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The evidence is in: How should youth employment programs in low-income countries be designed?

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ABSTRACT

Youth in many low-income countries are entering the labor force in unprecedented numbers, yet many struggle to secure rewarding livelihoods. This paper outlines the economic development challenges that constrain youth's transition into employment, and it parses the evidence on which programs and policies appear to speed that transition. It concludes that it may be time for a fundamental reassessment of approaches for addressing youth employment and the youth transition in low-income countries.

Employment opportunities in low-income countries reflect the pace of economic and structural transformation. In designing strategies, policies, and programs to meet the entry-into-employment challenge for youth, the starting point is to diagnose the economy and current/future employment opportunities.

Combined with the analysis of youth employment problems from a structural transformation perspective, evidence from rigorous evaluations of youth employment interventions provides new insight into which kinds of interventions are more likely to help youth succeed in certain contexts. The evidence reviewed here casts serious doubt on the efficacy and value of training interventions to help youth enter formal wage employment. The case is stronger for interventions that speed the transition to self-employment in farming or non-farm household enterprises. Support for development of transferable character skills and social integration among youth through PYD programs should be tested further for employment and earnings impacts, perhaps along with cash transfers to youth or access to finance. In reviewing the evidence on cost-effectiveness and sustainability of youth employment impacts, the paper also notes the need for better measures of displacement and general equilibrium effects.

KEYWORDS: Youth; labor; employment; sub-Saharan Africa; structural transformation; informality; household enterprises; vocational training; skills. JEL Classification: J21, J23, J48.

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Acronyms and Abbreviations

AGI	Adolescent Girls Initiative
AGRA	Alliance for a Green Revolution in Africa
BDS	Business development skills
EF	Employment Fund
EPAG	Economic Empowerment of Adolescent Girls and Young Women
ELA	Empowerment and Livelihood for Adolescents
FDI	Foreign Direct Investment
HEs	Household enterprises
ICT	Information and communication technology
NUSAF	Northern Uganda Social Action Fund
PJyE	Programa Juventud y Empleo
PYD	Positive Youth Development
RCT	Randomized control trial
SME	Small and medium enterprises
SSA	Sub-Saharan Africa
TVT	Technical and vocational training
WINGS	Women's Income Generating Support

Executive Summary

For economic and social development to move forward, young people require opportunities to transition from school into stable livelihoods. Competition for such opportunities is acute in low-income countries, where the labor force is expanding rapidly and the population tends to be young (Asia today and sub-Saharan Africa through 2060). Programs to improve youth employability must accommodate the reality that labor markets reflect the pace of economic and structural transformation, including the number and size of modern enterprises. This paper reviews the economic transformation challenges that impede youth's transition into employment in low-income countries, and it parses the evidence on which employment programs and policies appear to speed that transition, with a focus on creating new employment opportunities. Unlike previous review papers, it focuses on *why* low and lower income countries have a youth employment problem, and what works in these contexts.

Structural transformation and the youth employment challenge in low-income countries. *Structural transformation* occurs as an economy shifts from an agrarian, subsistence mode to an urbanized, integrated, enterprise-dominated mode. This process is the essence of economic development and normally requires multiple generations. As economies develop, workers increasingly leave their informal household economic activities (farm or non-farm household businesses providing a livelihood) for wage jobs in modern, (mostly formal), growth-oriented enterprises. The change in employment opportunities that occurs with structural transformation is known as *employment transformation*. Employment transformation lags structural transformation, because modern firms require capital, knowhow, and time to emerge. A symptom of this lag in low-income countries is the perpetual scarcity of full time wage jobs, owing to the shortage of firms relative to the supply of labor. From this perspective, the youth employment challenge is part of the overall challenge of oversupply in the labor market; the only way to address this is by increasing demand for labor in the market. If demand does not increase, youth-targeted employment interventions simply redistribute employment opportunities by offering jobs to youth at the expense of others. Such *displacement effects* (the shift of jobs between people as a result of interventions) reduce net benefits and cost effectiveness of employment programs but are rarely considered in evaluations or planning.

A typology of employment problems: examples from country experiences. Examples from low and lower-middle income countries show how challenges related to structural transformation intersect with youth employment challenges. While each country needs its own diagnosis and strategy, the low-income and lower-middle-income countries can be grouped into broad categories with distinct employment challenges: high-potential (transforming) economies, low-potential (non-transforming) economies, and stalled potential (lower-middle income) economies.

- **Transforming economies.** An employment strategy for *high-potential, lower-middle-income countries,* where structural transformation has started, should feature policies and projects to increase the demand for labor by increasing enterprise growth and productivity. Because there will still be more job seekers than wage jobs, the employment strategy must also help youth to overcome obstacles to entering the informal sector (launching farm and non-farm household enterprises). *High-potential, low-income countries* have good prospects because they do not need advanced skills or even much new technology to raise output, earnings, and productivity. An employment strategy for these countries should emphasize the development of mixed livelihood strategies in the informal sector in rural areas—a combination of household farms and firms—with startup funds and as necessary access to land.
- **Non-transforming economies.** In these economies, political economy and governance challenges restrict transformation. Many *low-potential, lower-middle-income countries* are rentier economies based on resource wealth. While this wealth allowed them to attain middle income status, the mismanagement of mineral revenues has suppressed private investment, reducing prospects for new formal enterprises to develop and provide jobs. This slows economic growth in the non-minerals sectors, and even restricts opportunities in the informal sector owing to weak demand. In this context, it is futile to prepare youth for wage jobs that are unlikely to materialize. An employment strategy should focus instead on preparing and enabling youth to pursue successful, stable self-employment in household enterprises. The objective of this strategy would be livelihood development, not firm growth. Africa's *low-potential, low-income countries* include fragile states

where conflict has limited growth potential. Once conflict settles, employment and income-earning opportunities rebound in family farms and businesses. Youth employment interventions should focus on these resurgent opportunities to develop livelihoods in the informal sector.

- **Stalled transforming economies.** Previous economic growth, which featured the development of modern labor intensive enterprises and a large wage employment segment in the labor force, has stalled in these countries reflecting an underlying loss of competitiveness. Usually this happens when political and economic power by is held by elites who are protecting their position and market share by restricting the ability of new firms to enter the economy. Without new firm entry to bringing competition and innovation, labor productivity growth stagnates. This syndrome is often accompanied by growing (but ultimately unsustainable) public sector employment, distorting the wage structure and youth's perceptions of opportunities. Improvement in employment opportunities will only happen when policies to restore competitiveness and encourage innovation and firm entry are adopted and take hold. Employment strategies need to focus on barriers to new firm entry so that the political pressure on the public sector to employ youth moderates. They also need to continue the development of the agricultural sector and informal services.

In all countries, high fertility (e.g. a total fertility rate above 4) exacerbates the shortage of economic opportunities and slows the employment transformation. This is the case in SSA. A pre-program design diagnostic should consider this aspect as well.

Prolonged youth *unemployment* tends not to be a problem in low income countries, as youth have no way to support themselves during a long job search. In lower middle income countries, it tends to be concentrated in urban areas, and among richer, more educated youth (in contrast to the pattern found in richer countries, where unemployment disproportionally affects disadvantaged youth). In both low and lower income countries, poorer youth are more likely to have spells of underemployment, where they work fewer hours than they would like to. Research documents a growing "aspirations gap" between what youth expect from a job (earnings, hours, working conditions) and what is available in the economy; youth have not recognized the limitations on opportunity that slow economic transformation brings. Programs to push these youth to the front of the "employment queue" would be regressive if they displaced less fortunate labor force participants. It should be possible to address the aspirations gap, so that youth have a better understanding of opportunities and challenges, before youth enter the labor market, so that they can take better decisions.. Research has not identified effective approaches.

Youth employment programs: Lessons from impact evaluations. What kinds of interventions have succeeded in helping youth transition to a stable livelihood while structural transformation proceeds? To answer this question, we examined evidence from impact evaluations of employment interventions in developing countries that included at least some participants ages 15–25. The evidence reveals that training programs to make youth more attractive to firms that are hiring, and programs to help youth learn about jobs or subsidize the search for wage jobs, have had limited success, two-thirds had no effect at all, and in many cases, an initial finding of a program effect disappeared after 2-3 years in the follow-up study. The most successful training programs tend to be the most expensive ones, which include a broad range of interventions. At a cost of 2-5 times the yearly per capita income in the country, even the most effective could not scale up – more cost-effective models need to be found, perhaps by finding out which components are most effective in the bundled programs. Of course, if these programs only redistribute existing job opportunities, they cannot be cost-effective ever.

Several programs that operate outside of the labor market by removing constraints to firm expansion, including hiring more workers, appear to help, although none measured a youth effect. Evaluations provide additional confirmation that barriers to affordable finance prevent firms from expanding and hiring, and show that deficiencies in management knowhow are another important constraint.

The broad range of programs that help youth launch successful household enterprises, and their wide cost per participant, make it difficult to draw conclusions. Sometimes skills training helped; sometimes it did not. Even if training works, the surprising result is that cash may work just as well. Cash or credit programs combined with training also have shown success. Almost no evaluations have been done for

programs to help youth develop a sustainable livelihood in farming. Finally, some important potential constraints (such as access to location) are relevant for the whole household production sector, particularly for startups, but they have not been subjected to an experimental evaluation.

Systematically different employment outcomes *by gender* are observed in all economies. These are not issues of structural transformation; they are caused by norms and traditions which limit acceptable economic activities and behavior of women, often enforced through restrictive laws. They also affect the skills women are able to acquire before entering the labor force. Many programs for youth are segregated by gender to provide special support to one group or the other. Studies which tested for gender differences in the impact of vocational training programs on wage employment have found mixed results – in some cases no statistically significant differences in outcomes by gender, in others slightly stronger effects for men, while in others slightly stronger effects for women. With gains to employment disappearing in the follow up studies, it may be that vocational training accelerates entry for women relative to men (in some cases) by improving agency and character skills, but that does not imply that vocational training is the preferred intervention for women.

The need for a long-term transformation agenda, near-term interventions, and more research. Overall, opportunities will improve only as economies transform. Low- and lower-middle-income countries need to focus on transforming the rural economic space (where so many youth live) and increasing connectivity between rural and urban areas. In urban areas, they need to focus on increasing private investment in labor-intensive production of goods and services, so that more wage jobs will be on offer.. They also need to make sure that youth enter the labor force with the basic cognitive skills that they are supposed to learn in primary and secondary education, but do not. Without these skills, learning on the job is difficult. Helping youth learn character skills and where employment opportunities exist before they enter the labor market should also help.

The employment transformation will continue to lag the structural transformation. This lag will frustrate youth, especially where economic transformation is stymied by governance and political economy challenges. Political concerns over slow employment transformations do not justify interventions that do not change the underlying dynamic, however.

It may be time for a fundamental reassessment of youth employment programs and the youth transition in low-income countries. The case for supply-side youth employment interventions is in serious doubt; the assumptions underlying the theory of change for these projects – that jobs are available but there is inadequate supply – seems questionable. A stronger case exists for demand-side interventions that help firms expand employment and for interventions that speed the transition to self-employment. It may be helpful to experiment more with noncognitive, transferable skill development programs, perhaps as part of comprehensive positive youth development programs (PYD), and measure both employment and other youth outcomes. Another approach would be to combine these PYD programs with small cash transfers to youth or access to finance to achieve employment outcomes.

No doubt more research is needed. In particular, better understanding of youths' own needs within their own economic context, and how employment processes operate in this context is needed. Future impact evaluations must consider displacement, particularly in programs training workers for wage jobs. Longer-term evaluations can identify benefits emerging or disappearing some time after a program ends. Additional data are required to understand employment processes in low-income settings. Information on cost-effectiveness is also missing from many evaluations. Development practitioners need to know the minimum cost of achieving a particular outcome for a particular group. They also need to know when the outcome would happen anyway (so no intervention is needed), and when the cost is infinite (in the context where they are working, the result will probably never be achieved). Better measures of displacement and general equilibrium effects are also needed in evaluations.

The evidence is in: How to design youth employment programs in low-income countries

1 Introduction: The entry-into-employment challenge

Youth is universally a distinct developmental stage, a time of transition marked by critical decisions that affect the future of the individual and the broader society. The critical decisions of adolescence include how much formal education to acquire, when to start sexual activity and form a family (and with whom? and under what circumstances?), how and when to enter the labor force, and whether to participate in risky behaviors (drug use, smoking, and so on). Youth generally make these decisions in a social context, with the support and advice of adults in the family and the community, as well as peers. A positive youth trajectory concludes with the development of a mature adult who has a positive sense of self, has developed agency and impulse control, and a set of core competencies and skills for engaging effectively with the economy, society, and the demands and challenges of everyday life. A negative trajectory does not develop self-esteem and agency, and concludes with risky and/or destructive behavior such as teen pregnancy, crime and violence, self-destructive health habits, and disengagement from society, all of which can lead to household poverty and lower economic growth (World Bank, 2006). With so much at stake, it is clear why youth development is an important economic development issue.

This paper examines one aspect of the trajectory toward adulthood—the skills and support that encourage a successful transition from school to a stable and rewarding livelihood. It is widely accepted that both cognitive skills (numeracy, literacy, and problem solving, for example) and a core set of behaviors and abilities (including perseverance, motivation, social and communication skills, self-esteem, and self-control) directly affect lifetime income in addition to other aspects of social and economic life (Lippman et al., 2015). Schools, alongside families and communities, build these skills and abilities in young people. Recent research demonstrates that while cognitive learning proceeds most rapidly until the age of 15, non-cognitive, socio-emotional skills are learned up to the age of 25 or later, in part because the key parts of the brain (notably the pre-frontal cortex) continue to develop through this period (Bertrand et al., 2013).

Individuals growing up in impoverished households encounter fewer opportunities to build a wide spectrum of these skills and find themselves at a disadvantage in transitioning to adulthood. Many youth in low-income countries share this experience, and it is one reason why employment is a challenge for them. Although educational attainment is rising, the quality of that education is often weak, as measured by cognitive skill development (Cloutier et al., 2011). Nor is the educational experience in low-income countries designed to build the socio-emotional and problem-solving skills that help youth navigate a changing economic landscape (Filmer and Fox, 2014).

Economic and social development requires youth to be able to find opportunities commensurate with their skills and abilities, allowing them to transition into stable livelihoods. Competition for those opportunities is especially acute for youth in low-income countries. Youth constitute a high share of the population in these countries, especially in sub-Saharan Africa (SSA), where one-third of the world's projected youth population will live by 2050 (AfDB, 2015). These individuals represent an enormous opportunity and resource, yet creating the circumstances to realize that potential is a big challenge.

Governments in lower-income countries are increasingly looking for ways to improve youth employability and earnings to meet this entry-into-employment challenge. Most fail to recognize that the youth employment problem is simply a subset of the overall employment and earnings challenge in low-income countries, which in turn is a structural transformation challenge. In other words,

employment opportunities in the economy will improve only with economic transformation—with the creation of new economic entities that use new technology and produce at higher levels of productivity, and with an increase in productivity among existing firms and farms. When that transformation occurs, youth normally secure a large share of the new opportunities it creates, commensurate with their share in the labor force (Filmer and Fox, 2014). The first step in developing effective youth employment approaches is to diagnose the economy and the employment opportunities, deriving a clear picture of where the future opportunities will appear. In most cases, those opportunities will appear in the same sectors as in the past, with some shifts toward new sectors and emerging activities.

Interventions to improve youth employment need to understand and address the actual constraints that youth face in the specific segments of the economy where employment opportunities exist. Although increased educational enrollment has generated greater aspirations and demand for wage employment, the economies of most low-income countries are structured around production by household farms and firms, which offer limited opportunities for employing outside labor. *Successful interventions must operate within this reality.* In these circumstances, interventions that prepare youth for wage employment may not have much success in solving the youth employment challenge, whereas interventions that support self-employment may prove more effective.

Aside from being based on a realistic appraisal of the opportunities, efforts to address the youth employment challenge will be more successful if they build on evidence of which types of interventions work, and for which groups. For a long time, this evidence was not available on programs in low-income countries. As impact evaluations—which can more accurately identify the effect of a program on participants—have spread in development economics research, this evidence is slowly emerging. Most interventions in developing countries have focused on helping youth enter wage employment, and most of the impact evaluations examine this type of program. In low-income countries, however, most youth entering the labor force will not find this type of work. The good news is that at last, evidence on interventions that help youth succeed in household production is beginning to appear, as is evidence on what works to grow wage employment.

This paper reviews the economic development challenges that impede and constrain youth's transition into employment in low-income countries, and it parses the evidence on which programs and policies appear to speed that transition. The discussion begins by arguing that labor markets and the structure of employment opportunities in low-income countries reflect the pace of economic and structural transformation, and the number of modern enterprises. No employment intervention can change this reality; it does not reflect a deficiency of the labor market. To be effective, the program design, theory of change and the assumptions underlying these in an employment program need to incorporate the level and pace of economic transformation. The conceptual underpinnings of this argument are presented in section 2, and then illustrated with low and lower-middle income examples in section 3. One contribution of this paper to the emerging literature on youth employment is to view the employment challenges of low-income countries through the lens of the structural transformation literature and the enterprise deficit which characterizes the early stages of transformation.

A second contribution is to examine what youth employment interventions can do, despite the vagaries of economic transformation, to help youth transition successfully to a stable livelihood *in low and lower-middle income countries*. Section 4 reviews the most rigorous evidence from impact evaluations of youth employment interventions, grouped into programs that tried to help youth enter wage employment, programs that tried to create more wage employment, and programs that tried to help youth enter self-employment. Several previous literature reviews have reviewed the impact evaluation evidence on employment programs, including Card, Kluve, and Weber (2015) and Kluve et al. (2016). In both of these reviews, the majority of studies cited are from OECD countries, and very few are from low and lower-

middle income countries[1]. As argued in section 2, the employment context in low and lower-middle income countries is very different from the OECD one. In addition, the scope of this review is broader than the scope of the above cited reviews. The Card, Kluve and Weber (2015) review covers Active Labor Market Programs (ALMPs), including post-school training, job search assistance, and subsidized employment. David McKenzie's (2017) recent review also limits its coverage to this category of program while focusing on low and middle income countries. The Kluve et al., (2016) review is broader, as it covers self-employment assistance as well (called "entrepreneurship training"); this type of intervention made up 12 percent of the programs reviewed. By contrast, the review in this paper covers all of these types of programs as well programs to support existing firms to increase employment.

The evidence assembled in this paper reveals that training programs to make youth more attractive to firms that are hiring, and programs to help youth learn about jobs or subsidize their search for wage jobs, have had only limited success. Many of these programs have only redistributed existing job opportunities among youth or among age groups. This is similar to the finding of Kluve et al., (2016) that only one in three programs they evaluated showed any evidence of success, with the best results in middle income countries (38 percent). Since many of the evaluated programs were implemented as pilots by international NGOS and academics, a much lower success rate should be expected if the programs were to be scaled up locally, especially if implemented by the public sector.[2] Similar to the results of Card, Kluve, and Weber (2015), programs for youth were more likely to have a short-term effect which dissipated over the medium term. This indicates that the programs, at best, reduced the time it took for youth to enter employment, but did not change their overall trajectory.

On the other hand, a number of programs that operate outside of the labor market by removing constraints to firm expansion, including hiring more workers, show evidence of success in impact evaluations, although none have measured a youth effect. It is old news that barriers to affordable finance constrain firms from expanding and hiring, although evidence of the validity and power of this constraint is increasing. Newer research has identified deficiencies in management knowhow as another important constraint.

Among programs that help youth launch successful household enterprises, the range of programs and their cost per participant is very broad, making it difficult to draw conclusions from the evidence reviewed here. Sometimes skills training helped; sometimes it did not. Cash grants to finance startup costs seem to provide a short-term boost into employment, but the effect does not seem to last long. Almost no impact evaluations have been done for programs to help youth develop a sustainable livelihood in farming.

The paper concludes that it may be time for a fundamental reassessment of programs to help youth enter into employment in low-income and lower-middle income countries. The case for pursuing supply-side youth employment interventions is in serious doubt. A stronger case can be made for interventions that help firms expand employment, although the cost per job (where measured) is high. Likewise, in low-income countries, there may be a case for interventions to speed the transition to self-employment.

[1] In the Card et al., (2015) study, out of 526 participant group effects analyzed, only 11 (2 percent) came from low or lower-middle income countries; the study also included both youth and adult programs. It also included experimental (20% of total observations) and non-experimental evaluations. The latter usually biases results on the positive side. In the Kluve et al., (2016) study the focus was on youth-targeted programs; they did not report how many of the 113 studies they reviewed were on low and lower-middle income participants, but they did report that 56 out of 113 studies were from OECD countries, another 22 were from LAC countries (mostly upper middle income countries), and 6 were from the MENA countries of Jordan and Tunisia, both upper middle income countries. 19 (17 percent) were from Sub-Saharan Africa (including South Africa, an upper middle income country) and South Asia.

[2] See Berge et al., 2012 for an example of this issue in Tanzania.

Other promising intervention areas include support for "soft" or non-cognitive skills development and social integration among youth. These seem to be the skills that employers are looking for, and finding in short supply, although again the evidence from low and lower-middle income countries is weaker in terms of employers' demands and program outcomes. These skills are often called 'transferable skills' because, in contrast to technical and vocational training, these skills are not industry or firm specific, so the firms usually will not pay for this type of training. The skills learned can be applied in a variety of different settings, including self-employment and wage employment. However, evaluations of most of these programs have not tracked employment outcomes. It may be helpful to experiment more with transferable skills development initiatives (known as positive youth development programs), combined with cash transfers to youth or access to finance.[3]

Box 1: What is a job? What are employment outcomes?

In developing countries, the definition of employment encompasses more than a wage or salaried position with an employer. In reality, a great many individuals hold jobs that are more realistically defined as "activities that generate actual or imputed income, monetary or in kind, formal or informal." Individuals often hold multiple jobs, commonly called a "mixed livelihood".

Employment outcomes commonly measured in youth employment programs include:

a. transition into employment, either from unemployment or from being out of the labor force;
b. increase in hours worked, either in current employment or new employment or both;
c. increase in labor earnings per hour (or day), either from existing employment or new employment; and/or
d. improvement in conditions of employment (income security, safety, work/life balance, etc.).

Of these, (a) is the most common focus of youth employment programs, followed by (b), especially in low-income countries where most youth cannot afford to be unemployed for long. Outcome (d) is often measured as formal vs. informal employment -the latter being less secure, but possibly not less desirable if the individual has a high preference for autonomy.

Employment confers more than an income. It develops a person's sense of identity, status, self-confidence, connections to others in the community, and overall satisfaction with life. Despite their importance, these outcomes are usually not measured as employment outcomes.

Source: Filmer and Fox, 2014.

2 The youth employment problem in low-income countries

It is widely agreed that the transformation of an economy from a fundamentally agrarian, subsistence mode to an urbanized, integrated, and enterprise-dominated mode is the essence of economic development, and the wellspring of continuous improvement in economic welfare. This has been the experience throughout the industrial world, as documented by Duarte and Restuccia (2010), and since the work of Arthur Lewis in the 1950s, structural transformation has generally been considered a key element of economic development.

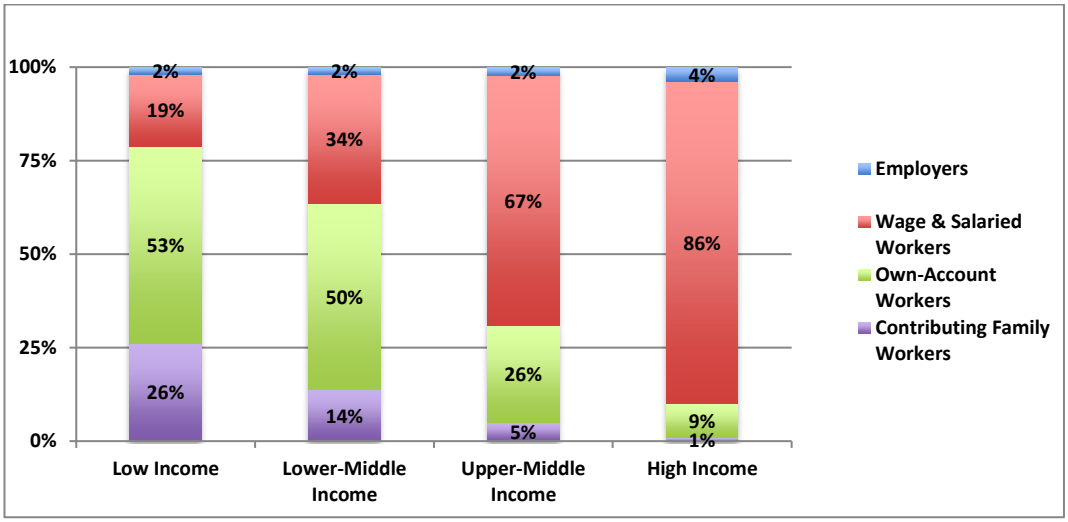
Structural transformation changes employment opportunities. In low-income, less developed economies, most employment and production take place in the household sphere—on family farms, in family businesses—which is commonly called the *informal* sector.[4] These businesses—called household enterprises (HEs)—are distinct from modern enterprises as they are not the growth-oriented enterprises

[3] For a discussion and review of evidence on these programs, see USAID (2017) and 3iE's review by Brown et al., (2015).
[4] This employment is classified as own account workers (self-employed) and contributing family members in "status in employment" classifications such as those shown in Figure 1.

common in developed economies. In developed economies, the majority of the labor force works outside the household in mostly *formal*, modern enterprises as wage labor. Modern enterprises are characterized by newer technology, economies of scale, and effective management of physical, financial, and human resources through specialized departments, all working toward higher profits in a competitive environment.

The change in employment opportunities that occurs as an economy develops is known as the *employment transformation*. The structure of employment changes more slowly than the structure of output, because the modern firms have to be created, and their creation requires more capital and knowhow than household production. As a result, it is common to find that the share of agriculture in GDP has fallen to 30 percent or less in lower-middle-income countries, while 60 percent or more of the labor force is still working on farms (Timmer and Akkus, 2008). Only in upper-middle-income and high-income countries does the majority of the labor force find work in wage employment (Figure 1).

Figure 1: Employment structure by income group



Source: ILO Stat, 2016.

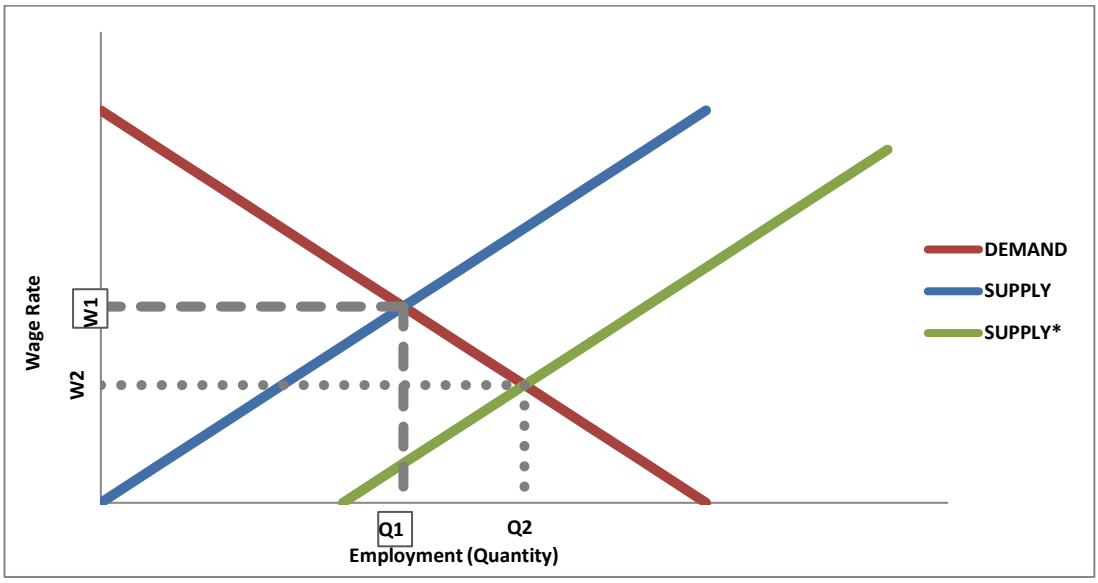
In a transformed, developed economy, people looking for jobs and firms looking for employees interact in the labor market (

Figure 2). The intersection of the supply of labor and firm demand establishes the market wage in the standard or classical model of employment used by economists.[5] The supply of labor is an upward sloping line because higher wages on offer induce more people to enter the labor force, but as wages rise, firms substitute capital for labor and demand fewer workers, yielding a downward sloping demand curve. Wages at any point adjust to equilibrate supply and demand—as shown in

[5] Skill differentials could create a number of labor markets, with integration between them.

Figure 2, where W_1 is the equilibrium wage. Most workers will find jobs, allowing for some spatial frictions or temporary joblessness during the search process. Some workers will potentially remain out of the labor force because the equilibrium wage rate is too low to induce them to enter. As the economy grows, demand for labor shifts out. As the population grows, the labor supply curve shifts out. A new equilibrium results.

Figure 2: A classical model of the labor market



Most people enter the labor market in earnest after leaving school. If supply is growing faster than labor demand, the equilibrium wage could fall. For example, where labor markets are differentiated by education, an increase in educated labor could cause that supply curve to shift out faster than the demand curve, causing wages for educated workers to fall.

Figure 2 shows this effect as W_2.

The classical model of the labor market illustrated in

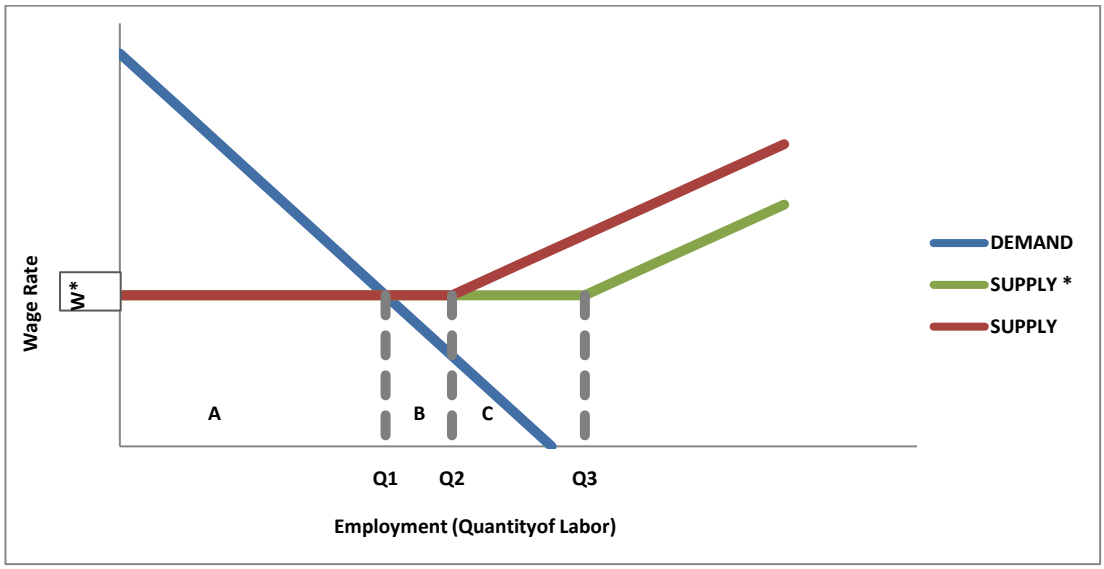
Figure 2 is an oversimplification, of course, even for developed countries. Informational asymmetries between job candidates and firms, along with other frictions, will to varying degrees reduce the market's efficiency. It is difficult to reduce nominal wages, so some unemployment may result if the supply is increasing faster than demand. To compensate for the overwhelming power of employers in large firms relative to the individual employee, governments may enact employment protection laws and a minimum wage, which may reduce labor demand somewhat because wages cannot fall to a market clearing level. Economies with effective labor market institutions can address these frictions by improving information and providing social safety nets for those who are temporarily unemployed, reducing the potential for adverse effects on labor market participants.

In low-income countries, the story is different. There is a perpetual shortage of wage jobs on offer, owing to the shortage of firms relative to the supply of labor. In this situation, the supply of labor is completely elastic—as far as firms are concerned, they can hire as many workers as they want at the going wage rate. In this case, however, the wage does not fall to zero or near zero, as would be expected in the model shown in

Figure 2. The entry-level wage is fixed, either by an actual minimum wage set by government, or by the cost of living in urban areas and/or the cost of transportation to and from work—if the wage falls below the subsistence living cost, workers will not take the job. As a result, the labor market looks more like the model in

Figure 3, where a flat segment dominates the supply curve at the prevailing wage. The amount of labor hired is set by the demand curve, and is Q_1, even though Q_2 people in the labor force are willing to work for this wage. Those not hired (Q_2–Q_1, group B) either remain unemployed, waiting for an increase in labor demand to give them a chance at a job, or they go to work in the informal sector. Box 2 discusses the relationship between demographics, labor supply, and the persistence of informal employment.

Figure 3: A model of the developing country labor market



Often in a poor country, most people do not even bother to look for wage jobs. They already know there are more workers than jobs. If they have no work on the family farm or in the household business, they stay home, doing chores or waiting. Modern firms often require more education than the average labor force participant in a low-income country achieves. Firms need more educated workers to be able to pay them enough money to afford to live in the urban areas where firms locate.

Figure 3 is especially important for understanding the youth employment challenge, as it fits the market for entry-level jobs almost perfectly. To an employer, new entrants to the labor market mostly look alike (assuming that they all have the required minimum education). The employer is indifferent between those workers in the rectangle bordered by Q_1 (group A) and those in the trapezoid bordered by Q_1 and Q_2 (group B). If, through some kind of job matching intervention, those in group B move to the front of the line and get hired, some people in group A will not get hired. But total employment will not go up. The only way total employment goes up is if firms start hiring more workers than before (through the expansion of production by existing firms, or the creation of new firms), so that the demand curve shifts out.

Suppose that an employer wants entry-level workers to have some work experience. In this case the employer would prefer not to hire youth who have recently left school. The employer wants to hire entry-level workers who have been out of school for a few years, and who have worked in temporary jobs or in the family farm or business. Only after this pool is exhausted will the younger job seekers be hired. So to help the younger individuals get a job, the government finances an apprenticeship or internship program, possibly combined with vocational training, so that youth entering the labor market can compete effectively with those already looking for jobs, who have some work experience. The effect of this intervention is to move the supply curve out to S*. Now the number of people eligible for an entry-level wage job has expanded to Q_3 and includes groups A, B, and C. But the total number of jobs has not expanded. The intervention simply moved some youth into group A, but bounced some other youth or some slightly older adults still looking for an entry-level job into groups B and C.

From an aggregate economic point of view, nothing has changed, and the money spent on the intervention has been completely ineffective at increasing total employment. What the intervention succeeded in doing, however, was to change who got a job, in effect redistributing opportunities. Economists call the shift of jobs between people as a result of the intervention *displacement*, as the younger job seekers simply displaced the older job seekers in line.

What would be the justification for such a redistribution? It is hard to say. If the participants in the intervention were somehow marginalized or disadvantaged, perhaps the cost of the intervention could be justified. But making this determination requires knowing who did not get a job, and evaluating their circumstances as well. Perhaps the person in line to get the next job would have supported a large family with the wage they would have earned, had they gotten the job. Is that person less deserving, even if they do not belong to a marginalized group? From a social welfare point of view, this type of tradeoff is very difficult to evaluate, and is generally discouraged. Displacement effects are important in estimating the true impact and cost-benefit of an employment program, but they are rarely considered. If they were, many programs would be revealed as a waste of money.

Box 2: Demographics, labor force growth, and the persistence of informality: The Lewis turning point

It is well known that the share of the labor force working informally in household farms and firms declines as countries get richer. This decline occurs because what usually makes countries richer is structural transformation—the growth in output, employment, and productivity in the "modern" (formal enterprise) sector—to use the terminology of Sir Arthur Lewis, the noted development economist.

To see Lewis' contribution, it helps to start with the model in

Figure 3. What happens when the demand curve shifts all the way out, demanding even more labor than Q_3? At this point, wages in the formal enterprise sector start to rise. This is called the "Lewis turning point." In Lewis'

(1954) model, the household production (informal) sector is mostly low productivity, on account of having too many workers relative to capital and other inputs compared with the modern sector. This means that the supply of labor to the modern sector is perfectly elastic (as shown in

Figure 3). But when a high enough share of the labor force has shifted into employment in the modern sector, the marginal productivity of labor in the household production sector rises to be as high as that in the modern sector. Thus to continue enticing more people to leave household farms and firms to work in the modern sector, wages have to rise.

Both the rate of output growth in the modern sector and labor force growth influence when an economy reaches the Lewis turning point. Rapid labor force growth means that an elastic supply of labor to the modern sector will persist for a long time. Using this insight, La Porta and Shleifer (2014) estimated a cross-country regression (captured below) of a 68-country panel from 1990 to 2012, to estimate the countervailing impacts of growth in labor supply and growth in modern sector demand on the Lewis turning point and the rate of decline in the share of labor employed in household farms and firms (informality). They used growth in GDP per capita as a proxy for growth in modern sector labor demand, and the share of the labor force in self-employment as a measure of informality. The results of their analysis are shown below (LaPorta and Shleifer

$$\Delta\,(Self\ Employment) = \alpha + \beta \ln\left(\frac{GDP\ pc_t}{GDP\ pc_{t-1}}\right) + \gamma \ln\left(\frac{Labor\ force_{\ t}}{Labor\ force_{t-1}}\right) + \delta_i + \varepsilon$$

The estimated coefficient of GDP per capita, $\beta = -7.1482236$

The estimated coefficient of labor force, $\gamma = 10.644107$

δ_i *represents country fixed-effects*

2014, page 121):

The estimated coefficients from the model show that a doubling of GDP per capita has a negative effect on informality, decreasing the share of the labor force working informally by approximately 5 percentage points, while doubling the labor force has a positive effect, increasing the share of the labor force employed informally by 7.4 percentage points.

Assuming that a country's GDP per capita grows at a constant rate of 5 percent per year, it will take approximately 14 years for the GDP per capita to double. This means that all else constant, it will take 14 years to achieve a 5 percentage point reduction in self-employment (informality) levels. Now assume that the same country's labor force is also growing at a constant rate of 2.5 percent per year (equivalent to current averages for SSA). At this rate, the labor force will take 28 years to double, and self-employment will increase by 7.4 percentage points.

This insight is particularly important for Africa. Owing to the reduction in mortality and very slow decline in fertility observed in most low- and lower-middle-income countries, both population and the labor force are growing very rapidly. The total employment growth in SSA in 2013 was estimated at 3 percent per annum by the International Labour Organization. By contrast, global employment is growing at about 1.4 percent per year (ILO 2014). What does this mean for the persistence of informality? Take a hypothetical country with initial self-employment as a share of the labor force equal to 70 percent and estimate the time it takes to bring self-employment down to 40 percent, slightly above self-employment averages in lower-middle-income countries today (Figure 1). This 30 percentage point reduction in self-employment (assuming constant labor force and GDP per capita growth rates of 2.5 percent and 5 percent, respectively) will take *approximately 332 years*. At these growth rates, even a modest 10 percentage point reduction in self-employment would take an estimated *111 years*. The is ignoring the fact that achieving a GDP per capita growth of 5 percent per annum for 100 years is itself quite an achievement.

In practice, of course, as population growth slows, so does labor force growth, while GDP per capita increases for the same level of investment. A more optimistic projection, using the same GDP per capita growth but a slower labor force growth rate of 1.5 percent per year, to achieve even a 10 percentage point reduction in the

share of the labor force employed informally would take approximately *51 years*. It is hard to escape the conclusion that the informal will be normal in Africa for the foreseeable future.

From this perspective, the youth employment problem is really just a special case of the overall labor market challenge—an oversupply of workers relative to the number of firms. Addressing the challenge of oversupply in the labor market requires policies and programs that will stimulate demand for labor in the market. Demand for labor and job creation result from a market environment that supports both firm entry and firm expansion (Box 3). Interventions that support job creation by private firms usually help both youth and adults. The evidence from enterprise and household surveys suggests that as wage employment increases, youth employment expands proportionately (Filmer and Fox, 2014).

But what if employers can't find people to fill the entry level jobs they have? The above graph is a bit of an oversimplification. Even entry level labor markets can be segmented – by geography, for example, or by type of pre-employment education and training. In a rapidly growing, more developed economy, where job creation is happening rapidly and wages are beginning to rise—that is, where demand has moved beyond the flat portion of the supply curve to the upward sloping portion—there may be interventions that would be cost-effective in reducing labor market frictions, resulting in more employment. These interventions might improve the flow of information about available jobs and their entry-level skill requirements, as well as help youth learn transferable, "employability" skills so that they enter the market ready to work. Programs to connect rural youths with urban jobs, for example, by subsiding transportation costs, solving networking problems, and helping youth learn how to fill out job applications would also fall in this category. Other effective (and redistributive) interventions may also include helping disadvantaged youth gain the transferable skills that they should have mastered earlier, but did not, such as practical writing, customer relations, social skills, or reliability.

Box 3: The politics of creating new firms

In most countries, the private sector creates the majority of new jobs. The quality of these jobs—earnings, stability, and working conditions—tends to be highest in large, modern firms. As a result, an important element of an employment strategy is to encourage new firms which create more and more stable jobs. But these firms have to be able to enter the marketplace and compete on a level playing field, so policies should discourage a few large firms from "cornering the market" and keeping other firms out. Put more positively, policies should encourage competition.

Competition policies support increasing productivity, because firm owners know that if they fail to keep improving, others will take their place. Competition policies also support job creation because owners know that if they are successful, they will be able to invest more, generate more output, and ultimately earn more profits. At the same time, competition policies threaten the market share and profits of existing firms that do not innovate, do not invest, and therefore do not keep up with the changing marketplace, so existing firms try to get governments to enact policies that protect them from new entrants. In North Africa, for instance, protective policies block the creation of new firms to protect the profits of established firms and their politically well-connected owners: new firms are required to obtain a license (rarely granted) to begin operating, foreign competition is limited by capping foreign direct investment (FDI) and imports, and government discretion may be used to harass firms that are not politically connected. Some governments also subsidized energy-intensive sectors, which created fewer jobs.

These policies are costly. A recent World Bank report estimates that growth in employment throughout Egypt's economy slows by almost 1.5 percentage points annually when politically connected firms enter a sector where

they had no previous presence. This slowdown in employment growth amounts to about two-third of all growth in the labor force, meaning that a large majority of new labor force entrants fail to get jobs because of these policies. In Morocco, firms that operate in sectors with high administrative burdens create fewer jobs. Government processes that result in long wait times for construction permits especially constrain new firm growth and firm expansion.

Countries often limit FDI to encourage job growth in domestic firms—another anti-competitive mistake. Evidence from Jordan suggests that while increased FDI did indeed lead to a loss of market share for older firms in the same sector, it created a lot of new jobs in domestic service provider firms and in young firms in the same sector, which learned from their competition. Meanwhile, aggregate productivity in the economy rose.

It is obvious why older and less productive firms would want governments to stifle competition, and why some governments would find it hard to resist this pressure. What is less obvious is the cost to youth and the broader social implications of these job-killing policies.

Source: Keefer et al., 2015.

Given the shortage of wage jobs in low-income economies, the real challenge for employing youth is to help them gain a foothold in the informal sector, either in farming or non-farm household businesses, called household enterprises (HEs). The objective of such an intervention would be livelihood development, not firm growth. Since these youth will have to find an economic opportunity and exploit it, interventions such as training, apprenticeship, or access to finance might be justified. In this case displacement is rarely a concern, so the key issues are the cost-effectiveness of the intervention, and who should finance it. If the economy is stagnant, however, and demand for the production from the farm or HE is not growing, even an intervention in the HE sector might create some displacement if new businesses crowd out older, less productive ones. These are called general equilibrium effects (because they take the indirect effects of the intervention into account), and they are rarely considered in cost-effectiveness studies.[6]

In sum, the opportunities for youth are a function of the overall set of employment opportunities in a country. Interventions to help youth enter the labor force and find sustainable livelihoods need to recognize this reality. Employment transformation takes time, and it lags economic transformation. It is not usually a labor market problem, requiring a labor market intervention, but an economic growth and development problem. When the labor force is growing rapidly, the employment transformation will take even longer, because the formal sector is small and needs capital to grow.

3 A typology of employment problems

Countries face different jobs challenges at different stages of economic development and transformation. The precise nature of their challenge is also informed by country context. Two key factors to consider in designing employment strategies are the initial income level of a country and the potential of its economy for inclusive growth and transformation. Initial income level usually reflects the accumulation of physical and human capital. Economic growth potential reflects the extent of structural and employment transformation (recent growth of high-productivity enterprises, especially labor-intensive ones, and the share of the labor force working in wage employment outside the agricultural sector), as well as the growth of and prospects for private investment. Based on these criteria, low-income and lower-middle income countries can be grouped into five categories, each with distinct employment challenges: low- and lower-middle-income economies with high potential (transforming economies), and low- and lower-middle-income economies with low potential (non-transforming economies) or, in the case of lower-middle income countries, where transformation has stalled after

[6] This point is discussed more fully in Section 4.

significant progress was made. Table 1 summarizes the major elements of this typology. The categories and their challenges are discussed in the sections that follow.

Table 1: Youth employment challenges and interventions depend on the prospects for structural and employment transformation

Category	Description	Inclusive growth challenge	Youth employment challenge
High-potential, low-income countries	Among the poorest countries in the world, these countries have been posting solid growth rates with modest poverty reduction. But they remain plagued by low human capital, high dependency ratios, and often-ineffective institutions. As much as 70–80% of their populations reside in rural areas. **Typical countries include:** Benin, Burkina Faso, Cambodia, Malawi, Nepal.	• Productivity in the agricultural sector remains low. • Nonfarm employment activities are still low productivity. • Constraints to growth include infrastructure, human capital (secondary education but also management and technical skills) • Uneven economic institutions, and weak governance. • Per capita growth remains low owing to high population growth.	• Youth need to develop mixed livelihoods and/or access to commercial agriculture opportunities. • Limited wage employment activities in urban areas. • Low productivity in non-farm informal sector. • Limited financial access. • Education is inefficient and low quality, so basic skills weak.
High-potential, lower-middle-income countries	These countries posted much higher GDP growth rates over the last decade and a half than in the past, and they have been diversifying their economies out of agriculture. This diversification is led by increased private investment and labor productivity growth, especially in the non-agricultural sectors. **Typical countries include:** Bangladesh, Côte d'Ivoire, Ghana, India, Kenya, Philippines, Senegal.	• Quality of human capital is too low; higher secondary completion and job-readiness rates needed. • Management skills are scarce. • Transformation is tilted toward services. • Underdeveloped financial sector, poorly managed infrastructure. • Poor urban governance • In SSA, slow fertility decline.	• Need investment in labor-intensive enterprises to accelerate transformation, grow wage employment. • Reform secondary, higher education curriculum toward labor market needs. • Increase commercial agriculture opportunities for rural youth—including addressing land rights/market as needed.
Low-potential, low-income countries (including all fragile states)	Mostly affected by conflict, which has prevented them from realizing growth potential. Once conflict settles, opportunities abound for bounce-back growth. But conflict or the threat of conflict hinders infrastructure and human capital development. These countries tend to be aid dependent. **Typical countries include:** Afghanistan, Burundi Haiti, Mali, Niger, Somalia, Yemen, Zimbabwe.	• Conflict stalled growth • Risky environment for private investment. • Displacement and demobilization. • Low human capital. • Missing infrastructure, low resilience to natural disasters (risk of violence from drought). • Weak institutions.	• Most youth lack education and skills • Low private investment means few wage job opportunities. • Low economic growth limits informal sector opportunities. • Weak agricultural value chains - youth lack skills & capital to enter. • Returns to illegal activities > legal.
Low-potential, lower-middle-income countries (including resource rich)	Resource wealth has led most of these countries to develop rentier economies. Political and economic life is dominated by an elite that distributes some mineral wealth through public goods but otherwise uses the public sector to enrich itself. Education levels of youth entering the labor force are rising, but private investment is low with few opportunities. **Typical countries include:** Angola, Nigeria, Republic of Congo, Timor-Leste, Venezuela, Zambia.	• Dependence on resource exports creates growth volatility. • Rent economy excludes most of the population. • High fertility, rapidly growing youth population.	• Urban, educated, and slum youth tend to be unemployed. • Youth in rural areas have few options. • Governance challenges limit demand side options; experimentation needed
Stalled lower-middle-income countries	These economies were able to increase the share of wage employment in the labor force owing to private investment in modern nonagricultural firms–exporters and producers for a growing domestic market. But their transformation stalled, often because economic elites block new entrants, stifling innovation and productivity growth (see Box 4). Despite slower labor force growth, they suffer from high rates of unemployment. **Typical countries include:** Armenia Egypt, Morocco, Nicaragua, Tajikistan.	• Political stability and security are new challenges in some countries • Need more well-managed medium and large, competitive firms but narrow elite resist business climate improvements • Labor regulation may be an issue • FLFP is low in some countries – norms and customs • -Quality of education and job-readiness are issues • Need productivity improvements in informal sector, which is absorbing most new entrants	• Skilled youth need more opportunities -wage employment needs to expand in urban areas. • Need faster transition to work among urban youth. • Employability skills weak; incorporate these into post-primary education. • Female empowerment for better opportunities for women.

Source: The Country categorizations used in this typology are based upon the income status boundaries set by the World Bank.

3.1 The employment challenges in transforming economies

3.1.1 High-potential, lower-middle-income countries

Since the late 1990s, many formerly low income countries have posted much higher GDP growth rates than in the past (especially in Africa), causing them to enter the lower-middle income category. Structural transformation has started, and their economies are diversifying out of agriculture. This diversification has been accompanied by increased private investment and labor productivity growth, especially in the non-agricultural sectors. For employment, the paramount concern is to create more competitive, productive, labor-intensive enterprises that will shift out the demand curve for labor—especially in countries where the labor force is growing rapidly and youth are becoming more educated. These young people, despite the limitations of the education system, are entering the labor force with basic skills, and high job expectations. Even with deficiencies in the business climate of these countries, the private sector has potential to grow and increase the demand for labor. *For that reason, an employment strategy should feature demand-side policies and projects to spur enterprise growth and productivity.* Yet there will still be more labor supplied than wage jobs—in most countries the labor force is growing rapidly and new enterprises take time to get started. *For that reason, an employment strategy should also feature support for youth to enter the informal sector (agricultural and non-agricultural sectors), especially in countries where the labor force is growing rapidly.* The obstacles tend to differ by sector: land access and markets often loom large in agriculture, whereas financial access, infrastructure, and urban policy matter more for non-agricultural businesses. In both cases, youth may need guidance to find the opportunities

An example of a country that has followed this strategy effectively is Vietnam. Once a very poor country, by educating its future labor force and attracting private investment in manufacturing, it has pulled young people out of agriculture and rural areas and into wage jobs. However, even in Vietnam today, half of the labor force still works in agriculture and another 20 percent works in the household enterprise sector. But, owing to increases in agricultural productivity most households engaged in agricultural production are no longer poor. Household savings and investment enabled the agriculture productivity gains, assisted by supportive government policies such as rural infrastructure development, agricultural research and extension, and financial sector development. Policies and programs encouraging lower fertility have slowed labor force growth, which has helped accelerate the transformation.

3.1.2 High-potential, low-income countries

These countries are among the world's poorest but have been posting solid growth and modest poverty reduction. Today, all are in sub-Saharan Africa except Nepal and Cambodia.[7] As much as 70–80 percent of their populations reside in rural areas. Education levels are low, but most of these economies have high potential for household and national income growth, because they do not need advanced skills or even much new technology to raise output and productivity. Macroeconomic stability, combined with public investments in infrastructure and basic social services, can bring high growth dividends. High labor force growth (especially in SSA) and the small size of the private sector wage economy mean that 75 percent or more of youth entering the labor force will have to find work in the informal sector. *For that reason, an employment strategy should emphasize the development of mixed livelihood strategies in the informal sector in rural areas—a combination of household farms and firms—and provide access to startup funds and possibly to land.*

[7] Other low-income countries outside of Africa are all fragile states (e.g. Haiti). See World Development Indicators online databank.worldbank.org/ for a list of low and lower-middle income countries.

Young people and their families are unlikely to have startup capital or to be able to obtain it from financial institutions, so they may struggle to start HEs or to grow their farm production beyond subsistence. Youth employment projects targeting informal activities probably need to use grant financing more extensively at the start, while building up financial access; in agriculture, access to land may need to be part of the policy mix. Rwanda is an example of a country that has followed this strategy effectively. Investments in agriculture and roads have raised farmers' incomes, reducing poverty and spurring the development of the rural HE sector. Meanwhile, investments in education and health are raising the potential of youth now entering the labor force. Macroeconomic stability and improvements in the investment climate are spurring new private sector investments, gradually increasing the share of wage jobs in the economy while effective family planning and reproductive health programs are slowing the growth of the labor force.

3.1.3 Stalled transforming economies

Among the richest and most diversified countries in the lower-middle income group, these countries had a period of sustained economic growth, when they developed modern manufacturing and services sectors. Most also lowered fertility, moderating labor force growth and allowing a large share of the labor force to be employed in these modern enterprises. But early economic gains, often combined with some natural resource wealth, led to the development of a large public sector. Although countries in this group have half or more of their labor force employed in the urban wage economy, the majority of this employment in the public sector, often at above market wage rates. Their economic transition stalled when new firm entry slowed and private investment stagnated. The causes of this stagnation include weak governance and over-regulation, insecurity, and poor quality of public services such as transportation infrastructure or education, all of which can cause countries to lose their competitive edge. This syndrome - sometimes called the middle-income trap - requires strategies to restore competitiveness and encourage innovation and high-level technology transfer, in order to raise productivity and expand markets at home and abroad. This often includes deregulation of the economy, increasing the efficiency of the public sector, increasing institutional transparency and capabilities, bringing education systems up to international standards, encouraging financial sector deepening through tiered regulation, and improving trade policies to increase integration into global value chains at higher levels of sophistication. None of these are easy to do in the short run. *Employment strategies need to focus first and foremost on barriers to new firm entry, so that the political pressure on the public sector to employ youth graduating from university moderates.* Reducing the barriers to productivity growth in informal enterprises, which may encourage these businesses to grow and become eventually become formal, is also a good strategy.

Countries which have avoided this trap, such as Chile or Thailand, have maintained competitive exchange rates and political and macroeconomic stability for a number of years, all the while upgrading education and health systems and attracting foreign direct investment in higher value added sectors while encouraging domestic savings and private investment. Exports of higher value, processed agricultural products such as canned meat, wine, or horticultural products helped finance the transformation, demonstrating the importance of continued development of the agricultural sector.

3.2 The employment challenges in non-transforming economies

Economies have limited potential for transformation for many reasons—perhaps resource rents have created distortions, or civil conflict prevails—but the unifying pattern is that political economy and governance challenges restrict the strategic options to encourage transformation. If the basic conditions for private sector investment (such as the capacity to make profits and appropriate them) are lacking, development projects may have little scope to encourage private investment to increase demand for

labor. *For that reason, an employment strategy that attempts to prepare youth for wage jobs that do not exist and are unlikely to materialize would be futile (and a waste of money). It would be better to focus on preparing and enabling youth to pursue successful, stable self-employment.*

3.2.1 Low-potential, lower-middle-income countries (including all resource rich)

Resource wealth has led most of these countries to develop rentier economies. Political and economic life is dominated by an elite that distributes some mineral wealth through public goods but otherwise uses the public sector to enrich itself. The youth entering the labor force are becoming more educated, but the lack of private investment is limiting their opportunities. In resource-rich economies, where the investment climate is poor and resource rents have pushed up public sector wages to a level that private enterprise cannot afford, prospects for new enterprises to grow and provide new jobs for youth are dim. Overvalued exchange rates bring in cheaper imported agricultural goods, inhibiting the development of commercial agriculture. This slow growth also limits opportunities throughout the informal sector, *but programs to help youth launch successful HEs may still have greater success than programs focusing on the formal sector*.

Resource wealth is not always a curse, as the experience of Malaysia or United Arab Emirates shows. These countries invested their wealth in economic infrastructure and in education and health services for the whole population, encouraged foreign investment outside the mineral sector, and enacted fiscal policies to ensure that resources flowed to the poorest parts of the country and poorest segments of society, so that inequality did not choke off job creation and inclusive growth.

3.2.2 Low-potential, low-income countries (including all fragile states)

Conflict has left most of these countries dependent on aid (including emergency aid) and has prevented them from realizing their potential for growth. But once conflict settles, opportunities abound for bounce-back growth. Low-income countries that were engulfed by conflict but recovered political stability - Côte d'Ivoire, Mozambique, Rwanda, and Uganda are examples - have experienced solid growth for an extended period, improved their agricultural output and productivity, restored basic infrastructure and trading ties, and reduced poverty. During the period of rebound growth, most employment and income-earning opportunities came from reestablishing and improving the productivity of family farms and businesses. *Under these conditions, employment interventions for youth should focus on resurgent opportunities in the informal sector.*

3.3 Employment policy during the transition

Analysis suggests that the conditions underlying the shortage of wage employment relative to the size of the labor force in low- and lower-middle income countries are unlikely to end soon. Transformation is a process; it normally takes two or more generations. China managed to accelerate the economic and employment transformation, yet even there the transformation has been going on for 60 years. In countries with high fertility (e.g. over 5 pregnancies per woman), the youth population will continue to increase, delaying the employment transformation.

Development actors, for good reasons, design and implement employment policies and projects hoping to short circuit this long term process of structural transformation by creating opportunities for youth now. This paper argues that this is often a mistake. They should not overlook nonwage ones, but instead seek to improve productivity and incomes in the informal economy, where most people, including youth, will work. What they might be able to address is the problems that youth everywhere face, and

especially the better educated ones in lower-middle income countries (who tend to be urban youth; see Box 4) – how to connecting with the opportunities that are available.

Improving the quality of education is a neglected strategic option, in part because the payoff is longer term; it will not help the youth entering the labor force in the next few years. Like their constituents, most politicians in most countries focus on short-term goals. Education, possibly the best development strategy and very helpful for better employment outcomes, is a longer-term proposition. Yet labor force participants with better basic skills are more prepared to adapt to changing economic and workplace conditions. Improving basic education today will help with employment problems surfacing 10 years or more into the future. This time horizon is too long for a politician, but not for today's children. Improving "employability" skills in adolescents could pay off somewhat sooner, carrying today's youth into better livelihoods in tomorrow's economy, although as discussed in the next section, current research is not clear on this question.

In some countries, women face strong barriers to employment and income earning opportunities. These are not issues of structural transformation; they are caused by norms and traditions which limit acceptable economic activities and behavior of women, often enforced through restrictive laws (World Bank, 2012). They also affect the skills women are able to acquire before entering the labor force (which may be valued by employers). While economic development tends to be associated with broader opportunities for women, this is not automatic. Meanwhile, new evidence argues that these barriers hold back growth and transformation (Bandiera and Natraj, 2013). As seen in the next section, more research is needed on which interventions can be successful increasing opportunities for young women.

Box 4: Unemployed urban youth

While it is not such a big problem in low-income countries (which lack private or public safety nets), urban unemployment is a challenge in lower-middle income countries (both high and low potential). Unemployment in Europe or North America tends to affect the labor force participants who have the least education and less social status (minorities, for instance), whereas unemployment in low- and lower-middle income countries is highest among educated youth from wealthier families. Of course, richer families can afford to support their unemployed youth, but other factors are at play as well. Research documents a growing "aspirations gap" between what youth expect from a job (earnings, hours, working conditions) and what is available in the economy. One study in urban Tanzania found that youth who leave school and enter the labor market unemployed can spend five years or more searching for opportunities before settling into long-term wage employment or self-employment.[a] Most did not settle into a wage job. Some youth try wage jobs and leave them. Urban youth in Ethiopia preferred trying their hand at self-employment or a household business rather than working on an assembly line in labor-intensive manufacturing. They reported that the factory wages were too low and the working conditions too difficult, even unhealthy.[b]

Spending on projects to help youth from rich families move into a job more quickly would be a regressive expenditure and probably not cost-effective (participants who get jobs may simply be displacing others). Unemployment is also a waste of resources, however. *For that reason, an employment strategy could support experimentation with low-cost information and counseling programs to move youth more quickly into self-employment, while avoiding displacement.* Several countries are also experimenting with *education reform*, to stress more experiential learning of non-cognitive "employability" skills and practical applications of cognitive skills.[c]

Source: a Bridges et al., 2016; *b* Blattman and Dercon, 2016; *c* Filmer and Fox, 2014.

Many development stakeholders are active in the youth employment space—governments, donors, NGOs, and so on—especially in Africa. Often projects are launched without either a solid diagnosis of the prospects for economic and employment transformation or specific knowledge about what works for target groups in specific countries. The section and the previous one reviewed key diagnostics that need to undertaken prior to designing an intervention. But once this diagnosis is undertaken and the

challenges identified, what can be done? The next section looks more closely at the evidence of which youth employment initiatives have worked, under what conditions, and for whom. Set against the analysis of youth employment problems from a structural transformation perspective, this evidence may indicate more clearly which kinds of interventions are more likely to be useful in certain contexts, and where more experimentation is needed to expand the evidence base on what works for to help youth enter into and stay in employment.

4 Youth employment programs: Lessons from impact evaluations

The growth of more rigorous evidence gleaned from impact evaluations has begun to influence the design and implementation of youth-related policies and programs. The sections that follow provide more detail on why these evaluations are important, how they might be improved, and what they say about programs that work for youth.

4.1 Why impact evaluations?

While it is important to monitor outcomes for employment program participants (for example, the percentage of participants in a program on entrepreneurial skills who started a business afterward; see Box 5), that information says little about whether and why a program works. Nor does a simple regression analysis from survey data. The problem is that two types of bias are present: (1) selection bias, which is the unobservable characteristics of individuals who might self-select into a study (such as motivation and ability), and (2) environmental factors (such as market changes or other contextual factors), which could influence a study's outcome.

Box 5: Why randomize?

While it is important to monitor outcomes of development programming, monitoring data alone, often tells us very little about whether or how a program achieved its intended objectives. When they are conducted under the framework of a randomized control trial (RCT) or similarly rigorous experimental evaluation technique, impact evaluations provide small-scale test-cases for researchers to measure the effects of programs with greater certainty and to begin to triangulate the specific mechanisms through which an effect or outcome is achieved by an intervention. This has significant value as an input to policymaking where there is growing demand for evidence-based policy-making in order to increase the effectiveness of development programming.

To identify program effects, impact evaluations rely on treatment and control groups. In a randomized design, once a target group is identified, some members of the group are selected randomly to receive treatment and the remainder from the control group. If the random assignment is done correctly—and the sample is large enough—then the two groups are identical on average, except for the treatment offered exclusively to one group.

Most impact evaluations check for outcomes—often both employment and earnings. Since the participants (treatment group) and control group are considered identical, the assumption is that the difference between their outcomes is the program.

For further discussion, see Gertler et al., 2016 and Hempel and Fiala, 2011.

The drawbacks to implementing rigorous RCTs are the large costs and time required to conduct them. Additionally, while the results of an RCT may be internally valid—able to accurately measure the treatment for the context of the study—they may not be externally valid. An approach needs to be tested in different contexts to ensure external validity. In addition to the problems with external validity, testing an intervention on a small sample population may not fully reveal the challenges of operating

the program at a large scale. In cases where randomization of treatment is not possible, evaluators have used other techniques to identify a matching control group.

Experimental evaluation techniques are usually not designed to assess the indirect or general equilibrium effects that arise from an intervention, including displacement effects, which are a particularly important consideration for employment interventions. Displacement is hard to measure in an impact evaluation, but a few have been able to do it. A French study that measured displacement effects found that the main impact of the employment program was to help treated individuals within the treatment area find a job "slightly faster" than those who were not in the study (Crepon et al., 2012). But when the authors compared areas where most youth were allowed to participate (treated) with areas where few youth were allowed to participate, they found that the higher the share of youth allowed to participate, the worse the outcomes were in the short term. In other words, the treatment effect of the program came directly at the expense of the control group. The youth who got jobs simply displaced other youth. The program had little or no impact on total unemployment in the area, and no medium-term effect at all—the treatment and control groups had similar outcomes in the medium term.

Displacement can also happen with projects to help youth start HEs—the new HEs may outcompete established HEs in the same sector and area. Again, most impact evaluations do not look for this effect. An exception is Blattman et al.,'s (2013) evaluation of the WINGS intervention in post-conflict Uganda, where adult women were helped to leave agriculture and start a retail trading business. They found that less productive men traders lost business to the women who entered.

In sum, experimental evaluation research represents a major breakthrough for understanding what works in development, but development practitioners who use the results need to exercise care in interpreting them and applying them. Development practice remains about context as well as science.

4.2 Types of interventions and theories of change

As the earlier discussion of employment problems in African countries illustrates, most constraints on youth employment are related closely to the rate of economic transformation and the overall employment and inclusive growth challenges in a given country. Some constraints, however, such as limited job readiness and a lack of employability skills, are specific to youth. Adults who are successful in the labor market have overcome these difficulties, often through a long period of post-school search and struggle. Stakeholders (public or private) seeking to help youth overcome these constraints have focused largely on labor market and employment interventions that operate through changes to the supply side or business climate, often called the demand side. A third type of intervention, not discussed in this paper includes reforms and changes to the institutional environment.[8]

- *Supply-side interventions* are designed to improve the characteristics of actual and prospective labor force participants in order to raise earnings (including helping them to enter the labor force or exit unemployment). These interventions include skills training: in vocational and technical skills, in business skills for self-employment, and in life, employability, or other non-cognitive skills. They may also include counselling and mentoring services for either self- or wage employment, and transportation subsidies to help youth search for jobs. Although not strictly a

[8]Institutional interventions are designed to improve the functioning of the public sector or key private sector agencies that play a role in employment outcomes. For example, this kind of intervention may include support for increasing the capacity of the public sector to collect data on the labor market or to regulate key markets (financial, labor, land, or goods and services) to improve employment outcomes. It may also include programs to develop the capacity for youth to exercise their voice and advocate for public policies and programs that could improve employment outcomes.

supply-side intervention, matching services to reduce information deficits and frictions by linking youth to job vacancies are usually put in this classification.

- *Business climate interventions* are designed to improve factors outside the control of the labor force participants that affect labor demand and productivity. In the case of wage employment, interventions may benefit firms in order to affect their employment decisions—for example, by raising the profitability of firms and helping them to expand (through management training, mentoring, and incubation services); increasing access to finance; reducing firm taxation; investing in infrastructure to support firm entry and growth; and providing employment subsidies to encourage firms to hire youth. In the case of self-employment, business climate interventions may benefit actual or potential self-employed business owners by affecting choice of activity, earnings potential, and risk.

The choice of intervention should be guided by a *theory of change*, which defines the expected path from the observed needs and problems, to the interventions and the expected outcomes. The theory specifies the basis of the diagnosis and the assumptions made along the way. Different types of youth interventions will have different theories of change. For example:

- Supply-side interventions assume that *the business climate is adequate and creating jobs,* but youth are not qualified enough for them. In the absence of the intervention, the jobs would go unfilled, or the potential employer would wait until a qualified applicant appears. Interventions focus on changing the characteristics of youth to improve their outcomes.
- Business climate interventions assume that *the supply of youth* with the characteristics needed to succeed in employment is adequate, but the business climate needs to improve to generate more and better opportunities for youth.

As discussed in Section 2, the assumptions behind supply-side interventions for wage employment are certainly open to question in low-income countries.

Organizations often design and implement programs without checking to see if the assumptions behind their theory of change actually hold. In other cases, the main constraint is beyond the capacity or scope of the organization intervening to resolve. For example, the most important constraint for better employment outcomes in an isolated rural area might be the poor transportation network, but few agencies would have the financing and other capacities needed to address this issue. In this case, the theory of change would specify an assumption that progress could be made in spite of the limited transportation options. The risk is that this assumption turns out to be false, and therefore a program does not achieve the expected outcomes.

Because multiple constraints can be involved, youth employment issues are often addressed by several interventions. This complexity often makes program evaluation difficult, especially impact evaluation, as it is not clear which component was most effective in alleviating which constraint, and what might be the most cost-effective way to move forward. In other cases, it is almost impossible to perform an impact evaluation. Youth employment interventions focusing on the institutional environment (the capacity of public agencies to make and implement policies and programs) are a common example of this problem. It does not make these interventions less important; it simply means that they cannot be covered in this review, as no standard is available to judge effectiveness.

With these caveats in place, it is time to examine the results that are currently available from impact evaluation research performed in developing countries on programs that are expected to improve employment outcomes. Ideally, this review would cover only programs targeting youth, but that approach would not generate enough results, so it covers programs that included participants of any age above 15. Consistent with the essence of the youth problem, the analysis covers outcomes primarily

relevant to youth: *the generation of new employment opportunities*. We do not cover programs trying to increase earnings in existing employment (such as increased profits or wages, for example).

4.3 What do we know about interventions to increase wage employment among youth?

4.3.1 Evaluation results: Supply-side programs to increase wage employment

Training programs. The most common intervention to help youth enter wage employment sector is training, and it is also the most frequently evaluated intervention. Impact evaluations of training programs show at best mixed results (Table 2). Training programs vary in length and focus, so it is hard to know how much training is needed for what jobs and what participants. Programs tend to provide a bundle of support and training aimed at improving youth employability for wage jobs, making evaluations less conclusive. Key results from the literature are:

- Few evaluated programs provided only vocational training. Of these, only the program in India for young females showed any effects. Training voucher programs, once considered "best practice," did not show positive effects in Kenya and Turkey.
- Vocational training plus life skills and mentoring showed positive effects for young women in Liberia and Nepal.
- Comprehensive programs, which combine training (vocational, or vocational plus life skills) with internships or other kinds of work experience showed positive effects in Colombia, Yemen, Kenya, and Nepal, but not in Dominican Republic or Peru. In Yemen, the participants were university graduates (and they received more limited pre-internship training), while in Kenya participants were secondary school graduates, and the training was more extensive and mostly vocationally-oriented. The *Jóvenes* model in Latin America also combined training with internships for mostly good results.
- Several programs showed good effects initially but had limited or no effects in the longer term (Colombia, Dominican Republic, and Turkey).

Table 2: Supply-side interventions to increase wage employment

Inputs	Key results
Technical and vocational training (TVT), life skills, work experience, or combinations	**Life skills only** interventions in Jordan and Kenya found no effects on employment or earnings.
	TVT only interventions had no effects on earnings or employment in Kenya or Turkey. India saw slightly positive effects for female employment and earnings, but most likely from displacement.
	TVT and/or life skills together with **work experience** (internship/apprenticeship) and/or **mentoring** showed mixed results by region and gender. *Positive*: Colombia (*Jóvenes),* Kenya, Nepal, Peru (*Projóvenes, 2016)*, and Yemen. *Positive women-only programs*: Kenya (ICT training), Liberia (AGI). *No effect*: Argentina, Dominican Republic, and Peru (2010). In Nepal and Liberia, trainers were given financial incentives to place students. Overall, TVT and work experience together seem to have the greatest effect on participation in the formal sector. All studies ignore displacement effects.
	A male-only program in Malawi found that **short training in field work plus 5 days of office experience** increased future employment in temp jobs.
Employment matching services and counseling	The use of **job fairs** to match job seekers and employers in both Ethiopia and the Philippines noted no significant employment or earning effects.

	Recruitment services targeting young rural women in India for a new employment sector (business process outsourcing) showed positive employment and earnings effects. The novelty of the sector suggests that the recruitment effect may be displacement.
	In Jordan, a **labor market matching service** had no employment or earnings effects and was highly cost-ineffective. Cost per match (assessing ability and fit to job) averaged ~US$20K.
	Apprenticeship-matching did have a sustained positive employment and earnings effect in Ghana.
Incentives for job search	Interventions testing **bus subsidies for job seekers** found no employment or income effects in Ethiopia, but participants had a higher likelihood of permanent employment due to longer, more intensive job searches. In Bangladesh, a **subsidy to encourage urban migration** during the lean season reported increased employment and earnings for beneficiaries.
	While not intended as an incentive for job search, a **wage subsidy program** in South Africa increased wage employment even though 98% of the firms did not use the wage subsidy. This result suggests that subsidies encouraged beneficiaries to search longer, but the net effect is probably only displacement.

Note: For details and references on the programs evaluated, see Appendix A.

The results on life skills are somewhat of a puzzle. Interviews with African employers show that their main complaint about youth is that they lack "employability" skills, not technical skills (Filmer and Fox, 2014). Life skills are cheaper to teach than technical skills, so teaching them should be a good, low-cost intervention. Yet several impact evaluations have shown that life skills programs, by themselves, did not increase employment rates. One of these programs lasted only two weeks, a very short time. Perhaps these skills have to be "learned while doing," which may be why internships were shown to be effective in evaluations. It may also explain the high returns to only two weeks of training and one week of work for a survey research firm in Malawi. Experience as an administrative assistant or as an interviewer both led to a much higher probability of subsequent employment. More research on this topic seems to be warranted.

The majority of programs evaluated used private training organizations. These programs also showed the best results. A Kenya program used both public and private training institutes, but the number of people placed in wage employment was so small (less than 5 percent of the whole sample) that the study could not analyze which training provider was more effective.

Average employment effects for the comprehensive programs are pretty low (less than 10 percent on average), but these programs are expensive (about US$1000–2000 per capita). Given the risk of displacement, it seems fair to question whether this is the best use of public or donor funds. The more elite the participants are (the university graduates in Yemen, for instance), the more regressive are the public expenditures financing these programs, especially in low-income countries.

The evidence on training programs suggests that on average employment effects from youth training programs are limited, mostly short-term, and achieved at high cost. For example, public TVT is 4–10 times as expensive on a per capita basis as general secondary school. It showed no effects in Kenya, a country struggling to provide access to general secondary education. The implication is that scarce public funds would be better spent on expanding secondary education. Meanwhile, the evaluation of the Argentina *Jóvenes* program, a privately-run program using private training providers, found that 18 months after program completion there was an estimated average monthly income gain of US$83, conditional on being employed. After 33 months, this average gain fell to US$45. With the cost per participant surpassing US$1,700, participants would be ill-advised to borrow for this experience: the loan payoff period would be very lengthy and the income stream likely to continue to decline over time. Interest alone on the loan would equal about one-third of the average gain after 33 months.

It is possible that incorporating a stronger emphasis on job "knowhow" into general education may prove to be a cheaper way to achieve the same gains in employability for youth. It might also be effective to help youth get work experience while in basic secondary school through internship and apprenticeship opportunities. These approaches should be tested rigorously.

Matching services and counseling for wage jobs. Another barrier to wage employment in low- and lower-middle-income countries is thought to be search costs. Search costs can be characterized as an informational barrier; firms face a cost in assessing the quality or skills of an unknown job seeker, and youth may not know how to find jobs on offer or what to expect. The assumption is that labor market frictions are a key reason why firms are slow to hire new workers. If that is true, then interventions that reduce search costs should result in sustained employment growth. One study in the United States found that better matching of employees and employers through agglomeration raises productivity and growth (Andersson et al. 2007); one would expect to find the same effect in low-income countries.

To test this idea, researchers organized job fairs in Ethiopia and the Philippines and randomly distributed invitations to youth looking for jobs. These experiments showed no employment or earnings effects. In the study of the French program mentioned previously, these services, combined with counseling and mentoring of job seekers, created no new jobs, only displacement. Thus even though job matching services tend to cost less than training programs, they are not recommended. Whatever employment-reducing frictions exist around information and matching, they cannot be reduced through job placement services.

The exception to the limitations of matching and job-search programs comes from an apprenticeship program in Ghana. The program offered a partial wage subsidy to firms accepting apprentices. Firms earned higher revenues and profits without reducing other labor, suggesting low displacement. Apprentices were more likely to be employed after the subsidy ended (McCasland and Hardy, 2016). However, Ghana may be unique. Apprentices in Ghana typically finance a portion of their training, and this self-investment is used as a signal of the applicant's quality or motivation as a job seeker. The program, which targeted lower-income youth, substituted a cognitive test plus the commitment of time (showing up to several job-matching sessions) for a fee as a signal of motivation. These arrangements allowed low-income youths to get an apprenticeship. Since firms that did not get apprentices through this program did not hire other apprentices, while those that did kept theirs on, it is possible that displacement was low, and lowering the search or screening costs encouraged firms to hire apprentices they would not have considered otherwise, thus moving out demand.

Incentives for job search. Understandably, job seekers get discouraged (or run out of money to finance the search). Two interventions suggest that it is possible to incentivize job seekers to search harder: transportation subsidies and wage subsidies. In Ethiopia, the transportation subsidy experiment showed no overall employment or earnings effect, but it did show a formal employment effect (participants were more likely to get a formal job, which did not pay more but perhaps had other benefits). In Bangladesh, the transportation subsidy encouraged rural workers to go to cities in the off-season in search of work and resulted in increased employment and earnings. In South Africa, a wage subsidy scheme appeared to have the unintended effect of encouraging workers to apply and firms to hire them, even though the firms did not take up the subsidy. In all of these cases, however, it is highly likely that the effect was purely displacement. In Ethiopia, less educated job seekers benefitted the most, suggesting that there may have been a small positive redistribution effect.

Summing up. Overall, the results on supply-side interventions are not particularly encouraging. One reason may be that urban labor markets (where most wage jobs are located) are actually pretty efficient

at connecting job seekers and firms looking to hire entry-level employees.[9] In other words, labor market symptoms such as the unemployment of educated youth or presence of a large informal economy are caused by factors outside the labor market. *They are caused by the lack of jobs, not by the characteristics of the job seekers*. While the Ghana apprenticeship experience and the Ethiopia transport experiment suggest that low-cost efforts to match disadvantaged workers with employers may deserve more testing as an income redistribution measure, overall, the real need is to increase the supply of jobs on offer.

4.3.2 Does gender matter?

Is there a gender effect on training efficacy and outcomes? Studies suggest that in the short-to-medium-term, there may be differences in returns by gender, with female beneficiaries responding more positively to training interventions than their male counterparts. A recent impact evaluation carefully disaggregated results by gender in a *Jóvenes*-type program (private sector delivering training plus internship opportunities to low-income youth who had not completed secondary education) called PJyE in the Dominican Republic (Acevedo et al., 2017).[10] The training component had two treatment arms: (1) one group was trained in technical skills, soft skills, and offered internships (TSI), and (2) a second group was trained in soft skills only and offered internships (SI).

Although the program improved earnings for young women in both treatment groups after one year, these differences evaporated after three years, and the control group caught up. The TSI treatment also had an employment effect, which evaporated after three years. Even so, females in both treatment groups had a gain in wealth relative to the control group, indicating that the short-run employment effect was important for long-term economic well-being. The surveys detected no positive employment or earnings effects for males in either treatment group.

The authors also surveyed participants and the control group on gains in non-cognitive skills, using a variant of the well-known "Grit" scale, as well as on self-esteem and expectations (thus covering a range of empowerment outcomes; see Fox and Romero, 2017, for a discussion). Males did not show an improvement in soft skills as a result of either treatment, with the exception of those in the TSI group, who had higher expectations in the immediate post-training period, but these effects also evaporated relative to the control group after three years, perhaps because the program's effect on employment and earnings did not turn out to be strong. In contrast, females showed an improvement in soft skills in both the one-year and three-year surveys. Females in the TSI group had higher expectations of future salary, perhaps indicating that they still feel that the technical skills they learned will be valued in the labor market, even if the evidence suggests otherwise. The paper does not provide the baseline mean scores for males and females, so we can only speculate that the females started out more disadvantaged in this area and that the soft skills training was indeed needed.

With gains to employment disappearing in the follow up, it may be that training accelerates entry for females, relative to males (in some cases), but that does not imply that training is the preferred intervention for women. The study above found that the gains sustained in the medium term are those related to income increases, not employment. Thus, accelerating entry through training programs may not be the most cost-effective way to accelerate entry for women. Other studies, which do directly tested for gender differences have found mixed results - either no statistically significant differences in outcomes by gender, or stronger effects for male participants (McKenzie, 2017). It therefore remains indisputable that while gender has an impact on occupational choice and access to capital, the

[9] I am grateful to David McKenzie for first drawing my attention to this conclusion. He makes this point as well in his recent survey of the evidence for training programs (McKenzie, 2017).

[10] The paper does not specify the type of job (wage or self-employment), so the results are not included in the text tables.

assumption that young women should be targeted by supply-side training interventions is not supported by the evidence.

4.3.3 Evaluation results: Demand-side interventions for wage employment

All developing countries need strategies to increase investment in labor-intensive enterprises in order to grow wage employment. Over the medium term, growth in wage employment will require an accelerated transformation process to take hold, in which more and more private firms become established and create more and more jobs. An increasingly common type of development program, which may have employment effects in the near term, is to build the profitability of businesses. In the last few years, the number of completed impact evaluations on these programs has grown dramatically, but figuring out what works remains difficult, for the following reasons.

- Most countries now participate in multiple assessments of their "business climate" (by the World Bank, World Economic Forum, and others). These assessments usually find deficiencies, but they do not always agree on which ones are important. Another problem with these assessments (from the perspective of this review) is that they rarely focus on which constraints have the greatest effect on investment in labor-intensive enterprises. Finally, many constraints are not easily subjected to an impact evaluation (infrastructure construction is one example).
- In most cases, even when interventions have been subject to an impact evaluation, employment growth is often not among the outcomes evaluated.[11]

Nonetheless, some evidence is available on successful interventions to increase demand for labor in modern non-agricultural firms. In a systematic review for 3ie, Piza et al., (2016) argue that impact evaluation evidence shows that business support services for small and medium enterprises (SMEs)—training, management support, credit lines, innovation policies, and interventions that encourage firms to coordinate to realize agglomeration externalities—do increase employment, where that outcome has been measured. They also found that the number of impact evaluations is small and the interventions too heterogeneous to tease out which ones are more effective.

The discussion of results that follows (summarized in Table 3) does not attempt to determine which interventions to try, but simply catalogues where they have been found to be effective.[12] The key results are:

- Reducing constraints to firm expansion does encourage firms to hire more workers.
- Interventions targeted to larger firms seem more likely to have an employment effect.

Increasing access to finance for small and large firms to expand. The lack of affordable credit to expand operations is the constraint most commonly cited by business operators. High interest rates and high spreads between deposit and lending rates are characteristic of the underdeveloped financial markets found in low-income developing countries, so it is not surprising that many interventions seek to offer entrepreneurs cheaper money for investment and working capital. It is difficult to use experimental evaluations in this area, as banks do not want to offer loans to a random selection of borrowers and see who defaults. Empirical evidence suggests, however, that increasing access to finance, particularly for micro, small, and medium enterprises (which face bigger credit constraints) and firms that rely more heavily on debt finance, does create more jobs. Intuitively, it makes sense that access to cheap financing

[11] See the Grimm and Paffhausen (2015) systematic review for a discussion of this point. Although the McKenzie and Woodruff (2013) review of business training interventions is a key systematic review, it did not cover employment outcomes at all.
[12] Similar to the supply-side interventions, a number of the demand-side programs included in the Piza et al., (2016) study used multiple interventions, making it difficult to determine which one actually made a difference.

will allow firms to purchase more capital assets, and that converting assets into increased production usually requires more labor.[13]

Table 3: Demand-side interventions to increase wage employment

Inputs	Key results
Access to finance (credit, grants)	**Microcredit:** Evaluations of six studies in Bosnia, Ethiopia, India, Mexico, Morocco, and Mongolia showed positive effects for start ups, but no employment effects for existing firms. Small loans (US$180–200) in Uganda also showed no employment effects.
	Larger loans: Subsidized credit and credit guarantees had slightly positive employment effects in Brazil, Colombia, and in larger firms in India. Microenterprises in India saw no employment effect.
	In Nigeria, a **large cash grant (averaging US$50,000)** was awarded to existing entrepreneurs for a business plan competition, with positive effects on employment. Grants in Uganda, which were only about US$200, experienced low uptake and had no effect on employment.
Financial literacy, business development services (BDS), and managerial skills	**Quality business development consulting**, particularly when targeted at developing management skills and provided by consulting firms, showed positive employment effects in Argentina, Chile, India, and Mexico. Depending on the provider, BDS interventions can vary in cost-effectiveness and many effects may take several years to develop. Area of intervention matters: A BDS intervention in South Africa found that training focused on marketing and sales produced employment effects, while training focused on operational practices and financial management increased efficiency and firm profits without corresponding increases in employment or the wage bill.
	Firm type matters: A BDS training intervention in Ghana targeted to microenterprises found no employment or earning effects.
Formalization, tax policy	Interventions to increase **registration and business formalization** show limited results. Simplifying registration processes in Argentina and Brazil showed increases in formal employment, but net effects on employment are unclear. Other Latin American countries similarly showed that formalization might have an effect on new or entering firms, but existing firms showed no notable employment effects. Paying firms to formalize also showed no effects in Sri Lanka.
	Tax simplification and discounts for microenterprises appeared to have positive employment effects in Brazil and Mexico, although the quality of the evidence was weaker.
Electricity	**Electricity access** (assessed in terms of quality and quantity) has a clear impact on firm productivity and growth. A study in Ghana and a model India both showed positive employment and earnings effects from access to regular electricity. In Ghana, blackouts disproportionately affected employment in smaller firms.
Minimum wage, subsidies, and public works	In South Africa, the introduction of a **minimum wage** created some changes in employment patterns, reducing employment in agriculture and low-paid domestic labor, but employment effects in other sectors were limited.
	Wage subsidies showed no employment effects beyond the subsidy period in Jordan, South Africa, and Sri Lanka. In Mexico, wage subsidies during a recession increased worker retention and accelerated firm recovery, relative to control firms.
	India's **publics works program** (MNREGA) has been successful in increasing employment and earnings in rural areas, with only partial displacement. In Malawi, a similar program found no displacement.

Note: For details and references on programs evaluated, see Appendix A.

Credit programs that favor larger businesses tend to have better results, for several reasons. First, larger businesses are much more likely to survive and be profitable (Page and Söderbom, 2012). Second, given the costs of banking, small firms often do not have accounts or cannot get loans through the formal banking system.[14] Research in India used a phased-in and phased-out subsidized lending program for formal firms to see if they were constrained by a lack of credit. Large firms did indeed borrow more

[13] See Ayyagari et al., (2016).

[14] Owing to regulatory requirements and other issues, retail banking has high fixed costs, so it is uneconomical for them to serve customers with small amounts on deposit or who need loans in small amounts. While innovations such as mobile banking and microfinance, combined with the introduction of credit bureaus to centralize information, are improving financial access for lower-income customers, it is still true that larger businesses have an easier time getting credit. See Filmer and Fox (2014), Focus Note 3.

when credit was subsidized, and they expanded production and profits during that period. Small firms did not show the same results. An expansion in production is not the same as an expansion in employment, but the study also found that more labor-intensive firms benefitted more from the credit subsidy. Another program used excess demand and a discontinuity design to study the effect of subsidized credit in Brazil and Colombia. Businesses that received the credit expanded their operations and increased employment. These results suggest that credit constraints prevent formal firms from expanding employment, in part because they need credit to pay wages.

Lending to small firms has had more mixed results. A program in Nigeria gave very large grants (US$50,000) to half of the small, established businesses (on average five employees) that were semi-finalists in a business plan competition. The evaluation showed highly positive employment effects. Not surprisingly, the cost per job was high (US$8,500–9,600), equal to approximately 60 months of wages at the average wage.[15] In contrast, a program in Uganda provided much smaller sums (closer to the size of a microfinance loan) to owners of established small businesses that expressed a desire to grow, and found no employment effects from either grants or loans. The Ugandan businesses were much smaller than the Nigerian ones, as at least half had no employees. Meanwhile, evidence from several studies of microfinance expansion shows no effects on employment in existing firms. Most of the microfinance client businesses were also very small, closer in size to those in the Uganda experiment. These results show the difficulty of expanding employment within small household and microenterprises, which are usually not growth-oriented.

While these studies provide the clearest possible evidence that the *price of credit* is a constraint to expanding employment, *scaling up grant programs or subsidized credit is probably not feasible in many settings*—for example, in Africa the costs would be much too high. These programs point to an alternative, however, which is the potential for financial sector reforms to lower the cost of funds to existing businesses. Reforms could entail changing regulatory regimes to encourage entry and competition in the sector, for instance, or reducing the cost of business for banks by setting up credit bureaus.

Management training and business development services (BDS). Management training is a popular intervention in developing countries to help firms grow. Numerous studies have shown that the quality of management and business practices has a large effect on sales, profits, productivity, and survival. It may also have an effect on employment, although this dimension is often neglected in impact evaluations. Programs offered included:

- Business skills training for potential or existing entrepreneurs (with or intending to have employees), covering topics such as bookkeeping, business planning, pricing, and legal requirements.
- Comprehensive interventions to improve management, including training but also mentorships or other specialized support (BDS). Financing is sometimes added.

While *pure training* has demonstrated some positive business creation effects for HEs (see below), and some effects on sales and profits when offered to existing firms, the effects on job creation seem to be poor. Among eight programs for microenterprises or SMEs for which employment outcomes were tracked, only one (in Mexico) showed positive employment effects (Grimm and Paffhausen 2015). The rest showed no effects (five), or showed effects (two) but included other components such as loan/credits or wage subsidies, so the effectiveness of the training program alone cannot be established.

[15] McKenzie (2015) notes that this is gross job creation. If the expanding firms put other firms out of business, then net job creation would be less. On the other hand, if the expanding firms increased demand for products produced by other firms, then the effect would be greater. He argues that it is unlikely that these spillover effects were large in either direction.

In general, evaluations find that participants learn the material but have trouble applying it (in other words, the projects show outputs but no outcome). The inevitable question is whether the skills taught are actually needed by the owners of the mostly very small businesses that these programs targeted. McKenzie and Woodruff (2015) conclude that even in small firms employing five workers or less, better business practices lead to higher survival rates and faster sales growth, but they did not measure employment growth. The lack of success in employment growth after business training found by other researchers may indicate that while business practices could be improved, other constraints are more important.

The combination of services called *BDS* (including specialized services such as mentoring, support for supply chain development and market access, support for auditing and accounting) and specific plant management support (as opposed to generic business training) has a good record. This result is interesting, given that numerous studies argue that Africa suffers from a business management deficit, which may be reducing wage employment creation (Filmer and Fox, 2014). Grimm and Paffhausen (2015) reviewed six impact evaluations of BDS programs and found that all had positive employment effects, but the quality of the studies was relatively weak owing to an inability to randomize participants.

Confounding the results, however, is the fact that *pure training programs, with a more generic curriculum,* tend to target micro and small firms, while *BDS programs* tend to target larger firms because the services are quite expensive, perhaps even requiring a co-payment by the firms involved. For example, the services provided to Indian textile manufacturers evaluated in Bloom et al. (2013) cost US$75,000 per firm (although they were highly effective; see below). The services evaluated by Bruhn and Karlan (2016) in a BDS program in Mexico cost almost US$12,000 per firm (about US$3000 per job created).[16]

One example of the importance of management for employment comes from a study by Blattman and Dercon (2016) on hiring in manufacturing plants in Ethiopia. Economists often argue that large hiring costs deter new employment. Blattman and Dercon discovered that over half of initial hires did not complete the first week on the job. Either they did not even show up the first day, or they quit shortly after starting. Many reported that they quit because they thought they could make better money (or have a better work life) working for themselves. Only the less qualified employees stayed on the job, in part because they had fewer options outside the plant. Blattman and Dercon did not test the performance of those who stayed, but presumably it was adequate or the company would have fired them. Yet why did the human resource managers not adjust their qualification requirements and screen out the overqualified applicants? Do these inefficient hiring processes reduce employment because they drive up the cost of hiring? The study does not evaluate these questions.[17]

An experimental study by Bloom et al. (2013) on providing business management support to a random sample of targeted large textile firms in India is also an interesting case. The intervention provided free comprehensive consulting services (similar to what would be provided in BDS projects), the purpose of which was to encouraged firms to use established good practices in quality control, inventory control, human resource management, and customer care. The study did not measure the employment impact of the intervention, as it focused on productivity and profits. It did note that after three years, firms that received the intervention were more likely to open up new plants. This result is another piece of evidence suggesting that management skill deficiencies are hindering the creation of wage employment. In a follow-on study, Anderson-MacDonald, Rajesh, and Zia (2014) found that only certain parts of the business process improvements encouraged firms to add employees—those targeted at marketing and

[16] See McKenzie (2017) for a discussion of the cost issue.

[17] One component of BDS is help in human resource management, indicating the importance of this area for business success.

sales. Others helped to increase profits but not employment. Anderson did not study the longer-term effect.

The issue of supporting large versus small firms for employment creation has received a lot of attention and has particular implications for employment interventions in Africa, where the majority of employment is in household, micro, and small firms. Studies have shown that such firms have a high death rate and rarely expand, whereas large firms survive to provide long-term employment. Indeed, firm creation seems to be a quite different process in Africa than in other regions (Bloom et al., 2013). Most large firms operating in Africa started out large; they did not grow from small or medium firms. Among the large firms created by domestic entrepreneurs, most were created by people who were previously brokers in foreign trade—an experience that helped them manage their input supply and break into export markets. Generally speaking, it should not matter if a firm is large or small; what should matter is the potential for it to grow. At present, however, a developing-country environment with uneven economic institutions seems to obstruct growth in small firms by being very risky for them, leading some to suggest that encouraging and supporting larger firms is a better strategy. The danger is that large firms may also be politically powerful, and therefore able to use the mechanisms of government to impede the entry of other large competitors, which seems to have happened in North Africa (see Box 1).

Regulatory reform and other public sector interventions. *Regulation* (of employment and in other areas), especially as measured by the World Bank Ease of Doing Business Index, is often held up as a key obstacle to firm creation and expansion. There is some evidence that when regulations are simplified—the tax regime; business registration, licensing, and construction regulations; and employment protection legislation—more wage jobs are created. But most evaluations do not focus on employment per se. One famous study in India comparing provinces showed that a high level of employment protection legislation slowed growth in employment (Besley and Burgess, 2004). A follow-up study found that this result was driven largely by uncertainties in dispute resolution (Ahsan and Pages, 2007). This research, alongside results from Latin America on the employment effects of tax simplification, suggests that in some cases efforts to simplify procedures and increase the transparency of regulation are helpful as an employment policy. Initiatives that simply help firms comply with existing registration requirements have not shown an employment effect, because they have not changed the business environment at all (de Mel et al., 2013).

While a long debate continues on whether a *minimum wage policy* deters employment—especially youth employment—little empirical research has explored this question in Africa, where the implications for youth employment would be useful to understand. Bhorat et al., (2013) studied how rolling out minimum wages in six sectors in the Republic of South Africa affected youth employment. In five sectors they found no employment effects, but in agriculture they found that employment fell, perhaps because it is easier to substitute capital for labor in agriculture than in the other sectors studied, such as security or retail. The study also found significant levels of non-compliance with the minimum wage policy in half of the sectors, which may be why the effect was so muted.

Direct public financing for wage payments to private sector firms or public works employment has shown mixed effects. In Mexico, wage subsidies helped firms keep workers. In Turkey, analysis of the effect of a reduction in payroll taxes (a wage subsidy) on formal job creation suggested that most of the resulting job creation that was observed came from firms making informal jobs formal. Although the increase in formal jobs boosted tax revenues, there was little net job creation. Similarly, in Colombia, a reduction in payroll taxes for the lowest-paid workers (those earning up to 10 times the minimum wage) increased the formalization of jobs, and it increased the probability that workers would have a formal job, especially in small firms (Kugler et al., 2017). The authors did not look for an effect on total employment.

In Sri Lanka and Jordan, wage subsidies were completely ineffective. When the subsidy stopped, the employees were let go. Although general employment subsidies may deserve more attention in low-income countries (perhaps as part of a time-limited incentive package for large firms), youth-targeted wage subsidies do not, as the risk of displacement is very high.

Workfare (public works employment, usually in rural areas) has not been evaluated very often because the effects seem obvious: people have jobs for a few months. There could be displacement here as well, however. Two studies checked for this effect. In India, a small amount of displacement was found, while in Malawi no displacement was found (Goldberg, 2016). Some have hypothesized that public employment is a good way to teach youth "employability" skills, but this notion has not yet been tested in an impact evaluation.

Summing up. If the main constraints to an expansion of wage employment are on the demand (business climate) side, employment projects could try to release these constraints, but in many countries it is difficult to know which constraints are binding and how to release them. Problems such as regulation, management skill deficits, missing infrastructure services, and thin financial markets are easy to identify but harder to address effectively (and evaluate the results) in a project setting. The results from BDS projects are promising, but these projects tend to be complex and expensive. An added consideration is that evaluations of BDS projects have not identified the minimum conditions for such an investment to pay off. In situations of conflict, weak governance, or macroeconomic instability—all of which may also result from resource dependence—the demand-side interventions discussed here may struggle to be successful. Undertaking pilot projects and evaluating them is often the best approach.

4.4 What do we know about programs to help youth enter self-employment?

Helping youth find a sustainable livelihood in the household sector—a livelihood which at the minimum earns enough income to keep youth out of poverty—may be *the* key employment challenge in Africa, especially among low-income countries. The household sector includes both household farms and firms (mostly self-employment), and over the next decade at least, it is likely to provide the majority of new employment in Africa. Analysis of data from sub-Saharan Africa indicates that youth work in this sector almost as soon as they leave school, but it takes some time for them to be independent of their family (Filmer and Fox, 2014).

Limited evidence suggests that many youth enter the household sector through apprenticeships (Filmer and Fox, 2014), especially youth with lower levels of education. Most apprenticeships are informal, consisting of private arrangements between the owner of an established business and the apprentice, without any government supervision and without certification (Filmer and Fox, 2014). A small survey of 350 informal enterprises in Dar es Salaam found that more than half of the operators had apprentices, on average about two per firm (Nell and Shapiro, 1999).

Informal apprenticeships suffer from two issues. First, once apprentices have mastered their trade, they still need capital to start their business. If their family cannot help, they may end up working a longer time for their trainer, at apprenticeship wages. Second, strong gender segregation prevails within the HE/informal business sector, with males working in carpentry, metal working, construction, mechanics, and so on while females concentrate in sewing/tailoring and hair dressing. Apprenticeships perpetuate this segregation to the detriment of women, who earn less in female-dominated fields, especially sewing (Campos et al. 2012). In Ghana, half of women who apprenticed in tailoring never worked in the sector, but instead made a living as traders (where no apprenticeship is offered; Filmer and Fox 2014).

Interventions to help youth enter this sector (summarized in Table 4) try to overcome these constraints. The key results are:

- Training programs to help youth enter this sector are very heterogeneous, so it is difficult to draw conclusions.
- Even if training works, the surprising result is that cash may work just as well. Cash or credit programs combined with training also have shown success.

By far the simplest approach is to alleviate the *startup capital constraint* through grant or loan finance. Both have proved effective. An evaluation of six microfinance programs rolled out in areas where microfinance was previously unavailable showed that while they had no effect on the earnings of existing business, they did help people start business (not just youth, however; see Banerjee, Karlan, and Zinman, 2015). The effect tends to be short term, however. An impact evaluation in Kenya showed that cash grants of US$200 helped young women in Nairobi start businesses, increasing employment and earnings. But the control group in the experiment caught up with the grant recipients in terms of employment and earnings after about 18 months, either through self-employment or wage employment. This result suggests that youth do eventually solve the startup capital problem (or, in an urban area, find wage employment paying equally well).

Table 4: Interventions for starting household enterprises and increasing self-employment

Inputs	Key results
Technical and vocational training (TVT) plus work experience	In Kenya, **TVT only** was tested with the use of vouchers for public and private trainers. There was no effect on earnings or employment.
	In India **vocational training** targeted to young women had only a slightly positive effect on employment.
	In Nepal, private trainers offering a tailored mix of **vocational and business skills** increased self-employment hours.
	In Malawi, vocational training plus **apprenticeships** provided self-reported increases in skills and self-confidence, but no labor market outcomes in the short run.
	In post-conflict Uganda (NUSAF program), **finance and TVT together** had a positive employment and earnings effect (startup), which was stronger for male participants.
Business skills plus life skills and mentorship	A **business skills course for university youth** in their last semester in Tunisia showed slightly positive effects, though no net increase in employment. The study found training shifted youth into more self-employment, reducing wage employment in the treatment group.
	In Uganda, a **life skills and mentorship intervention** for youth in secondary school had a positive earnings effect and increased the likelihood that participants were engaged in self-employment (EDUCATE!).
	In Nicaragua, a study adding **1-day business skills training with finance** in a household conditional cash transfer program found generally positive employment effects through household enterprise startups. Similarly the WINGS program in Northern Uganda found a **cash grant and business skills training** for young women increased employment and earnings, even in a post-conflict area.
	When combined with **life skills training and mentorship, business skills** had positive effects on earnings and employment of young women in Liberia (EPAG) and Uganda (ELA). However replication of the Uganda (ELA) program in Tanzania found no employment effects.
	A **microfranchising** intervention—providing business models, startup capital, and connections to local supply-chains—in Kenya was ineffective at raising employment or earnings in the medium term but did speed entry into self-employment.
Finance	**Cash grants** of about US$200 speeded up self-employment in Kenya (young females), and **grants ($300) plus limited training** had positive results in Ethiopia.
	Evaluations of **microcredit** in six countries (Bosnia, Ethiopia, India, Mexico, Morocco, and Mongolia) showed positive effects on start-ups.

Note: For details and references on programs evaluated, see Appendix A.

Training is also a popular intervention to speed entry into this employment segment and often is combined with some work experience. As with wage employment, the TVT results are mixed. In Nepal,

where private training contractors were offered placement incentives, participants entered self-employment. In post-conflict Uganda, groups of youth selected by their village were provided cash grants to get apprenticeship-type training and working capital to start their business. The Uganda program succeeded in increasing both non-farm employment and earnings relative to the control group, perhaps because it included financing for the startup. In Kenya, vouchers that youth could use for public and private trainers also showed no effect on earnings or self-employment; in India providing subsidies for young women to attend TVT had only a very slight positive effect on employment (including self-employment). In Malawi, a program which paid master-craftspersons to train poor youth showed no short-term effect on employment; no medium-term survey was conducted.

Results for business skills training are also mixed. De Mel, McKenzie, and Woodruff (2013), in a survey of business training programs, found little or no effect of business training on earnings of existing HEs and microenterprises.[18] For startups, very simple business skills training may be effective, however, especially when combined with some grant financing or savings support (through a savings group or microfinance mechanism). Successful examples include WINGS in Northern Uganda, a program in Nicaragua that added one day of business plan training and a cash grant to an existing conditional cash transfer program, and the AGI program in Liberia, which combined business skills with mentorship and a cash grant put into a bank account opened on behalf of the participant. Upper-class youth (such as those enrolled in secondary school in Uganda or in university in Tunisia) do not seem to need financial support along with business skills training; presumably they can get the startup capital from their families. A microfranchising intervention in Nairobi provided business skills training, limited technical training in operating the franchise (a cart selling food, for example), as well as startup capital in kind (the cart, apron, and sign, for example), but it did no better than a cash grant in improving employment and earnings for young women. In general, short, very basic business skills training seems to be as effective as longer programs (in Nicaragua, the training was only one day, to explain how to draw up a simple business plan). Notably, successful programs for young women tend to supplement the business skills training with mentorship and/or life skills.

Qualitative and non-experimental quantitative research has identified a number of other constraints in the business environment faced by youth and others in starting or sustaining HEs (Filmer and Fox, 2014). These include access to work and sales space, such as protected access to areas of high foot traffic; infrastructure, such as electricity, water, and waste disposal; protection from crime or predatory behavior by police or other officials; and access to markets, including integration into productive value chains. Experimental evidence on interventions to address these problems has not yet surfaced, although evaluations of some market access programs are underway.

Finally, displacement can also occur with programs that help youth to enter self-employment. While the programs may result in more hours of work and higher earnings for the youth, they may result in fewer sales for people who are already self-employed, if they are now less productive than the youth. An impact evaluation showed that this is exactly what happened to some men in Northern Uganda when the WINGS project supported women to enter the retail trading business (Blattman et al., 2013)—but since the women had become more productive, the benefit to the village as a whole was still very positive. Indeed, this result suggests that the women should have been doing this work before, but various female-specific constraints prevented them from entering the sector.

Despite the importance of *agriculture,* there is little scholarship on how to help youth establish themselves as commercial farmers. A recent report by the Alliance for a Green Revolution in Africa

[18] McKenzie and Puerto (2017) found that business skills had an effect on profits for women HE owners, but only in a longer-term evaluation (after three years). This reason for the delayed effect was that trainees needed time to save money and/or get more capital to implement business improvements.

(AGRA) highlights the opportunities and challenges of a youth-focused agricultural strategy, observing that "the nexus between youth and agriculture has only partially and insufficiently been developed and translated into public policies" (AGRA 2015, page 174). The report argues that countries need an integrated youth agricultural strategy, which should help youth see agriculture as a business and themselves as entrepreneurs, taking advantage of new technologies being developed for African agriculture.

> But evidence on successful programs of this kind is just now beginning to trickle in. The AGRA report offers several examples of new approaches being rolled out in some countries but notes that none of the programs was rigorously evaluated. The 3ie database of systematic reviews on interventions in agriculture shows only one review covering a topic of potential interest for youth employment strategies. It is on Farmer Field Schools, an innovative approach to developing and upgrading skills in the sector (Waddington et al. 2014). In this case, while a few small field school pilots were successful, all failed at scale-up, which is not a very helpful result for the development practitioner (although relevant for strategy development).

One rigorously evaluated program was in Liberia, where an NGO helped young ex-combatants to establish a commercial family farm (Blattman and Annan, 2016). The program was residential (which raised its costs) and provided agricultural training, capital, inputs, as well as counselling in life skills (self-regulation). Participants, many of whom already engaged in agriculture part-time, increased their productive time on their farms, raised their earnings from crop sales, and reduced their participation in illicit activities.

Another well-evaluated intervention is the ultra-poor graduation programs developed by BRAC. These programs were designed to enable very poor women—initially in South Asia—to develop new livelihoods to raise their incomes. Most women chose to start raising livestock and received an in-kind grant at the beginning of the project. Throughout the project, participants received mentoring in practices to raise healthy and productive livestock, as well as advice and support from a project facilitator. A review of several of these programs showed a high level of success (Banerjee et al., 2015). They are now being piloted in other countries and settings; some pilots are being run by the public sector instead of by BRAC employees and contractors.

Summing up. Although the household production sector is where most youth will find employment opportunities, the impact evaluation literature does not yield a clear conclusion on what works, perhaps because the sector is so heterogeneous. A young person needs technical skills to become a self-employed mechanical repair person, hairdresser, or carpenter, and the traditional way to acquire these skills is through an apprenticeship. On the other hand, retail trading requires no apprenticeship and, depending on the business smarts of the youth, may be as lucrative or even more lucrative than the traditional trades. Skills are not enough in agriculture, where land and capital are required as well, especially if the goal is to move beyond subsistence into commercial agriculture. Finance (savings and credit) is the one cross-cutting intervention that stands out as important in all sectors. Finally, some important potential constraints (such as access to location) are relevant for the whole household production sector, particularly for startups, but they have not been subjected to an experimental evaluation.

4.5 Other research on youth employment interventions

Who should implement programs? Two systematic reviews have found that *programs implemented by public sector agencies show less success than those implemented by NGOs* (Vivalt 2015; Kluve et al., 2016). Yet NGOs often lack both the administrative capacity and financial resources to bring programs to scale, so their small pilot programs, implemented with support from external researchers, often fail

to scale up. Public sector agencies tend to have both of these capabilities, but not the performance focus or dedication to the target group found more often in NGOs. To bridge this gap, Nepal developed a hybrid option, the Employment Fund (EF). The EF is a semi-autonomous agency which contracts with private training operators to provide training for youth who are underemployed or unemployed. Contracts are performance based; if the participants do not get a job or start a business, the contractor does not get full payment. The program has been successful at a very reasonable cost (Chakravarty et al., 2016). More experimentation with this type of hybrid approach may be needed to bring successful pilots to scale.

It goes almost without saying that *all employment programs must address the gender dimension explicitly*. While there is much heterogeneity within gender categories, most countries have a set of norms and expectations that affect, and usually constrain, women's opportunities in employment. These include norms and customs around acceptable behavior in public; laws, norms, and traditions about what jobs women can do (or are "suitable" for women), which result in occupational segregation; norms around housework and other forms of unpaid work; specific health needs; and policies and practices that may infringe on women's safety and security. Aspirations and the socio-emotional skills to act upon them are formed early in the life of females in Africa (Fox and Romero 2017; Guerra and Olenik 2013).

Many programs for youth are segregated by gender to provide special support to one group or the other. Examples include programs for adolescent females featuring reproductive health and social support as well as training or finance, or programs that inculcate socio-emotional skills in males at risk of becoming combatants. Part of the conundrum around the question of "what training is needed for self or wage employment" may reflect these norm differences which create different needs. Many programs assume that young females may not imagine that they can start a business, and thus need life skills training and career counseling along with business skills. But usually this assumption is not rigorously tested. Impact evaluations often record effects of different strengths for males and females, but follow-up research does not clarify why they differ. Microfinance, for example, was initially designed for women, although now both males and females use this form of credit. Do different microfinance products suit women more than men or vice versa?

The gender dimension of youth employment interventions clearly needs continuing experimental research. The results from the Dominican Republic, alongside results from the ELA after-school program for girls in secondary school in Uganda, suggest that it might be possible to improve women's labor market outcomes through much lower cost interventions that effectively build the necessary non-cognitive skills. It may be that the acquisition of these skills is part of the effect of microfinance group interventions as well, although this hypothesis has not been investigated using appropriate measures of power and agency (motivations and behaviors).

Can research provide better information on the processes behind the impacts observed in youth employment interventions? Practitioners express frustration with impact evaluation research because often it does not focus on the dynamic underlying the impacts measured. In the earlier discussion on training this issue came up often, for several reasons. First, participants may have been heterogeneous, but the sample size was too small to see what part of the program worked for whom. A large sample can quickly increase the expense of an impact evaluation, however. Second, the quantitative techniques used in an impact evaluation are not designed to study processes (at the program level or the individual level), as they focus on outcomes. A "multi-arm" impact evaluation, combining different project components in different patterns, can help but not solve this problem.

Research strategies can address this problem through *mixed-methods research*, combining qualitative research (interviewing participants about how they reacted to the program as it progressed, for instance) with quantitative studies of outcomes. This type of analysis is not easy to do effectively

because it generally shows little beyond high levels of satisfaction from participants. One reason why impact evaluation in training programs is popular is that participants are quite likely to claim that they have benefited, even when no quantitative results are found to confirm that perception (see for example Cho et al. 2012). This claim may represent participants' positive feelings toward the trainers, or unwillingness to recognize that the time they invested was not well spent. Qualitative techniques have become more sophisticated over time, and computer software has been developed to improve analysis. Thus, it can be used not just to measure participants' perceptions of program effects, but participants' perceptions of their opportunities and constraints as the program proceeds and after the program.

4.6 Much remains to be learned about how youth employment interventions work, and why

In sum, a lot has been learned over the last 15 or so years from experimental evaluations on projects to improve employment outcomes, including ones targeted at youth about what works. One key lesson from the evidence is that short-term gains, especially from training, often dissipate several years after a program is completed. This finding does not mean that the program was a complete waste of money, because it may have gotten the participants into a sustainable livelihood faster. What this finding cannot explain, however, is whether this short-term effect came to participants at a cost to non-participants and was just a displacement effect, rather than a real gain in employment for labor force participants.

It is clear that much more needs to be learned about what support youth need to successfully enter into employment. One reason that this task is particularly difficult is that youth are still developing a number of skills and behaviors, including but not limited to those related to finding employment and earning a living. The sometimes confusing results on training cited here may indicate how difficult it is to separate the skills needed for other aspects of adulthood from skills needed to develop a successful and sustainable livelihood strategy. Indeed, it may be that simply focusing on the broader non-cognitive skills that are transferable and support positive outcomes across sectors would be more cost-effective (especially for women and girls). One way to test this assumption would be for impact evaluations to measure longer-term employment and earnings outcomes in programs not specifically designed as employment interventions.

Mixed results on training may also reflect large heterogeneity in the quality of education and learning outcomes of youth in low income countries. Mastery of basic cognitive skills is a prerequisite to mastering business or vocational skills; this fact is often not recognized in program design. If participants enter programs with different levels of these basic skills, the program outcomes are likely to show substantial variation, making it difficult to isolate a program effect.

Project designers usually have some theory of change underlying their proposed intervention package, and theories of change involve assumptions. Most projects do not spend resources collecting and analyzing data which might confirm or refute these assumptions. For example, it would be useful to have data in context on how employers hire. Do they perceive an excess of the candidates for entry-level jobs? Do they adjust their hiring criteria based on experience? Tracking how these variables change over a project could illuminate more of the "whys" related to the success (or not) of specific interventions for specific populations.

A J-PAL review on youth development concluded that "there is surprisingly little rigorous evidence to guide policy makers. This lack of evidence is especially noticeable in developing countries, where the need for effective youth programming is the greatest" (Bertrand et al. 2013). More evidence has surfaced in the years since those words were written, but they still ring true. What is particularly missing is cost-effectiveness analysis. Development practitioners working in low-income settings need to know

the minimum cost of achieving a particular outcome for a particular group. They also need to know when the outcome would happen anyway (so no intervention is needed) and when the cost is infinite (in the context where they are working, the result will probably never be achieved).

5 Conclusion: The need for a long-term transformation agenda, near-term interventions, and more research

> *To reach a critical mass of young people, fundamental shifts in our approach to skills-building, access to finance and entrepreneurship support are necessary. Development efforts must strengthen social, education and economic systems, and promote inclusive growth that will provide the most vulnerable and marginalized young people with opportunities to improve their lives.*
>
> Lindsay Wallace, Director of Learning and Strategy, The MasterCard Foundation[19]

Youth are frustrated with opportunities in low and lower-middle income countries. Youth employment interventions seek to improve these opportunities, mostly by changing the characteristics of youth. But do they actually do any good beyond redistributing existing opportunities? Evidence is fairly weak on this point. In part it is weak because the broader, general equilibrium question is usually not addressed in an impact evaluation. Most impact evaluations simply look at who got a job, not who did not get a job.

Overall, opportunities will improve only as economies transform. This needs to be the focus for low- and lower-middle-income countries. The agenda includes transformation of the rural economic space (where so many youth live), increased connectivity between rural and urban areas, and measures to increase private investment in urban areas in labor-intensive production of goods and services so that more wage jobs will be on offer—and there will be more opportunities in the HE sector.

In lower-income countries where the labor force is young and growing rapidly—and especially in Africa—the employment transformation will continue to lag the transformation in the structure of production, and this lag will also frustrate youth. In countries where effective economic transformation policies are stymied by governance and political economy challenges, youth will be even more restive.

The best opportunities for supporting youth in the near term appear to be:

- *Policies and projects that increase the number of modern, labor-intensive enterprises by (1) helping established firms to grow and hire more workers and (2) encouraging new firms to enter into operation.* For the first objective, addressing finance and management constraints in large firms may have the highest payoff, but this assessment should be confirmed through more research.
- *Programs to help youth more rapidly enter and make money in the household production sector (farm and non-farm).* Of these, addressing the financial constraint, especially in low-income settings, seems to hold the most promise as a cost-effective approach.
- *TVT programs,* one of the most popular interventions, clearly need to be used sparingly if at all, with a clear eye on cost-effectiveness.

Other interventions might also help, but they need to be tested. For example, the results from the two programs in Uganda (ELA and EDUCATE!) suggest that there may be cheap interventions that could be introduced into secondary schools or as after-school programs to bolster character skills and provide

[19] http://www.mastercardfdn.org/invisible-lives-five-takeaways-from-new-research.

more knowledge about labor market opportunities, thus speeding youth's transition into the household production sector. Overall, it is unclear where the deficits in character skills are greatest (what types and for whom), how they interact with other youth development challenges, and what role soft skills play in improved employment outcomes in a situation where most youth will not have a clear livelihood pathway such as a lifetime wage job in a firm or subsector. In other words, we need to understand more about the actual needs of youth.

Outcomes tend to be measured very soon after development projects are completed. This timing may yield misleading results—either an underestimation or an overestimation of benefits. Longer-term evaluations now coming in, especially from Latin America, are helpful. They indicate that although control groups tend to catch up, some programs deliver additional benefits to treatment groups aside from the initial advantages. Those benefits include spillovers to family members and the accumulation of increased wealth by treatment groups in the period that they are ahead of their control-group peers. In the case of HE owners, longer-term evaluations have highlighted the time it takes for program participants to act on the skills built in business training, and the importance of additional constraints beyond skills. At the same time, it is important for future impact evaluations to consider the issue of displacement, especially in evaluating programs to train workers for wage jobs. *It is no longer sufficient to just check and see if the program managed to insert participants into a job*.

Finally, other data are needed to help capture and understand how employment processes operate. For example, data on what youth are actually doing and how they manage their transition are still not widely available. One problem is that national survey data provide a poor picture of what the labor force is actually doing. A large share of the labor force in low-income countries undertakes a number of activities over the year. Surveys are limited because they tend to focus on (1) activities over the last seven days (in part because this is the recall period used to measure unemployment according to international standards) or (2) the main activity only, not a second job (regardless of recall period). Yet an important characteristic of youth, especially low-income youth, is that they move between activities during their search (Filmer and Fox, 2014; Fox and Pimhidzai, 2013). More survey research may be needed on how to collect such data efficiently in low-income settings; recall periods as long as one year are certainly problematic but perhaps the quality of response could be improved with a different type of questionnaire. New research on income sources over the year using diaries is one example of this type of innovation.

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Appendix A: References and Program Descriptions by Country/Region

Country/region	Authors	Employment	Intervention	Inputs	Outcomes
Argentina	Alzúa et al. (2016)	Wage employment	Life skills + vocational training + internship	Training and internship experience were used to help disadvantaged youth enter more stable employment.	Employment effects were not sustained, but earnings appeared to rise, as a result of more formal and persistent employment.
Bangladesh	Bryan et al. (2014)	Wage employment	Incentives for job search	Offered a bus ticket ($8) to incentivize rural-to-urban migration during the lean season. Targeted households of the extreme poor, who otherwise experienced seasonal deprivation.	Positive employment effects on those who migrated. Tickets eased constraints to experimentation. Migrants had higher propensity to migrate the following year, without subsidy.
Bosnia, Ethiopia, India, Mexico, Morocco, Mongolia	Banerjee et al. (2015)	Wage and self-employment	Finance (loan)	6 evaluations of microcredit to HEs.	No employment effects in existing firms, but new self-employment starts.
Brazil, Argentina*	Maurizio (2014)	Wage employment	Business environment	Businesses registered under simplified scheme.	Net employment effects unclear, but both countries showed a net increase in formal employment (entry rates were above exit rates).
Brazil, Mexico*	Grimm and Paffhausen (2015)	Wage employment	Business environment	Simplified tax system, offered a reduction to microenterprises.	Positive employment effects.
Chile, Argentina	Grimm and Paffhausen (2015)	Wage employment	BDS	Various management and support schemes for existing businesses.	Some positive employment effects but high-cost programs.
Colombia	Attanasio et al. (2015)	Wage employment	TVT + work experience	Long-term review of *Jóvenes* classroom training programs by private providers, combined with internship (unpaid on-the-job-training).	Limited employment effect (from increase in formal employment) and no sustained earnings effects.
Colombia, Brazil*	Grimm and Paffhausen (2015)	Wage employment	Finance (loan)	Partial credit guarantees to SMEs (Colombia); public credit lines, some at subsidized rates (Brazil)	Positive employment effects in both countries.
Dominican Republic	Acevedo et al. (2017)	Wage employment	TVT + work experience	Full vocational and soft-skills training and internship experience compared to life skills training with an internship and a control group.	Results differed for male and female participants (employment effects for men disappear). Women have sustained soft skills, but employment effects largely in formal sector (may be displacement).
Dominican Republic.	Ibarraran et al. (2015)	Wage employment	TVT + work experience	Youth skills training program, results measured 6 years after program ends.	No effect on average employment, 6 years later. Slightly positive effect on the "quality" of employment for men.
Ethiopia	Abebe et al. (2017)	Wage employment	Employment matching	Randomly invited job seekers and firms to job fair.	Despite strong attendance at the job fair, intervention had modest employment effect: 1 job for every 10 firms invited. May be displacement effect.
Ethiopia	Blattman and Dercon (2016)	Self-employment	Business skills + finance	Eligible workers randomly allocated to receive training and a cash grant ($300) to start a business.	Business skills training and a cash grant resulted in higher earnings relative to those who received factory or wage employment.
Ethiopia	Franklin (2016)	Wage employment	Incentives for job search	Subsidized bus transport into Addis Ababa to support job-search for youth.	No employment or earnings effect; quality of employment may have improved with more formal and permanent jobs.

Country/region	Authors	Employment	Intervention	Inputs	Outcomes
Ghana	McCasland & Hardy (2016)	Wage employment	Employment matching + work experience	Matching 6-month apprenticeships; firms randomized.	Apprentices retained for full duration (6 months). Firms experienced higher revenues and profits. No reduction in other employment. Suggests limited displacement.
Ghana	Karlan et al. (2015)	Wage employment	BDS + finance	Management consulting and cash grant for small tailoring shops (microenterprises).	No employment or earnings effect.
Ghana*	Hardy and McCasland (2016)	Wage employment	Business environment	Impact of electricity blackouts on firm size, productivity, and profits.	Blackouts adversely affect small firms, resulting in fewer hours worked, smaller wage bills. Likely also to cause displacement away from skilled workers to apprentices.
India	Banerjee and Duflo (2014)	Wage employment	Finance (loan)	Variation in access to targeted subsidized credit	Positive for large firms; no employment effect for microenterprises.
India	Bloom et al. (2013)	Wage employment	BDS	Consulting firms provided management “best practices” to randomly selected textile factories.	Positive employment effect.
India	Dutta et al. (2014)	Wage employment	Public works	National public works program for rural poor (MGNREGA).	Partial displacement effect.
India	Jensen (2012)	Wage employment	Employment matching	Recruiting services offered to young women in rural villages to encourage employment in business process outsourcing (new growth sector).	Positive effect on women's employment opportunities and likelihood of paid employment relative to control.
India	Maitra and Mani (2016)	Wage and self-employment	TVT	Subsidized vocational education for young women.	Slightly positive effect on employment (wage and self-employment) and earnings. May be displacement.
India*	IFC Development Impact Department (2012)	Wage employment	Business environment	Electricity access.	Simulation model showed positive effects.
Jordan	Groh et al. (2015)	Wage employment	Employment matching	Labor market matching service: participants tested to assess ability, technical, and soft skills, and matched to openings.	No significant impact, high drop-out, and cost per job was ~US$20K.
Jordan	Groh et al. (2016a)	Wage employment	Wage subsidies	Subsidies provided to firms to hire young female community college graduates.	Firms did not retain employees after subsidy expired.
Jordan	Groh et al. (2016b)	Wage employment	Life skills	45 hours of soft skills training randomly provided to a sample of young (female) community college graduates.	No employment impacts from soft-skills (even after 2 years); no complementarity with wage subsidies (tested in companion experiment).
Kenya	Alvares de Azevedo et al. (2013)	Wage employment	TVT + life skills + work experience	ICT training for young women in Nairobi slums.	Employment and earnings Increased, but likely to be displacement.
Kenya	Brudevold-Newman et al. (2017)	Self-employment	Business skills + finance	Microfranchise provided (women only) a business model, capital, and supply chain linkages to start and run self-employed businesses.	Short-term increase in employment and earnings. Effects not sustained after 2 years.
Kenya	Brudevold-Newman et al. (2017)	Self-employment	Finance (grant)	Transfer of only capital, without training.	Short-term increase in earnings. Women shifted to self-employment. Effects not sustained after 2 years.
Kenya	Hicks et al. (2016)	Wage and self-employment	TVT	Training vouchers randomized to public vs. private training institutions.	No effects on earnings or employment.

Country/region	Authors	Employment	Intervention	Inputs	Outcomes
Kenya	Honorati (2015)	Wage employment	Life skills	2 weeks of life skills training for young males only.	No effect.
Kenya	Honorati (2015)	Wage employment	TVT + life skills + work experience	Youth life skills training, technical training, and a 3-month internship.	Females: Positive effect on earnings. Males: increase in current employment.
Latin America	Grimm and Paffhausen (2015)	Wage employment	Business environment	Incentivized formalization of firms with simpler and cheaper formalization process.	No effect for existing firms.
Latin America: Colombia, Peru, Dominican Republic	Tripney et al. (2013)	Wage employment	TVT + work experience	Review of *Jóvenes* classroom training and internship programs by private providers targeting disadvantaged youth.	Slightly positive effect on formal employment in Peru and Dominican Republic; positive effects for females but no male effect in Colombia.
Liberia	Adoho et al. (2014)	Self-employment	Business skills + life skills	EPAG training program for adolescent girls.	EPAG program increased employment by 47% and earnings by 80%.
Liberia	Blattman and Annan (2016)	Self-employment	TVT + finance	Provided agricultural training, capital inputs, and counselling for ex-fighters.	Increased employment and profits in agriculture.
Malawi	Cho et al. (2012)	Self-employment	TVT + work experience	On-the-job apprenticeship training to track differential outcomes of program dropouts.	No employment effects. Women's decision-making was more constrained. Training was more expensive and less effective for women.
Malawi	Godlonton (2016)	Wage employment	Work experience	Randomly assigned (males only) to training and 5 days (short-term) work experience, in surveys or office work.	Positive effect on employment and wage returns to experience. However, treated individuals ended up in largely temporary jobs.
Malawi	Goldberg (2016)	Wage employment	Wage subsidies	1 day of subsidized wage work (per week) for 12 weeks offered in a workfare-type program during agricultural low season.	Positive employment effects, even at low wages. This result supports the conclusion that the labor supply is relatively elastic.
Mexico	Bruhn (2016)	Wage employment	Wage subsidies	Eligible firms provided subsidies to retain workers during a recession.	Positive longer-term effects and faster recovery, though likely as a result of the subsidies removing constraints on access to credit during an economic recovery.
Mexico	Bruhn and Karlan (2016)	Wage employment	BDS	Consulting services provided to improve management capital. (Not targeted to youth).	No short-term impact; 5-year follow-up showed 57% growth in labor and 72% increase in wage bills.
Nepal	Chakravarty et al. (2016)	Self-employment	TVT + work experience placement	Employment Fund trained contractors to provide business and technical skills.	Despite high baseline self-employment, training had a positive and significant impact on employment outcomes and earnings / savings.
Nepal	Chakravarty et al. (2015)	Wage and self-employment	TVT + work experience	Private trainers offered mix of trainings; paid according to placement (for wage employment).	Positive employment effects (non-farm employment increased 15-16 percentage points).
Nicaragua	Macours et al. (2012 & 2013)	Self-employment	Business skills + finance (conditional cash transfer)	Households in conditional cash transfer program provided with minimal business plan training; some got an extra grant.	Positive effect on HE business startup.
Nigeria	McKenzie (2015)	Wage employment	Finance (grant)	Cash grants (~$50K) randomly allocated to semi-finalists of a national business plan competition for aspiring entrepreneurs.	Positive employment effects.
Peru	Diaz and Rosas-Shady (2016)	Wage employment	TVT + internship	3 months of technical classroom training combined with a 3-month internship.	3-year follow-up found positive effects on employment and earnings. Effect is stronger for formal employment.
Peru	Espinoza (2010)	Wage employment	TVT + internship	3 months of technical classroom training combined with a 3-month internship.	No effect.

Country/region	Authors	Employment	Intervention	Inputs	Outcomes
Peru, Pakistan	Grimm and Paffhausen (2015)	Wage employment	Business skills + finance	Business skills training added to existing microfinance program.	No employment effect.
Philippines	Beam (2016)	Wage employment	Employment matching	Impact of job fairs on employment outcomes. Also looked at effect on migration of including international employers.	Attendance did not facilitate direct job matches, but it increased the likelihood of formal sector employment and increased job search. No effect on migration.
Philippines	Karlan and Zinman (2010)	Self-employment	Finance (loan)	Subsidized microfinance credit (short-term loans) to household businesses or those interested in starting household enterprises. Used credit scoring to select households.	Negative employment effects: reduction in number of business activities (by household) and employees. Positive effects on resilience and firm survival and access to informal credit.
South Africa	Anderson et al. (2014)	Wage employment	BDS - marketing training	Firms received targeted business skills training on marketing approaches and aligning worker incentives.	Positive employment effects from sales incentives.
South Africa	Anderson et al. (2014)	Wage employment	BDS - finance training	Firms received targeted business skills training on best finance practices and how to raise firm efficiency.	No employment effects.
South Africa	Bhorat et al. 2013	Wage employment	Business environment	Minimum wage.	Some decline in employment in low-paid farm and domestic labor, and some sectors with fewer hours worked (less overtime), but employment effects in other sectors were limited.
South Africa	Levinsohn et al. (2014)	Wage employment	Wage subsidies	National wage subsidy program; had very little take-up, very few firms actually claimed the subsidy.	Voucher group was more likely to be in wage employment, even after voucher ended. Only 1.5% of firms redeemed vouchers. Most likely to be entirely displacement (voucher does not induce firms to hire labor).
Sri Lanka	de Mel et al. (2013)	Wage employment	Incentives for firm formalization	Informal firms were randomly offered varying degrees of incentives to formalize and register to test impacts on profits, sales, and business practices.	Even with very large financial incentives, less than 2% of treated firms actually registered. Among those that registered, no impacts on employment or sales were noted.
Sri Lanka	de Mel et al. (2012)	Self-employment	Finance (grant)	One-time grant ($100 or $200) given to microenterprise owners.	Male-owned microenterprises: higher survival and increased profits. Female-owned microenterprises: no employment or earnings effect, as grant was typically invested into household.
Sri Lanka	de Mel et al. (2014)	Self-employment	Business skills + finance	Training and finance offered to existing (female) microenterprise owners or those interested in starting an enterprise.	No employment effect.
Sri Lanka	de Mel et al. (2016)	Wage employment	Incentives for job search (wage subsidies)	Microenterprises were offered wage subsidies to induce firms to hire additional labor.	No long-term effects on employment, profit, or sales. Treatment and control differences disappeared after subsidy ended.
Tunisia	Premand et al. (2012)	Self-employment	Business skills	Entrepreneurship training targeted to college students; focused on business planning.	Slight positive effects on self-employment. No change to overall employment. Implies effect comes from shift from wage to self-employment.
Turkey	Betcherman et al. (2010)	Wage employment	Wage subsidies	Subsidized employment subsidies for registration of workers in social security.	No net employment effects. Study does note an increase in registration of jobs, but cost was high and effect was largely to increase registration into social security, not to increase total employment.
Turkey	Hirschleifer et al. (2015)	Wage employment	TVT	Large scale vocational training program for unemployed (youth not targeted).	Effects are positive but close to zero. Slightly stronger with private providers, but after 3 years, even those effects disappear. Public training shows no impact.

Country/region	Authors	Employment	Intervention	Inputs	Outcomes
Uganda	Bandiera et al. (2015)	Self-employment	Business skills + life skills + mentorship	ELA after-school program for adolescent females in rural towns and peri-urban areas offered support, mentoring, health advice, and life skills plus minimal vocational training.	Positive employment and earnings effects.
Uganda	Blattman et al. (2013)	Self-employment	Business skills + finance	Cash grants (~$150) combined with skills training for adult women working in agriculture in a post-conflict setting (WINGS).	Large non-farm employment effects; earnings effects as well (however effects appear to be largely displacement).
Uganda	Blattman et al. (2014)	Self-employment	TVT + finance	Grant competition for groups of youths looking to move into skilled artisanal self-employment groups. (NUSAF).	Positive employment and earnings effects; higher for men.
Uganda	Fiala (2013)	Wage employment	Business skills + finance (loan)	Microenterprise owners interested in expanding were randomly allocated to 4 treatments; loans offered ($180–220).	No direct paid employment impacts; male owners increased employment within the family.
Uganda	Fiala (2013)	Wage employment	Business skills + finance (grant)	Microenterprise owners interested in expanding were randomly allocated to 4 treatments; grant provided($200).	No effect on employment.
Uganda	Fiala (2013)	Wage employment	Finance (loan)	Microenterprise owners provided with loan financing ($180–200).	Loan only had short-term employment effects for male owners; disappeared entirely in 9 months.
Uganda	Fiala (2013)	Wage employment	Finance (grant)	Microenterprise owners interested in expanding were randomly allocated to 4 treatments; grant provided ($200).	No effect on employment.
Uganda	Kwauk and Perlman Robinson (2016)	Self-employment	Life skills + mentorship	EDUCATE! provided leadership and mentorship training, shifting toward a more skills-based curriculum for Ugandan youth.	Increased probability of self-employment and earnings relative to the control group.
Yemen*	McKenzie et al. (2016)	Wage employment	TVT + internship	Firms offered a 50% wage subsidy to hire interns for 6 months. Firms not randomized.	Short-term impacts showed positive employment effect, 2–3 months after internship. Outbreak of conflict eliminated further follow-up. Some effect may be through displacement.

Note: * denotes studies categorized as less robust because they lacked a thorough experimental design or had insufficient follow up.

Appendix B: Literature Search Strategy

The primary objective of this review is to provide a synthesis of the best available evidence on youth employment interventions in low and lower-middle income countries. The research included in this review was identified through a search strategy which included recent evaluations and a number of foundational studies and meta-analyses of youth employment in order to produce a comprehensive review of the available knowledge on what we know works (and does not work) to improve youth employment outcomes. Studies selected are drawn from peer-reviewed (published and forthcoming journals) and working papers utilizing randomized control trial or quasi-experimental research designs to evaluate the impacts of interventions.

The following databases were searched from March 2017 – June 2017: Google Scholar, JSTOR, NBER, and The World Bank Policy and Research Paper Series. Additional literature was sourced through grey literature searches, the Oxford CSAE conference, and expert referrals from development practitioners and researchers at the World Bank and USAID.