Digital Jobs for Youth:

Young Women in the Digital Economy

Solutions for Youth Employment

September 2018

S4YE

Co-authors:

Case Study Contributors:

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Abbreviations

BPO: Business Process Outsourcing

HIC: High-Income Country

ICT: Information and Communication Technology

IFC: International Finance Corporation

ILO: International Labour Organization

IT: Information Technology

ITU: International Telecommunication Union

LIC: Low-Income Country

LDC: Least-Developed Country

LMIC: Low- and Middle-Income Country

MIC: Middle-Income Country

NEET: Not in Employment, Education or Training

NGO: Non-Governmental Organization

OECD: Organisation for Economic Co-operation and Development

S4YE: Solutions for Youth Employment

SDG: Sustainable Development Goal

SME: Small- and Medium-Sized Enterprise

STEM: Science, Technology, Engineering and Mathematics

UN: United Nations

UNICEF: United Nations Children's Fund

USAID: United States Agency for International Development

WBG: World Bank Group

Foreword

Technology is touted as both savior and saboteur of young people's futures. It is capable of opening opportunities once undreamed of by helping young people to transcend the physical, social, and economic barriers that stand between them and a decent job. At the same time, advances in automation and artificial intelligence could combine to see two thirds of workers worldwide replaced by machines.

The potential negative impact on young women, of this seismic shift in the global employment landscape, is alarming. They will feel the effects of automation more acutely, as young women already have lower labor force participation than men. Add this to an entrenched gender digital divide, and long-standing stereotypes and biases, and the cards quickly get stacked against a young woman trying to compete in a digital world of work.

This is the setting for the 2018 S4YE annual flagship report Digital Jobs for Youth: Young Women in the Digital Economy. The report opens a window into the trends shaping digital work. It includes contributions and case studies from S4YE coalition members, drawing on evidence from peer organizations spanning five continents. It is a hugely valuable resource for policymakers and practitioners seeking to chart a course through the uncertain future of work and harness the potential of digital jobs to deliver on the international community's promise of full and productive employment for all young people by 2030.

The report also serves as a compelling call to action for the private sector, civil society, international organizations, and governments. To focus on the unique needs of girls and young women in a digital economy and to join forces to achieve inclusive digital employment for all. Because, without decisive action now, the global digital revolution might turn out to be a big backward step for global gender equality.

Anne-Birgitte Albrectsen
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CEO, Plan International, Inc.

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[1] Anne-Birgitte Albrectsen served as Chair of S4YE's Board of Directors during the period that this report was written. Per the Board's practice of annual rotation, the current Chair is Mamadou Biteye, Managing Director, Africa Regional Office, The Rockefeller Foundation.

1.   Introduction

> **Solutions for Youth Employment (S4YE)** is a multi-stakeholder coalition among public sector, private sector, and civil society actors that aims to provide leadership and resources for catalytic action to increase the number of young people engaged in productive work. The S4YE coalition includes the World Bank, Accenture, The Rockefeller Foundation, Mastercard Foundation, Microsoft, Plan International, International Youth Foundation (IYF), Youth Business International (YBI), RAND Corporation, the International Labour Organization (ILO), the Governments of Norway, Germany, and the UN Envoy for Youth. More partners are likely to join soon.
>
> S4YE's mission is to provide leadership and catalytic action and mobilize efforts to significantly increase the number of young people engaged in productive work by 2030, by developing innovative solutions to youth employment through practical research and active engagement with public and private stakeholders to enable solutions at scale. S4YE combines a pragmatic approach to identifying solutions for youth employment with an evidence-based advocacy platform to increase access to productive work for young people.

1.1   Purpose

The *Digital Jobs for Youth: Young Women in the Digital Economy* flagship report is primarily intended to provide operational recommendations for the design and implementation of gender-inclusive digital jobs interventions for youth.

Using a newly developed digital jobs typology, the report will identify drivers of demand across various categories of digital work. The report will then extract lessons learned in overcoming supply and demand-side barriers to youth digital employment, based on past and ongoing programs implemented by S4YE coalition members. In doing so, the report will identify design elements and strategies that would be especially helpful in connecting young women to the digital economy. Finally, this report will provide recommendations for the design and implementation of gender-inclusive digital jobs programs for youth.

Findings from this report are meant to provide inputs to the design and implementation of gender-focused digital job pilots to be launched by S4YE.

1.2   Audience

This report is primarily targeted at practitioners who are involved in the design and implementation of youth employment programs. Insights from this report will also be valuable to private sector organizations, civil society organizations, international organizations and

donors, and government agencies that are interested in exploring innovative ways to promote digital employment for youth, and women.

1.3 Contributing Organizations

This report was a collaborative effort by S4YE member organizations. Lead authors represented Genesis Analytics (funded by The Rockefeller Foundation), Plan International, RAND Corporation and the S4YE Secretariat. Several members of the S4YE coalition also prepared case studies based on their experiences supporting, designing and implementing digital skills and digital jobs programs for youth, including Accenture, German Federal Ministry for Economic Cooperation and Development (BMZ), Microsoft, Plan International, The Rockefeller Foundation, and the World Bank Group. The United States Agency for International Development (USAID) also prepared a case study.[2]

1.4 Report Structure

This report is organized as follows:

- **Chapter 1: Introduction**
  - *Lead: S4YE Secretariat*
  - Provides an overview of the purpose, target audience, contributing partners and structure of the report.

- **Chapter 2: Youth in the Digital Economy**
  - *Lead: Plan International, RAND Corporation, Genesis Analytics*
  - Describes how the digital revolution is transforming economies and, as a result, changing the nature of employment opportunities for youth.

- **Chapter 3: An Integrated Framework for Digital Jobs**
  - *Lead: RAND Corporation*
  - Introduces a new digital jobs typology to define digital work, classify sectors driving the demand for digital jobs, and identify the skills necessary for workers to fill these jobs

- **Chapter 4: Young Women and the Digital Economy**
  - *Lead: Plan International*
  - Identifies underlying factors contributing to the global gender digital divide, the implications for young women's digital employment, and the benefits of new digital job opportunities for young women.

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[2] Case studies can be found in Annex B.

- **Chapter 5: Promising Practices for Gender-Inclusive Digital Jobs Interventions for Youth**
  - *Lead: S4YE Secretariat*
  - Presents approaches implemented by S4YE coalition members and other youth employment stakeholders to overcome supply- and demand-side barriers to youth digital employment.

- **Chapter 6: Empowering Young Women in the Digital Economy**
  - *Lead: S4YE Secretariat*
  - Provides a description of various efforts by public- and private sector stakeholders to reduce the gender digital divide and support gender-inclusive digital youth employment programs.

The annexes are structured as below:

- **Annex A: Case Study Guidelines and Template**
  - *Lead: S4YE Secretariat*
  - Presents the methodology and learning questions to guide the data collection process and inform case study development.

- **Annex B: Case Studies**
  - *Lead: Accenture, BMZ, Genesis Analytics, Microsoft, Plan International, S4YE Secretariat, World Bank Group*
  - Describes the experiences of several members of the S4YE coalition in designing and implementing digital jobs programs for youth, including the strategies adopted to improve employment outcomes for young women.

- **Annex C: List of External Digital Jobs Programs, Platforms & Initiatives**
  - *Lead: S4YE Secretariat*
  - Lists the digital jobs programs, platforms and initiatives examined during the literature review to identify promising practices for design and implementation.

- **Annex D: Online Consultations Report**
  - *Lead: S4YE Secretariat*
  - Presents perspectives and experiences of beneficiaries of digital jobs programs, program staff and implementers, and firms that hire youth for digital jobs.

2.   Youth in the Digital Economy

Highlights

- *High youth unemployment rates, youth NEET rates, and the high numbers of working young people who live in poverty, have made youth employment a global priority.*
- *The digital economy is creating new work opportunities which increasingly require young people to develop new skills and new ways of learning.*
- *Reducing gender gaps in youth labor force participation can be transformative for LMICs hoping to leverage the full benefits of the digital economy.*
- *To increase women's participation in the digital economy, new program models must be developed to address women's specific needs.*
- *Youth employment programs for digital jobs must address demand-side constraints to digital job creation, as well as specific barriers to young women's access to these jobs.*

2.1   Youth Employment: A Global Priority

Young people are disproportionately affected by unemployment.[3] The ILO estimates that almost 65 million youth aged 15-24 years were unemployed in 2017.[4] Youth unemployment rates remain higher than unemployment rates within any other age group, and are over 300% higher than the unemployment rates for adults (persons over 25 years).[5] Table 1.1 captures youth unemployment rates and the total youth labor force for low-, middle- and high-income countries.

The global youth labor force is shrinking. Youth unemployment rates are projected to decline from 12.6% to 12.5% between 2017 and 2018. However, this decline is mainly due to the fall in total youth labor force participation rates. The ILO projects that approximately 509 million youth aged 15-24 will be in the global labor force as of 2019. This marks a decrease from 522 million in 2015. The youth labor force in high- and middle-income countries are also projected to decrease, while rapidly growing in low-income countries.

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[3] For this report, "youth" generally refers to persons aged 15 to 35 years. However, different agencies and organizations utilize different definitions. For example, for statistical purposes, ILO defines youth as persons between the ages of 15 and 24 years (inclusive). Wherever possible, the differences will be highlighted.
[4] ILOSTAT, http://www.ilo.org/ilostat/. Table reflects data updated as of June 2018.
[5] ILO 2017.

TABLE 1.1 YOUTH UNEMPLOYMENT RATES AND LABOR FORCE SIZE

YOUTH UNEMPLOYMENT RATE (%)					
	2015	**2016**	**2017**	**2018***	**2019***
WORLD	12.4	12.6	12.6	12.5	12.5
High Income Countries	14.3	13.2	12	11.2	11.1
Upper-Middle Income Countries	13.8	15	15.4	15.1	15.1
Lower-Middle Income Countries	11.8	12	12.1	12.2	12.3
Low Income Countries	9.2	9.3	9.2	9.2	9.3
YOUTH LABOR FORCE (MILLIONS)					
	2015	**2016**	**2017**	**2018***	**2019***
WORLD	522.7	517.2	513.8	511.2	509.3
High Income Countries	64.9	64.9	64.1	63.2	62.3
Upper-Middle Income Countries	169.8	162.8	157.8	153.7	150.2
Lower-Middle Income Countries	209.3	208.8	208.8	208.7	208.7
Low Income Countries	78.8	80.7	83.1	85.6	88.1

* Data for 2015-2017 are estimates while data for 2018-2019 are projections.
Source: ILOSTAT, http://www.ilo.org/ilostat/.

Youth experience high incidence of working poverty. The ILO estimates that approximately 10.6% of employed adults aged over 25 years earned less than USD 1.90 per day in 2017.[6] In contrast, almost 17% of employed youth, or approximately 66 million young workers, were living below the extreme poverty threshold. Table 1.2 depicts youth working poverty rates for high-income, middle-income and low-income countries.[7]

TABLE 1.2 YOUTH WORKING POVERTY RATES

YOUTH WORKING POVERTY RATE (%, <USD PPP 1.90/DAY)					
	2015	**2016**	**2017**	**2018***	**2019***
WORLD	15.1	14.7	14.6	14.2	13.8
High Income Countries	0	0	0	0	0
Upper-Middle Income Countries	3.6	3.2	3.2	2.9	2.7
Lower-Middle Income Countries	17.9	16.8	16.2	15.2	14.3
Low Income Countries	43.4	42.7	42.1	41.1	40

* Data for 2015-2017 are estimates while data for 2018-2019 are projections.
Source: ILOSTAT, http://www.ilo.org/ilostat/.

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[6] ILO 2017.
[7] ILOSTAT, http://www.ilo.org/ilostat/. Table reflects data as of June 2018.

Furthermore, a large share of youth are not in employment, education or training (NEET).[8] In 2017, ILO estimated that approximately 22% of young people were NEETs.[9] Young women are more likely to fall in this category, as, globally, the female youth NEET rate was estimated at 34.4%, while the male youth NEET rate was estimated to be slightly less than 10%. These numbers illustrate the significant share of young persons who are outside the labor force.

The consequences of unemployment can be more severe for youth than adults. Extended periods of unemployment experienced at a young age can result in lower lifetime earnings. A delayed first job can negatively impact future earning capacity. Furthermore, extended periods of unemployment limit young people's ability to develop technical and professional skills, creating a barrier to future employability.[10]

Youth unemployment and underemployment also has implications for the overall wellbeing of a country's social fabric and can increase the possibility of youth indulging in destructive behaviour, such as crime and violence, self-destructive health habits, and disengagement from society.[11] In Africa, the Middle East and Europe, youth unemployment has been found to aggravate civil unrest and domestic security issues, leading to outbreaks of low-intensity conflict such as protests and riots or even more organized, political upheaval and armed conflict.[12]

High youth unemployment rates, youth NEET rates, and the high numbers of working young people who live in poverty, have made youth employment a priority on the global agenda. It has gained such prominence that the UN has included the measurement of youth NEET rates as an indicator for monitoring progress towards the achievement of the SDGs under Goal 8.[13] Creating opportunities for youth to engage in quality jobs will not only support increased social cohesion, but will enable more inclusive and sustainable economic growth in LMICs.[14]

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[8] The youth NEET rate provides a measure of young persons (aged 15-24) who are outside the educational system, not in training and not in employment as a percentage of the total youth population.

[9] ILO 2017.

[10] African Development Bank 2012.

[11] Fox and Kaul 2017.

[12] Azeng and Yogo 2013.

[13] The full list of targets and indicators for SDG 8 is available at https://sustainabledevelopment.un.org/sdg8.

[14] ILO follows a more specific definition of job quality, referred to as 'decent work'. For more information on ILO's Decent Work Agenda, visit https://www.ilo.org/global/topics/decent-work/lang--en/index.htm.

2.2   The Digital Economy

Reshaping Economies

Digital technology is transforming economies and societies in profound ways.[15] Improvements in communications have revolutionized the global organization of the production of goods and services. Technology has extended global value chains to link various stages of manufacturing across multiple countries. The ability to buy and sell goods and services online has transformed and further globalized marketplaces. Digital technologies, including the Internet, are also changing the way citizens interact with governments and how young people learn.

Without appropriate policies, the growing digital economy will fail to be fully inclusive. Social inclusion is the foundation for a nation's shared prosperity. Inclusive economic growth expands national economies while ensuring the most vulnerable communities are not left behind, helping to combat poverty, unemployment and inequality. However, Internet access remains highly uneven across and within countries. While almost four-fifths of the world's population has access to a mobile phone, nearly 60% of the world's population lack computer access to the Internet.[16] At the country-level, gaps between the poor and well-off in Internet access as well as use of digital technology at work are large.[17] Populations in rural areas also have lower rates of Internet access and mobile penetration. Women also experience greater barriers to access, use and ownership of digital technologies, as well as access to training in these technologies.[18]

FIGURE 1.1   BARRIERS TO LMICS' FULL PARTICIPATION IN THE DIGITAL ECONOMY

Inadequate protections to ensure data security

Inadequate skills in the workforce

Regulatory structures that constrain competition or discourage entrepreneurship

Lack of accessible, affordable and reliable ICT infrastructure

Source: Authors.

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[15] This report will not discuss in detail the changing nature of work as it is the subject of the upcoming World Development Report 2019.
[16] World Bank 2016a.
[17] Ibid.
[18] World Bank 2018.

LMICs not engaging fully in the new digital economy risk falling further behind. Digital jobs offer multiple pathways for economic development and poverty reduction. However, for this potential to be fully realized, countries must overcome economic, social and institutional barriers to provide equal access to technology, education and business opportunities to all (see Figure 1.1). All countries will need to grapple with these changes and alter their education and training systems to provide the more advanced technical and soft skills needed, and rewarded, by the new economy. This will be particularly important for youth entering the labor market for the first time.

New Forms of Work

Rapid technological changes are profoundly disrupting labor markets.[19] Technology adoption often causes short-term labor displacement. As the costs of machinery and other technologies continue to lower, workers in low-skill, routine-intensive jobs are increasingly susceptible to automation. Yet, the extent to which technological change will result in job loss remains a matter of debate. A 2016 study estimated that, on average, 9% of jobs throughout the 21 OECD member countries are automatable.[20] A 2017 McKinsey report estimated that half of all current work activities could potentially be automated by adopting current technologies. Furthermore, for roughly 60% of jobs, at least one-third of the duties could be automated by 2030.[21] While these numbers are estimates, they indicate significant changes for workers and workplaces in the near future. Competition for low-skill jobs may increase, and re-skilling workers, when possible, may prove costly.

Traditional jobs are being transformed, and new forms of work are being created. Large companies are increasingly contracting smaller firms in other countries to perform entire business processes and functions. In 2013, an estimated 4.2 million individuals worldwide were engaged in virtual freelance work for clients through online platforms such as Upwork (formerly elance-odesk) and Freelancer. These e-lancers performed relatively sophisticated tasks such as web page design, graphic design, and market research.[22] A growing number of workers are also engaging in *microwork*, whereby people work online to complete a series of small, less skill-intensive tasks through platforms such as Amazon Mechanical Turk (MTurk) and Figure Eight (formerly CrowdFlower). Common activities for microworkers include data input, data verification, image tagging, proofreading and text transcription. While technology may displace workers in some jobs, it directly creates jobs in the IT and other industries.

This rapidly changing world requires a new set of skills for young workers. It is estimated that the number of roles requiring digital skills will grow by 12% by 2024. As firms' production and employment needs continue to change rapidly, the youth labor supply needs to be able to rapidly adjust to meet demand. Notably, young workers must commit to lifelong learning, where they

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[19] World Bank 2016a.
[20] Arntz, Gregory and Zierahn 2016.
[21] McKinsey Global Institute 2017a.
[22] World Bank 2016a.

continue to acquire skills and knowledge in order to remain relevant in the labor market. In 2017, Accenture developed a 'New Skills Now' taxonomy that maps the skills youth must possess in order to remain competitive in the future (see Figure 1.2).

FIGURE 1.2   ACCENTURE'S 'NEW SKILLS NOW' TAXONOMY

APPLY WE'Q
Skills to interact, build relationships and show the self-awareness needed to work effectively with others in person and virtually.

CREATE AND SOLVE
Skills to approach problem solving creatively, using empathy, logic and novel thinking.

CULTIVATE A GROWTH MINDSET
Skills to stay relevant, continuously learn and grow, and adapt to change.

BUILD TECH KNOW-HOW
Skills and know-how to use, manipulate and create technologies and data.

LEARN TO EARN
Foundational skills to get work and be ready for the workforce.

SPECIALIZE FOR WORK
Relevant skills to address local market priorities and industry needs.

Source: Accenture 2017.

Digital technologies are also enhancing livelihoods in a variety of ways, including through online platforms and in the gig economy. For example, web-based platforms make possible the rapid growth in on-demand exchange of services such as ride-sharing[23] and food deliveries. E-commerce sites such as Etsy and Alibaba allow millions of small-scale artisans and traders to access an international customer base. Platforms using Internet or mobile phones help match jobseekers to employers more efficiently, and allow remote farmers to obtain price information, find buyers for their output, and get technical assistance.

The digital revolution has significant implications on traditional ways of addressing job security and social protection for many workers. Many new forms of work in the digital economy offer advantages such as flexibility in terms of hours and the ability to work from remote locations. At the same time, this work can be viewed as precarious, offering little or no job security or benefits. Additionally, work performed online is often virtually invisible to governments, and is consequently harder to bring under the umbrella of social protection and labor regulation.[24]

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[23] For the purposes of this report, the authors use the terms ride-sharing and ride-hailing interchangeably.
[24] Berg 2016; Fanggidae et al. 2016.

Policy has yet to adapt to these changes in ways that maintain competitiveness while ensuring the well-being of digital workers.[25]

2.3 Why Focus on Young Women?

Young Women Risk Falling Further Behind

Disparities in labor force participation rates between young women and young men persist. In 2017, the global labor force participation rate for young men aged 15-24 was 53.7% whilst that for young women was 37.1%.[26] However, gaps in labor force participation rates only tell a part of the story. There are persistent inequalities in earnings, time spent, productivity, and the types of jobs that men and women do, further affecting women's wellbeing and empowerment. Therefore, it is not enough to simply create more jobs, there is a need to focus on improving women's access to good quality jobs.[27]

This gender disparity in the labor market is replicated in the digital economy. The global proportion of women using the Internet is 12% lower than that of men. In almost every region of the world, Internet user rates are higher for men than they are for women.[28] Infrastructure gaps, high costs, lack of relevant content, and the prevalence of online harassment and violence targeting women also reinforce the digital gender divide.[29]

Implications for Young Women

Reducing the digital gender gap can be economically and socially transformative. Digital jobs can increase young women's productivity, earnings, and financial independence.[30] Jobs involving online work offer flexibility that can help young women to overcome mobility constraints and combat restrictive gender norms. Digital work can also help reduce longstanding occupational segregation in various industries, including the ICT sector. Importantly, as technology continues to transform societies, digital tools and services must reflect the diversity of the global population. Digital solutions must be developed *by* women and men *for* women and men.

Youth employment programs targeting digital job creation must advocate and educate companies on gender-inclusive human resource policies and practices. In 2015, McKinsey found that advancing women's equal economic participation could add USD 28 trillion to annual global

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[25] This report will not discuss in detail the challenge of adapting social security systems to this new way of working, as it is the subject of the upcoming World Development Report 2019.
[26] ILO 2017.
[27] Datta and Kotikula 2017.
[28] ITU 2017. Internet penetration rates refer to the number of women/men using the Internet, as a percentage of the total respective population of women/men.
[29] World Wide Web Foundation 2015; GSMA Connected Women 2015; GSMA Connected Women 2018.
[30] Broadband Commission for Sustainable Development 2017a.

GDP by 2025.[31] Recent World Bank research found that gender inequality in earnings can contribute to a loss in wealth USD 23,620 per person.[32] Employers of all sizes must realize the proven return on investment in gender-balanced workplaces.

It is critical that such youth employment programs for digital jobs address constraints to digital job creation broadly, as well as specific barriers to young women's access to these jobs. For example, Tunisia, Egypt, Algeria, Nigeria and Pakistan ranked at the bottom of the 2015 Workforce of the Future Index – a tool that measures the preparedness of the labor force in 56 countries' to work in technology-rich environments.[33] Analysts found that the technological aptitude of these five countries' workforces were limited by "weak education systems, meagre infrastructure, lower technology integration in everyday life and poor business and government environments."[34] These governments are taking steps to reduce or remove these barriers. In Pakistan, the Ministry of Information Technology and Telecommunication has launched the "ICT for girls" initiative, which provides girls and women from disadvantaged backgrounds with access to digital skills training and equipped them with broadband supported devices.[35] In addition to addressing these barriers, interventions must also overcome those barriers in the enabling environment that limit access to those jobs by women. Such constraints include discriminatory regulations, laws which do not guarantee the protection of women from online threats, restrictive social norms, and limited access to assets for women, among many more.[36]

To increase women's participation in the digital economy, new program models must be developed to address women's specific needs. Programs intended to connect youth with digital jobs often fail to address women's constraints in accessing and utilizing ICTs. It is imperative for digital jobs programs to be designed with young women in mind. To do so, practitioners and policy-makers must understand the program design and implementation strategies that overcome these barriers and generate optimal employment outcomes for young women.

New youth employment programs must integrate digital skills training with enterprise promotion in the private sector. Many governments and civil society organizations are looking to digital jobs to combat growing youth unemployment rates. However, most youth digital employment programs focus primarily on skills-building. While an emphasis on including digital skills in training programs is crucial it is also critical to address the constraints facing firm growth that will create new jobs that could adequately utilize these newly gained digital skills of the growing youth population. Youth employment programs must utilize an integrated approach to digital jobs to help young people fully leverage the potential benefits of the digital economy.

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[31] McKinsey Global Institute 2015a.
[32] Wodon and de la Briére 2018.
[33] The Economist Intelligence Unit 2015.
[34] Ibid, 6.
[35] https://news.itu.int/how-pakistan-is-promoting-women-and-girls-in-ict/.
[36] GSMA 2015; Broadband Commission for Sustainable Development 2015; World Bank 2018a. The Internet can both empower young women and expose them to new risks. Online harassment, abuse, theft and fraud are significant barriers to women's productive ICT access and use. Lack of awareness of women's rights online and offline, and low law enforcement capacity, can also lead to under-reporting of these incidents.

3.   An Integrated Framework for Digital Jobs

Highlights

- *There are three categories of digital work: ICT-intensive work; ICT-dependent work; and ICT-enhanced work.*
- *There are three levels of digital skills: advanced; intermediate; and basic.*
- *The sources of digital work are presented in a typology that identifies four broad drivers of demand for digital jobs: I. Public Sector; II. Private Sector; III. Online Outsourcing; and IV. Digital Platforms to Improve Livelihoods.*
- *It is necessary to understand both the drivers of demand for digital jobs, as well as the supply of available skills to perform those jobs. Providing training programs on digital skills may be insufficient to stimulate youth employment if there are not enough existing jobs or new jobs being created in the market that require those skills.*
- *Although concerns persist, digital jobs provide a means for young women to circumvent constraints to labor market participation arising from lack of mobility or from social norms. The flexibility of digital work can also allow women to combine paid work with household or caregiver responsibilities.*

3.1   The Demand-Side: Drivers of Demand for Digital Jobs

S4YE's 2018 *Stock take of Evidence of Youth Employment Programs* revealed that almost two-thirds of youth employment programs fail to have any impact on youth employment.[37] One reason for this limited impact is that traditional youth employment programs often focus only on the supply-side, by working with youth in helping them overcome constraints through programs that deliver skills, training, counselling, and other services. While these supply-side efforts are important, many programs often ignored or under-emphasized the demand-side program design components which work with firms to ensure that enough good quality jobs are being created in the first place. It is critical for youth employment programs to adapt strategies that simultaneously address both the supply- and demand-sides in an integrated way.[38]

This chapter takes an integrated view of the digital jobs agenda by discussing the different possible drivers of demand for digital jobs. This chapter also highlights challenges on the supply-side, especially the role of digital skills.

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[37] Datta, Assy, Buba, Watson et al. 2018a.
[38] Datta, Assy, Buba, Watson et al. 2018b. Integrated youth employment strategies that combine supply- and demand-side interventions have long been promoted by thought-leaders in the youth employment space, including the ILO. S4YE proposes a new framework for thinking through an integrated approach to youth employment interventions.

Defining Digital Jobs

All work that uses digital technology, or is made possible by such technology, could be considered 'digital work.' However, this broad definition would likely encompass the majority of jobs by those who are working in advanced economies.[39] At the other extreme, the term 'digital work' is sometimes applied to a limited scope of advanced careers in the IT industry, such as software developers. This definition is too narrow, and does not capture the growing demand for highly-skilled workers outside of the ICT industry. Therefore, this report employs a more nuanced categorization that distinguishes between three categories of digital work: *ICT-intensive jobs* that are directly focused on ICTs; *ICT-dependent jobs* that use digital technologies to varying degrees and are made possible by ICTs; and *ICT-enhanced jobs* that use digital technologies to varying degrees, but could be performed without ICTs.

FIGURE 3.1   TYPES OF DIGITAL WORK
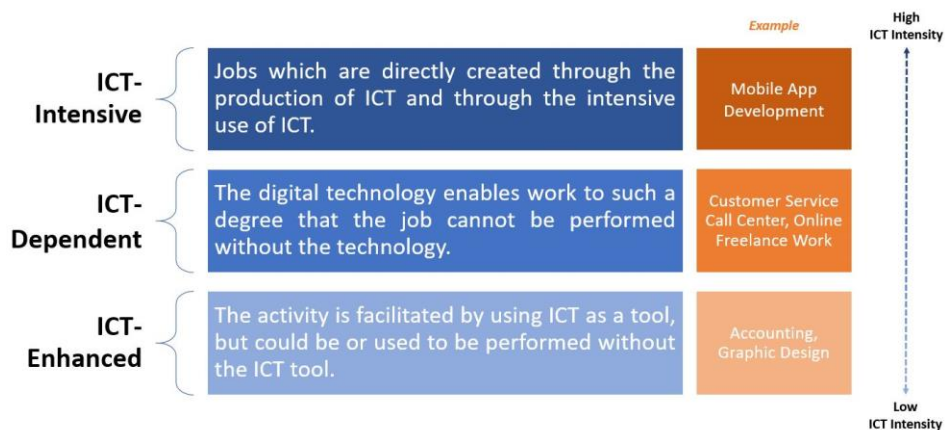
Source: Adapted from World Bank 2013; OECD 2005.

The categories of digital work will often overlap. Most ICT-enhanced jobs are traditionally performed in offices or other standard workplaces that are enhanced by using digital technology for some or all tasks. This includes an office assistant using word-processing or spreadsheet software. Jobs that are contracted, submitted and/or carried out online can be classified as ICT-dependent, because they could not exist without the Internet. Similarly, such jobs could also be considered as ICT-enhanced if tasks include traditional activities that are conducted using industry software, such as editing or financial analysis. This job may even involve ICT-intensive work, in the case of e-lancers doing coding or website development. Despite the potential overlap, this categorization still facilitates granular industry-level analysis.

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[39] Bukht and Heeks 2017.

The above categories focus on the use of ICT as a direct aspect of one's work activities. However, the digital revolution is impacting livelihoods across the globe in other important ways as well. Online platforms or simpler applications using mobile phones facilitate the on-demand exchange of services such as ride-sharing and food deliveries; make it possible for millions of small scale craftspersons and traders to access an international customer base; and allow remote farmers to obtain price information, find buyers for their output, and get technical assistance from extension services. While these applications of ICT do not necessarily directly create new jobs, or require significant digital skills as defined above, their impact on productivity and incomes, especially among the world's poor, may be profound. Hence these applications will also be considered in the typology presented in Table 3.1.

Defining Digital Skills

Digital skills exist on a continuum, ranging in level from basic to intermediate to advanced (see Figure 3.2).[40] These skills refer to "a combination of behaviours, expertise, know-how, work habits, character traits, dispositions and critical understandings"[41] that enable youth to actively participate in and contribute to the digital economy.

FIGURE 3.2   TYPES OF DIGITAL SKILLS

		Example	High Skill
Advanced Digital Skills	Skills necessary to create, manage, test and analyze ICTs. They relate to technology development, network management, machine learning, big data analysis, IoT, cybersecurity and blockchain technology.	Software Development, Cloud Computing	
Intermediate Digital Skills	Skills that enable one to use ICTs in more meaningful and beneficial ways. These are generally job-ready skills needed to perform work-related functions, such as desktop publishing and digital graphic design.	Digital Marketing, Social Media Management	
Basic Digital Skills	Generic ICT skills required for nearly all digital jobs. They relate to the effective use of technology, including web research, online communication, use of professional online platforms.	Using a Keyboard, Online Search, Sending Email	Low Skill

Source: ITU 2018.

In order for youth to successfully perform digital work, they must develop digital skills. These skills qualify youth for jobs in traditional sectors while also empowering youth to thrive in emerging sectors and even launch their own businesses. As the nature of work continues to change, digital skills will become increasingly important for youth to engage in new forms of work, such as virtual freelancing, and participate in the gig economy and online job marketplaces.

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[40] ITU 2018.
[41] Broadband Commission for Sustainable Development 2017b.

While this section focuses on digital skills, there are additional work-relevant skills that youth need to succeed in the digital economy. The 2016 World Development Report describes cognitive and non-cognitive skills that complement digital skills.[42] *Cognitive skills* encompass literacy and numeracy, as well as higher-order skills such as reasoning, creative thinking, and problem-solving ability. *Non-cognitive (or 'soft' or 'socio-emotional') skills* that enable someone to cooperate with others, communicate, and be responsible. Non-cognitive skills also include personal traits such as openness, conscientiousness, self-control, and grit. Similarly, the World Economic forum identifies three pillars of '21st century skills': *Foundational Literacies*, which describe how students apply core skills to everyday tasks (e.g. literacy, numeracy, digital skills); *Competencies*, which refer to how students approach complex challenges (e.g. critical thinking, problem-solving, communication); and *Character Qualities*, which encompass how students approach changing environments (e.g. curiosity, initiative, persistence, leadership). Regardless of how they are categorized, the digital economy is creating cross-functioning roles that require youth to have technical, social and analytical skills.[43]

Categorizing Drivers of Demand for Digital Jobs

The classification of types of digital work is a useful way to categorize the levels of use of digital technology at work, but it leaves unanswered the question of the sources of these jobs. To stimulate youth digital employment, it is necessary to first identify the sectors of the economy where digital jobs are found. This section employs a typology of drivers of digital work to examine sectors that are sources of jobs that use ICTs to enable jobs or enhance livelihoods.

FIGURE 3.3   DRIVERS OF DEMAND FOR DIGITAL JOBS
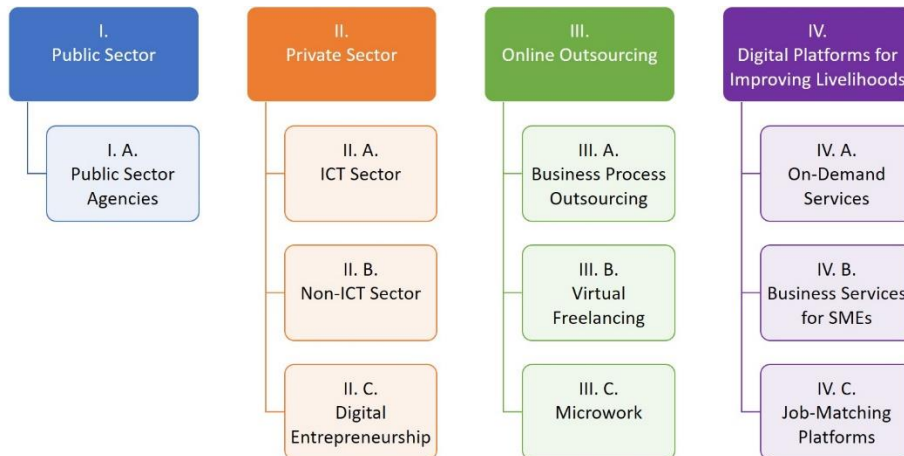
Source: Authors.

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[42] World Bank 2016a.
[43] ITU 2018; WEF 2015; WEF 2016.

The typology identifies four drivers of demand for digital jobs (see Figure 3.3). These drivers are: (I) Public Sector; (II) Private Sector; (III) Online Outsourcing; and (IV) Digital Platforms for Improving Livelihoods. To enable sector-level analysis, these drivers are divided into subcategories:

- The public sector comprises of (I. A.) Public sector agencies.
- The private sector includes: (II. A.) Businesses in the ICT sector; (II. B.) Other businesses, ranging from retail to manufacturing to finance; and (II. C.) Digital entrepreneurs.
- Online outsourcing includes: (III. A.) Business process outsourcing (BPO); (III. B.) Virtual freelancing; and (III. C.) Microwork.
- Finally, the framework includes online platforms that have significant impacts on livelihoods: (IV. A.) On-demand services and the shared economy; (IV. B.) E-commerce websites and business services for SMEs; and (IV. C.) Online job-matching services.

Although online outsourcing could be classified under private sector, it is treated as a separate category for two main reasons. Online outsourcing has played a unique role in taking the fourth industrial revolution to LMICs. As online outsourcing continues to create employment opportunities for vulnerable youth, it merits its own separate focus as a catalyst for change. Secondly, digital jobs interventions connecting young women specifically with online outsourcing opportunities often have distinct program design components that differ from interventions placing women in the private sector at large. These differences are described in greater detail in Section 3.2.

The typology presented in Table 3.1 provides in-depth detail for each of the drivers.[44] First, the typology presents a definition and provides examples for each subcategory. It then matches the drivers of demand to the main kinds of digital work involved in each sector. The typology also identifies the typical level of digital skills and other skills required to perform each type of work. Finally, it identifies the types of work arrangements that are prevalent in each subcategory.

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[44] This report does not discuss in detail the rapidly changing nature of work, which is the subject of the upcoming World Development Report 2019.

TABLE 3.1 DRIVERS OF ICT-INTENSIVE, ICT-DEPENDENT AND ICT-ENHANCED WORK

Sector classification	Definition	Examples	Type of Digital Work	Digital Skills (required)	Additional Skills (preferred)	Work Arrangement	Additional Comments
I. PUBLIC SECTOR							
I. A. Public sector agencies	Regular operations and functions in government departments and agencies (including record keeping, billing, human resources); New e-public goods and e-governance using specialized software	E-public goods; Big data; E-governance; cyber security; IT maintenance; military intelligence; artificial intelligence; administrative (health, education, justice)	ICT-intensive; ICT-enhanced	Advanced; Intermediate; Basic	Varied	Wage, formal, permanent	Public agencies also often use in-house IT specialists to maintain systems.
II. PRIVATE SECTOR							
II. A. ICT sector	Services and manufacturing related to computer, telephone, broadband and audiovisual networks	Web development; network administration; virtual reality; cybersecurity; IoT; machine learning; blockchain technology	ICT-intensive	Advanced	Strong cognitive, analytical skills	Wage, formal, permanent	Excludes non-digital work in IT sector
II. B. Non-ICT sectors	Any non-specialist IT jobs using digital tools such as word processing, spreadsheets, etc. Includes routine operations and specialized software applications	Billing, finance services; medical care records; business consultants; desktop publishing; in-house ICT services	ICT-intensive; ICT-dependent; ICT-enhanced	Advanced; Intermediate	Varied	Wage, permanent, formal and informal	Large firms may use in-house IT specialists to maintain systems.
II. C. Digital entrepreneurship	Ventures using Internet, digital products or services or digital distribution channels, incl. cloud services	Application development; online education; web hosting; membership sites	ICT-intensive; ICT-dependent	Advanced; Intermediate	E-business skills, strong cognitive, analytical skills	Self-employment, entrepreneur	-
III. ONLINE OUTSOURCING							
III. A. Business process outsourcing	Outsourcing of entire business processes to another country, incl. low-skill front office processes (e.g., customer service) and high-skill back office processing (billing, accounting, or medical diagnostics)	Call centers (e.g. in India, Philippines, China, South Africa, Kenya); Impact sourcing service providers (ISSPs); medical diagnostics (radiology)	ICT-dependent	Intermediate; Basic	Foundational cognitive skills, soft skills (front office), strong cognitive/analytical skills (back office)	Wage, formal, permanent	-

Sector classification	Definition	Examples	Type of Digital Work	Digital Skills (required)	Additional Skills (preferred)	Work Arrangement	Additional Comments
III. B. Virtual Freelancing	Jobs involving complex tasks (translation, coding, web/graphic design, software development, technical writing), distributed via an online platform	Upwork; freelancer.com; 99designs	ICT-dependent	Advanced; Intermediate; Basic	Strong cognitive/analytical skills, Soft skills	Self-employment, temporary	Work done within longer projects than microwork (days, weeks)
III. C. Microwork	Business processes are broken down into small tasks (e.g., data input, proof-reading, image tagging, and text transcription) which are then distributed to workers via an online platform.	MTurk, Figure Eight; ISSPs (e.g. Samasource, CloudFactory)	ICT-dependent	Basic	Foundational cognitive skills	Self-employment, temporary	Microtasks are quickly performed (seconds, minutes) and workers are paid small amounts by task
IV. DIGITAL PLATFORMS FOR IMPROVING LIVELIHOODS							
IV. A. On-Demand Services Platforms	Online on-demand services that require ICT	Ride hailing (e.g Lyft, Uber, Gojek); Food delivery (e.g Deliveroo, UberEats, Foodora)	ICT-dependent	Basic*	Varied**	Self-employment (Independent contractor)	For this discussion, excludes platforms that facilitate asset sharing but not labor (e.g. Airbnb)
	Online on-demand for traditional services facilitated by ICT	Babysitting; Home services (e.g. Taskrabbit); Home cleaning	ICT-enhanced	Basic*	Varied**		
IV. B. Business Services for Farmers & SMEs	Online information services for farmers and small entrepreneurs, providing price and weather info; links to buyers; funding and technical services; online markets	For farmers: M-Farm (Kenya), ict4dev.ci; Lelapafund (Kenya)

For SMEs: Alibaba, Etsy | ICT-enhanced | Basic* | Varied** | Self-employed, entrepreneurs, farmers | - |
| **IV. C. Job-Matching Platforms** | Online services matching of job seekers and employers; Online career and job counseling | SoukTel, Kazi Connect, Jobberman (Nigeria) | ICT-enhanced | Basic* | Varied** | Wage | Excludes platforms used to find and perform online work |

*   For digital platforms, this refers to digital skills needed to access platforms, not to the work that is enhanced or located through the platforms.

**   Refers to skills needed for work that is enhanced or located through the digital platform.

3.2   Drivers of Demand in Digital Employment

I.   Public Sector

I. A.   Public Sector Agencies

Many governments have made significant investments to incorporate ICTs into their administrative functions and operations. As of 2014, all 193 UN member states had national websites; 101 enabled citizens to create personal online accounts, 73 allowed income taxes to be filed online, and 60 had online systems for registering a new business. For the most common government administrative operations, 190 UN member states had automated fiscal management systems, 179 used online systems for customs processing, and 159 for tax management. Further, 148 member-states had some form of digital identification, and 20 had multipurpose digital identification platforms.[45] So far, developing countries have invested more in automating back-office functions than in services directed at citizens and businesses.[46] Additionally, government jobs in developing countries are more likely to be ICT-intensive than jobs in the private sector. As this process of digitization continues in LMICs, the public sector should be a robust source of demand for workers with both basic and advanced ICT skills. However, this requires governments to make sustained, long-term investments that withstand changes in leadership.

Governments are increasingly using the Internet to better provide information and services that affect citizens' livelihoods. In South Asia, Latin America and Sub-Saharan Africa, government bodies are increasingly utilizing ICTs to deliver extension services. For example, agricultural agencies are providing advice on crops, soils, and inputs using ICTs, with far more reach than traditional in-person services. E-voucher systems for distributing subsidies for seeds, fertilizer and other farm inputs can eliminate intermediaries, reduce corruption and leakages, and enhance efficiency. E-vouchers have been introduced in Nigeria, Zambia, Malawi and Zambia with promising signs of success.[47] These services are also creating new opportunities for work. In Uganda, *Farmer's Friend* is a mobile application that provides information for smallholder farmers, as well as providing community jobs in the form of data collection on animals and plants on local farms. The increasing pressure on public authorities to extend reach of basic services to the marginal communities and regions, and be more responsive, accountable and transparent in allocation of public resources, creates more demand for public agencies to hire digitally skilled employees.

While promising, e-public goods and e-governance initiatives have often, but not always, performed short of expectations. An e-voucher system to enable Zambian farmers to receive direct government subsidies for farming inputs, while reducing leakages and having other

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[45] World Bank 2016a.
[46] World Bank 2016a.
[47] Dorward and Chirwa 2011; Mazvimavi et al. 2013; Mwenge and Masumbu 2016.

benefits, was found to help well-off farmers more than poorer ones, because many poor farmers could not come up with the necessary down payment to activate their cards.[48] E-public good initiatives may be limited in reach, and inaccessible for many vulnerable communities, if they rely solely on the Internet. The reasons for the limited success of e-governance initiatives directed at improving government accountability service quality through digital information provision and feedback include lack of adequate ICT skills in government agencies and rigidities in procurement of the necessary ICT services.[49]

Many government agencies are experiencing a shortage of supply of ICT specialists, which is often driven by challenges in channeling youth – particularly young women – into STEM careers.[50] Many countries are pursuing aggressive agendas to close the gender skills gap, and develop their ICT sector and ICT-skilled workforces. Countries are also coordinating initiatives to promote advanced ICT careers that operate outside of the formal education system. Mexico's Código X initiative was created to promote collaboration between industry, civil society, academia and government to expand access of women and girls to the ICT field. Kosovo and Georgia have also launched efforts to develop ICT training, with explicit efforts to target young women for high skill ICT occupations.[51] Government efforts to encourage women's participation in STEM careers are discussed in more detail in Chapter 6.

II.   Private Sector

II. A.   ICT Sector

On average, the ICT sector accounts for 1% of the workforce in LMICs.[52] This includes all workers in ICT firms, not just ICT specialists. Approximately 1% of workers in LMICs are characterized as ICT specialists. For more advanced OECD economies, the share is 2-5%.[53]

Trends in data from OECD countries indicate that the ICT sector in LMICs will likely continue to expand, but may not become a major generator of direct employment. In 2015, the ICT sector accounted for 10% of total value added in South Korea, over 7% in Sweden and slightly less than 7% in Finland.[54] However, multiplier employment effects may be large, and benefit lower income individuals.[55] In the US and Turkey, one job in the high-tech industry generates 3 to 5 jobs elsewhere in the local economy. Many of these additional jobs are low- or medium-skilled in local services such as retail, cleaning, and food preparation. Hormuud Telecom, the largest operator in Somalia, employs 5,000 staff and supports 25,000 agents. While direct employment effects

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[48] Mwenge and Masumbu 2016.
[49] World Bank 2016a.
[50] Ibid.
[51] Ibid.
[52] Ibid.
[53] World Bank 2016a.
[54] OECD 2017c.
[55] World Bank 2016a.

may be skewed toward the highly skill-intensive jobs, employment spillovers of the ICT sectors are more likely to benefit the lower skilled jobs.[56]

Constraints to expansion of the ICT sector include a lack of enabling policies in the areas of regulation, cyber security, trade and competition, lack of skilled ICT specialists, and underdeveloped ICT infrastructure. In a 2017 global survey of employers, ICT staff were listed as the second most difficult set of jobs to fill.[57] Lack of access to ICT expertise explains in part why smaller firms in LMICs lag in uptake and integration of ICT, and why many firms do not participate in business-to-business e-commerce despite the potential for access to an international customer base.[58] Furthermore, in order for ICTs to be adopted in trade and production, firms and entrepreneurs must have access to reliable and affordable high-speed broadband infrastructure.

II. B.   Non-ICT Sector

The greatest potential for digital technologies to improve employment opportunities lies outside the ICT sector.[59] The need for workers with basic, intermediate and advanced digital skills is increasing across all sectors of the economy in virtually all countries, as more and more firms as well as governments adopt new digital technologies. This is evidenced by the sharply rising share of workers using digital technology on the job across all sectors – a share that is rising faster in developing countries than in developed ones.[60]

Digital technologies can increase total employment and earnings in ICT-dependent industries by improving productivity and boosting companies' growth throughout the economy. For example, as the number of Internet domains and users per capita in China grew between 1997 and 2007, employment in ICT-dependent industries flourished. In Brazil, between 2009 and 2013, firms in ICT-dependent industries experienced greater wage increases across skill levels compared to the rest of the economy (though they did not experience faster employment growth).[61]

Workers with advanced skills are best positioned to take advantage of digitalization's effects on employment opportunities in non-ICT sectors. Findings from a study of the effects of ICT investments on labor demand in selected OECD countries between 1990 and 2012 suggest, in the period after 2007, ICT investments increased employer demand for high- and low-skilled labor compared to medium-skilled labor, though this effect was estimated to be temporary.[62] Globally, about half of ICT specialists work in non-ICT sectors, further illustrating the economy-wide importance of the availability of high-level skills to manage ICT operations in large firms and

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[56] Ibid.
[57] Manpower Group 2017.
[58] World Bank 2016a.
[59] Ibid.
[60] Ibid.
[61] Ibid.
[62] OECD 2017b.

government agencies.[63] The increase in demand for high-skilled workers that resulted from a tax allowance program for ICT investments in small firms in the United Kingdom further illustrates this trend.[64]

Digitalization reallocates employment opportunities across non-ICT industries. While labor demand decreased with ICT investments in manufacturing, business services, trade, transport and accommodation, and financial services sectors, labor demand increased as a result of ICT investments in sectors such as culture, recreation and other services, as well as construction and government. [65] These findings highlight the need for policies to support growth in industries where ICTs have positive effects on employment, for example by motivating ICT adoption by companies in these industries and supporting worker skill development to promote transitions into these industries.[66]

II. C.   Digital Entrepreneurship

Digital entrepreneurship may be especially important in countries where fiscal constraints limit the number of public sector jobs available, and slow economic growth limits the number of jobs being created by the formal private sector. In such a scenario a vibrant entrepreneurship ecosystem can help youth start and grow their own businesses, thus also creating more jobs (and growth) in the economy. Digital entrepreneurship and app development are tightly linked. The term 'digital entrepreneurship' most commonly refers to the process of creating an Internet enabled/delivered business, product or service.[67] This is often related to the development of an application that makes the business, product or service possible. For example, it is impossible to separate the Uber ride-sharing service from the Uber app now installed on millions of smartphones. Digital entrepreneurship has been enhanced by the advent of cloud computing, which allows firms to access business computing services online. This reduces hardware and software costs, and helps entrepreneurs avoid large up-front investments.[68]

An enabling environment for digital startups includes favorable regulations governing entry into established industries, as well as access to finance. In countries such as India and the US, a well-developed ICT ecosystem allows small startups to benefit from outsourcing by large ICT companies and the public sector to small firms to provide services and apps and other products. Where these conditions are lacking, or where policies are biased toward larger or more established firms, the development of digital startups will be constrained.[69] A study of startups in Kenya notes the high barriers remaining for young entrepreneurs, in terms of access to seed funding and securing partnerships with telecommunications companies.[70]

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[63] ILO 2014.
[64] World Bank 2016a.
[65] OECD 2017b.
[66] Ibid.
[67] van Welsum 2016a.
[68] Ibid.
[69] Clayton and van Welsum 2014.
[70] GSMA 2014.

Although they do not directly comprise a major source of employment, the economic impacts of digital startups are potentially catalytic. By entering and disrupting existing markets with new, web-based services or products, digital startups can provide lower prices and other benefits to consumers. These impacts come through enhanced efficiency as well as increased competition. For example, M-Pesa, the mobile phone based money transfer system in Kenya, quickly increased the frequency of transfers and the likelihood of being formally banked, while also forcing traditional services like Western Union to reduce their prices.[71] Moreover, the payment system creates additional income for more than 80,000 agents.[72]

Innovations introduced by digital start-ups can also greatly enhance and create livelihoods for low-income individuals and for women. For example, Alibaba, the online retail platform in China, has enabled very small entrepreneurs and craftspeople to sell their wares to enlarged customer bases. Approximately 40% of these retailers are women.[73] China's State Information Center estimates that the recent boom in the country's e-commerce sector has created 10 million jobs in online stores and related services, approximately 1.3% of the country's total employment.[74]

III.   Online Outsourcing[75]

III. A. Business Processing Outsourcing

Widespread improvements in ICTs have revolutionized the global organization of the production of goods and services. BPO involves the shifting of entire business processes to a third-party service provider that is often based in another location. This include international outsourcing, where the third-party service provider is located in another country, as well as domestic outsourcing, where business processes are shifted to different areas within a country.

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[71] Mbiti and Weil 2011.
[72] Ibid.
[73] World Bank 2016a.
[74] Ibid.
[75] While online outsourcing could be considered a sub category under category II – Private Sector, the rapid development of online outsourcing activities allows it to be discussed as a category in itself.

These services are usually contracted to firms that employ large workforces. In *front office outsourcing*, workers typically perform customer service functions in call centers, whereas *in back office outsourcing*, workers perform specialized business functions in accounting, finance, human resources, and health. Unlike other forms of online outsourcing in following sections, BPO involves companies setting up brick and mortar facilities for workforces.

The global BPO industry had total revenues of over USD 140 billion in 2016, and grew at an annual rate of 4.4% over 2012-2016.[76] India and the Philippines are leading host countries in the industry, with some 3.7 million employed by the sector in India alone, accounting for 9.3% of GDP.[77] In 2016, approximately 1 million workers were employed in the Philippines BPO sector, or 2.3% of the country's total workforce.[78] In 2017, the Philippines' BPO industry generated USD 23 billion in revenues, despite slowing annual growth rates for the industry.[79] Other emerging markets for BPO include Romania, Mexico, Brazil, and Malaysia.[80] With client companies and customers located largely in the US and other English-speaking countries, English language fluency gives an important advantage. Countries such as South Africa and Ghana are capitalizing on their large English-speaking populations. However, outsourcing in other languages is also growing. Francophone Morocco and Tunisia have also developed large BPO sectors by servicing a customer base in France. Similarly, Spanish language outsourcers are growing in Latin America.

Success can be elusive for LMICs attempting to enter the BPO market as a way to spur employment and development. Many African countries have competitive wage levels, English language capability, and time zones conducive to supporting customers in the US and Europe. However, while South Africa and Mauritius have done relatively well, BPO development in other countries have been slower than expected. Constraints include lack of appropriate infrastructure in the form of reliable connectivity and power, physical facilities, and IT specialists to develop and manage software systems and communications.[81] However, policymakers in Kenya have made significant investments in attracting international BPO companies while also stimulating domestic demand for outsourcing.[82] Kenyan BPO managers faced several difficulties accessing international contract, including lack of managerial experience, lack of professional connections, and physical distance from markets. In response, BPO companies have focused on attracting Kenyan and East African clients.[83]

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[76] MarketLine 2017.
[77] Dewan and Khan 2017.
[78] World Bank 2016a.
[79] Magellan Solutions 2018.
[80] Deloitte 2014.
[81] Benner and Rossi 2016; Graham et al. 2015; Ewing et al. 2012.
[82] Mann and Graham 2016.
[83] Ibid.

III. B. Virtual Freelancing

Virtual freelancing, also called e-lancing, involves relatively sophisticated tasks that can be ICT-intensive or ICT-dependent, and are performed by individuals as subcontractors. Freelancing clients tend to be SMEs that need specialized work done, but are not yet large enough to bear the costs and risks of hiring skilled, full-time workers. Online platforms such as Upwork and Freelancer coordinate the connections of firms to workers.

Pay is relatively high for freelancing work. Freelancers generally negotiate their own rates with their online clients. A recent survey of 21,000 freelancers across 170 countries found an average pay rate of USD 19 per hour, though with substantial variation by age and location.[84] Research findings indicate that those who secure full-time work earn salaries that are comparable to, or higher than, what they could earn in traditional jobs in local labor markets.[85]

The global market for online freelancing is large and growing. Precise global numbers are hard to find, in part because platforms' data are proprietary, and in part because organizations define freelancing differently. An estimated 4.2 million freelancers were active in 2013.[86] The Upwork platform estimated approximately 9.7 million freelancers were registered on the platform in 2014.[87] In 2016, India hosted 15 million registered freelancers. It is estimated that the global market is growing at 14% per year.[88]

English-speaking populations have a strong advantage in access to freelancing work, as most client companies are in English-speaking countries. As of 2015, almost two-thirds of freelancers lived in the US, followed by India and the Philippines.[89] Serbia and Romania are leaders in Europe, and South Africa and Kenya lead in Africa. Some platforms have emerged to serve particularly large domestic or regional non-English speaking markets, such as Zhubajie in China and Nabbesh in the Middle East. Overall, however, countries that lack an English-speaking workforce remain at a disadvantage.

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[84] Pofeldt 2017.
[85] Kuek et al. 2015.
[86] World Bank 2016a.
[87] Pofeldt 2016.
[88] Khetarpal 2016.
[89] Kuek et al. 2015.

III. C. Microwork

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BOX 3.3   WHAT IS MICROWORK?

Microwork is where projects and tasks are broken down into microtasks that can be completed in seconds or minutes. Microworkers require basic numeracy and literacy skills, for example, for image tagging, text transcription, and data entry. Workers are typically paid small amounts of money for each completed task, and barriers to entry are lower than in online freelancing, making it particularly attractive to unemployed and underemployed individuals with no specialized skills.

Source: Kuek et al. 2015

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Microwork is a form of online outsourcing that deconstructs a service or the development of a product into a virtual assembly line of simple, highly-repetitive tasks which are them completed by a group of individuals, who possess only basic digital skills, as well as some literacy and numeracy skills.[90] This work generally requires basic literacy, numeracy, and digital skills. The microwork value chain includes firms that are clients, service providers that break down clients' business processes into small tasks and provide the online platform to recruit and pay workers, and the microworkers themselves.

Microwork is still a relatively small industry, where demand is dominated by large businesses. By one estimate, roughly 80% of companies using microwork each have more than USD 10 million in annual revenue.[91] The microwork market is significantly smaller than that for freelancers and BPO. In 2013, there were an estimated 580,000 active online workers, representing approximately 10% of all those registered online.[92]

Pay in microwork is generally quite low, ranging from a few cents to a few dollars per task. Payment rates for microwork relative to locally available opportunities vary substantially by country. For example, in a recent survey of MTurk workers, hourly pay for those based in India was 14 times the country's minimum wage. Conversely, average hourly earnings in the US were just 74% of the minimum wage rate.[93]

Microworkers in LMICs tend to be young, generally well-educated, and disproportionately male. Despite the lower skill requirements, microworkers in LMICs are generally well-educated.[94] For example, over 90% of Indian MTurk workers have completed a bachelor's degree or higher.[95]

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[90] Ibid.
[91] World Bank 2016a.
[92] Ibid.
[93] De Groen and Maselli 2016.
[94] Berg 2016; Ipeirotis 2010; Khanna et al. 2010.
[95] Berg 2016.

69% Indian MTurk workers are men, compared with an equal gender ratio among American MTurk workers. Similarly, in a sample of CrowdFlower (now Figure Eight) workers, 73% were male.[96]

Most active microworkers in developing countries are engaged only part time in this work. For many young workers, microwork is an important but not primary source of their income.[97] Surveys indicate that microworkers, especially women, benefit from the flexibility of this work additional income. However, women also reported that they find the pay or task rates quite low, and note that stressful overwork is common.[98]

In most countries, domestic sources of demand for microworkers remain undeveloped. Governments can stimulate this demand by conducting outreach to potential partners, fostering connections between impact sourcing platforms and firms, and implementing adequate cybersecurity procedures to attract international investment. For example, in 2016 Kenya's Ministry of ICT collaborated with the office of Public Service, Youth and Gender Affairs to launch a program that connects youth with online jobs.[99] The Ajira Digital Programme has trained over 40,000 young men and women to perform microwork online.[100]

Impact sourcing has emerged in recent years as an approach to explicitly target online outsourcing opportunities to disadvantaged and vulnerable populations, including youth, women, and rural communities. Impact sourcing companies typically provide workers with shared co-working spaces, computers, and Internet access, as well as training and oversight, either directly by the provider or by a local intermediary. This approach is necessary, as many members of the target populations are likely to lack access to computers and Internet-enabled mobile devices at home. Workers at impact sourcing companies often have guaranteed hours and social benefits, alleviating many concerns about online outsourcing.

BOX 3.4   *CONCERNS ABOUT ONLINE OUTSOURCING*

Online outsourcing can provide work that vulnerable youth were unable to access otherwise. However, online microworkers and freelancers usually lack social protections afforded to other workers in the formal economy, such as minimum pay. E-lancing and microwork have traditionally been unregulated and informal, rendering it essentially invisible to governments. Currently the only regulation is that exerted by the platforms themselves. The global dispersion of the workforce also makes any form of collective action among workers very difficult. Country and donor strategies can, in principle, address concerns about the targeting and quality of online work, through impact sourcing approaches.

Source: UNGA 2017

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[96] Ibid.
[97] Ipeirotis 2010, Berg 2016; Keuk et al. 2015.
[98] Berg 2016; Graham et al. 2017b.
[99] ITU 2016.
[100] https://ajiradigital.go.ke/home.

IV.   Digital Platforms for Improving Livelihoods

IV. A. On-Demand Services

Online platforms allow individuals to offer labor services or assets to other individuals or businesses 'on-demand'. Such apps also provide benefits for workers, including documentation of hours worked, and integration with online banking services. Two iconographic examples are the ride-sharing app Uber, through which individuals sell a combination of labor services (driving) and asset services (use of their cars), and Airbnb, through which individuals provide asset services alone (use of their homes). Other services include food delivery, logistical services such as courier and package transport, and home cleaning or repair. This report only considers examples where labor services are exchanged for income.

While the on-demand economy appears to be growing rapidly in LMICs, the market remains small. One recent estimate suggests that there are 4.3 million ride-sharing workers worldwide as of 2017, with the total number expected to double by 2022.[101] Despite this growth, a very small share of workers is engaged in the global on-demand economy.[102] Further, available data suggests that only a small percentage of registered providers are actively working.[103]

Ride-hailing services are becoming increasingly popular in LMICs. Selling driving or transport services through a mobile app generally requires only basic digital skills. Yet, youth who lack access to a vehicle, an Internet-enabled phone and/or a driver's license are still likely to be excluded, as are youth living in more rural, remote or poorer areas.[104] Gojek, the ride-hailing service in Indonesia, requires drivers to have competed at least a lower secondary education. In a survey of Gojek drivers, 83% of young respondents had completed upper secondary school.[105] Additionally, most of the estimated 50% of the global population that does not own or cannot access a smartphone are less affluent, and more likely to be women.[106] Lower barriers of entry can also lead young, well-educated and digitally skilled workers to supplement their incomes by engaging in tasks that are typically performed by workers with lower- levels of education.

Despite the potential for job displacement and disruption, the sharing economy offers significant benefits for youth and women. As noted in a recent IFC and Accenture study on women and ride-hailing, sharing platforms can create new pathways for income-generating opportunities for those entering the labor-market for the first-time and those who find it difficult to work in traditional jobs.[107] The sharing economy can also benefit low-income youth by providing access to assets and resources they would otherwise not be able to afford, such as cars,

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[101] Juniper Research 2017.
[102] McKinsey Global Institute 2015b.
[103] De Groen and Maselli 2016.
[104] van Welsum 2016b.
[105] Fanggidae et al. 2016.
[106] GSMA 2017.
[107] IFC 2018.

motorcycles and bicycles. 74% of women surveyed identified the flexibility of ride-hailing work as the most valuable aspect of the job, allowing them to manage competing household and care responsibilities.[108]

On-demand platforms have the potential to reshape job categories within which women are heavily represented. Mobile apps linking domestic workers with clients are gaining traction in many LMICs, including India, Mexico and South Africa. For example, MyDidi and MrRight.in are two companies in India providing app-based domestic services, and are reportedly expanding at a rate of between 20% and 60% each month.[109]

However, the focus on traditional 'women's work' in the on-demand economy can reinforce labor market inequalities for young women. For example, domestic workers who obtain work via an app have less economic security, predictability, and ability to organize to demand improved pay and conditions.[110] Yet, as the Overseas Development Institute have argued, "the infancy of the on-demand domestic work economy in developing countries means it is not too late to raise standards."[111] Potential solutions include efforts by companies to 'design-in' good practice, as well as by government to ensure the rights of the most vulnerable workers are prioritized and protected.

IV. B. Online Services for Farmers and SMEs

Internet platforms have helped SMEs and micro-entrepreneurs to expand their customer-base with no need of a storefront presence. Alibaba has expanded markets for many small entrepreneurs and craftspersons. In 2016, the World Bank reported that Alibaba supports an estimated 10 million jobs in China, or roughly 1.3% of China's total workforce.[112] It is now estimated that Alibaba created over 36 million jobs in 2017.[113] Etsy, a peer-to-peer e-commerce platform for handmade or vintage items and various services, has an estimated 1.75 million active sellers worldwide, with 30% of its sales outside the United States.[114] E-commerce platforms have also been launched in a number of other large countries, including Flipkart and Snapdeal in India, Ozon in Russia, Jumia and Konga in Nigeria, and Takealot and Kalahari in South Africa.[115]

In agriculture, the use of mobile phones is allowing farmers to link to a wider pool of customers for their output and to obtain information about prices in distant markets. Phones can also be used to provide accurate information about weather. Many studies show that use of mobile phone to provide information results in higher prices and profits for farmers in a range of settings.[116] Other innovations make use of websites and the Internet for e-commerce without

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[108] Ibid.
[109] Kadakia 2016.
[110] Hunt 2016.
[111] Ibid, 6.
[112] World Bank 2016a.
[113] The Economic Times 2018.
[114] Esty 2017.
[115] World Bank 2016a.
[116] World Trade Organization 2013.

requiring broadband access by rural households. Such developments help overcome coordination and information asymmetries in agricultural value chains and help raise farmer productivity and incomes, hence raising the quality of agricultural jobs.

Digital technology can also facilitate low income farmers' integration into value chains for high quality production for advanced country markets. Remote producers can be connected to developed country buyers and provided guidance on producing new high value specialized crops or on standards of quality for high income country markets. The ability to connect digitally to remote rural producers in poor countries makes it more feasible to monitor quality and safety and allows those farmers to enter new markets. The use of such digitally integrated systems in agricultural value chains is still limited, but has the potential to raise incomes and make agriculture a more attractive, skill-intensive occupation for young people.[117] For these benefits to accrue to small farmers, governments must make complementary investments in technical assistance, physical infrastructure (ICT and transportation) and literacy.[118]

IV. C. Online Job Matching Platforms

The Internet is transforming how youth seek jobs and employers seek workers. In advanced economies, and increasingly in LMICs, the delivery of employment services has been revolutionized by the use of the Internet to post resumes and job announcements. Counseling and other individualized services are also increasingly carried out online.

Job matching programs have been adapted to populations that lack Internet access but have mobile phones. SoukTel, a social enterprise that designs and delivers custom mobile solutions and mobile service provider, has developed MatchMe, a job-matching application that is being used in the across the Middle East, Africa and Asia. The MatchMe platform for firms and potential employees to connect via instant-messaging channels, including WhatsApp, Facebook Messenger, and SMS. This represents a low cost, potentially equity-enhancing option available to the many youth, including those in rural areas. Duma Works in Kenya and BabaJob in India are other examples of job-matching platforms designed to assist low-skilled workers using text messaging.[119]

As ICTs continue to transform societies, the lines between online and offline networking approaches will continue to blur. Online job-matching platforms may not fully substitute for offline networks and connections. Even in advanced economies, analog professional networks remain the main avenue to a job. However, online networking and job-matching platforms can be complementary to offline approaches. For examples, LinkedIn is a networking site that combines professional networking with standard intermediation services for employers and workers. Globally, LinkedIn has over 310 million registered members, two-thirds of whom are

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[117] Ibid.
[118] World Bank 2016a.
[119] Ibid.

outside of the United States. 8% of Brazil's workforce is registered on the platform, and international use of the site is particularly strong among youth.[120]

Online platforms for job-matching can also serve similar roles as e-commerce sites, by connecting SMEs to a global customer base and allowing for payments to be processed online. Lynk is an online platform which connects thousands of Kenyan customers to workers participating in the informal sector. Workers range from self-employed artisans and carpenters to chefs and hairdressers.[121] Users can connect to Lynk via a mobile app and website, as well as via SMS. The platform identifies the most suitable workers based on their set of skills, the location, cost, language and experience.[122] This platform has the potential to address some of the uncertainty associated with self-employment and the precariousness of work in the informal sector.

3.3   Stimulating Digital Job Creation

Driving Demand for Digital Jobs

Governments investing in digital jobs must assess key constraints faced by the drivers of demand, while also considering the supply of workers to do those jobs. It is necessary to understand key characteristics of the country's populations, including the current level of education and skills. For a country that wants to stimulate creation of more digital jobs, the decision to focus on specific drivers of demand would depend on a range of factors, including the availability of different levels of digital skills in that country. Policymakers must also be committed to long-term continuity of programs to support digital jobs in the public and private sectors.

Digital jobs created by the public sector could potentially provide opportunities for young women. However, given education requirements for formal public-sector employment and the urban location of government agencies, relatively few digital jobs may be available for low-income, low-educated young women in rural areas. Governments can create digital jobs in the public sector by embracing open government principles and providing safe, accessible online services to citizens in urban and rural areas. The Online Services Index, an indicator measured in the 2015 Workforce for the Future Index, identified four stages of development for governments providing online services: emerging information services, enhanced information services, transactional services and connected services.[123] As government agencies progress through these stages, they will require more workers with increasingly advanced digital skills, creating digital job opportunities for youth.

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[120] World Bank 2016a.
[121] Jackson 2016.
[122] www.lynk.ke.
[123] The Economist Intelligence Unit 2015.

The private sector is generally similarly structured, especially in the formal sector and in more modern firms which tend to have digital jobs. In many countries women have less access to private formal employment, including work using digital skills, than men.[124] The ICT sector, as well as ICT specialist jobs in other sectors, is limited to those with substantial schooling and living in urban areas. The low share of women who are ICT specialists, seen in the STEP data and elsewhere, indicates that these jobs are hard for women to access. Lack of access to financial assets also makes it hard for women to raise finance to become digital entrepreneurs (although digital entrepreneurship often requires less capital than in other sectors). However, policymakers and practitioners can encourage private sector growth by supporting policies that open markets, encourage foreign investment, and allow greater access to finance by firms.[125]

Online outsourcing affords relatively more opportunities for women, as well as for rural and low-income individuals. In the BPO sector, there is a high share of women in customer care services. Additionally, many BPO impact sourcing organizations provide direct training and employment to disadvantaged youth and women in rural areas. For microwork, while a majority of participants are male, opportunities are fairly high for women given the flexibility of this work. further, a number of microwork impact sourcing organizations target women, as well as rural areas and low-income groups. Freelancing in contrast is more skill-intensive, and is likely significantly more male-dominated at present. Attracting foreign investment from global companies, while encouraging the demand of local BPO service providers, will help to stimulate increased job growth in the online outsourcing sector. For example, in Pakistan, the Khyber Pakhtunkhwa IT Board has committed to boosting domestic and international demand for outsourcing services in the province by providing local and foreign outsourcing companies with subsidies on operational costs, tax rebates, and additional incentives to support business development for BPO companies.

Platforms to improve livelihoods are helping to involve rural and low-income residents, as well as women in the digital economy. Platforms that help farmers and small entrepreneurs with information and services enhance the livelihoods of many with relatively low income and education. While job matching services still tend to be used by better educated youth, this picture is changing, with many online or mobile-based job matching services platforms designed to help lower income and less educated youth who would not normally access the formal sector. As LMICs continue to develop their ICT infrastructure, citizens' engagement with digital platforms will continue to improve livelihoods.

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[124] The analysis of STEP data above comparing digital work by gender and sector uses samples of those who are employed in each sector, so does not take into account the differential access to employment of males and females.
[125] The Economist Intelligence Unit 2015.

Identifying Opportunities for Investment

Table 3.2 illustrates how an interactive assessment tool could be used to map the degree to which digital jobs are accessible by different subgroups of youth within a specific context.[126] The rows indicate the key drivers of demand for digital jobs and the columns show the social economic profile of the target population. This illustration begins by mapping the existing levels of access to existing digital jobs opportunities by different segments of the population. The results are depicted by colored cells: red cells mean 'limited employment opportunities,' yellow cells indicated 'some employment opportunities,' and green cells indicate 'many employment opportunities.' For example, women, rural youth and poor youth, face greater barriers to digital employment, and so will most likely be red or yellow on the chart. Some policy objectives may be laudable but not feasible in the short run. For example, ICT-intensive jobs will likely be based mostly in urban areas, and are more readily accessible by those with substantial schooling.

TABLE 3.2 CURRENT OPPORTUNITIES FOR DIGITAL WORK, SELECTED GROUPS

Interactive Tool enables policymakers to map existing levels of employment opportunities and identify areas for increased invesments.
Example: If Gender = F and Location = U and Income Group = B40 and Education Level = L, then results are displayed below.

RESULTS	DRIVERS OF DEMAND FOR DIGITAL JOBS	YOUTH POPULATION CHARACTERISTIC							
		GENDER		LOCATION		INCOME GROUP		EDUCATION LEVEL	
		Male (M)	Female (F)	Urban (U)	Rural (R)	Bottom-40% (B40)	Top-60% (T60)	Low (L)	High (H)
I. PUBLIC SECTOR									
Red	A. Public Sector Agencies	Green	Green	Green	Red	Yellow	Green	Red	Green
II. PRIVATE SECTOR									
Red	A. ICT Sector	Green	Yellow	Green	Red	Red	Green	Red	Green
Red	B. Non-ICT Sector	Green	Yellow	Green	Green	Yellow	Green	Yellow	Green
Red	C. Digital Entrepreneurship	Green	Yellow	Green	Red	Green	Green	Red	Green
III. ONLINE OUTSOURCING									
Yellow	A. Business Process Outsourcing	Green	Green	Green	Yellow	Yellow	Green	Yellow	Green
Red	B. Virtual Freelancing	Green	Yellow	Green	Yellow	Red	Green	Red	Green
Yellow	C. Microwork	Green	Green	Green	Green	Yellow	Green	Yellow	Green
IV. DIGITAL PLATFORMS FOR IMPROVING LIVELIHOODS									
Yellow	A. On-Demand Services Platforms	Green	Yellow	Green	Red	Green	Green	Yellow	Green
Green	B. Business Services for SMEs	Green	Green	Green	Green	Green	Green	Green	Green
Yellow	C. Job-Matching Platforms	Green	Green	Green	Yellow	Yellow	Green	Yellow	Green

KEY

- Green: Many Employment Opportunities
- Yellow: Some Employment Opportunities
- Red: Limited Employment Opportunities

Source: S4YE estimates.

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[126] Table 3.2 is meant to be illustrative.

Policymakers considering investing in inclusive and integrated digital jobs projects for youth could use the interactive tool in Table 3.2 to identify high-potential opportunities to make digital jobs more attainable by different youth populations. Teams would first select their target beneficiary population, and then consider the resulting values for drivers of digital jobs in the design and implementation of their intervention. In this example, low-educated, low-income, urban women are identified as the target group. There are limited existing digital jobs opportunities for young women from the selected target group in public sector agencies or in private sector jobs – these results are indicated by the red cells beside the respective drives of demand. Policymakers can create more opportunities by investing in advanced skill development for these women. Yellow cells indicated that there are some existing employment opportunities for women in the target group for in BPO or microwork opportunities. This remains a chance for policymakers to reduce existing constraints facing these young women and the firms hiring these women. Finally, this target group could benefit from investments focusing on increasing access to and engagement with on-demand services and job-matching platforms.

Subsequent chapters in this report review and outline policies to closing the digital gender divide and improving young women's access to digital jobs. For example, if a policy-maker would like to focus on digital job creation for rural women with limited skills, then microwork opportunities might be one category with the highest potential economic and social benefits. On the other hand, if the policy challenge is to create quality jobs for unemployed or under-employed college-educated youth, then investing in digital entrepreneurship might hold the most potential. Finally, if stimulating agricultural productivity and promoting rural incomes is high on the policy agenda, policy-makers may find it valuable to support new solutions using digital platforms that focus on SMEs.[127]

3.4 The Supply-side: Building Digital Skills

The phrase 'drivers of digital work' implies a demand-side focus that examines the sources of new jobs and the demand for digital and other skills. Information about demand, when projected into the future, can inform youth employment stakeholders about investments in the skills needed to take advantage of employment opportunities. Skills and training programs for building digital skills should be based on a careful assessment of the type of demand that exists or the type of new jobs that are being created that would require those skills. For example, a microworker would require a different set of skills than a software specialist.

The expansion of domestic demand for skills will also need investment in developing the ICT ecosystem. A robust ICT ecosystem facilitates the spread of digital jobs by providing Internet services, computer hardware and software, and maintenance of other companies' and public agencies' ICT systems. Other elements of the ecosystem include the physical ICT infrastructure

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[127] The types of digital jobs discussed in the typology are not water tight compartments, and will likely need to be used in combination depending on characteristics of different sub groups of youth.

and power supply, digital platforms for identification and payments, policies to enable cyber security, and regulatory and trade structures.[128]

The pace of adoption of digital technologies is also determined by the structure, competitiveness and dynamism of the private sector. Firms that use digital technologies intensively tend to be larger, fast-growing, skill-intensive, and more likely export-intensive.[129] In high-income countries, ICT-intensive firms also tend to be newer, while the opposite is true in low income countries. There is also large variation across countries' Internet penetration rates, even when controlling for level of income per capita. This likely reflects differences in regulatory barriers to starting new business.[130]

Insights from STEP Surveys

FIGURE 3.4   SHARE OF WORKERS USING DIGITAL SKILLS BY SKILL LEVEL, SELECTED COUNTRIES
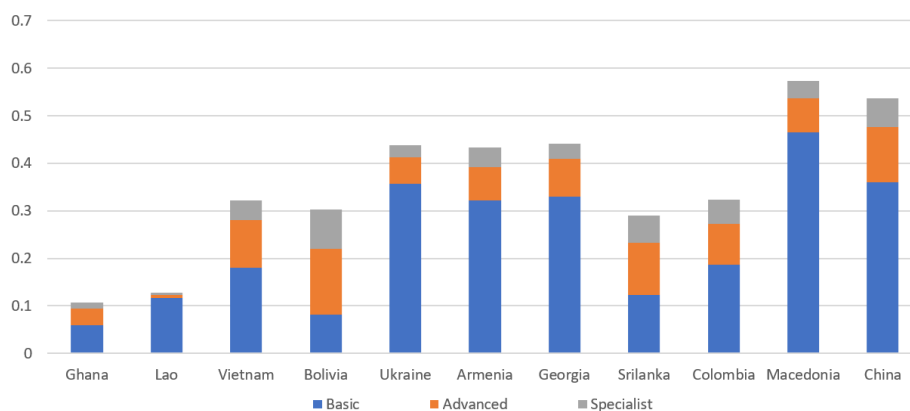
Source: Calculations by S4YE team from STEPS Surveys

Note: Urban areas only. Countries are arranged in ascending order of per capital GDP, PPP ($), 2016

The World Bank's Skills Toward Employment and Productivity (STEP) Skills Measurement Program can help give policymakers a detailed understanding of the level of job-relevant skills available in a country's labor market. Using data from STEP surveys, which were conducted primarily in urban areas of 13 lower- and upper-middle-income countries, permits a nuanced examination of the digital skills being used in the labor market.[131] The 13 countries represented

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[128] Hanna 2016.

[129] World Bank 2016a.

[130] Ibid.

[131] Basic skills are defined as any use of a computer at work. Advanced skills are defined based on the survey questions as using advanced spreadsheet functions, software of book-keeping, accounting or finance, presentation and graphics software such as PowerPoint, computer aided design software, or doing statistical analysis. IT specialist skills include software programming and managing computer networks.

in this subset are not representative of the entire range of developing economies, but can shed some light on middle-income countries. The data is limited also in that it only reflects a point in time in these countries as data over time from STEP surveys was not available.

Many workers in countries surveyed by STEP indicated that lack of ICT skills was a barrier to finding a job or earning higher income. Figure 3.3 shows that overall use of digital skills among the urban employed increases with country per capita income, ranging from barely 10% in Ghana to over 50% in Macedonia and China. Most of this digital work involves basic digital skills, and ICT specialists are usually just a small share of ICT-using workers.

There are differences in the use of digital technologies among women and men. While in Ghana and Lao PDR, the use of digital technologies at work is significantly lower for women than for men, the share of women using ICT exceeds that of men in most countries (see Figure 3.4). Overall, similar shares of women and men use ICT at work.[132] However, women are less likely to do work that uses advanced digital skills (6% vs. 9%) or to be a digital specialist (3% vs. 5%). These findings mirror the patterns seen in advanced economies. Data for 22 OECD countries participating in the Survey of Adult Skills (PIAAC) indicate that similar shares of women use software at work, but men are much more likely than women to be ICT specialists.[133]

FIGURE 3.5   SHARE OF WORKERS USING DIGITAL SKILLS BY GENDER, SELECTED COUNTRIES
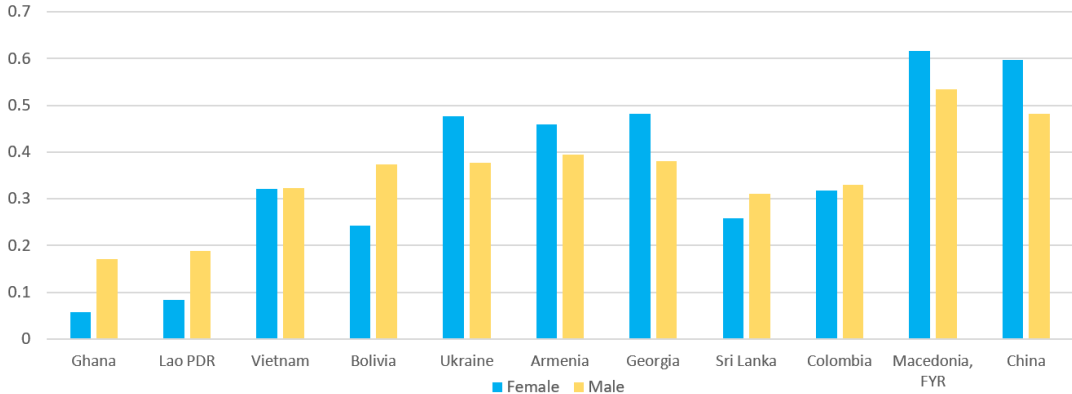
Source: Calculations by S4YE team from STEPS Surveys

Note: Urban areas only; Countries arranged in ascending order by per capital GDP, PPP ($), 2016

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[132] Unweighted country averages.

[133] OECD 2017a. Please note that this data is looking only at women and men who are working. Female labor force participation in urban areas is generally selective on individual with more skills while that of men is not. Therefore, the workforce is not equally representative of female and male skills in the overall population. At the population level, the gender distribution of digital skills, or access to training in these skills, is highly unequal in many countries. This suggests that the apparent gender parity in terms of basic digital skills among workers reflects selection.

Use of digital skills at work is more prevalent in the public than the private sector in almost all countries in the STEP sample, with the difference particularly large among the lowest income countries (see Figure 3.5). The urban private sector includes many small self-employed producers and SMEs, so it is expected that ICT use would be low. However, the gap largely persists even if only larger private firms (50 or more workers) are included.[134]

FIGURE 3.6   SHARE OF WORKERS USING DIGITAL SKILLS BY SECTOR, SELECTED COUNTRIES

Source: Calculations by S4YE team from STEPS Surveys

Note: Urban areas only. Countries are arranged in ascending order of per capital GDP, PPP ($), 2016
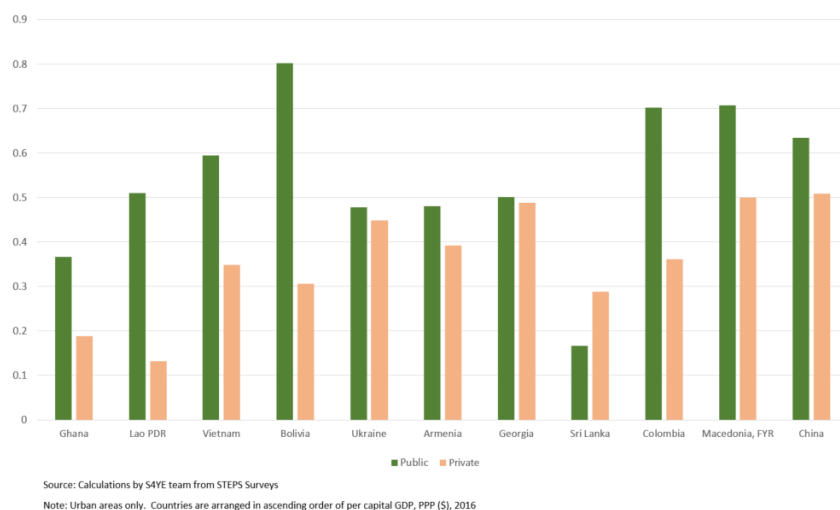
In LMICs, the private sector is lagging behind the public sector in the uptake of ICT. Most enterprises in LMICs with 5 or more employees have access to the Internet, and many have websites. However, most firms do not use these tools in sophisticated ways, nor have they adopted more advanced technologies that would lead to substantive changes in production or work organization, despite the productivity benefits of more sophisticated ICT applications.[135] This in turn limits the demand of firms for workers with digital skills. Smaller firms, in particular, are the least likely to adopt ICT, as measured by use of broadband Internet, having a website, or selling online.[136] The reasons firms do or do not adopt digital technologies are complex, but include lack of access to specialist ICT expertise and other characteristics of the ICT ecosystem.

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[134] World Bank 2016a.
[135] World Bank 2016a.
[136] Hussain 2015.

4. Young Women and the Digital Economy

Highlights

- In 2017, the labor force participation rate for young men stood at 53.7%, compared to 37.1% for young women. In 2017, the global gender gap in Internet access was 11.6%; in LDCs, the gap was 32.9%.
- Young women face many individual constraints which inhibit their ability to find and retain digital employment opportunities, including: skills gaps & mismatches; little or no work experience; information gaps & limited mobility; limited ownership & control of assets; and safety & security concerns.
- Digital jobs programs can overcome these barriers and connect young women across all demographics with new work opportunities, and help firms to provide higher quality digital jobs for qualified young women.

4.1 Gender Digital Divide

BOX 4.1 WHAT IS THE GENDER DIGITAL DIVIDE?

The gender digital divide refers to the measurable gap between women and men in their access to, use of and ability to influence, contribute to, create and benefit from ICTs.

Source: UNGA 2017

Despite rapid advances in connectivity, the gender digital divide persists. Only 48% of the world's population currently has at least a basic Internet connection.[137] Among those who lack Internet connectivity, women are significantly overrepresented. In 2017, the gender gap in Internet use was 11.7% worldwide. The Internet user gender gap is the largest in LDCs, increasing from 29.9% in 2013 to 32.9% in 2017.[138] The largest gaps are in Asia & Pacific countries, the Arab States and Northern Africa where the Internet user gender gaps were 17.1%, 17.3% and 25.3%, respectively.[139] Economic and socio-cultural barriers contribute to the gender digital divide. For example, women in India, Egypt, and Uganda report not using the Internet due to perceptions that the Internet was inappropriate for them or would lead to disapproval by friends or family members.[140]

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[137] ITU 2017.
[138] Ibid.
[139] Ibid.
[140] Intel, Dalberg Global Development Advisors & GlobeScan 2013.

The gender digital divide limits the ability of girls and young women to participate in the digital economy to an equal extent as their male counterparts.[141] Women in LMICs are, on average, 10% less likely to own mobile phones than men. This means that there are roughly 184 million few women who own mobile phones. There is also a gender gap in mobile phone usage. Over 1.2 billion women in LMICs do not use mobile Internet. Among mobile-phone owners, women are still 18% less likely to use mobile Internet, social media apps or SMS services compared to men.[142] Leading barriers to mobile ownership include cost, low literacy, low digital skills and safety and security concerns – all of which disproportionately affect women over men. In addition to those constraints, women are less likely to use mobile Internet because of knowledge gaps – women are less likely to know how to access the Internet from their phones, and many women believe that mobile Internet is simply not relevant to their lives.[143]

The gender digital divide limits young women's ability to thrive in new categories of digital jobs. A 2015 study by Deloitte found that "digital know-how" will be the highest-priority skill for businesses of the future.[144] The 2016 World Development Report found that ICT skills are increasingly important in today's labor markets, along with higher-order cognitive and socio-emotional skills.[145] Other contemporary research by the World Economic Forum similarly predicts "particularly strong demand growth" in ICT skills in workplaces of the future.[146] Yet young women, on the whole, remain underprepared for this shift in employer demand, which will be accompanied by automation of existing job categories and advances in artificial intelligence.

4.2　　　Barriers to Digital Employment for Young Women

While all youth face specific barriers to employment when compared to older workers, young women tend to experience many of these barriers more acutely. Furthermore, as Locke et al. observed, "gender is not homogenous and we must take into account differences of age, income, race, class, urban/rural differences and so on."[147] For example, young women experience different barriers to accessing employment opportunities than elderly women. Similarly, young women in rural areas face different challenges to accessing employment opportunities than young women in urban areas. Disability status can also compound the gender digital divide. While ICTs have strong potential as a means of flexible working, people with disabilities – and particularly women with disabilities – are significantly less likely to have access to the Internet and ICTs. [148]

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[141] GSMA Connected Women 2018.
[142] Ibid.
[143] Ibid.
[144] Deloitte 2015.
[145] World Bank 2016a.
[146] World Economic Forum 2016.
[147] Locke et al. 2017.
[148] UNGA 2017.

Table 4.1 identifies constraints that affect young women entering digital jobs. Constraints are grouped according to their scope of impact: individual level; market level; and macro-level. Recognizing that these types of constraints can impact young women and young men differently, the table identifies those constraints that affect all youth, those which affect only young women, and those which affect all youth, but affect young women more than young men.

TABLE 4.1 CONSTRAINTS TO YOUNG WOMEN'S DIGITAL EMPLOYMENT

CONSTRAINT	DESCRIPTION	GROUP
Individual	Low digital literacy and ICT skills	W_Y
	Lack of complementary non-ICT skills	W_Y
	Household and care responsibilities (childcare, elderly care, sibling care)	W
	Lack of voice and agency	W_Y
	Limited mobility	W_Y
	Low digital self-efficacy and self-confidence	W_Y
	Bias against pursuing ICT-related education & careers	W
	Low representation in STEM education & careers	W
	Limited ownership & control of assets	W_Y
	Financial exclusion	W_Y
	Online safety concerns & threats of violence	W
Markets & Government Failures	Lack of access to capital	W_Y
	Lack of information about digital work opportunities	W_Y
	Lack of information about workers	W_Y
	Gender pay gap	W
	Promotion bias	W
	Occupational segregation	W
	Low bargaining power	W_Y
Macro	Availability of relevant ICT infrastructure	W_Y
	Conflict and violence	W_Y
	Constraints to business creation and job creation	W_Y
	Age cohort-size	Y

Notes: Y = constraint affects all youth workers; W_Y = constraint affects all youth workers, but young women more than others; W = constraint affects young women only.

Source: Adapted from Robalino et al. 2013; World Bank 2018a.

Barriers to digital employment for young women include structural inequalities, entrenched stereotypes and biases, and social norms which constrain women's financial, physical and economic mobility (see Figure 4.1). Discriminatory policies and regulations can limit young women's ability to access financial resources necessary to pursue high education or start a business. A 2018 report by the World Bank found that 104 countries have at least one law that

specifically impedes women's economic opportunities.[149] Examples include restrictions on working hours and occupations, gender differences in tax regulations, insufficient maternity leave policies, and inadequate or non-existent sexual harassment legislation. In the most extreme example, 18 countries provide men with a legal basis for blocking their wives from working.[150]

FIGURE 4.1   BARRIERS TO DIGITAL EMPLOYMENT FOR YOUNG WOMEN
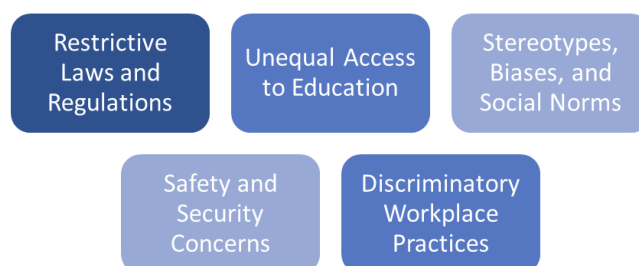
Source: GSMA Connected Women 2015; World Bank 2016a; World Bank 2018a; GSMA Connected Women 2018.

Young women's unequal access to education has resulted in low levels of numeracy, literacy and digital fluency. Nearly two thirds of the world's 750 million illiterate adults are women,[151] and men outscore women in "digital fluency" in almost every country.[152] This, in turn, makes it more difficult for girls and women to learn digital skills and capitalize on the potential of basic technology, such as mobile phones and SMS-based services. Lower digital literacy also makes girls and women more susceptible to risks associated with using technology and going online, such as unnecessary and high user fees, signing up for services they do not need, or inadvertently sharing too much personal information about themselves.[153]

Negative perceptions on women's use of ICTs, pursuit of STEM-related studies, and entrance into careers in tech, have contributed to a gender imbalance in the ICT workforce. Research by the GSMA shows that in households with a single computer or mobile phone, it is usually intended for the boy rather than the girl child.[154] These findings were supported by a 2017 review of evidence from LMICs, which found that parents provide technology to girls at a later age than boys, and view ICT-related careers as more associated with boys than girls.[155] In late 2015 and early 2016, Girlguiding and Microsoft conducted a series of focus group discussions, which explored the attitudes of girls in the UK aged 7-14 toward technology. 56% of the girls who took

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[149] World Bank 2018d.
[150] Ibid.
[151] UNESCO Institute for Statistics 2017.
[152] Sweet 2016.
[153] Broadband Commission for Sustainable Development 2013.
[154] GSMA Connected Women 2015.
[155] Livingstone et al. 2017.

part agreed that STEM subjects "have the image of being more for boys" than girls.[156] These expectations are compounded by a lack of role models which, along with persistent stereotypes, have been shown to discourage girls from pursuing ICT studies after secondary education. [157] A 2012 report by the ITU found that, on average, women account for 30% of operations technicians, but only 15% of managers and 11% of strategy and planning professionals.[158] In 2016, Deloitte estimated that women held less than 25% of IT jobs in developed countries.[159] Findings from EU countries also indicate that women's participation in the ICT sector is not improving. In the EU, less than 25% of all tertiary graduates in ICT-related fields are women, despite women forming over 57% of total tertiary graduates.[160] Furthermore, even when women graduate with tertiary-level degrees in ICT-related subjects, very few enter ICT-related careers.

As in the 'offline' economy, concern for safety can be a barrier preventing girls and women from accessing and remaining in digital employment opportunities. According to Intel's 2013 Women and the Web report, 25% of non-Internet users between the ages of 14 and 17 reported that their families opposed them being online because they saw it as a safety risk.[161] The same study found that, in parts of India, girls are often discouraged from accessing Internet cafes due to a perception that such places were unsafe.[162] As a result of feeling unsafe or unwelcome in online spaces, young women's opportunities to develop digital skills are limited, and gender stereotypes about appropriate studies and careers are reinforced.

When women do enter employment in the ICT sector, they often face barriers that limit their progression. A 2017 study by the Kapor Center for Social Impact, based on a sample of over 2,000 people who had left a job in a technology-related industry or function in the US within the last three years, found that women had significantly higher experiences of unfair treatment at work than men. One in ten women experienced unwanted sexual attention, and women from all backgrounds experienced significantly more unfair treatment than men. The study found that unfair treatment directed at women was more pronounced in technology companies than other companies.[163] In China, where only 20% of engineers in IT and telecommunications industries are women, several technology companies explicitly state during the recruitment process that certain positions are just for men.[164]

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[156] Girlguiding 2016.
[157] Gras-Velazquez, Joyce and Debry 2009.
[158] Tandon et al. 2012.
[159] Deloitte 2016.
[160] European Commission 2018.
[161] Intel Corporation 2013.
[162] Ibid, 54.
[163] Scott et al. 2017.
[164] Yuan 2017.

4.3   New Opportunities for Young Women

Digital jobs hold strong promise for youth, and young women in particular. Inclusive and sustainable economic growth can only be achieved when all women are fully participating in the digital economy. As girls and young women develop digital skills, they will enjoy greater choice in their personal and professional lives, and access better-paid, better-quality jobs. These new digital jobs opportunities can significantly improve the economic and social lives of young women of different nationalities, economic classes, education levels, races, areas of residence, abilities and religions.

Digital entrepreneurship offers a potentially catalytic opportunity for women to participate in income-generating activities. Coding bootcamps and other digital jobs programs can equip vulnerable young women with the advanced digital skills and soft skills necessary to enter ICT-intensive and ICT-dependent jobs in the public and private sector. They can also help well-educated women to switch careers to access better-quality jobs, or launch their own digital start-ups. AlMakinah, a coding bootcamp launched by two young female entrepreneurs in Egypt, offers programs for women to become full-stack web developers. This twelve-week intensive program is targeted at beginners with little programming experience, university-graduates who want to improve skills or switch jobs, and entrepreneurs who want to start companies.[165] This could be transformative in many MENA countries, where young women's labor force participation rates are some of the lowest in the world, despite having education rates at parity for boys and girls.[166]

Online outsourcing can combat high youth NEET rates by enabling young people to access new work opportunities beyond the confines of local labor markets. Microwork can be especially helpful for remote or vulnerable populations that face constraints to mobility and access to local employment, including low-income rural residents, and women in culturally conservative environments. Business processing outsourcing jobs in call centers, which also tap into global rather than local demand, go disproportionately to women compared with their share of employment in the broader local economy.[167] Online freelancing can help young women circumvent physical, social, and economic constraints to their mobility. E-lancing can also be advantageous for young, educated women who face societal or family pressure that discourages their formal employment, and young women with disabilities who experience workplace discrimination that limits their opportunities for advancement.[168]

The BPO sector can connect women with new work opportunities which would otherwise be lacking. In India, 30% of the BPO industry's 3.1 million workers are female; in the Philippines, women account for 55% of the BPO workforce. The growth of women's employment in the BPO industry in the Philippines is due, in part, to a 2011 law that overturned prohibitions on night

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[165] https://www.almakinah.com/.
[166] World Economic Forum 2017.
[167] Holman, Batt and Holtgrewe 2007.
[168] Further research on gender wage gaps in online outsourcing (including microwork and freelancing) is needed.

work for women and providing protections for night shift workers.[169] Many BPO providers provide income-generating opportunities for women in environments that typically provide few options for paid work. Wages in call centers may substantially exceed those in alternative local employment.[170] Additionally, a study of BPO expansion in rural India indicated that an intervention providing information about BPO opportunities increased the probability of young women engaging in BPO work and any paid work. The intervention also shifted their aspirations toward pursuing formal careers, and induced young women to enroll in computer or English language training.[171]

Impact sourcing can connect vulnerable young women with microwork and BPO opportunities, and provide on-the-job skills training. Such programs often focus on those in rural areas and with low education, thereby helping to close several of the gaps identified earlier. For example, Samasource provides microwork opportunities in Kenya, Uganda, and India, and explicitly targets youth and women and youth without formal work experience who are earning below a local wage. iMerit runs IT training centers in India targeting rural, low income youth and women for preparation for BPO employment. Both iMerit and IndiVillage, another impact sourcing service provider targeting disadvantaged rural communities, have predominantly female workforces.

The on-demand economy is also creating new opportunities for employment for young women. In a survey of 600 Uber drivers in the US, almost half were women and the majority were under 40 years old.[172] Given social customs and perceptions on women's work, one may expect opportunities for young women in LMICs in ride-hailing and related services to be limited. Indeed, a 2018 IFC report found that social norms limited the extent to which women participated in ride-hailing as drivers.[173] Over 11% of women drivers surveyed said that their family or friends disapproved of their decision to work as a driver. In Egypt and Indonesia, more than half of current male drivers reported that they would be unhappy if a woman in their family wanted to sign up for Uber.[174] Regulatory requirements, and low rates of financial and digital inclusion can also create barriers to entry for women to work as drivers. However, opportunities are emerging in LMICs through ride-hailing services that feature exclusively female drivers and target security-conscious women riders. For example, LadyJek was launched in Indonesia in 2016 to provide a motorcycle ride-hailing service that is exclusively for women. Such opportunities will continue to expand as governments work to reduce social, legal and financial barriers to women's employment in traditional and digital jobs.

Online platforms are making it easier for young women to start their own businesses and access new markets. E-commerce sites such as Alibaba in China have dramatically opened

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[169] A.T. Kearney 2017; World Bank 2016a; Errighi, Bodwell, and Khariwada 2016.
[170] Errighi, Bodwell, and Khariwada 2016.
[171] Jensen 2012.
[172] De Groen and Maselli 2016.
[173] IFC 2018.
[174] Ibid.

opportunities for small-scale artisans and entrepreneurs by connecting them to a global customer base, and appear to strongly benefit women in lower income households.[175] Platforms such as Mogul, She Leads Africa and Enterprising Women facilitate the sharing of experiences and information, and make it easier for female owners of SMEs to access management training and advice.[176] Kiva has a suite of investment opportunities focused on women-run enterprises, bringing investors together with young female entrepreneurs.

Job-matching platforms can also help young women to develop professional networks and identify female mentors. Several organizations and institutions specifically target young women for online job-matching services. The European Bank for Reconstruction and Development, UN Women and the Women's Digital League have used online platforms to bring employment and supplementary income to young women. Findings from a survey for Souktel for Palestinian job seekers suggest the strong potential for digital platforms to overcome barriers facing young women in many environments, including constraints on their mobility to physically search for work and a lack of professional networks compared with their male counterparts. Female users of Souktel are more likely to rely only on online job search platforms for finding jobs.[177] Female job seekers also report being invited to interviews more often than male job seekers.

BOX 4.2   DIGITAL JOBS FOR YOUNG WOMEN WITH DISABILITIES

In 2013, UNICEF estimated that there are between 93 million and 150 million children and youth with disabilities aged 0 to 18 years. Youth with disabilities are more likely to face severe social, economic, and civic disparities as compared with those without disabilities.

Youth with disabilities experience many employment barriers, including inaccessible physical environments and transportation, the unavailability of assistive devices and technologies, non-adapted means of communication, gaps in service delivery, and social stigma and prejudice. Young women with disabilities (YWWDs) also face the added burden of gender-based discrimination.

Digital jobs offer opportunities for YWWDs to overcome some of these barriers. Virtual skills-training programs can help them to develop the digital, soft and entrepreneurial skills necessary to succeed in the digital economy. These skills can help young women with disabilities facing mobility constraints to access online outsourcing and e-lancing opportunities. Online work experience can also help young women with disabilities to qualify for ICT-dependent and ICT-intensive jobs in the public and private sectors, establish a work history, and develop a professional network.

Young women with disabilities will not be able to realize the full benefits of digital jobs without significant public- and private-sector commitments to disability inclusion, implementing non-discriminatory policies, and providing access to affordable assistive devices and technology.

Source: Mitra, Posarac & Vick 2013; UNICEF 2013; World Bank 2011

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[175] World Bank 2016a.
[176] Lee 2016.
[177] Santos 2016.

5.   Promising Practices for Gender-Inclusive Digital Jobs Programs for Youth

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Highlights

- *S4YE coalition members developed 19 case studies based on their experiences implementing digital job interventions for youth.*
- *Review of case studies, along with external evidence, identified several challenges commonly experienced by program staff when implementing gender-inclusive digital jobs programs.*
- *This chapter identifies approaches undertaken by past and ongoing programs to overcome the supply- and demand-side challenges that limit young women's ability to enter and thrive in digital employment and entrepreneurship opportunities.*

....

This chapter identifies challenges experienced during program design, implementation and evaluation, and provides examples of initial findings and lessons learned from digital jobs programs for youth. There is very little rigorous evidence on the most effective combination of program design components for interventions to successfully address gender gaps in digital employment programs for youth. However, as more governments, donors, non-governmental organizations and private sector companies realize the importance of closing both the gender digital divide and the gender gap in youth labor force participation, several promising practices have emerged that increase young women's recruitment, retention and training completion rates and improve young women's employment outcomes, as well as the success of women entrepreneurs. Program examples capture experiences of S4YE partner organizations as well as external organizations.

5.1   Program Insights

S4YE Case Studies

This report presents findings from 19 case studies based on past and ongoing interventions that connected youth with digital job opportunities.[178] The case studies describe programs that implemented a range of activities, including: training youth in digital literacy and entrepreneurship skills; connecting youth with digital work opportunities, such as online microwork and freelancing; utilizing digital platforms to inform youth about job opportunities, allow them to share resumes, and connect them with employers; helping youth access jobs in the shared economy; and providing support to firms/enterprises to increase their ability to employ youth in digital jobs.

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[178] All case studies can be found in Annex B.

FIGURE 5.1   LIST OF CASE STUDIES

Federal Ministry for Economic Cooperation and Development, Germany #eskills4girls Initiative Global	**The Rockefeller Foundation** African Centre for Women in ICT Kenya	**World Bank** Caribbean Mobile Innovation Project Barbados; Dominica; Jamaica; St. Kitts & Nevis; Trinidad & Tobago	**The Rockefeller Foundation** CloudFactory Kenya	**USAID** Compete Project – Young Professionals Program (YPP) West Bank & Gaza
The Rockefeller Foundation Digital Divide Data Kenya	**World Bank** Digital Jobs for KP Pakistan	**Plan International** Empowering Women through E-Governance Sri Lanka	**The Rockefeller Foundation** EOH South Africa	**The Rockefeller Foundation** Friends of the British Council Ghana
Accenture Girls Who Code USA	**The Rockefeller Foundation** Harambee South Africa	**Microsoft** Laboratoria Chile, Mexico, Peru	**The Rockefeller Foundation** Maharishi Institute South Africa	**Plan International** Saksham India
The Rockefeller Foundation Samasource Kenya	**Accenture** Training for the Future Argentina, Morocco, Tunisia	**World Bank** Women in Online Work (WoW) Pilot Kosovo	**The Rockefeller Foundation** The Youth Banner Kenya	

Methodology

S4YE members were invited to develop case studies that met two main criteria. Firstly, each program's target population includes youth beneficiaries within the age range of 15 – 35 years old. Secondly, case studies were required to describe either ongoing projects that were implemented for at least 1 year, or closed projects which were completed within the past 5 years.

To garner useful insights for how to modify program design and implementation strategies to optimize employment outcomes for young women, case studies describe interventions that focused specifically on young women, as well as those that targeted young male and female beneficiaries. Program staff were required to complete a case study template, which collected information on: program design and implementation components, such as targeting and recruitment, activities, beneficiary experiences, and implementation challenges; employment outcomes with respect to the impact on, access to, creation of and/or quality of digital jobs for youth, including gender-disaggregated jobs indicators; and key lessons learned and recommendations going forward.[179]

Unless otherwise noted, the sources of findings in the case studies are through project monitoring data as reported by program staff. It will be explicitly stated when data is taken from a counterfactual impact evaluation.

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[179] Please see *Annex A – Case Study Guidelines & Template* for additional information.

Limitations

The case studies have several limitations. There is a skewed geographical representation, as almost half of them are based in Africa. The case studies are therefore intended to be context-specific, and are not reflective of the global landscape of digital jobs programs for youth. Additionally, several interventions are ongoing, and therefore lack data on final employment outcomes. However, they are valuable in teasing out design and implementation features, decision-making and modification strategies to improve young women's recruitment, retention and performance. Finally, several programs were not initially designed to have gender and/or digital components. These cases were included to provide insight into strategies that project teams can adopt to modify their initial program design during implementation, to improve employment outcomes for young women in the digital economy.

Secondary Literature Review

Recognizing the limitations of the case studies, this chapter also draws upon examples of digital jobs program, platforms and initiatives that are implemented and/or supported by organizations that are not members of the S4YE coalition. These insights supplement the findings of the S4YE partner case studies and demonstrate additional approaches to overcoming shared challenges when implementing gender-inclusive digital jobs program for youth.[180]

Online Consultations

S4YE organized online consultations with key youth employment stakeholders, including beneficiaries, program staff and employers. The consultations sought to understand perspectives and experiences of young digital skill trainees and entrepreneurs; digital skills training implementers; and firms that hire young workers for digital jobs. S4YE conducted qualitative interviews to supplement emerging insights from the case studies and the secondary literature review. The interviews focus on learning, with the expectation that these stakeholders would have valuable information and insights to share about the design and implementation of digital jobs program for youth.[181] This chapter integrates insights from these consultations. Box 5.1 provides an overview of key messages distilled from the online consultations.

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[180] For a full list of external digital jobs programs, platforms and initiatives reviewed by the authors, see Annex C.
[181] See Annex D – Online Consultations Report for more detail.

BOX 5.1   ONLINE CONSULTATIONS: KEY MESSAGES

*S4YE organized online consultations comprising of focus groups and one-on-one interviews to learn about the experiences of young digital skill trainees and entrepreneurs; digital skills training implementers; and firms that hire young workers for digital jobs. Insights on promising practices for gender-inclusive digital jobs programs for youth emerged across five main topic areas including **program design**, **program recruitment**, **program curriculum**, **beneficiary retention**, and **job search and placement**.*

*Within these topic areas, several cross-cutting themes were identified that affected the potential for success in each of these areas. These cross-cutting themes included: the role of **community partners** (public, private, community based) in recruitment and support; **central contextual factors** that shape women's access and opportunities, such as the overall economic situation within the country, as well as business expectations; **social norms**; and the importance of **soft skills.***

1. ***Program design:*** *Training programs are matched to the target audience, which includes the trainees' and potential employers' needs. Digital trainings aim to link to business experiences in the country of operation. Many programs build local partnerships with government and CBOs to ensure the training is context specific.*

2. ***Program recruitment:*** *Training programs and firms utilize a range of options for reaching young women. Some work with CBOs to screen potential trainees and to accommodate social norms. Many programs and firms check the trainee's education level to ensure that trainees will be able to successfully complete the program.*

3. ***Program curriculum:*** *Training methods are designed to fit local needs, norms, and businesses. Programs adapt to the beneficiaries' levels of education. Programs focus on improving soft skills such as communication, team work, problem solving, and job search skills. Beneficiaries use these soft skills during 'hands on' projects.*

4. ***Beneficiary retention:*** *Some training programs provide additional support to the trainees such as childcare and female role models. Many beneficiaries could speak more openly to other women about issues such as health and family problems. Some programs have flexible schedules so that the women can attend the training.*

5. ***Job search and placement:*** *Training programs form partnerships with firms to provide greater opportunities for young women who have completed their programs. These firms give feedback to programs on how to improve the program. Depending on the local context, firms create diverse ways to recruit the women. Some training programs connect the trainees with female mentors to transition the women into employment.*

For more in-depth insight, please see Annex D.

Chapter Structure

The discussion of the promising solutions and approaches being taken by digital jobs programs for youth is done in three parts, following the structure of S4YE's Guidelines of Integrated Youth Employment Programs.[182] Section 5.2 discusses ways in which projects have conducted their initial and ongoing diagnosis of the supply- and demand-side challenges for digital jobs. Section 5.3 discusses approaches to design effective gender-inclusive supply-side programs. Finally, Section 5.4 discusses approaches being taken to design gender-inclusive demand-side interventions. There are fewer approaches that we have been able to curate because there are fewer youth digital employment interventions that operate on the demand-side by specifically helping firms to create jobs. There are even fewer fully integrated digital jobs projects that effectively intervene on both the supply- and demand-side. A notable exception is the World Bank's *Digital Jobs for Khyber Pakhtunkhwa* project in Pakistan, discussed in Box 5.2 below.

BOX 5.2   *DIGITAL JOBS FOR KP: AN INTEGRATED APPROACH TO DIGITAL JOBS*

The World Bank's "Digital Jobs for Khyber Pakhtunkhwa (KP)" project presents a comprehensive example of how governments can integrate supply-side, demand-side and policy-level approaches when implementing digital jobs interventions for youth.

Supply-Side: "Digital Jobs for KP" supports two flagship skills-building activities. The objective of the Youth Employment Program (YEP) is to equip youth with in-demand digital skills for the global digital economy. The YEP encourages youth to enter self-employment and entrepreneurship opportunities by using online work platforms to connect to online freelancing work. The KP IT Board (KPITB) also established public, gender-inclusive "durshal" co-working spaces for youth (as discussed in Approach 3.2).

Demand-Side: To position itself as a growing outsourcing destination, the KPITB developed a global marketing campaign to promote investment in the IT Sector and BPO sector. This campaign includes a package of subsidies on operational costs, tax rebates, support on recruitment and training, customized business facilitation, and incentives to support business development in the province. The KPITB has also launched a USD 1 million effort to prepare BPO ready spaces for use by national and international BPO service providers.

Policy & System-Level Considerations: The Khyber Pakhtunkhwa IT Board (KPITB) is also investing in the enabling environment and infrastructure improvements to attract international and national BPO companies to KP. More recently, the Government of KP removed taxes on BPO providers, IT businesses, as reduced the broadband tax from 19.5% to 10%, effectively making it 30% cheaper to operate IT businesses in the province.

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[182] Datta, Assy, Buba, Watson et al. 2018b.

5.2   Understanding Context and Diagnosing Constraints

Following S4YE's guidelines for integrated youth employment programs, the starting point for program design is gaining a thorough understanding of the local context. Project teams need to identify the specific barriers young people face when accessing economic opportunities, as well as those constraints that the private sector must overcome to grow and create digital jobs for youth. The typology of drivers of demand for digital jobs presented in Table 3.1 (Chapter 3) can serve as a framework to help determine the digital economic opportunities and limitations in the public and private sectors (including the ICT and non-ICT companies), present and forecasted in the local economy, generated via outsourcing, or facilitated via online platforms. Understanding the context and diagnosing constraints faced by young women (on the supply side) or firms (on the demand side) is important but not always straightforward. Most project teams do some sort of diagnosis of the challenge, although the rigor and scope of this pre-design analytical work varies greatly across projects. Discussed below are challenges that project teams face during this pre-design phase, along with some strategies used to overcome them.

Challenge 1   Navigating Shifts in Demand for Digital Skills

The digital landscape is constantly changing, with certain skills becoming obsolete and new skills constantly in demand. Many programs found it necessary to create digital skills-training curricula that reflected current needs of public- and private-sector employers.

> *We find that there are growing opportunities for our graduates. This is not only with the usual suspects in the computer and technology sectors, but traditional companies going through digital revolution. These companies are now in a position where they want to leverage digital technology to optimize their use of resources. This includes creating technical teams 'in house'. For example, we are finding that banks have become major employers for our graduates.*
>
> **Interview with Program Staff, Laboratoria, Mexico**

Approach 1.1   Assess Market Demand for Digital Skills

When designing digital jobs program for youth that include technical skills-building components, project teams should ensure that they conduct market analysis that evaluates the level of demand for digital skills in the local context. To improve the employment rates for youth beneficiaries who completed their programs, many implementers found it necessary to conduct market research and analysis to identify those technical skills which are most demanded by local firms and by online freelancing and microwork platforms.

Laboratoria, **coding bootcamp for women, works closely with tech companies in Latin America and Silicon Valley to develop a business-directed curriculum.** Laboratoria surveys hiring

managers across private sector companies to learn what skills are required for web developer openings. Based on these findings, program staff develop a project-based, open-source training curriculum that is shared widely with developers and industry professionals for feedback. With this feedback, as well as that of hiring companies and Laboratoria's own tech team, Laboratoria creates an education program that develops the skills needed for in-demand positions.

In Kenya, the *African Centre for Women in Information and Communications Technology (ACWICT)* **implemented the Vusha Project, and provided over 19,000 youth with market-relevant ICT skills.** Program staff researched the ICT skills which were most requested in local job postings, and reviewed studies showing skills which were most demanded on online freelancing sites such as Upwork.

The *Information Technology Training Program (ITTP) for People with Disabilities* **in Vietnam partnered with local universities to provide people with disabilities with relevant ICT skills, opening employment opportunities in a wide range of sectors, including those traditionally inaccessible to them.** Funded by USAID and implemented by Catholic Relief Services, ITTP works closely with employers to understand the specific niche skills they need. ITTP invited the private-sector employers to participate in designing training curricula to meet the needs of the market.[183] ITTP also formed business advisory councils to strengthen relationships between ITTP and its most committed employers. The business advisory council meets two to four times per year to allow employers to provide input on curriculum design, and to receive suggestions for job placement, and fund-raising for scholarships. Further, ITTP works with private-sector employers to reduce stigma for hiring people with disabilities, and educates employers on how to accommodate employees with disabilities in the workplace.[184]

Monyetla **is a government-funded, employer-led consortium model in South Africa.** Through this consortium, employers partner with recruiters and training organizations to source and train employees for international BPO jobs. Employers take the lead on developing curriculum that meets their needs. They then work with a third-party training provider (also in the consortia) to deliver training properly.[185]

Challenge 2   Understanding Gendered Differences in Roles, Needs, Opportunities and Limitations

Digital youth employment programs targeting female beneficiaries should perform additional analysis of the local gap in ICT access and use, and the challenges and opportunities for women generated by the digital economy.

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[183] Results for Development Institute 2013.
[184] Zhao, Rowe, Kamioka and Hegarty 2012.
[185] Grimm et al. (2013).

> *Our approach was based on four years of experience with the Yunus Social Business platform, which is an accelerator for social businesses. This includes an investment fund for social businesses, with an emphasis on women and young people. Following our work with Yunus Social Business, we decided to adapt some of the Tunisian lessons and created a new enterprise, Impact Partners. Changes to our model were designed to fit local needs for enterprise and business. We needed to adapt to the barriers to young women in social enterprises and digital skills. In Tunisia, this meant identifying the cultural barriers facing young women.*
>
> *We found that there were fewer women entrepreneurs; however, this could be overcome. For example, having an online platform provided women with greater access to online tools and training. We are also targeting businesses that explicitly had social impact, and the employability of women and youth as their goals. When targeting business, we considered the following: (1) Women and youth must be beneficiaries of business investments; and (2) Businesses should target women/youth specifically for hiring, and as sources of revenue within the business model.*
>
> **Interview with Impact Partner, Tunisia**

Approach 2.1   Conduct Context-Specific Gender Analysis

Before starting the design phase, project teams should conduct an analysis to understand the gender dynamics within the labor market, identify gender roles, relations, constraints and opportunities, and align all design decisions with those findings.[186] This is crucial for all youth programs, regardless of whether they target women-only, men-only or include all genders.

The *Women in Online Work (WoW) Pilot* program in Kosovo assessed and explored the potential of a digital skills-training program for connecting women with online work opportunities. The program integrated findings from the World Bank's 2012 study on gender disparities in education, health, and economic opportunities in Kosovo.[187] The diagnostic recommended several strategies to improve employment outcomes for women, including launching active labor market programs that target women and establishing of skill-building programs as a strategy to improve women's chances of starting their own business. The World Bank team also reviewed existing World Bank interventions designed to connect young people, and in some cases women, with online freelancing opportunities. These activities indicated the potential for online work to help women overcome barriers to labor market participation, by giving them more control over their working hours, allowing them to participate in income-generating activities irrespective of their location, and creating new opportunities for work within a global pool of demand for online labor. This background research also identified three main obstacles to women benefiting from online work opportunities: (1) lack of awareness; (2) lack of relevant technical and soft skills; and (3) limited access to technology. Finally, the World Bank team conducted consultations with ICT stakeholders in Kosovo, including local universities and

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[186] A good toolkit for conducting gender studies is the "Gender Analysis, Assessment & Audit Manual and Toolkit" by Lis Meyers and Lindsey Jones, ACDI/VOCA.
[187] World Bank 2012.

local software outsourcing firms. These discussions revealed that the local ICT sector increasingly required qualified labor to meet growing demand by foreign clients, and the number of self-employed online contractors was relatively small. Although a feasibility study was not performed, the World Bank team concluded that the following factors proved sufficient grounds to test the possibility of using online work to connect young women with growing digital employment opportunities: (1) available talent with an intermediate-level fluency in English; (2) rising access to broadband infrastructure and Internet-enabled devices; (3) availability of online payment systems; (4) lack of prohibitive regulations; and (5) a family-focused culture which drives demand for flexible work arrangement.

The project staff of Plan International's *Saksham* carried out a market intelligence study before the commencement of the project. Staff collected data to understand gender-based job requirements in Delhi, Hyderabad and Uttarakhand. Jobs indicators included: the number of men and women in the workforce; the profile type of skills required by employers; remuneration levels for men and women; and differences in work timing and shifts for young men and women.[188] Staff also researched details of facilities, infrastructure and benefits provided by local employers, including: the availability of maternity benefits; the existence of separate restrooms for women; availability of transport subsidies; and compliance with labor and safety regulations. Program staff also monitored market trends to identify companies that hired only or mostly female staff. Saksham integrated a gender mainstreaming strategy throughout its project design and implementation, by: systemically analyzing concerns of both women and men; designing program activities that enabled young women and men to participate equally; and ensuring gender-disaggregated data was collected throughout the program cycle.

5.3 Program Design Components: Supply-Side Interventions

Once market and gender analyses have been completed, project teams should use their findings to design supply-side activities. Project teams should integrate gender-inclusive strategies at each of the following implementation steps:

1. Identifying and targeting the population.
2. Registering, ensuring eligibility, collecting information on target population and selected beneficiaries.
3. Profiling the youth beneficiaries.
4. Delivering and paying for integrated packages of services to connect beneficiaries to jobs, either self-employment or wage-employment, with strong linkages to the needs of the private sector.
5. Putting in place the tight monitoring system to evaluate performance.[189]

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[188] Plan International 2018.
[189] Datta, Assy, Buba, Watson et al. 2018b.

Several digital jobs programs identified gender-specific challenges across these steps, and developed their own strategies to overcome them.

Challenge 3   Recruiting Young Women to Digital Jobs Programs

The case studies revealed that many S4YE members, and their implementing organizations, had difficulty in recruiting female youth beneficiaries. Young women had severe time constraints because of their family and household responsibilities. Safety concerns often prevented young women from joining digital skills-training programs. Several youth beneficiaries could not afford the cost of transportation and meals while attending training. Youth digital jobs programs adopted various strategies to overcome these barriers.

One young woman reported that she was bartering childcare with a relative in exchange for housing. However, because of the training, she could no longer take care of the children. As a result, she had to move in with a friend until she could find alternate housing or started earning income.

Another young woman had to drop out of one of the training courses because she could not find someone to care for her child. However, she was able to join a later training cohort after the local CBO arranged to provide for childcare during her course hours.

The focus group in Nairobi pointed out that the flexibility of the training program combined with support from the local CBO was vital for both addressing expectations for caregiving and offering support for balancing demands.

Beneficiary Focus Groups, Samasource Digital Basics, Samasource, Kenya

Approach 3.1   Utilize Mixed Recruitment Techniques

In order to recruit young women from disadvantaged communities into digital jobs programs, project teams created promotional campaigns that targeted spaces which are commonly frequented by young women. Many programs and initiatives also developed advertisements and other promotional messages that were context-specific, reflecting the local realities of young women's lives, highlighting their specific needs, and describing the opportunity presented by the digital jobs intervention.

Plan International's *Saksham* project in India applied a mix of youth and community mobilization techniques, including door-to-door outreach, project announcements on cars, strategically located information kiosks, and social media ads, for recruiting girls and young women. Storytelling is central to Saksham's recruitment strategy. Advertisements portray program alumni who look, talk and act like the girls and young women that Saksham is targeting. By emphasizing alumni stories, potential applicants can see how the program is relevant to their own lives. Videos and advertisements are posted in English and in Hindi, and depict girls and

young women in classrooms, using computers, discussing the impact that Saksham has had on their personal and professional lives. Saksham also publishes blogs featuring interviews with current and past students.

In South Africa, *Harambee* found that transport costs, phone costs, exclusion from social networks hindered youth's job search. In response, Harambee implemented its "Feet on Street Campaign", where recruiters worked directly in poor neighborhoods to recruit youth job-seekers. Harambee also advertised via Facebook, as well as through conducting outreach campaigns via email and online job search platforms. Program staff also established a mobile system that allowed program candidates to request phone calls from Harambee call center operators, rather than having to call Harambee directly. This was designed to reduce phone charges for interested youth who wanted to speak to Harambee staff to learn more about the program. Finally, Harambee relied on referrals from community-based partners, faith-based organizations and youth clubs to identify potential program candidates.

In Kosovo, the World Bank's *Women in Online Work (WoW) Pilot* conducted beneficiary recruitment through four main avenues. Program staff believed that WoW could be most valuable to university students, who tend to be unemployed/under-employed, with a basic level of digital literacy, marketable skills, and an intermediate-level of English fluency. As a result, WoW staff conducted information sessions at universities to inform potential beneficiaries about the program. Second, program staff leveraged social media marketing, for two main reasons: (1) Coders Trust, the implementing training partner, identified Kosovar women as avid Facebook users; and (2) digital literacy could be measured through the breadth and depth of beneficiaries' online activities. As a result, WoW anchored its online recruitment through targeted Facebook ads. Third, WoW staff partnered with the Ministry of Economic Development of Kosovo, who led a recruitment drive through traditional media including TV, radio and the press. This strategy helped the program reach women who may not have been active Internet users or who may have lacked Internet access at home. Finally, program staff liaised with local advocacy groups representing the rights and voices of ethnic minorities and people with disabilities, in an effort to be inclusive of those disadvantaged groups. These recruitment activities led over 1,100 women to express interest in participating in the pilot.

Accenture's *Training for the Future* program, implemented in collaboration with Education for Employment (EFE), relies on word-of-mouth from alumni as a key strategy for advertising the program to prospective candidates. In Morocco, program staff have established an "ambassadors" program, where alumni are invited to share their experiences at public events and forums. Social media also plays a substantial role when recruiting female beneficiaries. Today, EFE Morocco has a Facebook page with over 124,000 fans. In addition, by collaborating with local government partners, such as Ministries of Higher Education, Training for the Future has been able to recruit youth directly from career centers.

Approach 3.2   *Establish Program Centers in Safe and Accessible Locations*

Many youth face mobility constraints which inhibit their ability to travel to training programs, search for jobs, and commute to and from work.[190] In many contexts, these restrictions are compounded by social norms which further limit young women's ability to access safe, affordable and reliable transportation. Recognizing young women's disproportionate burden of mobility and financial constraints, and their concerns regarding safety and security, several digital jobs programs offered stipends and adopted other strategies to decrease risk and increase accessibility for young women.

Harambee **implemented 'bridging programs' to place disadvantaged 18 to 28-year-old unemployed work seekers, with no prior work experience, into entry level jobs in the BPO and financial services sectors.** Program staff found that the job dropout risk was the highest in the first three months of employment, especially when the newly hired young person needs to travel far to their place of work. To minimize that risk, program staff adapted a "one taxi ride away from the job rule." In practice, this means that Harambee staff consider geographic proximity when placing youth beneficiaries into employment opportunities. This not only reduced financial costs for youth beneficiaries, but also helped participating women to feel safer during their commute. However, this accommodation was not always achievable.

Plan Sri Lanka program staff found several obstacles preventing the use of local telecenters by rural women. Reasons for low usage included: (1) existing telecenters were mainly owned by men, in locations that women were not comfortable visiting, (2) opening hours were not convenient for women's schedules; (3) content was generic, with no clear applicability or relevance to women's lives; and (4) operators lacked sufficient resources to conduct outreach programs to encourage poor, illiterate women, and women with little or no education to use their services. Consequently, the *Empowering Women through E-Governance* initiative sought to establish at least two telecenters, or 'Nenasalas', to be owned and operated by women's groups. These telecenters were in turn used by women to access public information and/or train themselves in digital and other skills.

The World Bank's *Digital Jobs in Khyber Pakhtunkhwa***, includes a provincial strategy focused on supporting regulations, institutions and capabilities with the objective of promoting job creation and growth.** As part of its gender sensitive strategy, the initiative encourages private sector employers to offer home-based employment and flexible working hours to female staff. These policies were put in place given the insecurity of the region and the gender norms that limit the mobility of women outside their homes.[191] Additionally, the Khyber Pakhtunkhwa IT Board launched *Durshal,* co-working spaces which incorporate principles of gender inclusivity in their design: depending on the cultural context of their location, women are provided options of female-only hours or separate work sections, in a safe, secure public facility with community

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[190] Romero and Urquhart 2018.
[191] World Bank 2017.

codes of conduct. There are pilot initiatives to address women's constraints, including transportation support, childcare support, or events focused on soft skills, such as confidence building for women in digital skills programs.[192]

MotherCoders, **based in the United States, is a part-time coding bootcamp that specifically focuses on recruiting mothers as beneficiaries.[193]** In order to help women with children to overcome financial constraints, MotherCoders provides affordable childcare facilitates on-site. Additionally, to accommodate time and mobility constraints, program staff schedules classes on weekends and on weekdays, according to the times when children are usually in school. This has the added benefit of allowing women to complete assignments remotely during pregnancy and maternity leave.

The Italian Association Women for Development (AIDOS) has developed a business incubator methodology that focuses on strengthening the productive and entrepreneurial capacities of female entrepreneurs. AIDOS implemented *Women Business Development Incubators* throughout the Middle East. This program is described as an "incubator without walls" because premises are not provided. Instead, the female entrepreneurs continue to operate from their homes. The program consists of an integrated package of business development services, which includes a business health check (identifying capacity gaps and limitations), business management and technical skills training, support for product development and design, facilitation of access to finance, marketing assistance, support in creating and establishing linkages with business networks, and individualized technical assistance that focuses heavily on the provision of business counselling, coaching and mentoring.[194]

Approach 3.3 Promote Early-Age Exposure to ICTs

Exposing young women to digital skills at an early age increases the likelihood that they pursue tech-related education or employment opportunities. This requires a comprehensive targeting approach that not only recruits girls and young women into digital skills programs, but also educates family members and other household decision-makers on the benefits of having girls develop technical skills.

In 2016, Accenture found that early exposure to coding drives interest in computing among girls.[195] In the United States, with support from Accenture and other private sector partners, *Girls Who Code* implements various programs to engage girls aged 10 through 18 in learning computer science and programming concepts. Activities include free seven-week summer immersion programs that teach coding, two-week accelerated computer science programs held at local schools and universities, and clubs that meet weekly for two hours after school or on the

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[192] World Bank 2018c.
[193] Robinson 2017; Hammond, Mulas, and Nadres 2018.
[194] Ibid.
[195] Accenture 2016.

weekend for 11 weeks during the academic year. By spring 2018, Girls Who Code will have reached 50,000 girls in all 50 states in the US, successfully inspiring girls to consider studying computer science and paving the path for future careers in technology. Nearly 90% of Girls Who Code alumni say they are more likely to pursue a career in technology because of their participation in Girls Who Code programming activities.[196] By 2022, at current course and spend, Girls Who Code programs will help fill 13%, or roughly 11,000, of the entry-level computer science jobs needed to be filled by women to create gender parity in the industry in the U.S.[197]

AkiraChix **started a High School Outreach Program in Kenya, to promote girls to join STEM fields.** Program activities include bi-weekly training sessions at high schools on thematic areas such as programming, graphic design, user experience and robotics during every school term. AkiraChix also runs bootcamps during every school holiday which target the students who could not attend the biweekly sessions. Additionally, AkiraChix hosts in-person and virtual meetups every quarter to engage the members, volunteers and mentors. They also host an annual event on International Girls in ICT Day which exposes high school students to women working in the tech industry.

Approach 3.4   Provide Stipends, Accommodations & Other Incentives

Reducing the cost of attending digital skills training programs can make programs more accessible to young women, regardless of their financial situation. Providing stipends and other incentives for beneficiary participation can also help address attrition within digital jobs programs. However, implementers should be aware of the potential risks of providing financial incentives and other meal and transportation accommodations, as noted below.

In Kosovo, the *Women in Online Work (WoW) Pilot* **provided transportation and meal stipends to female beneficiaries.** Reducing financial barriers for enrolment and participation helped more trainees to become "active learners", who completed self-paced online lectures and videos, actively participated in classroom exercises and discussion, and successful bid for digital jobs using an online freelancing platform. However, program staff also found that stipends disrupted the atmosphere of the training, as some beneficiaries complained that students were accepting the stipend then not attending training. The program team decided to discontinue paying stipends in subsequent phases of the training to help ensure that beneficiaries were solely motivated by the value of the skills-training itself. Program staff also learned that training could be organized better without paying financial stipends, e.g. locations could be more convenient, and transportation services could be provided.

Youth4Jobs (Y4J) **is a skills-training program targeting rural and disabled youth in India.** The organization provides a 45-day training and skill-development program targeting young men and women with speech, hearing and vision disabilities between the ages of 18 and 20 living in rural

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[196] Girls Who Code 2017.
[197] Ibid.

areas. The training includes free accommodation, and includes English language lessons, digital, life and soft skills training. Program staff work with partners to design an industry-specific curriculum, followed by on-the-job training. Training is followed by a traineeships and placements in organizations that may lead to appointment as full-time employees.[198]

Ada Developers Academy, *based in United States,* **waives tuition fees for students of its 11-month intensive coding bootcamp while also providing a stipend.[199]** During the classroom instruction period, which lasts for the first 6 months of the program, students only need to make sure their cost of living expenses are fully covered. The internship phase lasts for the remaining 5 months of the program, during which students receive a stipend equivalent to minimum wage for full-time employment. ADA also offers a low-interest loan that students can apply for to cover living expenses during the classroom period.

The US-based *Grace Hopper Program* of Fullstack Academy stipulates that tuition is paid only after the student is hired for a job. Upon enrolment, students make a deposit to secure a space in the training cohort. This deposit can then be applied toward tuition fee payment once the student finds a job. After the student gets a job, the tuition is to be paid in nine monthly instalments. If the student does not get a job a year after her graduation date, the deposit is refunded. If the student leaves the program halfway, partial or full refunds are provided.

Challenge 4   Retaining Female Beneficiaries in Programs

Digital youth programs reported facing significant challenges with retaining young women in training, work based learning, and employment. Due to context-specific gender roles, women often required additional support services to succeed in a training for employment program. A 2018 World Bank report advised that coding bootcamp providers thoughtfully mitigate some of the constraints young women face in participating in intensive skills training interventions. These constraints include care and domestic responsibilities, lack of safe transport, and limited free time.[200] The report also recommended that programs build young women's confidence, promote female role models and connect women with wider professional networks.[201] The digital jobs programs discussed below incorporated many of these approaches to help improve retention rates for female beneficiaries.

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[198] Misra 2017.
[199] Robinson 2017; Hammond, Mulas, and Nadres 2018.
[200] Hammond, Mulas, and Nadres 2018.
[201] Ibid.

Approach 4.1   Design a Rigorous Screening Process

Many youth employment programs conduct thorough screening of applicants before enrolling beneficiaries in their training. Youth interested in joining these programs usually must apply online, submit a CV, take numeracy, literacy and digital literacy assessments, and go through one or more interviews (by phone and/or in-person). Some programs also administer psychometric tests to determine candidates' motivation, resilience, work ethic, and other traits important for success. Rejected candidates are sometimes referred to local skills remediation programs, and invited to reapply once their basic competencies have improved. Such a process can help staff to ensure that their programs truly meet the needs, abilities and ambitions of the accepted beneficiaries.

In 2017, USAID's West Bank and Gaza mission partnered with SAP, a leading global enterprise software company, to hold the first iteration of the *Compete Project – Young Professionals Program (YPP)*. The YPP was a 45-day bootcamp to provide targeted training in multiple aspects of SAP's enterprise software. The recruitment phase lasted for 3 months, during which time the YPP was advertised extensively in local print media, as well as through social media and university-affiliated alumni networks and electronic bulletin boards. SAP also held in-person sessions at local universities to explain the YPP to interested graduates. Advertising materials emphasized that applicants graduating from the program would become more attractive candidates for highly-desirable IT jobs. The program specifically encouraged female candidates to apply for the program. SAP employees conducted a rigorous candidate selection process for the YPP, including individual interviews, cognitive testing, personality profiling, and essay writing, to ensure that the chosen candidates had the highest chance of successfully completing the program. Of the 400 applications sourced from Palestinian companies and universities, SAP enrolled 18 candidates – a selection rate of less than 5%. Of the 18 YPP trainees, 11 were women.

Laboratoria **uses social media – where their target beneficiaries spend the most time – to recruit a new cohort four times a year.** The application process includes an interview and a test to gauge their aptitude for learning and persevering through challenges. After experiencing challenges with young women withdrawing from the bootcamp because it was too demanding, program staff adjusted their interview process to now focus more intently on traits that would enable young women to complete the demands of the programs program, such as creative

problem-solving and determination. Laboratoria received over 4,000 applications for their final 2017 cohort, and accepted only 9% of students.

The American India Foundation (AIF) utilized official assessments to test basic skills of applicants for its *Market Aligned Skills Training (MAST)*, but found that this prevented the most vulnerable students from participating. To improve retention rates for low-income students, MAST program staff conduct "motivation-based" assessments. During these assessments, students walk through training centers and are observed for their interactions with other students and interest in mock training. On average, one out of every four applicants is selected to join the program.[202]

Approach 4.2   Incorporate a Blended Approach to Training Delivery

In areas where youth beneficiaries face barriers to movement that limit their ability to attend training courses regularly, online training programs can provide a convenient and accessible alternative to in-person training programs. Conversely, many youth beneficiaries – young women in particular – may have limited ICT access at home. In such instances, in-person training in centers that provide reliable computer and Internet access may help youth beneficiaries overcome such barriers. A blended approach that combines both online and classroom training modules can also help to reduce transportation and food costs that may otherwise be prohibitive. This approach also provides youth beneficiaries with the flexibility to complete assignments while still fulfilling other demands on their time. This is particularly important to ensure the participation of young women who face a disproportionate burden of household and care responsibilities.

Digital Divide Data (DDD) **recruits and trains youth to work as DDD data management operators (DMOs) to deliver BPO services to their clients. DDD's recruitment and hiring model has three phases.** First, DDD recruits youth from disadvantaged areas to undergo business education, soft and technical skills training. The training is a combination of in classroom face-to-face learning (70%) and online learning (30%). This provides youth with the flexibility to complete assignments according to their own schedules, while also helping to develop team-building and communication skills through group activities. In the second phase, DDD hires promising trainees, who spend an additional three months in a work readiness training program, before they are placed in a job for nine months of contracted work. During this period, beneficiaries earn a living wage and receive career guidance. Finally, after this year-long on-the-job training period, beneficiaries have the opportunity to start higher education, whereby DDD structures their work schedule to allow for further study. DDD has provided over 900 youth with long-term employment opportunities in the ICT, business services, retail, and banking and finance sectors. 50% of the beneficiaries who participated in the program were young women and 10% were people with disabilities.

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[202] Grimm et al. 2013.

Accenture and Education for Employment's joint initiative, *Training for the Future*, **leverages an online tool to identify skills gaps, train youth in soft and technical skills, and connect youth with private sector employers.** Participants are required to complete an online self-assessment through Emplea+, which measures an individual's proficiency level in five core workplace competencies: self-confidence, self-control, communication, compliance with rules and tasks, and mathematical reasoning. The program is then tailored to the individual based on factors such as level of education, self-assessment average score and lowest rated competencies. Based on their results, beneficiaries are either placed in Online Training or Blended Training (combination of classroom and virtual training). Students also have the flexibility of completing courses on their own or at partner locations. This blended approach allows implementing partners to monitor student progress on the Emplea+ platform, provide technical support, and respond to students' questions as they go through the training. It also allows program teams to provide laptops and Internet connections in areas where students would otherwise lack access to ICT devices and Internet connectivity. In the first two and a half years of the program, Training for the Future has trained almost 9,500 youth for traditional and digital employment opportunities. Young women account for 51% of participants who complete employment training. Of the 4,600 youth that Training for the Future has placed into jobs, 13% found opportunities in call centers, 11% entered the ICT sector, and 4% worked in financial services; the remainder found jobs in other sectors.

Implemented by the World Bank in partnership with the Italian Association Women for Development (AIDOS) and the Tanzania Gatsby Trust (TGT), the *Tanzania Virtual Business Incubator's* **program objective is to increase the entrepreneurship capacity and incomes of women micro-entrepreneurs.[203]** The training program consisted of two training packages – a typical training program that provided entrepreneurship and product development training and a technical assistance program that provided individualized technical assistance delivered either in small group settings or at the entrepreneurs' premises. The technical assistance program also included business counselling and coaching, which paired entrepreneurs with mentors.

Catholic Relief Services' Information Technology Training Program (ITTP) for People with Disabilities **also incorporate a blended method or training delivery.** The program curriculum was designed to equip youth with disabilities with advanced digital skills. The program also provided beneficiaries with soft skills training, including how to conduct a job search, interview for a job opportunity, and interact in an office. Approximately 30% of training time is spent in lectures, with the remainder spent on experiential learning and group work. The program offers one-year, six-month, and three-month courses. Between 2007 and 2012, ITTP trained more than 700 students. 80% of beneficiaries found full-time employment or internships with government offices, as well as domestic and international private sector companies.[204]

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[203] World Bank 2015a.
[204] Results for Development Institute 2013.

Approach 4.3   Implement On-the-Job Learning Work Schemes

Many young women withdraw from skills-training programs because they do not see a clear connection for how the newly-developed skills will improve their employment outcomes. Similarly, one major limitation with placing skilled youth in digital job opportunities is a lack of prior work experience. In order to incentivize young women's program participation, and help vulnerable youth to overcome employment obstacles, several digital jobs programs developed models that provided skills training as well as job experience.

The *EOH Youth Job Creation Initiative* trained disadvantaged youth in South Africa, first-time job seekers, over a period of 12 months. The program adopted a "learnership" model, which included 30% classroom or theoretical teaching, followed by 70% of structured workplace learning. During the workplace learning, beneficiaries were placed in jobs in the manufacturing, IT, finance and engineering industries. This model allowed youth to embed themselves in organizational culture, increasing their likelihood of continued employment after the program's completion. EOH placed over 35,000 beneficiaries in learnerships from 2012 to 2015. 85% of the beneficiaries placed were in full-time employment one year after the program ended. 51% of them were women.

***Samasource*, an impact sourcing provider based in Kenya, ran the "Samasource Digital Basics" program that provided opportunities for digital employment to youth beneficiaries who were earning below the living wage in the informal economy, and had little or no formal employment experience.** Samasource's training-to-employment model involved three steps. First, Samasource hired beneficiaries directly in its own delivery centers. This provided youth beneficiaries with their first formal job opportunity. Second, graduates of the Samasource program were given preferential opportunities to be hired by partner delivery centers. This created opportunities for youth to progress in the field, and access new roles with increased wages and benefits. Lastly, graduates were directed to online courses to become self-employed digital microworkers. This final step helped equip youth beneficiaries with the skills to successfully bid for online microwork contracts, providing an alternative source of income-generation. This model helped youth enter and remain in the formal labor market. In 2016, Samasource had a cumulative direct beneficiary count of 8,398 since starting operations in 2008. 85% of beneficiaries continued to work or pursue their education after they left Samasource. Of those that continued working, 98% were in formal employment, with 51% of them working in the ICT sector.

***CloudFactory*, an impact sourcing service provider in Kenya, found that microworkers can become demotivated when there is not enough work, or experience boredom when doing the same, repetitive tasks, over an extended period.** Program staff resolved these challenges by engaging with a wide range of clients with differing microwork needs, including companies such as Microsoft, Facetec, Emberk, Cruise and Ibotta. This enabled them to provide their workers with a continuity and variety of assignment, resulting in 95% retention over a six-month period.

Approach 4.4   Provide Access to ICT Infrastructure and Devices

Many youth populations, including those in lower-income groups or living rural areas, lack affordable access to ICTs. Under-developed ICT infrastructure in developing countries can also result in low network quality and coverage. Furthermore, as discussed in earlier chapters, young women have a lower access to the Internet and to mobile phones than men. This gender gap in access limits young women's remote work and training opportunities. Recognizing these constraints, many digital jobs programs have developed strategies to provide youth beneficiaries with ICT access.

In Ghana, *Friends of the British Council (FoBC)* launched the Digital Innovation Center (DIC) as a space for young people to share ideas, network, and access IT tools, software and high-speed Internet. Equipped with high-speed Internet and laptops, the DIC also served as a workspace for beneficiaries to create their own digital companies and access online freelance IT jobs such as data entry, image capturing, document reviewing and typing. FoBC also provided beneficiaries with access to a Skills and Innovation Hub. This Hub was equipped with high-speed Internet and laptops, which helped beneficiaries to create their own digital companies and access online freelance jobs.

The *Empowering Women Through E-Governance* project was launched in 2015, by Plan International, to help women in target communities in Sri Lanka to claim and exercise their rights as citizens. An analysis with women in communities in Monaragala and Nuwara Eliya Districts showed that most have accessed some local government services, but have limited knowledge of the extent of services available. This initiative works to empower marginalized women and youths from plantations and rural village communities in Monaragala and Nuwara Eliya Districts and their CSOs to claim their rights, and access opportunities and services. Program implementers provided laptops, tablets or smartphones for use at the community level.

In Kenya, *AkiraChix* program staff recognized that many students did not have safe, reliable and affordable access to computers, laptops or the Internet. As a result, they were unable to practice the skills they learned during AkiraChix workshops. To address this issue, *AkiraChix* launched the "Once a computer, always a computer" initiative. AkiraChix encouraged all students, program staff, and community members who had old computers to donate them to AkiraChix. Staff then distributed the computers to schools and community-based organizations.

Nigeria's *Awele Academy* provides teachers, individuals and schools with pre-built STEM kits and universal equipment. These kits include projects which focus on upgrading students' technical skills. Awele Academy provides these kits to help upgrade science labs in schools and to introduce practical computer science and engineering projects to secondary school curriculum. These STEM kits include software such as Arduino, Raspberry Pi, and Green Energy.

Challenge 5   Building Self-Confidence in Young Female Beneficiaries

Several youth programs observed that their female beneficiaries were less confident, quieter, more reserved, and engaged less during training, than their male counterparts. Since active participation leads to better learning outcomes, youth employment programs can adapt their curriculum and training methods to improve learning outcomes. This includes promoting participatory approaches, encouraging equal levels of participation, and providing learning support inside and outside the classroom.[205] Several programs adopted these approaches to build the self-confidence of young women, and help them to engage in training activities.

> *The program gave me emotional support; especially from my mentor who kept encouraging me to change my mindset from considering myself as a failure when compared to other people. I remember one day, I had found out that my parents couldn't afford my university tuition, so I was stuck and felt down. I talked to my mentor about my situation, and she told me that everyone has a goal in life. She said, "Find out what you can do best and make your life better. The sky is the limit and just know you are different." The positive feedback she gave is still in my mind today, and it has made me conquer a number of challenges that have come my way.*
>
> **Interview with Graduate, Entrepreneurship Program, Educate!**

Approach 5.1   Support and Engage Women in Interactive Learning Experiences

Many digital jobs programs reported that low confidence levels of young female beneficiaries resulted in less engagement with training materials, peers and trainers. In order to build self-confidence, program teams adopted participatory teaching methods to encourage young female beneficiaries to contribute more substantively to program activities. Program staff can set a dedicated time during class for beneficiaries to speak to and in front of their peers, such as to express difficulties with courses. Staff also leveraged social media platforms such as WhatsApp and Facebook to provide a virtual environment for female beneficiaries to contact each other and discuss course-related, professional and personal issues. Some programs also found it necessary to create women-only cohorts to promote more open communication and engagement with training materials.

Friends of the British Council **worked to help disadvantaged and unskilled or minimally skilled youth in Ghana to enter digital employment through BPO centers and other IT service providers.** FoBC program staff provided youth with training in basic literacy and numeracy skills, technical skills for the BPO sector (spoken and written communication, online marketing, project management, finance and accounting) and soft skills (time management, inter-cultural working, customer relations, self-management). Facilitators created a highly interactive training, and

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[205] ITU 2018.

engaged participants in conversations, role plays, individual and group presentations, and encouraged them to share their questions, concerns and experiences. These program design elements led female beneficiaries to report improved confidence levels and enhanced communication skills. 1,003 beneficiaries were trained on technical, digital and soft skills during the grant period. Of those who were trained, 631 beneficiaries secured some form of employment.

The *Youth Banner* is a non-profit organization in Kenya that aims to decrease youth employment and increase the success of youth entrepreneurs through various initiatives. The Youth Banner Economic Empowerment Program (BEEP) is a six-month program that recruits young entrepreneurs into business clubs led by experienced business professionals. These volunteers mentor youth entrepreneurs and expose them to market opportunities. However, program staff reported having difficulty recruiting women for their economic empowerment clubs, because women were not being comfortable in clubs with male peers. Female beneficiaries also reported that they could not openly share their thoughts and ideas in these co-ed clubs, and instead opted to be placed in female-only groups. Based on these experiences, the Youth Banner program staff elected to exclusively target women for their Intel-supported "She Will Connect" initiative. With support from The Rockefeller Foundation, the Youth Banner partnered with the Kenyan government to provide training of trainers (ToT) services to local community centers that in turn provided digital literacy and skills training to disadvantaged youth.

Nigeria's *Awele Academy*, provides Private and Group Tutoring facilities to young girls aged 8 years and above. This approach allows students to have more personalized attention during training. This can help girls who are self-conscious or require more time to understand and master concepts to have the space to ask questions. Group tutoring also provides an opportunity for the girls to build strong interpersonal relationships and learn to work in teams with friends – making the tutoring more enjoyable and thus more interesting.

Approach 5.2   Develop Female Beneficiaries' Communication and Leadership Skills

Many implementers and their youth beneficiaries reported that employers valued soft skills as much as, if not more, than technical expertise. As the nature of work continues to change, having complementary digital and soft skills will become increasingly important.

Maharishi Institute, **a South African impact sourcing company, implements a one-year program to help unemployed youth from local communities to enter formal work opportunities.** Most beneficiaries were unable to secure employment opportunities prior to joining their program because they were unable to effectively communicate their skills and experience to potential employers. In response, Maharishi modified its training curriculum to incorporate soft skills modules, including training on workplace readiness. As a result, female beneficiaries reported feeling more resilient to challenges in the workplace. During The Rockefeller Foundation's DJA grant period, 772 youth were trained and placed in call center employment opportunities. Over 75% of the trainees were retained for at least three months after completing the training program.

The World Bank and the Fundación Mujer y Desarrollo Económico Comunitario, implemented *Innovations for Women's Economic Empowerment* in 24 rural communities in Nicaragua. The pilot provided beneficiaries with training in social capital formation and leadership; gender awareness (self-esteem, gender discrimination and gender roles/relations); intra-household decision making and bargaining; use and control of resources; and, conflict resolution and domestic violence. Program staff also targeted men for training on gender relations and awareness.

BOX 5.3   *LABORATORIA: CREATING A SAFE SPACE FOR YOUNG WOMEN*

In order to increase retention rates, and ensure that women are truly prepared for entering into formal employment opportunities, Laboratoria creates a culture based on an inclusive and participatory learning strategy. Beneficiaries are expected to be in charge of their own learning processes, displaying their commitment to pursuing IT-related education and employment. Program staff help to cultivate a growth mindset, where students develop the belief that they can overcome challenges with the encouragement, support and tools that Laboratoria provides to them. Laboratoria provides a safe space for beneficiaries to experiment, make mistakes, and to provide feedback to each other and to staff.

Laboratoria's program has a strong focus on life skills, which are intertwined with how technical skills are developed. Project-based learning helps ensure that students develop skills such as teamwork, communication, self-awareness, planning and time management, and problem-resolution. In every training center, Laboratoria hosts workshops on personal topics and issues affecting women in particular. Laboratoria also employs psychologists at every location who help ensure that beneficiaries are provided with the resources and support they need to thrive and learn.

The soft skills program has two parts. The first part occurs in the first month of the program, during which young women participate in training modules on stress management, gender issues and identity, and effective communication. The second part takes place towards the end of the training program, and is more focus on employability. Training module topics include interview preparation, workplace culture, and financial management.

Approach 5.3   Provide Female Role Models

The 'role-model effect' helps young women to more easily relate to their peers, instructors, and mentors. By speaking with women in STEM, and learning about other women's experiences, female beneficiaries can feel more confident in navigating ICT-related careers. Many digital jobs programs now provide opportunities for young women to connect with other professional women with experience in digital jobs.

The *Women in Online Work (WoW)* pilot in Kosovo provided professional mentorship to female beneficiaries. Mentors included accomplished peers and online freelancers who acted as trainers in the classroom. Mentors were responsible for assisting beneficiaries with technical issues

during training, while also providing guidance during the job search process. With the support of their mentors, trainees were better able to identify online freelancing opportunities that were good matches for their technical and soft skills.

The *Working to Advance Science and Technology Education for African Women (WAAW) Foundation* **is an international nonprofit organization based in Nigeria that works to increase the number of African women entering STEM fields through bootcamps, scholarships and workshops.** WAAW also connects girls and young women with working professionals in the IT industry who have volunteered to serve as mentors. Program beneficiaries receive advice and insights from mentors on a range of personal and professional topics, including: future career options; suggestions for self-learning using online resources and additional trainings; academic challenges at school; the importance of maintaining and online presence through social media sites such as LinkedIn; resources to support their success as girls in STEM; and support for internship opportunities. WAAW's STEM and Outreach Mentoring Program is currently being run in 19 chapters across 11 African countries, reaching over 10,000 young people.

Girls in Tech **provide one-to-one mentorship opportunities for girls and young women, which were designed to fit beneficiaries' educational and professional backgrounds.**[206] Girls in Tech offers two tracks for the mentorship programs: the first targeting professional women, and the second targeting university students. The mentorship program for professional women focused on entrepreneurial/intrapreneurial women who hope to hone their business skills, and develop key technical skills needed to advance in the workplace. The mentorship program for university-aged women focused on attracting and retaining future female talent in technical fields, providing career advice and networking opportunities, and introducing entrepreneurial skills that would benefit students as they enter the professional world.

In the United States, *Hackbright Academy***, provides two software engineers from leading tech companies for every student in their Software Engineering Program.**[207] Starting from week three of the twelve-week coding bootcamp, beneficiaries meet once a week to gain confidence, receive guidance and feedback on projects, and get the personalized direction they need to flourish during and after the program.

Challenge 6   Combating Misperceptions, Stereotypes and Other Biases against Women

Cultural barriers limit young women's ability to "spend time online" freely at home, travel to training facilities to attend ICT courses, access capital needed to launch a business, and enter and progress in jobs. For example, *Plan International Sri Lanka* noted that there were many obstacles for rural women to use community telecenters. Since centers were mainly owned and operated by men, women were not comfortable visiting them. Program staff have adopted several strategies to overcome these limitations.

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[206] http://girlsintech.org/.
[207] Robinson 2017; Hammond, Mulas, and Nadres 2018.

Approach 6.1   Influence Parents, Spouses, and others to Support Women's Career Choices

As described in detail in earlier chapters, social norms underlie many of the social, financial and institutional barriers which limit young women's participation in training and job programs. Program staff for digital jobs interventions have tried to engage with family and community members to combat restrictive social norms for women.

Saksham **in India engaged parents throughout the program, thus creating a supportive and enabling environment for young program participants.** By organizing parents' visits to prospective job places, Saksham ensured they are comfortable that their daughters would be working in safe workplaces. Facilitating interactions between parents and employers, Saksham helped address the concerns that parents have about employment.

Girls Who Code **runs national and local campaigns to raise awareness about the gender gap in coding, counter misconceptions about gender roles in technology, and to drive program enrolment and participation.** National campaigns leverage social media, online and print publications, and television to educate various groups (parents, schools, girls, etc.) about the opportunities in digital economy.

Approach 6.2 Connect Employers Directly with Young Women

In many cultures, young women are discouraged from engaging in income-generating activities, including launching their own business, because of social taboos. However, efforts are being made to shift social perceptions on a local and national scale. To overcome these misperceptions, digital jobs programs hosted events that display the skills and aptitude of their female beneficiaries. They also work directly with private sector companies to identify skilled young women who could fill employers' needs.

Before graduating from the six-month coding bootcamp, *Laboratoria* students participate in Talent Fest, a 36-hour hackathon. Participating companies provide a real web development problem they face, and teams of students brainstorm, problem-solve and present solutions. Companies also have access to historical data on students' performance throughout the bootcamp. The in-person participation in the Talent Fest gives companies the chance to see first-hand how the young women work, providing crucial insight into finding the right fit for openings. At the same time, the companies hold interviews with high-potential candidates. Companies which have been part of this fest in the past include Lyft, BCP, Scotiabank, Tekton Labs, GMD, Ministerio de la Producción del Perú, Urbaner, ThoughtWorks, Globant, and Everis.

Approach 6.3 Provide Inclusivity Training to Employers

Hiring bias persists in societies where it is taboo for women to work in STEM or ICT-related careers – or work anywhere at all.[208] Hiring staff may also have negative perceptions about women in STEM, or assume that candidates are unqualified due to their gender. Employers may also view female staff as being a larger cost than their male counterparts, due to concerns about providing maternity leave or childcare support services. Such attitudes may lead employers to be blind to the value of hiring young women to perform certain digital job roles and responsibilities. For example, *ACWICT* program staff reported that many female beneficiaries were given back office roles whilst young men were given the opportunities to engage with clients. Most young women did not feel sufficiently empowered to address this inequality with their employer.

Ada Developers Academy, a software developer training program based in the United States, provides workshops to companies on becoming more inclusive. ADA offers two training workshops: (1) "Implicit Bias" where trainers provide companies with concrete tools to help them become more aware of bias, mitigate its impact and reduce its presence in the minds of individuals; and (2) "Ally Skills" where trainers teach ways to influence and support people who are targets of systematic oppression based on their gender, sexual orientation, ethnicity, religion, and other personal characteristics.

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[208] World Bank 2018a.

5.4   Program Design Components: Demand-Side Interventions

Even less evidence exists for identifying successful interventions to promote growth and job creation of women-owned firms and farms in digital economy, or stimulating digital jobs creation for young female and male job seekers. S4YE's guidelines on integrated youth employment programs envision five steps that project teams must take in designing and implementing interventions on demand side of the new generation of youth programs:

1. Defining the target youth population, and establishing a profiling of the possible jobs for target population.
2. Decomposing the constraints to growth faced by private sector.
3. Defining the target group of firms to be supported.
4. Identifying the constraints faced by the target group of firms.
5. Designing and implementing comprehensive packages for target group of firms.[209]

Specific challenges faced by women, owners of firms or farms, and young women, aspiring entrepreneurs, and promising solutions are described below.

Challenge 7   Difficulty for Women Entrepreneurs to Access & Control Financial Resources

Although both young men and young women face similar barriers when accessing finance, evidence from recent studies indicates that these barriers are higher for women, especially in developing countries. [210] Several factors contribute to this imbalance, including restrictive social norms, lack of traditional collateral (such as land or property which is often registered in men's names), women's lower income levels relative to men, and financial institutions' prejudices and inability to design appropriate financial products targeting women.

> *Mobile money allows mobile phone users to electronically transfer funds to retailers or individuals. This has lowered fees and created a wider network of efficient commercial exchanges. Currently, mobile money is growing faster than traditional banking in Uganda and is the most convenient form of payment that can be used. This is especially for the online business because of the increased penetration of smartphone use, even in more remote villages.*
>
> **Interview with Graduate, Entrepreneurship Program, Educate!**

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[209] Datta, Assy, Buba, Watson et al. 2018b.
[210] Narain 2009.

Approach 7.1   Leverage Digital Financial Services to Support Women's Financial Inclusion

Digital financial services (DFS) refer to a broad range of financial services (payments, credit, savings, remittances and insurance) accessed and delivered through digital channels, and are representing promising technologies to support women's financial inclusion.[211] Additionally, earning revenue through online platforms also promotes financial inclusion, as women sign up for payment systems and bank accounts which often provide them autonomous control over their earnings.

Over the past ten years, *M-PESA*, Kenya's mobile money system, has helped people send money to one another with just a text message. A recent study found that M-PESA lifted approximately 194,000 Kenyan households out of extreme poverty. As of 2015, Kenya had only 2,698 automatic teller machines (ATMs) across the country. By creating a network of 11,000 agents who provide deposit and withdrawal services, M-PESA has helped to fill a critical infrastructure gap. M-PESA has also protected individuals from income and health risks by providing an opportunity to save for the future, greater access to formal or informal lines of credit, informal risk sharing and reduced cost of long distance money transfers. The authors posit that increased financial inclusion, access to remittances, and financial agency helped roughly 185,000 women to move from subsistence farming to business and sales occupations.[212]

In Pakistan, *GRID Impact* partnered with Karandaaz, a non-profit development finance company, to design a mobile money app specifically for low-income, low-literate women. The team of designers and researchers used a behavioral and human-centered design process to ensure that they were creating solutions with women and not only for women. First, the team conducted a series of in-depth interviews with providers, mobile money agents, mobile money customers, and people not yet using mobile money. Next, the team tested different user interface designs and features with a focus group of low-income women. They helped to identify and co-create the most appropriate visual assets for the app, as well as the right sequence of steps for key flows (such as checking account balance and making a transaction). The team then developed prototypes that simulated the app on mobile devices common in Pakistani markets. Women were invited to interact with these prototypes on mobile devices and perform specific tasks. The team observed how easily women navigated the designs, where women encountered difficulties, and how they interpreted information and visuals on-screen. This feedback helped the team improve the user experience and interface for the app, thus optimizing the chance of adoption by its target audience.[213]

Approach 7.2   Connect Entrepreneurs with Traditional and Alternative Funding Sources

Access to credit is often difficult for young entrepreneurs, particularly in rural areas and for those from impoverished backgrounds, who lack the capital and collateral required by

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[211] Alliance for Financial Inclusion 2016.
[212] Surry and Jack 2016.
[213] Fiorillo 2017.

traditional financial institutions. Young women typically have less access to and/or control over assets, further limiting their ability to raise credit and to start and grow a business. Digital job programs supported young female entrepreneurs by training them about and connecting them to non-traditional finance institutions and alternate forms of finance, ranging from angel investors and venture capital funding to crowdfunding and competition earnings.

The *Caribbean Mobile Innovation Project (CMIP)* provides a networking channel for mobile apps developers and entrepreneurs to connect with stakeholders in the mobile technology ecosystem, such as angel investors, venture capitalists, national and regional governments, and established business professionals. CMIP has hosted three regional one-day pitch competitions, called PitchIT Caribbean, where promising digital start-ups and mobile app developers compete for USD 5,000 in seed funding. CMIP also assisted winning teams with applying to local, regional and global financing mechanisms, and helped to match teams directly with potential investors.

***Saksham's* youth employment program included job-oriented vocational training (JOVT) as well as vocational training for entrepreneurship promotion (VTEP).** Among the VTEP's key components were modules on how source seed-capital, developing a business plan, identifying value chain linkages, and establishing linkages with government and other welfare schemes. Saksham also extended support for young female beneficiaries to open bank accounts and join community-based savings groups.

Exim Bank in Tanzania launched its *Women Entrepreneurs Finance Program* in 2007 to provide lines of credit to women entrepreneurs running midsize enterprises. Exim Bank allows the entrepreneurs to use contracts with reputable companies as collateral for their loans. The average size of the contracts is USD 160,000. In addition, with the help of IFC, Exim Bank has also partnered with Sero Lease and Finance, a micro-leasing company in Tanzania, to aid women moving from microfinance to the formal banking sector, by facilitating the transfer of borrowers' good credit histories from microfinance institutions to commercial banks.[214]

Development Finance Corporation Uganda (DFCU) Bank created the *Women in Business (WiB) program* to assist women who own SMEs to achieve growth by providing them with business management, financial literacy and traditional loans. To address the collateral challenges faced by women in Uganda, DFCU created a land loan, enabling women to purchase property that could eventually be used as collateral for a future business loan. In addition, DFCU created an investment club which served as a savings scheme, allowing female entrepreneurs to raise funds together for future business investments.[215]

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[214] World Bank 2015a.
[215] Ibid.

Challenge 8   Digital Entrepreneurs Require Skills & Support for Success

Digital technology is enabling new forms of entrepreneurship.[216] Knowledge-based online micro-enterprises can be launched with comparatively less starting capital, and still reach global markets. ICTs also help self-employed youth to transition into becoming business owners and help micro-firms to grow and create jobs. However, to take advantage of these benefits, youth must possess digital, social and business skills. Their success is also dependent on the local enabling environment, including access to ICT infrastructure and devices, non-discriminatory legal and regulatory policies, access to funding, and the ability to establish professional networks.

> *When I became interested in shifting careers, I found that universities were not good places to learn about business skills. After investigating potential programs, I learned that most of the entrepreneurship programs are predominantly male. This made the potential for the Foundation Program quite distinct, as it was set up in a way that made it safe and inclusive. Not only did it recruit and admit a majority of women, but it also had a significant representation of women from different ethnic and racial groups, which was highly unusual."*
>
> **Interview with Natalia Kyriacou, Entrepreneurship Program Graduate**
> **Founder & CEO, My Green World**

Approach 8.1   Train, Mentor and Support Female Digital Entrepreneurs to Succeed

Recognizing the strong need to foster greater involvement of women in tech entrepreneurship in the region, the *Caribbean Mobile Innovation Project (CMIP)* **organized the 2016 PitchIT Caribbean Breakfast for Women Tech Entrepreneurs.** This event encouraged and recruited women attendants into the CMIP training program, and raised awareness of CMIP benefits among women support organizations.

In May 2017, BMZ, UNESCO and SAP brought together over 30 female tech leaders from all over Africa at the *#eSkills4Girls* **Africa Meetup.** The event offered a unique opportunity for young female entrepreneurs, thought-leaders and industry experts to network, discuss challenges and effective approaches and to further develop capacities and strategies for successfully running and scaling up initiatives related to girls in ICT. Using the results of a survey of current needs among the participants, trainings were offered in leveraging EU funding opportunities, moderation techniques, media and communication, networking strategies, and design thinking.

*Internet Saathi***, a partnership of Google and Tata Trust, is bringing entrepreneurship opportunities to rural women in India.**[217] Launched in 2015, this digital literacy program has

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[216] McKinsey Global Institute 2017b.
[217] https://www.google.com/about/values-in-action/internet-saathi/.

already reached two million women, and is rapidly expanding. Internet Saathi training helps women to learn how to access, use, and benefit from Internet. It also equips them with tech tools and content to spread their tech knowledge to other women in their villages. Finally, some of these trained women can choose to become local agents, who provide assorted services in their community over Internet-enabled devices. Their roles vary, and include serving as distributors for telecom products (including phones, SIM cards, and data packs), field data collectors for research agencies, and financial services agents.

TechnoServe's *Impulsa Tu Impresa* **project aims to help small and growing businesses boost their growth through mentoring and business training.** Since its launch in 2012, the program has increased the sales of over 1,000 businesses by USD 38 million and generated 1,400 new jobs in Guatemala, Honduras, El Salvador, Nicaragua, and Burkina Faso. A recent study of this program by the Emory University found that small women-owned business showed higher revenue growth when their owners were mentored by a woman.[218]

Approach 8.2   Shift National Mindsets on Women's Roles and Capabilities

Girls in Tech **is a global non-profit focused on the engagement, education and empowerment of girls and women who are passionate about technology.** Each year, Girls in Tech hosts AMPLIFY, an annual start-up pitch competition for female entrepreneurs to showcase their innovations and compete for funding. Attendees include entrepreneurs, venture capitalists, and angel investors. AMPLIFY also features keynote speeches from industry leaders, and serves as an opportunity for emerging female entrepreneurs to build their professional networks.

In Egypt, the *IFAD-ILO Taqueem Initiative* **launched a nation-wide reality TV competition that included both male and female entrepreneurs as competitors.** The program, El Mashrou3, followed 14 young entrepreneurs who competed for a chance to win prizes and support to launching their own businesses. Program staff designed a randomized trial that evaluated whether the TV show changed perceptions of young women as entrepreneurs and motivated viewers to launch their own ventures. Preliminary results indicated that it was possible to shift public perception on the ability of young women to launch and run their own businesses.[219]

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[218] TechnoServe 2018.
[219] Romero, Gardiner, McLaughlin and Martinez 2018.

BOX 5.4 #ESKILLS4GIRLS: GLOBAL EFFORT TO CLOSE GENDER DIGITAL DIVIDE

Under Germany's 2017 G20 presidency, Germany's Federal Ministry for Economic Cooperation and Development (BMZ) launched the #eSkills4Girls initiative to address the gender digital divide and promote female participation in the digital economy.

To date, numerous activities have been launched under the #eSkills4Girls umbrella to address challenges of gender-inclusion in the digital realm, resulting from collaboration between government, private sector, academia and civil society organizations.

BMZ together with UNESCO has assumed the leadership of the Skills Coalition of EQUALS – the global partnership for gender equality in the digital age. The shared vision of the Skills Coalition is to increase the participation of women in STEM in schools, universities and vocational training. Therefore, the members work on improving the data base on women's digital skills, design campaigns to make women opt for a tech career and develop principles for gender-inclusive digital skills trainings.

Within the EQUALS Skill Coalition, BMZ and UNESCO are leading the following initiatives:

- ***Develop and publish principles and good practices for quality and gender-transformative skills training.*** *The Skills Partnership will draw on existing examples and frameworks to develop EQUALS Skills Coalition principles that will aim to identify key considerations for governments, international organizations, donor agencies and educational facilities to establish quality and gender-transformative skills training initiatives.*

- ***Develop operational guidance for practitioners as a reference framework for the conception, implementation and evaluation of projects to advance quality and gender-transformative skills training.*** *The EQUALS Skills Coalition will establish an online platform for practitioners to access tools and information for the conception, implementation and evaluation of existing and new projects that teach digital skills for women and girls. The online platform will aim to support the translation of political will into operational strategies to support the digital inclusion of women and girls.*

For more information, please see the #eskills4girls case study in Annex A.

6. Conclusion: Closing the Gender Digital Divide

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Highlights
- *This chapter discusses examples of public sector and private sector initiatives working to close the gender gap in the digital economy.*
- *Governments can facilitate the empowerment of women in the digital economy by: ensuring women's online rights are protected; promoting gender-sensitive digital skills in the education system; providing and subsidizing equitable access to digital ICTs; and running public initiatives that address the gender digital divide.*
- *The private sector can also play an active role in closing the gender digital divide by: implementing more inclusive policies to address gender bias in the workspace; and promoting gender equity in supply chains.*

....

Digital youth employment interventions are implemented within a broader context of local laws and regulations, macroeconomic conditions, social and cultural norms, and business climate and practices. For youth employment programs to be inclusive of young women, and optimize their labor market outcomes, program staff must not only understand the sectoral and institutional environment, but also leverage existing public- and private-sector initiatives for closing the gender digital divide.

6.1 The Role of the Government

Recent studies have shown that "reducing gender inequality makes economic sense apart from being the right thing to do."[220] In fact, the human capital wealth of nations could increase by USD 160.2 trillion, or 21.7% globally, if women would earn as much as men. Policymakers therefore need to address gender discrimination in laws and regulations.

When 193 UN member states signed the Sustainable Development Goals in 2015, they committed, inter alia, to achieve gender equality, empower all women and girls (SDG 5), and enhance the use of enabling technology, in particular information and communication technology, to promote the empowerment of women (SDG 5.b). There are multiple public-sector policies and programs that can promote equal rights for women and girls, in education, employment, and entrepreneurship. This chapter focuses on initiatives that address the gender digital divide, and create an enabling environment for young women to thrive in digital economy.

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[220] Wodon and de la Briére 2018.

Role for Policymakers

Governments can foster empowerment of women in digital economy by focusing on five key areas: women's rights; education and skills; access; content; and targets.[221]

RIGHTS

Protecting and enhancing women's online rights and privacy, and combating harassment of women online must be the core of national ICT or broadband policies. Women (and especially young women) are more likely than men to face harassment and other forms of abuse online. A 2015 report by the United Nations Broadband Commission for Sustainable Development revealed that close to three quarters of women online have been exposed to some form of cyber violence.[222] For everyone to benefit from the digital economy, governments must ensure that women feel safe when accessing the Internet. Laws must protect women's rights, without limiting their freedom of expression and their privacy online. Australia is responding to "digital harm" challenges by providing support services to victims while also considering legislative changes to penalize those that used digital platforms to commit acts of online harassment or abuse.[223]

Investing in large-scale, ongoing national awareness campaigns to eradicate online gender violence and educate users on their rights, privacy, and security could possibly prevent, or at least drastically reduce the incidents of online violence against women. Teaching boys and girls, young women and men, how to practice safety on the Internet, recognize early signs of online abuse, protect themselves, and condemn abusers, is the first step towards equal rights for everyone online.

EDUCATION & SKILLS

Integrating gender-inclusive digital skills courses at all levels of education, and providing similar training for out-of-school girls and women. This helps states develop their human capital, while also leveraging the transformative power of ICTs. For example, Nigeria's National Broadband Plan requires the Federal Ministry of Communications Technology to monitor the number of women without access to the Internet, and to provide incentives for private educational centers and civil society organizations to train more women to use the Internet.[224] Starting in 2018, it will be mandatory for students in South Korea to spend at least 17 hours per year developing digital skills in a course on software education.[225] This indicates a national strategy to create

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[221] https://webfoundation.org/.
[222] Broadband Commission 2015.
[223] https://www.un.org/press/en/2018/wom2139.doc.htm
[224] World Wide Web Foundation 2017.
[225] https://bit.ly/2MbRgE0.

an pipeline for girls and women to pursue STEM-related educations and careers.

Addressing reasons for high female drop-out rates from STEM subjects. Germany's *National Pact for Women in MINT Careers*, commonly referred to as "Go MINT", brings together politics, business, science and the media in efforts to improve the image of MINT (mathematics, informatics, natural sciences and technology) professions in society.[226] Launched in 2008, Go MINT aims to increase young women's interest in STEM degree courses as well as to attract female university graduates into careers in business.[227] Over 260 partners are involved in the effort through a wide array of activities and initiatives to provide academic and career advice to young women. Go MINT's success can be seen in the positive trend of female students in related degree programs: in 2014 over 40,000 female students chose to begin degrees in engineering compared to only 12,000 in 1995.[228]

Designing educational programs to boost confidence and interest of girls and women. Research by Accenture and Girls Who Code shows that "universal access to computing in schools will not address the gender gap. Only by tailoring courses to girls' specific needs can we boost their commitment to computing."[229] Focusing on empowerment and rights, as well as digital skills, is the comprehensive approach to addressing specific educational needs of girls and young women.

Investing in ICT training and support of teachers for advancing ICT education of girls and women. Without sustained investment in professional development of educators, a country cannot provide high quality education to its citizens. This includes adapting training curricula and methods to be more gender-inclusive.[230] Governments should also consider replacing proprietary learning materials with Open Educational Resources to lower costs and possibly expand the capacity of educational systems.

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[226] OECD 2018.
[227] German Center for Research & Innovation 2013.
[228] https://www.komm-mach-mint.de/Komm-mach-MINT/English-Information.
[229] Accenture 2016.
[230] ITU 2018.

ACCESS

Providing equitable, affordable access to digital ICTs (Internet, mobile phones, mobile money, etc.) for all citizens, and in particular to disadvantaged groups, such as youth and women can be achieved through a combination of policies that reduce the cost of Internet, and bring broadband connectivity to rural areas, poor neighborhoods and disadvantaged groups.

Governments should create more favorable environments for broadband and other ICT infrastructure investments, particularly in rural areas. In the short-run, governments can adopt policies to address infrastructure gaps and reduce deployment costs. In the long-run, this requires governments to regulate telecommunications markets through independent agencies and stimulate fair competition. Governments can also join international commitments. For example, the Alliance for Affordable Internet has set an affordability target of 1GB of prepaid mobile data costing no more than 2% of average per capita monthly income.[231] Alternatively, the Broadband Commission for Sustainable Development has set a target of offering basic fixed- and mobile-broadband services at <5% of monthly GNI per capita.[232]

Also, policymakers should expand free Internet access in public places, such as libraries, schools, clinics, job and community centers. For example, in Colombia, a program known as "Government Online" offered free Internet hotspots all over the country, resulting in 81% of Colombian women having access to Internet as of March 2018.[233]

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[231] Alliance for Affordable Internet 2016.
[232] Broadband Commission for Sustainable Development 2017c.
[233] As reported by Ms. Martha ORDOÑEZ, Minister for Gender Equality of Colombia, delivering her country's presentation at the UN Women's Commission 62nd session.

Countries can use the Universal Service and Access Funds (USAFs) to expand digital connectivity and digital education programming (see Box 6.2).[234] For example, in Ghana, the government has invested USAFs in the Digital For Inclusion program, which includes, among other things, mobile financial services via a digital payment platform. The program has reserved 60% of the local agent positions that sells services for that platform for women. In Tanzania, the Universal Communication Service Access Funds (UCSAF) worked with She Codes for Change to train young girls across six different zones in mobile application development.[235] Winning teams have the opportunity to compete nationally and participate at the annual ITU's "International Girls in ICT Day" Conference.

BOX 6.2   UNIVERSAL SERVICE AND ACCESS FUNDS (USAFS*)***

Universal Service and Access Funds (USAFs) are communal public funds dedicated to expanding internet connectivity and access opportunities for those least likely to be connected through market forces alone. Many countries have established USAFs, which are typically financed through mandatory contributions by mobile network operators and other telecommunications providers

Source: Thakur and Potter (2018)

CONTENT

Ensuring relevant, user-friendly, gender-appropriate, local language content on Internet can be truly empowering to girls and young women when they access Internet. In Kenya, the ICT Authority is collaborating with organizations and individuals to make local data that is relevant to citizens (e.g. information and datasets regarding health and agricultural practices) available via a government website, www.opendata.go.ke/. Although this is an excellent initiative, the data currently provided does not sufficiently address issues affecting women, including information on reproductive health, AIDS, antenatal and postnatal care, violence against women, and women's legal rights (e.g., information on voting, land ownership, marriage, divorce and child custody).[236] Periodic auditing of government websites to assess their gender relevance is necessary to maintain high quality, gender-appropriate content.

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[234] Thakur and Potter 2018.
[235] https://news.itu.int/bridging-the-stem-and-ict-gender-gap-in-tanzania/.
[236] World Wide Web Foundation 2017.

TARGETS	**Adopting concrete ICT gender equity goals, and allocating adequate resources to achieve them** ensures that policymakers are accountable for reaching those goals. Time-bound policy objectives are linked to specific dates for achieving partial or final targets. Collecting, monitoring and evaluating ICT data disaggregated by gender, income, and location provides governments with a measure of the progress. Developing new indicators to measure the impact of ICT on women allows for even greater focus on women. Data on the participation of women in ICT is extremely limited for emerging and developing economies. However, a useful source is the UN Foundation's Data2X platform (see Box 6.3).

BOX 6.3　　　*UN FOUNDATION'S DATA 2X PLATFORM*

Data2X is a collaborative technical and advocacy platform dedicated to improving the quality, availability, and use of gender data in order to make a practical difference in the lives of women and girls worldwide. "Gender data" is data that is disaggregated by sex, like primary school enrollment rates for girls and boys, or data that pertains to women and girls, such as maternal mortality rates.

Data2X works with UN agencies, governments, civil society, academics, and the private sector to close gender data gaps, promote expanded and unbiased gender data collection, and use gender data to improve policies, strategies, and decision-making. Data2X is named for the power women have to multiply progress in their societies.

Source: UN Foundation's Data2X platform, http://www.data2x.org/.

Addressing "Analog" Constraints

Gender-inclusive digital jobs programs for youth should consider government policies and business practices that help reduce gender inequality and create an enabling legal and workplace context for higher participation of women in the labor market. To do so, programs must address gendered constraints in the digital and analog economy, such as:

TIME CONSTRAINTS	**Reducing and redistributing women's unpaid work** (including household and care duties) through public provision of affordable and quality child care, parental leave, flexible schedules, and telecommuting. Evidence from the US shows that gender pay-gaps tend to be smaller in industries where working arrangements are more flexible.[237]

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[237] Goldin 2014.

SAFETY CONCERNS	**Enhancing the security of transportation for women traveling to work** through better lighting in stations, cameras, and alarm systems in buses and trains, increased law enforcement, education campaigns to change behaviors, etc. An increase of one minute in commuting time in metropolitan areas is associated with a 0.3% decline in women's labor force participation.[238]
LIMITED ACCESS TO PRODUCTIVE ASSETS	**For self-employed women, often in the informal sector, access to land, property and other resources is critical**; facilitating equitable access to and control of these assets helps women improve their outputs and income.
LIMITED ACCESS TO CREDIT	**For women entrepreneurs, access to credit may be limited when they do not have control over an adequate collateral**. Leveraging innovative approaches for verifying women's credit worthiness through mobile phone payment transaction history, for example, could help alleviate the financial exclusion of women.
LIMITED ACCESS TO SOCIAL CAPITAL	**Networks, role models, and mentors are very valuable to both women in employment, and entrepreneurship, providing them with information, contacts, support and encouragement**. For example, in Mexico, the NiñaSTEM PUEDEN initiative, launched in 2017, invites women who have prominent careers in science and mathematics to act as mentors to girls and encourage them to choose STEM courses and degrees.
LACK OF SKILLS	**Addressing girls' and women's skill deficit in securing highly paid jobs across industry sectors through various formal and informal training programs**; a recently published study, by Accenture, found that digital fluency can help women gain employment and attain higher levels of education, and that it is increasingly important to helping women advance at work.[239]

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[238] Wodon and de la Briére 2018.

[239] Digital Fluency is the extent to which people embrace and use digital technologies to become more knowledgeable, connected and effective. Accenture 2018b.

TABLE 6.1 EXAMPLES OF COUNTRIES' EFFORTS TO REDUCE THE GENDER DIGITAL DIVIDE

COUNTRY	DESCRIPTION
Rwanda	eRwanda: Campaigns for Enhancing Digital Literacy in Information and Communications Technology (ICT) Skills. Bridging the digital divide by including women in all ICT training was a high priority for Rwanda's government when operations began in 2007. The eRwanda project trained more than 2,000 citizens and focused on having a minimum of 30% female students in each of the classes it offered to young Rwandans to obtain the "ICT driving license".
Sri Lanka	eLanka: Common access and training through telecentres. eLanka aimed to develop locally relevant content through programs that educate marginalized rural populations on the uses of the Internet. The project created an eGov portal with a focus on creating local content for women and girls in Sinhalese and on training woman to access information through government-funded telecentres.
Ghana	eGhana: Creating jobs for women in the ICT industry (IT enabled services, Business process outsourcing). eGhana is credited with employing women in the IT industry and helping create strong ICT skills among women and young girls employed through the project. eTransform Ghana, a follow-up operation, builds on the results of the earlier project and includes an eID component that for the first time allows women to be included in processes related to digital identity, obtaining credentials, and authentication, all essential elements to online serve delivery, financial inclusion, and social protection.
Gambia	Progressive Math Initiative and Progressive Science Initiative (PSI-PMI), The Gambia. With support from the World Bank, The Gambia conducted a pilot program called Progressive Math Initiative and Progressive Science Initiative in 24 upper basic and senior secondary schools. This program provides math and science courses following best international practices and using 21st century technology. An evaluation conducted in 2013 showed that participating students performed better than nonparticipating students, and female students are actively participating in this program.
Brazil	Meninas Digitais in Brazil aims to promote technology and STEM subjects by motivating female high school students and by developing their skills with short computing courses.
Korea	Korea is supporting a research fund for female student research teams in architecture, material and machinery, as well as computers. They are also promoting female talent in science and engineering fields by providing field experience programs.
Mexico	The OECD Mexico initiative, NiñaSTEM PUEDEN, launched in early 2017, invites Mexican women who have prominent careers in science and mathematics to act as mentors and encourage girls to choose STEM subjects. Código X in Mexico is a program to orient women to disciplines related to STEM, and to promote the inclusion of girls and women in ICT sectors.
South Africa	South Africa's initiative, including South Africa's Women's Net, provides tailor-made training on basic digital skills, advocacy and lobbying online.
Argentina	Argentina's Ellas Hacen (They Do) program, in conjunction with the National Plan for Digital Inclusion and the Digital Educators Network of Argentina, aims to increase digital literacy among unemployed women and provide the most vulnerable sectors of the population with the necessary skills, motivation and confidence to use innovative technologies for their own benefit, through courses for the creation of basic Internet use capabilities.

Source: OECD 2018.

6.2   The Role of the Private Sector

Gender diversity in the workplace can improve the bottom line for companies.[240] Increasing focus on gender equity from Investors and customers; and the need to widen talent pools is creating an urgent need for firms to prioritize gender-inclusive, diversity-committed strategies. An analysis of almost 22,000 firms in 91 countries suggests that the presence of women in corporate leadership may improve a firm's performance.[241] In fact, women's equality in the labor force could contribute USD 28 trillion to the global economy by 2025.[242] Progressive business leaders are realizing the importance of gender-balanced talent and supplier strategies, and are leading their companies towards recognized gender equality certifications.[243]

Private sector programs for empowering women in digital economy, and achieving gender equality in the workplace focus on two primary areas: inclusive talent acquisition and development; and inclusive supply chains.

BOX 6.4   FIGHTING GENDER BIAS IN THE WORKPLACE

Some companies are using technological innovations to raise awareness of gender stereotyping. Working with Plan International Finland, Samsung has created the Sheboard, *a predictive text app which questions the way people talk to and about girls, and seeks to raise awareness of the impacts of gendered speech.*

Additionally, SAP Success Factors system has built decision-interrupting nudges into its technology to make managers more aware of where unconscious bias may be affecting decisions *around hiring and promotions.*

Source: Albrectsen 2018

INCLUSIVE TALENT STRATEGY

COMBAT STEREOTYPES

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Identifying and addressing adverse stereotypes and implicit biases in their organization related to hiring, promoting and equitably rewarding women in digital jobs, and offering mandatory training for managers to recognize and counter these biases in talent management practices (see Box 6.4);

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240 IFC 2016.
241 Nolans et al. 2016.
242 Wahlen 2018. As stated by Richard Barathe, UNDP, during the Fourth Global Forum on Business for Gender Equity convened in Santiago, Chile, in February of 2018.
243 http://edge-cert.org/.

ANTI-SEXUAL HARASSMENT	**Instituting and upholding a clearly defined, uncompromising company-wide anti-sexual harassment policy**, including online sexual harassment;
MEASURE PROGRESS	**Setting specific targets and monitoring progress on reducing the gender gap in recruitment, retention and promotion of women in digital jobs**, while linking managerial compensation to progress;
ELIMINATE PAY GAPS	**Conducting regular pay-equity reviews** and establishing remediation processes to eliminate existing gaps;
CONTINUED LEARNING	**Providing training, coaching and mentoring programs for female employees to develop their skills**; sponsorship programs[244] have shown promising results in promoting women and developing a strong pipeline of female talent; employee resource groups (ERGs) and other internal women networks can serve as advocates for advancing women in leadership;[245]
SUPPORT FAMILIES	**Offering flexible work options, paid maternity and paternity benefits, child and elderly care, and other family-friendly policies**;
IMPROVE HR PRACTICES	**Engaging with EDGE certification body (see Box 6.5) or UNDP SEAL program (see Table 6.2) to improve HR policies and practices.** EDGE Certification provides powerful tool for motivating companies to assess themselves against EDGE Certified Foundation standards, better measure progress, and benchmark themselves against other companies. Convergys Philippines received recognition as the first business process outsourcing company in the world to achieve EDGE certification. EDGE Certification is currently working with nearly 200 organizations, in 50 countries and 23 industries.

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[244] International Finance Corporation 2016.
[245] Ibid.

> **BOX 6.5   EDGE CERTIFICATION**
>
> *EDGE Certification is a global, independent and third-party certification system which has chosen to use certification as an impactful tool to close the gender gap as certifications have three core characteristics:*
> - *Based on objective and measurable evidence of a current status within an organization. It provides the opportunity to clearly measure progress 'what gets measured gets done'*
> - *Establish a global standard of excellence. Organizations need to establish 'what does success look like'*
> - *Sustainable instrument to create change, which is uniquely based on transparency, accountability and recurring processes*
>
> **Source:** EDGE website, http://edge-cert.org/

TABLE 6.2 UNDP GENDER EQUALITY SEAL PROGRAM, COUNTRY EXAMPLES

Examples of Promising Practices: UNDP Gender Equality Seal Program	
UNDP Gender Equality Seal program is a unique initiative that certifies companies that have eliminated pay gaps, increased the number of women in decision making positions, and worked to end sexual harassment on the job.[246]	
Chile	Chile's state-owned copper mining company **Codelco**, is increasing its ranks of female employees – and boosting productivity in the process.
Costa Rica	Costa Rica's **Banco Nacional** has promoted dozens of women into managerial roles; the bank is now a leading regional provider of financing to female entrepreneurs.
Canada	In Canada, **Scotiabank** has used a female mentorship program to become one of the industry's most gender-balanced companies.

Source: Wahlen 2018.

INCLUSIVE SUPPLIER STRATEGY

GENDER EQUITY

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Promoting gender equity in relationships with suppliers (ILO's Better Work Programme, IFC's SheWorks) and supporting women to engage in their supply chains through programs such as WeConnect International (NGO that identifies, certifies and provides training to women-owned enterprises and connects them with qualified multinational companies);

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[246] Wahlen 2018.

ENGAGE LOCALLY	**Including women in domestic supply chains as distributors or retailers.** For example, Unilever's Shakti program in India, launched in 2000, relies on women and their family members to distribute Unilever products to hard-to-reach rural villages.

BOX 6.6   GSMA'S CONNECTED WOMEN PROGRAM

GSMA's Connected Women programs works with partners to deliver socio-economic benefits to women and the broader mobile ecosystem through greater inclusion of women across the industry. The program is focused on increasing women's access to and use of mobile phones and life-enhancing mobile services in developing markets, as well as closing the digital skills gender gap, attracting and retaining female talent, and encouraging female leadership in technology on a global basis.

Source: GSMA 2015

6.3   Conclusion

Scaling Digital Jobs for Youth Interventions

Governments, private sector firms, NGOs, academic institutions and other stakeholders seeking to close the gender digital divide and create quality youth employment opportunities for young women must be committed to scaling digital jobs programs. 'Scaling up' refers to the process of entails deepening the development impact of an intervention, increasing participation of vulnerable populations that have been previously excluded, and that program results can be sustained and adapted in different contexts.[247] When making strategic decisions about scaling up, stakeholders must consider how to scale, what actor to involve in scaling efforts, and how to ensure that program quality is retained. As stakeholders determine the appropriate responses to these questions, they should adopt a combination of the following five approaches to scaling up digital jobs programs.

- **Create Ripple Effects through Partnerships.** Stakeholders should use existing networks and platforms to share experiences, lessons learned, success and failures with other actors. For example, the Principles for Digital Development (PDD) represent nine guidelines "to help digital practitioners integrate established best practices into technology-enabled programs."[248] Over time, the Digital Principles Community formed and established an online forum to facilitate peer learning.

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[247] Larson, Dearing and Backer 2017.
[248] https://digitalprinciples.org/.

- **Embed Program in a Policy Framework.** Stakeholders should leverage the scale of established institutions and infrastructure, such as existing community education and training models. For example, Year Up has grown from a local start-up to a national NGO that offers work-readiness and skills training to disadvantage youth in urban areas across the United States.[249] Part of Year Up's successful scaling strategy lay in partnering with community colleges to capitalize on the resources of like-minded institutions. Stakeholders should also influence policy changes that promote scaling up impact. This includes obtaining public funding, changing restrictive business regulations, or advocating for governments to join global commitments and compacts.

- **Change Mindsets.** Implementing transformative gender-inclusive digital jobs programs will require stakeholders to combat social norms that limit women's work. This includes supporting participatory, community-based advocacy and strategies to change discriminatory attitudes, beliefs and behaviors.

- **Make the Business Case.** Once a youth employment intervention achieves uptake in the private sector, the program becomes more sustainable and more likely to scale. Investing in integrated, inclusive digital jobs programs for youth helps to create a highly-skilled, diverse workforce that meets the specific needs of firms. Increasing women's employment is also linked with positive business outcomes, including increased productivity, firm performance and employee retention.[250] Consequently, private-sector support for digital jobs interventions can increase revenue and reduce costs for firms across all industries.

- **Build Evidence.** There is a dearth of evidence on the impact and effectiveness of youth employment interventions, particularly those focused on connecting youth with digital job opportunities. As stakeholders continue to experiment, innovate, fail and succeed, it is crucial to track gender- and age-disaggregated indicators that measure jobs impacts, business performance and return on investment. For example, in 2017, the World Bank launched the Jobs M&E Toolkit, which provides tools for program implementers to collect data on key jobs results throughout the entire project cycle.[251] This data collection process can help to encourage systematic assessments of the impacts of digital jobs programs. These indicators and tools are also for stakeholders designing and implementing counterfactual impact evaluations, further strengthening the evidence base for digital jobs programs.

A Forward Look

The global proliferation of ICTs has created opportunities for young people around the world to engage in digital work. These digital jobs are not only limited to work within the IT industry

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[249] Bradach and Grindle 2014.
[250] Hammond, Mulas, and Nadres 2018.
[251] Krishnan, Karlen, Peterburs, and Tokle 2017.

(e.g. software development, hardware design, networking), but also include work – such as data entry, image categorization, graphic design, office assistance – where ICTs enable workers to find, perform and get paid for work online. Work in the public and private sector, including online outsourcing opportunities in BPO, microwork and virtual freelancing, provide significant advantages for young people hoping to enter the labor force for the first time.

However, there remains a disconnect for young women hoping to take advantage of the numerous benefits provided by digital jobs. Many young women in LMICs face greater legal, financial and social barriers to digital employment than young men. These obstacles are further exacerbated by local conditions, such as underdeveloped ICT infrastructure, that limit young women's access to and use of ICTs.

Practioners and policymakers have an opportunity to spur greater social and economic development by designing integrated, gender-inclusive interventions that empower young women to become more active players in the digital economy. Program teams must develop proper understanding of the local context, identifying the constraints preventing young women from accessing digital employment opportunities, the conditions that limit the success of young women's entrepreneurship ventures, and the barriers preventing firms from creating digital jobs. Gender mainstreaming strategies should be incorporated throughout design and implementation, including inclusive approaches to young women's recruitment, retention and completion. Projects must also integrate demand-side considerations into program design, working to build capacity for entrepreneurs and private sector companies to create jobs and connect with qualified young women to fill those vacancies. By leveraging public- and private-sector initiatives aimed at reducing the gender digital divide, project teams can help young women to access the many opportunities generated by the digital economy.

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Annex A: Case Study Guidelines & Template

Digital Jobs for Youth:
Focus on Young Women in the Digital Economy

Case Study Guidelines

SOLUTIONS FOR YOUTH EMPLOYMENT (S4YE)

Solutions for Youth Employment (S4YE) is a multi-stakeholder coalition among public sector, private sector, and civil society actors that aims to provide leadership and resources for catalytic action to increase the number of young people engaged in productive work. The S4YE coalition was founded by the World Bank, PLAN International, International Youth Foundation (IYF), Youth Business International (YBI), RAND, Accenture, and the International Labor Organization (ILO).

S4YE's mission is to provide leadership and catalytic action and mobilize efforts to significantly increase the number of young people engaged in productive work by 2030, by developing innovative solutions to youth employment through practical research and active engagement with public and private stakeholders to enable solutions at scale. S4YE combines a pragmatic approach to identifying solutions for youth employment with an evidence-based advocacy platform to increase access to productive work for young people.

DIGITAL JOBS REPORT

The *Digital Jobs for Youth: Focus on Young Women in the Digital Economy* annual report is intended to provide operational recommendations for the design and implementation of future supply- and demand-side digital jobs interventions for youth.

Using a newly developed digital jobs typology, the report will identify drivers of demand across various categories of digital work. The report will then extract lessons learned from past and ongoing programs implemented by S4YE coalition members in overcoming supply- and demand-side barriers to youth digital employment. In doing so, the report will identify design elements and strategies that would be especially helpful in connecting young women to the digital economy. Finally, this report will provide recommendations for the design and implementation of a new generation of integrated and gender-inclusive digital jobs programs for youth.

This report is targeted at private sector organizations, civil society organizations, international organizations and donors, and government agencies that are interested in exploring innovative ways to promote digital employment for youth.

CASE STUDIES

Case studies will form a crucial part of the evidence base for the report, providing insights into the experiences of S4YE members. S4YE is keen to highlight evidence that reports on gender-disaggregated impacts and outcomes for employment programs that connected youth with digital jobs opportunities.

The report will highlight programs that:
- trained youth in digital literacy and entrepreneurship skills;
- connected youth with digital work opportunities such as online microwork and freelancing, coding and mobile application development, digital start-ups, call centers, and business process outsourcing;
- utilized digital platforms to inform youth about job opportunities, allow them to share resumes, and connect them with employers;
- help youth access the jobs in the shared economy (e.g. Uber, Airbnb, Care.com);
- provided support to firms/enterprises to increase their ability to employ youth in digital jobs.

CRITERIA FOR CASE SELECTION

Target Population: Should include youth (persons aged 15–29); projects that specifically target young women are strongly preferred, but not required.

Project Status: Ongoing projects implemented for at least 1 year; or closed projects completed within the past 5 years.

LEARNING QUESTIONS

Design & Implementation
1. What was the development objective of the intervention?
2. Who were the various intended beneficiaries of this intervention?
3. What were the project design components of the intervention? Were there any project design components specifically targeted to young women?
4. What were challenges involved in implementing this intervention, particularly in targeting young women? How were these challenges overcome?

Impact & Outcomes
5. What were the desired and achieved economic impacts of the intervention?
6. What were the desired and achieved social impacts of the intervention on young men and young women?
7. To what extent did outcomes match the needs of beneficiaries, and specifically, of young men and young women?
8. What were the differences in outcomes for beneficiaries, and specifically, for young men and young women?

Implications
9. What were design elements and implementations strategies that were used which you would modify, remove, include and/or scale up in the future?
10. How can digital jobs interventions for youth account for the different needs of young women and young men during program design and implementation?
11. What were challenges and opportunities unique to young women in accessing and retaining different types of digital jobs?
12. What are strategies for improving the financial sustainability of digital jobs interventions for youth?

Digital Jobs for Youth:
Focus on Young Women in the Digital Economy

Case Study Data Collection Template

SECTION 1: PROJECT DETAILS	
1.1 Implementing Organization	
1.2 Project Name	
1.3 Project Location	
1.4 Project Duration	
1.5 Project Budget	
1.6 Sources of Funding	
1.7 Target Population	
1.8 Digital Job Type(s) *See Digital Jobs Typology*	

SECTION 2: BACKGROUND
2.1 Country Context. Briefly describe a) youth unemployment levels, b) youth digital literacy levels, and c) Internet penetration rates. Where possible, disaggregate by age, gender, area of residence (rural, urban), and/or income level.
2.2 ICT Landscape. Briefly describe the size of the ICT sector, including contribution to GDP and the types of actors involved (e.g. government, ICT enterprises, startups, innovation hubs).

SECTION 3: PROJECT DESIGN
3.1 Project Overview. Describe the project's activities, intermediate objectives, and overall goal.

3.2 Supply-Side Project Components. Please identify and describe the supply-side components included in the project.	
a. Skills Training for Individuals or Micro-Enterprises (e.g. on the job training, apprenticeships, internships, or classroom-based learning)	Y / N
b. Employment and intermediation services (e.g. information systems, job search assistance, and counseling, transportation subsidies, mobility grants to youth)	Y / N
c. Employment Subsidies (e.g. wage subsidies, tax credits, or vouchers, direct payment to employers or workers, public works programs)	Y / N
d. Other (please describe)	Y / N
3.3 Demand-Side Project Components. Please identify and describe the demand-side components included in the project.	
a. Enterprise Promotion for Firms & other Programs to Address financing Constraints (e.g. lines of credit,/guarantees, grants, asset-based finance, youth entrepreneurship programs)	Y / N
b. Capacity building and Information Provision (e.g. matching grants, training programs to firms, consulting services)	Y / N
c. Sector-specific Approaches (e.g. programs connecting large firms with SMEs, VC development approaches, impact sourcing)	Y / N
d. Financing for Positive Social Externalities (e.g. government programs to enable private sector investments with large jobs payoffs)	Y / N
e. Other (please describe)	Y / N
3.4 Additional Project Components. Please identify and describe any additional project components included in the project.	
a. Regulatory Policy (policy analysis and advice on labor market legislation, developing tax and benefit systems that encourage youth employment)	Y / N

b. Fundamental System Reform (capacity building of institutions, enabling macroeconomic environment)	Y / N
c. Other (please describe)	Y / N

3.5 Gender-Specific Project Components. Please describe any gender-specific design components included in the project (e.g. training sessions for female entrepreneurs only, grants specific to women-owned enterprises, direct hiring of male ex-combatants, subsidies for single mothers).

SECTION 4: PROJECT IMPLEMENTATION

4.1 Targeting Strategies. Describe the strategies used to identify and recruit beneficiaries. Highlight any specific strategies used to target female beneficiaries.

4.2 Targeting Challenges. Describe any challenges in targeting, recruiting and/or retaining beneficiaries, and the strategies used to overcome them. Include any course correction done during the project.

4.3 Beneficiary Needs. Describe how the needs of young women differed from those of young men, and what strategies were used to address those differences.

4.4 Beneficiary Experiences. Describe challenges and/or opportunities beneficiaries experienced in accessing, creating or improving digital jobs. Highlight any challenges and/or opportunities unique to young women.

SECTION 5: MONITORING & EVALUATION			
5.1 Results Framework. Describe the results framework used for this project, including the methods by which M&E data was collected. If possible, share the results framework with the S4YE Secretariat.			
5.2 Population. Provide a breakdown of the intended and actual number of beneficiaries served. If possible, disaggregate data by age, gender, residential area (rural or urban), and income level.			
5.3 Indicators. Identify which of the following indicators you are tracking, and provide values. Not all indicators are relevant to all projects. If you are tracking different indicators, please include them.			
Where possible, disaggregate data by gender	**Total**	**Women**	**Men**
1. Number of beneficiaries served (target)			
2. Number of beneficiaries served (actual)			
3. Number of new enterprises created/registered by beneficiaries			
4. Number of jobs created by new enterprises (if possible, disaggregate by women-owned and men-owned enterprises)			
5. Number of jobs created by existing enterprises (if possible, disaggregate by women-owned and men-owned enterprises)			
6. Number of beneficiaries employed by enterprises			
7. Number of beneficiaries becoming self-employed			
8. Average income of beneficiaries (before project)			
9. Average income of beneficiaries (after project)			
10. Average increase in earnings (intended)			
11. Average increase in earnings (actual)			
12. Number of beneficiaries receiving benefits e.g. social security, pension, insurance (before project)			
13. Number of beneficiaries receiving benefits e.g. social security, pension, insurance (after project)			
14. Number of beneficiaries reporting job satisfaction (before project)			

15. Number of beneficiaries reporting job satisfaction (after project)			
16. Average length of time to find a job (for individuals)			
18. Average level of firm sales/revenues (before project)		*n/a*	*n/a*
18. Average level of firm sales/revenues (after project)		*n/a*	*n/a*
19. Average increase in profits (intended)		*n/a*	*n/a*
20. Average increase in profits (actual)		*n/a*	*n/a*
21. Number of workers receiving benefits e.g. social security, pension, insurance (before project)		*n/a*	*n/a*
22. Number of workers receiving benefits e.g. social security, pension, insurance (after project)			
23. Number of workers reporting job satisfaction (before project)			
24. Number of workers reporting job satisfaction (after project)			
25. Average length of time to fill a vacancy (for firms)		*n/a*	*n/a*
Other			

SECTION 6: PROJECT IMPACT (defined in terms of job access, job creation, and job quality)
6.1 Project Successes. Describe the major successes of the intervention, with respect to the impact on access to, creation of and/or quality of digital jobs for youth. Discuss whether these impacts are likely to be sustained in the future.
6.2 Project Limitations. Describe the limitations of the intervention, with respect to the impact on access to, creation of and/or quality of digital jobs for youth.
6.3 Unintended Consequences. Describe any unintended consequences of project implementation. Highlight both positive and negative consequences.

6.4 Livelihoods Strategies. Describe how beneficiaries' livelihoods strategies changed during and/or after the project. Highlight any differences between the livelihoods strategies of young women and young men.

6.5 Beneficiary Outcomes. Describe the extent to which outcomes for beneficiaries matched their needs. Discuss the reasons for any differences in outcomes between young women and young men.

SECTION 7: LESSONS LEARNED

7.1 Key Takeaways. In retrospective, describe elements of the project that you would add, remove or modify to improve overall impact of the project (with respect to job access, job creation, and/or job creation).

7.2 Scalability. Describe opportunities and/or barriers to scale the project in the future.

7.3 Sustainability. Describe opportunities for and/or barriers to the financial sustainability of digital jobs interventions for youth.

7.4 Recommendations. Provide practical suggestions which, if implemented, could improve the effectiveness of youth digital jobs programs in the location.

Annex B: Case Studies

#eSkills4Girls

SNAPSHOT	
Organization(s)	Federal Ministry for Economic Cooperation and Development (BMZ)
Project Name	#eSkills4Girls Initiative
Location	Global
Date(s) of Implementation	2017 – present
Partner(s) / Funder(s)	G20 members; private sector companies; academia; civil society organizations

ABOUT #ESKILLS4GIRLS

In the framework of Germany's G20 presidency 2017, the Federal Ministry for Economic Cooperation and Development (BMZ) launched the initiative #eSkills4Girls to overcome the gender digital divide and promote the participation of women and girls in the digital transformation.

Starting with the Chinese G20 presidency, digitalization has been receiving special attention from the G20 as the spread of digital technologies has been considered an important driver of development and growth within the G20 member states and beyond. The digital ministers' 2017 declaration and the roadmap take note of this increased awareness and cover 11 fields of action and ambitious goals regarding the near future of digitalization. Bridging the gender digital divide is one of the 11 fields. Most importantly, the declaration supports the G20 initiative "#eSkills4Girls" and calls for building synergies.

"The empowerment of women is an essential cross-cutting issue and an important area for the future of the G20 states", said the German Chancellor Angela Merkel during her speech at the Women20 Summit in Berlin in April 2017. #eSkills4Girls brings both topics together: it is about women's contribution to digitalization and about education. #eSkills4Girls is a key issue for the future, because half the population is still underrepresented in digitalization, particularly in developing and emerging countries.

In 2018, under the Argentinian G20 presidency, the closing of the gender digital divide has been taken up by the Education and the Employment Working Group.

GLOBAL COMMITMENT

At their summit in Hamburg on 7 and 8 July 2017, the G20 leaders endorsed the #eSkills4Girls statement as an annex to their Leaders' Declaration.[252] The statement defines common goals to facilitate education, employment and entrepreneurship opportunities for women and girls in the digital economy.

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[252] #eSkills4Girls Statement (2017). *Transforming the future of women and girls in the digital economy.* Available at: https://www.g20germany.de/Content/DE/_Anlagen/G7_G20/2017-g20-initiative-eskills4girls-en.pdf?__blob=publicationFile&v=4.

OBSERVATIONS

Within the statement, G20 members:

- Recognized that **digital skills are vital to participate in and succeed in the digital economy**. As such, G20 members recognized the need to provide women and girls with tailored opportunities to develop relevant skills and to effectively use them.

- Recognized the importance of encouraging girls' and young women's **early interest in STEM** subjects to lay the foundation for lifelong learning and empowerment in the digital economy.

- Acknowledged the importance of providing educational opportunities for **digital literacy** for girls and young women of all ages, particularly for the most vulnerable groups.

- Emphasized that increasing **women's representation in STEM-related technical and vocational education and training (TVET) programs** is key to increasing women's representation in the digital economy.

- Noted that **lack of access and affordability are two of the most important obstacles to women and girls' initial access and use of technological tools**. G20 members further recognized the importance of gender equality in education, and the need to address discriminatory norms, structures and institutions which may prevent that access to education and may make it difficult for women to develop their capacities as users, employees and leaders in the digital economy

- Recognized the need to generate resources to **increase the security and privacy of women online**. This includes increasing awareness of prevention cyber violence to promote the safety of women online.

- Recognized the need to **develop content and services in other languages and formats** in order to make it more accessible to women and girls, particularly the most vulnerable groups.

- Emphasized that the **participation of women in the digital economy**, particularly in leadership and decision-making positions, is **indispensable to economic growth**.

- Supported the need to **enable women's and girls' entrepreneurship** in the digital economy.

- Recognized the **need for reliable and exhaustive data on women and girls in the ICT** in order to support any country level decision-making with regards to policies.

COMMITMENTS

In line with these observations, G20 Members made the following commitments:

- **Promote the collaboration and sharing of best practices and lessons**, by collectively and actively contributing to the #eSkills4Girls online knowledge and exchange platform.

- **Encourage partnerships of all parties and stakeholders according to the 2030 Agenda**, and to increase public and private sector, international organizations, academia and civil society partnerships.

- **Commit to partnerships with the African governments to promote gender-inclusive digital economy**, according to the Agenda 2063 of the African Union.

- **Promote and provide education, employment and entrepreneurship opportunities for women and girls in the digital economy**, particularly for low income and developing countries.

KEY ACTIVITIES

To translate the political commitments into practice, numerous activities have been implemented as part of the #eSkills4Girls initiative. They are the result of the collaboration between governments, private sector, academia and civil society organizations.

PRIVATE-SECTOR PARTNERSHIPS

The promotion of digital skills for women and girls is not only a matter of equality but also pays off in economic terms. Thus, global IT players like Google and SAP have supported the #eSkills4Girls initiative with financial resources and own projects.

#eSkills4Girls Africa Meetup
In May 2017, BMZ, UNESCO and SAP brought together over 30 female tech leaders from all over Africa at the **#eSkills4Girls Africa Meetup**. The event offered a unique opportunity to network, discuss challenges and effective approaches and to further develop capacities and strategies for successfully running and scaling up initiatives related to girls in ICT. Using the results of a survey of current needs among the female tech leaders, trainings were offered in EU funding opportunities, moderation techniques, media and communication, networking strategies, and design thinking. Among the tech leaders were: *Carolyne Ekyarisiima*, a Mandela Washington Fellow and Tigo Digital Change Maker, a social entrepreneur and founder of Apps and Girls, an organization that works to bridge the Tech gender gap in Africa by empowering girls with coding and entrepreneurship skills; and *Agang K. Ditlhogo*, the co-founder of The Clicking Generation-ICT Academy for Kids and Teens, a social enterprise which offers computing and technology curriculum to kids and teens in both urban and rural Botswana. This event led to the creation of the #eSkills4Girls network to continue the dialogue among the tech leaders.

Africa Code Week
Spearheaded by SAP since 2015, the **Africa Code Week (ACW)** is a continent-wide digital literacy initiative reaching out to hundreds of schools, teachers, governments, businesses and non-profits. For the 2017 edition, BMZ supported 20 coding workshops in 17 African countries specifically designed for more than 8,000 participating girls and young women. The workshops take place in tech hubs, one Juvenile Centre and a refugee camp. Among the main challenges described by the local organizations were lack of hardware, power outages, poor Internet connection, and low levels of digital literacy among the participating girls. 90% of them were at a very basic level in using computers or had no previous exposure at all. Most of the girls and young women were recruited in schools, and there was a great interest among girls to participate.

The women who take part in these workshops were between the ages 8 to 27 years and came from poor socioeconomic backgrounds. Volunteer trainers and teachers introduced the women and girls to the basics of coding using Scratch, as well as to mobile application development and software programming languages. The Asikana Network based in Zambia, combined the coding workshop with a one-day hackathon. This was set up with a goal of creating efficient solutions to community problems. The two winning teams were provided an opportunity to participate in the accelerator program after the hackathon. This accelerator program is conducted by BongoHive, Zambia's Innovation and Technology Hub for startup businesses.

In May 2017, #eSkills4Girls invited over 30 female tech leaders from all over Africa for the Transform Africa Summit in Rwanda. This gave the women an opportunity to network, discuss the various challenges and efficient solutions, and strategies for increasing initiatives related to girls in digital industry.[253]

#eSkills4Girls Hackathon
Google supported the **#eSkills4Girls Hackathon** – an intensive work session in four different regions worldwide – in Eastern Europe, South America, Eastern Africa and South Asia. Teams were asked to create new and tangible solutions for the gender digital divide. The winning team was 'Developers in Vogue' from Ghana. They developed tailored and personalized curricula to train women in software development, data science and match them with real-time projects and jobs.

GLOBAL MULTI-STAKEHOLDER PARTNERSHIPS

EQUALS
BMZ together with UNESCO has assumed the leadership of the Skills Coalition of **EQUALS – the global partnership for gender equality in the digital age**. The shared vision of the Skills Coalition is to increase the participation of women in STEM in schools, universities and vocational training. Therefore, the members work on improving the data base on women's digital skills, design campaigns to make women opt for a tech career and develop principles for gender-inclusive digital skills trainings.

The success of the Skills Coalition is based on:
- **Regular meetings** among the coalition members;
- **A shared commitment** to achieve the deliverables of the workplan of the coalition in collaboration with other coalition members; and
- Participation in the work of the coalition members by **sharing resources and staff time**.

In cooperation with the BMZ, UNESCO works on the following deliverables:

Develop and publish principles and good practices for quality and gender-transformative skills training. The Skills Partnership will draw on existing examples and frameworks to develop EQUALS Skills Coalition principles that will aim to identify key considerations for governments, international organizations, donor agencies and in particular different educational facilities to establish quality and gender-transformative skills training initiatives. Instead of providing high-level policy advice, the work will outline strategies to engender ICT throughout the curriculum; hone pedagogy to support girls' and women's empowerment; and tailor programs for gender equality outcomes. The principles will provide a gender lens through which different stakeholders can analyse current principles and practices and make changes or initiate new

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[253] Africa Code Week – Factsheet.

initiatives to ensure girls' and women's essential and equal role in digital knowledge societies. The aim is to have a substantial number of actors adopt these new principles 2019 and are use them to guide their work.

Develop operational guidance for practitioners as a reference framework for the conception, implementation and evaluation of projects to advance quality and gender-transformative skills training. The EQUALS Skills Coalition will establish an online platform for practitioners to access tools and information for the conception, implementation and evaluation of existing and new projects that teach digital skills for women and girls. Backed by political commitments (e.g. the G20 #eSkills4Girls declaration), the online platform will aim to support the translation of political will into operational strategies to support the digital inclusion of women and girls. It will include data on women's and girls' digital skills; projects supporting digital skills development in different settings; and instruments and tools for awareness-raising, mentoring, advocacy, training, community-building, capacity-building, outreach, communication and research; case studies on promising programs; and practical guidelines and tools. It will draw on existing materials and publications, consultations with relevant stakeholders, and the Digital Development Principles.

DIGITAL SKILLS PROJECTS FOR WOMEN AND GIRLS

29 flagship projects on digital skills for women and girls have been set up or have been strengthened by the G20 and its partners.

More Job Opportunities for Palestinian Youth
One German flagship project is *"More job opportunities for Palestinian youth."* On behalf of BMZ, the Gesellschaft für Internationale Zusammenarbeit (GIZ) and the KFW Development Bank are supporting the introduction of dual studies in Palestine. The program is part of a special initiative designed to stabilise and promote development in North Africa and the Middle East run by the BMZ. Through the projects that make up this special initiative, BMZ is helping to open economic and social prospects for people in the region.

Based on a successful dual study model developed in Germany, the newly designed Dual Studies Program of Al-Quds University (AQU) aims to bring about the integration of theory and practice and to link university studies more closely with labour market needs. The first of its kind in the country and sub-region, the Program offers an innovative approach to Palestinian higher education, combining academic studies with on-the-job training under real life conditions in private companies. Initially, three subjects have been launched at the new Dual Study Faculty: Electrical Engineering, Business Administration and Information Technology (IT).

Both the theoretical and practical stages of these B.A. programs are being developed and applied in cooperation with a wide range of partner businesses to ensure that the curricula meet their needs and deliver the competencies they require. As such, the Program relies on the close cooperation between Al-Quds University and the Palestinian private sector.

Since the Dual Study Program began in January 2015, more than 160 Palestinian partner businesses have signed up to the Program and, together, they are offering 312 paid on-the-job training places each year. The dual curricula for these subjects have been developed in collaboration with private sector representatives and have been accredited.

In total, the project plans to prepare at least 500 students for successful careers, at least one-third of whom will be young women. To this end, a gender analysis has been prepared which informs several measures specifically designed to recruit young women to the studies program and to support them in entering the labour market after graduation.

WeCode

WeCode is a programming school and software agency focused on women, set up in East Africa. This school is supported by a partnership of GIZ, German Cooperation, PSF and ICT Chamber. The first part of this program is a 11-week long bootcamp. The best students from this bootcamp go into a 15 weeks advanced courses such as Mobile App + Frontend Developer, Q &A Specialist and Data Analyst.

CAPACITY BUILDING FOR POLICYMAKERS

Capacity development for policy and decision-makers is critical in ensuring that they are advocates and champions for the policy recommendations on digital skills for women and girls. A series of #eSkills4Policymakers workshops will be conducted by the World Wide Web Foundation through a partnership of experts drawn from civil society and intergovernmental and developmental organizations like UNESCO and the African Development Bank (AfDB), with the support of BMZ.

These trainings will focus primarily on policy and decision-makers working in the education sector. In addition, representatives of government institutions that act as enablers such as affordable access to internet and devices, access to government-held information via ICTs, privacy and data protection considerations will be targeted. The trainings will draw upon the network of grassroots initiatives conducting digital skills training for women and girls, the #eSkils4Girls Africa Network. This would have the added benefit of facilitating discourse between women and youth with policymakers, bringing much needed perspectives from their experience to the policy table and further strengthening multi-stakeholder engagement.

ADDITIONAL ACTIVITIES

An online platform to allow knowledge exchange
The #eSkills4Girls online platform showcases projects on digital inclusion, shares stories about female role models and bundles information about studies, data and events by different partners.

Promoting role models of women and girls in tech
Female role models who have created successful tech careers are an inspiration for young women and girls to discover their opportunities. With a study and a video, the initiative acknowledges women who work every day to challenge existing gender roles and stereotypes. In 2018, a book publication is envisaged to further increase the visibility of female role models in the tech industry.

African Centre for Women in Information and Communications Technology (ACWICT)

SNAPSHOT	
Organization(s)	African Centre for Women in Information and Communications Technology (ACWICT)
Project Name	The Vusha Project
Location	Kenya
Date(s) of Implementation	March 1, 2014 – February 28, 2017
Funding Amount	USD 504,210
Partner(s) / Funder(s)	The Rockefeller Foundation's Digital Jobs Africa (DJA) Initiative
Number of Youth Beneficiaries Trained	Total: 19,927 | Women: N/A | Men: N/A
Number of Youth Beneficiaries Employed	Total: 3,555 | Women: N/A | Men: N/A
Avg. Monthly Earnings of Youth Beneficiaries after Program	Short Term Contracts: USD 40 Long Term Contracts: USD 800
Type(s) of Digital Work	Private Sector – Non-ICT Sectors
Source of Metrics	Internal monitoring & evaluation

ABOUT AFRICAN CENTRE FOR WOMEN IN INFORMATION AND COMMUNICATIONS TECHNOLOGY (ACWICT)

ACWICT is a Kenya-based ICT for Development (ICT4D) organization whose mission is to promote women's and youths' access to and knowledge of ICTs as tools for sustainable development. Since 2007, ACWICT has worked with large organizations to address the challenges faced by poor and disadvantaged young people from the informal settlements of Kenya to improve their digital job skills and employability prospects.

The Vusha Project was a three-year initiative with the overall objective to improve the employability prospects and income-generating capacities of 4,500 high potential, disadvantaged women between the ages of 20-29 from low-income households in Kenya. The program focused predominantly on recruiting, training and placing women, but also had a small male contingent.

The intermediate objectives of the program included:

- Obtaining training tools for online work
- Recruiting and training a total of 4,500 young people from disadvantaged households
- Expanding ACWICT's existing employer network by actively engaging the private sector, county governments and non-profit organizations by hosting 36 quarterly employer roundtables
- Organizing at least 36 career counselling and mentoring workshops

The project coursework was designed to incorporate classroom, self-study, workshops and follow-up activities, on-the-job training (optional) as well as job placement support. The entire course duration was designed to take a total of 888 hours translating into 28 weeks including internships.

There were 2 phases of the Vusha Project model:

- **Phase 1: Training.** ACWICT worked with local partners to market the program to young women in their communities. All applicants accepted into the program were required to attend the ACWICT training. At the end of the training period, beneficiaries completed an online exam to test their technical IT skills. Those who passed this exam were awarded globally-recognized certificates[254]. Thereafter, they moved into job placement.

- **Phase 2: Job Placement.** ACWICT has a growing network of over 1,000 employers who hire ACWICT graduates. On average, at least 80% of the young people trained are placed into jobs, internships and apprenticeships. ACWICT established a feedback loop with employers, which allows employers to provide input and feedback on the relevance of the training and the quality of the graduates. This information is to improve subsequent training cohorts, and ultimately ensure the employability of ACWICT graduates. In addition to these placements within ACWICT's network, ACWICT also has a team that searches for external work opportunities for beneficiaries.

PROJECT DESIGN & IMPLEMENTATON

Program Design	Supply-Side Components		Demand-Side Components	
	Training & Skills Development	✓	Improving Access to Finance for SMEs	✓
	Employment & Intermediation Services	✓	Capacity Building & Information Provision	×
	Subsidized Employment	×	Targeted Sector-Specific Approaches	×

ACTIVITIES

Through the Vusha Project, ACWICT provided youth with market-driven technical IT skills, life and entrepreneurship skills for employability and job-placement support. With these skills, young people engaged in online work as a new way of generating income. Key project activities included:

- Identifying four counties for implementation in the program's expanded strategy
- Recruiting and inducting county program staff (including program officer and community mobilizer) in each of the four counties targeted by the project
- Obtaining training tools for online work and integrating these in the employability training calendar

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[254] Including the following qualifications: CompTIA (Computing Technology Industry Association) A+ and EUCIP (European Certification of Informatics Professional) and advanced courses will be connected to the Microsoft Employability Portal

- Recruiting and training a total of 4,500 young people from poor and disadvantaged households in Kenya in Technical (IT) skills, online work skills, financial literacy skills and life skills for employability;
- Expanding ACWICT's existing employer network by engaging the private sector, county governments and non-profit organizations by hosting 36 quarterly employer roundtables (12 per year; three in each of the four counties targeted);
- Organizing events and activities such as career workshops and mentors' days to increase the profile for the project, project participants and project partners (including funding partners);
- Organizing least 36 (12 per year; three in each of the four counties targeted) career counseling and mentoring workshops; and,
- Carrying out continuous tracking, monitoring and evaluating project performance, activities and impact on the targeted youth and applying feedback received to improve project performance.

RECRUITMENT

The Vusha Project targeted high potential disadvantaged youth. The program targeted youth aged 20-29 from poor and disadvantaged households in Kenya, specifically from Nairobi's main informal settlements (Kibera, Kawangware, Mukuru, Mathare, Kangemi and Korogocho) and four counties outside of Nairobi (Mombasa, Kisumu, Kiambu, Machakos, Kajiado, Busia, and Isiolo). Additionally, young people targeted by the "Vusha" project were be at their transition point in their education from high school/vocational and/or tertiary education to the world of work. The program focused predominantly on recruiting women. However, the project faced challenges in recruiting and retaining only women. Consequently, the project expanded its targeting strategies to include a small male cohort.

During recruitment, ACWICT worked closely with local authorities, county government authorities and faith-based organizations to advertise their program and open applications. The application window was a period of one month. Young people who applied for the program were required have their applications certified by a community leader. Once certified, applicants submitted their paperwork at designated collection points. Applications were screened for ACWICT's eligibility criteria which is:

- Must be female
- Aged 19-24
- Out of school for at least one year
- Living in the informal settlements of Nairobi, Kisumu and Lake Victoria Shores.

After the screening process, the remaining applicants underwent an admission test and an interview. Successful applicants were announced and accepted into the training process.

IMPLEMENTATION CHALLENGES

The main implementation challenge faced by ACWICT was attracting and retaining young women. Most women had severe constraints on their time due to the household responsibilities that they had to fulfill. ACWICT made a concerted effort to identify female beneficiaries. ACWICT also provided incentives for their participation by offering basic child care facilities.

The cost of transport to the training facilities was often prohibitive. High transportation costs meant that beneficiaries would not attend training. To address this, ACWICT collected information about the beneficiaries' addresses, distance traveled and ability to pay for transport was during the recruitment phase. Using this information, ACWICT established training centers in locations that beneficiaries could easily access.

Many beneficiaries could not afford to pay for meals. The cost of food while attending training was identified as another main barrier for beneficiaries' attendance. ACWICT provided a small stipend to beneficiaries for a meal after training. It is not clear how this stipend was disbursed to the beneficiaries.

BENEFICIARY EXPERIENCES

During the program, male beneficiaries were often more assertive and confident whilst female beneficiaries were typically quieter, more reserved and more supportive to fellow learners. In instances when a young man was paired to share a computer with a young woman, the man would often take the lead. However, when two young women shared a computer, they would support each other and facilitate joint learning. As a result, beneficiaries' learning and subsequent performance was found to be accelerated when they worked on their own computers or when they shared a computer with the same sex.

Trainers also perceived male beneficiaries to learn comparatively faster about technology than their female counterparts. Trainers accommodated the different paces of learning by allowing male beneficiaries to continue to explore more advance topics while the trainers reinforced the more basic concepts to female beneficiaries.

Female beneficiaries also experienced safety and security concerns once they entered post-training employment. On occasions when work ended late, young women feared being victims of crime when returning home. ACWICT encouraged female beneficiaries to negotiate alternative working hours to mitigate this risk.

EMPLOYMENT OUTCOMES

3,555	**2,635**	**920**
beneficiaries generated income	**registered on online job platforms**	**placed in digital jobs**

Through scaling the Vusha project, ACWICT trained 19,927 beneficiaries over three years. This exceeded the initial target by 15,427 youth. Scaling was enabled by the county government of Kisumu and the national ministry of ICT, which funded the extension of the Vusha model to communities not originally targeted by ACWICT.

3,555 beneficiaries accessed income-generating opportunities because of the Vusha project. 920 of these beneficiaries were placed in digital jobs including data entry, online article writing, transcription, online content writing, online sales and app development. Some of them are also engaging in social media marketing, web development and graphics and 2,635 signed up to various online job platforms.

USD 30 – USD 50
**average task-based payment
(short-term contracts)**

USD 800
**average monthly income
(long-term contracts)**

The monthly incomes for ACWICT beneficiaries engaging in digital jobs, including data entry, online article writing, transcription, online content writing, online sales and app development ranged from USD 145 – USD 290. The average monthly income for youth engaged in online work was approximately USD 800 for long-term contracts. Task-based payments ranged from USD 30 – USD 50 per task.

Beneficiaries have been able to move out of their parents' homes and support additional family members because of having a job, engaging in online work or starting their own enterprises.

KEY FINDINGS

1. **Vusha Project beneficiaries typically found digital jobs in the insurance and ICT sector.** Most of these jobs were existing vacancies in firms in ACWICT's network of employers. Additionally, where beneficiaries were not placed in digital jobs, they undertook online work.

2. **Once placed in employment, female beneficiaries were often given back office roles whilst young men were given the opportunities to engage with clients.** On some occasions, women were able to address this with the employer as a result of the life skills training. However, in many instances, women did not feel sufficiently empowered to address this gender disparity.

3. **The prohibitive cost of internet connectivity, the high cost of acquiring computers, and the lack of ICT hubs in rural communities prevented beneficiaries from expanding the amount of online work they undertook.** In addition, unreliable power supply with frequent blackouts prevented continuous learning and led to beneficiaries missing out on online opportunities.

4. **Program staff reported that the program helped to reduce alcohol abuse among some youth.** In one county near Nairobi, high rates of alcohol abuse amongst the youth were recorded prior to the program. However, these rates were reduced for youth involved in the Vusha Project.

RECOMMENDATIONS

1. **Conduct adequate research and scoping of the employment and entrepreneurship sector to ensure that the skills acquired by the beneficiaries are relevant to the job market.** This will increase the likelihood that beneficiaries access employment or income-generating opportunities once they complete the program.

2. **Partner with traditional authorities and government agencies to garner community engagement and support.** Such partnerships help to give credibility to programs that are new and unknown to the community, and therefore increase the rates of participation, engagement and retention.

3. **Adopt specific targeting strategies for women.** Due to context-specific gender roles, women often require additional support. This can take the form of childcare facilities, meal stipends and flexible delivery modes (such as making the training available on digital platforms) to ensure that women can actively participate and engage fully in the program and receive the maximum benefit from the training. Gender-sensitive recruitment will help to ensure participation in digital programs and to ensure that they benefit from the training and placement.

Caribbean Mobile Innovation Project (CMIP)

SNAPSHOT	
Organization(s)	World Bank Group
Project Name	Caribbean Mobile Innovation Project
Location	Jamaica (hub country); Trinidad & Tobago; Barbados; St. Kitts and Nevis; Dominica
Date(s) of Implementation	2014 – Present
Funding Amount	CAD 1,500,000
Partner(s) / Funder(s)	World Bank Group
Number of Youth Beneficiaries Trained	Total: 464 | Women: N/A | Men: N/A
Total Investment Raised	USD 473,666
Total Sales Revenue	USD 387,023
Type(s) of Digital Work	Digital Entrepreneurship
Source of Metrics	Internal monitoring & evaluation EPIC Progress Report EPIC Midterm Review

ABOUT CARIBBEAN MOBILE INNOVATION PROJECT

The Caribbean Mobile Innovation Project (CMIP) is a capacity building project which is regionally centered and internationally focused. The project employs a multifaceted approach designed to enable the growth of sustainable and competitive mobile enterprises. The CMIP provides a networking medium for mobile apps developers, entrepreneurs, industry players, angel and venture capitalists, national and regional governments, and mentors – all stakeholders in the mobile technology ecosystem, to position the Caribbean mobile apps sector as a global player.[255]

The objectives of the CMIP are twofold:

- To strengthen the Caribbean mobile innovation ecosystem; and
- To enable growth-oriented mobile enterprises to rapidly grow.

CMIP targets aspiring and existing mobile application developers and entrepreneurs from the CARICOM region. The project model is based on supporting and coordinating activities in 4 hubs (locally based start-up ecosystem enablers; hereinafter called "mHubs") throughout the Caribbean region. To do so, the CMIP engages with governments, academia, civil society, international donors, and investors to encourage their support of the project and the regional start- up ecosystem.

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[255] CMIP is a sub-component of the Entrepreneurship Program for Innovation in the Caribbean (EPIC), the goal of which is to contribute to increased competitiveness, growth, and job creation in the Caribbean region through the development of a robust and vibrant innovation and entrepreneurship ecosystem.

Importantly, the CMIP also aims to increase gender responsiveness of the mobile innovation ecosystem and encourages meaningful participation of women in the project's activities.

PROJECT DESIGN & IMPLEMENTATION

	Supply-Side Components		Demand-Side Components	
Program Design	Training & Skills Development	✓	Improving Access to Finance for SMEs	✓
	Employment & Intermediation Services	✓	Capacity Building & Information Provision	×
	Subsidized Employment	×	Targeted Sector-Specific Approaches	×

ACTIVITIES

Lean Mobile Startup Development (LMSD) Course
All entrepreneur registered with the CMIP are offered training courses on start-up and product development. This training program is designed for entrepreneurs who seek to develop and grow their mobile app business. LMSD serves as a pre-accelerator training program for the PitchIT Start-Up Challenge, equipping entrepreneurs with the tools and mindset to increase their chances of success.

The course is supported by weekly webinars and coaching sessions, during which the entrepreneurs:

- Tested and validated their idea.
- Developed a prototype of their mobile app.
- Selected the right revenue model and develop their Go-to-Market strategy.
- Developed and designed a pitch deck and effectively pitched to investors.

In-person training was also provided re: how to pitch, how to master public speaking and how to manage one's non-verbal communication and presentation of self in professional settings.

PitchIT Hackathon
Regional hackathons with participants from CARICOM countries which extend beyond the four mHub locales. Each mHub stages its own Hackathon with winners receiving automatic qualification to participate in the PitchIT Regional Bootcamps and the PitchIT Regional Start-Up Challenge.

PitchIT Regional Bootcamps
An intensive two-day in-person training bootcamp to prepare eligible entrepreneurs for the PitchIT Start-up Challenge. The bootcamp is specifically geared towards improving entrepreneurs' pitch decks and presentation skills.

PitchIT Regional Start-Up Challenge
CMIP organizes a regional one-day pitch competition. Five winners are each awarded a coveted spot in PitchIT Caribbean mHubs based in Barbados, Dominica, St. Kitts & Nevis, and Trinidad & Tobago. Winners

also each receive: USD 5,000 each in seed funding to help develop their businesses; an all-expenses paid trip to an international pitching event; and access to online training. The acceleration services received include mentoring by business and technology experts, networking opportunities, working space and facilities, all expense-paid trips to international conferences and pitch competitions as well as intense product development and investor readiness training.

Regional mHubs
Business accelerators based in Barbados, Dominica, St. Kitts & Nevis, and Trinidad & Tobago, and the CMIP Central Office in Jamaica. Through the mHubs, CMIP offers a suite of services to growth-oriented mobile entrepreneurs, including: coaching on investment readiness and investor engagements; in-person networking events and mentorship; educational webinars offered by CMIP Central; opportunities to participate in global start-up competitions, conferences and bootcamps, including SLUSH Global. mHubs also assist entrepreneurs with applying to local, regional and global financing mechanisms, and help to match teams directly with potential investors. Mentors also offer business development support and career counseling.

OUTREACH TO FEMALE ENTREPRENEURS

> *"Being able to see other young women in the Caribbean be focused when it comes to their businesses and believe that they can achieve more than the average lifestyle, gave me motivation to be an ambassador to more women who may want to pursue the paths of male dominated arenas."*
>
> *Female entrepreneur, Dominica*

Recognizing a strong need to foster greater involvement of women in tech entrepreneurship, the CMIP took specific action tailored to create more gender equity in this space. In January 2016, CMIP held the *2016 PitchIT Caribbean Breakfast for Women Tech Entrepreneurs*. CMIP partnered with Entrepreneurship Department at the University of Technology (based in Jamaica), who committed to referring more than 10 female students for admission to the training. The event was designed to:

- Encourage participation of women tech entrepreneurs in the CMIP by engaging and educating enabler organizations regarding the benefits of the CMIP project.
- Engage and educate women tech entrepreneurs brought in by the enablers regarding the benefits of the CMIP project.
- Directly recruit women tech entrepreneur attendants for the CMIP training program.
- Become the focus point within the mobile innovation ecosystem that facilitates discussions on issues of engagement and tech enterprise development for under-represented groups.

The discussions that ensued indicated the high level of interest in the project by women and have helped to initiate the positioning of CMIP as a gender-responsive facilitator of the mobile innovation ecosystem.

BENEFICIARY EXPERIENCES

> *"I learned about becoming an entrepreneur. I learned how a business is run and met other entrepreneurs. It challenged me on views of what I wanted to do. […] I got coaching on presentations and pitching. I would participate in something like this again."*
>
> *PitchIT Competitor*

The CMIP entrepreneurs reported that the information received from their respective mHubs was useful and enhanced their businesses. The majority of program participants are confident that they were now a part of the large network of CMIP entrepreneur peers who are actively engaged and available, creating a supportive community and forum willing to help in problem solving, trouble shooting and idea generation.

Female entrepreneurs, in particular, have indicated that the CMIP program were effective and relevant to supporting their business needs, and that support to start-ups was effectively delivered. They also reported learning new skills, gaining new knowledge around business management and leadership, and reaping professional benefits through networking with peers, consultants and facilitators.

EMPLOYMENT OUTCOMES

36	**USD 473,666**	**USD 387,023**
commercial products launched	**investment raised**	**sales revenue generated**

Since roll-out of CMIP activities through the mHubs in 2015, there has been a steady increase in awareness and participation by digital entrepreneurs. Through the financial, professional and personal support provided by mHubs, CMIP entrepreneurs have commercialized 36 products during the program, and have achieved a cumulative total of USD 473,666 in investment raised with USD 387,023 of additional sales revenue.

PitchIT Caribbean Challenge 1.0 (June 2016)
The inaugural PitchIT Caribbean Challenge held in Montego Bay, Jamaica in June 2016, showcased 25 high-potential mobile startups representing seven territories throughout the Caribbean region. The teams pitched to a panel of regional and international judges in front of an audience of investors, entrepreneurs, public and private sector organizations and other entrepreneurial interests. They participated in a rigorous selection process and workshops with expert

PitchIT Caribbean Challenge 2.0 (December 2016)
Following the success of the Breakfast for Women Tech Entrepreneurs, CMIP implemented several activities under the PitchIT Caribbean Challenge 2.0, including training courses, hackathons and the start-up challenged. 219 entrepreneurs applied for the training program, of which 44% were women. 207 applicants from 13 countries were selected to participate in the online training course (47% were women).

Ultimately, the PitchIT Caribbean Challenge 2.0 received 44 applications, and 25 teams from 10 countries were selected to participate. The five winning teams were each granted USD 5,000 in seed funding. All 5 winners were women.

PitchIT Caribbean Challenge 3.0 (June 2017)
PitchIT Caribbean Challenge 3.0, held in June 2017, saw the launch of the Caribbean Lean Mobile Startup training course. 111 participants completed the course. Four hackathons were held, with a total of 29 teams participating in Barbados (7), Dominica (7), St. Kitts and Nevis (5), and Trinidad and Tobago (10). The PitchIT Caribbean Challenge 3.0 received 54 valid submissions and featured 25 mobile startups from 9 countries. The top 5 entrepreneurs each won a package valued at USD 15,000, including: USD 5,000 seed funding; a trip to an international pitching event; online training; and placement in a PitchIT Caribbean business accelerator in the region. 4 of the 5 winners were women.

KEY FINDINGS

1. **Prioritizing business development led to more cohesive ecosystem for mobile entrepreneurship.** While the initial focus of the program was on assisting entrepreneurs first with the technical aspects to first develop their apps and then to help them develop their business, this sequence has been reversed and entrepreneurs are now invited to first focus on business development, to follow with the technical aspects of their business. The UWI team indicated that this slight change makes a positive difference as approaching business development first aligned with the notion of taking a more holistic capacity development approach.

2. **Differences in levels of maturity of national ecosystems created challenges to the design of a relevant regional program.** For example, entrepreneurs found inconsistent access to business development services as they tried to scale regionally. As a result, each mLab was given the autonomy to prioritize different accelerator services according to the country context.

RECOMMENDATIONS

1. **Ensure sustainability plans for future project implementation are informed by entrepreneur feedback on services for which they would be willing to pay.** Feedback obtained in a December 13, 2017 project debrief meeting has already ascertained that entrepreneurs would be willing to pay for esteemed mentors who would provide them one-on-one guidance over a certain period. Honing such a funding model is critical as it would ensure that the future implementation of the CMIP has viable funding sources to meet with project execution expenses. With such a structure in place, the framework would be set for the growth of continued digital job creation for the region's youth.

2. **Connect young entrepreneurs with the financial opportunities to leverage their skills.** Skills training and capacity building initiatives are insufficient to forming sustainable businesses. Programs must ensure that participants are not only equipped with crucial knowledge and skills to run their own businesses, but are also provided with assistance and guidance for accessing capital. These challenges can be addressed by: establishing regional partnerships and crowd-in private sector investment; providing connections to potential financing sources to enabler clients; and/or considering more formalized linkages to development finance institutions, such as the IFC).

3. **Develop program components addressed to under-represented population segments.** This is of particular importance if the program does not have specific targeting strategies in acquiring youth and/or women entrepreneurs. Programs should explore opportunities to collaborate with similar programs within the region, or reach out to stakeholders embedded in diverse communities.

CloudFactory

SNAPSHOT	
Organization(s)	CloudFactory
Project Name	N/A
Location	Kenya
Date(s) of Implementation	2014 – 2015
Funding Amount	USD 2,000,000
Partner(s) / Funder(s)	The Rockefeller Foundation's Digital Jobs Africa (DJA) Initiative
Number of Youth Beneficiaries Trained	Total: 420 | Women: N/A | Men: N/A
Number of Youth Beneficiaries Employed	Total: 420 | Women: N/A| Men: N/A
Avg. Monthly Earnings of Youth Beneficiaries after Program	USD 240
Change in Income for Youth Beneficiaries (%)	40% – 200% increase
Types of Digital Work	Online Outsourcing – Microwork
Source of Metrics	Internal monitoring & evaluation Social Impact Report

ABOUT CLOUDFACTORY

CloudFactory is an impact sourcing service provider.[256] CloudFactory's primary objective is to connect individuals in the developing world to basic computer work and train them as leaders to address poverty in their own communities.

During the DJA project period, CloudFactory employed a 2800-member workforce from Kenya and Nepal to undertake high-volume, data intensive work. Tasks included data entry, data processing (audio transcription), data collection and data categorization. CloudFactory workers were categorized as independent contractors, whereby CloudFactory did not provide or subsidize the cost of accessing computers or internet connection for its workers.

While the ICT sector presents a significant opportunity for youth employment, there are a number of barriers that youth face in securing employment in digital jobs. CloudFactory noted that digital literacy is a significant barrier for many unemployed young people. Additionally, access to a computer and internet is a barrier faced by many youth, particularly individuals in rural areas, seeking digital employment.

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[256] The Rockefeller Foundation defines 'Impact Sourcing' as a socially responsible arm of the Business Process Outsourcing (BPO) industry that intentionally employs people who have limited opportunity for employment - often in low-income areas.

The CloudFactory model followed a team-based structure and the company invested in the development of impact sourcing workers through training. The training provided by CloudFactory was client-specific, technical training that related to the beneficiaries' responsibilities. Impact workers were organized into five-member teams managed by a team leader, who reported to a manager. Each manager looked after approximately 20 teams and reported to a senior manager who was responsible for 100 teams. CloudFactory's expertise lied in breaking up a typical workflow into small micro units, which could then be performed by CloudFactory's virtual workforce.

CloudFactory's workforce worked remotely and were paid a living wage for their services weekly. Additionally, a core team was typically based at CloudFactory offices to complete more complex tasks. Workers who were part of the core team received lunch on a daily basis, as well as a travel allowance.

PROJECT DESIGN & IMPLEMENTATON

	Supply-Side Components		Demand-Side Components	
Program Design	Training & Skills Development	✓	Improving Access to Finance for SMEs	×
	Employment & Intermediation Services	✓	Capacity Building & Information Provision	×
	Subsidized Employment	×	Targeted Sector-Specific Approaches	✓

RECRUITMENT

CloudFactory targeted unemployed university graduates, and recruited initially through digital media platforms. After the first few years of being in existence, when Cloud Factory had reached several thousand workers, the recruitment strategy evolved to be conducted primarily via word of mouth. CloudFactory ensured that the workers met the eligibility criteria through their screening and interview processes.

These eligibility criteria included:

- Must be a Kenyan citizen
- Must be 18 years old or above
- Have access to a computer and the internet
- Fair knowledge of English

Applicants completed an online application form that required personal details, education and employment history and an assessment of their strengths and weaknesses and ideal working environment. The online application form also verified whether the applicant had a laptop and a reliable internet connection. Thereafter, applicants completed a basic onboarding assessment which evaluated applicants' basic digital literacy, typing skills and internet navigation. Applicants who received 85% and above on the onboarding assessment were invited to an interview with CloudFactory staff. Successful candidates were then invited to training.

TRAINING ACTIVITIES

The training was technically-focused, aimed at teaching workers how to do digital microwork and equipping them with practical skills such as data extraction, audio transcription, data moderation and data analysis, that would enable them to effectively conduct their work. There were approximately three days of training per unit of work. Depending on the tasks type, training could be online or in person, however most of the training was in-person to promote team interaction and feedback. The training was client-specific and if applicants adequately completed the training, they were given access to the CloudFactory platform.

THE CLOUDFACTORY PLATFORM

The CloudFactory platform is an online portal that facilitates the completion of microtasks through cloud-based technology. On the platform, the average person worked 10-20 hours per week at their convenience and was paid out on a per-task basis whereby workers earned an average of USD 60 per week. In 2015 CloudFactory piloted hourly workstreams to assess workers' appetite for this model. Instead of being charged and paid out on a per-task basis, hours were used. This model gained traction whereby workers in this model worked and were paid according to hourly shifts. Today, the company has both per-task and hourly work available.

In 2015, CloudFactory provided jobs to 1,021 new workers in Nepal and Kenya, bringing the total number of workers employed throughout the year to over 2,800. During the DJA project period, CloudFactory employed a total of 420 workers in Kenya. CloudFactory further spent 837 hours training the new members of their workforce. Lastly, CloudFactory workers participated in 534 community service projects. More notably, in 2015 following the earthquake in Nepal, CloudFactory used the crowdfunding site GoFundMe to raise over USD 100,000 to provide relief packages and financial assistance to help workers and their communities.

BENEFICIARY EXPERIENCES

> *"It's been a great experience being able to learn so much while working and earning money as a cloud worker. Giving back to the community as a team has positively impacted my life and my perspective on leadership."*
>
> CloudFactory worker, Kenya

CloudFactory found that both male and female workers felt their experience at CloudFactory had a positive effect on their overall wellbeing, with over 90% reporting being happier after working at CloudFactory.

During the two-year DJA project period, retention for CloudFactory workers was above 90%. Today, CloudFactory's six-month retention rate is around 95% and CloudFactory has over 80 clients. CloudFactory found that providing workers with variation of work was critical to retaining their workers and avoiding the demotivation or boredom that microworkers may experience when performing the same, repetitive tasks over a prolonged period of time. To address this challenge, program staff engaged with a wide range of clients with differing microwork needs. CloudFactory has over 100 clients that include Microsoft,

Facetec, Emberk, Cruise and Ibotta. Additionally, CloudFactory found that having continuity of work for their workers was key in retaining them, which was further enabled by their expanded client base.

EMPLOYMENT OUTCOMES

40% - 200%

beneficiaries' income increase after program

CloudFactory enabled youth to access their first jobs through the CloudFactory impact sourcing program. Approximately 5% of CloudFactory workers continued onto formal employment within the organization, as they felt that the organization offered them the flexibility to pursue other career and personal opportunities while continuing to earn money from CloudFactory. Workers who left CloudFactory went on to higher levels of employment, both within and outside the technology sector. They found digital and non-digital work in the healthcare, education and technology sectors as well as more complex tech-based work.

Based on the 2015 social impact report,[257] CloudFactory workers' income increased between 40% and 200% because of microwork.[258] According to CloudFactory workers interviewed through the DJA evaluation and CloudFactory's social impact report, these increases in income enabled them to better support themselves financially which translated into improved health and education outcomes.

KEY FINDINGS

1. **CloudFactory found that university students/graduates were interested in, and perform well with, more sophisticated digital jobs.** In 2015, 59% of CloudFactory workers were enrolled in university. Additionally, these more advanced tasks were found to be more interesting to the employees, leading to greater retention; which is of considerable importance to digital programs that invest heavily in the training of staff.

2. **Universities, the local government as well as the NGO community are key institutions for expanding the service offering of digital programs**. The focus on these institutions – and not just "for-profit" enterprises – enables programs to scale their services and increase their impact.

RECOMMENDATIONS

1. Digital jobs programs that have similar models to CloudFactory are likely to have a cohort of beneficiaries who are university students or university graduates. **As such, digital jobs programs should leverage these skills to implement more sophisticated tasks, thus enabling them to expand their services.**

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[257] CloudFactory (2015). *Social Impact Report.* Nairobi, Kenya: CloudFactory. Available at:
 https://www.cloudfactory.com/hubfs/02Contents/3-Reports/Social-ImpactReport-2015.pdf?t=1473156789175.
[258] Actual wages not provided in the report.

Compete – Young Professionals Program

SNAPSHOT	
Organization(s)	United States Agency for International Development
Project Name	Compete – Young Professionals Program
Location	West Bank and Gaza
Date(s) of Implementation	September 30, 2016 – April 1, 2017
Funding Amount	USD 78,134
Partner(s) / Funder(s)	SAP; DAI
Number of Youth Beneficiaries Trained	Total: 18	Women: 11	Men: 7
Number of Youth Beneficiaries Employed	18
Avg. Monthly Earnings of Youth Beneficiaries after Program	USD 700
Change in Income for Youth Beneficiaries (USD)	Increase from USD 0 to USD 700 per month
Avg. Length of time for Youth Beneficiaries to find work	Immediate placement
Type(s) of Digital Work	Private Sector – ICT Sector
Source of Metrics	Internal monitoring and evaluation Final program assessment

ABOUT COMPETE – YOUNG PROFESSIONALS PROGRAM (YPP)

USAID's West Bank & Gaza Mission seeks to increase the competitiveness of the Palestinian private sector, resulting in expanded job opportunities for Palestinian youth. USAID/West Bank and Gaza assistance also advances public private partnerships (PPP) that align business interests and capabilities with development objectives to produce cost-effective, scalable, and sustainable programs addressing key priorities.

The USAID-funded Compete Project, implemented by DAI, has several objectives:
1. The project seeks to facilitate rapid expansion on critical sectors of the Palestinian economy which show the most potential for growth. To do so, the project provides technical assistance to companies and expertise on how to maximize the value of their products.
2. The project also works on improving market access and participation and increasing competitiveness of local SMEs.
3. Finally, the project aims to improve access to services through the development of local business associations and business service providers.

The intermediate objective of the Compete Project's Young Professionals Program (YPP) is to provide high-quality technical training on SAP Enterprise software to recent Palestinian university graduates, with an emphasis on female graduates. The YPP's overall goal is to provide SAP with a pipeline of young Palestinians who are well-trained in SAP enterprise software, and who also possess soft skills in critical areas such as design thinking, interviewing, marketing, and communication. SAP ultimately plans to

expand its market presence in the West Bank and throughout the MENA region by placing YPP graduates in positions with both local and regional SAP partners. Thus, SAP's ability to grow its business in the West Bank and larger MENA region is dependent on the success of its Young Professionals Program.

PROJECT DESIGN & IMPLEMENTATON

	Supply-Side Components		Demand-Side Components	
Program Design	Training & Skills Development	✓	Improving Access to Finance for SMEs	✕
	Employment & Intermediation Services	✓	Capacity Building & Information Provision	✕
	Subsidized Employment	✕	Targeted Sector-Specific Approaches	✕

ACTIVITIES

In 2017, SAP, a leading global enterprise software company, delivered the first iteration of its Young Professionals Program (YPP) to a cohort of Palestinians recently graduated from local universities. The YPP conducted an intensive 45-day bootcamp to provide targeted training in multiple aspects of SAP's enterprise software. The bootcamp also included several modules of soft skills training. Successful graduates receive an SAP Software Certification documenting their completion of SAP's globally-recognized Enterprise Resource Planning (ERP) training program. Bootcamp graduates were then offered a three-month apprenticeship with local ICT firms to provide hands-on work experience and networking opportunities.

Rather than provide "generic" training on software development and other ICT competencies, the Young Professionals Program builds students' skills in the various components of the SAP enterprise software suite, including specific applications such as SAP Business One, HANA Modelling, and the SAP Integration Framework. In addition to training tied to SAP's software, program participants are also taught soft skills in communications, marketing, and giving effective presentations. This enabled graduates to not only utilize, but also promote, SAP's product line.

A unique aspect of the Young Professionals Program is that the main goal is for trainees to find full-time employment directly with SAP or one of its local partners, rather than simply earning a certificate. As such, YPP offers apprenticeships to prepare program graduates for eventual full-time employment within the SAP family of companies.

SAP's partner development division conducted due diligence on Palestinian ICT companies, ultimately selecting four companies to become SAP partners. While the training was being conducted, SAP enrolled the new partner companies in a partner development program to facilitate linkages with SAP's larger regional partners. The project strengthened local companies' ability to serve as shadow implementers for SAP's regional partners. The ultimate objective was to enable local SAP affiliates to expand into the regional enterprise software market on their own. The program enjoyed a 50% success rate, leading SAP to choose two of the four companies originally selected to become SAP partners.

RECRUITMENT

400
applications received

5%
selection rate

SAP employees conducted a rigorous candidate selection process for the YPP, including individual interviews, cognitive testing, personality profiling, and essay writing, to ensure that the chosen candidates had the highest chance of successfully completing the program. Of the 400 applications sourced from Palestinian companies and universities, SAP chose 18 candidates to enroll in its Young Professionals Program, a selection rate of less than 5%. SAP's main recruitment criterion was that all YPP applicants must be university graduates. This is because SAP wanted a pool of candidates who had already demonstrated the technical aptitude and initiative that are expected of all their employees.

The recruitment phase lasted for 3 months, during which time the YPP was advertised extensively in local print media, as well as through social media and university-affiliated alumni networks and electronic bulletin boards. SAP also held in-person sessions at local universities to explain the YPP to interested graduates. Advertising materials emphasized that applicants graduating from the program would become more competitive candidates for highly-desirable IT jobs. The program also specifically encouraged female applicants to apply for the program, based on SAP's internal data documenting a higher performance rate by the program's female graduates. The YPP has a standard cohort size of 24, based on SAP's preferred class size. Of the 24 candidates selected for the Palestinian training, 18 ultimately enrolled in the program. Of the 18 YPP enrollees, 11 were women.

IMPLEMENTATION CHALLENGES

Recruiting recent graduates to apply for the program was not a challenge, given the high number of IT and engineering graduates from local universities, and the high youth unemployment rate. The main challenge for program staff was limiting the number of program placements to fit the small firm size and the limited markets accessible by local companies operating in the West Bank. The inability to place a higher number of trainees with local firms underscores the need for parallel donor support to increase local market capacity for IT services, while working to provide companies with greater access to outside markets.

BENEFICIARY EXPERIENCES

> *"During the training, I learned new knowledge in different fields… I learned how the whole [SAP] system works… I learned how to think in a different way… and I was able to be more confident from the… communication skills course. Now I am able to harvest all the hard work I've put into this training program. Thank you, SAP!"*
>
> *Rahaf, female program graduate*

Palestinian youth face an increasingly competitive labor market without the proper skills or tools to compete effectively. This gap stems primarily from the lack of students' relevant skill sets compared to

actual market needs. A major barrier to increasing youth employment is the nearly complete lack of career development services to help bridge the gap between educational outcomes and the skills demanded by the local job market.

More than half of program participants were women, and all program participants (including women) found jobs within the SAP family of companies immediately after completing the training. Unemployment among Palestinian women is higher than it is among their male counterparts. Thus, the YPP had a disproportionately beneficial impact on Palestinian women by providing them job opportunities with a globally-recognized company in the multi-billion-dollar enterprise software market.

> *"The program has many benefits. The most powerful one is having a global certificate which is also considered as a diploma. My goal now is to implement what I have learned in order to improve myself and improve this country."*
>
> *Rahaf, female program graduate*
>
> *"Life is IT and IT is business. SAP is the company that brings them together. This program gave me the chance to learn how business processes are done, and to improve myself in logistics, finance and accounting. SAP also played a great role in upgrading my soft skills. It was really an amazing experience."*
>
> *Renad, female program graduate*
>
> *"The SAP Yong Professional program gave me new ideas and ways on how to manage new projects by arranging the duties, timing, material, and the human resources according to the project requirements. Throughout the SAP training I was able to understand the importance of both the effectiveness and the efficiency of the company, and how these two factors will affect the economy in general, since SAP isn't only helping me develop myself, but also it is in fact helping the whole Palestinian economy by allowing local companies to be more effective and efficient in their business processes."*
>
> *Ibrahim, male program graduate*

EMPLOYMENT OUTCOMES

18	**100%**	**61%**
beneficiaries trained	**beneficiaries hired**	**female participation**

All program participants successfully found jobs in their field after completing the training. Because of the training, not only were they more marketable, but they were also able to retain their jobs.

KEY FINDINGS

1. **Change in beneficiaries' livelihood strategies.** All eighteen participants successfully completed the training and found work immediately thereafter. Average income increased from USD 0 per month to USD 700 per month, leading to substantial improvements in the participants' salary history and work experience.

2. **Limitations of the intervention.** As the training was conducted solely by SAP, conducting oversight of implementation, budgeting, and logistics required a great deal of planning and coordination between SAP and the Compete Project team, who provided on-the-ground logistical support to SAP to facilitate the training process.

3. **Unintended consequences of project implementation.** Unintended positive program consequences include increasing the networking opportunities for youth who may not have known each other prior to joining the program. Program participants found it difficult to network and travel to seek job opportunities due to restrictions on movement and access for Palestinians living in the West Bank and East Jerusalem. Perhaps by using the lessons learned in the training that they completed, the experience gained from their new jobs, and the connections that they made, they will be able to partner together in the future.

4. **Opportunities and/or barriers to scale the project.** The program was replicated once in partnership with GIZ and SAP. The main obstacles to scaling the program are budget size as well as the movement and access restrictions in the West Bank mentioned previously. Opportunities exist for donors to scale the program's impact by co-funding future trainings and by recruiting not only additional local companies, but also, where possible, larger multinational companies operating in the region who would be willing to employ program graduates on a trial basis, hopefully eventually leading to their permanent employment.

RECOMMENDATIONS

1. **Identify market needs.** The YPP initiative was highly successful, with 100 percent of program graduates finding immediate employment within the SAP family of companies. The program clearly filled an existing gap in the graduate-to-employee transition of college-educated Palestinian youth. Similar programs should also focus their activities on addressing identified market needs.

2. **Determine professional skills needed.** Those implementing digital jobs programs should first study the local market to determine the specific professional skill sets that are needed by local firms, and then tailor their programs so that local employers will be guaranteed that graduates they hire have the hard and soft skills that these companies need to succeed.

3. **Public-private partnerships are means of financial sustainability interventions for youth.** Public-private partnerships can continue to provide significant opportunities for digital job interventions for youth. One strategy to increase the scale and financial sustainability of IT skills training programs is to encourage companies who benefit from hiring graduates of these programs to co-fund future trainings or to invest in their own in-house training programs. An additional way to provide great digital employment opportunities for Palestinian youth is to leverage the fact that

IT jobs are not totally dependent on local firms. Program implementers could identify international IT firms that outsource part or their entire workforce, enabling local Palestinian youth to access job opportunities well outside the boundaries of the West Bank and Gaza.

Digital Divide Data (DDD)

SNAPSHOT	
Organization(s)	Digital Divide Data (DDD)
Project Name	n/a
Location	Kenya
Date(s) of Implementation	September 1, 2013 – October 31, 2015
Funding Amount	USD 2,500,000
Partner(s) / Funder(s)	The Rockefeller Foundation's Digital Jobs Africa (DJA) Initiative
Number of Youth Beneficiaries Trained	Total: 900 | Women: 450 | Men: 450
Number of Youth Beneficiaries Employed	Total: 900 | Women: 450 | Men: 450
Avg. Monthly Earnings of the Youth Beneficiaries after Program	USD 449
Type(s) of Digital Work	Online Outsourcing – Microwork
Source of Metrics	Internal monitoring & evaluation

ABOUT DIGITAL DIVIDE DATA

Established in 2001, Digital Data Divide (DDD) is an innovative social enterprise. DDD recruits and trains youth to work as DDD data management operators (DMOs) to deliver business process outsourcing (BPO) services to their clients. In doing so, DDD provides youth with the relevant skills needed to further their careers and offers youth support for higher education. DDD was one of the pioneers of impact sourcing (IS) and has supported the launch and growth of other IS companies and the sector more broadly by disseminating their learnings and experiences with other IS organizations.

DDD's model is based on impact sourcing, through which it employs people in developing countries to provide high-quality digital content services to local and international businesses. The DDD recruitment and hiring model has several phases:

- **Phase 1: Basic Training.** DDD recruits youth from disadvantaged areas to undergo business education, soft skills and technical skills training to develop the computer and English skills required to work in DDD. More specifically, the training provides beneficiaries with client-specific microwork skills as well as other technical skills such as Microsoft Office applications, Google search, computer networking, hardware maintenance and troubleshooting. Soft skills training includes communication, analytical skills, problem solving and time management. The training is a combination of in classroom face-to-face learning (70%) and online learning (30%). This provides the youth with the flexibility to complete assignments according to their own schedules, while also developing team and communication skills.

- **Phase 2: Work-readiness Training.** When basic training is complete, DDD hires those who show promise, who then spend an additional three months in a work readiness training program, where after they are placed in a job for nine months of contracted work where they earn a living wage. During this period, beneficiaries also receive career guidance. In these placements, beneficiaries work six hours a day performing digital work for local and global clients.

- **Phase 3: Work + Higher Education.** After this year-long probation period, beneficiaries have the opportunity to start higher education, whereby DDD structures their work schedule to allow for further study. The beneficiaries pay a portion of their tuition from their own earnings while the other portion is funded through partial scholarships and loan programs from institutions such as the Kenyan Government's Higher Education Loans Board (HELB)[4]. DDD has partnered with the University of Nairobi and Kenyatta University to enroll beneficiaries[4]. These degrees are typically earned in four years. Common degrees pursued by beneficiaries are those centered around accounting and finance, investment, entrepreneurship and innovation.

As beneficiaries prepare to graduate from university, DDD supports them with their job search, including CV writing and interview skills. Additionally, a select group of high-performance staff are promoted internally.

The DJA grant was used to scale up DDD's delivery center in Kenya such that they could increase their number of employees by over 900 to employ a total of 6,000 employees in Kenya.

PROJECT DESIGN & IMPLEMENTATON

Program Design	Supply-Side Components		Demand-Side Components	
	Training & Skills Development	✓	Improving Access to Finance for SMEs	×
	Employment & Intermediation Services	✓	Capacity Building & Information Provision	×
	Subsidized Employment	×	Targeted Sector-Specific Approaches	✓

RECRUITMENT

50%
of beneficiaries were women

10%
of beneficiaries were persons with disabilities

DDD targets youth from 18 to 24 who were born into disadvantaged families and are first time job seekers. DDD also aims for 10% of their workforce to include people with disabilities. However, there is no indication of how this is specifically targeted. DDD believes in equal opportunity for women in the workplace and, by creating an environment that was accommodating to women's needs, they ensure that 50% of the youth hired as associates are young women. DDD is able to achieve this by having their staff

proactivity reach out to young women in the community.[7] Other targeting criteria included rural and urban slum dwellers and orphans.

DDD partners with secondary schools, NGOs, faith-based organizations, and financial and health institutions which serve the youth. Through this engagement, DDD can identify motivated high school graduates from disadvantaged backgrounds. A key element of the recruitment process is a home visit to ensure that the youth really come from disadvantaged families. During the home visit, DDD's field workers also explain how the program works to the beneficiaries' families to ensure that they understand the program and can adequately support the beneficiaries. Having family support and the necessary support systems in place is key to the success of youth's employment. Often the process is unfamiliar to the youth and requires additional support from family members to ensure that this is sustained.

IMPLEMENTATION CHALLENGES

The primary challenge faced by DDD is the funding of university degrees. Initially, DDD received loans from the government. However, this source of funding was identified as being unsustainable. As such, DDD looked for partners who could provide scholarships to beneficiaries. In doing so, DDD identified a company called KIVA that administers loans to beneficiaries.

Another challenge faced by DDD is that the lack of understanding of their business model by the public. Many people incorrectly believed that DDD was a university, as opposed to a youth-focused business. As a result, many young people who applied to the program believed that they would be offered the opportunity to study further immediately without understanding that the program comprised of both work and study components. To address this, DDD reinforced the work element of the program in their messaging during recruitment.

Competition within the impact sourcing industry is an additional challenge faced by DDD. Confronted with increasing competition, during the project period, DDD was unable to retain a major client due to changes in the bidding procedure in August 2015. As a result, DDD was unable to renew some short-term contracts with youth beneficiaries beyond August 2015 and the recruitment and hiring of new beneficiaries was stalled until this client's work could be replaced.

BENEFICIARY EXPERIENCES

> *"I'm from a humble background. After high school, I could not afford the fee to go to university. My family could not support me and I don't have parents. But I always wanted to go to university and earn a degree so I could pursue my goals and ambitions."*
>
> *DDD female beneficiary, Kenya*

Program staff reported that beneficiaries found the biggest impact on their lives to be the opportunity to further their studies. Many of the youth beneficiaries could not afford to go to university, thus this program was significant in presenting this opportunity to disadvantaged beneficiaries.

Another considerable impact of the program on the lives of the youth was the chance to learn how to use and work on a computer. Most beneficiaries had either had a limited interaction or had never used a computer before. After the training their computer literacy skills improved, which they felt could be used to grow their careers in the future. The combination of work experience and university qualifications was found to open doors for DDD beneficiaries and over 80% of beneficiaries were employed after the program.

EMPLOYMENT OUTCOMES

Based on DDD's internal monitoring data, over **900 youth were provided with long term employment opportunities** (e.g. opportunities that last for four years or more), across the countries where DDD operates and 670 youth graduated with university degrees over the period of the DJA grant. 50% of the beneficiaries who participated in the program and were supported with scholarships were young women and 10% were people with disabilities.[259]

USD 449	**USD 110,000**
average monthly wage	estimated increase in lifetime earnings

Drawing on DDD's impact measurement system,[260] which assesses beneficiaries and graduates on an annual basis and conducts evaluations of impact, DDD beneficiaries' average monthly wage was USD 449 upon graduating with a university degree. Additionally, the estimated increase in lifetime earnings of DDD graduates was USD 110,000.[261]

DDD's work-study program was well received by beneficiaries and was found to subsequently change the trajectory of their lives, as shown in the box below. The majority of DDD beneficiaries accessed their first jobs through the DDD impact sourcing program. Beneficiaries typically worked four to five years at DDD, earning a living wage while working towards a university degree. As a result of the income received from DDD, beneficiaries were able to move out of their family homes and support themselves, often in more urban cities. They were able to pay bills, renovate family homes, send siblings to school and pay for family healthcare. Additionally, the opportunity to obtain a tertiary education provided DDD beneficiaries the

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[259] Digital Divide Data (2016). *Annual Report.* Nairobi, Kenya: Digital Divide Data.
https://www.digitaldividedata.com/sites/default/files/DDD's%202016%20Annual%20Report.pdf.
[260] Ibid.
[261] Income estimates are based on actual income of DDD graduates since 2006 with an estimated real increase in income for future years.
[4] Business Call to Action Alliance (2016). *Building Future Markets.* New York, NY: Business Call to Action Alliance. Available at: http://www.businesscalltoaction.org/wp-content/uploads/2016/03/BCtA_Building-Future-Markets-Final.pdf.
[5] Missika B. and Fiedler A. (2017). "Empowering youth through digital jobs: How innovative approaches are creating opportunities for disadvantaged youth." *Huffpost.* Available at:
https://www.huffingtonpost.com/entry/empowering-youth-through_b_4276931.html.
[6] https://www.digitaldividedata.com/impact/impact-sourcing.
[7] https://www.digitaldividedata.com/impact/ddd-recruitment.

ability to differentiate themselves from other young people in the market, thus increasing their chances of entering full time employment when they graduated.

17%	**12%**	**13%**	**10%**
ICT	**Business Services**	**Banking & finance**	**Retail**

Upon graduating with a university degree, approximately 70% of the beneficiaries secured full-time employment in the private sector, NGO's or government agencies. The majority of DDD beneficiaries accessed jobs in existing firms, with 17% of them in IT and communications, 12% in business services, 13% in banking and finance and 10% in retail. Once in full-time employment, DDD beneficiaries were often presented opportunities to move up the career ladder, and occupied middle-top positions in IT companies and other organizations.

KEY FINDINGS

1. **A high rate of pregnancy resulted in a high drop-out rate among female participants**. Additionally, where these women remained in the program, they would take maternity leave for three months, and upon their return, they would struggle to catch up with the rest of the program. To address this problem, DDD added family planning into the training which was available to all recruits and saw a significant decrease in the pregnancy rate of female recruits.

2. **Many beneficiaries found the work at DDD to be repetitive and unstimulating, particularly those tasks associated with data entry, data verification and transcription.** As a result, beneficiaries were prone to leaving their job at DDD for a slight increase in their salary at other organizations, which resulted in a high turnover rate for the DDD. At the end of the grant period, DDD started investigating and pursing cloud-based services to address this concern as these services are more complex and require a higher level of skills, with the expectation that they would thus be more likely to improve retention and enhance DDD's workforce development efforts.

RECOMMENDATIONS

1. **Digital jobs programs with models similar to DDD should use their organization's reputation in the Impact Sourcing space to identify new market opportunities, such as cloud services, and to capitalize on the demand for higher level skills to enhance workforce development efforts**. The web or cloud computing services industry is an opportunity that digital jobs programs can leverage as these services are high-demand, scalable, and executable from remote offices. This requires that digital jobs programs establish relationships with organizations that require these higher skill services and ensure that they have the skills to meet these demands.

2. **Digital jobs programs should continue to pursue more measures to strengthen, streamline, and scale their impact through employment and education**. Opportunities for quality alternatives to higher education, including distance learning and vocational training are now available and programs should incorporate these options to provide beneficiaries with a more holistic and practical range of education options that will maximize their learning and career opportunities.

Digital Jobs for KP

SNAPSHOT	
Organization(s)	Khyber Pakhtunkhwa Information Technology Board (KPITB)
Project Name	Digital Jobs for Khyber Pakhtunkhwa (KP)
Country	Pakistan
Date(s) of Implementation	2014 – present
Funding Amount	USD 36,000,000
Partner(s) / Funder(s)	World Bank Group
Type(s) of Digital Work	Online Outsourcing – Freelancing Online Outsourcing – Business Process Outsourcing Private Sector – ICT Firms Private Sector – Non-ICT Firms
Source of Metrics	Impact evaluation Internal monitoring & evaluation

ABOUT DIGITAL JOBS IN KHYBER PAKHTUNKHWA

Khyber Pakhtunkhwa (KP) is emerging as a nascent digital economy, with rapidly expanding mobile and internet connections. This presents a unique opportunity to accelerate development for faster growth, more jobs, and better services. Underpinning this digital transformation is Digital KP, a provincial strategy focused on supporting regulations, institutions and capabilities with the objective of promoting job creation and growth. Implementing the Digital KP, the Khyber Pakhtunkhwa Information Technology Board (KPITB) has embarked on an ambitious agenda to develop inclusive digital economy as a vehicle for job creation and growth with the aim to create 75,000 digital jobs over the next three years.

The Government of Khyber Pakhtunkhwa's digital strategy is focused around the following four pillars:

1. **Digital Access**: ensuring that all areas of KP are provided with affordable and reliable internet connectivity alongside programs to promote digital literacy and effective use (key partnerships: Jazz, Mozilla Foundation, and Pakistan Telecommunications Authority)

2. **Digital Governance**: enhancing the capacity of government agencies to leverage digital technologies for improved service delivery (key partnerships: Code for Pakistan, USAID)

3. **Digital Economy**: promoting the development of the digital economy as a tool to contribute to the province's economic growth (key partners: Jazz, MOX China Accelerator)

4. **Digital Skills:** improving the capacity of KP's young men and women to participate in the digital economy, and to build the base of knowledge workers in the province.

PROJECT DESIGN & IMPLEMENTATION

PHASE 1: INITIAL ENGAGEMENT, 2014 – 2015

Program Design	Supply-Side Components		Demand-Side Components	
	Training & Skills Development	✓	Improving Access to Finance for SMEs	✕
	Employment & Intermediation Services	✕	Capacity Building & Information Provision	✕
	Subsidized Employment	✕	Targeted Sector-Specific Approaches	✕

OBJECTIVE

In 2014, the Government of Khyber Pakhtunkhwa partnered with the World Bank to explore ways to engage youth in two key issues – civic engagement and employment – by leveraging opportunities in ICT-based interventions.

Project activities were structured to accomplish the following:
- Highlight opportunities for ICT-based solutions in addressing civic engagement and service delivery.
- Convene key stakeholders and actors for dialogue around leveraging ICT-based solutions and boosting bottom-up innovation for civic engagement.
- Identify areas of digital employment and entrepreneurship to address youth employment in the province.
- Explore how these areas could be leveraged within the context of Khyber Pakhtunkhwa.

PROJECT ACTIVITIES

Civic Hackathon
A two day "hackathon" event was held in January 31 – February 2, 2014. This event saw the participation of around 100 young coders. The objective of the hackathon was to build open collaboration and bring together partners that do not usually collaborate; identify civic issues (service delivery, infrastructure, etc.) that could be addressed through ICT-based solutions; and develop and co-create innovative concepts to these solutions. 11 Government departments submitted "problem statements" to the event, based on real-world issues they experienced. Hackathon participants were challenged to provide and co-create solutions to these issues together with the departments.

The event was held in partnership between the Government of Khyber Pakhtunkhwa's IT Board, Code for Pakistan, Peshawar 2.0, University of Engineering and Technology and the World Bank. Approximately 100 young coders participated.

Civic Innovation Fellowship Program
Winning teams from the Hackathon were incubated within the IT Board and assigned matching representatives from Government departments on a six-month fellowship program. Named the "Civic

Innovation Fellowship Program," the fellowship was supported by the World Bank, KPITB, and Code for Pakistan. The World Bank provided technical assistance in the form of a Fellowship Manager, with the space and stipends for the fellows provided by KPITB, and technical assistance and mentorship provided by Code for Pakistan.

Five teams were incubated in the first Civic Innovation Fellowship Program between March and October 2014. The fellows were trained on concepts such as Design Thinking and Lean Startup Methodology. The goal of the fellowship program was to introduce the new concepts of product development such as Prototyping, User Experience design and UAT, which are not usually found in government project development cycles.

Digital Youth Summit 2014
The Digital Youth Summit was organized in partnership with the KP IT Board and Peshawar 2.0. The objective of the event was to highlight opportunities around freelancing and tech startups, and to demonstrate employment possibilities in the global virtual economy. The Digital Youth Summit 2014 took place between May 12-14, 2014 and was inaugurated by the IT Minister and the Primary Education Minister under the banner of "bringing together the next generation of digital innovators in Pakistan." This was a first of its kind tech conference in Pakistan, and included discussions and breakout sessions on key topics, as well as an expo to introduce youth to the areas of online work, freelancing and entrepreneurship.

The Digital Youth Summit undertook a significant social media campaign to extend outreach to all university campuses, and to the tech community, as well as to young people active on social media. The event saw the participation of 60 speakers and approximately 400 attendees, with 65,000 people listening on livestream radio. The event also trended on twitter at #1 for Pakistan. The event caught the attention of the tech community and the Government of KP, and highlighted opportunities in the global virtual economy for young people. As a follow up to the Summit, the NLTA supported "Tech Chats" which were live chat series with eminent experts which were livestreamed at the IT Board. This allowed people to attend in person and virtually.[262]

PHASE 2: PILOTING ONLINE WORK PROGRAMS, 2014-2016

Program Design	Supply-Side Components		Demand-Side Components	
	Training & Skills Development	✓	Improving Access to Finance for SMEs	×
	Employment & Intermediation Services	✓	Capacity Building & Information Provision	×
	Subsidized Employment	×	Targeted Sector-Specific Approaches	×

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[262] World Bank 2015b.

OBJECTIVE

As a follow-up to the Digital Youth Summit, the World Bank also supported three online work pilots-- one targeted at women, one for the rural areas, and one for urban youth. These pilots provided digital skills training for the target audiences and tracked their progress in making money after training.

PROJECT ACTIVITIES

Empower Pakistan

Overview
Empower Pakistan—a social enterprise of successful freelancers in Khyber Pakhtunkhwa—was engaged to provide university students and graduates with trainings on how to build successful freelancing profiles and bid for and win jobs. In early 2016, the Government of Khyber Pakhtunkhwa subcontracted a local university, IM Sciences, to provide trainings to this demographic in conjunction with the World Bank pilot.

Impact
A follow-up survey of trainees was conducted from October 3, 2016 – February 28, 2017. Of the 402 respondents:

- 52% trainees were active and earning morning.
- Over 25% of trainees reported earning over USD 500 per month.
- Highest earnings in a single month by an individual freelancer was USD 4,027.
- Cumulative revenue as of February 28, 2017 was USD 21,266.

In 2016, Khyber Pakhtunkhwa Information and Technology Board (KPITB) trained more than 2,000 university students and graduates on digital skills and freelancing platforms.[263] In February 2017, IM Sciences reported that a total of 2,887 individuals were trained, and trainees graduating from the program had already earned an excess of USD 40,000 cumulatively.

Lessons Learned
- The immense interest shown in the program evidenced by the sheer volume of applications, indicates that there is significant interest in the concept of "earning money online", and a growing unemployment crisis for recent graduates in the province—even for those with technical degrees.
- The program experienced high drop-out rates—those who applied online would often not turn up in person, attend the required number of sessions to receive a certificate, and perhaps did not see value in a "free training."
- Applicants to the program required significant upskilling, especially in business communication required to write effective cover letters and interact in English online.
- Low interest shown by women and girls as evidenced by very low number of applications.
- Success on Fiverr does not translate to success on Upwork or in the traditional job market—Fiverr allows for "passive" earning through gig creation and encourages a "race to the bottom" in wages, whereas Upwork rewards sustained commitment, successful project execution, and persuasiveness.

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[263] Ibid

Women's Digital League (WDL)

Overview

The Digital Livelihood Training Program (DLT) was initiated by the Women's Digital League in collaboration with the World Bank to promote the use of information technology and computer literacy among women in the Khyber Pakhtunkhwa province. The target population consisted of female university students and women in the labor force, i.e. those currently working or willing to work. A comprehensive marketing and outreach strategy was drafted and executed prior to the training workshops that included a social media campaign, distribution of print material, newspaper ads, and information sessions.

Impact

A total of 12 trainings were conducted at 10 different academic and professional institutes across 5 districts of KP. Five of them had the duration of 6 weeks, while seven workshops were 3-day short courses designed for students and faculty members alike. The trainings consisted of both open-enrolment courses as well as student-only programs. The program's trainers were hired through Blimp Consultants.

A total of 350 women were trained. Out of the 350 trainees, 128 responded to follow-up surveys. These responses indicated the following:

- 65% of trainees provided content writing services.
- 25% of trainees provided social media marketing services.
- Over 80% of trainees were undergraduate students.
- Cumulative earnings were USD 5,085.

Lessons Learned
- Although the program also targeted female graduates wanting to join the labor force by working from home, not many graduates applied.
- An initial training fee and interview process resulted in low drop-out rates.
- Cultural barriers limited participants' ability to "spend time online" freely at home as well as travel to training facilities.
- Despite being enrolled in institutes where the medium of communication was English, many participants found it hard to navigate the Internet.

Karakoram Area Development Organization (KADO)

Overview

To assess whether digital freelancing training initiatives could be successful in rural communities, the World Bank funded a pilot training program for residents of Chitral district, a remote mountainous community in the north of Khyber Pakhtunkhwa. The program incorporated a structured two-month curriculum that included a heavy emphasis on graphic design, digital marketing and WordPress skill development, in addition to an introduction to the online platforms.

Impact

From March 2016-December 2016, KADO trained 2 batches of over 100 trainees each. 106 (53%) reported increased earnings one month after the training. Additionally:

- 76 (38%) of trainees has no access to a personal computer
- 188 (94%) of trainees had no access to a bank account.
- Average earnings were USD 203 per month, with a median of USD 40 per month.
- Cumulative earnings totaled USD 21,600.

Lessons Learned

- Increasing demand for digital skills in the local economy meant that trainees could fulfill domestic labor shortages (flyer design and website development work for local businesses).
- Even those without a personal computer at home could use digital skills to increase earnings.
- Local BPO firms provided full-time employment opportunities for those trained.
- Exposure to online work created a demand for financial services.
- Women were more likely to be successful on Fiverr than male trainees.
- Freelancing alone is not enough to lift youth population out of unemployment and underemployment.

PHASE 3: SCALING UP, 2017 – PRESENT

Program Design	Supply-Side Components		Demand-Side Components	
	Training & Skills Development	✓	Improving Access to Finance for SMEs	✓
	Employment & Intermediation Services	✓	Capacity Building & Information Provision	✓
	Subsidized Employment	×	Targeted Sector-Specific Approaches	✓
	Policy & System-Level Considerations			
	ICT Infrastructure	✓	Labor Market & Business Regulations	✓

OBJECTIVE

The KPITB has launched an ambitious five-year Digital Program totaling approximately USD 36 million in support of the Digital KP strategy, with the objective of promoting job creation and growth through inclusion in the digital economy. This program is being developed to build strategic partnerships between the public and private sector to maximize the impacts and reach of the program.

PROJECT ACTIVITIES

SUPPLY-SIDE COMPONENTS

Youth Employment Program: Digital Skills for All
The objective of the Youth Employment Program (YEP) is to equip youth with in-demand digital skills for the global digital economy. The YEP initially encouraged youth to enter self-employment and entrepreneurship opportunities by using online work platforms to connect to online freelancing work. However, the freelancing training was expanded into a broader "digital skills" training with the objective to provide a broad range of in-demand digital skills. Short, "modular" courses are offered in subjects like Graphic Design, WordPress, YouTube, Social Media Marketing, Data Science and Internet of Things. Over 20,000 individuals have applied for the courses since August 2017, and as of March 2018 nearly 5,000 have completed certifications.

The program follows a "blended approach" to training delivery. Youth Beneficiaries those are offered at least 48 hours of in-person instruction, and one month of access to an online learning management system (LMS). Youth beneficiaries are also provided with a "roadmap" for digital jobs, including online freelancing, opportunities in the local IT industry and resources for further learning.

In order to ensure the inclusion of women in the digital economy, the project team launched the complementary Women's Empowerment Program in 2017. This program is focused on providing learning opportunities in digital skills for women in the province.[264,265]

Gender Inclusive Public Spaces
The development of the Durshal co-working spaces incorporates principles of gender inclusivity in their design: depending on the cultural context of their location, women are provided options of female-only hours or separate work sections, in a safe, secure public facility with community codes of conduct. There are also pilot initiatives to address women's constraints, including transportation support, childcare support, or events focused on soft skills, such as confidence building for women in digital skills programs.

As part of the program's gender sensitive strategy, the KPITB encourages private sector employers to offer home-based employment and flexible working hours to female staff. These policies were put in place given the insecurity of the region and the gender norms that limit the mobility of.

NetKamayee: Vocational Training
In order to assess the quality and accessibility of KP's talent pool, KPITB, with technical support from the World Bank, launched a pilot program, entitled NetKamayee. The pilot provided customized training to students in vocational training centers (TEVTA), then linked youth with digital tasks through an online work provider. The program demonstrated the feasibility to introduce low-end BPO work, as more than half of trainees having no digital skills prior to the program. The participants continued to access task-based work through the online provider, and participation in the program increased access to finance. Quality rates for tasks were approximately 80%, which is commensurate with international standards. The

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[264] World Bank (2018c). *Project Paper on a Proposed Grant in the Amount of US$2 Million to the Islamic Republic of Pakistan for a Digital Jobs in Khyber Pakhtunkhwa Project.* Washington, DC: World Bank Group.
[265] World Bank (2017). *Pakistan: Social And Economic Empowerment Of Youth Through ICT, Korean Trust Fund Concept Note.* Washington, DC: World Bank Group.

results of the pilot demonstrated that, with investments in basic skills, students were able to effectively participate in the digital economy. The pilot also showed that the demand for such work is high, further demonstrating the viability of attracting online outsourcing, and the broader BPO sector, to KP.

Online Outsourcing Pilot Project

In preparation of a broader Online Outsourcing Initiative, this pilot was designed to test key assumptions and better understand the conditions which contribute to success of digital jobs programs. Students received 20 hours of orientation and early supervised work followed by approximately 36 hours of supervised production. Students then received training on the use of the CrowdFlower platform,[266] and learned more about the online outsourcing industry. Where necessary, students were taught basic computer skills. The students were then supervised as they learned to complete projects in the system.

For the first cohort, 47 young men and 44 young women received the training and completed work. 72 students out of 91 (79%) achieved an 80% quality rating or higher. 12 of the 19 students below 80% were from the TEVTA center that experienced consistent power outages and connectivity problems. The quality and consistency of their training periods were not optimal and contributed to the poor results. After training, students in the pilot averaged between 3 minutes and 5 minutes per task, earning at the rate of USD 94 per month – USD 164 month.[267]

DEMAND-SIDE COMPONENTS

Attracting Investment in the BPO Sector

KP has recognized the potential for BPO in creating digital jobs, and is committed to expanding opportunities for a base of workers in the province to deliver on BPO work. The Government is committed to providing e-work stations and building a trained workforce in targeted populations: (1) inclusion of the bottom 40% of the population, and (2) integrating opportunities for women.

To position itself as a growing outsourcing destination, the KPITB developed a global marketing campaign to promote investment in the IT Sector, and specifically in the BPO sector. This campaign includes a package of subsidies on operational costs, tax rebates, support on recruitment and training, customized business facilitation, and incentives to support business development in the province.

Preparing BPO-Ready Spaces

The KPITB has launched a USD 1 million effort to prepare BPO ready spaces for use by national and international BPO service providers. This approach is expected to create 1,500 full time jobs in the digital industries. Financing will be used to purchase computers and other relevant IT equipment and to lease space to interested BPO operators. BPO operators will then have the option to purchase the equipment after the first year of use.

POLICY AND SYSTEM-LEVEL CONSIDERATIONS

Investing in Enabling Environment

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[266] In 2018, CrowdFlower was renamed Figure Eight.
[267] World Bank & Khyber Pakhtunkhwa Information Technology Board (n.d). *The Digital Economy in Khyber Pakhtunkhwa: A snapshot of existing digital skills training programs, the online freelancing industry, and the potential for sustained employment creation*.

The KPITB is also investing in the enabling environment and infrastructure improvements to attract international and national BPO companies to KP. More recently, the Government of KP removed taxes on BPO providers, IT businesses, as reduced the broadband tax from 19.5% to 10%, effectively making it 30 % cheaper to operate IT businesses in the province. The KPITB is also working with the Government of KP and the World Bank to promote ICT connectivity, and accelerate the development of accessible, reliable and affordable access to the Internet.

SUSTAINABILITY

The project is expected to be fully sustainable within three-years. Investments in training under "Digital Jobs through Online Outsourcing" will create a digitally capable workforce that private operators will use in directing jobs towards the population in KP. The investments from the project will be used to attract international operators in business process outsourcing, building a pool of talented labor, and generating a work flow. Within three years, the business model is expected to be fully sustainable based on the labor force that has been trained. Similarly, the Women's Empowerment Program is expected to train approximately 5,000 women in the province in digital skills, making them eligible for growing demand for digitally enabled employment opportunities, either through freelancing or in the local market.[268]

RECOMMENDATIONS

1. **Focus on online work platforms only may be missing important opportunities** — can capture offline and domestic demand, as well as digital jobs locally. There is an emerging problem of "oversupply" on the online platforms

2. **Training initiatives should be targeted to unemployed graduates, and link to global trends in demand for outsourcing work, as well as provide linkages to specializations** (Low: data entry/image tagging, Medium: content writing, SEO, virtual assistant; High: web and mobile app development, data analytics). Successful freelancers "cannibalize" work on online platforms, so it's a more effective strategy to specialize.

3. **Incentivize the creation of a localized freelancing platform to capture domestic demand and accelerate peer-to-peer outsourcing already taking place.**

4. **Incentivize "impact sourcing" or traditional BPO provider to launch operations in the province to provide stable employment**.

5. **Reduce barriers to bank account creation for individual freelancers by sensitizing traditional financial institutions to online work/freelancing earnings statements.**

6. **Provide support for nascent IT service outsourcing startups so that they can formalize their businesses and create a multiplier effect on job creation.**

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[268] World Bank & Khyber Pakhtunkhwa Information Technology Board (n.d). *The Digital Economy in Khyber Pakhtunkhwa: A snapshot of existing digital skills training programs, the online freelancing industry, and the potential for sustained employment creation*.

Empowering Women through E-Governance

SNAPSHOT	
Organization(s)	Plan International Sri Lanka (PISL)
Project Name	Empowering Women through E-Governance
Location	Sri Lanka
Date(s) of Implementation	January 2, 2015 – January 2, 2018
Funding amount	EUR 533,418
Partner(s) / Funder(s)	European Union – NSA-LA
Number of Women and Youth Trained	Total: 12,990	Women: 12,990	Men: 0
Type(s) of Digital Work	Public Sector – E-Public Goods and Governance Private Sector – Non-IT sectors Online platforms for improving livelihoods
Source of Metrics	Internal monitoring & evaluation

ABOUT EMPOWERING WOMEN THROUGH E-GOVERNANCE

The overarching goal of this initiative is to contribute to the post-2015 agenda by ensuring that women in target communities in Sri Lanka can claim and exercise their rights as citizens. To do so, Plan International Sir Lanka (PISL) is working to empower marginalized women and youths from plantations and rural village communities in Monaragala and Nuwara Eliya Districts and their CSOs to claim their rights, and access opportunities and services.

To do so, PISL committed to the following objectives:
- Selectively provide ICT technology for use at the community level. This principally consists of more mobile technologies (either laptops, tablets, or in some cases smart phones), that can be taken into the communities.
- Apply to ICTA for the establishment of at least two telecenters, called Nenasalas, specifically for women's groups, owned and operated by them, to be placed in strategic locations, and which can be used by women to access information and/or to train themselves.
- Train a cadre of young women in the communities who have some existing IT literacy to be able to use the mobile technologies and serve as trainers to interested community groups. As well as providing access to the technology and how to use it, this cadre of young women will operate as a conduit for women who struggle with ICT literacy to access and make use of information and e-governance services.
- Build women's capacity through a process of awareness of their rights to public services and rights to participate in public spaces, by acquiring skills and technology to access information and services and to engage with government through its e-services.

PROJECT DESIGN & IMPLEMENTATON

Program Design	Supply-Side Components		Demand-Side Components	
	Training & Skills Development	✓	Improving Access to Finance for SMEs	×
	Employment & Intermediation Services	✓	Capacity Building & Information Provision	×
	Subsidized Employment	×	Targeted Sector-Specific Approaches	×

ACTIVITIES

Each year, the project aimed to train a cadre of 50 young women in Monaragela and 25 young women in Nuwara Eliya in ICT skills and knowledge, including how to use smartphones, tablets, ATMs and the e-governance platform (https://communitywomen.lk/). This is both for their own benefit, and so they can act as a resource to and trainer of other women in the community. Each year, the cadre of ICT specialists has been equipped with relevant mobile computing technology and instructed on how to access e-government services.

The project builds the capacity of two federations of women, one in the Monaragala District and the other in the plantation community in the Nuwara Eliya District, to claim their right to public services and participate in public spaces as well as to develop and support the wider needs of their membership. Women are encouraged to provide regular feedback through project structures and through ICT facilities to raise consciousness and call local government authorities to account.

Project activities included:

- **Livelihoods Support:** This is specifically targeted at young women, to provide information and access to vocational training and internships or work placements for up to 50 young women annually from both project locations.

- **Training:** Training CSO staff and leaders in methodologies and systems for formation of Economic Empowerment Groups (EEGs)

- **Financial Management:** Provides financial management training to participants.

- **E-Platform:** Developing an e-platform focused on the information needs of target communities, designed to be in accessible formats. Information on the platform includes details of relevant government services, and information on women's rights, livelihoods and on gender-based violence issues. Project outputs included an e-platform containing livelihoods-related information and advice tailored to the specific needs of the two project communities. (https://communitywomen.lk/)

- **Awareness:** Providing training and tailored information to raise awareness of legal and human rights.

- **Gender Mainstreaming strategies:** Through a series of training seminars, focus group discussions and selected mentoring, the project supports local government authority capacity to develop gender mainstreaming strategies

RECRUITMENT

The target populations were identified through a participatory process of mapping populations affected by the issues identified in the project and the services that the work of the two federations address. Plan also trains staff to ensure that they work with most vulnerable populations even when working within a specific excluded group. For example, when working with women and children in villages that were affected by 27 years of conflict and specific caste groups in the Monaragala District was important to identify who is excluded even within the excluded group, such as girl children in female-headed households.

IMPLEMENTATION CHALLENGES

Obstacles to the use of telecenters by rural women included: (i) centers are mainly owned by men and in locations that women are not comfortable visiting; (ii) opening hours were not suitable for women; (iii) content provided was generic with little or no relevance to them; (iv) the operators were center-bound and had few outreach programs to encourage poor, illiterate women or women with little or no education to use their services. Consequently, women are not receiving the information they require for their empowerment, nor IT skills to access the information they require. Lack of digital literacy and access by women in both rural and plantation communities threatens to marginalize them further as Sri Lanka transitions to an upper middle-income country and as IT is becoming a central part of business and society.

An analysis with women in both these communities showed that most have accessed local government services for essential business, but have limited knowledge of the extent of services available. Their knowledge of e-governance services in both communities is zero. This, and a lack of access to information, prevents them from knowing, fully understanding or demanding their rights. Their total dependency on plantation employers and government institutions for services and resources has not only narrowed their resource base but they have also failed to broaden their capacity to take advantage of new opportunities.

BENEFICIARY EXPERIENCES

Gaining support from plantation management was key to retaining beneficiary participation. In both plantation and non-plantation contexts, provision of childcare was added during the project to support beneficiary participation. The ICT component proved to be a key aspect for recruitment and retention of beneficiaries of all ages.

EMPLOYMENT OUTCOMES

Up to 50% of women and youths of the two federations have improved livelihoods and resilience through accessing livelihood information, training, and grant provisions.

Demand-driven e-platform providing information and evidence as a vital tool to link women & youths with LGA and service providers (https://communitywomen.lk/).

SOCIAL IMPACT

12,990 women and youths from 2 women's federations have improved knowledge of their rights and entitlements. At least 50% of women and youth members of DWF and WiAA have begun to effectively realize their entitlements through use of e-governance services by the end of the project. At least 50% of women seek support from WiAA and DWF GBV-support structures.

Two CSOs have established fully staffed project units and volunteer networks. Staff and members have new skills in:
- citizen report card methodology and reporting;
- analyzing government budgets with a gender lens;
- dialogue and participatory planning with local government authorities;
- accessing and reviewing e-government services;
- monitoring government budgets and programs; and
- monitoring and evaluation.

50 local government officials have better skills in gender-based budgeting and are actively piloting the methodology. At least 100 local government officials have improved knowledge and awareness through workshops around key issues of:
- Lack of access to services of women in the federations;
- Suitability of e-services to users; and
- The need for gender-based budgeting.

KEY FINDINGS

1. **There is clear demand for the skills training offered, both by the targeted beneficiary groups as well as the local government authorities.** The government authorities are keen to "keep pace" with their constituencies, and demand for training from them outstripped the abilities of the project to provide. In the future, this should be considered.

2. **Childcare was initially one of the factors limiting participation and should be taken into consideration in the future.**

3. **In terms of sustainability, future projects should consider long-term accommodations for federations.** The fact that the project provided rent for meeting space posed a challenge to sustainability for the project, although this was overcome by acquiring space through supportive stakeholders (in Monaragala, the local government donated a building, and in Nuwara Eliya one of the plantations provided space).

RECOMMENDATIONS

1. **There is a lack of digital jobs in the area to be obtained, even once participants have gained digital skills.** Future projects focused on this element should consider working with the private and public sector to create jobs while simultaneously training the populations to access those jobs.

EOH Youth Job Creation Initiative

SNAPSHOT	
Organization(s)	EOH
Project Name	EOH Youth Job Creation Initiative
Location	South Africa
Date(s) of Implementation	March 1, 2014 – February 28, 2015
Funding Amount	USD 1,009,308
Partner(s) / Funder(s)	The Rockefeller Foundation's Digital Jobs Africa (DJA) Initiative
Number of Youth Beneficiaries Trained	Total: 1,789 | Women: 1,109 | Men: 680
Number of Youth Beneficiaries Employed	Total: 1,789 | Women: 1,109 | Men: 680
Avg. Monthly Earnings of Youth Beneficiaries during Program	USD 110 – USD 210
Avg. Monthly Earnings of Youth Beneficiaries after Program	USD 1,000 (projected)
Type(s) of Digital Work	Private Sector – Non-ICT Sector
Source of Metrics	Internal monitoring & evaluation Learner Feedback Survey EOH narrative reports

ABOUT EOH

EOH is a private technology service provider. They provide end-to-end technology solutions to clients in large variety of industries by following the consulting, technology and outsourcing model. EOH is also a learning solutions provider with specialist skills in linking educational outcomes to labor market requirements, which is also a key strategic priority of the South African government. EOH is leading an employer driven campaign in South Africa to create work opportunities for disadvantaged youth - the EOH Youth Job Creation Initiative. The overall objective of this campaign is to train, mentor and place disadvantaged youth in permanent jobs.

The EOH Youth Job Creation Initiative, trains disadvantaged youth who are typically first-time work seekers over a period of 12 months. The program includes theoretical, class-based learning as well as a workplace learning component and works with EOH's existing customers and government to train and place young people into jobs.

The DJA grant was used to support the work readiness program, an initiative that is embedded in the larger Youth Job Creation Initiative. The work readiness program aims to facilitate the development of critical skills youth require to function productively in the work environment. The program is a week-long full-time workshop that covers topics such as professional development, social and community development.

PROJECT DESIGN & IMPLEMENTATON

Program Design	Supply-Side Components		Demand-Side Components	
	Training & Skills Development	✓	Improving Access to Finance for SMEs	✕
	Employment & Intermediation Services	✓	Capacity Building & Information Provision	✓
	Subsidized Employment	✓	Targeted Sector-Specific Approaches	✕

ACTIVITIES

Training included 30% classroom or theoretical teaching, followed by 70% of structured workplace learning. During the workplace learning, the beneficiary is placed in a job in the manufacturing, IT, finance and engineering industries, and is tasked with performing the functions associated with their role under the guidance of a mentor. Throughout the period of workplace learning, beneficiaries are expected to demonstrate certain skills or competencies by compiling a portfolio of evidence in line with course requirements. This model allowed youth to embed themselves in organizational culture, increasing their likelihood of continued employment after the program's completion.

On successful completion of this part of the training, 75-80% of beneficiaries are typically absorbed into the workplace. Learners are placed in a variety of sectors including ICT, wholesale and retail, financial services, tourism and hospitality, and parastatal and government departments.

WAGE SUBSIDY

The EOH training programs are accredited by and registered with the relevant Sector Education and Training authorities (SETAs). As a result, employers who hire graduates from the EOH training qualify for tax rebates and beneficiaries who complete the program received a formal accredited qualification. Employers receive a USD 2,600 tax rebate for every learner that enrolls on a learnership for each year they are on the learnership. There is an additional USD 2,600 paid per learner on completion of the learnership. Furthermore, employers receive USD 4,300 tax rebate for each disabled learner on a learnership and an additional USD 4,300 at the end of the learnership.

LEARNERSHIP MODEL

EOH engages with employers to determine their entry-level employment needs. EOH then conducts a needs analysis for the organization in order to develop a feasible implementation approach that will meet the employer's needs.

Thereafter, EOH targets disadvantaged youth who meet the employers' requirements and are looking for entry-level jobs. A multimedia and word of mouth campaign is used to encourage young people to apply for the program. Applicants submit their profile or curriculum vitae (CV) and a basic screening process is implemented to filter applicants for acceptance to the next round. Applicants are then required to complete a numeracy and literacy assessment.

Successful test applicants are then interviewed for aptitude, attitude and communication skills. The selected final shortlist of applicants is presented to a panel of employers. Following selection by employers, beneficiaries are placed on a probation period and, upon passing the final assessment which assesses work readiness and aptitude, attitude and communication skills, learners are provided a learnership agreement and fixed term employment agreement for the period of the learnership (usually one year).

This model was initially adopted by EOH for their internal staffing purposes. However, given the success of the model, they expanded this service offering to other employers. In doing so, EOH provides the service of recruiting, training and placing youth to other companies for a fee. EOH's model is also subsidized by grant money such as The South African's National Treasury's Jobs Fund and this DJA grant.

IMPLEMENTATION CHALLENGES

Once a beneficiary is selected, it is difficult to ensure that they are placed within the most suitable host site or employer. Often, host sites that are the most willing are not necessarily the best fit for the beneficiary. This results in learners not being assigned relevant tasks in the workplace that are accurately linked to their qualification.[269]

Once beneficiaries are placed, mentors do not always fully buy into the learnership process. Mentors often stated that they were too busy with their own tasks to fully engage with the beneficiaries and the process.[270]

Several female beneficiaries became pregnant, which was found to halt the progress of the beneficiary within the program. In some cases, this led the beneficiary to stop participation completely.

50% of female beneficiaries were single parents. Because of the additional responsibility placed on female beneficiaries, they had high levels of financial stress throughout the program. However, this was found to contribute to higher levels of determination to succeed in the learnership and secure full-time employment.

BENEFICIARY EXPERIENCES

Beneficiaries reported that they valued the opportunity that EOH provided them to transition from unemployment to employment. However, some beneficiaries did not complete the year-long program. Program staff understood this to be because the beneficiaries found jobs that offered them slightly higher salaries, however, this was unverified with the learners themselves. As a result, they did not receive the qualification that accompanies the learnership program, which has the potential to increase their income and employability in the longer term.

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[269] As the learner feedback survey was only implemented at the end of the DJA grant period, this learning was only uncovered towards the end of the grant. As such, measures to correct this are not known.
[270] As with the above, this was unpacked through the learner feedback survey at the end of the grant period, and as such, measures to correct this are not known.

According to the EOH survey, 39% of learners stated that they earned more income since completing the program and 72% of learners indicated that they felt more confident that they would succeed at work. In early February 2015, a sample survey was conducted on learners that had previously attended the program. Of the sample surveyed, 45% of the learners had children.[271] Of those, 25% felt that they were in a better position to meet the needs of their children and household since participating in the program. In addition, over 700 large organizations and small and medium sized corporations (SME's) in manufacturing, IT, finance and Engineering are now part of the EOH network.[272]

EMPLOYMENT OUTCOMES

DJA IMPACT

<table>
<tr><td>**1,789**
beneficiaries completed
work readiness program</td><td>**62%**
of learners
were young women</td></tr>
</table>
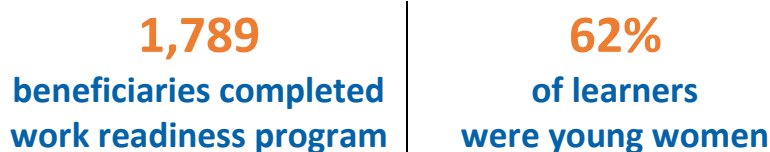
EOH tracked the effectiveness of the program and its alignment with DJA objectives under two overarching objectives: beneficiary confidence; and expectations for the future. Electronic learner surveys and interviews with a sample of beneficiaries were the primary data collection tools used to collect this data.[273]

At the end of 2015, 1,789 beneficiaries had completed work readiness program that was supported by DJA. Of the learners that completed the program, 62% were female. According to EOH's internal monitoring systems, this week-long training, included as part of the year-long EOH Youth Job Creation Initiative, was found to contribute to increases in the confidence and resilience of beneficiaries.[274]

WIDER IMPACT

<table>
<tr><td>**35,000**
placed in
learnerships</td><td>**85%**
in FTE within 1 year of
program completion</td><td>**51%**
of beneficiaries in FTE
were women</td></tr>
</table>
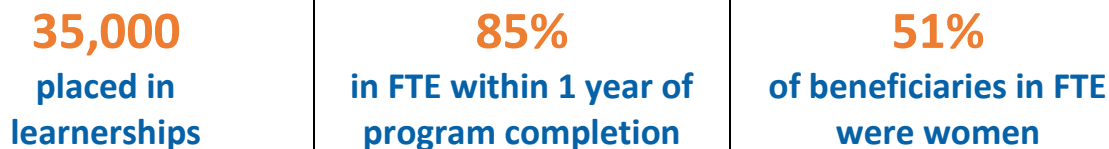
According to EOH's monitoring data, EOH placed over 35,000 beneficiaries in learnerships through the wider Youth Jobs Creation Initiative from 2012 to 2015.[275] 85% of the beneficiaries placed were in full-

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[271] While 1,789 learners formed the total population of program participants, the response was only sent to 572 learners and of that amount, 213 responded but only 155 were submitted. 685 learners were omitted from the survey because they were still busy with it. Another 332 were omitted by error, 96 had no email address for the survey link to be sent to, and the balance (104) had contact details which had changed recently.
[272] EOH (2015). *The EOH Work Readiness Initiative: Final Narrative Report*. South Africa: EOH.
[273] Ibid.
[274] EOH defined resilience as 'the ability to handle change.'
[275] EOH (2015). *The EOH Work Readiness Initiative: Final Narrative Report*. South Africa: EOH.

time employment one year after the program ended. 51% of the learners that were permanently employed by their respective host employers after completion of the learning program were female.

<div align="center">

USD 110 – USD 210
**monthly income
(during learnership)**

USD 1,000
**projected monthly income
(after learnership)**

</div>

During the year-long learnership, beneficiaries earned an average of between USD 110 per month and USD 210 per month. Upon completion of the learnership, and drawing on information from interviews with beneficiaries, beneficiaries were projected to earn upwards of USD 1,000 per month in full time employment. In addition, full-time employment was found to offer other benefits such as pension fund benefits and medical aid which was, in some cases, subsidized.

SOCIAL IMPACT

EOH conducted impact assessments, which indicated that this transition resulted in considerable social impact. Research showed that each job received by the youth supported four or five additional people in the youth's environment. Financing siblings and/or children's education was found to be the most significant contribution beneficiaries made to their families.

Beneficiaries who experienced the consistency of work and income over the year-long Job Creation Initiative and thereafter found full time employment, migrated from being dependent on their family to being able to contribute to the costs of their families. EOH beneficiaries also reported increases in their standard of living and the ability to purchase a car as benefits of employment.

KEY FINDINGS

1. **The learnership model is an effective way of bridging the gap between labor supply and labor demand.** Employers have twelve months of a learnership period to assess the youth prior to hiring them full time which significantly reduces the risk to employers. In addition, due to the tax incentives employers receive, the model is financially attractive to organizations. During the learnership period, employers have access to trained, productive youth without incurring the additional cost associated with hiring inexperienced employees. In the South African context, there are also advantages for organizations' broad-based black economic empowerment (B-BBEE) scores; whereby because all beneficiaries are previously disadvantaged, they increase their employer's B-BBEE standing.[276]

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[276] In 2003, the Broad-Based Black Economic Empowerment (B-BBEE) Strategy was published as a precursor to the B-BBEE Act, No. 53 of 2003. The fundamental objective of the Act is to advance economic transformation and enhance the economic participation of black people in the South African economy. The South African government defines B-BBEE as an integrated and coherent socioeconomic process that directly contributes to the economic transformation of South Africa and brings about significant increases in the numbers of black people that manage, own and control the country's economy, as well as significant decreases in income inequalities. B-BBEE process includes elements of human resource development, employment equity, enterprise development, preferential

2. **Beneficiaries reported feeling a greater sense of 'wanting to give back' to their communities due to their involvement in the program.** They felt more empowered to make a positive difference to members of their communities. This was often done through information sharing, opportunity scanning and involvement in community-based NGOs.

3. **The impact of the training and placement on the youth's sphere of influence was further reaching than EOH had anticipated.** Beneficiaries recommended EOH to their unemployed peers and family members. They also become more involved in activities that aimed to improve their communities, such as teaching others how to build their CVs and develop their interview skills.

RECOMMENDATIONS

1. **Classroom training must allow for open and interactive communication to increase the chance of knowledge retention**. This includes ensuring that training includes opportunities for role play, classroom-based exercises, question and answer learning sessions, group work and peer learning exercises.

2. **Program staff should maintain frequent communication with the beneficiary to assist them with workplace issues as they arise**. If the beneficiaries feel supported, there is a higher chance of retaining them in the program and of future success. To enable this, digital jobs programs should schedule regular check-ins with the beneficiaries.

3. **Digital jobs programs should brief host employers on their roles and responsibilities with regards to the beneficiaries.** Beneficiaries also need to be briefed adequately for them to understand the requirements of the workplace that they are being placed in. There needs to be effective communication and ongoing relationships between the project team, beneficiaries and employers to ensure alignment of expectations throughout the program period.

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procurement, as well as investment, ownership and control of enterprises and economic assets. The B-BBEE scorecard has eight levels, with level one being the most compliant and level eight being the lowest compliant, and a total of 100 points available. Employers can claim eight points if they invest 6% of their payroll on training Black people. If they engage 2.5% of their employees in learnerships and internships they can earn four points; and then gain another four points if 2.5% of their workforce is made up of black, previously unemployed learners. Then there's an additional five points to be claimed if they employ those unemployed learners at the end of their learnerships program.

Friends of the British Council

SNAPSHOT	
Organization(s)	Friends of the British Council
Project Name	Digital innovation Center
Location	Ghana
Date(s) of Implementation	August 1, 2015 – December 31, 2016
Funding Amount	USD 500,000
Partner(s) / Funder(s)	The Rockefeller Foundation's Digital Jobs Africa (DJA) Initiative
Number of Youth Beneficiaries Trained	Total: 1,003 | Women: n/a | Men: n/a
Number of Youth Beneficiaries Employed	Total: 631 | Women: n/a | Men: n/a
Type(s) of Digital Work	Online Outsourcing – Freelancing Private Sector – Digital Entrepreneurship
Source of Metrics	Internal monitoring & evaluation

ABOUT FRIENDS OF THE BRITISH COUNCIL

The Friends of the British Council (FBC) is an independent non-profit organization created to support British Council programs globally and work with the British Council's partners.

FBC engages with all levels of society, including civil and community leaders, influencers, educators, scientists, artists, business leaders, and the media. FBC also works extensively with marginalized and vulnerable populations such as women, at-risk youth, early learners, areas of rural poverty and post-conflict zones. FOBC is also majorly involved with education and work with secondary and higher education sectors and with young people starting out their careers.[277]

The objective of this Friends of the British Council (FBC) program, funded by the DJA initiative, was to help disadvantaged and unskilled or minimally skilled youth in Ghana to progress from unemployment into employment. The program further aimed to provide high potential disadvantaged youth (HPDY), defined as young people from marginalized sectors of society whose potential for future success is stunted by their lack of resources, with IT and soft skills training which are relevant for digital jobs. Additionally, the program aimed to place beneficiaries into digital employment through Business Process Outsourcing (BPO) centers and other IT service providers within eighteen months of training.

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[277] https://www.britishcouncil.us.

PROJECT DESIGN & IMPLEMENTATON

Program Design	Supply-Side Components		Demand-Side Components	
	Training & Skills Development	✓	Improving Access to Finance for SMEs	×
	Employment & Intermediation Services	✓	Capacity Building & Information Provision	×
	Subsidized Employment	×	Targeted Sector-Specific Approaches	x

ACTIVITIES

The Digital Innovation Center is a space for young people to innovate, share ideas, network, and access IT tools, software and high-speed internet. The Digital Innovation Center was built with the intention of providing a workspace for beneficiaries to access online freelance IT jobs such as data entry, image capturing, document reviewing and typing.

Original Training Model – Employment in BPO Center
The program comprised of four weeks of face-to-face training and two weeks of self-study with peer learning and practical sessions at the innovation center in the Accra, capital city of Ghana. The training program had several features:

- The content of the training was based on a needs assessment of BPO and other IT service providers.
- The training included literacy and numeracy skills; communication, customer relations, intercultural working, time management, self-management and other relevant soft skills.
- Beneficiaries with the relevant IT skills were provided with an opportunity for guided on-the-job training, facilitated peer-to-peer learning and professional mentoring.
- Youth that did not have relevant IT skills were trained on the specific technical skills required for the BPO sector, including spoken and written communication, online marketing, project management and finance and accounting.

FBC initially intended to place beneficiaries in digital jobs in the Ghanaian private and public sector through a new BPO center. The *Ghana BPO center* was a government project that promised to employ many FBC beneficiaries. However, delays in the commissioning of the Ghana BPO center meant that FBC was not able to place the youth as originally intended.

Modified Training Model – Freelancing & Digital Entrepreneurship
FBC consequently adjusted their training and delivery model to include more online entrepreneurial components. Digital marketing and online freelance jobs were also incorporated into the curriculum to provide beneficiaries with additional employment opportunities outside the BPO sector. FBC also provided beneficiaries with access to a *Skills and Innovation Hub*. This Hub was equipped with high-speed internet and laptops, which helped beneficiaries to create their own digital companies and access other online freelance IT jobs.

Additionally, beneficiaries who expressed an interest in tech-entrepreneurship were enrolled in FBC's Tech20 pilot program. The Tech20 pilot program was designed to enable beneficiaries to progress to digital entrepreneurship opportunities such as freelancing and website development. The program exposed participating beneficiaries to different technologies for 3D design, aerial modeling and computer coding. 20 beneficiaries participated in the Tech20 pilot program and five of the most promising candidates were selected to participate in the British Council's Flagship Incubation Program. This is a six-month incubation program focused on technology and virtual mentoring. Through partnerships with established organizations, this program provides youth's technology start-ups with mentoring and seed funding to encourage their growth and development

RECRUITMENT

Calls for applications were circulated across a wide variety of information platforms typically accessed by FBC's target group. These included:

- Old student networks on digital platforms such as Facebook and WhatsApp
- Faith-based organizations
- Networks provided by the British Council's pool of trainers
- Notices placed on the British Council website and social media platforms
- Notices placed at Ministry of Communications and Municipal heads
- Engagement with community leaders to support the recruitment of youth from urban slums

Applicants who met the criteria presented in Box 1 were shortlisted.

....

BOX 1 FBC Selection Criteria

> - **Ghanaian citizens**
> - **18-30 years old**
> - **Senior, technical or vocational High School graduates**
> - **Currently unemployed and economically disadvantaged**
> - **Able to communicate and take instruction in English**
> - **Available to commit to a full month of training**
> - **From a target urban slum**
> - **Demonstrate potential and interest in the IT sector as a source of employment**

....

Shortlisted applicants were interviewed by FBC staff and successful applicants were selected for training. 1,003 beneficiaries were trained over the grant period. FBC's beneficiary retention rate was high, with 95% of youth recruited completing the program.

IMPLEMENTATION CHALLENGES

The delay in the commissioning of the Government of Ghana BPO center affected the absorption rate of beneficiaries into jobs. Once it was determined that the BPO center would not be taking placements,

finding and partnering with other employers who were willing to take on a large quantity of program beneficiaries was a challenge. To address this, FBC explored self-placement initiatives, whereby FBC facilitated access to global freelance online IT jobs while providing beneficiaries with free internet access and workspace to access these jobs. Additionally, FBC adjusted the content of the training to give beneficiaries a broader scope for digital entrepreneurship, digital marketing and self-development to enable beneficiaries to pursue self-employment. Based on an evaluation of impact of DJA and case studies on FBC beneficiaries, this content was found to be highly relevant and aligned to the needs of the Ghanaian youth.

The high number of applicants exceeded FBC's expectations and capacity to process. FBC's target was to train 1,000 HPDY during the grant period. However, FBC received approximately 26,000 applications. This required additional resources to review all applications and resulted in delaying the commencement date as all applications needed to be screened.

Attracting young women to participate in the training program was difficult. Most applicants were male. This evidences the need to refocus the FBC recruitment strategy going forward, to ensure a more balanced gender distribution across applicants.

BENEFICIARY EXPERIENCES

> *"After the program, I came up with a start-up firm with the support of a previous beneficiary of the Digital Jobs Africa training. We specialize in Digital Marketing, Business Management, and Business Process Outsourcing (which includes writing of CVs for people, graphic designs, and all typing works). We also seek to empower the youth to be entrepreneurial and purpose driven; helping them to identify their hidden potentials and skills thereby creating jobs and a sustainable development in our society."*
>
> *FBC Beneficiary, Ghana*

The FBC program targeted marginalized youth with no tertiary education. Most were from rural, poverty-stricken areas with little or no income-generating opportunities. They often had low self-esteem, could not articulate themselves well and were not confident to speak up.

The training addressed this by providing an engaging and interactive training experience that encouraged beneficiaries to engage with the material and with one another. Facilitators created a conversational environment where beneficiaries could share their experiences and concerns and ask questions. Group exercises, presentations and role plays also made the training sessions interactive and engaging. Beneficiaries reported improved confidence levels and enhanced communication skills as key outputs from the training program.

Beneficiaries began the program with the expectation that they would be placed in full-time employment. When placement could no longer take place, the entrepreneurship components added to the training helped beneficiaries realize that even without permanent jobs, there are employment opportunities available through freelancing, self-employment and running small businesses.

EMPLOYMENT OUTCOMES

631
youth beneficiaries
employed

1,003 beneficiaries were trained on technical, digital and soft skills during the grant period. Of those who were trained, 631 beneficiaries, representing 62.91% of the youth trained, secured some form of employment. Of the total number of beneficiaries employed, only 3% were recruited by BPO organizations and 7% by IT organizations.

# 190	# 125
youth beneficiaries **secured digital jobs**	**youth beneficiaries** **established digital businesses**

Of the 631 beneficiaries who found employment, 190 beneficiaries secured digital jobs, including online and mobile customer care, data entry, customer survey analytics and business analytics. Additionally, 125 of the 631 beneficiaries established digital businesses offering digital-based services, both inside and outside Ghana.

From the findings of the DJA evaluation of impact case studies, one beneficiary reported that he now runs an MTN mobile money business whilst another is an online freelancer who works on a contract basis.[278]

KEY FINDINGS

1. **A detailed scoping of the digital employment sector in the country of focus is required to gain a better understanding of the opportunities and risks of digital entrepreneurship.** This will ensure that digital jobs programs are aligned to the needs and opportunities of the sector and adequately prepare beneficiaries for the world of digital work and digital entrepreneurship.

2. **Beneficiaries noted that the FBC training shifted their perceptions of employment and increased their entrepreneurial ambitions.** Of those who decided to pursue entrepreneurial endeavors, beneficiaries noted that the soft skills and intercultural sensitivity components of the FBC training enabled them to better interact with clients and resulted in business growth and more income-generation activities.

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[278] The Rockefeller Foundation (2018). *Evaluation of Impact.* South Africa: The Rockefeller Foundation.

RECOMMENDATIONS

1. **Digital employment initiatives can benefit from a careers advisory desk.** Advisory personnel should be specifically tasked with identifying opportunities for internships and employment, maintaining information about skills requirements of recruiters, and acting as a graduate liaison.

2. **Beneficiaries should be provided with access to content and workshops which align with their areas of interest.** Doing so will ensure that beneficiaries are intrinsically motivated to pursue these interests, and are more likely to succeed in the long term where their interests align with their line of work. Additional electives could include 3D printing, web and app coding, software design and social marketing, amongst others.

3. **Due to the substantial number of applications, it is necessary to provide online material and training for young people outside large city centers to benefit from training**. A sustainable and scalable approach would include a combination of online and face-to-face training.

4. **Internet expansion in Ghana makes it possible to roll-out the training program online across the country's other nine regions.** This broader-based approach should be considered in future programs to provide opportunities to marginalized youth who would traditionally be excluded.

5. **Business incubation was an impactful addition to this program and should be considered going forward in future programs.** Young entrepreneurs could be provided with the opportunity to subscribe to a 6-month incubation program focused on technology and mentoring.

6. **Youth employment programs should focus on** bui**lding sustainable partnerships with private sector organizations**. These partnerships give young beneficiaries access to further training and sustainable incomes through employment and entrepreneurship. Building these partnerships requires that youth employment programs develop a business case for private sector organizations such that these organizations see the value in participating in youth employment initiatives. Additionally, this requires that sufficient time be allocated to evidencing the value of these partnerships such that private sector organizations are not only aware of, but also are able to experience the value of, such programs.

Girls Who Code

SNAPSHOT	
Organization(s)	Girls Who Code
Project Name	Closing the Gender Gap in Technology
Location	United States of America
Date(s) of Implementation	2012 – Present
Funding Amount	CAD 1,500,000
Partner(s) / Funder(s)	Accenture
Number of Youth Beneficiaries Trained	Total: 50,000 | Women: 50,000 | Men: N/A
Number of Youth Beneficiaries Employed	N/A
Type(s) of Digital Work	Digital Entrepreneurship Private Sector – IT Sector Private Sector – Non-IT Sectors
Source of Metrics	Internal monitoring & evaluation

ABOUT GIRLS WHO CODE

Girls Who Code was founded with a single mission: To close the gender gap in technology. Girls Who Code believes: 1) All girls are creators and able to make a positive impact on the world through computer science; 2) All girls of varying interests can be passionate about and interested in computer science; 3) Graduates of Girls Who Code programs will go on to deepen their computer science learning and redefine cultural beliefs around what a computer scientist looks like.[279]

As a corporate partner of Girls Who Code, Accenture's investment in Girls Who Code reflects the company's belief that attracting, retaining and advancing women is critical for any high-performance business. Accenture's partnership with Girls Who Code led to more than 570 girls gaining technology skills year to date. Paul Daugherty, Accenture's Chief Technology & Innovation Officer, says, "Accenture and Girls Who Code share a commitment to inspiring young women to pursue careers in computer science, and we're excited to help these women capitalize on a broad spectrum of opportunities." In 2016 Accenture surpassed its goal to reach 40% women new hires.[280] By 2025 Accenture aims to achieve a gender-balanced workforce.[281]

By tripling the number of women in computing by 2025 to 3.9 million, women would rise from 24% to 39% of the computing workforce and generate USD 299 billion in additional cumulative earnings.[282]

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[279] Accenture (2016). *Cracking the Gender Code*. New York, NY: Accenture.
[280] Accenture (2017). *Accenture Sets Goal to Achieve Gender Balanced Workforce by 2025.* New York, NY: Accenture.
[281] Ibid.
[282] Accenture (2016). *Cracking the Gender Code*. New York, NY: Accenture.

Girls Who Code focuses on three keys to improvement:

- **Capabilities**: Offering learning opportunities for students and alumni to deepen their computer science skills as well as their confidence.

- **Career:** Creating clear pathways for Girls Who Code alumni from middle and high school into the computing workforce.

- **Community:** Building a supporting sisterhood of peers and role models who help students and alumni persist and succeed.

FIGURE 1   **Accenture Hosts a Field Trip for Girls Who Code Participants**

Accenture hosted field trips to Fjord, part of Accenture Interactive, where Girls Who Code participants learned about applying user centered design methodology to solve real-world issues

PROJECT DESIGN & IMPLEMENTATON

Program Design	Supply-Side Components		Demand-Side Components	
	Training & Skills Development	✓	Improving Access to Finance for SMEs	×
	Employment & Intermediation Services	✓	Capacity Building & Information Provision	✓
	Subsidized Employment	×	Targeted Sector-Specific Approaches	x

ACTIVITIES

Girls Who Code Clubs

Girls Who Code Clubs are free programs for 6-12th grade girls to learn to use computer science to impact their community and join a sisterhood of supportive peers and role models. Clubs meet for two hours per week after school or on the weekend for 11 weeks during the academic year, and girls can join at any point in time. Clubs take place in schools, libraries, community centers, and more. Corporate partners such as Accenture provide volunteers who serve as club facilitators and guest speakers.

The curriculum is designed for students with a wide range of computer science experience, and facilitators need no prior experience in coding. The broad set of soft skills taught include teamwork, confidence, time management, and communication. The fundamental computer science concepts taught are loops, variables, conditionals and functions that form the basis for all computer programming languages.

A core part of the Girls Who Code Clubs is the Computer Science Impact Project, where girls develop and use these soft skills and computer science skills to solve a problem relevant to the specific Club and community.

FIGURE 2   Girls Who Code Clubs Curriculum Roadmap
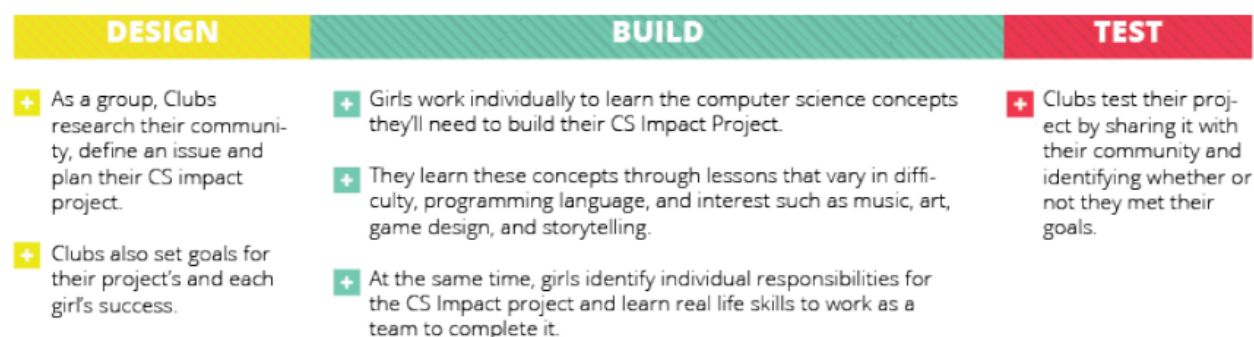
Source: Girls Who Code 2018.

Summer Immersion Programs

Summer Immersion Programs (SIPs) are free 7-week programs in Computer Science for 10th and 11th grade girls to learn coding and get exposure to technology jobs. SIPs offer learning opportunities for students to deepen their computer science skills as well as their confidence and grit. Girls can apply for the program through a short online application—recommendations and proof of grades are not required to apply. Girls may also apply for a summer stipend, available for those who may need assistance covering travel or living expenses. In 2018 the program will take place in 17 cities across the U.S., running Monday through Friday, from 9:00 am to 4:00 pm. Corporate partners such as [Accenture](#) host the programs in their offices and serve as guest speakers, workshop presenters, mentors and more. Accenture hosts Girls Who Code SIP students in its Atlanta, Chicago and New York City offices.

Campus Programs

Campus Programs are two-week, condensed computer science summer programs for girls aged 10 to 18 held at local schools and universities. Each program covers a specific topic and is designed for a range of skill levels and ages. The four courses offered—chosen after close consultation with schools, teachers, parents, and students—are Introduction to Computer Science, Website Design and Development, Wearable Technology & Fashion Design, and iPhone App Design. Campus Programs are currently offered in six cities across the U.S.

#HireMe Alumni Network

#HireMe is Girls Who Code's job and internship board for alumni in 11th grade and beyond. The platform offers internship and job opportunities from our #HireMe pledge partners plus a resume builder and workshops to help girls stand out in the hiring process. More than 60 companies are sharing internship and job opportunities with Girls Who Code alumni. Accenture was one of the first companies to sign Girls Who Code's #HireMe pledge, committing to help to build a college to career pipeline for young women majoring in high tech fields. Girls Who Code alumni are joining Accenture as 2018 summer interns and Accenture has tapped the alumni network for full-time hires. Accenture volunteers also help plan and execute workshops for Girls Who Code alumni to keep them engaged in tech. Workshop topics include cybersecurity, cloud computing and technical interview preparation.

IMPLEMENTATION CHALLENGES

Achieving Breadth and Depth. Girls Who Code has more than 3,000 clubs in all 50 states, and has plans for a significant expansion—doubling the number of clubs in 2018 to 2019. Although the rapid scaling of Clubs has allowed Girls Who Code to reach a large population of girls, such an expansive network makes it difficult to gather statistically meaningful evidence on implementation and impact. As a result, Girls Who Code is constantly working on ways to increase the quantity and quality of data from our Clubs.

As a part of this effort, Girls Who Code recently launched HQ, a custom, Web-based curriculum platform. Using HQ, Girls Who Code passively collects data on Clubs implementation, providing a window into the Clubs experience at unprecedented scale. For example, HQ allows Girls Who Code to download data on time spent on curriculum-related screens (e.g., Women in Tech Spotlights, Core4 activity sets) as well as CS Impact Project uploads. Girls who Code also uses HQ to conduct facilitator and participant surveys, and to host registration materials (e.g., launch questionnaire, student enrollment forms).

Understanding the impact of our programs is a priority at Girls Who Code to continue working towards achieving depth at the same time as breadth.

Scaling Impact with Existing Programs at Capacity. In the last five years, Girls Who Code has quadrupled the pipeline of women in tech. Yet every year, Girls Who Code programs would reach capacity and turn away thousands of girls from Summer Immersion Programs. At one point, Girls Who Code had eight girls applying for every one spot in the summer programs.

Girls Who Code needed a way to scale its impact when existing programs reached capacity. That meant getting creative.

Girls Who Code published a book series to reach the girls who might not otherwise have access to a Girls Who Code classroom. These books include explanations of computer science concepts using real life examples; relatable characters and profiles of women in tech. It is one of the first times that the story of computer science has been told through so many girls' voices.

Last year, Girls Who Code launched a new summer program called Campus to further scale its impact by allowing organizations to reach a wider demographic of girls in terms of age. Campus offers Girls Who Code's first-ever specialized coding courses to help middle and high schools girls get an edge for college and connect with other girls with similar interests.

BENEFICIARY EXPERIENCES

By spring 2018, Girls Who Code will have reached 50,000 girls in all 50 states, successfully inspiring girls to consider studying computer science and paving the path for future careers in technology.[283] Nearly 90% of Girls Who Code alumni say they are more likely to pursue a career in technology because of their participation in Girls Who Code programming.[284]

In addition, after participating in a Girls Who Code program, girls express a high interest in further studying computer science: [285]
- 84% Summer Immersion Program participants are interested in or want to major or minor in computer science
- 65% Clubs participants are more interested in or are considering majoring or minoring in computer science
- 80% of Campus graduates say that they intend to major or minor in Computer Science because of Girls Who Code.

> *"I love coding. It's actually very shocking how much I love it."*
>
> *Sneha, Accenture SIP student, Atlanta*
>
> *"It gave me a taste of what I want my future to be like."*
>
> *Annabelle, Accenture SIP student, Chicago*

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[283] Accenture (2016). *Cracking the Gender Code*. New York, NY: Accenture.
[284] Ibid.
[285] Ibid.

Some participants, motivated by the experience, have subsequently encouraged others to get involved in coding. For example, one exciting program developed by Accenture SIP participants in New York City is Say Yes to CS. The program was created by five girls who sought to make learning computer science "fun, easy, and approachable. Through interactive tutorials, Say Yes to CS helps people understand how coding can be used to create personalized websites. The news page also helps introduce users to what is going on in the tech world. Together, we can all Say Yes To CS!"[286]

EMPLOYMENT OUTCOMES

This increased interest in computer science has contributed to a higher likelihood of advanced study in the topic. For example, 74% of alumni who took Advanced Placement Computer Science in high school reported taking the course after participating in Girls Who Code. This is particularly striking since in recent years only 20% of exam takers have been female.[287] In addition, of the 4,700 college-aged Girls Who Code alumni, the rate of girls deciding to major in computer science or related fields is 15 times higher (at 60%) than the national average (at less than 4%).[288] Alumni are entering college and declaring majors in large numbers for the first time in the organization's six-year history. Alumni have also engaged in additional opportunities to build on their skillset. For example, Xiomara, a freshman at Georgia State University and Accenture SIP alumna, who intends to major or minor in computer science, participated in a competitive coding event with other former SIP students in which they used APIs to make a program for babies and moms involving nursery songs.[9]

FIGURE 3   **Girls Who Team Participants at Work**

Girls Who Code team members working together on a robotics project at Accenture's Atlanta office.

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[286] http://projects.girlswhocode.com/project/say-yes-to-cs/.
[287] CollegeBoard (2017).
[288] Accenture (2016). *Cracking the Gender Code*. New York, NY: Accenture.

By 2022, at current course and spend, Girls Who Code programs today will help fill 13% of the roughly 11,000 entry-level computer science jobs needed to be filled by women to be at gender parity in the U.S.[289] At this pace, Girls Who Code programs have put the U.S. on track to achieve gender parity in computer science in under ten years. By 2027, thanks to the generosity of Girls Who Code partners and thousands of supporters across the country, women will be entering technology at rates equal to men.

KEY FINDINGS

1. **Early Exposure Drives Interest in Computing Among Girls.** Exposure to computing must start in junior high. The Cracking the Gender Code research found that 74% of women working in computing were exposed to computing in junior high, compared to 49% of those who are not working in computing.[290] In addition, girls with early exposure to computer games are four times more likely to go into computing and coding roles as adults.[291]

   To support this early exposure to computing, Girls Who Code has a program focus of girls aged 11 and older, and has developed a range of curricula that enables customization to the individual skill level.

2. **Girls Need Women Mentors.** You cannot be what you cannot see. Too often, girls do not imagine themselves as coders because they do not see women coding. They see men coding. In fact, portrayals of men as computer scientists and engineers in family films outnumber portrayals of women by 14.25 to 1.1.[292] The data bears this out, girls are more likely to become inventors in a field if they grow up in an area with more female inventors in that field.[293]

   Efforts need to be made in the media industry, at school, and on a national level to tackle these stereotypes. If girls think computing is cool and "for girls," they will have a 25% higher interest in computing than those who do not.[294]

   To that end, all Girls Who Code programs feature Women in Tech Spotlights. These spotlights feature a diverse range of women and give girls a chance to see that, no matter their background, race, ethnicity, ability, income or zip code, they can learn to code and change the world.

   These spotlights provide girls with role models they might not otherwise have, and start to change the culture of coding that says only men are capable of being creators, inventors, and coders. Girls who are encouraged by a role model are much more likely to major in computing/coding.[295]

3. **Facilitators Do Not Need to Have Coding Experience.** Prior to 2016, Girls Who Code facilitators were required to have a certain level of coding experience. Upon realizing just how dramatically this requirement limited the facilitator pool, Girls Who Code did away with the requirement and then, in 2017, put in place facilitator training to support non-technical volunteers in leading a Club.

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[289] Ibid.
[290] Accenture (2016). *Cracking the Gender Code*. New York, NY: Accenture.
[291] Ibid.
[292] Smith, Megan (2016). *Computer Science for All*.
[293] Raj, Chetty (2018). *The Lost Einsteins*.
[294] Accenture (2016). *Cracking the Gender Code*. New York, NY: Accenture.
[295] Ibid.

Now, Girls Who Code educators can be engineers and engineers can be educators. Today, there are more than 7,000 facilitators hosting Girls Who Code clubs in cities across the country.

4. **Social Impact is a Powerful Motivator for Girls.** There is little awareness among parents and students that applying computing and coding to real societal problems can help change the world, which can be a powerful hook for girls and a magnet for women.

   To drive enthusiasm for coding and make the link between computing and coding to social impact, Girls Who Code has made the Computer Science Impact Project, where girls use the skills developed in the program to solve a community challenge, a core part of its Club curriculum.

5. **National and Local Campaigns to Raise Awareness About the Gender Gap in Coding & Drive Program Enrollment and Participation.** Girls Who Code continues to undertake both national and local media campaigns to raise awareness about the gender gap in coding and drive program participation.

   Girls Who Code's national campaigns aim to drive awareness of the technology skills gap, the gender disparity between men and women entering technology fields, the need to drive girls' exposure to computing and coding girls at a young age, and the role that Girls Who Code plays in addressing these issues. National campaigns leverage social media (e.g., Facebook, Twitter, Instagram), online and print publications (e.g., coverage in the New York Times, Washington Post, CNN), and television (e.g., Good Morning America, BBC, CNBC) to increase awareness about the need to close the gender gap in tech.

   Local campaigns aim to drive participation in Girls Who Code programs by raising awareness about the gender gap in computer science, tech as a future jobs-creator, and the field as one that gives girls an edge in college and in their careers. Girls Who Code works with local partners (e.g., corporations, schools, community centers, libraries, etc.) to increase awareness of the programming offered. To support these efforts, Girls Who Codes provides partners with a media kit with materials and guidelines on stakeholder engagement, program positioning and branding, promotional materials, and answers to frequently asked questions.

   Girls Who Code's recruitment team consists of Community Partner Managers who focus on building large partnerships with school districts, library networks, other non-profits and more to launch 5+ Clubs. Notable partners include Miami Dade County, Utah School Districts, Chicago Public Schools, Los Angeles Unified School District, Charlotte-Mecklenburg Schools and more.

RECOMMENDATIONS

1. **Consider Alternative Channels to Increase Capacity.** Alternative channels, including online and virtual platforms, are one way to expand reach of interventions. The channel selection should carefully consider the audience to ensure that target beneficiaries have access and the appropriate skillset to take advantage of the additional offering.

2. **Drive Local Relevance to Scale**. For other organizations looking to scale, it is important keeping in mind the importance of local and personal relevance. Girls who Code programs encourage girls to solve problems facing them and their communities. Girls Who Code have chosen to address the water crisis in Flint, Michigan; others have created apps to curb bullying; and still others have worked out

ways to solve the issue of too-small lockers at school. Girls Who Code provides girls with the fundamental skills they need to solve problems, and then encourages them to choose those they want to solve.

3. **Engage with Girls at a Young Age**. Programs should introduce girls to coding at a young age and in fun ways through computer games and toys. Programs should also contain elements that are aimed towards girls, such as raising awareness of how applying computing and coding to real societal problems can help change the world, which can be a powerful hook for girls and a magnet for women.[296]

4. **Ensure Facilitators Reflect the Audience**. Organizations that seek to introduce underprivileged girls to computing and careers in technology should implement strategies establish a diverse group of teachers and trainers. Facilitators should mirror the beneficiaries in terms of gender, ethnicity, and background, to inspire girls.

5. **Empower Grassroots Facilitators.** By implementing facilitator trainers, organizations can expand the pool of potential facilitators beyond those with direct applicable experience in computing. This will increase programming reach without sacrificing impact as the primary driver to facilitating careers in computing and technology is early exposure.

6. **Raise Awareness About the Gender Gap in Coding**. Designing and executing national and local campaigns can help address a lack of awareness and understanding of careers in computing and technology and the associated gender gap. These efforts can encourage program enrollment and participation.

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[296] Accenture (2016). *Cracking the Gender Code*. New York, NY: Accenture.

Harambee Youth Employment Accelerator

SNAPSHOT	
Organization(s)	Harambee Youth Employment Accelerator
Project Name	N/A
Location	South Africa
Date(s) of Implementation	February 28, 2015 – August 31, 2017
Funding Amount	USD 4,000,000
Partner(s) / Funder(s)	The Rockefeller Foundation's Digital Jobs Africa (DJA) Initiative
Number of Youth Beneficiaries Trained	Total: *approx.* 100,000
Number of Youth Beneficiaries Employed	Total: 12,319
Avg. Monthly Earnings of Youth Beneficiaries after Program	USD 350
Type(s) of Digital Work	Online Outsourcing – Microwork Online Outsourcing – Freelancing Online Outsourcing – Business Process Outsourcing
Source of Metrics	Mid-term evaluation Internal monitoring & evaluation

ABOUT HARAMBEE YOUTH EMPLOYMENT ACCELERATOR

Harambee is not-for-profit company established to accelerate youth inclusion in South Africa. Addressing barriers in the labor market, Harambee provides an end-to-end, solution that is designed to transition disadvantaged 18 to 28-year-old unemployed work seekers, with no prior work experience, into entry level jobs. Harambee's model identifies specific sectors in the South African economy where there are existing and potential labor absorption opportunities and emphasizes the need to understand the recruitment needs of employers in these sectors.

The DJA project was used to leverage the core competencies and operational processes of Harambee to accelerate:

- The development of a work-ready pool of candidates to enable the growth of a digital jobs talent pool and accelerate placement and retention of young work seekers.
- The inclusion of young work seekers from poor backgrounds in the formal mainstream economy.
- To promote skills-led economic growth beyond 2014.

Harambee prepares beneficiaries to enter the job market by providing fit-for-purpose work readiness and behavioral skills interventions (called bridging programs) that directly address the risks identified by employers. Harambee facilitates the placement of beneficiaries by inviting employers to interview applicants who have completed the bridging program. Employers then select and offer open positions to candidates who meet their requirements.

On the demand side, Harambee works closely with employers to understand their requirements for new employees, including types of positions, number of candidates needed, and the profile of candidates most likely to succeed in those positions. Harambee vets its employer partners to ensure that the work into which beneficiaries are placed is dignified and not exploitative. Harambee runs diagnostics with employers to understand the work environment and conditions like hours, wages, job tasks, and work attire. It asses the culture of the organization, how teams are structured, and the performance metrics against which employees are measured. Harambee also encourages employers to not ask questions that are biased against those with job experience.

On the supply side, Harambee recruits candidates where existing corporate networks do not reach, and assesses their behavioral and technical competencies to match them to jobs where they are most likely to succeed.

PROJECT DESIGN & IMPLEMENTATON

Program Design	Supply-Side Components		Demand-Side Components	
	Training & Skills Development	✓	Improving Access to Finance for SMEs	×
	Employment & Intermediation Services	✓	Capacity Building & Information Provision	✓
	Subsidized Employment	×	Targeted Sector-Specific Approaches	×

ACTIVITIES

Harambee carried out the following activities within the DJA project period:

- **Demand-side planning to secure 2,500 digital jobs and digitally enhanced jobs in retail, hospitality, transport, financial service and BPO.** Harambee secured placement with 35 employers in this regard. Harambee employs highly skilled and experienced Key Accounts Managers (KAM) to facilitate and oversee engagements with employers. Key account managers will identify and target clients and secure job opportunities to 'activate demand.'

- **Functional competence work-readiness bridging.** Harambee implemented 'bridging programs' to support placements in BPO and financial services. Bridging included improving conversational English, voice requirements for BPO, critical digital skills such as IT-based multi-tasking, touch-typing and numerical aptitude, and soft skills such as communication, punctuality, self-awareness and self-confidence. Trainees were also provided access to computer labs to improve their computer literacy.

- **Supply-side work seeker support services.** Harambee provided intensive interview preparation sessions, group and individual career counseling, job search coaching, direction, mentoring, guidance on developing a CV, digital citizenship with email address, and detailed assessment reports.[2]

- **Forums to strengthen enabling environment.** Harambee convened two forums on digital jobs for youth in 2014 and 2015, bringing together labor economists, government officials, industry representatives, corporate HR practitioners and social investment funders.

- **SME Solutions.** In South Africa, according to Harambee, over 50% of hiring is done by SMEs. Harambee recognizes that the SME sector is a difficult market to crack for multiple reasons. The sector is poorly organized and dispersed and SMEs tend to have limited HR resources. As a result, and to respond to the potential of the SME sector, Harambee has developed an "SME Solutions" dedicated unit within its organization to develop strategies to overcome barriers in working with SME employers.

RECRUITMENT

Harambee recruited marginalized youth that were excluded from the formal labor market. Beneficiaries were South African citizens between 18-24 years old who came from poor families and had completed high school. The secondary school requirement shows the commitment and persistence of the applicants. Beneficiaries were required to have less than one year's work experience and had to have been looking for full-time employment for at least six months. The six-month requirement is to show youth the appreciation for the difficulty of finding employment.

Potential beneficiaries were reached in several ways. Harambee's 'Feet on Street Campaign', where recruiters campaigned in poor neighborhoods, was one of the main tools used by the organization to reach and attract young people. Other methods included Harambee's Facebook page, outreach campaigns through email and job search platforms, mobile phone contact systems and referrals from community-based partners, faith-based organizations and youth clubs.

Successful applicants completed two stages in the selection process:

- **Stage One: Phone Screening.** Applicants were interviewed telephonically by Harambee employees. The purpose of the interview was to ensure that applicants met the criteria to confirm that Harambee was sourcing youth from their target demographic.

- **Stage Two: Computer-Based Assessments.** Applicants who met the criteria were invited to visit Harambee's office and complete a suite of computer-based assessments which were designed to assess work-readiness, capacity to learn and suitability for different kinds of entry-level jobs.

Approximately 50% of those who are assessed are selected to attend the Bridge programs. Low numeracy skills and poor command of the English language are the primary reasons that those who are tested are not suitable candidates for Bridge programs.

Applicants who did not pass the assessment tests were invited to take part in the 'Step-Up program'; an in-house self-directed study program where young people who failed the assessment could work to increase their proficiency in literacy and numeracy. Once they completed the required content they were re-invited for the assessment.

BRIDGE PROGRAM RETENTION

200,000
Applicants

50%
accepted

Of the estimated 200,000 applicants, approximately 50% were invited to attend the bridge program which was tailored to the kinds of BPO and digital jobs for which the applicant was most suited. The combination of the screening phase and the computer-based assessments helped Harambee determine candidates' suitability for various entry-level BPO and digital jobs. Once this was complete, Harambee facilitated the placement of beneficiaries.

Retention was a key aspect of the digital jobs program. Harambee believes that young people who stay employed for more than six months increase their chance of remaining in employment over the long term. In addition, retention is a benefit for employers who typically experience high churn in entry-level positions.

Harambee have found that retention risk is highest in the first three months. To minimize retention risk, Harambee tried to reduce beneficiaries' transport costs by ensuring that they were one taxi ride away from a job.

In the retail sector, Harambee found that there was a link between attrition and the festive season. Long, irregular hours over the festive season and associated transport challenges increased retention risk exponentially and 60% of Harambee's resignations occurred in the festive season between December and February. Therefore, Harambee attempted to ensure beneficiaries were acclimatized to the work environment before the high-risk period.

IMPLEMENTATION CHALLENGES

The biggest challenge faced by Harambee was overcoming beneficiaries' transport costs associated with attending the assessments and traveling to work. Young people living in some areas could not be placed in employment opportunities close to where they live because there was very little economic activity in the area. Harambee's solution was to try to ensure that youth are one taxi ride away from a job. Harambee considered the distance travelled from work to home, and used the cost of transport when deciding which candidates to put forward for certain jobs. However, this accommodation was not always achievable.

BENEFICIARY EXPERIENCES

> *"The training prepared me for the long hours … [the training] gave me the skills I needed to deal with customers who are demanding and rude and to work in a team with my colleagues."*
>
> *Harambee beneficiary, South Africa*

During the training, female beneficiaries took their children to day-care facilities or left them with family members so that they could attend the training. Though Harambee does not specifically target or tailor the program to women, nor do they deliberately pursue a gender-focus, 60 percent of participants in Harambee are young women. The disproportionate number of women that apply to the program is indicative of the interest young women have in pursuing employment opportunities through Harambee. Another hypothesis of the high number of women is that many of the female candidates have children or family dependents and are in need for an income.

Female beneficiaries reported that they find the training useful and practical. They further reported that they gained valuable skills on how to prepare for interviews, conduct themselves in the workplace and adequately handle the pressures of the work environment.

EMPLOYMENT OUTCOMES

12,319	13,367	12,500
youth beneficiaries placed into entry-level employment	youth beneficiaries self-placed into employment	youth beneficiaries provided with work-seeker support

Harambee established a placement pipeline with 12,319 candidates placed into entry-level full-time jobs from Q3 2015 to Q3 2017. Beneficiaries were placed in jobs in the retail, hospitality, BPO, ICT, manufacturing and financial services sectors. An additional 13,367 beneficiaries self-placed into employment opportunities. The jobs that they secured were of similar nature and in similar sectors to those in which Harambee facilitates placement.

Harambee further provided work-seeker support to 12,500 youth across South Africa. This refers to support provided to youth to improve their ability to independently find work in the digital economy.

USD 350
average monthly income

In 2015, beneficiaries employed in BPO organizations earned an average of USD 350 per month.[297] Program staff reported that Harambee graduates accessed higher quality jobs, with greater access to benefits such as medical aid and pension funds.

Harambee established partnerships with over 300 employers in several sectors across the economy including retail, hospitality, BPO, ICT, manufacturing and financial services.

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[297] Genesis Analytics (2015). *A mid-term evaluation of Harambee Youth Employment Accelerator*. South Africa: Genesis Analytics.
[2] Clinton Global Intiative. (n.d.). *Commitment by Harambee Youth Employment Accelerator Initiative.* New York, New York: Clinton Foundation. Available at: https://www.clintonfoundation.org/clinton-global-initiative/commitments/harambee-youth-employment-accelerator-initiative.

KEY FINDINGS

1. **Young women – particularly those with children – had a stronger intrinsic motivation to actively participate in the program than young men.** Of the estimated 200,000 applicants, approximately two-thirds young women. Program management suggested that this was likely because, in South Africa, the responsibility for looking after and supporting children typically lies with the mother or other female relatives. These women thus have a greater intrinsic need to obtain employment and earn an income so that they can fund the needs of their children.

   This was reinforced through the DJA evaluation of impact case studies, where one female Harambee graduate noted that she was "very worried about [her] situation when [she] fell pregnant" as she was not sure how she would be able to support her child. After the Harambee training, however, she noted that she and her child were much better off and she is now able to support her child.

2. **The Harambee model and the training that accompanied it enabled beneficiaries who were not placed into full-time work opportunities to secure employment on their own.** 17,500 beneficiaries have self-placed into employment opportunities as a result of the training provided by Harambee.

RECOMMENDATIONS

1. **Digital jobs programs should incorporate training on coding into their initiatives.** Coding is one of the fastest growing skillsets in the global information technology industry. This presents a potential area of absorption for young people. However, there is very little demand-side coordination in the coding sector and employers have long waiting periods of readiness for opportunities. Greater coordination between employers is required to fully leverage the opportunities provided by coding.

2. **Digital jobs programs should prioritize building communication skills for youth.** International call centers present large-scale opportunities for youth employment. These centers require workers to be competent and confident in their professional communications abilities. It is imperative to shift the communication competence of young people for these opportunities to be realised.

3. **Looking at the broader youth employment landscape in South Africa and including public sector stakeholders is crucial for future program sustainability and overcoming the wide-spread challenge of youth employment.** Funding should be channeled to what works, and what has been proven to be successful in overcoming the barriers to youth employment. This requires that stakeholders combine innovation with what has been successful to develop widescale, sustainable youth employment initiatives. Further, this requires that exit strategies are envisaged prior to implementation, that technology platforms are leveraged to increase reach of training, and that the public sector invests in developing and growing the ICT skills base.

Laboratoria

SNAPSHOT	
Organization(s)	Laboratoria
Project Name	N/A
Country	Peru, Chile, Mexico, Brazil
Date(s) of Implementation	2014 – present
Funding Amount	USD 4,000,000
Partner(s) / Funder(s)	Microsoft; Citi Foundation; Google.org; Omidyar Network; BlackRock
Number of Youth Beneficiaries Trained	Total: 820 | Women: 820 | Men: 0
Number of Youth Beneficiaries Employed	Total: 600+ | Women: 600+ | Men: 0
Avg. Monthly Earnings of Youth Beneficiaries after Program	USD 850
Avg. Length of time for Youth Beneficiaries to find work	2 months
Avg. Change in Beneficiary Income	300%
Type(s) of Digital Work	Private Sector – ICT Sector Private Sector – IT Sector Digital Entrepreneurship
Source of Metrics	Internal monitoring and evaluation

ABOUT LABORATORIA

Laboratoria is a coding bootcamp and job placement established in 2014 that combines applied coding education, socio-emotional training, and deep employer engagement to create opportunities for students. The bootcamp targets low-income women who are, on average, in their mid-twenties. Laboratoria operates in Peru, Chile, Mexico and Brazil, and has the goal of reaching 5,000 young women by 2021.

Laboratoria is a social venture where students only pay for the program in low monthly installments only after they have completed the six-month bootcamp and have a secured job. Laboratoria has been supported by Microsoft as well as partners such as the Omidyar Network, the Inter-American Development Bank (IADB), the Citi Foundation, BlackRock and Google.

PROJECT DESIGN & IMPLEMENTATON

Program Design	Supply-Side Components		Demand-Side Components	
	Training & Skills Development	✓	Improving Access to Finance for SMEs	×
	Employment & Intermediation Services	✓	Capacity Building & Information Provision	✓
	Subsidized Employment	×	Targeted Sector-Specific Approaches	×

ACTIVITIES

FIGURE 1 **LABORATORIA PROGRAM MODEL**
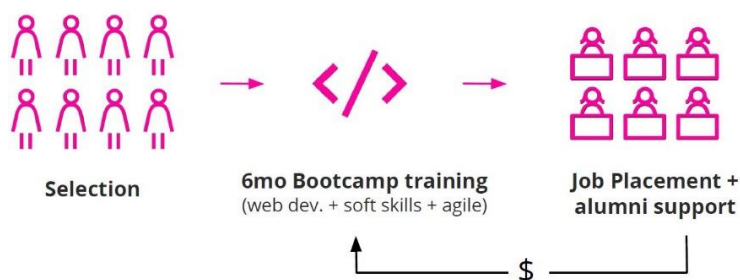
Source: Laboratoria website, www.laboratoria.la

SELECTION

Laboratoria conducts a thorough screening process to identify high-potential young women from low-income backgrounds. Through a selection process that includes exams, an introductory course to programming, a personal interview, and real class dynamics, Laboratoria collects over 60 data points to identify those applicants with the potential to successfully complete the intensive training process and enter jobs in the IT industry.

BOOTCAMP TRAINING

Laboratoria offers a six-month bootcamp that teaches young women the essentials of coding. The program starts with a common core, where students all cover the same content, before branching off into specializations. Beneficiaries have the option of focusing on front-end development or user-experience (UX) design. The curriculum for developers includes training in JavaScript, HTML, CSS and other highly demanded software tools. UX Designers graduate with a unique profile that combines coding with UX skills.

Laboratoria has incorporated several strategies into its bootcamp training:

Classes that Mimic Work

Instead of following a traditional educational model, Laboratoria participants learn as if they were working. The learning model that Laboratoria uses is known as the 'Agile Classroom.' Each 'sprint' is a two - three-week unit, works toward developing a product, such as an app that predicts a public transportation user's card balance after taking a subway ride. Each Sprint begins with a Sprint Planning Meeting where the students create plans on how to work for the next few weeks. Every Sprint ends with a Sprint Retrospective, to understand the lessons learned and learn from the mistakes made. The students thus learn to organize themselves in teams, divvying up responsibilities and setting their own timelines. Finally, much of the training is self-paced—a skill crucial for advancement in the tech industry.[298]

Business-directed Curriculum

Laboratoria works closely with tech companies in Latin America and Silicon Valley, surveying hiring managers to learn what skills are required for web developer openings. The curriculum is project-based and open-source, and is shared widely with developers and industry professionals for feedback. With this feedback, as well as that of hiring companies and Laboratoria's own tech team, Laboratoria creates an education program that would prepare its students to earn a job immediately after graduation. By adding skills needed for the most hard-to-fill positions, Laboratoria equips its students to enter high opportunity jobs where companies are hungry for talent. Laboratoria also shares its curriculum with interested education institutions, and nonprofit staff have met with several universities in Peru.

Complementary Technical and Soft Skills Training

Laboratoria's program has a strong focus on life skills, which are intertwined with how technical skills are developed. Project-based learning helps ensure that students develop skills such as teamwork, communication, self-awareness, planning and time management, and problem-resolution. The soft skills program has two parts. The first part occurs in the first month of the program, during which young women participate in training modules on stress management, gender issues and identity, and effective communication. The second part takes place towards the end of the training program, and is more focus on employability. Training module topics include interview preparation, workplace culture, and financial management.

Values-based Learning

To increase retention rates, and ensure that women are truly prepared for entering formal employment opportunities, Laboratoria creates a culture based on an inclusive and participatory learning strategy. Beneficiaries are expected to be in charge of their own learning processes, displaying their commitment to pursuing IT-related education and employment. Program staff help to cultivate a growth mindset, where students develop the belief that they can overcome challenges with the encouragement, support and tools that Laboratoria provides to them. Laboratoria provides a safe space for beneficiaries to experiment, make mistakes, and to provide feedback to each other and to staff.

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[298] World Bank (forthcoming). *Women Wavemakers: Practical Strategies for Attracting and Retaining Women in Coding Bootcamps.* Washington, DC: World Bank Group.

JOB PLACEMENT & ALUMNI SUPPORT

Laboratoria's job placement team continues communication with companies that have hired its graduates to ensure the match goes well. If a graduate needs additional training to meet the demands of her new job, for example, Laboratoria can customize her extended training to fill those gaps.

Talent Fest
Just before graduating from the six-month boot camp, Laboratoria students participate in Talent Fest, a 36-hour hackathon. Participating companies provide a real web development problem they face, and teams of student's brainstorm, problem-solve and present solutions. Each company is assigned to a squad of 3 to 4 students, who are presented with real life challenges during a ten-minute overview by each firm. Companies have access to historical data on students' performance throughout the bootcamp. Laboratoria also provides a live evaluation tool used by the companies to assess the real-time performance of the students with an eye to both technical and soft skills. The companies which have been part of this fest in the past are Lyft, BCP, Scotiabank, Tekton Labs, GMD, Ministerio de la Producción del Perú, Urbaner, ThoughtWorks, Globant, Everis.

The in-person participation in the Talent Fest gives companies the chance to see firsthand how the young women work, providing crucial insight into finding the right fit for openings. At the same time, the companies hold interviews. Based on research conducted with 52 companies in Latin America, Laboratoria discovered that firms typically spend between one to three months to recruit a candidate. At least 3 staff members are usually involved in the process. Thus, this efficient process is especially appealing to businesses, which can cut the time required to find and hire a new employee from 3 months to just a few days.

The companies participating in and sponsoring Talent Fest have first access to Laboratoria's pool of talent, but other businesses can pay to browse students' profiles as well. Students' profiles include details on the technical skills they are trained in as well as insight into their interests and how they work. This additional layer of information helps hiring managers identify candidates who are most likely to thrive in their company's culture and work environment. Each company also pitched to the teams, providing information on company culture, structure and hiring process.[299]

Alumni Services
Laboratoria supports its graduates with community and education services once they graduate. There are technical workshops organized based on student demand and community events to connect with fellow alumni.

Private-Sector Partnerships
Laboratoria partners with more than 200 companies to fill the needs of businesses and empower graduates to enter a professional field. They engage in placement events, student and alumni workshops and other opportunities.

Mentorship
When students near the completion of the boot camp training and begin their job search, Laboratoria pairs them with mentors from the technology field. The one-on-one attention helps the budding web

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[299] Ibid.

developers prepare for interviews or finesse a LinkedIn profile. Thanks to word of mouth, news articles about the nonprofit and partnerships with local companies, Laboratoria has no trouble finding enough mentors.

ADDITIONAL SERVICES

Digital Transformation
Companies undergoing digital transformation can enroll in Laboratoria for Business, an in-person course that walks groups of employees through the process of digital modernization.

RECRUITMENT STRATEGIES

4,000	**60**	**9%**
applicants	**data points gathered**	**accepted**

Most of Laboratoria's target beneficiaries use social media platforms such as Facebook and Twitter. Laboratoria uses promotional videos featuring their students to recruit new cohorts four times a year. In the last 3 years, over 7,500 women have applied to Laboratoria. The bootcamp received over 4,000 applications for their most recent 2017 cohort, and accepted only 9% of applicants.[300]

An application process, which includes an interview and a test to gauge their aptitude for learning and persevering (but not existing understanding of CS), helps the nonprofit identify a cohort of 40-60 new students in each site. Additionally, Laboratoria assesses its applicants using psychological tests designed by professional psychologists.

IMPLEMENTATION STRATEGIES

Promote Teamwork. In order to promote teamwork, a "Learning Squad" is created of 6-8 students that work to accomplish a certain goal for the Sprint. For every Sprint, a new Squad is formed. This helps in improving the ability to create new working relationships every 2-3 weeks. Each Squad is appointed a coach "Jedi Master". The Squad meets daily with their coach and starts the day with a Daily- Standup. A Daily Standup is when students reflect on what goals they achieved the previous day.[301] They decide internally how they can communicate with each other. Teams have used Slack, WhatsApp groups and G-chat.

Grading System. Laboratoria does not follow the standard grading system. Instead, it follows the points-and-rewards system. Students earn points for performance, effort, and outstanding behaviors. They also can win rewards through individual or group achievements.[302]

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[300] Average of 2017-II cohorts in Peru, Mexico and Chile.
[301] World Bank (forthcoming). *Women Wavemakers: Practical Strategies for Attracting and Retaining Women in Coding Bootcamps.* Washington, DC: World Bank Group.
[302] Ibid.

Provide Counselling. Laboratoria has 2 psychologists as part of their staff to help build the women's self-esteem during the program. They also provided mental health support for the students coming from low-income families who are dealing with stress or any personal issues such as violent intimate relationships.

Learning Management System. Laboratoria has developed a learning management system (LMS) so that students can practice more at home. The LMS allows students to measure their progress and complete practice exercises. These features are inspired by Khan Academy tutorials and videos.

Placement Application. Laboratoria has developed a placement application that directly connects hiring companies with bootcamp graduates**.**

BENEFICIARY EXPERIENCES

Laboratoria graduate Lizeth Kenny Lopez Zamudio took a Microsoft Azure workshop provided by a Microsoft Philanthropies grant, where she learned to use new software platforms, programming languages and artificial intelligence. She now uses those skills at her job in a financial services company by programming customer service chat bots, working remotely on a virtual machine and presenting case studies on Azure.

> *"I'd like to build something to help someone. I always had that eagerness to help and advance myself."*
>
> *Lizeth Kenny Lopez Zamudio, Laboratoria graduate and web developer*

SUSTAINABILITY

The fee structure for Laboratoria is unique – students only start paying for their program only once they graduate and find a job. Laboratoria's tuition scheme allows for low or no fees for low-income students, which are later recouped through a 10 percent contribution from salary for 24 months once they graduate and are employed. This provides additional incentive for female candidates to join the program.

Laboratoria financial model is based on several additional components:

- **Grants.** (including support from Microsoft) and recognition (from MIT and Google, for example), the nonprofit's leadership committed to the goal of becoming self-sufficient by 2021. They have built-in revenue streams to fund their work in several ways.

- **Student repayment.** Laboratoria charges employed graduates a small monthly education fee, which "pays back" the free training they received in the six-month boot camp. Graduates pay 20% of their monthly salary, and an average working graduate will pay around USD 180 a month. Not only does the fee help cover the cost of ongoing education; it deepens graduates' long-term connection to Laboratoria, Martinez Franklin says.

- **Hackathon sponsorships.** With a USD 1,500 sponsorship fee, a company can participate in Laboratoria's Talent Fest, a 36-hour hackathon that tasks teams of soon-to-graduate students to solve companies' real problems. It's not uncommon for companies to hire students there on the

spot, Martinez Franklin says, and the immediate value to companies means the nonprofit has no trouble securing sponsors.

- **Hiring fees.** Companies that are looking for new sources of talent pay to access Laboratoria's job placement web app, where potential employers can browse graduates' profiles and filter candidates by coding language or technical capabilities. The app includes data on each graduate's technical and soft skills, location, job title sought and proficiency in English.

- **Expansion.** The organization is working to expand sustainably. Although the nonprofit has explored assorted options for widening its reach, including a franchise model, Laboratoria is still maintaining control over all launches of new sites while working with on-the-ground partners in new sites.

EMPLOYMENT OUTCOMES

820	**600+**	**2 months**
trained	**employed**	**average time to find job**

Laboratoria has established a successful career pipeline that has placed over 600 young women into digital jobs. Graduates work in more than 250 companies such as Everis, Accenture, IBM and Scotiabank. Laboratoria also boasts a 90% rate of employer satisfaction with Laboratoria hires.

KEY FINDINGS

1. **Necessary skills need to be provided.** The first group of young women to graduate got jobs in prototyping, yet those positions didn't offer as much potential for advancement. The women may lose out on jobs due to not knowing programming or computer science. The cohorts at Laboratoria are now equipped with the necessary skills.

2. **Self-learning must be at the core of the program.** If students do not learn to learn by themselves during their time at Laboratoria, they have a challenging time adjusting to the continuous learning needs at the job. This is why Laboratoria's teaching methodology has evolved to have self-learning at its core.

3. **Support from family improves performance.** In Laboratoria's very first cohort, staff found that young women with the support of their family were more successful during the very intensive training. Now they invite families to visit and learn about Laboratoria at the welcome session, mid-program and at graduation, and pushback from family members is much less common.

4. **Selection process was not intensive enough.** The most painful part of running Laboratoria, Martinez Franklin says, is when a young woman drops out of the program or chooses not to pursue a web development job. So, interviews now focus more intently on the traits (e.g., determination, creativity) that enable young people to stick with an intense program.

RECOMMENDATIONS

1. **Adaptable and flexible skills training organizations.** in a rapidly changing labor market, organizations focusing on skills training must be able to adapt and change at a rapid change, following market demand and applying learnings from every cohort. This agile pace is crucial to consolidate programs that can remain relevant and prepare competitive talent

2. **Holistic approach to training.** no technical skill will lead to employment if students lack crucial soft skills for work, such as communication, teamwork and the capacity to receive and give feedback. Skill-building programs must design practical ways of building both in short periods of time through immersive, work-like experiences.

3. **Close connection to market demand.** skills building programs must follow closely market needs, working in close connection with employers to assess how fast they can grow and how to evolve their programs.

Maharishi Institute

SNAPSHOT	
Organization(s)	Maharishi Institute
Project Name	N/A
Location	South Africa
Date(s) of Implementation	August 1, 2015 – December 31, 2016
Funding Amount	USD 850,000
Partner(s) / Funder(s)	The Rockefeller Foundation's Digital Jobs Africa (DJA) Initiative
Number of Youth Beneficiaries Trained	Total: 872 | Women: N/A | Men: N/A
Number of Youth Beneficiaries Employed	Total: 772 | Women: N/A | Men: N/A
Type(s) of Digital Work	Online Outsourcing – Microwork
Source of Metrics	Internal monitoring & evaluation

ABOUT MAHARISHI INSTITUTE

Maharishi Institute offers unemployed youth in South Africa the opportunity to be trained for the BPO and IT sectors and to place them in jobs in the BPO and IT sectors thereafter. Maharishi implements a one-year program designed to be a longer term, sustainable solution to building youth's resilience and improving their employability. The program comprises of the following:

- Induction
- Call center training
- Soft skills training
- Call-center simulation and campaign training
- Nine months of placement in a call center with regular training interventions

In addition to the year-long program, Maharishi runs the Impact Sourcing Academy (ISA). The ISA takes place over 2-3 weeks and is designed to meet employers' immediate needs regarding the hiring of youth. Maharishi Institute decided to replicate the Impact Sourcing Academy in Kwazulu-Natal (KZN), one of South Africa's largest provinces. KZN has a youth unemployment rate of over 60% and a growing BPO sector.[303] KZN offered an opportunity for Maharishi to expand operations in a high-potential area.

Maharishi implemented the ISA program through the DJA grant over periods of 2-3 weeks. However, the duration of the program was determined by the client's needs. Therefore, in selected cases the program was longer than three weeks.

The ISA provided beneficiaries the soft and technical skills required for a smooth transition into the workplace. This included training on handling objections, workplace readiness, and necessary on-the-job

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[303]303 Statistics SA (2017). *Quarterly Labor Force Survey: Quarter 2 2017*. South Africa: Statistics South Africa.

skills. After the 2-3 week training, youth were placed with organizations who had shown an interest in Maharishi's model and were actively pursuing impact investing. The training, combined with appropriate placement matching, aimed to improve client satisfaction and reduce staff turnover for employers.

Maharishi Institute developed National Qualification Framework (NQF) 2, NQF 3 and NQF 4 accredited training material during the grant period and received provisional accreditation for each program level. This meant that beneficiaries received an accredited qualification that strengthened their employability and increased their employment options after the program.

PROJECT DESIGN & IMPLEMENTATON

Program Design	Supply-Side Components		Demand-Side Components	
	Training & Skills Development	✓	Improving Access to Finance for SMEs	×
	Employment & Intermediation Services	✓	Capacity Building & Information Provision	×
	Subsidized Employment	×	Targeted Sector-Specific Approaches	✓

RECRUITMENT

Maharishi Institute targets bottom of the pyramid, unemployed youth from the local communities in which it operates. To advertise its program, Maharishi uses radio, word of mouth and online advertising through its online portal.

Maharishi used the following selection criteria for their recruits:
- Minimum of a matric certificate[304]
- Basic communication and comprehension skills, tested through the interview
- Basic literacy, tested through the interview

IMPLEMENTATION CHALLENGES

It was difficult to gain buy-in from employers in KZN. In Johannesburg, the BPO sector is more established, with several organizations providing a similar service to that of Maharishi Institute. As such, there is an existing demand for impact sourcing. However, impact sourcing was less prevalent in KZN - Maharishi Institute at the forefront of creating and growing the demand for impact sourcing. Many potential partners did not initially see the benefits of hiring trained youth from Maharishi, and needed to be persuaded that the program delivered improved client satisfaction and reduced staff turnover.

BENEFICIARY EXPERIENCES

Maharishi Institute trainers report receiving positive feedback on an ad-hoc basis from beneficiaries. Most youth beneficiaries valued what they were taught and felt that they were better prepared for the

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[304] The Matric Certificate is the school-leaving certificate in South Africa.

workplace because of the training. Due to the soft skills training, female beneficiaries reported on feeling more resilient to challenges in the workplace. Being more prepared helped beneficiaries feel more confident and thus present themselves better in the workplace.

Maharishi Institute noted the importance of communicating with beneficiaries around the content of the program, what types of jobs they can expect after the program and the approximate wage they will earn from these jobs. This is particularly important to ensure that youth's expectations are met and that they do not become despondent post-training. Where youth's expectations are not met, they have a false sense of hope and disappointment, which has the potential to lead to individuals discontinuing the job search and thus creating a cycle of despondency.

EMPLOYMENT OUTCOMES[305]

772	75%
youth beneficiaries employed	**retained for at least 3 months after program**
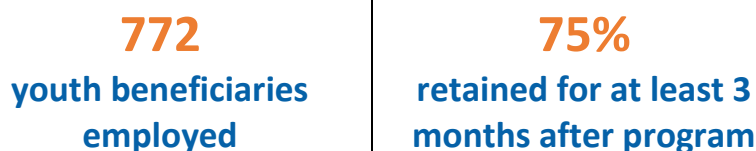
During the grant period, 772 youth were trained and placed in employment opportunities and a further 100 were in the process of being recruited and trained when the grant period came to an end, bringing the total number of beneficiaries to 872 youth.

Beneficiaries were placed in call center employment opportunities upon completion of the training. At least 75% of the trainees placed were retained for at least three months after completing the program. Beneficiaries, both men and women, reported being more confidence and more resilient to challenges and barriers in the workplace.

KEY FINDINGS

1. **Lack of communication skills was reported as the main reason the beneficiaries were unable to secure employment opportunities.** Beneficiaries often struggled to effectively communicate their skills and experience with potential employers. The ISA was key to overcoming this barrier and enabling the youth's employability.

2. **Lack of resilience is a major challenge for youth seeking and remaining in digital employment.** Many marginalized youth are not taught how to cope with workplace challenges, such as time management and conflict with team members. As a result, they leave their jobs when they are faced with challenges. ISA helped to overcome this challenge by training youth on the likely challenges they may experience and mechanisms through which to manage these challenges.

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[305] Typically, Maharishi Institute tracks learners post-placement through their networks with employers which have been established over time. However, this wasn't prioritized for the DJA grant given the timing of the grant (approximately one year in duration) in relation to the time required to establish employer networks, train the youth and allow for sufficient time between the training and the follow up with learners. Instead, the monitoring and evaluation (M&E) focused on the individuals during their training.

3. **Lack of previous experience is a big considerable barrier challenge for youth seeking first time employment.** By placing beneficiaries in call center jobs, Maharishi Institute addressed the youths' need for relevant work experience.

RECOMMENDATIONS

1. **Communication skills are a fundamental part of training and should be incorporated into all digital jobs programs**. Communication skills training gives beneficiaries the tools to effectively sell themselves and their skills in an interview and adequately present themselves in the workplace.

2. **Training organizations need to be clear with youth around what they should expect from the program.** Program staff should clearly communicate information on the content of the training, placement opportunities, types of jobs that they will be placed in, and their earning potential.

3. **It is valuable to secure a major client before setting up in a new region**. Successfully expanding into any new area is enabled by having buy-in and support from one organization which marks the way for other organizations.

4. **The training accreditation process is arduous but it is essential to give a student a valuable qualification and long-term career opportunity**. Offering higher-level education opportunities beyond just work-based training is essential to make beneficiaries resilient and to get them beyond being the 'working poor'. These transferable skills are a far more attractive proposition to the beneficiary and potential employers and has been found to align with improved retention, performance, and focus.

5. **Programs which include training and work experience yield the best results in terms of youth's future employability.** Including work experience as part of a training program provides youth with first-time work experience which is frequently noted as being a key barrier to the youth's employment. These types of programs thus facilitate youth's entry in the labor market by overcoming this barrier. Additionally, work experience gives youth a safe space to grow their skillset and confidence, which are key determinants of future employability.

6. **Holistically developing students is critical as it makes a major difference in customer service ethic, as well as harmony in the call centre environment.** As a result, digital jobs programs should incorporate both soft skills and technical training components.

7. **The right kinds of partners, and in Maharishi Institute's case, particularly existing BPOs, are critical to scaling and growth.** Partnerships also ensure decent work opportunities, and can help to implement benchmark global quality standards.

Saksham

SNAPSHOT	
Organization(s)	PLAN International
Project Name	Saksham
Location	Delhi, Hyderabad, Uttarakhand; India
Date(s) of Implementation	May 2010 – Present
Funding Amount	USD 2.3 million
Partner(s) / Funder(s)	Wheelabrator France; W. Diamant; Accenture; Bombardier; GSRD Foundation; Exxon Mobil; Deutsche Banks
Number of Youth Beneficiaries Trained	Total: 6,000 | Women: 3,660| Men: 2,340
Number of Youth Beneficiaries Employed	Total: 4,550 | Women: 2,690 | Men: 1,860
Number of Youth who created/registered new enterprises	Total: 1,200| Women: 900 | Men: 300
Number of Youth who became self-employed	Total: 600| Women: 500 | Men: 100
Avg. Monthly Earnings of Youth Beneficiaries after Program	USD 150 – USD 160[306]
Type(s) of Digital Work	Private Sector: IT sector Private Sector: Non-IT sectors Digital entrepreneurship
Source of Metrics	Internal monitoring and evaluation

ABOUT SAKSHAM

Saksham provides young people with market-led trainings, support for transition into decent employment, entrepreneurship training and opportunities to work with their communities. This enables them to obtain employment in the private and public sector or become self-employed. Saksham's approach is guided by the principles of decent employment, which focuses on creating an enabling environment, promoting equal wages and supporting freedom of expression for youth.

Gender mainstreaming[307] is an important strategy across all areas, and is promoted by:
- Systematically analyzing concerns of women and men through all program design phases;
- Implementing targeted interventions designed to enable women and men to participate equally in, and benefit equally from the program;
- Linking with the Safe Cities program; and
- Ensuring monitoring and evaluation of results using gender-disaggregated indicators.

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[306] 8-10% average increase per year.
[307] Gender mainstreaming is the integration of a gender perspective into the preparation, design, implementation, monitoring and evaluation of programs, with a view to promoting gender equality.

PROJECT DESIGN & IMPLEMENTATON

Program Design	Supply-Side Components		Demand-Side Components	
	Training & Skills Development	✓	Improving Access to Finance for SMEs	×
	Employment & Intermediation Services	✓	Capacity Building & Information Provision	×
	Subsidized Employment	✓	Targeted Sector-Specific Approaches	×

ACTIVITIES

Youth Employment

The SAKSHAM program offers a matrix of activities within each of six program verticals. The elements work together to help youth to gain skills and be placed into decent job opportunities, eventually resulting in youth economic empowerment.

Saksham's program verticals include:

- *Job-Oriented Vocational Training (JOVT).* This refers to all processes and trainings undertaken in Saksham to provide youth access to job oriented vocational training and support to transition into formal jobs.

- *Skills Development Training.* Computer and digital skills training, along with complementary skills such as life-skills, workplace communication and financial literacy training.

- *Counseling and Aptitude Testing for Trades.*

- *Gender Equality and Life-Skills Training.*

- *Job Preparedness Trainings and Job Placement.* Youth are provided support in terms searching suitable jobs based on their interest and aptitude. Youth participants are provided with training on workplace communication, developing CVs, emailing and browsing, facing interviews etc. This helped participants to get ready before they face interviews with employers.

- *Post-Placement Support and Mentorship.* Saksham ensures follow up for at least 6 months after placement. Sustainability is sought on the personal level by ensuring the trained youth are empowered to deploy their skills to achieve their goals of decent work and economic security.

Youth Entrepreneurship

SAKSHAM also offers the following services to promote youth entrepreneurship:

- **Vocational Training for Entrepreneurship Promotion (VTEP).** Training was provided on key components of how to set-up self-employment units, sourcing seed-capital, developing a business plan (including market feasibility for a particular product/ service, calculation of opex and capex,

break-even analysis etc.), identification of suppliers / vendors and sellers/buyers to forge forward and backward market linkages, establishing linkages with government/ other welfare schemes (if any), developing local mentorship networks for supporting budding entrepreneurs to seek essential business operation's know-how.

- **Link to microfinance institutions.** Youth beneficiaries were also linked to community managed microfinance institutions such as Self-Help Groups so that they can seek financial and other assistance.

- **Access to government subsidies.** Young people were provided with access to various governments based subsidies or schemes (if any) to source the seed-capital to set-up self-employment units.

Program Modifications

Over the past few years, SAKSHAM has modified its program design and implementation strategies to include:

- **Carrying out a market intelligence study before commencement of project (periodic updates).** The SAKSHAM staff conducted this study before the commencement of the program. Staff collected data to understand gender-based job requirements in Delhi, Hyderabad and Uttarakhand. Jobs indicators included: Number of men and women in the workforce; The profile type of skills required by employers; Remuneration levels for men and women; and Differences in work timing and shifts for young men and women.

  Staff also researched details of facilities, infrastructure and benefits provided by local employers, including: the availability of maternity benefits; the existence of separate restrooms for women; availability of transport subsidies; and compliance with labor and safety regulations. During training and job placement, program staff also sought to understand the working environment of potential employers by reviewing human resources policies for compliance with safety standards and to see if companies included any specific language encouraging the hiring and retention of women. Program staff also monitored market trends to identify companies that hired only or mostly female staff. Through this study, SAKSHAM accordingly implemented its Gender mainstreaming strategy.

- **Introduction of gender mainstreaming and training (of youth, parents and project personnel) on gender-based programming.**

- **Introduction of financial literacy (saving and investing) and financial inclusion (opening and operating bank accounts).**

- **Extensive engagement of alumni to ensure that they share much needed job-related information with learners undergoing training**

RECRUITMENT

SAKSHAM applied a mix of youth and community mobilization techniques, including door-to-door outreach, project announcements on cars, strategically located information kiosks, and social media ads for recruitment. By emphasizing alumni stories, potential applicants can see how the program is relevant to their own lives. Videos and advertisements are posted in English and in Hindi, and depict girls and young women in classrooms, using computers, discussing the impact that Saksham has had on their personal and professional lives. Saksham also publishes blogs featuring interviews with current and past students.

Parent-engagement was central to PLAN India's strategy for recruitment and retention of youth, particularly girls. PLAN India conducted gender-specific career counselling sessions with parents and girls. By engaging parents on the process of training delivery from the start of the program through the job-placement phase, parents could develop the necessary confidence and trust to send the girls for training and jobs. PLAN India organized parents' visits to prospective job location where their children would be working, so that they get comfortable and understand that their daughters would be working in safe environment. PLAN India also facilitated interactions between parents and former program beneficiaries who were already working, so that parents can be motivated to send girls to job and trainings.

> *"In the beginning, my father didn't want me to look for a job. He is conservative. My mother and Saksham staff and I persuaded him. Now my family is very happy, my father is very proud."*
>
> *Manisha, Saksham graduate*

IMPLEMENTATION CHALLENGES

Recruitment (especially for girls) was a challenge, as safety concerns are often present.

Retention. It was challenging for program staff to keep track of all youth beneficiaries as many of them changed their contact numbers post-training and did not inform at their respective centers.

Overcoming traditional job expectations. Young people wanted to work in 'traditional' jobs, due to a lack of awareness about new market economy jobs and new employment opportunities therein. To address this, SAKSHAM organized interactive sessions with beneficiaries to help youth learn about a range of potential job opportunities and career paths in these jobs.

Limited availability of seed-capital cost delays the business start-up process. Many youth beneficiaries had to face this challenge and linking them with the financial services was difficult. To mitigate this, youth were asked to plan their finances at time of business plan development. They were asked to start with small investments, support from other organizations/projects has also been sought besides youth linked to community managed micro finance groups.

- More than 85% of youth have continued and joined higher/next level of education.
- 60% of youth provided with training and 54% of those place in jobs are girls and young women

"I can't even express how much of a change I have experienced in myself. I used to be so frightened to go out on my own or to deal with strangers. Now, I feel confident to deal with anyone and speak up for myself,"

Komal, Saksham graduate

EMPLOYMENT OUTCOMES

6,000
youth beneficiaries
trained

75%
youth beneficiaries
employed

Over 6,000 youth provided job oriented vocational training and vocational training for entrepreneurship promotion. Since Saksham was launched in 2011, more than 5,500 young people which includes 3,400 young women, were placed in jobs in various sectors such as hospitality, retail and IT- enabled services. [308]75% of youth were employed, including self-employment. Youth were placed into jobs with international brands and companies including Café Coffee Day, Au Bon Pain, Futures Group, Reliance, Pantaloons, Big Bazaar and KFC, among others. Within 2 years of job placement, over 80% of the graduates increased their monthly income by two times.[309]

"I got a job and became the first girl in my family to be employed."

Alpana, Saksham graduate

ADDITIONAL OUTCOMES

- The average marriage age for girls in the target community has risen.
- There is increased trust in community and parents for Saksham training. Helping other parents as well to send their daughters for training.
- Overall family income of youth has increased.
- Enhanced financial literacy youth is increasing the ability of youth participants to save.
- Young girls represented Saksham at international forums.

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[308] https://plan-international.org/eu/saksham-india.
[309] Ibid.

KEY FINDINGS

1. **Engagement of alumni is crucial for ensuring that the under-training youth get much needed exposure and support to understand job environment.**

2. **Employers' engagement at every stage of project implementation develops a partnership that is based on co-creation and shared understanding about goals and objectives of the project.** This makes the job placement process smoother.

3. **Parents' engagement is a successful strategy in selecting right youth for training.** Parent engagement helped develop a supportive and enabling environment for youth to receive and remain in jobs, which improved job retention rates.

4. **Youth and community mobilization requires a critical mix of techniques.** These strategies include door-to-door, auto announcements, information kiosks erections supplemented with new methods like use of mobiles, intent based applications etc. to source appropriate youth for the training.

5. **On-the-job training is crucial for youth to remove employment-related inhibitions among them.** It also helps them to gain confidence, understand job-opportunities, and get acquainted with their work environment. This also reduces job attrition rate.

RECOMMENDATIONS

1. **Conduct a market analysis prior to program design and implementation.** Understand key indicators and gender-based job requirements, including: number of females & males; nature of jobs for girls and boys; profile type of skills required and its implications, especially for girls; remuneration offered to girls & boys, timings & shifts for boys and girls. Program staff should also research details of workplace facilities, infrastructure and accommodation services, including maternity benefit, crèche, transport, separate toilets, rest room for girls, other statutory compliances and safety issues, etc. Programs should understand the company's working environment from a gender perspective, and check if the Human Resource policy of the company specifically encourages hiring of girls in written or unwritten way. Finally, program staff should explore new market trends such as companies that hire only/more female staff.

2. **Adopt gender-sensitive community- and youth-mobilization strategies.** Create awareness on gender issues at community level with a focus on women's economic empowerment and addressing gender based disparity and stereotypes. Develop gender specific special IEC material for motivation of girls and parents. Revise existing ALL existing IEC material and make it gender sensitive.

3. **Provide accommodation services for girls and young women.** Provide direct support or network with other NGOs to guide girls to get the necessary documents required for enrolment. Provide direct support or network with other NGOs for transportation, childcare or other support services. Extend support in opening bank accounts, as a part of financial inclusion process. Include financial literacy training, especially for girls and young women. Implement mandatory follow-up with

female dropouts, to understand their reasons for withdrawing and identify possible services could have helped them remain in the program.

4. **Establish safe spaces for girls and young women.** Keep 'safety for girls' as one of the key criteria for selecting the location of training centers. Ensure gender sensitive infrastructure like separate toilets and drinking water zones. Recruit Female faculty as a policy: one female faculty against every male faculty. Ensure that the duration of training facilitates the transition from domestic work to formal employment. Provide gender-sensitivity training to all faculty members to enhance their comprehension of gender issues, including focusing on career counselling and job placement for young female beneficiaries.

Samasource

SNAPSHOT	
Organization(s)	Samasource
Project Name	N/A
Location	Kenya
Date(s) of Implementation	Phase 1: August 1, 2009 – January 31, 2010 Phase 2: October 1, 2010 – March 31, 2012 Phase 3: November 1, 2014 – December 31, 2015
Funding Amount	Phase 1: USD 67,900 Phase 2: USD 799,200 Phase 3: USD 750,000
Partner(s)	The Rockefeller Foundation's Digital Jobs Africa (DJA) Initiative
Number of Youth Beneficiaries Trained	Total: 8,398 | Women: N/A | Men: N/A
Number of Youth Beneficiaries Employed	Total: 6,718| Women: N/A | Men: N/A
Avg. Monthly Earnings of Youth Beneficiaries after Program	USD 1,714
Type(s) of Digital Work	Online Outsourcing – Microwork Online Outsourcing – Business Process Outsourcing (BPO)
Source of Metrics	Internal monitoring & evaluation Mid-term evaluation

ABOUT SAMASOURCE

Samasource aims to address the challenges associated with youth employment by equipping unemployed youth with market-aligned skills and a direct connection to employers. The components of the Samasource model include:

- **Skills Development:** The first component of the program is focused on skills development where beneficiaries are trained on the fundamentals of digital literacy, as well as market-aligned occupational skills required by employers. This program is known as Samasource Digital Basics. Beneficiaries attend class 6 hours a day for 10 days. The program covers basic digital skills, occupational skills, and job search preparation.

- **Job search coaching**: Beneficiaries are coached on creating a professional CV and receive intensive job search preparation through mock interviews and coaching.

- **Employer connections**: Upon completion of the Samasource Digital Basics program, beneficiaries are connected to job opportunities both at Samasource and their network of hiring partners, called delivery centers. At Samasource, the beneficiaries would complete projects that include

image tagging, image annotation, data classification, or dataset creation for machine learning algorithms.

Beneficiaries hired by Samasource are employed to conduct microtasks for global companies. This work is digitally-based and typically does not necessitate that employees possess complex, digital skills. Samasource microwork can be classified into three categories: content generation,[310] data enrichment[311] and transcription services.[312]

FIGURE 1   Samasource's Business Model
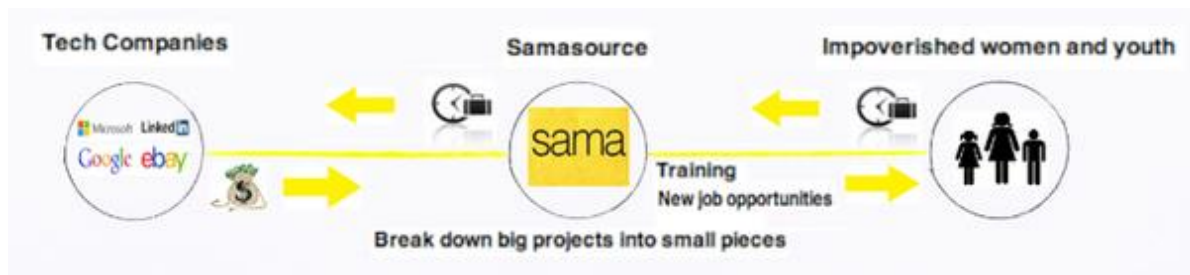
Source: www.samasource.org.

PROJECT DESIGN & IMPLEMENTATON

Program Design	Supply-Side Components		Demand-Side Components	
	Training & Skills Development	✓	Improving Access to Finance for SMEs	×
	Employment & Intermediation Services	✓	Capacity Building & Information Provision	✓
	Subsidized Employment	×	Targeted Sector-Specific Approaches	✓

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[310] Editing or abstracting existing content to increase search relevance.
[311] Gathering reliable information and images for specialized datasets.
[312] Transcribing and tagging audio and video files for high accuracy.

ACTIVITIES

The DJA grant was used to fund the following activities:

- Engagement with the Global Impact Sourcing Coalition (GISC) to help drive progress with GISC recruitment.[313]
- Increase impact beneficiaries in Africa with new Fortune 500 clients and renewals of existing Fortune 500 clients.
- Social impact measurement services to organizations.

The Samasource Digital Basics program offered three routes to employment. First, Samasource hired beneficiaries directly in its own delivery centres. Second, graduates of the Samasource program were given preferential opportunities to be hired by partner delivery centres. Lastly, graduates were directed to online courses to become self-employed digital microworkers. Through these approaches, Samasource played a key role in facilitating beneficiaries' obtaining first time work experience and therefore entry into the labor market.

To retain as many beneficiaries in the program as possible, Samasource provided the following services:

- **Free childcare services during class hours.** Many of the beneficiaries were mothers or single parents. Without these resources, many of the beneficiaries would not have been able to come to class[5,6].
- **Free professional attire for job interviews.** Many of the beneficiaries did not have the appropriate attire for job interviews nor did they have the funds to buy professional clothes. Samasource ensured that everyone was able to attend interviews wearing appropriate clothing.[314,315]
- **Provided Travel Stipends.** Many of the beneficiaries could not afford to travel to many interviews. Samasource covered their expense so they could attend the interviews.[316,317]
- **Professional Mentorship.** Every student is matched with a mentor who supports the student as they transition to employment. This ensures that the student has a successful experience as they find a new job[6].

As part of their work with scaling impact sourcing under the DJA grant, Samasource provided the following services to organizations engaged in impact sourcing:

- **Impact Sourcing with BPO training and set-up.** Samasource assisted organizations across multiple regions interested in bringing impact sourcing to a target population where there was an established BPO presence. Samasource evaluated the baseline skills of the potential beneficiaries,

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[313] The Global Impact Sourcing Coalition is a forum of organizations committed to incorporating and scaling impact sourcing as a business strategy. Members of the coalition advocate for inclusive employment practices and aim to demonstrate how impact sourcing leads to business growth and employee diversity and engagement.

[314] Schoar A. and Atkin D. (n.d.). *The Impact of a Tech-Centered Vocational Training and Employment Program for Youth in Kenya.* Nairobi, Kenya: Innovations for Poverty Action. Available at: https://www.poverty-action.org/study/impact-tech-centered-vocational-training-and-employment-program-youth-kenya.

[315] https://www.samasource.org/training.

[316] Schoar A. and Atkin D. (n.d.)

[317] https://www.samasource.org/training.

and assessed local and online job opportunities. Where the baseline skills met their requirements and the job opportunities were sufficiently available, Samasource assisted organizations to establish operations that utilized an impact sourcing approach.

- **Measurement and Evaluation (M&E) Guidance and Reporting.** Samasource assisted companies interested in tracking and expanding impact sourcing within their organization by helping them to develop and implement their M&E frameworks and systems.
- **Online Freelance training.** Samasource provided a web-based curriculum via the Internet on global freelancing. This was provided to organizations that represent individuals with marketable skills who live in regions that lack suitable job opportunities.

RECRUITMENT

Samasource beneficiaries are targeted based on their income, employment status, educational background and, in Kenya, whether they live in a designated area of need. For the DJA project, Samasource used the following targeting criteria for their beneficiaries:

- Earning below the living wage in the informal economy. Samasource determined the living wage to be USD 8.00 a day.
- With little or no formal employment experience
- Possessed a command of verbal and written English. This was determined by the completion of a short qualification test.

Samasource targets beneficiaries through a multi-step process.

- First, beneficiaries are referred to Samasource through local community-based organizations, government organizations, schools and other NGOs. Radio advertisements and flyers are also used to attract beneficiaries.
- Applicants then take a self-administered screening survey that generates an impact score, which Samasource uses to determine eligibility for the impact sourcing program.
- Applicants who match the target population characteristics undertake a written skills test and have a face-to-face interview.

Based on the impact score, written skills test and interview, applicants are accepted into the program. To ensure gender balance in recruitment, Samasource sets a recruitment criterion with a target of 50% female recruits to all delivery centers. In 2016, 76% of new beneficiaries had little or no income, 70% were unemployed or underemployed, 46% had little formal computer experience and 49% were female.

Samasource's participant engagement and retention was high for the duration of the DJA project. The average annual tenure at Samasource was approximately 12 months over the project period and the program experienced an increase to the number of individuals employed over the period.

IMPLEMENTATION CHALLENGES

Beneficiaries had built up the expectation that attending the training would automatically result in them getting a job post the training. Samasource thus had to review all messaging related to this to make it clear that, in some cases, the beneficiaries would need to find their own opportunities. Not being placed

in a job immediately after the training was otherwise found to cause the youth becoming discouraged and disheartened.

Had a wide variety of participants including primary dropouts. The primary dropouts had no English skills and had never seen a computer. This led to an 80% failure rate in the first cohort. Samasource decided to screen their applicants in addition to their application form. The results later improved, as all of the new beneficiaries could speak English and were able to complete their tasks.

BENEFICIARY EXPERIENCES

Samasource's baseline and follow-up surveys found that female beneficiaries were comparatively less confident than their male counterparts when they started the program and often did not engage openly during the training. However, the open, participatory approach used during Samasource's training improved the confidence of young women and resulted in more open and forthcoming engagement.

> *"A lady I was speaking with two weeks ago started off as an agent on a Samasource project and when she started she could barely speak, maintain eye contact or hold a conversation for more than a minute without getting overwhelmed but as they progress and move onto the next level, they become so confident and they hold their heads up high. These guys are amazing and have so much room for learning."*
>
> *Delivery Center Staff Member, Kenya*

EMPLOYMENT OUTCOMES

8,398
youth beneficiaries trained

In 2016, Samasource had a cumulative direct beneficiary count of 8,398 since starting operations in 2008. Additionally, through their M&E, Samasource identified that they directly impacted 25,950 income dependents and 34,348 cumulative individuals (beneficiaries and income dependents).

85% of beneficiaries continued to work or pursue their education after they left Samasource. Of those that continued working, 98% remained in the formal sector, in jobs created by existing firms, with 51% of them working in the ICT sector.

USD 240
average monthly income (during program)

USD 1,714
average monthly income (after program)

Beneficiaries' income increased from below USD 2.00 per day to earning a living wage of USD 8.00 a day. As a result, they were able to increase their spending on safer housing, nutritious food, education and healthcare. During their tenure at Samasource, beneficiaries' benefits also included healthcare, catered meals, financial literacy training and health and safety workshops.

A mid-term evaluation commissioned by Samasource found that not all beneficiaries were paid the same. While USD 8.00 per day was the minimum wage, it was found that beneficiaries received varying salaries. To ensure equality in labor practices, Samasource indicated plans to review survey feedback from employees and to pay all agents the same living wage.

The evaluation also found that one year after leaving Samasource for full-time employment, beneficiaries' average monthly wage was USD 1,714. Up to four years later, beneficiaries' earning power was found to have increased up to 3.5 times.[318]

KEY FINDINGS

1. **Low levels of education, lack of financial support, and a lack of skills and experience are challenges faced by the youth in accessing newly created or newly improved digital jobs.** Exacerbating this is the lack of appropriate training and employment schemes available to youth. The Samasource program provided access to appropriate, targeted, market-related training; thus, assisting in overcoming beneficiaries' lack of skills.

2. **Following the completion of the program, beneficiaries reported that the time they spent in searching for jobs was much shorter than that reported by other youth in Nairobi with similar backgrounds.** Beneficiaries also reported being able to secure employment at other companies that follow traditional hiring practices as well as other impact sourcing organizations.

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[318] **Assumptions:** Samasource calculates total attributable incremental income for the average Samasource worker. Total refers to the fact that this represents cumulative earnings for their period at Samasource plus three years after that. Attributable means they are tying all these quantified earnings to their experience at Samasource because they are only looking at incremental income.
Data Source(s): The primary data sources for this calculation are derived from baseline and follow-up surveys, administered online to every Samasource worker. The baseline survey is completed within two weeks of starting employment. The follow-up survey is completed within two weeks of the three-month tenure mark. The post-Samasource survey is conducted one to three years after a worker has left. The survey samples a randomized subset of former workers that have a minimum tenure of three months.

RECOMMENDATIONS

1. **Ongoing engagement and close partnerships with employers is necessary to ensure that training remains relevant to employers' needs.** This engagement also increases the likelihood of young person finding a digital job.

2. **Advanced training programs must ensure that the initial screening of participants efficiently identifies young people with basic digital literacy skills in place**. This ensures that beneficiaries have the capacity to sufficiently absorb and the content of the training without having to focus on instilling basic digital literacy skills.

3. **Programs should include training on soft skills**. Programs must ensure that young people engaged in online work have the soft skills that will help them secure contracts. Digital job programs should therefore incorporate not only the technical components of digital work, but also soft skills components such as client engagement, conflict resolution and general negotiation skills.

4. **Digital jobs programs need to be mindful of the confidence differences between male and female beneficiaries during program implementation**. In cases when female beneficiaries do no openly engage with the content in discussions, programs should alter their delivery methods to ensure female beneficiaries are not excluded from receiving the benefits of the training. Such strategies could include delivering content to men and women separately.

5. **Samasource experienced high retention rates over the training period.** This resulted in the program being fuller than originally expected and not being able to present the training opportunity to as broad array of people as originally expected, as higher levels of turnover were anticipated. As a result, **there is a need for digital jobs programs to balance reach with retention**. This can be done by increasing focus on the job search and job placement components of the program

6. **Digital jobs programs must manage beneficiaries' expectations.** Program staff should ensure clear communication and accurate information about the program duration, program content and outcomes before program launch.

Training for the Future

SNAPSHOT	
Organization(s)	Accenture
Project Name	Training for the Future
Location	Argentina, Brazil, Morocco, Spain, South Africa, Tunisia
Date(s) of Implementation	2015 – Present
Funding Amount	N/A
Partner(s) / Funder(s)	Education for Employment
Number of Youth Beneficiaries Trained (Phase 1)	Total: 29,438 | Women: 17,250 | Men: 12,188
Number of Youth Beneficiaries Trained (Phase 2)	Total: 9,478 | Women: 4,887 | Men: 4,591
Number of Youth Beneficiaries Employed (Phase 3)	Total: 4,673 | Women: 2,469 | Men: 2,204
Types of Digital Work	Private Sector – ICT Sector Private Sector – Non-ICT Sector
Source of Metrics	Internal monitoring & evaluation

ABOUT TRAINING FOR THE FUTURE

Youth unemployment is particularly high in Argentina, Brazil, Morocco, Spain, South Africa and Tunisia. This is attributable to several factors, including high population growth rates, slowing GDP growth or severe recessions. The primary cause, however, is a mismatch between the skills taught by the public education systems and those in demand by employers.

Indeed, the private sector is struggling to fill vacancies. A report by employment-services firm Manpower indicates that over one-third of employers worldwide have trouble filling positions, citing a lack of soft, behavioral and technical skills.[319] There are also other mismatches: a disparity between youth expectations and available jobs, and between the number of jobs that require social capital to secure and the less connected young people who seek them.

As part of the company's *Skills to Succeed* corporate citizenship initiative, Accenture has partnered with Education for Employment (EFE), an affiliated network of locally-run non-profit organizations in the Middle East and North Africa. EFE's mission is to create economic opportunities for unemployed youth so they can achieve a brighter future for themselves, their families and their communities. EFE helps young women and men find work, develop their professional skills and build social capital using demand-driven training programs. At the same time, EFE works to improve how educators, employers and families prepare youth for the workforce.

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[319] Ryder, Brett (2012). "The Great Mismatch". *The Economist.* Available at: https://www.economist.com/business/2012/12/08/the-great-mismatch.

As a strategic partner, Accenture is helping EFE address the skills mismatch using *Emplea+*, a unique online platform that aims to close the gap in both soft and digital skills. The *Emplea+* platform was developed in 2013 in collaboration with Accenture, the Spanish Ministry of Employment and a cross-sector consortium of nonprofit partners and corporations.

FIGURE 1 **Students Accessing Training for the Future digital courses (Tunisia, Sfax)**

PROJECT DESIGN & IMPLEMENTATON

Program Design	Supply-Side Components		Demand-Side Components	
	Training & Skills Development	✓	Improving Access to Finance for SMEs	×
	Employment & Intermediation Services	✓	Capacity Building & Information Provision	✓
	Subsidized Employment	×	Targeted Sector-Specific Approaches	×

PROGRAM OVERVIEW

In 2015, Accenture and EFE launched Training for the Future, an innovative program for youth ages 15 to 25 that aims to:

1. **Improve Employability**: improve the foundational skills levels of 37,000 youth through digital training.
2. **Train for Employment:** equip 10,000 youth with demand-driven in-classroom training.
3. **Place in Employment:** place 6,000 youth in jobs or paid internships in in-demand jobs.

These targets follow a funnel approach, where a subset of beneficiaries in each phase advance to the following phase. Therefore, these targets are not cumulative.

Accenture's recent research, [New Skills Now: Inclusion in the Digital Economy](), found that while demand for digital and technical skills is increasing, developing employability skills—such as leadership, analytical thinking, creativity and emotional intelligence—are also necessary for adding critical value to the evolving digital market. As a result, Training for the Future focuses on a combination of soft and digital skills.

Training for the Future focuses on six countries: Argentina, Brazil, Morocco, Spain, South Africa and Tunisia (see Table 1). To implement the program across target geographies, Training for the Future collaborates with a network of twelve EFE nonprofit partners, EFE affiliates in Morocco and Tunisia, and other Accenture nonprofit partners in Spain, Brazil, Argentina and South Africa.[320] The project is currently in Year 3, the final year of the grant.

TABLE 1   Program Targets by Year and Country[321]

YEAR	ARGENTINA	BRAZIL	MOROCCO	S. AFRICA	SPAIN	TUNISIA	TOTAL
PHASE 1. IMPROVE EMPLOYABILITY							
Year 1	380	-	300	300	4,000	300	5,320
Year 2	1,690	-	2,090	1,830	6,100	1,730	13,440
Year 3	3,160	760	2,930	3,200	6,100	2,130	18,280
Total	**5,230**	**760**	**5,320**	**5,330**	**16,200**	**4,160**	**37,000**
PHASE 2. TRAIN FOR EMPLOYMENT							
Year 1	400[322]	-	500	400	40	200	1,540
Year 2	260	-	460	480	2,500	220	3,920
Year 3	170	166	435	828	2,689	252	4,540
Total	**830**	**166**	**1,395**	**1,708**	**5,229**	**672**	**10,000**
PHASE 3. PLACE IN EMPLOYMENT							
Year 1	300	-	384	300	18	150	1,152
Year 2	225	-	354	360	1,147	150	2,236
Year 3	106	126	335	620	1,214	211	2,612
Total	**631**	**126**	**1,073**	**1,280**	**2,379**	**511**	**6,000**

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[320] The on-the-ground implementing partners in this project are: Fundación Pescar (Argentina); Rede Cidadã (Brazil); Fondation Marocaine de L'Education Pour L'Emploi – EFE Maroc (Morocco); Asociación para el Empleo y la Formación de Personas con Discapacidad – FSC Inserta, Cáritas Española, Cruz Roja, Fundación Tomillo, and Fundación Secretariado Gitano (Spain); Joburg Centre for Software Engineering – JCSE, Mentec Foundation, and Reconstructed Living Lab – RLabs (South Africa); Foundation Education for Employment Tunisie – EFE Tunisie (Tunisia).

[321] Please note that each phase follows a funnel approach and therefore are not unique figures. A subset of beneficiaries in each phase goes into the following one.

[322] The target for Phase 2 is higher than Phase 1 in Argentina because the Emplea+ platform was ready after the launch of the project. Argentina began working on Phase 2 while the Emplea+ platform was finalized for Phase 1.

RECRUITMENT

Beneficiaries are recruited through a variety of channels, including alumni groups, social media and external partnerships with other workforce development organizations (e.g., Ministries of Higher Education, Career Centers). In Morocco, implementing partners established an "ambassadors" program where alumni share their experiences at different events and with EFE Morocco's more than 125,000 Facebook followers.[323]

ACTIVITIES

PHASE 1: IMPROVE EMPLOYABILITY

In the first phase of Training for the Future, participants complete a one-hour online self-assessment that measures the individual's proficiency in five core workplace competencies: Self-Confidence, Self-Control, Communication, Compliance Rules and Tasks, and Mathematical Reasoning. These are part of the *Emplea+* platform, which currently includes 20 competencies.

Proficiency is ranked on a scale of 0 to 6, with 0 signifying a major deficit and 6 representing mastery. Upon completing the self-assessment, participants receive a profile of their scores and a personalized training plan based on factors such as level of education and lowest-rated competencies.

Participants then complete an online or blended training to improve their weakest competencies. Students can take courses independently or at partner locations, either via online or blended training.

- **Online training:** A 45 to 60-minute virtual training session that helps participants advance one level higher than their self-assessment scores.
- **Blended training:** Training that combines classroom and virtual elements to help students develop competencies in which they scored above a Level 2.

Scoring standards are the same for both trainings, and program managers have access to global data. To measure the training's impact on proficiency, participants take a 10-minute assessment upon completion. Implementing partners use these results to ensure that each candidate is developing a skills profile that matches the needs of a target employer. The results are carefully reviewed in face-to-face interviews with the candidate.

PHASE 2: TRAIN FOR EMPLOYMENT

A sub-group of youth who complete Phase 1, Improve Employability, progress to Phase 2, Train for Employment, where they receive classroom and/or job training with companies. Training plans focus on in-demand sectors and are designed to meet the requirements of a specific role. Duration depends on the desired skills and nature of delivery; classroom trainings typically last one to five months.

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[323] Number of followers provided by Education For Employment and based on the EFE-Maroc Facebook page.

PHASE 3: PLACE IN EMPLOYMENT

EFE's network of partners conduct a yearly market analysis to identify the most in-demand job profiles in growing sectors that are accessible to the target population. Accenture, EFE and the implementing partners work in parallel with employers to identify opportunities for candidates. Participating companies are involved in training design and delivery, which supports candidate placement and success, and coaching and mentoring continue into employment.

Participants who remained unemployed for six months following Phase 2 or were not selected for Phase 2 receive additional support from the implementing partner. This includes training, labor mediation, access to job newsletters, invitations to seminars and access to the program's alumni network. Training for the Future does not count employment outcomes stemming from these activities toward its impact metrics.

FIGURE 2   Training for the Future team members celebrating after their graduation ceremony at Accenture's office (Argentina, Buenos Aires)

IMPLEMENTATION CHALLENGES

The program's scope, its geographical, multi-cultural and linguistic diversity, and inexperience on the part of certain implementing partners, have resulted in several challenges:

- **Employers initially skeptical of online training.** By involving employers in training and curriculum development, Training for the Future gained credibility and a deeper understanding of employer needs. Seeing how the program reduces soft-skill and technical knowledge gaps, employers often return for staffing needs or to discuss larger-scale opportunities.

- **Restrictions in telecommunications infrastructure.** Limitations on network infrastructure are a major challenge in some countries, causing accessibility issues and making online platforms difficult to use. Corrective actions have been taken where possible.

- **Limited experience in using online training platforms.** For some local implementers, this was their first experience using an online training platform. To mitigate this learning curve, EFE and

Accenture provided support and shared best practices across the network. The implementing partners subsequently integrated trainer upskilling into their daily operations.

- **Continuing to develop the skills curriculum.** Mid-way through program implementation, our partners learned from employers in target sectors that participants needed training in additional competencies. Based on this feedback, we expanded the original five core competencies to include: Ability to Relate, Focus on Results, Initiative and Decision Making, Client Focus, Flexibility, Creativity and Innovation, and Tolerating Frustration. Accenture Spain is developing a digital framework to identify the most in-demand job profiles (26 to date)[324] in different markets and the responsibilities associated with each profile. This information, combined with an extensive catalogue of competencies and digital courses, will allow *Emplea+* to adapt its training plans to match participants with potential job profiles.

- **Maintaining youth engagement.** It can be challenging and expensive to keep young people engaged after training ends. To establish a continuous feedback loop and inform future activities, Training for the Future developed surveys, established shadowing sessions during training and organized focus groups to collect feedback from participants and employers.

EMPLOYMENT OUTCOMES

Training for the Future has upskilled over 29,000 youth, provided over 9,400 youth with demand-driven in-classroom training and placed over 4,600 youth in jobs.

TABLE 2   Beneficiaries Reached, As of September 2017[325,326]

BENEFICIARIES REACHED		ARGENTINA	BRAZIL*	MOROCCO	SOUTH AFRICA	SPAIN	TUNISIA	TOTALS
Phase 1. Improve Employability	*Target*	5,230	760	5,320	5,330	16,200	4,160	**37,000**
	Actuals	4,723	464	3,955	2,758	14,470	3,068	29,438
	%	90%	61%	74%	52%	89%	74%	**80%**
Phase 2. Train for Employment	*Target*	830	166	1,395	1,708	5,229	672	**10,000**
	Actuals	813	160	1,169	1,229	5,491	616	9,478
	%	98%	96%	84%	72%	105%	92%	**95%**
Phase 3. Place in Employment	*Target*	631	126	1,073	1,280	2,379	511	**6,000**
	Actuals	536	159	871	793	1,848	466	4,673
	%	85%	126%	81%	62%	78%	91%	**78%**

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[324]https://juntosporelempleo.cclearning.accenture.com/web/informe-del-impacto-digital-en-los-colectivos-vulnerables

[325] Please note that each phase follows a funnel approach and therefore are not additive. A subset of beneficiaries in each phase goes into the following one.

[326] Progress against targets are based on internal metrics, retrieved from the Emplea+ platform and the global project management database. Please note that this project is still in progress, and final reported figures may be subject to change as project results are confirmed.

PHASE 1: IMPROVE EMPLOYABILITY

Training for the Future has globally improved the employability skills of over 17,000 young women, who account for 59% of participants who completed the competency training. Gender balance was closely monitored throughout the program, and almost no interventions were required to maintain this balance per country

FIGURE 4   Beneficiaries by Gender, Phase 1 (Improve Employability)[327]
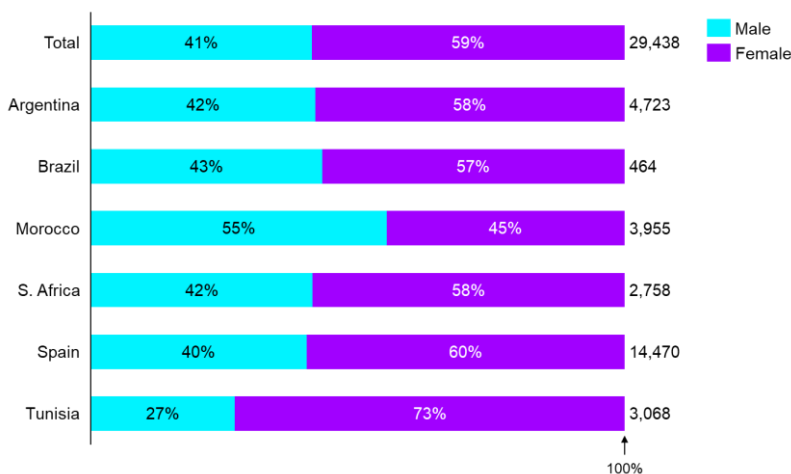
According to *Emplea+* tracking, participants improved their competencies by 0.5 to 3 points (on a 0 to 6-point scale).[328] These improvements did not go unnoticed by employers and participants. One employer in Spain said, "It is amazing to see the difference in youth before and after going through the soft skills training." Many beneficiaries said they would recommend the course to others. Alaeddine from Tunisia said, "This was my first online course, and it was excellent. It was easy to navigate within the platform, and I could work at my own pace…I feel that going through this course was a very useful exercise and a reality check. I have recommended the course to my previous classmates."

PHASE 2: TRAIN FOR EMPLOYMENT

Nearly 10,000 youth have completed "Training for Employment," 52% of whom are women. Digital jobs represented a 16% of trainings (primarily ICT-dependent jobs). Trainings for digital jobs included email creation, registration on an online platform, software development, Microsoft Office, telecommunications, network support, IT programming, mobile apps development and end-user computing.

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[327] Progress against targets are based on internal metrics, retrieved from the Emplea+ platform and the global project management database. Please note that this is project is still in progress, and final reported figures may be subject to change as project results are confirmed.
[328] Pre- and post-training scores by competency are based on internal metrics, retrieved from the Emplea+ platform.

FIGURE 5   **Beneficiaries by Gender, Phase 2 (Train for Employment)[329]**
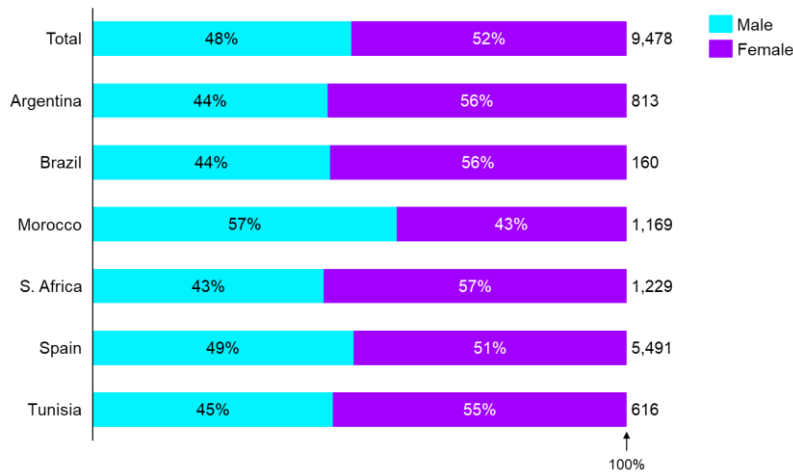
PHASE 3: PLACE IN EMPLOYMENT

At the time of this assessment, approximately half of youth who completed Phase 1 had been placed in a paid internship or full-time role (85% and 15% respectively). To date, approximately 15% of those opportunities have been directly or indirectly digital. The percentage and category of placements vary significantly by country, primarily owing to the implementing partners' focus areas and employer relationships. The overall placement rate is expected to reach 75% by the end of the project.

FIGURE 6   **Beneficiaries by Gender, Phase 3 (Job Placement)[330]**

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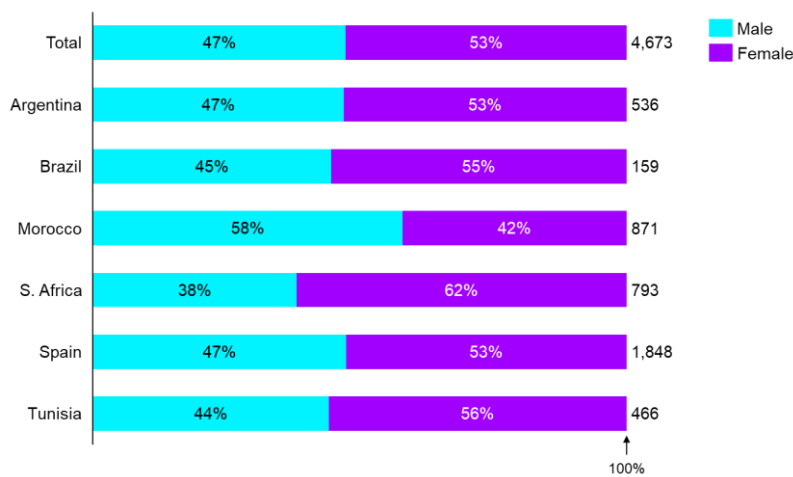
[329] Progress against targets are based on internal metrics, retrieved from the Emplea+ platform and the global project management database. Please note that this is project is still in progress, and final reported figures may be subject to change as project results are confirmed.

[330] Progress against targets are based on internal metrics, retrieved from the Emplea+ platform and the global project management database. Please note that this project is still in progress, and final reported figures may be subject to change as project results are confirmed.

FIGURE 7   Job and/or Internship Placement by Gender and Sector, Phase 3 (Job Placement)[331]
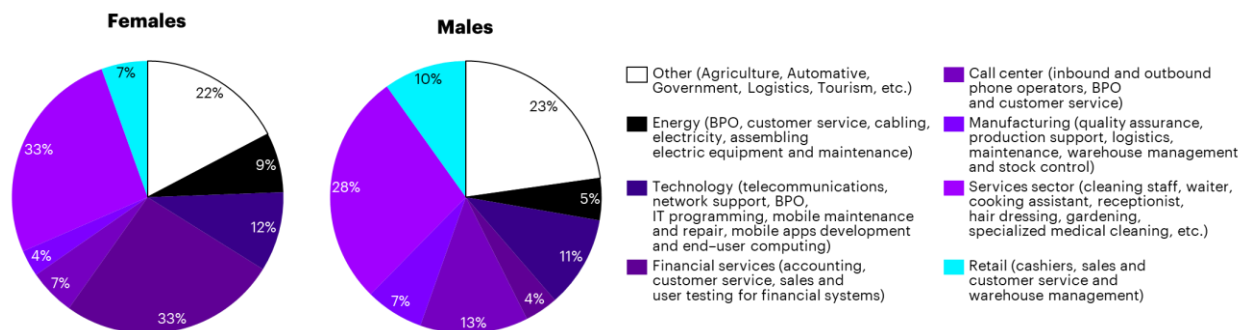
KEY FINDINGS

1. **Latent talent in vulnerable youth must be harnessed**. For youth, a job is their stake in a stable, flourishing society. Training for the Future supports beneficiaries' transition from education to employment, helping them succeed not only as members of the workforce, but as engaged members of society. With the necessary training and support, vulnerable youth can be positive agents of change for themselves and their communities. Developing strategies to scale and expand programs is essential.

2. **Strong ecosystems are a critical success factor**. A strong, ongoing relationship with employers, schools and universities is critical for program success. This is the only way to guarantee alignment between what students are taught and what the labor market demands.

3. **Soft skills are increasing in relevance**. Soft skills are crucial for professional success, particularly among young people entering the labor market for the first time. In addition to supporting job seekers, Training for the Future has increased awareness among employers and educators regarding the criticality of these skills.

4. **Competency framework and model can be adapted to fit different beneficiary profiles**. Leveraging an online platform, *Emplea+*, enabled Training for the Future to increase flexibility and individualization. *Emplea+* allows for personalized training that can be adapted to meet the needs of a diverse beneficiary population, from Spanish youth with an elementary-level education to young Moroccans entering university.

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[331] Progress against targets are based on internal metrics, retrieved from the global project management database. Please note that this project is still in progress, and final reported figures may be subject to change with as project results are confirmed.

RECOMMENDATIONS

Based on Accenture's experience creating a multi-country, multi-stakeholder coalition to drive in-demand skills development among youth, Training for the Future recommends the following actions to organizations seeking to undertake similar efforts:

1. **Diversify efforts across countries, and work with smaller cities when appropriate.** Smaller cities tend to receive less investment and are more receptive to innovative ideas and new ways of skilling.

2. **Create formal relationships with universities, career centers and relevant government entities.** A strong ecosystem is integral to successful sourcing strategies.

3. **Gather and incorporate feedback from trainers and beneficiaries on an ongoing basis.** The use of formal surveys to collect feedback from stakeholders will ensure that opportunities for improvement are identified early and that timely corrective actions are taken.

4. **Personalize training to the local needs.** Fine tuning trainings to match the unique needs of employers and markets is critical to ensuring the effectiveness of job placement activities. Continuing the conversation with employers throughout the project, not only during placement, leads to more effective trainings and a higher employment rate.

5. **Engage with employers at every stage.** Employer engagement is essential for high placement and retention rates. Investing in young talent benefits companies and the community. Both human resources and corporate social responsibility should support this aim.

Women in Online Work (WoW) Pilot

SNAPSHOT	
Organization(s)	Ministry of Economic Development of Kosovo
Project Name	Women in Online Work Pilot (WoW), Phase I
Location	Gjakova and Lipjan municipalities, Kosovo
Date(s) of Implementation	November 2015 – August 2016
Funding Amount	USD 140,000
Partner(s) / Funder(s)	World Bank Group; Helvetas Swiss Intercooperation; Gjakova VTC Center
Number of Youth Beneficiaries Trained	Total: 100 | Women: 100 | Men: 0
Number of Youth Beneficiaries Employed	Total: 54 | Women: 54 | Men: 0
Avg. Payment Amount (fixed contract)	USD 74
Avg. Payment Amount (hourly contract)	USD 129
Type(s) of Digital Work	Online Outsourcing – Freelancing
Source of Metrics	Impact evaluation

ABOUT THE WOMEN IN ONLINE WORK (WOW) PILOT

In 2012, the World Bank identified clear gender disparities in education, health, and economic opportunities in Kosovo.[332] The diagnostic recommended several strategies to improve employment outcomes for women, including launching active labor market programs that target women and establishing of skill-building programs as a strategy to improve women's chances of starting their own business. Background research also identified three main obstacles to preventing more women from benefiting from online work opportunities: (1) Lack of awareness; (2) Lack of relevant technical and soft skills; and (3) Limited access to technology.

The pilot integrated findings from the World Bank's 2016 World Development Report on Digital Dividends study on, in order to test out how digital economy jobs could assist in creating inclusive and better employment opportunities for women. The World Bank team concluded that the following factors proved sufficient grounds to test the possibility of using online work to connect young women with growing digital employment opportunities: (1) available talent with intermediate-level fluency in English; (2) rising access to broadband infrastructure and Internet-enabled devices; (3) availability of online payment systems; (4) lack of prohibitive regulations; and (5) a family-focused culture which drives demand for flexible work arrangements.

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[332] World Bank (2012). Kosovo: Gender Gaps in Education, Health, and Economic Opportunities. Washington, DC: World Bank Group. Available at:
http://documents.worldbank.org/curated/en/371251468030245833/pdf/759300WP0ENGLI0Box0379792B00PUBLIC0.pdf.

The Women in Online Work (WoW) pilot sought to generate awareness of online employment opportunities for underemployed and unemployed women in Kosovo. WoW targeted women aged 18-34 from rural areas in Gjakova and Lipjan who had completed or would complete university-level education, were under- or unemployed, and were seeking employment.

Overall, the project sought to:
- Improve skills for digital jobs;
- Raise awareness of online work platforms among beneficiaries;
- Raise awareness of online work platforms among local Kosovo ICT firms and raise awareness of Kosovo labor potential among international online work platforms; and
- Encourage mentorship and networking between beneficiaries and people in digital jobs.

PROJECT DESIGN & IMPLEMENTATION

Program Design	Supply-Side Components		Demand-Side Components	
	Training & Skills Development	✓	Improving Access to Finance for SMEs	×
	Employment & Intermediation Services	✓	Capacity Building & Information Provision	×
	Subsidized Employment	×	Targeted Sector-Specific Approaches	×

ACTIVITIES

Capacity-Building Training Courses
WoW provided capacity-building training courses in soft skills, freelancing skills and programming skills to underemployed and unemployed women to increase their employability. The courses were composed of class-taught and self-learning modules.

- *Programming Skills Training:* Participants learned about the basic application of HTML and CSS3, as well as Responsive Web Design, Web Development Tools, Java Script and jQuery, Website Optimization, and Advanced Java Script.

- *Soft Skills Training:* Participants were trained in professional communication skills, business communication, creating personal branding statement, interaction with clients, confidence building and developing personal motivation, stress management and cultural awareness.

- *Freelancing Skills Training:* Participants were equipped with foundational knowledge of online freelancing marketplaces. They also learned how to write an effective cover letter and create a personal profile and portfolio for online freelancing opportunities.

Professional Mentorship
WoW provided participants with mentorship opportunities from accomplished peers and online freelancers. Mentors acted as trainers in the classroom, and were responsible for assisting participants with technical issues and online job bidding. Additionally, mentors provided guidance during the job

search process by helping trainees to identify online work opportunities that were good matches for their skills.

RECRUITMENT

1,105	**227**	**100**
Women applied	**passed screening**	**graduated program**

WoW utilized a combination of media relations, social media engagement, participation in various ICT-related events, and organization of meetings with key pilot stakeholders (e.g. public employment service and youth centers, TVET centers, educational institutions, opinion leaders) to raise general awareness of the pilot among potential applicants. The training provider (Coders Trust) relied primarily on social media marketing to identify prospective participants. There were two main reasons: (1) Coders Trust generally relied on Facebook as a trainee recruitment platform; and (2) to ensure that a trainee pool have a minimum satisfactory level of digital literacy, some level of which was essential for the participation in the pilot. As a result, WoW anchored its online recruitment on the targeted Facebook ads.

The role of the Ministry of Economic Development of Kosovo in the recruitment and outreach process was indispensable. The Deputy Minister and staff of the Post-Telecommunications and Information Technology Department jointly led a pilot promotion campaign through traditional media, including TV, radio and the press, online and social media (especially Facebook). This strategy helped the program reach women who may not have been active internet users or who may have lacked internet access at home. Finally, the WoW program liaised with local advocacy groups representing the rights and voices of ethnic minorities and people with disabilities, in an effort to be inclusive of those disadvantaged groups. The program's outreach campaign also relied on information sessions held at universities and other organizations. In total, the pilot generated extraordinary interest for a training program, a testament to which was 1,105 applications.

During the recruitment process, potential participants completed three online screening tests and a phone interview conducted in English. The three online tests assessed the participants' skills in English, logic (IQ) and basic understanding of HTML. Out of over 1,000 registered applicants, 227 total applicants completed the mandatory screening tests.

WoW initially accepted 131 under-employed and unemployed women into the program, including part-time and full-time students, and part-time and full-time workers. Over time, many participants dropped out or were expelled due to inadequate participation. In order to maintain their quota of 100 participants, WoW conducted two additional outreach campaigns. In total, WoW registered 192 women in the first quarter of the program; of these, 100 women successfully graduated from the program.

IMPLEMENTATION CHALLENGES

- **High Dropout Rate.** Out of 192 beneficiaries recruited into the program during several waves of recruitment, only 100 participants successfully graduated from the program. Some dropouts lacked the sufficient English-language skills and motivation to pursue a challenging training course, while others reported being unsatisfied with the intensive teaching approach and

curriculum. Even though there was a multi-stage recruitment process, many did not have the level of English proficiency required to study front-end web development. The thresholds of the English and Logic tests may have been too low, causing applicants to underestimate the complexity of the program.[333] Moreover, some participants were disappointed with basic logistics such as the training facility location, transport, and facility conditions and decided to withdraw from the program.

- **Difficult to Effectively Teach Advanced IT Skills during a Short-Term Program.** Program staff faced a strong challenge in teaching essential and complex skills for online IT outsourcing during a brief period of time, following the model of coding bootcamp trainings which are gaining momentum in highly developed countries. Some critics argue, and program data affirmed, that the ambition to teach front-end web development to a largely unqualified audience (without proper academic underpinnings) over a brief period gives a superficial perspective and unreasonably heightened expectations about what it takes to become an IT professional. Approximately 75% of Phase I participants had limited or no programming skills necessary for online jobs. Despite training and high motivation, few beneficiaries were successful as online freelancers in front-end web development.

- **Under-representation of Minority Populations.** Program staff did not manage to recruit minorities and other vulnerable/marginalized populations. It should be noted that the target municipalities are predominantly Albanian, a minority population in Kosovo. Additionally, specific outreach activities were designed to target cultural communities and people with disabilities. However, only one trainee with a disability ultimately enrolled in the project.

- **Selection Bias.** The program's recruitment strategy resulted in a high number of female participants with a comparatively higher level of digital literacy. It is important to note that many the WoW participants had a high degree of access to ICT: this includes ownership of a computer and access to fixed and wireless Internet. 90% of the participants owned a phone which has Wi-Fi connectivity and an Internet connection. Thus, these participants may not have been entirely representative of the average young Kosovo woman who comes from rural areas. However, it is worth noting that the most successful active graduates had a comparatively lower level of digital literacy than the other graduates.[334]

EMPLOYMENT OUTCOMES

Beneficiaries' level of education and area of study were two variables which largely affected the outcomes. Students with university or post-graduate degrees had more motivation to study than the others. Social Science and arts majors showed more focus than the STEM majors, as they saw this program as an opportunity to be more marketable in the market.[335] Additionally, active graduates generated 9.6 times more online jobs than inactive graduates during the monitoring period. In terms of earnings, 66%

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[333] World Bank (2017). *Republic of Kosovo Innovative and Green Growth for Rural Kosovo: Women in Online Work Pilot, Impact Evaluation Report.* Europe and Central Asia: World Bank Group.
[334] Ibid.
[335] World Bank (2018b). *Innovative and Green Growth for Rural Areas: Investing and Scoping, Korea Green Growth Trust Fund, Grant Report and Monitoring Report.* Washington, DC: World Bank Group.

of the active graduates passed the basic earning threshold of USD 100 during the same time. The average earnings of an active graduate were at USD 293. It has been estimated that active graduates earned 15 times higher average earnings than inactive graduates.[336]

ONLINE EMPLOYMENT LEVELS

67%
of graduates found at least 1 online job

Students started gaining their first online contracts during the third week of training. 67% of graduates were able to obtain at least one online job during the program (February to August) or during the three months after its completion (September to November). Of those 54 women, 40 were moderately successful bidders (obtained 1-5 online contracts) and 14 were highly successful bidders (obtained 6-20 online jobs). Rates of online employment were even greater for active learners: 66% of active learners obtained at least one online job; and 20% of active learners obtained over 6 online job contracts.

ONLINE JOB EARNINGS

USD 20,423.53
in cumulative earnings

WoW trainees generated USD 20,423.53 of earnings within 3 months of completing the pilot. Approximately 53% of WoW graduates and 66% of active learners passed the lowest earning threshold of USD 1. Active learners made up the largest share of successful earners, with approximately 30% of active graduates earning over 100€ (USD 111), with the highest earning reaching as high as EUR 4,140. Notably, active graduates were able to generate as much as 15 times higher earnings than inactive graduates: active graduates earned USD 19,610 while inactive graduates earned a total of USD 662.

FIXED AND HOURLY ONLINE CONTRACTS

USD 74	USD 1,377	USD 129	USD 4,327
average pay (fixed contract)	**maximum pay (fixed contract)**	**average pay (hourly contract)**	**maximum pay (hourly contract)**

Under WoW, online jobs earnings typically arose from fixed or hourly online contracts, or a combination of both. Ultimately, graduates benefited more from hourly contracts than from fixed contracts: graduates had higher average hourly earnings than fixed earnings (USD 129 vs. USD 74) and the maximum pay for hourly contracts (USD 4327) was 3 times higher than the maximum pay for fixed contracts (USD 1377).

With respect to fixed contracts, active graduates were much more successful in getting fixed online contracts than the inactive graduates, earning on average 8 times more on fixed contracts than inactive

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[336] Ibid.

graduates (USD 104 vs USD 13). Cumulatively, active graduates earned 16 times more than inactive graduates (USD 6,930 as opposed to only USD 435 for inactive graduates).

Comparing the performance of active and inactive graduates on hourly contracts, active graduates were receiving much higher average hourly pay (USD 189) than the inactive graduates (USD 6.9). Active graduates also generated significantly higher summary earnings for hourly jobs: USD 12,681 as opposed to USD 228 generated by inactive graduates. The maximum earner, with USD 4,327, unsurprisingly came from the group of active graduates, whereas the highest earner among inactive graduates made 25 times less, or USD 168.

KEY FINDINGS

1. **Age a Determinant for Success.** There was a strong relationship between a participant's age and her earnings/the number of online jobs. That is, more successful participants were older women (over 25). Therefore, targeting and engaging more mature female participants may bring about better program outcomes and sustainability. Other strong factors of success include an academic major and one's employment history (whether one worked in the year preceding the program).

2. **Unemployed Women had Better Outcomes.** The program also found that unemployed young women were more likely to be active students and were more likely to graduate from the program, than women who were university students or who were under-employed. Unemployed women had more time to dedicate to the program and saw the program as their primary/only means to find employment.

3. **Women with Lower Levels of Digital Literacy Were More Successful.** Most of the active graduates possessed relatively lower levels of digital literacy when entering the program, as compared to other active WoW trainees. These women were described as more motivated and more enthusiastic in their learning. As a result, they pursued more online job opportunities than other trainees who entered the program already having some familiarity with digital tools.

4. **Providing financial stipends to beneficiaries carries risks.** Reducing financial barriers for enrolment and participation helped more trainees to become "active learners", who completed self-paced online lectures and videos, actively participated in classroom exercises and discussion, and successful bid for digital jobs using an online freelancing platform. However, program staff also found that stipends disrupted the atmosphere of the training, as some beneficiaries complained that students were accepting the stipend then not attending training. The program team decided to discontinue paying stipends in subsequent phases of the training, to help ensure that beneficiaries were solely motivated by the value of the skills-training itself. Program staff also learned that training could be organized better without paying financial stipends, e.g. locations could be more convenient, and transportation services could be provided.

5. **Many beneficiaries, apparently unsatisfied with existing labor market prospects, were open to a new career path.** Approximately one-third of beneficiaries had help jobs prior to participating in the pilot. For a large majority of participants, the WoW program was different from any of their previous academic of professional experiences, indicating that the mobilized participants were innovative job-seekers who actively sought new career opportunities. This motivation was possibly aided by the fact that many WoW trainees were young, their previous jobs or careers were temporary or short-term,

and so were subsequently searching for a more permanent place in the labor market. The program also seemed to trigger interest a demographic that was considerably different from the one usually targeted by mainstream training providers, thus suggesting a significant scalability potential for a WoW-type program across Kosovo.

6. **A cost-benefit analysis concluded that the WoW Phase I has positive impact net of costs and positive return on investment (ROI), with a relatively short payback period**. The program demonstrated rapid employability by linking its beneficiaries to online employment already in the third week of the training. This reflects positive employability outcomes and a significant improvement in earning capacity of the program graduates. Additionally, sensitivity analysis showed that the program is scalable and could deliver positive ROI for up to three times higher than the costs per beneficiary (holding the program outcomes constant).

RECOMMENDATIONS

1. **Programs must employ thorough outreach strategies, in terms of scope and intensity, that utilize a variety of channels including, but not limited to, social and traditional media, digital marketing, information sessions, and brochures.** Promotional messages should communicate clear objectives and goals, as well as sufficient details with regards to the curriculum. Doing so may help programs to reach vulnerable populations with lower education levels and digital and linguistic competences, as well as those members of marginalized groups and those with disabilities.

2. **Providing non-financial incentives can be an effective strategy for retaining some female participants.** For example, guaranteeing certificates of completion from the program start can serve as a powerful motivator for some participants to remain in the program throughout its entirety and to follow the training curriculum. Digital skills programs should also consider providing additional support services, such as food or travel stipends, or childcare support services, to minimize attrition and uphold motivation.

3. **Establishing trust and transparency is critical to program success.** Maintaining transparent application processes and clear selection criteria for program participation helps build trust between the training provider and training participants and commitment of the latter. This transparency, especially coupled with early, robust results, can, in turn, help the program gain approval and support from the government. Moreover, establishing good relationship with the government, and if possible, having strong advocates of the program within the government itself can help increase the chance of success of the program.

4. **Soft and freelance skills must be developed in tandem with technical skills.** Students need to acquire knowledge of and practice engaging with online freelancing marketplaces, as well as to learn the principles of online work. Finally, beneficiaries must develop crucial soft skills including: ability to brand themselves, creating online job portfolio, and develop motivation for online work.

The Youth Banner

SNAPSHOT	
Organization(s)	The Youth Banner
Project Name	Intel 'She Will Connect' Campaign
Location	Kenya
Date(s) of Implementation	October 1, 2014 – February 28, 2015
Funding Amount	USD 26,561
Partner(s) / Funder(s)	The Rockefeller Foundation's Digital Jobs Africa (DJA) Initiative
Number of Youth Beneficiaries Trained	Total: 686| Women: 686| Men: 0
Number of Youth Beneficiaries Employed	Total: N/A	Women: N/A| Men: N/A
Type(s) of Digital Work	Online Outsourcing – Microwork
Source of Metrics	Internal monitoring & evaluation

ABOUT THE YOUTH BANNER

The Youth Banner is a non-profit organization that aims to decrease youth employment and increase the success of youth entrepreneurs through various platforms. The Youth Banner's mission is to develop economically empowered youth by creating an enabling environment for young people to earn sustainable income.

Through its programs, the Youth Banner further aims to:

- Give youth and women the opportunity to play an increasingly viable, sustainable and effective tole in achieving long-term benefits for themselves through business development.

- Support long-term growth in entrepreneurship with more opportunities and more effective targeted support for young people.

The Youth Banner implements the following programs of relevance to the DJA grant:

- **The Youth Banner Economic Empowerment Program (BEEP)** is a six-month program that recruits young entrepreneurs into business clubs led by experienced business professionals who train the entrepreneurs, mentor them and expose them to market opportunities. BEEP clubs meet weekly; these weekly meetings include mentorship and coaching, business support services; and training on digital literacy, financial linkages and market opportunities.

- **The Intel 'She Will Connect' program**. The DJA grant was used to support the Intel 'She Will Connect' program which aimed to close the Internet gender gap and connect young women to digital opportunities. Under this program, the Youth Banner partnered with the Kenyan

government to provide training of trainers (TOT) services to local community centers that in turn provided digital literacy and skills training to disadvantaged youth.

- **Amka Tujiinue Groups.** This is a women-only program aimed at training young women in entrepreneurship which includes business and financial education and access to markets and credit. Additionally, they also train in life skills. Under this program, there is the Women Sharing Wisdom Initiative (WSWI) which assists female entrepreneurs to run their enterprises sustainably through training in entrepreneurship, life skills and business mentorship. [337]

PROJECT DESIGN & IMPLEMENTATON

Program Design	Supply-Side Components		Demand-Side Components	
	Training & Skills Development	✓	Improving Access to Finance for SMEs	×
	Employment & Intermediation Services	×	Capacity Building & Information Provision	×
	Subsidized Employment	×	Targeted Sector-Specific Approaches	×

ACTIVITIES

Under the Intel "She Will Connect" program, the Youth Banner partnered with the Kenyan government to provide training of trainers (TOT) to local centers that provided digital literacy and skills training to disadvantaged youth. These "PASHA Centers" are part of the Kenyan government's Digital Villages Project (DVP)[338], which provides a suite of services to communities via computers connected to the Internet.

The Youth Banner trained PASHA Center managers who were subsequently tasked with providing digital literacy training to disadvantaged youth and women within their PASHA Center vicinity. The long-term goal was the roll out of a widely distributed program available to women across Kenya. The training was held at a central location called Ruiru Rainbow Resort in Ruiru near Nairobi.

The TOT curriculum was designed to equip PASHA Center managers with the skills to train young women in online work and arm them with the skills to successfully access online job opportunities. Over a day and a half, the TOT curriculum addressed the following topics:

- **Getting started with online work:** How to sign up, how to build an online profile, how to verify your ID and payment methods.
- **What online work entails:** Skills and expertise required and types of jobs available.
- **Bidding on projects:** How to bid for a project, what information should be included and client relationship management.
- **Pros and cons of online work:** Pros include no commute, flexible timing and no limit to your earning potential. Cons include difficult clients, no paid leave and time delays amongst others.

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[337] The Youth Banner (2017). Available at: http://theyouthbanner.org/
[338] Government project aimed to boost internet connectivity in Kenya.

RECRUITMENT

In the past, The Youth Banner program staff reported having difficulty recruiting women for the BEEP program, because women were not comfortable being in the same BEEP clubs as their male counterparts. Female beneficiaries also reported that they felt they could not openly share their thoughts and ideas in these co-ed clubs, and instead opted to be placed in female-only groups. Based on these experiences, the Intel 'She Will' Campaign and specifically and exclusively targeted women.

The Intel 'She Will' TOT program targeted PASHA Center managers from 40 counties in Kenya. The Youth Banner targeted PASHA Center managers as it saw this partnership as a means of increasing the bouquet of services PASHA Centers provided to local communities. In addition, the income generated by PASHA centers would increase due to higher foot traffic as more women surf and work when jobs are secured.

IMPLEMENTATION CHALLENGES

Insufficient time was allocated for the training. The program was designed such that after the initial training, PASHA Center managers navigated the online work sites on their own. This was to embed their understanding and ensure that they could adequately train beneficiaries. However, the Youth Banner trainers would have preferred time for one-on-one sessions so that they could go through the online work sites with the PASHA Center managers to ensure that they had fully grasped all the concepts taught. The online work sites that were presented in the training included elance, upwork, tukoworks and odesk. Without this one-on-one support, managers they took longer than expected to understand the content. This also delayed the roll-out of the training to the female beneficiaries. This feedback was received too late in the program however to make changes to the implementation for correction.

The PASHA Center managers had misconceptions about online work opportunities. The believed that payments for online work were irregular and often late. As a result, they did not fully buy into the program. During follow-up visits to the PASHA Centers, The Youth Banner discovered that several PASHA Center managers had not passed on their knowledge to their staff to support online work training initiatives. To address this challenge, The Youth Banner dispatched trainers to re-train PASHA Center staff and to raise awareness about the potential of online work to accelerate the rate of training.

PASHA Center managers from rural areas cited the prohibitive cost of Internet as a barrier to navigating the online jobs sites or training beneficiaries to do the same. They also believed that the income earned from training was not sufficient to cover the cost of Internet usage. Limited access to the Internet in remote villages also delayed the implementation of training by PASHA Center managers to local young women.

BENEFICIARY EXPERIENCES

PASHA Center managers reported that participants were seen as leaders in their communities and subsequently gained a greater sense of self-awareness. This was found to be instrumental in their self-confidence and subsequent job application processes.

Access to the training resulted in some beneficiaries accessing online work opportunities from which they subsequently earned an income to support their families. The Youth Banner's M&E systems however did

not track the numbers of youth that accessed these opportunities, or the value of income that earned through online work.

The primary challenge faced by young women in accessing employment was their household responsibilities. Typically, women are responsible for looking after the children and undertaking household chores, which prevents them from accessing traditional employment opportunities. Non-traditional employment opportunities, such as those presented by the Intel 'She Will' Campaign, were thus found to be increasingly important for women.

EMPLOYMENT OUTCOMES

<table>
<tr><td align="center">**59**
PASHA Center
Managers trained</td><td align="center">**686**
Young female
beneficiaries trained</td></tr>
</table>

The program had the following target outputs:

- 61 trainers would be trained in online work skills including how to register on online work sites, create a professional profile, bid for online jobs and manage client relationships once a job is secured.
- 2,000 disadvantaged women would receive training on online work from the trainers who participated in the session.
- An online work training manual would be developed for PASHA Center managers.

The Youth Banner trained 59 PASHA Center Managers throughout the program, two short of its original goal of 61. 686 women were subsequently trained by PASHA Center Managers on online work at the PASHA Centers. This was a 34% achievement of its initial goal of 2,000. The main reason for this under-achievement is the delayed implementation of training to beneficiaries. This was caused by the additional time that trainers required to navigate the online sites after the training, the delay in training PASHA center staff and the challenges faced with infrastructure in rural regions.

KEY FINDINGS

1. **Female beneficiaries prioritized flexible work arrangements that would allow them to fulfill their household duties.** This included raising children and siblings and performing household chores. These demands on their time often conflicted with their career aspirations. Young women indicated that they needed to pursue careers that were more flexible in terms of their time and ability to be at home.

2. **The lack of soft skills remains a pervasive skills gap for youth.** This gap is related to the soft skills required to succeed as an online worker. Independent working, self-motivation, self-discipline and client engagement were identified by the Youth Banner as the skills with the highest gaps amongst the youth.

RECOMMENDATIONS

1. **Digital jobs programs should partner with IT companies, traditional authorities and government agencies that can assist in overcoming barriers to accessing ICT.** This is particularly crucial when implementing digital youth employment programs in informal settlements and rural regions, where Internet access is expensive and residents have limited access to or ownership of computers.

2. **Greater effort should be made to inform youth about the value of and opportunities available within online work**. This can be done, for example, through online awareness campaigns, word of mouth through trusted community organizations, print advertisements or social media campaigns.

3. **Digital Jobs programs should equip youth with both technical and soft skills.** Programs should develop curricula that address soft skills topics such as self-motivation and self-discipline, patience and independent working. This will help to ensure beneficiaries are sufficiently prepared to face the challenges associated with online work and subsequently reduce the drop-out rate of online work.

4. **Programs must develop evaluation tools to assess beneficiaries' level of competency for navigating online work and determine the skills training they require based on the gaps identified.** This will enable more targeted, tailored training. such tools can test aspects of digital literacy, familiarity with digital tools and programs, familiarity with digital terminology and jargon, and, degree of comfort with online browsing and use of online platforms.

5. **Program staff should determine whether it is necessary to separate male and female beneficiaries**. This can help ensure that women are comfortable to participate in digital jobs programs and attain the maximum benefit from the training.

6. **Digital jobs programs need clearly set expectations for youth beneficiaries. Program staff must clearly communicate key information with respect to** the program curriculum and the nature of digital work. This will help to ensure that youth beneficiaries understand the content of the training, income potential of online work, payment schedule and consistency of work. This will further increase retention in the program and contribute to the sustained, long-term success of beneficiaries.

Annex C: List of External Digital Jobs Programs, Platforms & Initiatives

	NAME	LOCATION(S)	DESCRIPTION
1	Ada Developers Academy	USA	Ada is an intensive software developer training school for women and gender diverse individuals. Ada's year-long program begins with seven months of classroom skills-based instruction in cutting-edge web technologies and culminates in an internship with a Puget Sound tech company.
2	AkiraChix	Kenya	AkiraChix aims to inspire and develop women of all ages in the field of technology through the implementation of an ICT and skills training program in Nairobi, an outreach program in secondary schools, and a membership community of 400 members that engage in meet-ups and "hackathons."[339]
3	AWELE Academy	Nigeria	AWELE Academy is a coding school & intensive boot camp for girls in Africa. AWELE offers a three-month full-time immersive software career accelerator that emphasizes computer science fundamentals, modern web languages and emerging technologies including big data analytics and data science.
4	Girls in Tech (GIT)	Multiple	Girls in Tech focuses on the engagement, education and empowerment of girls and women who are passionate about technology. With headquarters in San Francisco and more than 100,000 members located around the globe, GIT relies on volunteer efforts to lead each of the 60 local chapters. Programming and events vary by chapter based on local interests and needs.
5	Grace Hopper Program	USA	The Grace Hopper Program at Fullstack Academy is an immersive 17-week software engineering course for women that charges no upfront tuition cost; graduates pay tuition only after securing a job. The program employs a mix of lectures, hands-on workshops, projects and pair-programming. Participants are also connected with a support network of alumnae and mentors within the tech community.
6	GRID Impact	Multiple	GRID Impact is a collective of independent consultants that use behavioral science and human-centered design to create scalable social impact for a range of organizations, including social enterprises, philanthropic organizations, non-profit multilateral development agencies, domestic and foreign government agencies and policymakers. GRID works across a variety of technical domains (behavioral science, interaction design, architecture, communications, and economics) and sectors (financial inclusion, global public health, agriculture, water and sanitation, education and alternative energy).
7	Hackbright Academy	USA	Hackbright Academy is a software engineering school for women with a mission to increase female representation in tech through education, mentorship and community. Its flagship fellowship is a 12-week accelerated software development program where women learn the skills to become full-time software engineers.[340]

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[339] Center for Education Innovations (2015). *AkiraChix Training Program.* Washington, DC: Center for Education Innovations. Available at: https://educationinnovations.org/program/akirachix-training-program.
[340] Business Wire (2016). "Hackbright Academy Joins Capella Education Company to Further Goal of Closing the Gender Gap in Software Engineering." *Business Wire*. Available at:

	NAME	LOCATION(S)	DESCRIPTION
8	Impulsa Tu Empresa	Guatemala, Honduras, El Salvador, Nicaragua, Burkina Faso	Impulsa Tu Empresa ("Boost Your Business") is a business accelerator program that aims to help small and growing businesses (SGBs) fast-track their growth. With support from Argidius Foundation, the Multilateral Investment Fund, Walmart Foundation, Citi Foundation, and PIMCO Foundation, TechnoServe, the program provides mentoring, connections to higher value markets, and access to capital to help high-potential SGBs develop, fund and implement business plans. The program promotes gender equality through training in good gender practices such as building gender-balanced teams, offering family leave for employees, and creating gender-aware marketing and communications. SGBs selected for support receive specialized training, followed by 10 months of mentoring and business development services.
9	IFAD-ILO Taqueem Initiative	Multiple *(Middle East and North Africa)*	This partnership between ILO's Youth Employment Programme and the Near East and North Africa Unit of the International Fund for Agricultural Development (IFAD) was founded to strengthen gender monitoring, evaluation and mainstreaming in rural employment projects in the Middle East and North Africa. It is a capacity development and learning initiative that aims to understand "what works" in the promotion of gender mainstreaming through rigorous impact research with the ultimate goal of reaching gender equality in rural employment outcomes across the region.[341]
10	Information Technology Training Program (ITTP) for People with Disabilities	Vietnam	The Information Technology Training Program for People (ITTP) with Disabilities was launched on May 11, 2007. Building on international best practice, it aimed to use information technology (IT) to increase PWD participation in the labor force. By February 2012, 24 groups (509 PWD, aged 16–30 years) had completed advanced IT courses in software engineering and computation at two sites in Hanoi and Ho Chi Minh City (HCMC). The ITTP is a cooperative effort between Catholic Relief Services Vietnam (CRS) and two Vietnamese higher education institutions under the USAID-funded Inclusion of Vietnamese with Disabilities project (2005–2014).[342]

https://www.businesswire.com/news/home/20160422006049/en/Hackbright-Academy-Joins-Capella-Education-Company-Goal.

[341] http://ilo.org/global/topics/youth-employment/projects/evaluation/WCMS_372780/lang--en/index.htm.

[342] Zhao, C., Wendy-Ann Rowe, Naoko Kamioka, and Brenda Hegarty (2012). Enhancing IT Vocational Training and Employment Opportunities for Young Vietnamese with Disabilities. Baltimore, MD: Catholic Relief Services. Available at: https://www.crs.org/sites/default/files/tools-research/it-vocational-training-employment-young-vietnamese-disabilities.pdf.

	NAME	LOCATION(S)	DESCRIPTION
11	Innovations for Women's Economic Empowerment	Nicaragua	Innovations for Women's Economic Empowerment was a pilot initiative from 2009 – 2011 led by the World Bank and the Fundación Mujer y Desarrollo Económico Comunitario, a Nicaraguan NGO. The pilot designed, implemented and evaluated the impact of productive transfers on income generation and women's economic empowerment in 24 rural communities. Components included: productive transfers and low-cost credit to promote; female engagement in new (or expansion of old) economic activities; training to improve female aspirations and household participation in economic decisions; and creation of communal banks to promote economic and entrepreneurial development.[343]
12	Internet Saathi	India	Google's Internet Saathi initiative, launched in association with Tata Trusts, is a digital literacy program for women in rural India based on a 'train the trainer' model. Women from villages are trained on Internet use skills and are made equipped with data-enabled devices. The women are known as Internet Saathis and work as trainers to help other women in their village enhance their Internet skills.
13	M-PESA	Kenya, India, Tanzania, Afghanistan, Mozambique	M-PESA – M is for mobile phone and PESA is the Swahili word for money – is a platform for making small-value electronic payments that was initially launched in Kenya by Vodafone and Safaricom. Although it was originally designed to facilitate mobile-based microfinance-repayments in order to lower interest rates, it has since expanded to become a general money-transfer and financial services platform.[344]
14	Market Aligned Skills Training (MAST)	India	Led by the American India Foundation, MAST conducts regional labor market scans in partnership with local employers to develop the market-aligned training curricula that form the heart of the program's skills training. Set over a period of three months, the training combines foundational, workforce readiness skills with industry-specific skills, ranging from retail, basic IT, healthcare to hospitality, creating multi-sector job opportunities for marginalized young people. Upon completion of the training, qualified candidates are placed into entry-level jobs, creating a path to financial independence.

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[343] World Bank (2012). *Women's Economic Empowerment in Latin America and the Caribbean.* Washington, DC: World Bank Group. Available at:
http://siteresources.worldbank.org/INTLACREGTOPPOVANA/Resources/GAP_Lessons_Learned.pdf.
[344] T.S. (2015). "Why Does Kenya Lead the World in Mobile Money?" *The Economist*. Available at:
https://www.economist.com/the-economist-explains/2015/03/02/why-does-kenya-lead-the-world-in-mobile-money.

	NAME	LOCATION(S)	DESCRIPTION
15	Monyetla	South Africa	Monyetla is a government-funded, employer-led workplace readiness program designed to accelerate training for entry-level jobs within South Africa's BPO industry. The program relies on a consortium of employers, accredited trainers and recruiters to source and train employees for jobs in the growing call center industry.[345] Targeted beneficiaries include school leavers, unemployed graduates, women, disabled people and youth between the ages of 18 and 35 years.[346]
16	MotherCoders	USA	MotherCoders, a 2015 Google Impact Challenge Bay Area finalist, helps women with college degrees and work experience get on a career track in tech. Through a part-time, 9-week technology training program, which includes on-site childcare, as well as community events and workshops, MotherCoders provides women with kids the opportunity to build the skills, knowledge, and professional network needed to move into our economy's fastest-growing employment sector.
17	Tanzania Virtual Business Incubator	Tanzania	Tanzania Growth Trust's Tanzania Virtual Business Incubator Programme started in 2009 as a pilot to test a new way of supporting women micro-entrepreneurs. The program targets low income women entrepreneurs in high-growth sub-sectors including textile and tailoring, handcrafts, food and soap processing, and poultry keeping. Participants receive hands-on training, mentoring, and business counseling and are connected to business networks, regulatory authorities and financial service providers.
18	Working to Advance Science and Technology Education for African Women (WAAW) Foundation	Multiple (Africa)	The WAAW Foundation aims to increase the pipeline of African women entering science and technology fields in Africa through experiential STEM education, leadership and entrepreneurship training programs. Key initiatives include outreach and mentoring for secondary school and college-aged students, camp programs for junior and senior secondary school students, scholarships, teacher trainings, and after school clubs and coding workshops.
19	Women Business Development Incubators (WBDI)	Jordan	The WBDI is a development project implemented by Noor Al-Hussein Foundation (NHF) in cooperation with the Italian Association for Women in Development (AIDOS) and co-financed by the European Union. The WBDI aims to promote Jordanian women's participation in the labor market through the provision of innovative business development services. Services include enterprise management, managerial and technical trainings, business planning and counseling, product development and design, and marketing counseling.

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[345] Republic of South Africa's Department of Trade and Industry, The Business Trust, and Business Process enabling South Africa (2009). *Ready to Work: South Africa's Monyetla Work Readiness Programme for Business Process Outsourcing.* Pretoria: South Africa: The Business Trust. Available at:
http://www.btrust.org.za/downloads/3_bpo_ready_to_work_business_trust_march2009.pdf.
[346] Pule, A. (2013). "Monyetla Opens Doors of Opportunity for Unemployed Youth." *Vuk'uzenzele*. Available at:
https://www.vukuzenzele.gov.za/monyetla-opens-doors-opportunity-unemployed-youth.

	NAME	LOCATION(S)	DESCRIPTION
20	Women Entrepreneurs Finance Program (We-Fi)	Multiple	We-Fi is a collaborative partnership among 14 governments, eight multilateral development banks (MDBs), and other public and private sector stakeholders, hosted by the World Bank Group. It seeks to address financial and non-financial constraints faced by women-owned/led small and medium enterprises in developing countries. We-Fi supports women entrepreneurs by scaling up access to financial products and services, building capacity, expanding networks, offering mentors, and providing opportunities to link with domestic and global markets in addition to assisting governments in creating enabling environments for women in business.
21	Women in Business Program (WiB)	Uganda	The WiB program was established by the Development Finance Corporation Uganda (DFCU) Bank to support female entrepreneurs in Uganda through training and network opportunities, preferential borrowing rates, mentor programs, and financial literacy training. Support and products are tailored to the nature of the women's work – professional women are offered salary loans, female traders receive unsecured lending, and rural women are supported in organizing investment clubs to pool savings.[347]
22	Youth4Jobs (Y4J)	India	Y4J works to empower disabled and disadvantaged youth through vocational training and job search assistance. The organization provides a 45-day training and skill-development program targeting young men and women with speech, hearing and vision disabilities between the ages of 18 and 20 living in rural areas. The training includes free accommodation and includes specially designed English, computers, life, soft skills and industry-specific curriculum followed by on-the-job training. Training is followed by a trainee-ships and placements in organizations that may lead to appointment as full-time employees.[348]

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[347] CDC Group (n.d.). *DFCU Bank: Helping Women in Business.* London, UK: CDC Group. Available at: http://www.cdcgroup.com/Global/Case%20Studies/DFCU/DFCU%20women%20in%20business%20FINAL.pdf.
[348] Misra, J. (2017). How Youth4jobs is Empowering Disabled Youth in India. New Delhi, India: Borgen Magazine. Available at: http://www.borgenmagazine.com/how-youth4jobs-is-empowering-disabled-youth-in-india/.

Annex D: Online Consultations Report

Digital Jobs for Youth:
Focus on Young Women in the Digital Economy

Online Consultations Report

Overview

Solutions for Youth Employment (S4YE) organized online consultations comprising of focus groups and one-on-one interviews. The objective was to seek inputs for the overall policy and operational recommendations of S4YE's Annual Report "Digital Jobs for Youth: Focus on Young Women in the Economy." The consultations sought to understand perspectives and experiences of young digital skill trainees and entrepreneurs; digital skills training implementers; and firms that hire young workers for digital jobs. The findings will serve as technical input for the report's insights into promising practices for gender-inclusive digital jobs programs for youth.

Methodology

S4YE conducted a range of qualitative interviews to complement and help address questions that emerged from the secondary literature review and case studies for the report. The interviews focused on learning, with the expectation that these stakeholders would have valuable information and insights to share about the development and evolution of their training programs and employee recruitment. The knowledge S4YE gathered through these diverse perspectives shaped this qualitative paper and informs our conclusions on current lessons on digital skills training and employment for young women.

The consultation team reached out to a variety of organizations and individuals to gather a range of experiences and perspectives for this report. S4YE's Secretariat identified potential participants by contacting partners and external organizations, who connected S4YE to local program implementers, staff, and private sector companies.

S4YE conducted one-on-one interviews with individuals who provided insights into their areas of work, ranging from those who had completed entrepreneurial training programs to those who had managed training programs, and demand side firms that hire trainees. A variety of private sector companies were targeted to gain demand-side insights into how hiring preferences varied by firm size and industry, and how digital skills programs could better engage with employers.

S4YE conducted focus groups with beneficiaries of digital skills programs via Zoom, while one-on-one interviews took place over the phone and using Webex (see Table 1). Questions for focus groups and one on one interviews were prepared in advance and clarifying questions were asked during the interviews to deepen understanding of topics.

TABLE 1   TARGET GROUPS FOR ONLINE CONSULTATIONS

TYPE	TARGET GROUP	DESCRIPTION
Focus Group (6 – 8 young women per group)	Beneficiaries	Female beneficiaries of youth digital skills programs (preference given to young women with caretaker responsibilities)
1-on-1 Interview	Entrepreneurs	Female beneficiaries of entrepreneurship programs (e.g. incubators and accelerators)
1-on-1 Interview	Implementers	Implementers of youth digital skills programs
1-on-1 Interview	Large Firm (IT sector)	Firm with 50+ staff hiring youth for ICT-intensive work
1-on-1 Interview	Small- or Medium-Sized Enterprise (SME)	Firm with 7-10 employees hiring youth for ICT, ICT-enhanced and ICT-dependent work
1-on-1 Interview	Impact Sourcing Firm	Firm that trains and hires vulnerable youth for BPO activities
1-on-1 Interview	Non-Traditional Employer	Employer that recruits youth primarily for remote work (freelancers, gig economy)

Interviews Completed

S4YE completed two beneficiary focus groups, five interviews with implementers, three interviews with digital entrepreneurs, and four interviews with demand-side firms (see Table 2).

TABLE 2   STATUS OF ONLINE CONSULTATIONS

TARGET #	ACTUAL #	TARGET GROUP	ADDITIONAL INFORMATION
1	1	Beneficiaries	Samasource, Kenya
1	1	Beneficiaries	Laboratoria, Mexico
3 – 5	3	Entrepreneurs	Australia, Uganda, Kenya
3 – 5	5	Implementers	Kenya, Tunisia, Kenya, Pakistan, Peru, Mexico, Chile, Brazil
1	1	Large Firm (IT sector)	Google (global)
1	1	SME	Giraal Africa (Uganda)
1	1	Impact Sourcing Firm (BPO)	Digital Divide Data (DDD) (Cambodia, Laos, Kenya)
1	1	Non-Traditional Employer	Anonymous firm

Limitations

This is a qualitative pilot study and the interpretations are not intended to be representative of a large population or geographic area. The study provides input to existing secondary literature and case studies analyzed in the report.

> *"In undertaking the consultation process for the qualitative reviews, the S4YE team did not know in advance the type of responses they would receive for requests to interview individuals and organizations across continents and time zones. What has been striking from the first email to the final interview is the consistent enthusiasm of interviewees in all categories. Despite the challenges of coordinating multiple time zones and sometimes difficult start times, the focus of the interviews was consistent in quality."*
>
> **S4YE Online Consultations Team**

Summary of Insights

While conducting the beneficiary focus groups and individual interviews, insights emerged across five main topic areas:

1. **Program design:** The way in which an organization determines the structure and content of the training program, whether within a training agency or a firm.

2. **Program recruitment:** The key elements that were developed to reach out to and engage young women in the training program.

3. **Program curriculum:** The main content and process elements of the training courses.

4. **Beneficiary retention:** The ways in which programs sought to ensure that beneficiaries would be able to complete the training.

5. **Job search and placement:** The approaches developed by training programs and firms to support the employment opportunities for young women.

Within these topic areas, several cross-cutting themes were identified that affected the potential for success in each of these areas. These cross-cutting themes included: the role of **community partners** (public, private, community based) in recruitment and support; **central contextual factors** that shape women's access and opportunities, such as the overall economic situation within the country, as well as business expectations; **social norms**; and the importance of **soft skills.**

🧠 Program Design

The goals of training programs are matched to the target audience, which includes the trainees' and potential employers' needs, thus shaping the training goals and objectives.

Community Partnerships	▪ Some firms build local partnerships to ensure that the training and employment opportunities are country or context specific. This could be urban versus rural settings, or the level of digital literacy trainees possess when starting a program. ▪ The firms build partnerships with different local Community Based Organizations (CBOs), government agencies, and educational institutions to identify and screen both needs and opportunities for young women. This also ensures local buy-in. ▪ In Kenya, it was noted that work with CBO's helped them better engage with low-income communities and reach young women.
Contextual Factors	▪ There are greater obstacles to women's participation in training in some locations, such as in Khyber Pakhtunkhwa in Pakistan or the Somalian Dadaab refugee camp in Kenya, than in others, such as among urban women in Mexico, Kenya and the Philippines. Social norms such as parental or spousal expectations of female roles and household caregiving duties were noted as barriers. ▪ Training implementers adjusted future programs based on experiences with the first groups of trainees. For example, one of the implementers changed the initial entry criteria, which had been by age, to one that included pre-existing knowledge of digital technology and level of education. ▪ Firms reported that the digital training should be linked to company business experiences in the country of operation. ▪ A weakness in one entrepreneurship program was the 'mix' of levels of readiness. There was a disparity between participants with vague ideas versus business-ready plans, so it was recommended that courses have students who are relatively at the same level of preparation or follow separate tracks within a program.
Social Norms	▪ Most interviewees highlighted the importance of programs that have a significant percentage of women in the program of study. Beneficiaries could speak more openly and credibly to other women about personal issues such as health and family problems. Some also felt safer among women. ▪ In some situations, women are not able to work outside of the home, so training and recruitment programs are adapted to allow for 'at home' training and employment opportunities. ▪ An essential element cited was the mentor support that the programs provided, as much for the emotional support as for training. This also helped trainees build a support network that they could access after the training.

Soft Skills	▪ Implementers monitored and followed along through the course with how student aspirations changed and adapted during the program. They sought to teach long term thinking versus thinking in the 'now.' ▪ Training programs sought to establish an emotional support function for the trainees (also reported from digital beneficiaries and entrepreneurs).

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👥 Recruitment

Training programs and firms utilize a range of options for reaching young women as potential program participants or employees.

Community Partners	▪ Training programs often rely on local CBOs to serve as partners in identifying potential trainees ▪ These partners can also help the program address families in relation to social norms and the roles of young women, especially caregiving expectations.
Contextual Factors	▪ Training programs have become increasingly sensitive to cross checking the level of preparation/education written in trainee applications, resulting in more communication with school officials. ▪ Trainers found that it is important that young women had some computer training or familiarity with some basic computer programs before enrolling in a digital skills course. ▪ Firms and training programs also utilize local media, social networks, student networks, and community organizations, to reach potential students.
Social Norms	▪ In Tunisia, while there were fewer women entrepreneurs, the programs found ways through targeted outreach efforts and a focus on inclusion of women within the design of the program that the difference in numbers could be overcome. ▪ Some organizations organize ways for women to reach out to other women to encourage more participation in training programs. They also use behavior science tactics to offset social norms and ensure that women feel comfortable and safe while being recruited. ▪ Trainees highlighted that there was a perception that free or low-priced classes were not of significant value and were sometimes seen as fraudulent. This was especially an issue for low income countries and was cited by implementers as a challenge while recruiting.

🖥️ Curriculum

Training methods are designed to fit local needs, norms, and businesses.

Community Partners

- In Tunisia, the program developed multiple approaches with local partners to reach individuals who are not comfortable in a classroom setting, but who have the potential to develop digital skills.
- Reaching young women has included working 'on the street' to set up programs such as a club with a gym and martial arts training classes as a way of increasing self-confidence and interest in more formal training opportunities.

Contextual Factors

- The skills gap between different locations sometimes means adding more basic entry skills to the core of certain programs.
- Firms want to see problem solving skills in training programs, which means providing training that is in effect 'on the job' rather than 'just classroom'.
- Training was adapted to fit business realities, and this included ways to assess progress through 'hands on' projects that engaged students' interests more dynamically than 'teaching to the test'. This gave trainees an opportunity to make mistakes and learn from them.
- Another key skill is the knowledge of 'legacy systems', since frequently their clients wanted to upscale or upgrade these systems, rather than introducing a new one.

Social Norms

- Programs were adapted to take local realities of women's status and levels of education into account, as these significantly shape the ability of program participants to complete the program. The adaptations included greater emphasis on self-confidence and encouragement to actively participate in class discussions.
- Programs had mentors focused on young women or worked to ensure that there was gender balance in classes so that young women felt at ease during the course work.

Soft Skills

- In all situations, there is a key role for soft skills in the training, as most of the trainees lack experience in an office setting or with a formal business operation.
- Programs sought to deepen soft skills such as communication, team work, financial literacy and professionalism that are helpful for both beneficiaries and hiring firms.
- Job search skills such as being able to find online job openings, resume writing, and interviewing are viewed as valuable elements of curricula.

🧍 Retention

Some programs provide additional support to ensure that young women are able to complete the program given caregiving and financial demands.

Community Partners	▪ If a trainee had to drop out of a course, they may have been able to start with another course cohort after the local CBO arranged to provide for childcare during her course hours. ▪ Some local partners offered child care for part of the day to enable young mothers to successfully complete their programs.
Contextual Factors	▪ Trainees who encountered difficulties finishing a course were encouraged to complete in a later course with support from staff and/or designated mentors who sought to assist young women who encountered financial/economic obstacles.
Social Norms	▪ Programs are adapted to caregiving needs through shifting the course schedule to hours between 9:00 am – 2:00 pm or 10:00 am – 3:00 pm, or coordination with Community Based Organizations (CBOs) to provide childcare. ▪ Other factors in the retention of trainees include the presence of female role models, programs adapted to the job market, and the social environment of the training center.

🤝 Job Search and Placement

Training programs actively seek partnerships with firms to provide greater opportunities for young women who have completed their programs.

Contextual Factors	▪ Some firms and training programs have developed structured relationships for job placements as well as feedback to the trainers on lessons from the skills of those whom they have employed. ▪ Depending on the local needs, firms are expanding the diverse ways for recruiting trainees and workers through industry meet ups, social media advertisements, employee referral programs and skills training programs.
Social Norms	▪ Since young women face barriers in recruitment to training programs and jobs, training programs provide connections for their trainees to help overcome the obstacles to employment and firms. ▪ Both training programs and firms have sought to overcome barriers by expanding mentor resources to address the lack of mentors for women. ▪ After the program has ended, women can develop networks for continued support on their employment goals.

| **Soft Skills** | ▪ Firms want information on communication skills, as there is frequent back and forth between clients and developers.
▪ They seek employees with a strong work ethic, as the employee needs to be self-motivated and able to take on challenges. Firms want to know if their workforce possesses problem solving skills, and since they hire staff from other countries, they value cross cultural communication skills. They want employees who can organize and participate in meetings, and work in ways that reflect their corporate values. |

Insights by Target Audience

Beneficiary Focus Groups

Social norms such as parental expectations of female roles and household caregiving duties are a barrier when there are different perceptions of women's roles, including their use of technology. Besides caregiving expectations, many parents feel that a young woman's time should not be wasted on a smartphone. They see this as social time and a distraction from work opportunities, as they do not understand the financial potential of new technologies. Programs have to help parents understand the possible financial benefits of smartphone use.

Program participants have found support from the cooperation between the training organization and local community groups. Beneficiaries cited specific ways in which the program adapted to caregiving needs such as a course schedule set between 9:00 a.m.-2:00 p.m. or 10:00 a.m.-3:00 p.m., or coordination with Community Based Organizations (CBOs) to provide childcare. Trainees who encountered difficulties finishing a course were encouraged to complete requirements in a later course. This flexibility in enrollment and completion was noted as helpful (Box 1).

BOX 1   THE BURDEN OF CHILD AND ELDERLY CARE

Another young woman had to drop out of one of the training courses because she could not find someone to care for her child. However, she was able to join a later training cohort after the local CBO arranged to provide for childcare during her course hours. The focus group in Nairobi pointed out that the flexibility of the training program combined with support from the local CBO was vital for both addressing expectations for caregiving and offering support for balancing demands.

Beneficiary Focus Groups, Samasource Digital Basics, Samasource, Kenya

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Retention of trainees depends on multiple factors, including the presence of female role models, flexible training schedules, and the social environment of the training center. The focus groups highlighted the importance of female mentors and trainers, both during the training and after. Beneficiaries could speak more openly and credibly to other women about issues such as health and family problems. In addition, they noted that the outreach to trainees who missed sessions or had difficulties with regular attendance was critical to promoting trainee retention. Flexible training schedules or programs and positive social environments also increased retention.

Training programs need to address potential trade-offs between immediate rewards versus long term rewards for their targeted beneficiaries. This was an insight from interviews with both beneficiaries and trainers. Beneficiaries noted that some trainees did not finish the program because they were offered another paying job. In this case, the immediate income of a paying job was perceived as more valuable than access to better quality jobs in the future. They also highlighted that there was a perception that free or low-priced classes were not of significant value and were sometimes seen as fraudulent. Trainers of various programs noted that they teach trainees to think ahead and set goals on a yearly basis versus a focus in the 'now.'

There is a key role for soft skills in the training, as most of the trainees lack experience in an office setting or with a formal business operation. Job search skills such as being able to find online job openings, resume writing, and interviewing are valuable. The expansion of soft skill personality traits such as confidence and professionalism are helpful for both beneficiaries and hiring firms.

Training firms have developed curricula that provide more 'real world' experiences for students. In Laboratoria's program, students come together as teams to work on projects that are similar to the work requirements of businesses seeking digital skill employees. Instead of receiving grades for in-class tests, the students are rated on their solutions to the work problems. They meet weekly with mentors and are encouraged to learn from failure with the expectation that they will have to test out ideas and work through solutions as within a business setting.

Cyber security awareness and training is needed for youth that work online. Beneficiaries generally had prior experience with Internet and smart phone use. However, they highlighted their lack of understanding of cybersecurity during the focus group. The trainees are vulnerable to financial and personal online fraud and gave examples of scenarios they or other peers had experienced. Cyber security courses are offered at the Nairobi center, but many participants were not aware of the courses and those who had taken the course expressed surprise at simple security measures such as continuously switching passwords and the possibility of hacking.

Interviews with Young Entrepreneurs

Across several cultures, common successful training attributes included teaching specific skills such as the development of a business plan and the pitching of ideas, as well as the involvement of female peers and mentors in training. The programs provided an opportunity for testing ideas for the new business or refining existing business concepts. Most interviewees highlighted the importance of programs that have a significant percentage of women in the program of study. Trainees were more willing to share obstacles and ideas with female peers. The presence of women in their programs also provided more confidence in situations where they worked with a number of male counterparts.

Interviewees emphasized the value of developing long-term connections and networks with mentors. Women often turned to these networks after the program had ended for continued support on their business plans and for building up the 'pitch'. An essential element cited was the mentor support that the programs provided, as much for the emotional support as for entrepreneurial training (Box 2).

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BOX 2   THE ROLE OF FEMALE MENTORS IN DIGITAL SKILLS TRAINING PROGRAMS

The program gave me emotional support; especially from my mentor who kept encouraging me to change my mindset from considering myself as a failure when compared to other people. I remember one day, I had found out that my parents couldn't afford my university tuition, so I was stuck and felt down. I talked to my mentor about my situation, and she told me that everyone has a goal in life. She said, "Find out what you can do best and make your life better. The sky is the limit and just know you are different." The positive feedback she gave is still in my mind today, and it has made me conquer a number of challenges that have come my way.

Graduate, Educate! Entrepreneurship Program Graduate

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Women who had enrolled in entrepreneurship training programs were often available and interested in sharing their knowledge with the next generation of trainees. Interviewees noted the value of program participants who reach out to the next generation of students currently in the program, especially young women, to foster friendship and expand connections (Box 3). This helped them find peers and younger mentors as they learned to run a business.

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BOX 3   SHARING KNOWLEDGE WITH PERSONAL NETWORKS

I did share knowledge and then went further by gaining more skills and knowledge to impact more youth. Currently, I am a certified 'start and improve' your business trainer with an international organization and I have trained over 300 youth in Uganda from different organizations.

Graduate, Educate! Entrepreneurship Program Graduate

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A weakness in one program was the 'mix' of levels of readiness. There was a disparity between participants with vague ideas versus business ready plans, so it was recommended that courses have students who are relatively at the same level of preparation or follow separate tracks within a program. The ability of students to test their ideas in detail required having peers in the course who understood how they were approaching their business plans. When young women did not have much background in business planning or goal setting, it was better for them to work with others who were also at a nascent stage in their enterprise ideas.

Interviews with Program Implementers

Experience with initial groups of trainees was important for the adjustment of the programs through reflection and evaluation. The implementers adjusted their programs due to their experiences with the

first groups of trainees. For example, one of the implementers changed the initial entry criteria, which had been by age, to one that included pre-existing knowledge of digital technology and level of education (Box 4).

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BOX 4   CONTINUOUS LEARNING AND ADAPTATION

Samasource in Nairobi, Kenya originally had a wide variety of participants, including primary-school dropouts. This created difficulties at first, as the students had no English skills and had never seen a computer. This led to an 80 percent failure rate in the first cohort. As a result, we switched from solely an application form entrance to also screening applicants. We also added an 'impact criteria' that included a preferential option for lower income students. Some community partners offered services for childcare, which addressed another barrier both to women's recruitment and completion of the course.

Program Staff, Samasource Digital Basics, Samasource, Kenya

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Working with local CBOs can help screen and engage with beneficiaries. A trainer in Kenya cited that work with CBOs at the start also helps them better engage with low-income communities. They used a CBO to help them screen applicants for technical and soft skills. Women who displayed lower confidence levels during the interview process were highlighted by the CBO and the training program gave them specific attention to increase their confidence through the program.

Implementers monitored how students' skills developed, how their aspirations changed, and how they adapted during and after the program. This included ways to stay in contact with their ideas and interests as the courses went forward. Some programs focused on student projects around specific client-related tasks, rather than traditional classroom learning. Students were mentored based on the projects that were similar to what business clients would expect, not 'teaching to the test'. The trainers also sought to ask trainees to think 'forward' a few years ahead of the class versus a focus on immediate results. The programs also sought to establish an emotional support function for the trainees (also reported from digital beneficiaries and entrepreneurs).

Training methods must be designed to fit local needs, norms, and businesses. The pedagogy should provide encouragement for skills development and testing ideas as noted by one organization, 'we don't teach, students learn.' The local realities of social norms and levels of education significantly shape the ability of program participants to access the program due to family norms or due to their lack of adequate education. There are greater obstacles in some locations (such as Khyber Pakhtunkhwa in Pakistan or the Somalian Dadaab refugee camp in Kenya), than in others (for example, urban women in Kenya and the Philippines) (Box 5).

BOX 5   ACCOUNTING FOR LOCAL NORMS AND BELIEFS

When the program started to work in the Somalian refugee camp, the staff met with families in Dadaab, Kenya. They found very high levels of resistance to employ young women or even provide them with digital training. They had to revise their initial approach to training and to how they worked with families, based on these experiences. This proved to be quite labor intensive. They still face considerable challenges that have yet to be addressed.

Program Staff, Samasource Digital Basics, Samasource, Kenya

Additionally, the trainers should adapt to barriers for young women in social enterprises and digital skills. For example, in Tunisia, this meant an analysis and identification of the cultural barriers young women face. They found that while there were fewer women entrepreneurs, there were ways through outreach and design of the program that the difference in numbers could be overcome. Some designed an online application platform and a provided access to on-line tools and training (Box 6).

BOX 6   STRATEGIC RECRUITMENT: THINKING OUTSIDE THE BOX

We have tried to develop multiple approaches, so that we may reach individuals who are not comfortable in a classroom type setting. We have set up a sports club with a gym and martial arts training. It is in a low-income area with programs and opportunities for all people and ages. This has allowed the program to build up a diverse customer base, with an emphasis on building confidence and making connections with people who are not ready for a more formal training program. We have also started a program for unemployed young people (at least 2 years). The program provides up to 4 months support, with two months martial arts training and 2 months of soft skills training. It is based on a program in France and includes presentation skills and lessons from Education for Employment (EFE) on soft skills.

Program Staff, Impact Partner, Tunisia

Interviews with Demand-Side Firms[349]

In some locations, even when the firm has relations with training programs, it may be difficult to find workers with the all the requisite skills. This means that some firms will regularly run skills training workshops for their organization as well as client organizations (Box 7). This can include both small and medium enterprises (SME) and Impact Sourcing Firms, and this is especially the case for higher digital skill jobs. For example, Digital Divide Data (DDD) has an Amazon Web Services (AWS) Certified Cloud Academy in Kenya which trains and certifies students, and then gives some graduates jobs to provide support to DDD clients.

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349 These are early insights from completed interviews with Giraal Africa (SME); Google; (one anonymous Non-traditional employer); and Digital Divide Data (Impact Sourcing Firm).

Firms reported that the digital training should be linked to the company's business experiences and the lessons that the specific company has drawn from clients in areas such as soft skills, as well as digital skills. Thus, among the most valuable soft skills noted is the ability to be a team player. For some of the firms, most of the major projects are collaborative, and they have identified that co-workers learn from each other. Communication skills were noted as equally important outside of the core team, as there is frequent back and forth between clients and developers. They also cited the value of a strong work ethic, as the employee needs to be self-motivated and able to take on challenges. The firms want to know if their workforce possesses problem solving skills, and since they hire staff from other countries, they value cross-cultural communication skills. They want employees who can organize and participate in meetings, and work in ways that reflect their corporate values.

BOX 7   IN-HOUSE SKILLS-TRAINING & APPRENTICESHIP

We offer our own training and apprenticeship programs. We have a stand-alone business course which includes lessons on team building, training the trainers, and email etiquette. All the main training is internally developed and managed so that we are more engaged in the work and in the lessons from the training. We have had to change our approach to training by adding coaching in practical applications. This happens when the course is more theoretical and this change has allowed us to be intentional in shifting the content and process. We have launched an innovation boot camp, which allows us to be more open to all change ideas. We are looking for innovation, not just in technology, but also mindset. We need to address that we may have 'skills in place' but the market is changing and they may not be needed in the future, so upskilling is essential, creating an internal SME, i.e. start up and flexible approach, in workplace mentality.

Anonymous, Program Staff, Global Firm

Some firms divide work and training by the availability of labor skills in the location of operation. There are several types of digital jobs that depend on the location and business set up. Some work requires what firms term 'direct labor', which usually involves recent graduates from high school or first year of university. For instance, in one office in Cambodia, the firm required Photoshop and basic knowledge of newspaper, magazine and book content layout. Meanwhile, in Kenya, the same firm offered different services such as AWS cloud computing and field research as the population is well versed in the English language and has some more technology background. As skills developed, employers wanted staff to be more independent for self-learning programs, and to have competence in the English language. An important citation was that another key skill is the knowledge of 'legacy systems', since frequently their clients wanted to upscale or upgrade these systems, and not introduce a new system.

Some firms focus on local partnerships to ensure that the training and employment opportunities are grounded in specific contexts. This could be urban versus rural settings, or the level of digital literacy currently common amongst trainees. The firms build out partnerships with different local CBOs, government agencies and educational institutions to identify both needs and opportunities for young women. For instance, Google's Womenwill program operates globally. Partnership and buy in with the Government is key to establishing its entrepreneurship program. Each country program is unique and is executed in partnership with the Government and in line with the Government's entrepreneurship strategy. They also work with the private sector in the country and partner with external organizations to create training content when they don't have inhouse expertise on the topic.

The firms provide more advanced technical level programs in line with how some employees develop their skills and show potential. For example, in Kenya's Cloud Computing Academy there is a specific curriculum where employees go through rigorous training and then take exams certified by AWS. The curriculum may also incorporate more internal development measures such as project management skills, approaches to continuous improvement of business processes and knowledge of more platforms. One technology company reported that their core goal was to provide technology solutions to clients. This means that they have to find employees whose skills help the clients with different business processes. This requires employees to have basic skills around software development.

There remain barriers to the recruitment of young women to training programs and into jobs. Most opportunities are circulated within developer communities, which are male-dominated. Young women may not hear about many of these job opportunities. There is a lack of mentors for women. Mentors help young women polish up their resumes, prepare for interviews, negotiate salaries, benefits and working conditions, etc. Without them, young women have slower progress in their job search. One firm noted that certain tasks and topics attract less women and it is difficult to maintain the gender balance in these areas. For example, one task involved watching soccer players and capturing how players move so that the data is available for analysis for player improvement. This task was completed by a majority male work force. Image editing was another example of a task that women are less inclined to know beforehand and thus find attractive, but the firm lowered the gender imbalance by providing training specifically for young women.

Interview Questions by Target Audience

Focus Groups Discussion: Young women who have completed a digital skills program

Introductory Questions
1. How do you use computers and mobile phones?
    - *Why do you use them? Do you use them for work? How do you access the Internet and/or a mobile phone? How frequently?*
    - *What would you say prevents women from having access to the Internet and/or mobile phones?*

Discovering and Engaging with the Program
2. How and where did you get information about your digital skills training program? Where do you get your information about jobs?
    - *Where do you look for job opportunities? How do you feel about your access to information about job opportunities?*
3. Did you talk to anyone or get advice from anyone before starting the digital skills program? Walk us through your decision-making process.
    - *Did family/ relatives/ friends play a role in the decision-making process for getting training/work? How did they react?*
    - *How do they suggest you should balance your time between your job and housework?*
    - *Are they willing to share household responsibilities? Why? Or Why not?*

Future Program Questions
4. What features of the program helped you learn the most?
    - *I.e. the product/training (soft skills, technical skills), networking opportunities, mentors, etc.*
5. What features of the program helped you complete the program?
    - *E.g. extra benefits the program offered such as online work space, face to face interactions, or hybrid model, mentors, flexible schedule, security and safety, child care facility, free or lower cost transportation and food*
6. When you were in training, what were some reasons you or your classmates did not attend sessions?
7. If you could change anything in the program, what would it be?
    - *Which aspect of it was most helpful to your development? Which was least helpful?*
8. What features would you want in your next learning program? Why?
9. How important is it to have women in your work environment to succeed?
    - *E.g. talk about mentors, classmates, teachers, etc.*
    - *Can discuss women only versus co-ed male and female trainings*

Looking Forward
10. What are your next steps after taking this learning program?
    - *If you are looking for a job, how are you conducting your job search? Where are you seeking information about job opportunities?*
11. Did you share any of the knowledge you learned in the program with others outside the program?

12. How would you describe your outlook on life over the next six months, after your training?
    ○ *How did the participant feel before the training? Try and compare.*

Interviews: Young women who have completed entrepreneurship programs such as incubators and accelerators

Introductory Questions
1. Did you face any barriers while starting or growing your business because of your gender?

Discovering and Engaging with the Program
2. How and where did you get information about your entrepreneurship program?
3. Did you talk to anyone or get advice from anyone before starting the entrepreneurship program? Walk us through your decision-making process.

Future Program Asks
4. Which technical skills from the program were most helpful to start or grow your business?
    ○ *E.g. writing a business plan, taking courses of financial management and tools/ marketing/ new product management*
5. What type of support did your program provide and what was the most useful?
    ○ *E.g. space to work, equipment, funding, mentors, collaborative environment, and exposure to networks*
6. What more could have been offered by your program that would have been useful? Why?
    ○ *Which aspect of your program was most helpful? What did you like least about it?*
7. How did you learn about funding sources? What source did you use and why?

Looking Forward
8. What were your next steps after completing the program?
9. What types of support do you need to achieve your next steps?
    ○ *E.g. scaling up, becoming profitable, product to market, hiring*
10. Did the program provide guidance, information or contacts for your next steps?
11. Did you share any of the knowledge you learned in the program with others outside the program?
12. What other resources outside the program were useful for growing or expanding your business?

Interviews: Implementers of digital jobs programs

1. What methods did you use to increase the participation of trainees, especially young women?
    ○ *Were special techniques used to include women in discussions and to give women a voice-female mentors, teachers, pair with other female students?*
    ○ *Were these different from techniques used for men if in a hybrid environment? Were incentive systems used? Which ones?*
2. How would you describe young women engage in class? Can you list a few class room techniques that were used to engage women in the program? In what ways did these techniques help? (Could have had no effect in improving engagement.)
    ○ *I.e. classroom techniques that empowered women to use their voice. Ask if programs were co-ed; if so, ask about the percentage of female participants.*
3. How do you monitor progress of the trainees in the program?
4. What is your definition of success in the program?

5. Do you follow up with trainees after six months or a year to receive a retrospective assessment of their experience?
6. Is your program developed with specific employment opportunities in mind?
7. What features of the program helped students complete the program?
    o *This question is about the extra benefits the program offered such as online work space, face to face interactions, or hybrid model, mentors, flexible schedule, security and safety, child care facility, free or lower cost transportation and food.*
8. How was the program funded? Was this a good method?
    o *If funded by donors, were donors influencers in the design and implementation of the program? If they are, is this helpful? Why or why not?*
9. If you had design the program again, what would you change? What would you repeat? What would make the program scalable?

Interviews: Demand-side firms

1. Which digital technical skills are most useful for your firm?
    o *Is it hard to find workers with the right skills?*
2. How do you recruit workers with digital skills?
    o *E.g. through training programs, advertising in newspapers, online platforms, etc.*
3. Which soft skills are most useful for your firm?
4. How involved would you like to be in training curriculum design?
5. Does your firm offer training/ apprenticeship programs?
6. What are some potential barriers to hiring young women?
    o *E.g. social norms, cultural bias, caretaking responsibilities, absenteeism*
7. Why do you or would you hire young women?
    o *List advantages*
8. What would help you hire skilled young women?
    o *E.g. tax incentives, support for caregiving*

S4YE: SOLUTIONS FOR YOUTH EMPLOYMENT

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