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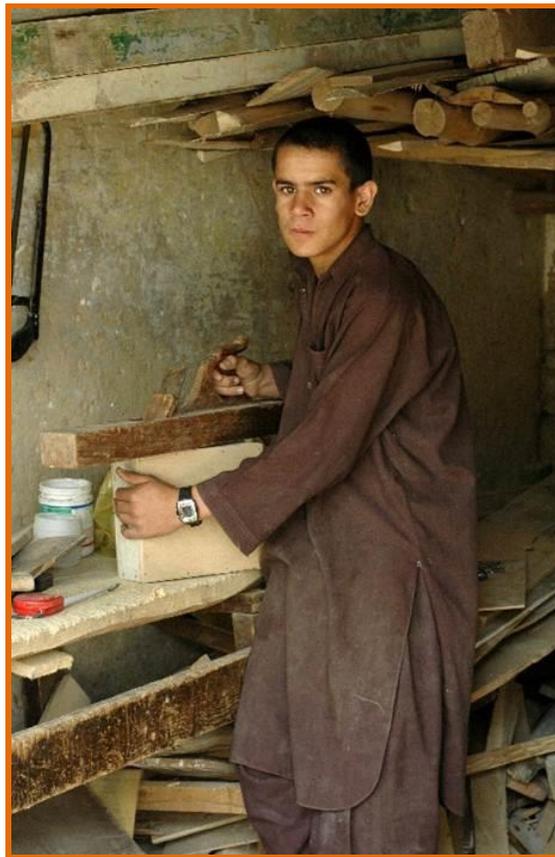
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**Report
No. 2**

Leveraging Apprenticeships to Reach and Benefit Vulnerable Youth:

Lessons from STRIVE's Afghan Secure Futures Program



An apprentice at work in a Kabul carpentry workshop

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Abstract

This report draws from the experience of the Afghan Secure Futures (ASF) project to highlight several important technical considerations when leveraging apprenticeships to reach vulnerable youth. Its intended audiences are implementers and donors who are developing programming for vulnerable children and youth and considering entry points for interventions or pathways for economic inclusion. The report discusses each finding in turn and then presents conclusions.

ASF operated from 2008 to 2011 with a budget of \$2.9 million. Implemented by Mennonite Economic Development Associates (MEDA) and managed by FHI 360, the ASF project focused on improving the lives of as many as 1,000 vulnerable boys, mainly between the ages of 14 and 18, who were living in Kabul and working as apprentices in the construction sector. The project took an indirect approach to generating economic benefits for youth apprentices by focusing its economic interventions on the workshop owners that employ apprentices.

ASF was one of four field projects of the STRIVE program, which is managed by FHI 360 in partnership with Action for Enterprise (AFE), ACDI/VOCA, CARE, MEDA, Save the Children, the IRIS Center at the University of Maryland and USAID/DCOF. STRIVE has implemented four field projects in Africa and Asia between 2008 and 2013. Each project has pursued a unique economic strengthening approach, ranging from savings-led finance to workforce development to value chain interventions. Coupled with a robust monitoring and evaluation framework and learning strategy, STRIVE has tracked and documented the impacts of these diverse interventions on household economic status as well as child wellbeing. As a result, STRIVE has sought to identify and demonstrate interventions that can sustainably increase household incomes and/or assets and document how such increases improve (or fail to improve) the lives of children.

This report summarizes findings from using an apprenticeship model to improve economic opportunities for vulnerable youth in Afghanistan. First, it finds that apprenticeships can be an effective pathway to employment, particularly for more vulnerable youth. Second, the construction sector offers opportunities for underskilled youth, particularly in a post-conflict context. Third, careful selection of subsectors can maximize benefits to apprentices. Fourth, workshop performance and growth may correlate with workshop size and owners' education level and entrepreneurialism. Fifth, the incentives to hire apprentices may vary among firms within a single subsector. Sixth, social influences shape apprentices' pathways to employment. Finally, apprenticeships teach vital skills but cannot address all youth learning needs.

Introduction

Background

Despite significant economic reform and growth since 2001, many Afghans continue to struggle economically: 36% of the population was unable to meet their basic needs in 2007 and over half of the population was at risk of falling into extreme poverty.¹ A common coping mechanism for families is to engage their children in work. As a result, an estimated 21% (1.9 million) of Afghan children between six and 17 years old are working; this increases to 45% of males between 16 and 17.² Although this livelihood strategy contributes significantly to income for many families, it can interfere with formal schooling or training for young people, and in some cases leads to physical injury and other long-term health consequences. In such cases, the end result is short-term gain for families but longer term losses for many working youth, who become stuck in low-skilled jobs or have reduced physical capacity.

A related challenge is that only 50% of boys and 18% of girls possess basic literacy skills.³ Though some success has been made in raising school enrollment rates, access to education remains extremely limited in Afghanistan: only 52% of children aged seven to 12 are attending school.⁴ Secondary school enrollment rates fall to 23% for boys and 7% for girls.⁵ Less than one percent of the Afghan population receives higher education.⁶ This problem is particularly relevant in Afghanistan given the size of its youth population: 68% of the population of Afghanistan is below 25 years of age⁷ while in Kabul 48% of the workforce was under 18 years old as of 2006.⁸

Ideally, all school-aged children and youth would have access to high quality, inclusive education. Where that is not widely available, however, young people's long-term vulnerability is reduced when they have access to safe opportunities to learn marketable skills. Such learning may occur in institutions, such as technical and vocational schools; however, it may also take the form of enterprise-based learning, where skills are taught in actual workplaces. Frequently, this learning occurs through the apprenticeship system, where youth learn a profession or trade from an experienced worker. Apprenticeships are a common approach to vocational training in Afghanistan, but the quality of apprenticeships varies greatly. Working conditions may put youth at risk of physical injury. The need to earn money to support their families may lead apprentices to forego their formal education. Poor health and lack of education are likely to compromise apprentices' long-term earning potential.

Youth Vulnerability in Afghanistan

- **Youth Literacy:**
50% for boys; 18% for girls
- **Secondary school enrollment:**
23% for boys; 7% for girls
- **Primary school enrollment:**
Children aged 7-12: 52%

¹ World Bank, Poverty Status in Afghanistan: A Profile Based on National Risk and Vulnerability Assessment (NRVA) 2007/8, 2010, 10.

²National Risk and Vulnerability Assessment 2007/8: A Profile of Afghanistan, 2009, 34.

³UNDP, National Joint Youth Program, Background. http://www.undp.org.af/whoware/undpinafghanistan/Projects/dcse/prj_youth.htm

⁴National Risk and Vulnerability Assessment 2007/8: A Profile of Afghanistan, 2009, 69.

⁵UNDP, National Joint Youth Program, Background. http://www.undp.org.af/whoware/undpinafghanistan/Projects/dcse/prj_youth.htm

⁶National Risk and Vulnerability Assessment 2007/8: A Profile of Afghanistan, 2009, 71.

⁷UNDP, National Joint Youth Program, Background. http://www.undp.org.af/whoware/undpinafghanistan/Projects/dcse/prj_youth.htm

⁸Beall and Schutte, Urban Livelihoods in Afghanistan, Afghan Research and Evaluation Unit, 2006, 39-40.

To mitigate these potential risks, the Afghan Secure Futures project (ASF) sought to reduce the vulnerability of male apprentices in the construction sector with a range of interventions designed to support the apprentices and the workshops in which they were employed. This paper outlines the project's learning in the area of leveraging the apprenticeship system to benefit young workers.

Introduction to STRIVE and Afghan Secure Futures

In October 2007, USAID's Displaced Children and Orphans Fund (DCOF), in close consultation with the USAID Microenterprise Development office, initiated the STRIVE (Supporting Transformation by Reducing Insecurity and Vulnerability with Economic Strengthening) Program, a six and a half-year, \$16 million initiative that uses market-led economic strengthening initiatives to benefit vulnerable children. The program aims to fill current knowledge gaps about how economic strengthening can reduce children's vulnerability.

The Afghan Secure Futures project (ASF) operated from 2008 to 2011 with a budget of \$2.9 million. Implemented by Mennonite Economic Development Associates (MEDA) and managed by FHI 360, the ASF project focused on improving the lives of as many as 1,000 vulnerable boys (70% between the ages of 14-18⁹) who were living in Kabul and working as apprentices in the construction sector. Although both male and female children face significant challenges in Afghanistan, ASF focused on young males because their work outside the home made them more accessible to economic programming. In addition, they are under greater pressure than female children to develop practical skills and contribute to family income. Please see sidebar for overview of project interventions.

The project took an indirect approach to generating economic benefits for youth apprentices by focusing its economic interventions on the workshop owners that employ apprentices. The workshop owners were typically independent entrepreneurs engaged in providing services in wood- and metalwork to the con-

ASF Program Interventions: Overview

MSE Upgrading and Market Development

ASF supported workshops to access the services they required to upgrade their business practices and foster linkages to more lucrative markets. ASF's activities included: facilitating vertical relationships among workshops; strengthening existing business associations; building the capacity of workshop owners in business skills; promoting workshops and their goods through exhibitions and open houses; and increasing the provision of financial services.

Business associations were an important element in ASF's sustainability strategy: they provide MSEs with ongoing advocacy, promotion and training services.

Enhanced Workplace Safety

Innovative approaches were developed to strengthen workplace safety. The ASF team trained business associations on safety and building codes, capacity development they passed on to their members. Dual purpose loans were designed with microfinance partner Ariana Financial Services. The loans included funds for upgrading safety conditions and client contracts detailed specifics of the safety upgrades.

Literacy Skills for Improved Employability

Approximately 220 apprentices attended regular literacy and numeracy classes conducted in seven locations close to their workshops. For many of the 220 participants, these classes were the only classroom education the apprentices had ever received. These basic literacy skills gave the apprentices skills that were immediately valuable in the workplace; in addition, the apprentices saw literacy as necessary for them to be able to open their own workshops at some point in the future.

⁹ In the baseline data, the ages of the apprentices ranged from 7 to 26. Nearly 70 percent were between the ages of 14 and 18 years of age.

struction sector in and around Kabul. The majority of workshops were small enterprises, employing between two and eight employees, a combination of apprentices and adult workers.

Project interventions sought to address the constraints within the support service markets (particularly business development services and financial services) that inhibit business growth among micro and small workshops. The project’s operating assumption was that improving business opportunities in the sector, especially for workshops that are employing apprentices, will ultimately improve employment and income opportunities for vulnerable youth. In addition, interventions to improve access to non-formal education opportunities and improve workplace safety practices directly targeted apprentices.

ASF employed a research methodology consisting of a range of quantitative and qualitative assessments that took place over the duration of the project.¹⁰ The following table outlines key monitoring and evaluation milestones of the project:

Assessment	Data Points	When
Baseline Registration	Information on demographic, economic, workplace health and safety of project clients (workshop owners and apprentices)	Project commencement
Most Significant Change Impact Stories	Qualitative stories of program impact collected by field staff	Life of project
Follow-up Surveys	Surveys administered to a sample of project clients	Spring 2010 Spring 2011

Apprenticeships in Afghanistan

Many young people in Afghanistan enter the workforce through the informal apprenticeship system. As in many developing countries, apprenticeships in Afghanistan are the main training system for the informal economy.¹¹ An apprenticeship is a centuries-old arrangement, in which a trainee learns a craft or trade from a more experienced worker.¹² There is normally a written or implied agreement between a master craftsman and an apprentice, in which the master invests in training the apprentice for a period of time, during which the apprentice is paid less than the market value of his or her labor.¹³ When apprenticeships operate effectively, both parties gain: the master earns a return on the labor of the apprentice and creates a source of skilled labor for his workshop; the apprentice, in turn, becomes more employable and can command a higher wage in the future.¹⁴

¹⁰ The security situation in and around Kabul required the ASF team to make changes in programming and M&E processes during the project life cycle. Operationally, there was a scale-back in programming activity and reach. The M&E team occasionally had to collect data via telephone interviews, rather than in-person discussions. Supplementary notes describe conditions under which data was gathered and whether security dictated changes in collection methods.

¹¹ International Labour Organization, Understanding Informal Apprenticeship – Findings from Empirical Research in Tanzania, Employment Working Paper No. 32, 1.

¹² Apprenticeships in England and Europe have been well-documented at least as far back as the Middle Ages, with “guild apprenticeships” starting in the twelfth century. See Aldrich, Richard, *Lessons from the History of Education*. New York: Routledge, 2006, p. 195.

¹³ In its 2012 report entitled *Afghanistan: Time to move to Sustainable Jobs*, the International Labour Organization asserts the necessity for viable pathways into the labour market, but describes Afghan apprentices as “vulnerable and marginalized” as they “occupy temporary and precarious positions...with no contractual or regulatory obligations for employers.” Full document available at http://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/publication/wcms_182253.pdf

¹⁴ International Labour Organization, Understanding Informal Apprenticeship – Findings from Empirical Research in Tanzania, Employment Working Paper No. 32, 2.

Apprentices in the construction sector in Afghanistan range widely in age and skill level. This publication defines an apprentice as a person between 12 and 18 years old, employed in a workshop and earning money, but not yet considered a senior member of workshop operations. Master craftspeople, termed “workshop owners” in this report, own workshops where they employ apprentices. For young people, this pathway into the labor market is typically facilitated through family connections, or less commonly, by families or youth approaching unknown workshop owners.

In most Afghan workshops, apprenticeships are relatively informal, with no specified learning period or pre-defined ending point when an apprentice “graduates” to being a skilled worker. Rather, apprenticeships are generally treated as a means to enter an industry, in which apprentices start by completing simple, non-technical tasks, such as cleaning the workshop and making or buying tea for the workers. Once the apprentice has gained the trust of the employer, he may be asked to assist experienced workers, for example, readying tools or preparing materials.

Progression is competency-based, dependent on how quickly an apprentice masters the tasks that he is given. Apprentices receive pay increases as their skills improve and they begin to add more value to the workshop owner. As apprentices gain skills, most will either remain with the workshop if the opportunity exists or join another workshop. A smaller proportion will open their own workshops, but usually after obtaining many years of experience in workshops.

Profile of ASF Apprentices

Family Vulnerability

In their interactions with the apprentices, project staff learned that most came from fragmented families, or families struggling with meeting day-to-day needs. Many were displaced, having relocated to Kabul from other areas of Afghanistan. Many had experienced loss of family members to violence and disease.

One component of the ASF project was the provision of literacy classes to apprentices through a local educational partner. The staff in the literacy centres reported that many of the apprentices who attended classes recounted harrowing tales of family dysfunction – alcohol and drug abuse and domestic violence – and frequently, the few hours a week the apprentices spent in the centres was the only time they had a respite.

Family Income and Work

Key informant interviews conducted with the apprentices¹⁵ revealed that none of the apprentices were the sole income producer for their households: most had fathers who worked, and a smaller number had other family members such as mothers and brothers who also contributed.

Apprentices had very little control over the income they earned; in all but one case, key informants reported that they handed the money they earned over to their family. The level of contribution to the household income varied widely, depending on the number of other family members who were working and how much the apprentice earned. Interestingly, apprentices reported being one of the only family members with income growth potential. This may be a result of pay increases due to new skills or a perception that they may one day open their own workshops.

¹⁵ KIIs were conducted by MEDA staff in May of 2011. Conducted as both individual interviews as well as ad hoc focus groups, 98 apprentices were interviewed. The sample was drawn from both apprentices in workshops as well as those at literacy centres, and represented a non-probability sample, as the interviews/group sessions took place during field visits to the locations.

Pathways for Entering Apprenticeships

Almost all apprentices involved in the project accessed their apprenticeship positions through family relationships: fathers or uncles would reach out to their networks in the community and find opportunities for their sons or nephews. During pre-project studies and research conducted by MEDA staff and the ASF field team, it emerged that most apprentices in these trades were from the lower socioeconomic strata: their family members were generally employed, but at subsistence level jobs, typically manual labour.¹⁶

Educational Opportunities

Most apprentices in the ASF project were combining work and school. Typically, an apprentice would work from approximately 7am to 1pm and would attend a government school from 1pm to 4pm. However, for those apprentices whose households were in a particularly precarious economic state (unemployed, disabled or deceased father, etc.), the costs associated with government schools – uniforms, stationary and transportation – were prohibitive and limited their access to this educational option.

Summary of Findings

Finding 1: Apprenticeships can be an effective pathway to employment, particularly for more vulnerable youth

During the project design phase, the ASF team visited Kabul and gathered information on existing pathways for workforce entry into the construction sector available to youth in Afghanistan.¹⁷ Findings were as follows:

- A very small percentage of youth complete secondary school and either continue to post-secondary education or enter the workforce directly.
- A second pathway is through the technical and vocational education and training (TVET) system, which offers two to four years of training and is available to primary and secondary school graduates.
- Alternatively, young people with lower levels of education seek apprenticeships in skilled trades, working under more experienced tradespeople to build their skills.
- A fourth pathway is through NGO-run vocational training programs. These programs are open to youth of all educational levels, but are of variable quality and duration.
- The last and most common pathway is to enter directly into employment or self-employment in the informal sector, in jobs offering few opportunities to build skills.

The design team analyzed these pathways and selected the apprenticeship system as the main entry point for programming based on its accessibility to vulnerable youth, market relevance and sustainability.

Accessibility

By working with the apprenticeship system, ASF was able to reach youth for whom this was the only opportunity to build skills and enter the workforce.

¹⁶ Though none of the apprentices interviewed in literacy centers were the primary wage earners in their families, some indicated through key informant interviews that they were the only regular source of income. Other family members contributed to household income through irregular activities; for example, apprentices referred to their mothers taking in washing and brothers doing day labor.

¹⁷This analysis was conducted during the inception mission to Kabul in April 2008, during which the team completed field research that provided the basis for the ASF project design.

TVET and university programs require primary or secondary school certificates and costs are high, while NGO-run programs are often unsustainable and limited in availability and scale. GIZ estimates that in 2010, 32,000 young people graduated from vocational colleges, but that approximately 1.3 million youth would need comparable training opportunities.¹⁸ By contrast, youth can enter into apprenticeships without paying a fee, often by working initially for free or low wages.

Market Relevancy

ASF recognized that the apprenticeship system offered greater long-term employment and self-employment opportunities relative to the TVET system. Despite substantial financial investment, the TVET system continues to face significant challenges in Afghanistan, as it does in many countries.¹⁹ The Afghanistan National Qualifications Authority recognizes that the system suffers from inadequate facilities, few work placements, a mismatch between curricula and the demands of the private sector, poorly qualified teachers (70% are unqualified or under-qualified), and high student to teacher ratios, with very weak linkages to employment opportunities for graduates.²⁰ Many graduates from the formal vocational training system in Afghanistan, therefore, struggle to find employment.

By contrast, workshop owners hire only as many apprentices as they need and can afford, and teach them skills that are in demand in the local market. As a result, nearly all apprentices find employment either in the workshops where they apprenticed or with another workshop.

In key informant interviews and surveys over the course of the project, most apprentices stated that they see opening their own workshop as the best mechanism to generate an income that is both high enough and steady enough to sustain them and their families. However, apprentices acknowledge that starting and operating a business of their own requires many years of experience, a strong network of business connections and a basic level of literacy and numeracy.

“My plan is to learn skills here, then open my workshop. This way, I can have better control over my working life (and will be) better able to provide for my family.”

Aman, metalwork apprentice for three years

Sustainability

The apprenticeship system in Afghanistan has proved capable of enduring even the extremely precarious conditions of protracted war, not requiring ongoing funding or institutional support from the government or donors. The informal nature of the system allows it to endure regardless of broader institutional shortcomings. Given the ongoing political and economic uncertainty in Afghanistan, this proven stability is a valuable attribute. ASF’s findings support USAID’s economic development programming guidelines for post-conflict environments, which state that working through the apprenticeship system is a viable model and that enterprise-based apprenticeships have “a much greater likelihood to lead to sustainable employment” than classroom-based vocational initiatives.²¹

¹⁸ “Training vacancies urgently needed: Promoting vocational training in Afghanistan,” December 2011.

<http://www.giz.de/en/downloads/giz2012-promoting-vocational-training-afghanistan-en.pdf>

¹⁹ Center for Workforce Development at Education Development Center, Best Practice Compass to Workforce Development: A Study, 1996, 34-36.

²⁰ Government of Afghanistan. Technical-Vocational Education and Training in Afghanistan, An Overview, undated. http://www.cesp.gov.af/anqa/Documents/TVET_Overview.pdf

²¹ USAID, A Guide to Economic Growth in Post-Conflict Countries, January 2009, 38.

Key Learning

In Afghanistan, apprenticeships:

- Attract youth who are unable to access more formal skills training options;
- Offer consistent and more sustainable employment opportunities, while more formal skills training models are not well linked to the private sector; and
- Appear to be more enduring in this volatile environment than structured, classroom-based training systems.

Finding 2: The construction sector can offer employment opportunities for underskilled youth in a post-conflict context

The ASF team selected the construction sector during the inception mission in 2008 based on both sector-specific characteristics and the stage of development of the Afghan economy. The selection of the construction sector was a critical decision for ASF and one that led to the project's ability to test numerous market-led initiatives among a robust group of small and medium-sized enterprises with a substantial apprentice population.

Advantages of the Construction Sector for Employment of Vulnerable Youth

Characteristics inherent to the construction sector, especially building construction, make it a strong vehicle for supporting skill development among low-skilled youth with little education. The sector is generally labor intensive, especially in low-income countries.²² Investment and growth in the construction sector generally creates greater employment opportunities, in contrast to more capital-intensive sectors such as mining. Further, the construction sector's share of total output and employment in low-income countries is typically larger than in high-income countries, indicating greater economic importance.²³ In Afghanistan, more than 300,000 people were employed in the construction industry in 2007, many of them under the age of 18.²⁴ Moreover, there are relatively low barriers to entry for unskilled youth in the construction sector. Many construction trades require a mix of non-skilled, semi-skilled, and skilled workers, thus offering opportunities for entry and advancement to young people with little formal education and few skills. Vulnerable youth who lack significant social and human capital are therefore significantly more likely to benefit directly from growth in the construction sector, compared to sectors requiring higher educational attainment or skill development.

Construction Opportunities in a Post-Conflict Context

A second factor in ASF's selection of the construction sector was Afghanistan's recent emergence from a protracted conflict. Research conducted by MEDA prior to the ASF project on the projected sources of growth in the Afghan economy predicted that the construction sector would expand at a faster rate than most other sectors over the short and medium term.²⁵ The construction industry tends to grow more rapidly than other sectors in early stages of a country's industrial development, as basic infrastructure is built or reconstructed.²⁶ That tendency is more pronounced in post-conflict environments, where deterioration and destruction requires large-scale investment in installing and rehabilitating infrastructure.²⁷

²² International Labour Organization, *The Construction Industry in the Twenty-First Century: Its Image, Employment Prospects and Skill Requirements*, 2001, 7.

²³ *Ibid.*, 9.

²⁴ Government of the Islamic Republic of Afghanistan, *A Construction Strategy for Afghanistan: January 2011 – February 2013*, 16.

²⁵ Fowler, Ben. *Overview of High Growth Sub-Sectors and Vocational Prospects in Afghanistan*. January 2006.

²⁶ International Labour Organization, *The Construction Industry in the Twenty-First Century: Its Image, Employment Prospects and Skill Requirements*, 2001, 8.

²⁷ USAID, *A Guide to Economic Growth in Post-Conflict Countries*, January 2009, 5-6.

ASF’s prediction proved correct: 23% of total economic growth in Afghanistan from 2003 to 2009 was in the construction sector, the country’s second fastest growing sector after transport and communication.²⁸ The rate of growth offered significant opportunities to Afghan construction firms that were not available in most other sectors of the economy. Mobilizing capacities and skills developed through the project, ASF client workshops were able to benefit significantly from this investment.

Qualitative data and workshop owners’ self-reported incomes and contracts provide evidence that some workshops reaped significant benefits as part of Afghanistan construction sector growth, as shown in the table below.²⁹

	Baseline (2009/2010)	Spring/Summer 2010	Spring 2011
Average Annual Income Per Workshop	US\$5,730 ³⁰ Sample size: 363 workshops	US\$9,340 ³¹ Sample size: 48 workshops	US\$12,300 ³² Sample size: 370 workshops

Note: the increases in overall averages were driven by results from relatively few firms. Due to the absence of a comparison group, increased income cannot be directly attributed to project interventions.

Another attribute of the construction sector in many post-conflict countries that projects may be able to leverage is the high proportion of contracting initiated by foreign buyers, creating strong demand for improved products and services. In Afghanistan, foreign governments, militaries and international NGOs represented three quarters of total spending on construction.³³ Foreign purchasers introduced new tender requirements and quality standards. Although the requirements have been difficult for many smaller workshops to meet, they also created new market-based incentives for firms to upgrade processes and equipment. ASF was able to leverage those incentives to encourage behavior change among project clients.

Key Learning

- Many segments of the construction sector have low barriers to entry for unskilled youth, offering them the opportunity to enter the employment market.
- In post-conflict contexts, the construction sector is particularly likely to expand with infrastructure rehabilitation.
- Externally-financed post-reconstruction investment may create market-based incentives for firms in the construction sector to improve quality standards.



²⁸Government of the Islamic Republic of Afghanistan, A Construction Strategy for Afghanistan: January 2011 – February 2013, 9.
²⁹In the baseline, 18% of workshop owners expressed their income as a range. In subsequent surveys, the project team required answers to be given in the form of a specific numeric. For the calculation given in the table, an average annual income was calculated. In cases where a range was given, the midpoint number was used in the calculation.
³⁰ Historical Exchange Rate: USD @ 0.0217438566 per Afghani as of April 1 2010, from xe.com
³¹ Historical Exchange Rate: USD @ 0.0224139855 per Afghani as of September 1 2010, from xe.com
³² Historical Exchange Rate: USD @ 0.0232369003 per Afghani as of May 31 2011, from xe.com
³³ Government of the Islamic Republic of Afghanistan, A Construction Strategy for Afghanistan: January 2011 – February 2013, 11.

Finding 3: Careful selection of subsectors can maximize benefits to apprentices

Selecting sub-sectors and value chains with strong growth potential is recognized as good practice in the market development field.³⁴ However, this practice has been applied less frequently among workforce development projects that seek to improve the employability or entrepreneurial capacity of youth.³⁵ Few of these projects have adequately studied the market prospects for the fields in which their training is focused, with negative impacts on graduate employment rates. Others keep their focus broad (such as on the construction sector as a whole) and miss opportunities to focus on the most promising subsectors.

The ASF team applied a subsector focus to guide its programming. The construction sector is very broad, consisting of a range of sub-sectors with variable growth prospects and differing opportunities for youth to engage as apprentices. Rather than engaging with construction businesses across all sectors, the ASF team chose to narrow the focus to a small number of high-potential subsectors. Some subsectors were deemed too hazardous for apprentices and the project's ability to leverage interventions to improve conditions was limited.³⁶

Analysis was conducted to determine the subsectors in which project interventions could have greatest impact for both workshops and apprentices. This was based on the assumption that workshops would have greater growth prospects in better performing subsectors, which would lead to hiring larger numbers of apprentices and improving their opportunities for advancement. The following selection criteria were used in the subsector analysis:³⁷

1. **Micro and Small Enterprise (MSE) growth potential:** This criterion was included to determine the potential of MSEs within the subsector to expand their businesses. It was measured by looking at the current client mix of the MSEs. Subsectors in which fewer firms were already accessing more lucrative markets (e.g. other construction firms, government) aside from the traditional residential market were considered to have greater opportunities for business growth. Further, MSE growth potential was understood to be an indication that there were opportunities for career development for apprentices, who could graduate from apprenticing in smaller firms to employment in larger national or international firms.
2. **Number of MSEs:** This criterion was included to determine ASF's potential scale of outreach to apprentices through the various potential subsectors. The electrical subsector, for instance, was so small as to not represent a viable option for the project.
3. **Percent of MSEs with apprentices:** This criterion was included to assess how ASF could achieve the greatest leverage in reaching apprentices. It considered what proportion of MSEs had apprentices. The use of apprentices was most prevalent in the carpentry and metalworking subsectors, with 95% and 82% of workshops, respectively, having at least one apprentice.

The ASF team identified six subsectors to study in greater depth: carpentry, metalworking, mosaic tile, plumbing, electrical, and brick production. During the initial phase of the project, ASF applied these criteria to the

³⁴ See, for example, USAID, Briefing Paper: Selection of Industries in the Value Chain Framework, 2009.

³⁵ USAID, Economic Strengthening for Vulnerable Children: Principles of Program Design and Technical Recommendations for Effective Field Interventions, February 2008, 53-54.

³⁶ Brick making, for example, was rejected as a project subsector because of highly dangerous working conditions that were unlikely to be changed through ASF interventions. The project chose to focus on the carpentry and metalwork subsectors in order to maximize benefits for workshops and for apprentices.

³⁷ Isert, Terrence. Youth Workforce Development in the Construction Industry: A Final Report on Mid-term Project Recommendations, January 2010, 3-6. Unpublished ASF project report.

shortlisted six subsectors and ranked them, as seen in the table below. The carpentry and metalwork subsectors were selected for project interventions.

Subsector	MSE growth potential	Number of MSEs	% of MSEs with apprentices	Overall Assessment
Carpentry	High (70% residential)	High	High	<u>Selected</u>
Metalworking	High (84% residential)	High	High	<u>Selected</u>
Mosaic tile	Medium (54% residential)	Medium	High	Rejected
Plumbing	Medium (44% residential)	Low	Low	Rejected
Electrical	N/A	Very low (rejected immediately for this reason)	N/A	Rejected
Brickmaking	Medium (52% residential)	Low	High	Rejected

Benefits to Selecting Subsectors

By selecting promising subsectors at the beginning of the project, ASF realized three significant benefits. First, by selecting subsectors with significant number of apprentices, both in absolute terms and on a per workshop basis, ASF’s upgrading support created benefits for a comparatively larger number of existing and potential apprentices. Further, by focusing on subsectors with a greater numbers of workshops, ASF increased the potential uptake of its interventions by other businesses.

Secondly, concentrating on selected subsectors enabled ASF to increase its potential impact. In some of the non-selected service-based subsectors, such as electrical and plumbing, there was more limited growth potential. Many of the MSEs in those subsectors worked as owner-operators with little potential to grow their businesses rapidly through large orders. ASF selected the carpentry and metalworking subsectors, given the greater opportunities for subcontracting and larger average contract sizes that enable firm growth.

Finally, focusing on only two subsectors allowed ASF staff to gain deeper understanding of the technical practices, present and future market opportunities and common needs and deficiencies of the targeted workshops. Staff integrated this knowledge into their activities by, for example, providing more detailed support on market linkages to workshops.

Key Learning

- Carefully selecting subsectors within a promising sector facilitates reaching a larger number of apprentices and targeting firms with greater growth potential. It also allows staff to intensify their support through greater understanding of the subsectors.

Finding 4: Workshop performance and growth may correlate with workshop size and owner’s educational level and entrepreneurialism

While ASF worked with a wide variety of MSEs in the targeted construction sub-sector, ranging from 1 to 32 employees, most were small: 93% of the workshops targeted had fewer than ten employees. Enterprises varied significantly in capacity, experience, quality of production, and the education level of their owners. Those factors had a direct impact on the growth potential of the workshops. During MEDA’s value chain assessment in January 2011, interviews conducted with workshop owners or representatives³⁸ produced strong anecdotal evidence that only a small number of workshops were able to significantly grow their businesses, and consequently account for the vast majority of new apprenticeship opportunities created.³⁹

Using initial M&E data, the ASF team was able to identify workshops with the best potential for growth. Shared characteristics included:

- Workshop size and capacity: generally middle tier (ten or more workers and apprentices) and already producing products of good quality (relative to peers);
- Owners possessed sufficient education to perform basic business functions such as writing bills, making measurements, and record keeping;
- Owners were distinguished by entrepreneurial skills and attitudes that facilitated the growth of their businesses, including perseverance, vision, the ability to adopt new viewpoints, strong analytical ability, and a high tolerance for economic risk.

“Typically, entry level apprentices at larger firms have some formal education and are better educated than those working in smaller shops. Usually they can read and write and operate machines. Workshop owners look for these skills and are willing to pay apprentices like this a bit more.”

James Williams, Afghan Secure Futures Chief of Party

By the end of the project, a general observation of project staff was that workshops with the above characteristics were poised to sustain considerable business growth compared with others involved in the project, and were more likely to self-report positive impacts from the project interventions. ASF’s support for those workshops offered long-term potential for generating employment opportunities, but no conclusive evidence was found to show that this employment resulted in greater numbers of apprenticeships, as these workshops were able to afford skilled workers.

The importance of entrepreneurial skills and attitudes is consistent with MEDA’s experience working with entrepreneurial clients on other programs in the region. Value chain programs in both Afghanistan and Pakistan managed by MEDA revealed that clients with strong entrepreneurial traits sustained considerably greater benefits as a result of their involvement, and often migrated into roles as consolidators and sales people for other beneficiaries. In one project, beneficiaries with strong entrepreneurial ability who adopted roles as sales agents reaped an income increase of over 1300%. Beneficiaries who did not possess these traits made significant progress, but the magnitude of change was considerably smaller.⁴⁰ Moreover, MEDA’s assessment revealed that their gains were contingent in part on the contributions of the more entrepreneurial beneficiaries and their ability to make connections and grow the businesses.

³⁸ During his January 2011 field visit, MEDA microenterprise development consultant Ben Fowler conducted interviews with 15 workshop owners.

³⁹ In Afghanistan, collecting accurate information on either personal income or business revenue is challenging. Data is self-reported and generally understated because of concerns about taxation or harassment from government officials.

⁴⁰ Results described here were recorded in MEDA’s Through the Garden Gate project, a CIDA-funded initiative implemented in Afghanistan from 2007 to 2010. Source: MEDA’s “Impact Assessment Report, Through the Garden Gate,” 2010.

Key Learning

- Workshops owned by individuals with greater business savvy, entrepreneurial skills, and basic literacy skills have the best potential for growth. These may not be the smallest workshops.
- Middle tier workshops that are already producing better quality products may be better able to apply business development and training services.
- Supporting middle tier workshops offered long-term potential for generating employment, though many of these opportunities benefitted skilled workers rather than apprentices.

Finding 5: Incentives to hire apprentices may vary among firms within a single subsector

The ASF team learned that incentives for workshops to hire apprentices vary among construction firms in Afghanistan. This had implications for the project design, which originally targeted middle tier workshops with the best prospects of sub-contracting directly to the international construction contractors. Within a few months of launching the project, however, ASF learned that the middle tier workshops employ relatively few apprentices per workshop, though initial research indicated that as a sector, many construction industry workshops employ at least one apprentice. Project findings, as discussed above, indicated that middle tier workshops had the highest potential for growth, and therefore significant possibilities for increased numbers of apprenticeships. In parallel, however, the ASF team observed that smaller workshops offered greater learning and promotion opportunities for individual apprentices, as they were called upon to participate in a wider range of tasks than their counterparts in larger enterprises.

Through further research, ASF found that the incentives for hiring apprentices tend to be inversely proportional to the size of the business: there are stronger incentives for smaller firms, many of which do not have formal business registrations and therefore do not need to adhere to government labor requirements. The apprentices' lower wages help these workshops to better adjust to the variations in revenue from contracts that they receive. Further, these firms do not use more formal methods for contracting labor and therefore the apprenticeship system—based on family ties and trust—helps them to reduce the risk of a poor hire. Finally, with high competition for qualified workers in the construction sector in Afghanistan, smaller workshops cannot compete with the larger firms for experienced labor.

By contrast, the incentives for hiring apprentices are much weaker for larger firms as there are multiple, often higher costs associated with apprentices in this context. For example, apprentices in larger workshops are more likely to be working with equipment, and would require additional training to avoid damaging materials and machines or being injured. In addition, larger workshops are more likely to produce higher quality products that require greater technical skill. Mistakes made in this environment are costlier. These firms are more likely to have sufficient capital to afford experienced workers. Further, some of the larger firms are unable to source labor exclusively through family networks given the larger size of their operations. Other, more formal mechanisms for labor recruitment are therefore essential.

As a result of this analysis, the ASF team decided to focus on the small and medium-sized firms for whom it made clear business sense to hire apprentices. Apprentice hiring and growth in hiring was predominantly found in the smaller workshops: smaller workshops have few avenues to source labor as the business expands and often bring on more apprentices to make up labor shortfalls. Larger workshops can source more experienced and skilled workers. Of the workshops involved in ASF, 95% employed nine or fewer apprentices, yet 93% of them

reported hiring additional apprentices during their involvement in the program.⁴¹ ASF strategy was to support these workshops to identify and maximize new business opportunities, thereby leading them to hire additional apprentices to complete the new orders.

The team employed several tactics to do so, including improving access to credit for business expansion, mentoring and training workshop owners, and facilitating linkages to larger workshops. ASF initially assumed that access to credit would be a significant incentive for workshops to work with the project, given low usage rates recorded in the baseline survey. In response, the project partnered with microfinance institution Ariana Financial Services to develop a sharia-compliant credit product that would be appropriate for workshops. Although appropriate for some MSEs, ASF's credit linkages proved challenging to scale up, in part because of asset ownership and regulatory requirements that excluded the type of workshop for which the loan products were designed. Rather it was the training and mentorship interventions that proved most valuable to the workshop owners and created acceptance for the project to work with the targeted workshops.

Key Learning

- Incentives for hiring apprentices differ significantly among firms, depending on size.
- Larger firms have more resources and greater liquidity, allowing them to hire skilled workers and rely less on informal networks to recruit apprentices. Also, larger firms are more likely to have complex machinery and higher quality standards, and quality control can be an issue with semi-skilled apprentices.
- Smaller firms may provide greater learning and promotion opportunities for apprentices, who participate in a wider range of tasks and processes. Small workshops may lack resources to hire skilled workers, who demand higher salaries.

Finding 6: Social influences shape apprentices' pathways to employment

Pathways to Employment

ASF staff hypothesized that an apprenticeship would provide young people with a viable pathway into the labor market, leading to employment either within the same workshop, with a different employer, or as a starting point for an apprentice to open their own business. However, it became clear that apprentices' ability to take advantage of these opportunities was shaped in part by how they entered the workshop.

The project staff were unable to conduct household assessments due to security constraints, so information on the household state of the apprentices was drawn from statements made by the apprentices and those stakeholders (such as the literacy centre staff) who had regular exposure to apprentices. Over time, it emerged that the apprentices fit into two broad strata: those who were from poor but not destitute households, and those from very poor households. Poor but not destitute households generally had more people providing income to the household and hence had greater income smoothing and food security and reported less domestic violence. Very poor households generally had fewer family members working for wages; those with employment tended to be engaged in unskilled, subsistence occupations. Other common differentiators were that apprentices from relatively better off households (described here as "poor but not destitute") were often enrolled in government

⁴¹ From ASF endline survey. Sample size: 310 phone interviews and 60 face to face interviews, consisting of 90% of total workshops reached.

schools, their household had more varied sources of income and the apprentice wages represented a somewhat smaller percentage of the household budget. Apprentices from these families tended to report greater labor mobility, meaning that they were more likely to seek better opportunities with new employers.

In contrast, apprentices from very poor households were often placed in workshops via familial connections. With minimal education and a feeling of responsibility for generating a meaningful portion of their family's overall income, these apprentices were often vulnerable to family pressure that they remain with the same workshop owner regardless of poor working conditions or low wages. As a consequence, these more vulnerable apprentices reported having more limited labor mobility and often felt unable to pursue more promising employment opportunities that would improve their living conditions in the long term.⁴²

Key Learning

- The socio-economic and family circumstances of young people can influence the channels through which they can secure apprenticeships, and consequently may limit their opportunities to improve their employment opportunities. Vulnerable youth often obtain apprenticeships through family connections and face pressure to remain with the same workshop owner, regardless of poor working conditions or low wages.

Finding 7: Apprenticeships teach vital skills but cannot address all youth learning needs

Though valuable technical and business skills can be learned in the workplace, an apprentice's education is limited by the knowledge and teaching ability of his trainers; new knowledge and skills do not always reach the small-scale workshops in which informal apprenticeships are usually active. Often, undertrained apprentices are part of a self-replicating cycle. Workshop owners were themselves undertrained as apprentices and, when they become business owners and bring in their own apprentices, they pass on their limited skill sets to their employees.

Further, while apprenticeship systems are generally successful at transmitting critical technical skills (e.g. carpentry techniques), they rarely offer the opportunity to improve vital non-technical skills such as literacy and numeracy, which apprentices may lack.

The ASF team strove to address this potential limitation of the apprenticeship model in two ways. First, it sought to create market-based incentives for workshops to engage in process upgrading and product upgrading, by facilitating micro and small-scale workshops to link with and subcontract from the larger construction firms that supplied international contractors.^{43,44} As firms adapted their production processes to meet the higher

⁴² As described further under Finding 7 the ASF project incorporated supplementary literacy and numeracy classes into the project design to support apprentices from more vulnerable households. These apprentices were less likely to be able to attend formal schooling, and therefore constrained by lower levels of education, including limited literacy and numeracy. Though the classes only ran for 7 months before the end of the project, numerous benefits were reported by apprentices, workshop owners and staff of ASF's education partner Aschiana.

⁴³ An increase in production efficiency, resulting in either a) greater output for the same level of inputs, or b) the same level of output for fewer inputs.

standards demanded by these new markets, ASF staff expected that apprentices would benefit from opportunities to learn new production processes. This assumption was borne out primarily in the larger workshops which secured businesses from more demanding markets.

Anticipating that not all apprentices would benefit from market linkages, and recognizing that important basic skills were not being taught through the apprenticeship system, ASF also sponsored supplementary education classes that would directly teach literacy and numeracy to apprentices who lacked these skills. These classes were targeted at those young people who faced barriers to participating in the formal school system. Anecdotally, the project staff reported hearing from workshop owners that as their apprentices acquired new skills in literacy and mathematics, they felt comfortable leaving them in charge of the shops. Owners were freed up for further business development and prospecting activities, which benefited their businesses.

For more information on the supplementary literacy initiative, please see STRIVE for Learning's Report *Incorporating Supplementary Literacy and Numeracy Classes: Findings from STRIVE's Afghan Secure Futures Program*.⁴⁵

Key Learning

- Apprenticeship systems are reliant on and limited by the existing skill levels and training ability of the master craftspeople and business owners, and therefore often do not provide all of the skills that apprentices need. Basic skills such as literacy and numeracy are particularly unlikely to be taught through apprenticeships.

⁴⁴ A qualitative improvement in a product that makes it more desirable to the consumer and earns a higher unit price.

⁴⁵ Available at http://www.microlinks.org/sites/microlinks/files/resource/files/ASF_Literacy_Numeracy_Final%20wm_0.pdf

Conclusions

The Afghan Secure Futures project has demonstrated that informal apprenticeships can be a viable mechanism to support vulnerable youth in entering the job market. Apprenticeships are often well suited to transmitting the skills most in demand by the private sector and can be particularly beneficial for vulnerable youth who are unable to continue in the formal education system. Supporting apprenticeships is compatible with taking a value chain approach and indeed can benefit from it, as projects can maximize their impact by focusing on high potential value chains with opportunities for apprenticeships.

Before selecting apprenticeship-oriented programming models, program designers should first assess the quality and accessibility of existing formal and informal skills training systems to determine if apprenticeships are best suited to supporting skill acquisition. This assessment should also consider whether vulnerable youth can participate effectively and which firms are most willing to hire apprentices. Growth-oriented firms that are already using formal recruitment and training systems may be particularly reluctant to hire apprentices. In such cases, implementers will need to demonstrate the effectiveness of this employee acquisition model.

Social systems and power dynamics shape apprentices' ability to pursue new opportunities. Apprenticeships can provide opportunities to gain economically relevant knowledge and skills, but the social networks through which they access such opportunities in some cases also constrain apprentices' economic mobility. Efforts to formalize apprentice-business owner relationships and formally defining their respective rights and responsibilities may be beneficial.

Finally, although apprenticeships often provide new learning opportunities they rarely address all learning needs. Basic skills such as reading and writing are typically not taught, though ultimately they are an asset, both to apprentices and to the businesses for which they work. Learning opportunities within apprenticeships are also limited by the knowledge and teaching skills of the master craftsman. Where these aspects significantly constrain the benefits of apprenticeships, complementary learning options should be considered by programs concerned with skill acquisition.

Annex 1: Summary of Lessons

This report presents seven lessons and sub-lessons for practitioners designing programming to improve the economic welfare of vulnerable children. The following table summarizes these lessons and provides guidance for practitioners on how to apply them to the design and implementation of their own projects:

Finding	Key Learnings	Implications for Application
1: Apprenticeships can be an effective pathway to employment, particularly for more vulnerable youth	<p>In Afghanistan, apprenticeships:</p> <ul style="list-style-type: none"> • Attract youth who are unable to access more formal skills training options; • Offer consistent and more sustainable employment opportunities, while more formal skills training models are not well linked to the private sector; and • Appear to be more enduring in this volatile environment than structured, classroom-based training systems. 	<ul style="list-style-type: none"> • During project design, assess the existence and performance of apprenticeship systems, particularly in high-potential subsectors. • Assess the comparative participation in apprenticeship systems of vulnerable and non-vulnerable youth. • Weigh the strengths and weaknesses of apprenticeships as an entry point to reaching vulnerable youth relative to other options.
2: The construction sector can offer employment opportunities for underskilled youth in a post-conflict context	<ul style="list-style-type: none"> • Many segments of the construction sector have low barriers to entry for unskilled youth, offering them the opportunity to enter the employment market. • In post-conflict contexts, the construction sector is particularly likely to expand with infrastructure rehabilitation. • Externally-financed post-reconstruction investment may create market-based incentives for firms in the construction sector to improve quality standards. 	<ul style="list-style-type: none"> • If operating in post-conflict contexts, assess the potential for growth and inclusion of the construction sector.
3: Careful selection of subsectors can maximize benefits to apprentices	<ul style="list-style-type: none"> • Carefully selecting subsectors within a promising sector facilitates reaching a larger number of apprentices and targeting firms with greater growth potential. It also allows staff to intensify their support through greater understanding of the subsectors. 	<ul style="list-style-type: none"> • Identify and target the subsectors with the greatest potential for growth.

<p>4: Workshop performance and growth may correlate with workshop size and owners' educational level and entrepreneurialism</p>	<ul style="list-style-type: none"> • Workshops owned by individuals with greater business savvy, entrepreneurial skills, and basic literacy skills have the best potential for growth. These may not be the smallest workshops. • Middle tier workshops that are already producing better quality products may be better able to apply business development and training services. • Supporting middle tier workshops offered long-term potential for generating employment, though many of these opportunities benefitted skilled workers rather than apprentices. 	<ul style="list-style-type: none"> • Carefully assess the capacity and willingness of different sizes of employers to upgrade. • Select the employers that are most likely to upgrade and create benefits for apprentices. These will often not be the very smallest firms.
<p>5: Incentives to hire apprentices may vary among firms within a single subsector</p>	<ul style="list-style-type: none"> • Incentives for hiring apprentices differ significantly among firms, depending on size. • Larger firms have more resources and greater liquidity, allowing them to hire skilled workers and rely less on informal networks to recruit apprentices. Also, larger firms are more likely to have complex machinery and higher quality standards, and quality control can be an issue with semi-skilled apprentices. • Smaller firms may provide greater learning and promotion opportunities for apprentices, who participate in a wider range of tasks and processes. Small workshops may lack resources to hire skilled workers, who demand higher salaries. 	<ul style="list-style-type: none"> • Understand the incentives and disincentives to hiring apprentices among different sizes of firms within a subsector.
<p>6: Social influences shape apprentices' pathways to employment</p>	<ul style="list-style-type: none"> • The socio-economic and family circumstances of young people can influence the channels through which they can secure apprenticeships, and consequently may limit their opportunities to improve their employment opportunities. Vulnerable youth often obtain apprenticeships through family connections and face pressure to remain with the same workshop owner, regardless of poor working conditions or low wages. 	<ul style="list-style-type: none"> • Understand the social factors that shape apprentice pathways to employment, as these may shape an apprentice's labor mobility and ability to pursue new opportunities.
<p>7: Apprenticeships teach vital skills but cannot address all youth learning needs</p>	<ul style="list-style-type: none"> • Apprenticeship systems are reliant on and limited by the existing skill levels and training ability of the master craftspeople and business owners, and therefore often do not provide all of the skills that apprentices need. Basic skills such as literacy and numeracy are particularly unlikely to be taught through apprenticeships. 	<ul style="list-style-type: none"> • Determine if apprentices are able to meet all of their learning needs through the apprenticeship system. • Identify opportunities to complement or improve the existing system to address significant gaps. • Assess the potential outreach of each learning strategy.