8% 4.8%	11.6% 28.5% 14.3% 27.8% 14.4% 3.4%
5. Rural (vs. Semi-urban)	Woredas classified as rural	Limu Bilbilo, Smen Achefir, Danglia, Gode, Yem, Chifra	55.7%	47.7%
6. Length of Participation	The # of weeks the youth participated in YPA	Range Mean Standard deviation	2 – 27 12.8 6.1	2 - 36 13.0 6.4
7. Types of Interventions Participated in	Which of the 10 program trainings the youth participated in.	VRN (excluded) Be Your Own Boss PYD Job Shadowing Coaching Technical training (excluded) Work-based learning (excluded) Link to finance Linkages to support Activity monitoring	99.3% 64.5% 47.0% 12.6% 68.0% 6.4% 4.1% 24.9% 26.1% 26.6%	99.6% 69.1% 49.0% 17.0% 68.9% 7.8% 5.6% 28.0% 32.0% 34.5%
8. New skills & knowledge gained	Self-report of the # of new skills gained by participating in YPA	Range Mean Standard deviation	0 - 11 6.3 2.7	0 - 11 6.7 2.8
9. New attitudes toward employment learned	Self-report of the # of new attitudes & behaviors gained by participating in YPA	Range Mean Standard deviation	0 - 7 3.8 1.8	0 - 7 4.1 1.8
10. Have a habit of saving	Self-report of having a habit of saving regularly.	Yes No	57.2% 42.8%	64.9% 35.1%
11. Received financial assistance	Youth received financial resources since your participation in YPA.	Yes No	14.8% 85.2%	15.0% 85.0%

Pre-Analysis Data Cleaning

A number of youths were excluded from the analysis for various reasons (see Table 2). Eleven young men were 30 years of age or older, which is older than the maximum age for YP beneficiaries and, thus, were excluded in this analysis. The number of youth interviewed in the Afar Region was too few (25 young women and 27 young men), for regional analysis, and thus were excluded.

Three YPA interventions were not included in the analysis for the following reasons: WRN! is taken by all YPA youth and, therefore, would not show any variance in the analysis; Technical Training (47 young women and 60 young men) and Work-Based Learning (30 young women and 43 young men), had too few youth to be included in the analysis.

Table 2: List of YPA Interventions and Youth Characteristics Excluded in the Analysis.

Characteristics	Excluded	% Young women (N=732)	% Young men (N=780)
Age	Youth 30 years of age or older	0.0% (0)	1.4% (11)
Location - Afar Region	Too few youth for analysis	4.8% (35)	3.5% (27)
YPA Interventions			
WRN!	Almost all youth, thus no variance	99.3% (727)	99.6% (766)
Technical training	Too few youth	6.4% (47)	7.8% (60)
Work-based Learning	Too few youth	4.1% (30)	5.6% (43)
Outliers	Youth with results extremely different than norm (residual analysis of regression)	2.6% (19)	3.4% (26)

Employment and Gender Differences

Of the 732 young women and the 769 young men (1501 youth in total) who entered YPA unemployed, 60.2% of the young women and 68.5% of the young men reported being employed 6-months after completing the training. A Chi-Square test of expected values compared to observed values showed that the employment rate among young men was statistically significantly higher than the employment rate for young women (Chi-square=11.24, df=1, $p<0.00$); however, the overall effect-size ($\eta^2=0.01$) of this difference is quite small. Thus, although the rate of employment among young men is higher than the employment rate statistically, in practical terms the difference is not substantial. Since among these youth the gender effect is quite small, this means that there are other characteristics relevant for understanding how youth obtained employment, which the following analysis will examine.

The following analysis examines the contribution of the 11 factors, presented in Table 2 above, to gaining self-employment among young men and women using multivariate logistic regression. Multivariate logistic regression statistically controls for a set of variables while estimating the unique contribution of a single variable to the outcome, which in this analysis is employment or unemployment.

Results of Regression Analysis

Predicting Employment Among Young Women

After data cleaning, the regression analysis includes the remaining 716 young women who entered YP unemployed. The reliability of the logistic regression model is presented in the annex with the regression model.

Only findings that were statistically significantly different at $p<0.05$ or less and with a meaningful effect-size (η^2) equal to 0.07 (lowest level of medium size effect) or greater are presented. Other findings were found to be statistically significant, however, the size of effect was small ($\eta^2<0.07$) and, thus, these findings are not reported. The main findings are presented in the table below and the complete models can be found in the appendix at the end of this report.

Table 3: Summary of Key Findings of Factors of New Employment for Young Women

Statistically Significant Characteristics	Effect-Size (η^2)	Findings
Young Women		
Attitudes Toward Employment	Medium (0.18)	<p>Of all the characteristics examined in this analysis, attitudes toward self-employment had the largest effect on gaining employment among young women. Each new attitude toward self-employment increase the likelihood of being employed by 50%; thus, young women who reported gaining the maximum of 7 new attitudes toward work were 3.5 time more likely to be self-employed than a young woman who reported gaining 1 new attitude toward employment. The largest gap in attitudes about self-employment between employed and unemployed young was that substantially more young self-employed women reported learning to have a habit of saving and resource management and positive attitudes about creating or finding self-employment than young unemployed women (71.2% vs. 29.7% and 76.0% vs. 36.6% respectively).</p>
Current Habit (behavior) of Saving	Medium (0.13)	<p>Young women who reported a practice of saving were 3 times (OR=3.23, CI: 1.95 – 5.34) more likely to be self-employed than young women without a habit of saving. A habit of saving had the second largest effect on young women gaining self-employment.</p> <p><i>“After the training, we girls have started equal participation as boys. We changed our behavior in money management and decision-making. We save our money as much as we can. We took loan money and started poultry business, the business we despise before our engagement in the project.” Female FGD participant Holeta town (Oromia region)</i></p> <p>When asked about the amount of current savings, 14.3% (62 of 441) of employed young women report none (0 birr) with the remaining 85.7% reporting 20 birr (\$1) to 40,000 birr (\$1500), for an average of 3055 birr (\$110) for young employed women with current savings. The total amount of savings, reported the 379 young women with current savings, comes to 1,237,550 birr (\$45,000).</p>
Program Intervention - Coaching	Medium (0.12)	<p>Coaching is a post-training support service, from an individual, who assist young women to develop and follow an employment plan, which includes mapping and identifying local employment resources in the community like local leaders or Youth Employment Support Centers, public resources (i.e., government Employment Service), and private resources (i.e., Micro-Finance institutions) and problem solve. As reported by a youth, <i>“the facilitators [coaches] come, encourage us, check on monthly savings and talk about the challenges faced.”</i> In addition, coaching supported the habit of saving, discussed above, that was critical for gaining employment. above. That is, coaches reinforced a habit of saving by periodic monitoring and encouragement. As a youth stated, <i>“the facilitators come, encourage us, and check on monthly savings.”</i></p> <p>Coaching supports the youth to map and identify available local resources and deal with relevant public and private authorities (i.e. MFI, community based organization (CBOs), local community leaders or YESCs in our cases and Public Employment Service) to access financial and productive assets for business start-ups and to establish linkage with possible future employers. The coach assists the youth to learn the requisite attitude; behavior and skills needed to achieve the goal successfully within the agreed success parameters. The goal is therefore well defined and the coaching happens with a clear focus and specific timelines.</p> <p>Young women who receive coaching were 2.8 times (OR=2.84, CI: 1.38 – 1.59) more likely to be self-employed than young women who did not. Coaching had the third largest effect of young women gaining self-employment.</p>
Received Financial Resources	Small - medium (0.10)	<p>Young women who receive financial resources were 22 times (OR=22.32, CI: 5.41 – 92.06) more likely to be self-employed than young women who did not. Financial resources employed young women received were from one or more sources, such as family or group savings, and/or local microfinance institutions,</p>

		The effect size of receiving financial resources was, which puts it slightly lower than the effect size of coaching in gaining self-employment among young women.
Regional Location³	Small - medium (0.07)	Young women living in certain regions were more likely to be self-employed than young women in other regions. The most extreme example was that young women from one region were approximately 98% less likely (OR=0.02, CI: 0.01 – 0.10) to be self-employed than young women from another region. These differences are due to different levels economic, social, cultural, infrastructure, and environmental opportunities and barriers. Regional location had the smallest effect size for gaining employment among young women, but nonetheless a meaningful effect among young women.
General Profile of Young Women Successful in Gaining Employment After YP		A young woman who has gained new attitudes toward self-employment possibilities, has a habit of saving, was individually coached, received financial resources either from family, group loans or micro-finance institution, and lives in a region with supportive economic opportunities, services' infrastructure, cultural norms and practices, social cohesion, and environmental conditions.

Factors Predicting Employment Among Young Men

Similar to findings for young women, only findings that were statistically significantly different at $p < 0.05$ or less and with a meaningful effect-size (η^2) greater than 0.07 are presented for young men. Other findings were statistically significant, however, the size of effect were not meaningful. The findings of this analysis are presented in the following table.

Table 4: Summary of Key Findings of Factors of New Employment for Young Men

Young Men		
Program Intervention - Coaching	Large (0.22)	Similar to the finding for young women, young men who received coaching were 2.6 times (OR=2.61, CI: 1.25 – 5.45) more likely to be self-employed than young men who had not received coaching. Of all the variables examined, coaching had the largest effect on gaining self-employment among young men. Post-training support, in the form of coaching from an individual who assist young men to develop and follow an employment plan, which includes mapping and identifying local employment resources, was instrumental in young men gaining self-employment.
Attitudes Toward Employment	Medium - large (0.15)	<p>For young men, each new attitude toward self-employment increased the likelihood of becoming employed by 43%; thus, young men who gained all 7 new attitudes about self-employment were 3 times more likely to be employed than young men who gained only one new attitude toward self-employment. Attitudes toward employment had the next largest effect on gaining employment.</p> <p><i>“After we have received the training, our attitude towards work habit changed and now we can see lots of job opportunities in our area. In our village, young women and men have tried their best to engage in any job activity; for instance, there are youth who are engaged in business by seeking loan from their families and relatives. There are also youth who are on the process of facilitating loan from the micro finance organization. Our confidence has increased. Generally, young women and men prepared themselves psychologically, to be engaged in any job activity. We strive to improve our livelihood. Currently our village youth are engaged in petty trade, cattle fattening, shoat fattening, bee keeping, crop production etc. to change their lives” - Male FGD participant Welmera Woreda/Oromia region</i></p> <p><i>“Most of us have changed in different dimensions of our life after participating in this project. We became active in business, started respecting others and ourselves as a human being and are willing to do any kind of productive work like others do. Some of us become skillful, knowledgeable, can regularly save money, have a good decision making behavior, and manage our time.” - Male FGD</i></p>

³ Regional locations and woredas included in this study are Afar (Chifra), Tigray (Endamohoni), SNNPR (Hawassa Zuria, Yem Special woreda), Somali (Gode, Jigiiga), Amhara (Danglia, Semien Achefer), and Oromia (Sinara, Welmera, Yabello).

		<p>participant from Chifra- Afar region</p> <p>When examining the difference between employed and unemployed young men and attitudes toward employment, the largest differences were employed young men i) started saving (73.7% vs. 30.3%) and ii) attitudes to employment (74.5% vs. 33.5%).</p>
Current Habit (behavior) of Saving	Medium (0.14)	<p>Young men who reported a practice of saving were 2 times (OR=2.01, CI: 1.19 – 3.40) more likely to be self-employed than young men who did practice saving. Among unemployed young men, 50% reported a habit of saving compared to 82% of employed young men. Having a habit of saving had almost the same size effect on gaining self-employment as attitudes toward employment among young men.</p> <p>When asked about the amount of current savings, 12.0% (63 of 527) of employed young men reported none (0 birr) with the remaining 88.0% (464 of 527) reporting 20 birr (\$1) to 60,000 birr (\$2200) in savings, for an average of 5700 birr (\$200). The total amount of savings, reported the 464 young men with current savings, totaled 2,729,070 birr (\$99,000).</p>
Regional Location	Small - medium (0.07)	<p>Young men living in certain regions were more likely to be self-employed than young women in other regions. The most extreme example is that young men from one region were 98% (OR=0.02, CI: 0.001 – 0.10) less likely to be self-employed than young men from other region. The effect size of regional location was the smallest but still meaningful. Again, similar to the finding for young women, regional differences are most likely due to differences in economic, social, cultural, and environmental opportunities and barriers in each region.</p>
General Profile of Young Man Successful in Gaining Employment After YP		<p>He received individual coaching, gained new attitudes toward savings and the possibility of creating a business in their community, had a habit of saving, and lives in a region and lives in a region with supportive employment opportunities, services, cultural norms, social cohesion, and environmental conditions.</p>

Discussion and Recommendations

Key Informant from Woreda Youth and Sports Office, Hawassa Zuriya, SNNP region:

“After joining the program, the youth beneficiaries have shown remarkable changes. Before joining the program majority of them were unemployed, spent their time on the street, not respected at all by the community. The locals call them” ስራ አጥ” [its literal meaning is “jobless”, but it has negative connotation]. After the training provided by POTENTIAL, majority of the youth are engaged in different livelihood activities; developed their confidence, can reflect their ideas during meetings, and can decide on the area of their livelihood engagements.”

This study focused on factors associated with gaining self-employment in rural areas among young women and men after they completed the YPA. Of 11 different factors examined, only four factors were meaningfully associated with gaining self-employment among both young women and men: new attitudes, a habit of saving, receiving post-training coaching, and residing in a certain region. The one factor meaningfully associated with self-employment only among young women and not young men, was access to financial resources. Young women confront gender barriers in accessing financial resources whether from informal (from family) or formal (from microfinance organizations) sources than young men do not.

The three programmatic areas that similarly influenced employment for female and male youth—new attitudes, habit of saving, post-training coaching were expected. However, YPA’s experience with these programmatic areas in Ethiopia can help provide some practical recommendations for how to better engage in thee programmatic areas to support youth in the future.

Support youth to develop new attitudes toward employment

YPA included a participatory curriculum that allowed youth to not only learn new knowledge and skills related to wage and self-employment but also practice these skills through practical, work-based experiences. During the training, youth were supported in developing a personal development plan and in conducting a community mapping to better understand the employment possibilities in their community; facilitators also provided youth with business idea coaching that was grounded in the costs and logistics of starting up a new business. Through these activities, YPA learned that youth often had unrealistic expectations of what it took to start a business and did not view entry-level positions as appropriate. The coaching work of facilitators often dealt with managing expectations of youth and ensuring that they had a more realistic outlook on wage and self-employment.

Future youth programming for rural and peri-urban youth in Ethiopia should further support youth in building attitudes towards employment by focusing on not only transferable life skills (like self-concept) but also practical skills that can help youth be more successful in the labor market (like financial literacy, or business communication). YPA would also recommend that future programs provide youth an incubation period where youth can, with appropriate support and coaching, try out work in different sectors and determine an employment pathway that best suits their skills and interest.

Support youth to develop a habit of saving

YPA provided youth with a brief training on budgeting and financial literacy. Youth were then encouraged to participate in Youth Economic and Social Groups (YESG) that were established by YPA. One of the components of these groups was savings. Following the mold of Village Savings and Loan Associations (VSLA), the YESG allowed youth to create groups where they saved money and provided loans to group members for business ventures. YPA also created links for youth to local Micro-Finance Institutions (MFIs).

While YP had some experience with supporting youth develop a habit of saving, YP did not have an explicit aim to influence or affect youth savings. However, given the findings of the current study, YP would recommend that future livelihood programs place a larger focus on explicitly supporting youth habits of savings. For example, at a systems level, it is important that youth have opportunities for savings with local VSLAs but also have opportunities to access loans through MFIs. The next round of youth livelihood programs in rural and peri-urban Ethiopia should work more closely with MFIs to actually to understand the barriers for female and male youth accessing saving and credit, and create adapted, youth-friendly MFI products. This is especially important for female youth, for whom access to savings and credit was a strong predictor of employment.

Support youth after the initial training through dedicated coaching

Once youth started to engage in either wage or self-employment YPA facilitators and the woreda officers acted as coaches. Coaches were expected to meet with each youth at least four times in the 6-8 months after they completed training; the first four coaching sessions were supported through scripted plans provided by YPA to the coaches. Besides this one-to-one coaching, youth could also access group coaching with peers through YESG. Facilitators would organize groups of youth working in similar sectors or businesses so that they could support each other grow and develop their business, or find synergies between business ideas.



Photo 1: Mengistu, 24, “The trainings have enabled me to develop a positive attitude, prepare myself for work, discover local business opportunities and above all, to believe in myself and have a purpose in life”



Photo 2: Bruktawit, with her own savings of 600 Birr (\$22) bought some basic cooking instruments and utensils to start a small cafeteria and has hired a young woman to assist her.



Photo 3: Jires, 20, started a tailoring business as well as soft drink distribution. “I credit my success and expansion of my tailoring businesses to the close follow up, and coaching support he received “

In YPA, coaching is a place where youth can take supported risks to either develop a business idea further, find new employment, or diversify employment opportunities. Coaching is very time and resource intensive, especially in rural and per-urban Ethiopia. This means that it is important to hire coaches who are from nearby communities and can travel to youth work/business locations frequently. YPA would recommend that future youth livelihood programs in Ethiopia incorporate a strong coaching model, a model that is grounded in proper support and training for coaches. Additionally, coaching may be a viable activity within which to incorporate technology. For example, VOIP-based or mobile phone based coaching could be coupled with in-person coaching to provide youth with a regular touch-point with a trusted advisor.

Despite numerous climatic, cultural, and economic challenges, these findings show that YPA successfully supported young women and men in rural areas to develop various pathways toward self-employment and economic empowerment.

However, challenges remain. Broader constraints on national economic development translate into fewer employment opportunities in the regions as well as the on-going climatic challenge of a devastating drought, cultural norms at the household and community level that create gender barriers for young women to take advantage of wage and self-employment opportunities, the lack of supportive public and financial services at the community and regional level, regional civil unrest and instability, and not enough community volunteers to coach young entrepreneurs.

Going forward, future research and evaluation will need to study and investigate additional conditions and mechanisms at the personal (e.g., personal networks), household (e.g., ownership of various productive assets), and community (e.g., supportive leaders) level that are most likely to be critical predictors of youth obtaining employment that were not available in this study, which youth livelihood program can address.



Photo 4: Nadifo, Hajira and Darmi (22, 18 and 25) started a group business that is a spare parts shop. They said, “Had it not been for the training and post training support they would not know how to plan, manage their time, communicate with their costumers or record their income and expenses.

APPENDIX

Table 5: Logistic Regression Model of Unemployed Young WOMEN Becoming Employed After the YPA.*

	β	Standard Error	P-value	Odds Ratio	η^2 (effect size)
Demographic					
Age in years	0.089	0.039	0.024	1.093	0.06
Level of education in years	- 0.003	0.038	0.943	0.997	
Marital status (reference = married)	0.299	0.257	0.244	1.349	
Geographic					
Region (reference = Tigray)					
Amhara	- 1.445	0.618	0.019	0.236	0.01
Oromia	- 3.503	0.641	0.000	0.030	0.07
SNNPR	- 1.551	0.884	0.008	0.212	0.02
Somali	- 2.684	0.569	0.000	0.068	0.03
Rural (=1)	- 1.330	0.332	0.000	0.264	0.02
Length of participation					
# of weeks	0.031	0.018	0.078	1.031	
Types of program interventions					
BYOB	-0.124	0.233	0.593	0.883	
PYD	0.242	0.262	0.356	1.273	
Job Shadowing	1.103	0.484	0.023	3.014	0.06
Coaching	0.590	0.244	0.016	1.804	0.12
Link to finance	-0.663	0.346	0.055	0.515	
Linkages to support	-0.248	0.305	0.417	0.781	
Activity mentoring	-0.153	0.274	0.576	0.858	
New skills gained					
Total number	0.025	0.062	0.689	1.025	
New attitudes/behaviors toward employment gained					
Total number	0.405	0.089	0.000	1.500	0.18
Saving as skill or behavior (reference = yes)	0.783	0.236	0.001	2.188	0.13
Received financial resources (=1)	2.753	0.648	0.000	15.694	0.10
N size	716				
-2 Log likelihood	632.49				
Nagelkerke R Square	0.57				
Classification accuracy					
Unemployed	68.0%				
Employed	85.3%				
Overall model	78.5%				

* The dependent variable in this analysis is “employed” 6-months after completing the Potential Program, therefore 0 = not employed and 1=employed. Predictors with a meaningful effect-size (η^2) are highlighted in red font.

Reliability of Unemployed Young Women’s Logistic Regression Model

The regression model predicting employment among young women is reasonably reliable. First, this model is good at reliably distinguishing between employed and unemployed young women.⁴ Moreover, the 11 youth characteristics included in this model account for approximately 57% of the variance,⁵ or a moderate amount, in predicting employment and unemployment. On the other hand, this means that almost one-half (43%) of the variance in predicting employment is not accounted for in this model and, thus, additional factors need to be considered in later studies to better understand gaining employment. Finally, a perfect regression model would be able to predict employment and unemployment 100% of the time. The classification accuracy of this model is 85.3% for employed young women and 68.0% for unemployed young women; hence the regression findings are reasonably reliable, especially for predicting employment among young women.

⁴ -2 Log Likelihood = 632.49, $p < 0.000$

⁵ Nagelkerke’s $R^2 = 0.57$

Table 6: Logistic Regression Model of Unemployed Young MEN Becoming Employed After the YPA.*

	β	Standard Error	P-value	Odds Ratio	η^2 (effect size)
Demographic					
Age in years	0.085	0.041	0.036	1.089	0.06
Level of education in years	0.025	0.039	0.523	1.025	
Marital status (reference = married)	0.443	0.320	0.166	1.557	
Geographic (reference = Tigray)					
Amhara	- 1.464	0.911	0.108	0.231	
Oromia	- 3.758	0.878	0.000	0.023	0.07
SNNPR	- 1.250	0.911	0.170	0.286	
Somali	- 3.223	0.860	0.000	0.040	0.04
Rural (=1)	- 1.234	0.345	0.000	0.291	0.03
Length of participation					
# of weeks	0.002	0.017	0.927	1.002	
Involvement in program interventions					
BYOB	- 0.608	0.265	0.022	0.545	
PYD	0.054	0.265	0.839	1.055	
Job Shadowing	0.161	0.424	0.700	1.178	
Coaching	0.935	0.280	0.001	2.548	0.22
Link to finance	- 0.288	0.348	0.407	0.749	
Linkages to support	- 0.357	0.312	0.252	0.699	
Activity mentoring	0.510	0.302	0.091	1.665	
New skills gained					
Total number	0.046	0.063	0.466	1.047	
New attitudes/behaviors gained					
Total number	0.359	0.092	0.000	1.432	0.15
Saving reported as "skill" or "behavior" (yes = 1)	0.641	0.256	0.012	1.899	0.14
Received financial resources (=1)	1.346	0.544	0.013	3.843	0.05
N size	744				
-2 Log likelihood	556.69				
Nagelkerke R Square	0.53				
Classification accuracy					
Unemployed	63.2%				
Employed	90.8%				
Overall model	82.7%				

* The dependent variable in this analysis is "employed" 6-months after completing the Potential Program, therefore 0 = not employed and 1=employed. Predictors with a meaningful effect-size (η^2) are highlighted in red font.

Reliability of Unemployed Young Men's Logistic Regression Model

The findings presented below are from a logistic regression of (un)employment among 744 young men. The regression model is reasonably reliable. First, model reliably distinguishes between employed and unemployed young men.⁶ Moreover, The model, with 11 characteristics of young men, accounts for approximately 56% of the variance, or a moderate amount, in predicting employment and unemployment.⁷ As mentioned before, a perfect regression model would be able to predict employment and unemployment 100% of the time. This regression model has a classification accuracy of 90.8% for employed young men and 63.2% for unemployed young men, both of which show the regression findings are reasonably reliable, especially for predicting employment.

⁶ -2 Log Likelihood=556.69, p<0.000

⁷ Nagelkerke's R2 = 0.53