

Skills Development in the Informal Sector: Kenya

In This Chapter

The informal sector in Kenya—the *Jua Kali* sector—accounts for 7 of 10 jobs available in the nonfarm sector and 1 in 3 of the total 10 million employed in 2006. The informal sector is large and growing. Comparing different definitions of the informal sector using household surveys does not alter this conclusion. Strengthening skills development in the informal sector is likely to help reduce poverty, but constraints to this development that face small household enterprises in the informal sector must be addressed. The chapter examines a number of skills development options and offers findings that would improve productivity and earnings in the informal sector.

Introduction

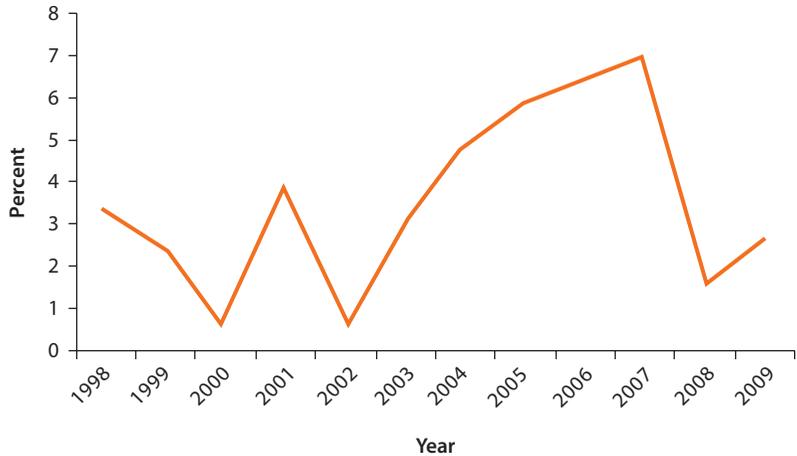
Since the mid-1990s, Kenya has experienced important swings in the rate of economic growth, with much of the volatility induced by political events.¹ In 2002, as a result of the political instability surrounding national elections, real gross domestic product (GDP) growth plunged to 0.6 percent, translating into losses in per capita output. The subsequent economic recovery was abruptly cut short by postelection violence and the 2008 global economic crisis (figure 6.1, panel a).

At the same time, a growing youth population looking for job opportunities has exerted demographic pressures on the economy. Kenya's population expanded by nearly 10 million people, from 29 million to 38 million, between 1998 and 2008, and the proportion of young adults increased. As in other African countries, high population growth is resulting in rapid growth of the young population. In 2008, nearly two in five Kenyans (38 percent) were between 15 and 34 years of age.

Because of increasing rates of job creation, unemployment rates fell from 14.6 percent in 1999 to 12.7 percent in 2006. However, youth unemployment rates remained significantly higher than overall unemployment rates and even

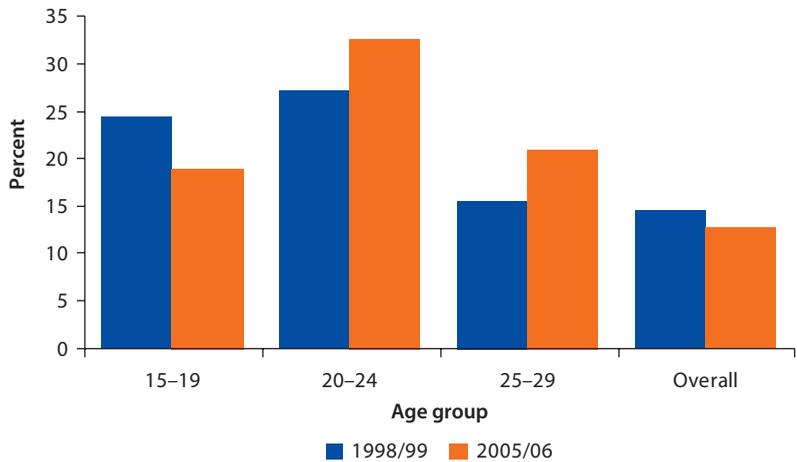
Figure 6.1 Economic Indicators, Kenya

a. Real GDP growth, 1998–2009



Source: KNBS (various years).
 Note: GDP = gross domestic product.

b. Unemployment rates, youth and total, 1998/99 and 2005/06



Sources: KCBS 2003; KNBS 2008.

increased quite substantially for the group 20–29 years of age (figure 6.1, panel b). The demographic pressures and worsening labor market outcomes for youth have been intrinsically linked to political instability.

Poverty has fallen, especially in urban areas. The period between 1998/99 and 2005/06 saw a reduction in poverty as the share of poor in the population fell from 52 to 46 percent. Urban poverty fell much more significantly than rural poverty; the share of poor fell from 49 to 34 percent in urban areas, compared with a reduction of four percentage points (53–49 percent) in rural areas (where a majority of the population lives).

Table 6.1 Key Indicators, Kenya

<i>Indicator</i>	<i>Measurement</i>
Growth, 1998–2009	
Average GDP	3.5
Average GDP per capita	0.8
Annual working-age population, 2000–09 (%)	3.1
Employment-to-population ratio (%)	73
Farm, share of employment (%)	47
Farm, share of GDP (%)	23
Rural poverty headcount index	49
Urban poverty headcount index	34
Income, share held by lowest 20 percent	4.7

Sources: World Bank 2011; elaboration of KNBS 2007.

Note: GDP = gross domestic product.

To continue to reduce poverty, Kenya will need to find ways of increasing growth and diversifying its sources. Most adults work, but almost half of them remain in farming, with overall low productivity and limited earnings (table 6.1). Much of Kenya's employment in the nonfarm sector is situated in the informal sector. Questions exist about the size of this sector and its employment characteristics. Who is working in these jobs? How do the earning opportunities differ from those of larger private firms, the public sector, or farming? What level of skills do workers and the self-employed in this sector possess? Where can they find opportunities to increase their skills? And what is the payoff of different skills levels in terms of earnings?

The informal sector in Kenya has long been seen as an integral part of economic development. It is referred to as the *Jua Kali* sector—literally “work under the hot sun”—alluding to the many employment opportunities that operate outdoors, without fixed location, in the street, and so on.

Skills, Employment, and Earnings

This chapter compares different definitions of the informal sector and then chooses one to compare the characteristics of workers in the formal and informal sectors, with a specific focus on skills and earnings. The evidence suggests that the informal sector is large and growing in Kenya and that significant numbers of women have entered the sector in recent years. Formal sector workers have higher levels of education than informal sector workers, earn more—and earn more at similar levels of education—and are by consequence significantly less poor.

Measuring the Informal Sector in Kenya

The measurement of the informal sector is based on the most recent household survey data available, the Kenya Integrated Household Budget Survey (KIHBS) 2005–06 (KNBS 2007). An earlier Labour Force Survey (LFS) 1998/99 (KNBS 1999) is first used to review different definitions of the informal sector in Kenya. The 1998/99 survey contains an informal sector module that, together with

Box 6.1 Definitions of Earnings, Education, and Training

Earnings: The measure of earnings includes wages and benefits, and profits from any business undertaking. For formal (public and private) sector or paid workers, earnings include the basic salary and any benefits in cash or in kind. For self-employed persons, business profits are used as the measure of earnings. Monthly earnings were truncated at 100 Kenya shillings (K Sh; approximately US\$1.35) and K Sh 1,000,000 (US\$13,513).

Education: Information on the highest level of education completed and highest educational qualification attained was used to generate six discrete categories of education completed and corresponding years completed, based on Kenya's 8-4-4 (primary, secondary, university) education system (see table B6.1.1).

Table B6.1.1 Education Levels in Kenya

<i>Level</i>	<i>Years</i>
No education or pre-primary	0
Some primary	7
Primary completed	8
Some secondary	11
Secondary	12
University	16

Training: The 2005/06 survey includes a question on whether individuals have training. However, the sample was adjusted for inconsistencies: for example, those with no complete primary education who reported commercial college training were excluded because secondary education certificates are required to enroll in commercial private or public colleges.

information on employment status and sector of employment, makes comparisons possible of different definitions of informal sector employment. In both survey periods, the sample used is taken from people 15–65 years of age. The definitions of key variables used in the analysis are detailed in box 6.1.

Different definitions of informal sector employment give similar results for informal sector shares and demographic characteristics. Table 6.2 summarizes four alternative measures of informal sector employment based on the 1998/99 LFS:

- *Reported:* The first definition focuses on direct responses from individuals to the question on whether their employment sector is formal or informal (in the Jua Kali sector). This reveals the respondent's perception regarding his or her sector of employment and thus reflects subjective rather than objective criteria.
- *Employment status:* The second definition includes people who reported themselves as self-employed or working employers, unpaid family workers, apprentices, or paid employees in the Jua Kali sector. Persons in these employment states constitute the second definition of informal sector.

Table 6.2 Comparing Definitions of Informality in Kenya, 1998/99

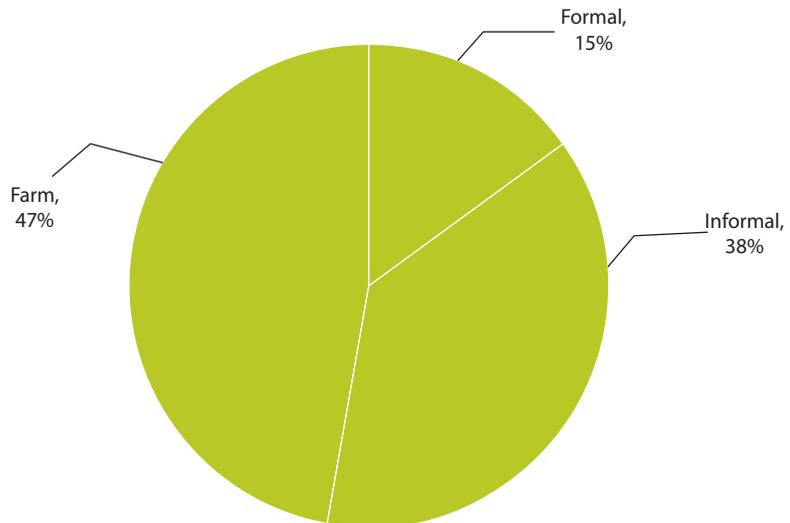
Definition of informality	Sector		
	Formal	Informal	Total
Reported			
Share of total nonfarm employment (%)	35.2	64.8	100.0
Mean age (years)	36.0	38.5	37.6
Mean years of schooling	10.4	7.3	8.4
Males (%)	74.0	56.0	63.0
Employment status			
Share of total nonfarm employment (%)	34.5	65.6	100.0
Mean age (years)	36.1	38.6	37.7
Mean years of schooling	10.4	7.3	8.4
Males (%)	75.0	56.0	63.0
Registration status			
Share of total nonfarm employment (%)	39.0	61.1	100.0
Mean age (years)	36.1	39.7	38.3
Mean years of schooling	10.4	7.1	8.4
Males (%)	75.0	52.0	61.0
Firm size			
Share of total nonfarm employment (%)	34.5	65.6	100.0
Mean age (years)	36.1	38.6	37.7
Mean years of schooling	10.4	7.3	8.4
Males (%)	75.0	56.0	63.0

Source: Elaborations based on KNBS 1999.

- *Registration status*: A third definition of informal sector employment is based on whether the business enterprise in which the individual was employed was registered with the Registrar of Companies.
- *Firm size*: Finally, a fourth definition is based on firm size: individuals employed in firms with fewer than 10 employees are considered informal sector workers.

The informal sector accounts for two-thirds of employment in the nonfarm sector. As seen in table 6.2, the share of informal employment shows little variation across the four definitions. Irrespective of the definition used, the share of informal employment in the nonfarm sector hovers between 61 and 66 percent. The same holds true for key variables: the mean age is around 39 years (and is higher for informal than formal); informal sector workers have around seven years of schooling, about three years fewer than formal workers; and males account for just over half the informal workforce but three-quarters of the formal workforce, across definitions.

The 2005/06 survey contains no informal sector module. Because all four of the preceding definitions produce similar results, this study uses employment status, which can be replicated in the 2005/06 survey, to define the informal sector. Informal workers are identified as nonwage workers (own-account

Figure 6.2 Employment by Nonfarm Formal, Nonfarm Informal, and Farm Sectors in Kenya

Source: Elaborations based on KNBS 2007.

workers, working employers, unpaid family workers), apprentices, and wage workers who are employed by individuals (self-employed). The data for this definition are available in the 2005/06 survey and are replicated in the 1998/99 survey.

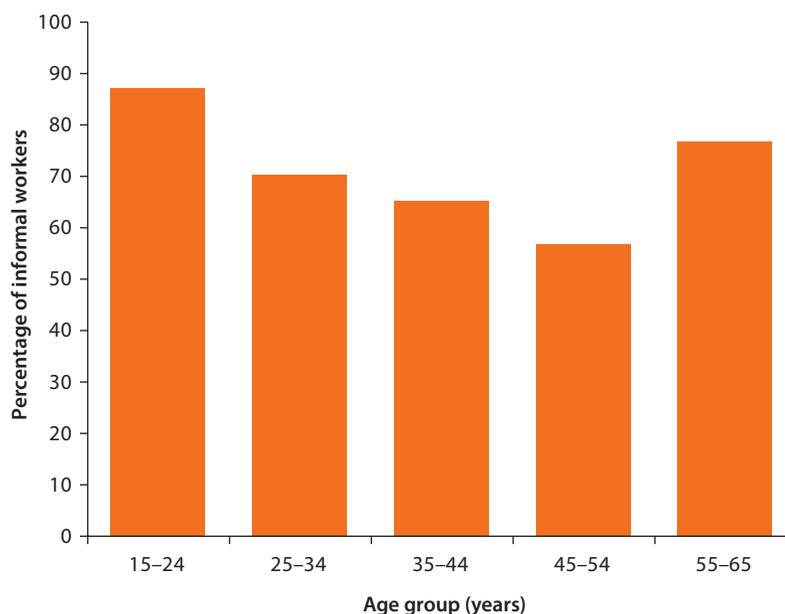
Using this definition, the informal sector accounted for about 72 percent of nonfarm employment in Kenya in 2005/06. Nonfarm employment accounts for a little more than half of all employment in Kenya and is dominated by informal forms of employment (figure 6.2). In 2005/06, about 3.5 million workers of Kenya's total 10 million employed, about two-fifths, were in the informal sector.

Comparing the Formal and Informal Sectors

Because informal sector work accounts for a majority of nonfarm opportunities, understanding the characteristics, opportunities, and constraints of this sector is essential. The following subsections discuss the key socioeconomic characteristics of informal and formal sector workers. The analysis highlights the critical role of the informal sector for youth and female workers, and the links between sector of work, job opportunities, and welfare levels.

Demographics

The informal sector is by far the most important employer of youth in the nonfarm sector. Among labor market entrants and young workers (15–24 and 25–34 years of age), 42 and 41 percent, respectively, were employed in the informal nonfarm sector, compared with 52 and 42 percent in farming, and 6 and 17 percent in the formal nonfarm sector. The informal sector, thus, employs a vast

Figure 6.3 Share of Informal Workers in Nonfarm Sector in Kenya, by Age Group

Source: Elaborations based on KNBS 2007.

Table 6.3 Gender, Location, and Age in Kenya, by Formality Status

Percent

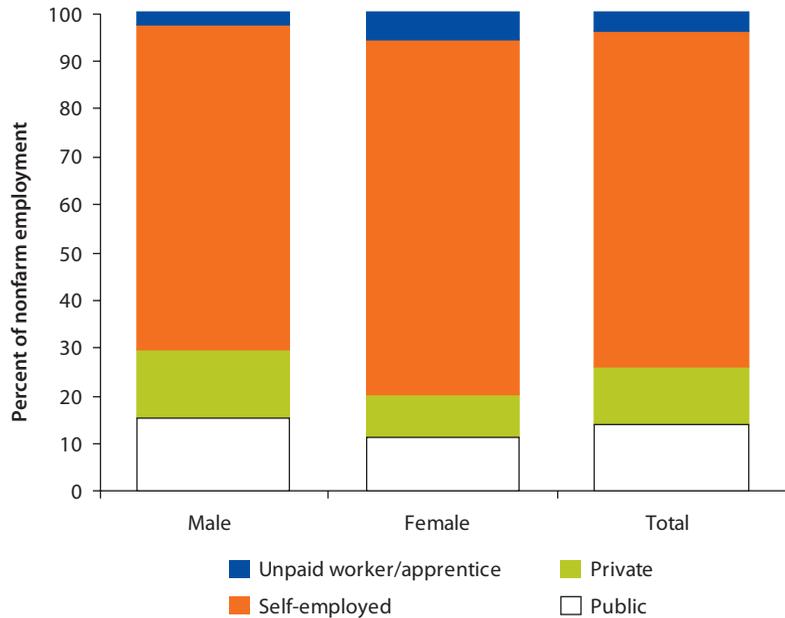
Sector	Male	Urban	Mean years
Formal	71	49	37
Informal	60	37	33
Total	63	40	34

Source: Elaborations based on KNBS 2007.

majority of youth in the nonfarm sector (figure 6.3). The likelihood of a young worker being in the informal sector was higher than that of older workers, and the average age of workers in the informal sector is lower than for male workers.

Informal activities are predominantly rural, and women are more likely to work in the informal sector than the formal sector. Although male workers form a majority of both formal and informal sector work, the share of males is higher in the formal sector. Women, consequently, are overrepresented among informal workers. Informal sector activities are more prevalent in rural than in urban areas. Nevertheless, the proportion of urban informal jobs is quite high, at nearly 40 percent (table 6.3).

Women are more likely to be self-employed or unpaid workers than men (figure 6.4). Informal sector employment consists in equal measure of nonwage and wage work. In 2005, one of three nonfarm workers was self-employed. Differences exist between employment for women and men, however; for women, self-employment (mostly as own-account workers) is significant, with only one in

Figure 6.4 Occupational Share of Nonfarm Employment in Kenya, by Gender

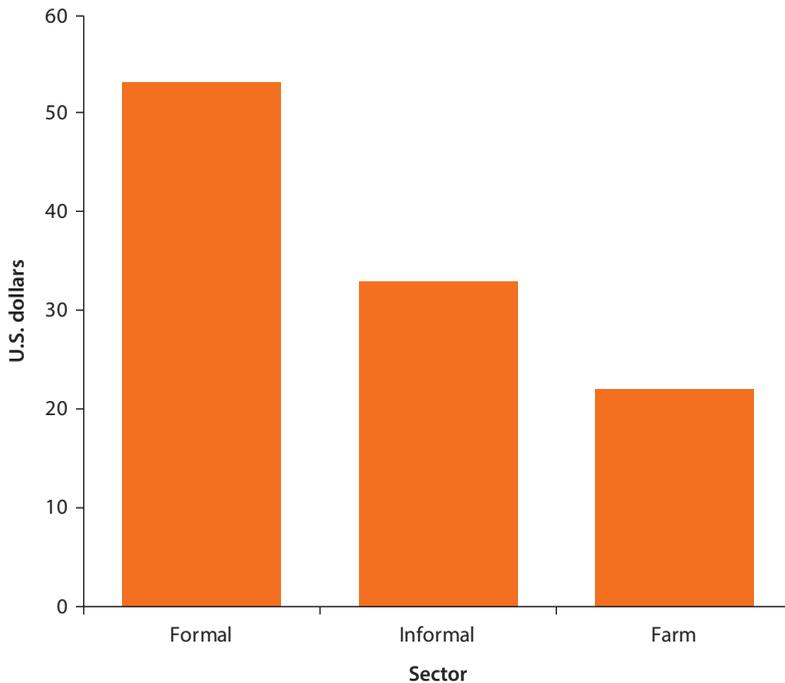
Sources: Elaborations based on KNBS 1999, 2007.

five in either the private formal or the public sector. Men are more likely to be in both public and private formal wage employment and to be employees rather than nonwage workers. Overall, this finding supports the notion of women in potentially more vulnerable employment conditions, with a higher share in the informal than the formal sector and a higher propensity for nonwage work.

Access to informal sector work, compared with farm work, is associated with higher welfare levels. In many cases, working in the informal sector is the first steppingstone out of poverty, as it raises household income. Figure 6.5 shows the median consumption levels of workers in the formal, informal, and farm sectors (consumption is a household measure, however, so the numbers refer to the averages for the household in which the worker lives). Not surprisingly, formal sector workers enjoy higher consumption levels than other workers. The median monthly consumption expenditures (of the households) of formal sector workers are significantly higher than for informal sector workers and several times that of farm workers. Thereafter, the consumption levels of informal sector workers are considerably higher than those of farm workers. This difference, together with the limited expansion of formal sector jobs—even assuming very high growth rates in the formal sector—suggests that informal sector jobs may provide an important part of a poverty reduction strategy in Kenya.

Skills and Access to Different Occupations

The skills profile of a worker can influence the accessibility to and earnings on the job in various sectors. For example, persons with some basic capacities like

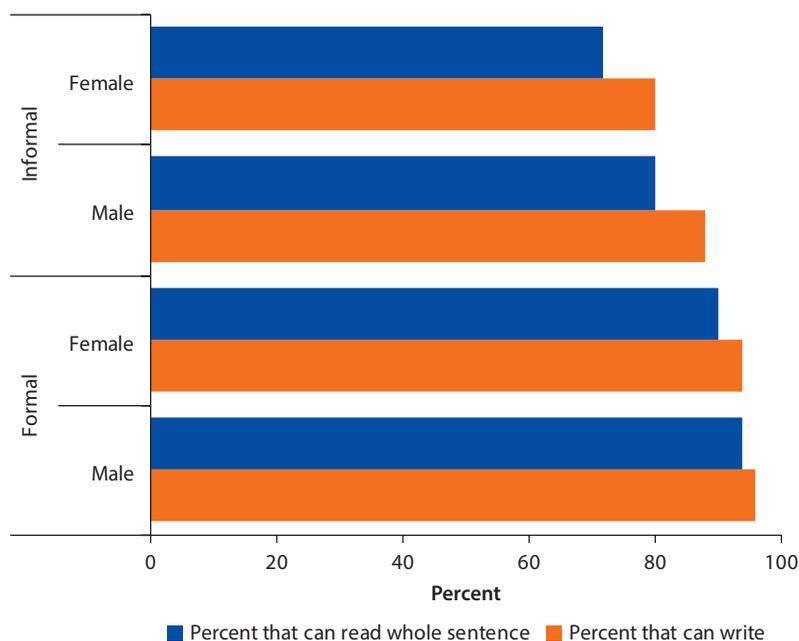
Figure 6.5 Median Monthly Consumption in Kenya, by Sector of Work

Source: Elaborations based on KNBS 2007.

reading and writing may be able to leave farming to take up a nonfarm activity, whereas public sector administration may employ only persons with university degrees. Thus, skills history can determine whether one accesses a particular sector with high or low earning opportunities. Once on the job in a higher- or lower-earning sector, earnings may or may not be further influenced by education. The following analysis shows that skills profiles differ and that more formal education is needed for access to formal sector work but that formal education does not favor the informal sector over farming. In contrast, lack of basic capabilities appears to keep people in farm occupations.

The level of basic literacy capacities is high in Kenya. The majority of workers in both formal and informal sectors can write in some language and can read a whole sentence. Although literacy and writing skills are higher in the formal sector for both men and women, most informal sector workers are literate. Women are comparatively worse off: 7 in 10 informal sector female workers can read a whole sentence, compared with 8 in 10 informally employed men and 9 in 10 formally employed women. The gaps between men and women appear somewhat higher in the informal sector than in the formal sector (figure 6.6).

Informal sector workers possess fewer years of schooling than formal sector workers. As shown in table 6.4, the mean years of schooling in the formal sector exceed those of the informal sector by nearly three years (10.8 and 8.2,

Figure 6.6 Literacy in Informal and Formal Sectors in Kenya

Source: Elaborations based on KNBS 2007.

Table 6.4 Average Years of Education in Kenya

Sector	Male	Female	Total
Formal	10.7	11.0	10.8
Informal	8.2	8.2	8.2
Total	9.1	8.9	9.1

Source: Elaborations based on KNBS 2007.

respectively). This implies that the average formal worker has some higher-secondary education, whereas the average informal worker has completed basic levels of education but no more. The informal sector workers are closer to the level of education in the farm sector (about seven years, not shown here) than to the formal sector.

Informal sector workers have had considerably less access to formal education and vocational training. Table 6.5 shows that about 4 in 10 informal sector workers have not finished primary levels of education, compared with 1 in 10 in the formal sector. Only one-fourth of informal sector workers have completed secondary, vocational, or university training, compared with two-thirds of formal sector workers. The gender gaps look very different across the sectors; although women have less education than men in the informal sector, they have more education in the formal sector.

Literacy and vocational training increase the probability of holding an informal sector job compared with formal sector work, controlling for other characteristics.

Table 6.5 Highest Education Level Completed in Kenya, by Sector and Gender
Percent

Education level	Formal			Informal			Gender gap	
	Male	Female	Total	Male	Female	Total	Formal	Informal
None or some completed	13	13	12	37	44	39	1.0	1.2
At least primary	23	17	22	36	33	35	0.7	0.9
Secondary completed	21	14	19	15	13	14	0.7	0.9
Vocational training	36	48	39	12	10	11	1.3	0.8
University	7	8	7	1	0.2	0.5	1.1	0.2
Total	100	100	100	100	100	100		
At least secondary, vocational, university	64	70	65	28	23	26	1.1	0.8

Source: Elaborations based on KNBS 2007.

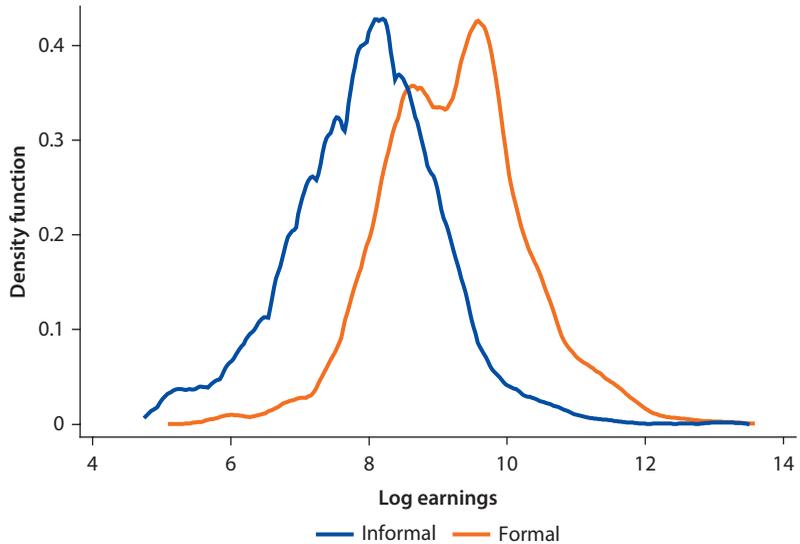
Multinomial analysis (table 6A.1) suggests that vocational training has a positive influence on formal and informal sector employment compared to farming. Literacy is important for participating in the informal sector relative to farming but is insignificant for formal sector entry. Basic capabilities may thus provide a pathway into more lucrative nonfarm earnings but are irrelevant for the formal sector where higher levels of training are required. More years in formal education reduce the probability of entering informal sector work, controlling for other characteristics. It is nonetheless difficult to interpret this result without a better understanding of the opportunities in the farm sector. It may reflect omitted variables that influence participation and are correlated with education, entry barriers such as lack of credit, or attitudes to wage over nonwage work.

Age—a proxy for experience—increases the likelihood of finding employment in either the formal or informal sector, though the rate of increase declines as a worker becomes older. Because the comparison is with farming, the concave relationship between participation (in formal and informal employment) and worker's age suggests that as a worker grows older in the farming sector, the likelihood of exiting farming diminishes. Workers leave the farm sector primarily during youth. The likelihood of an older person searching for and finding work outside farming is low. In addition, men were more likely to find nonfarm employment (formal and informal employment) than women, relative to farming.

Skills and Earnings

On average, earnings in the informal sector fall below those of the formal sector, but some in the informal sector may earn more. The differences in consumption levels discussed previously are linked to differences in earnings. Informal sector workers on average earn significantly less than formal sector workers: median earnings in the informal sector were about one-quarter of those in the formal sector in 2005/06. Formal sector workers have an earnings advantage at all points on the earnings scale: the distribution of formal sector earnings is further to the right of the distribution of informal sector earnings (figure 6.7). Yet the overlap between the log earnings distributions means that some informal sector workers

Figure 6.7 Distribution of Log Monthly Earnings in Kenya by Formality Status, 2005/06



Source: Elaborations based on KNBS 2007.

Table 6.6 Monthly Median Earnings in Kenya by Sector, 2005/06

Gender	Formal (U.S. dollars)	Informal (U.S. dollars)	Sector gap ^a (%)
Female	85	14	0.16
Male	77	24	0.31
Total	80	19	0.24
Gender gap ^b (%)	1.1	0.6	n.a.

Source: Elaborations based on KNBS 2007.

Note: Earnings at 1998 prices. n.a. = not applicable.

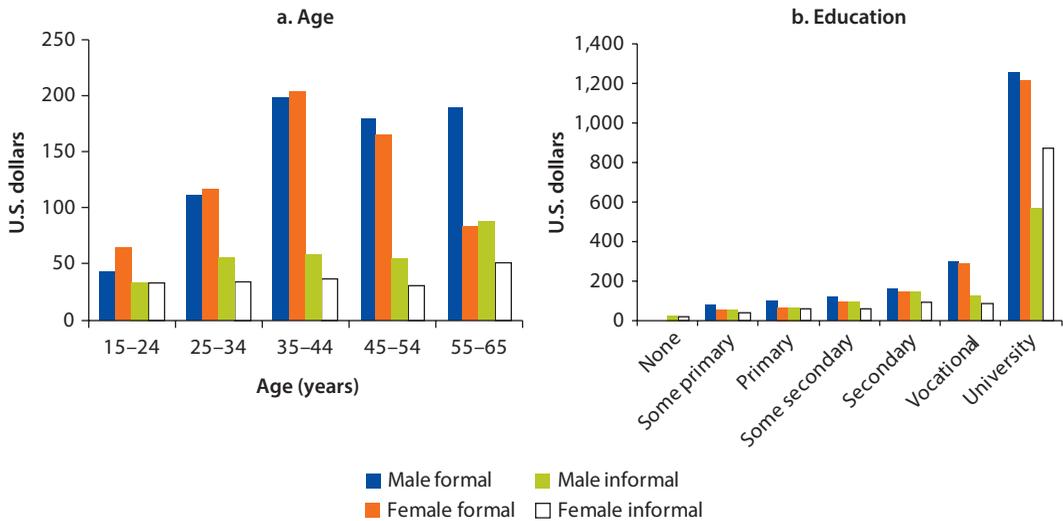
a. Informal/formal ratio.

b. Female/male ratio.

earn as much or more than the formal sector workers and may, in fact, be in the informal sector by choice (Adams 2008; Maloney 1999).

The median earnings of women exceed those of men in the formal sector, while the opposite applies for men in the informal sector. This leads to a larger earnings gap for women between their earnings in the formal and informal sectors (table 6.6).²

Higher levels of education and training produce earnings gains. The age-earnings profile indicates that formal sector earnings peak earlier (35–44 years of age) than informal sector earnings (55–65 years of age), which may be evidence of a trade-off in terms of education and work experience, for which the latter counts more in the practically oriented informal sector (figure 6.8). The most significant payoff to education in the formal sector appears to kick in at the university level (note that informal sector workers with university education account for less than 1 percent of the total). Also noteworthy is that vocational training is associated with higher earnings in the formal sector than secondary

Figure 6.8 Mean Monthly Earnings by Age and Education in Kenya

Source: Elaborations based on KNBS 2007.

general education, while the earnings of the two are about the same in the informal sector.

Formal education and vocational training have a positive effect on earnings, but returns are significantly higher in the formal sector than in the informal sector. Multivariate analysis (tables 6A.2–6A.5) also suggests positive returns to education and vocational training in both informal and formal sectors; however, the returns to education or vocational training are more than twice as high in the formal sector as in the informal sector. In the informal sector, vocational training, perhaps offering experience that is more practical and labor market relevant, pays off more than additional years of formal education; the reverse is true for formal sector earnings.³

Literacy does not influence earnings once other personal characteristics are controlled for. Thus, even for the informal sector, literacy does not influence earnings but, as shown earlier, may be an important precondition for working in the informal sector in the first place. Beyond formal education and vocational training, other socioeconomic characteristics influence earnings. Men earn more than women in both sectors, and the earnings gap appears to have widened over the period between the two surveys. Rural residence is associated with a significant earning disadvantage.

Even though apprenticeships are likely to be the most important source of skills for the informal sector, data are unavailable to measure their effect on earnings. Anecdotal evidence indicates that apprenticeships are an important form of skills training in the informal sector (see the following section), but it cannot be corroborated using the respective survey data, which do not offer information on apprenticeship training in Kenya. Thus, the roles apprenticeships play in

accessing employment or influencing earnings cannot be analyzed. As in other countries, this form of training is generally the only one available for people who fail to meet the educational requirements to qualify for formal training and apprenticeship programs and, as such, is potentially catering to a large group of youth.

Overall, education plays a larger role for entry and earnings in the formal sector than in the informal sector. That said, some payoffs to different forms of education exist for the informal sector, with a stronger emphasis on more work-oriented skills (literacy, vocational training). In contrast, the formal sector requires certain levels of education (whether as a signaling device, for instance to enter a public administration job, or because of actual job requirements consistent with higher-productivity jobs), and the payoff to education is significantly higher in the formal sector.

Acquiring Skills for the Job Market in Kenya

Kenya offers many ways to acquire skills. Different types of public and private actors provide formal technical and vocational education and training (TVET). Providers of TVET include postsecondary technical institutions and colleges under the Ministry of Higher Education, Science, and Technology (MoHEST); postprimary youth polytechnics under the Ministry of Youth Affairs and Sport (MoYAS); the National Youth Service (NYS); specialized institutions under various government ministries; and a myriad of faith-based organizations (FBOs), nongovernmental organizations (NGOs), and community-based organizations as well as private commercial schools and institutions. In addition, public or donor-funded programs are intended to foster skills development, entrepreneurship, and employability among youth. Finally, the Jua Kali sector with its traditional apprenticeship system and a growing private training market provide access to skills development with particular emphasis on informal sector employment.

The importance of skills development beyond basic education has received significant attention in Kenya. A rapidly growing labor force and rising unemployment, accompanied with increasing social discontent and political unrest, have resulted in an increased focus on how to promote gainful employment for youth. The need for skills development also emerges as a transversal theme in different key strategy documents, including Kenya's Vision 2030, and various sectoral policy documents. Issues raised include the need to align skills development with labor market needs, increase quality by rehabilitating and improving facilities, improve equity by investing in underserved areas, and create centers of excellence for key occupational areas.

The National Technical and Vocational Education and Training Strategy was adopted in 2008 but has not been fully implemented. In reality, a lack of clarity surrounding TVET reform has impeded full implementation of reform measures. Institutional responsibilities remain unclearly defined, and the system continues to focus on inputs to training (defining strict training standards for

institutions) instead of outcomes (defining benchmark competencies as requisite outcomes). This strategy effectively excludes formal recognition of nontraditional ways of learning. Trades testing, as explained below, offers a way around this problem.

The landscape for skills development includes a vibrant private sector and requires measures to bring these operators into the policy picture. Although responsibility for TVET is currently spread across several ministries, voucher initiatives have produced several important findings. First, significant unsatisfied demand exists among producers for training in the informal sector produced by constraints of time, limited space, cost, and flexibility of hours. Second, responding to this demand, the private sector skills providers have proven their capacity to increase the amount of training available (Adams 2001; Hicks and others 2011). Overall, the lack of rigorous monitoring and evaluation of training programs, including those of private providers, poses a problem for judging the effectiveness of these programs.

Education

Kenya has made significant advances and widened access to primary education. In 1999, the gross primary enrollment rate reached only 67 percent; 4 of every 10 students failed to finish primary school; and about 3 million children of school age were not in school (table 6.7). By 2008, the picture had changed. Primary gross enrollment rates and completion rates exceeded 100 percent, while the number of out-of-school children had been cut to less than one-tenth of the 1999 figure. The household data also showed that, on average, even farm workers had completed as much as seven years of education.

Progress at the higher levels has been slower, and a large number of youth still enter the labor market with less than a basic education. Although lower-secondary enrollment increased from 8 to 36 percent, higher-secondary enrollment hardly changed, and tertiary enrollment remained below 2 percent. As a result, the absolute number of youth that exit school before 15 years of age and end up in the labor market has been increasing markedly. Moreover, evidence exists of a disconnect between formal education and labor market relevance, because the focus remains on cognitive skills and theoretical

Table 6.7 Education Statistics, Kenya

<i>Indicator</i>	<i>1999</i>	<i>2008 or later</i>
Primary gross enrollment rate (%)	67	105
Primary completion ratio (%)	57	102
Out-of-school children, primary	3,185,000	268,000
Lower-secondary gross enrollment rate (%)	8	36
Higher-secondary gross enrollment rate (%)	3	4
Vocational and technical as percentage of secondary	9	—
Tertiary gross enrollment rate (%)	0.6	1.5

Source: World Bank 2011.

Note: — = not available.

education, at the disadvantage of noncognitive and more applied skills (Pina and others 2012).

Formal Sources of Skills Development

Critics complain that formal TVET is theoretical and lacks hands-on practical skills. The MoHEST is a large player responsible for postsecondary TVET, including 43 different institutions, with an annual intake of about 15,000 for full-time studies. The MoHEST also accredits private TVET institutions. Anecdotal evidence suggests that in the more technical trades, graduates frequently end up working as self-employed in the informal sector after graduation. The little entrepreneurial training offered is generally considered to be quite theoretical.

The MoYAS and its youth (village) polytechnics (YPs) play an important role in reaching school leavers after primary education. About 50,000 youth are currently enrolled in the YPs (30–35 percent women). They specifically target students with completed primary education although some secondary graduates are accepted. The YPs offer long-term training programs of two years, geared toward certification of qualifications through trades testing. The programs include traditional technical trades, information and communication technology (ICT), catering and hospitality, beautician, as well as some life skills and entrepreneurship modules. No evidence is available on labor market performance of graduates, and failure rates are quite high on exams, possibly as a result of the revamping of the YPs simultaneously with a large curriculum reform.

The MoYAS also offers an NYS program. The NYS provides two years of paramilitary training and service in public works, after which students are admitted to different skills development programs also amounting to qualifications at diploma level or trades testing. Graduates are assumed to be highly valued in the labor market, in particular because of life and work skills developed during the training. For those with lower levels of education who follow artisan training, self-employment is common; however, no support services (in terms of start-up kits, links with microfinance schemes, and the like) are included in the NYS. Other government agencies also provide TVET, a few with particular relevance for the informal sector. For example, the Institute of Business Training under the Ministry of Trade targets medium and small-scale operators, and Utalii College provides tourism and hospitality training at different levels.

The Directorate of Industrial Training (DIT) provides programs parallel to the formal TVET system that are perceived as more relevant to the needs of both informal and formal workers and operators. The DIT oversees the national trades testing system, administers the industrial training levy fund, and organizes a number of training schemes. The DIT administers a formal apprenticeship program of limited size (500–600 trainees per year) and provides a small wage subsidy for about 10,000 students annually, emanating from TVET and universities for on-the-job induction training for new recruits. It also oversees

industrial skills upgrading and trades test preparation programs involving about 1,200–1,500 trainees per year.

The DIT's intake of trainees is limited compared to demand, and the high cost is a barrier to access. Although these programs officially are directed to both informal and formal agents, the cost is equivalent to four months of (median) earnings in the informal sector (more than US\$80), which serves as a barrier to many who would enter the informal sector. The scale of DIT activities is low by comparison with the numbers of young people exiting the formal education system.

Trades testing is available to certify skills attained from diverse providers. The trades testing system is available for a fee (around US\$25) to any person seeking recognition, regardless of mode of skills acquisition—apprenticeships, on-the-job training, or nonformal and formal training. More than 400 centers, mainly training institutions, are accredited trades testing centers, and the number of candidates is high (about 45,000 in 2010). The vast majority test for semi-skilled levels, indicating the attractiveness of the certification.

Nonformal Sources of Skills Development

As noted earlier, the private training market is vast and diverse, and it fills an important role in responding to demand. It has more than a thousand private TVET providers, including FBOs, NGOs, and community-run organizations as well as private commercial schools and institutions. About 500 institutes are currently registered with the MoHEST; many others are not registered and not subject to quality control. Some indicators point toward underused capacities, especially with the commercial providers. Fees can range from K Sh 1,000 to K Sh 100,000 per program, but in the case of donor-supported NGOs and FBOs, often only a commitment fee is charged. These last appear to focus largely on traditional techniques whereas commercial providers offer training in more modern occupations, including ICT.

Judging the quality and effectiveness of nonformal sources of skills development is difficult, like that of formal sources, because of the lack of monitoring and evaluation of training outcomes. As a result, knowledge is limited about effectiveness and efficiency of programs. Given the high diversity of the training supply in Kenya, finding out more about what works and what does not should be an important goal to support and replicate well-functioning systems. What can be discerned from a review of programs is summarized below. This review highlights the small scale of activities addressing the needs of the informal sector for skills, the key role played by private providers of these skills, and the features of programs that appear to offer benefits to people seeking employment in the informal sector.

Available information suggests the following:

- *Comprehensive packages with high-quality training and follow-up services are successful but may be costly.* Some privately provided (but noncommercial) programs appear to be comparatively successful in equipping graduates

with a multifaceted set of skills for the workplace. For example, the Don Bosco skills training centers (FBO-run institutes) are known for high-quality training in a variety of traditional skills, ICT, and secretarial skills as well as for strong mentorship. Graduates are assisted in finding employment through a job placement center; application and interview training is also part of the curriculum. However, the program is costly at K Sh 120,000 (US\$1,200) per year per trainee, making a national scale-up of the program problematic.

- *Close targeting of beneficiaries may facilitate the design of training to provide the right mix of technical, business, and soft skills, combined with other services to facilitate labor market entry and a reduction in occupational segregation.* The African Centre for Women, Information and Communications Technology (ACWICT) is piloting a program financed by Samsung. The Samsung Real Dreams program targets women in the informal settlements of Nairobi, aiming to provide them with relatively advanced ICT skills. A tracer study, however, suggested that 77 percent of graduates were working in regular (formal) employment. It also showed that graduates highly value the soft skills provided during training.
- *Where rigorous evaluation was applied to a pilot training program, the provision of private training proved able to provide stronger connections to the labor market and ensure more flexibility and better adaptation to changing needs, and the use of vouchers provided a means of stimulating this supply.* To gauge the potential for the private sector as a key provider, the Technical and Vocational Vouchers Program (TVVP) was launched in 2008 (see box 6.2). The pilot program is significant, because unlike the vast majority of interventions, it has been subject to a rigorous evaluation methodology. The evidence is positive.
- *The voucher program also indicated that subsidies can fill an important role in stimulating training for lower-income groups.* In particular, training has payoffs in both employability and earnings, and a larger private sector supply of training provides more flexibility. The program provides important findings for skills development policy: training costs appear to be too high, so subsidies may be necessary, and participants face many other constraints beyond financing, including training location.

For in-service training, Jua Kali operators are basically served by only the private sector. Many of the trainers are master craftspersons who have developed training as a complementary business activity—a legacy of an earlier government voucher program stimulating private sector supply of training. This segment of training providers is now organized in the National Association of Technology Transfer and Entrepreneurial Training. The quality of training and effectiveness in terms of raising productivity and earnings is not known, however.

Box 6.2 Increasing Access by Stimulating Private Provision: Kenya TVVP

The TVVP launched in 2008 in western Kenya (Busia) is a research project focusing on factors affecting demand for skills development and the economic and social effect of skills development. Among youth who applied for the project, 50 percent were randomly selected to receive a voucher, with the remaining 50 percent serving as a control group. Of those receiving vouchers, half were given restricted vouchers applicable only in public institutions.

Although final results are still unavailable, preliminary analysis points to interesting results from a policy perspective:

- High costs of accessing TVET are potentially a significant barrier to accessing skills development: 75 percent of the voucher holders had attended training, compared with 4 percent of the control group.
- Private training appears to increase the choice in the training market and improve the chances that young people will find a provider that matches their needs and individual circumstances. The share of unrestricted voucher holders making use of the voucher was 10 percentage points higher than the share for holders with the restricted voucher.
- Further evidence indicated the need for a large supply of institutions that can flexibly accommodate individual constraints, including family considerations. When asked the reasons for choosing a specific program, almost half the youth indicated “proximity to home,” and almost a third said the “ability to find accommodation nearby the training center.”
- Information on training supply and labor market contexts is low. Participants turned out not to be properly informed about labor market outcomes, including the likely returns.
- Vocational training can serve as an effective second-chance program for youth with low educational achievements. Participants with, at most, completed primary were more likely to finish their education than those with secondary levels of education.
- Systematic information on returns to training is not yet available, but there are some very preliminary indications that training helps in shortening job search and increasing remuneration (especially for women).

Source: Hicks and others 2011.

Public and NGO programs also specifically address the training needs of the informal sector. One example is the Informal Sector Business Institute (ISBI), which offers a “street MBA” to existing informal sector operators. The curriculum includes management, marketing, accounting, and business English. However, the scale is very small, with only 350 entrepreneurs having benefited from the program since 2004. ISBI also runs youth training programs, focusing on basic computer skills training. As for many of these programs, hard evidence on their costs and benefits is lacking. Table 6B.1 summarizes some key programs and highlights how (if at all) they address the constraints faced by new or established informal sector agents wishing to increase their skills. Although the programs may address some constraints, they rarely hit a majority of the key problems.

For example, many programs work on multiskilling, recognizing that self-employment requires more than technical skills, but few programs address the need for modular and flexible forms of training. Thus, the outreach and effect of programs may be limited.

Informal Sources of Skills Development

Traditional apprenticeships are, as in other parts of Sub-Saharan Africa, the most important skills development system available to youth for the informal sector. Estimates of apprentices date to 1999, but if the share of apprentices in the Jua Kali sector has remained constant over time or possibly grown, the sector now hosts at least 180,000 youth as apprentices. Informal sector associations are involved in setting standards for fees and fee arrangements and in informally supervising quality. Training fees are for tuition only and do not cover living expenses and transport, which the trainee must bear. Although traditionally these apprenticeships were accessible for youth with low education levels, some evidence indicates that educational requirements are increasing and that master craftspersons require potential trainees to have completed primary education.

The apprenticeships offer hands-on, production-oriented, and on-the-job training based on informal contracts. On the upside of apprenticeships is their strong labor market relevance and self-financing system. Although widely available, apprenticeships suffer from lack of access to newer technology, varied quality in teaching skill and methods, absence of second-chance education options for trainees with limited schooling, and poor business practices. Fees are perhaps surprisingly high—around US\$15 per month—effectively limiting access by the poorest segments. Taking steps to address these weaknesses would strengthen this important source of skills development for the informal sector.

Efforts to train master craftspersons can provide wider benefits. An example of traditional apprenticeship support (Strengthening Informal Training and Enterprise, SITE) suggested that efforts to also target trainers (in this case master craftspersons) could be beneficial in improving skills outcomes, raising productivity, and increasing the supply of (higher quality) training through apprenticeships (box 6.3).

In summary, Kenya has made important progress in increasing access and equity in formal education at the basic education level, but more remains to be done for skills in the informal sector. Most children still exit school before entering secondary levels of education. How to equip young workers with adequate skills for the labor market outside the realm of formal education therefore remains a crucial policy issue. Compared with many other African countries, Kenya offers an unusually wide range of nonformal and informal training options for the formal and informal sectors. However, because of a lack of good evaluations and tracer studies, much uncertainty still exists about what works and what does not work in terms of creating sustainable employment among youth. Given the size and importance of the informal sector to the economy, more attention needs to focus on the constraints to acquiring skills for the informal sector.

Box 6.3 Training the Trainers in the Informal Sector: Traditional Apprenticeship Support by SITE

Between 1996 and 1998, with assistance from the United Kingdom, the NGO Strengthening Informal Training and Enterprise (SITE) ran a project to support and develop traditional apprenticeship training in Kenya. The project concentrated on metalwork, woodwork, and textiles. In total, 420 master craftspersons and 280 apprentices were trained directly, while an estimated 1,400 apprentices received improved training from the project's host trainers.

According to available information, the effect was positive by various accounts. Traditional apprenticeship training became more efficient (reduced time and costs) and effective (concentrated on productive activities), gaining from the training that the masters had received. Of the masters who participated, the number of apprentices increased by 15–20 percent. The masters themselves benefited through increased turnover and profits, assumed to be a direct result of new skills applied, new products, penetration of new markets, and better workshop layouts and production organization.

Some of the lessons learned from the project included the following:

- Skills training was not immediately interesting to master craftspersons, unless it was delivered in the context of a broader business improvement context.
- Training for the masters has to be delivered in a flexible manner, taking into account time constraints and opportunity costs.
- Masters get involved in training not necessarily to increase training fees but to increase income from production. Training turned out to be a good entry point for technology upgrading in the enterprises.
- Attempts to create links between the Jua Kali and the training institutions were disappointing: independent trainers (business development services providers) are more flexible and suitable.
- Collaboration with informal sector associations is important.

Overall, the intervention demonstrated that skills development, carefully and appropriately targeted, can be instrumental in improving the performance of informal sector enterprises. New skills appeared to lead to increased growth, innovation, and productivity.

Sources: Haan 2006; Johanson and Adams 2004.

Conclusions

Recent years have seen important economic, political, and demographic dynamics taking place in Kenya. Economic growth rates have fluctuated significantly, in response to domestic political instability (2002 and 2008) and the global financial crisis (2008). The Kenyan demographic and labor market structure has changed as more youth enter the labor market, lowering the average age of the working-age population and labor force. The employment structure has shifted, with nonfarm informal sector employment absorbing more new workers than both the farming and the formal sectors. Low-quality

employment, underemployment, and open unemployment (especially urban youth) remain critical labor market and poverty reduction challenges. At the same time, Kenya has continued to invest in the education and training of the workforce.

Kenya needs to focus on the nonfarm informal sector because diversification into nonfarm activities offers earning opportunities that can lift families out of poverty. The Jua Kali sector is deeply imbedded in Kenyan society. However, the gap between earnings in the informal and formal sectors continues to be wide, and the question remains how to increase productivity and earnings opportunities for the rapidly growing informal sector workforce, most of whom work on their own account.

Access to schooling and other forms of training is important because training matters for earnings in several ways. Skills influence earnings in Kenya directly by raising productivity or earnings for the worker and indirectly by improving access into sectors with higher earnings. Importantly, literacy pays off to enter informal sector employment but does not facilitate access to formal sector work, where requirements on formal education are likely to be significantly higher. Formal education, including vocational training, pays off less in terms of earnings in the informal sector than in the formal sector.

As in many other African countries, progress on access at primary levels of education needs to be consolidated and reinforced by paying more attention to quality and opening up training opportunities at higher levels. Kenya has improved access to primary education and lower-secondary education. Building on these achievements will require focusing on the quality of education and on basic capacities like literacy. Increasing access at lower levels, however, will increase pressure on expanding access at higher levels of education and will require actions to support high-quality training through both formal and nonformal means. Given the abundance of public and private programs and initiatives, finding ways of improving the efficiency of the existing institutions and improving the relevance of skills training will be important.

Because most work opportunities will be as own-account workers and entrepreneurs, providing skills beyond technical skills will be integral to achieving results. This broader package of services includes life-skills training, business training, opportunities for apprenticeships, access to credit, counseling, and continued business services after training. The evidence is still limited on the cost-effectiveness of these types of programs on a larger scale, however.

The informal sector faces many constraints that formal wage workers or larger employers may not face, and programs that address these constraints are likely to reach out better to this important segment of the working population. For example, informal sector operators have lower earnings, have limited cash flow, depend on their income for survival and so cannot attend school during the day, and need to acquire a wide range of competencies because many are very

small firms. Generally, they also have limited access to new technologies and pedagogical sources of training. Programs that target informal sector operators need to consider the following, among other things: (a) how to be flexible in provision of training; (b) what can make training affordable for low-earning groups; (c) how to provide access to relevant technology; and (d) how to provide the broad range of skills needed. Evidence from Kenya shows that vouchers can stimulate private sector supply of skills in this area, with positive results in terms of labor market outcomes.

Means of increasing the efficiency of apprenticeships as well as improving their value in labor (or credit) markets are needed. Although household survey information is lacking for the specific case of Kenya, apprenticeships in the African context are common and have several advantages, including self-financing and high labor market relevance. Some of their weaknesses, including lack of access to trainers with pedagogical skills and lack of training in modern technology and modern business practices, may be the target of specific programs to upgrade master craftspersons. The popularity of Kenya's trades testing system underscores the importance of formally recognizing informally acquired competencies and reflects the acuity of results-based approaches.

The informal sector is comparatively well organized in Kenya, and associations could be involved in strengthening training supply. With their strong connections to the informal sector needs, the National Association of Technology Transfer and Entrepreneurial Training and several Jua Kali associations could in various degrees be involved in (a) assessment of training and market demand, (b) advocacy on the benefits of training, and (c) supervision of training outcomes.

Much work remains to be done to build the evidence base on skills development in Kenya. Unfortunately, no information is available on apprenticeships or other forms of in-service training likely to contribute significantly to skills development in the informal sector, and there is a serious lack of evaluations of the long-term (or even short-term) effect of many of the public or private training programs on employability or earnings of its beneficiaries. Closer monitoring and evaluation would permit Kenya to improve its training system and focus resources on the most efficient programs.

Annex 6A: Tables

The annex contains multivariate regressions that form the basis for analyzing the links between education and sector of employment as well as earnings on the job. The first table consists of the multinomial regression that shows how years of education is related to sector of employment. Subsequent tables show the relationship between education and earnings on the job in the formal and informal sectors, both taking into account the effect of selection into sectors and without it.

Table 6A.1 Determinants of Labor Allocation across Employment Sectors in Kenya, Odds Ratios, 2005–06

<i>Multinomial logistic regression</i>					
Number of observations = 13,588					
LR $\chi^2(20) = 7,226.32$					
Prob > $\chi^2 = 0.0000$					
Log likelihood = -10,374.003					
Pseudo $R^2 = 0.2583$					
<i>Modern</i>	<i>RRR</i>	<i>Standard error</i>	<i>z</i>	<i>p > z</i>	<i>95% confidence interval</i>
<i>Formal</i>					
Age	1.360	0.028	14.990	0.000	1.306 to 1.415
Age_2	0.996	0.000	-14.240	0.000	0.996 to 0.997
Gender	2.928	0.193	16.270	0.000	2.572 to 3.332
Drururb	0.071	0.005	-34.670	0.000	0.061 to 0.083
Vtraining	3.450	0.275	15.550	0.000	2.951 to 4.033
Edyrs	1.286	0.016	20.420	0.000	1.255 to 1.317
Literate	0.873	0.174	-0.680	0.495	0.591 to 1.290
Married	0.986	0.129	-0.110	0.913	0.762 to 1.275
Numagelt6	0.905	0.030	-3.020	0.003	0.848 to 0.966
Numage714	0.875	0.024	-4.900	0.000	0.830 to 0.923
<i>Informal</i>					
Age	1.089	0.013	7.020	0.000	1.063 to 1.115
Age_2	0.999	0.000	-8.950	0.000	0.998 to 0.999
Gender	2.154	0.099	16.740	0.000	1.969 to 2.357
Drururb	0.063	0.004	-44.620	0.000	0.056 to 0.071
Vtraining	1.503	0.117	5.240	0.000	1.290 to 1.750
Edyrs	0.953	0.008	-5.590	0.000	0.938 to 0.969
Literate	1.375	0.126	3.470	0.001	1.149 to 1.646
Married	0.597	0.051	-6.070	0.000	0.506 to 0.705
Numagelt6	0.990	0.021	-0.480	0.628	0.949 to 1.032
Numage714	0.903	0.017	-5.550	0.000	0.871 to 0.936

Source: Elaborations based on KNBS 2007 relative to working in farming.

Table 6A.2 OLS: Returns to Education in Formal Sector, 2005–06

<i>Linear regression</i>					
Number of observations = 2,234					
F(72,226)=185.45					
Prob > F = 0.0000					
R ² = 0.4441					
Root MSE = 0.79532					
<i>Lntot~Formal</i>	<i>Coefficient</i>	<i>Robust standard error</i>	<i>t</i>	<i>p > t</i>	<i>95% confidence interval</i>
Age	0.092	0.015	6.330	0.000	0.063 to 0.120
Agesq	-0.001	0.000	-4.220	0.000	-0.001 to 0.000
Gender	0.070	0.036	1.910	0.056	-0.002 to 0.141
Drururb	-0.326	0.035	-9.430	0.000	-0.394 to -0.258
Training	0.013	0.035	0.380	0.703	-0.055 to 0.082
Edyrs	0.181	0.007	24.980	0.000	0.167 to 0.195
Literate	0.253	0.169	1.500	0.134	-0.078 to 0.584
_Cons	4.956	0.299	16.590	0.000	4.370 to 5.542

Source: Elaborations based on KNBS 2007.

Note: White's test for homoskedasticity indicates presence of heteroskedasticity ($\chi^2(30) = 82.04$; p -value = 0.0000). Hence, robust standard errors obtained. OLS = ordinary least squares.

Table 6A.3 OLS: Returns to Education in Informal Sector, 2005–06

<i>Linear regression</i>					
Number of observations = 4,597					
F(74,589) = 108.34					
Prob > F = 0.0000					
R ² = 0.1508					
Root MSE = 1.0315					
<i>Intot~informal</i>	<i>Coefficient</i>	<i>Robust standard error</i>	<i>t</i>	<i>p>t</i>	<i>95% confidence interval</i>
Age	0.025	0.009	2.790	0.005	0.007 to 0.043
Agesq	0.000	0.000	-1.620	0.105	0.000 to 0.000
Gender	0.374	0.032	11.770	0.000	0.312 to 0.436
Drururb	-0.432	0.032	-13.510	0.000	-0.494 to -0.369
Training	0.111	0.050	2.210	0.027	0.013 to 0.209
Edyrs	0.083	0.007	12.100	0.000	0.070 to 0.097
Literate	0.090	0.069	1.300	0.195	-0.046 to 0.225
_Cons	6.610	0.159	41.700	0.000	6.300 to 6.921

Source: Elaborations based on KNBS 2007.

Note: White's test for homoskedasticity indicates presence of heteroskedasticity in the log earnings equation for the informal sector ($\chi^2(29) = 184.17$; p -value = 0.0000). Hence, robust standard errors reported. OLS = ordinary least squares

Table 6A.4 Log Earning Function: Correcting for Selection into Formal Sector, 2005–06

<i>Heckman selection model</i>					
Number of observations = 13,514 (regression model with sample selection)					
Censored observations = 11,288					
Uncensored observations = 2,226					
Wald $\chi^2(7) = 389.08$					
Log pseudolikelihood = -7,036.723					
Prob > $\chi = 0.0000$					
	<i>Robust standard</i>				
	<i>Coefficient</i>	<i>error</i>	<i>z</i>	<i>p > z</i>	<i>95% confidence interval</i>
<i>Lntotincome</i>					
Age	0.129	0.020	6.550	0.000	0.090 to 0.167
Agesq	-0.001	0.000	-5.010	0.000	-0.002 to -0.001
Gender	0.180	0.056	3.210	0.001	0.070 to 0.290
Drururb	-0.491	0.069	-7.070	0.000	-0.626 to -0.355
Vtraining	0.200	0.075	2.650	0.008	0.052 to 0.347
Edyrs	0.226	0.018	12.720	0.000	0.191 to 0.261
Literate	0.219	0.179	1.220	0.221	-0.132 to 0.569
_Cons	3.171	0.690	4.590	0.000	1.818 to 4.525
<i>Dformal</i>					
Age	0.134	0.010	13.230	0.000	0.114 to 0.153
Agesq	-0.002	0.000	-11.820	0.000	-0.002 to -0.001
Gender	0.353	0.032	11.110	0.000	0.291 to 0.415
Drururb	-0.500	0.032	-15.680	0.000	-0.562 to -0.437
Vtraining	0.549	0.039	13.980	0.000	0.472 to 0.626
Edyrs	0.150	0.007	21.160	0.000	0.136 to 0.164
Literate	-0.207	0.095	-2.180	0.029	-0.394 to -0.021
Married	0.103	0.065	1.590	0.113	-0.024 to 0.230
Numagelt6	-0.044	0.017	-2.570	0.010	-0.077 to -0.010
Numage714	-0.038	0.013	-2.940	0.003	-0.064 to -0.013
_Cons	-4.925	0.218	-22.630	0.000	-5.352 to -4.499
/Athrho	0.534	0.190	2.800	0.005	0.161 to 0.907
/Lnsigma	-0.142	0.058	-2.480	0.013	-0.255 to -0.030
Rho	0.488	0.145			0.159 to 0.719
Sigma	0.867	0.050			0.775 to 0.971
Lambda	0.423	0.149			0.132 to 0.715

Source: Elaborations based on KNBS 2007.

Note: Wald test of independent equations ($\rho = 0$): $\chi^2(1) = 7.87$ Prob > $\chi^2 = 0.0050$. Hence, the measure of correlation (ρ) between the error terms of the log earnings equation and formal sector entry equation is statistically different from zero at 1 percent.

Table 6A.5 Log Earning Function: Correcting for Selection into Informal Sector, 2005–06

<i>Heckman selection model</i>					
Number of observations = 12,827 (regression model with sample selection)					
Censored observations = 8,243					
Uncensored observations = 4,584					
Wald $\chi^2(7) = 700.63$					
Log pseudolikelihood = -13,832.86					
Prob > $\chi^2 = 0.0000$					
	<i>Coefficient</i>	<i>Standard error</i>	<i>z</i>	<i>p > z</i>	<i>95% confidence interval</i>
<i>Lntotincome</i>					
Age	0.0255	0.0091	2.8100	0.0050	0.0077 to 0.0433
Agesq	-0.0002	0.0001	-1.6500	0.1000	-0.0005 to 0.0000
Gender	0.3750	0.0335	11.2000	0.0000	0.3094 to 0.4407
Drururb	-0.4464	0.0585	-7.6400	0.0000	-0.5610 to -0.3318
Vtraining	0.1073	0.0515	2.0800	0.0370	0.0063 to 0.2083
Edyrs	0.0819	0.0078	10.5100	0.0000	0.0666 to 0.0972
Literate	0.0945	0.0707	1.3400	0.1810	-0.0441 to 0.2330
_Cons	6.6022	0.1604	41.1500	0.0000	6.2877 to 6.9167
<i>Dinformal</i>					
Age	0.0022	0.0069	0.3100	0.7530	-0.0113 to 0.0156
Agesq	-0.0003	0.0001	-3.3000	0.0010	-0.0005 to -0.0001
Gender	0.2639	0.0251	10.5100	0.0000	0.2147 to 0.3131
Drururb	-1.0671	0.0280	-38.0700	0.0000	-1.1220 to -1.0121
Training	-0.2519	0.0385	-6.5400	0.0000	-0.3273 to -0.1764
Edyrs	-0.0811	0.0046	-17.6500	0.0000	-0.0901 to -0.0721
Literate	0.3467	0.0529	6.5600	0.0000	0.2431 to 0.4503
Married	-0.3501	0.0467	-7.5000	0.0000	-0.4415 to -0.2586
Numagelt6	-0.0066	0.0128	-0.5100	0.6080	-0.0317 to 0.0185
Numage714	-0.0350	0.0106	-3.3100	0.0010	-0.0557 to -0.0143
_Cons	1.2409	0.1343	9.2400	0.0000	0.9777 to 1.5041
/Athrho	0.0195	0.0696	0.2800	0.7800	-0.1170 to 0.1559
/Lnsigma	0.0307	0.0137	2.2500	0.0250	0.0039 to 0.0574
Rho	0.0195	0.0696			-0.1165 to 0.1547
Sigma	1.0312	0.0141			1.0039 to 1.0591
Lambda	0.0201	0.0718			-0.1206 to 0.1607

Source: Elaborations based on KNBS 2007.

Note: Wald test of independent equations ($\rho = 0$): $\chi^2(1) = 0.08$ Prob > $\chi^2 = 0.7798$. Hence, the measure of correlation (ρ) between the error terms of the log earnings equation and informal sector entry equation is not statistically different from zero at 1, 5, or 10 percent.

Annex 6B: Training Scheme Descriptions

The annex presents, first, a table that provides a detailed overview of the degree to which different programs and initiatives in Kenya cater to the skills development constraints faced by the informal sector, and second, a table that explains different factors that contribute to success in skills development programs.

Table 6B.1 Training Schemes and Approaches in Kenya for Informal Sector Relative to Informal Sector Skills Training

<i>High opportunity cost</i>	<i>Low cash flow of firms and workers</i>	<i>Multiskilling needs</i>	<i>Lack of skills for training</i>	<i>Information failures on benefits of training</i>	<i>Little supply catering to informal skills needs</i>	<i>Absence of economies of scale for training driving up cost</i>
<ul style="list-style-type: none"> Kenya Youth Employment Program (KYEP): Preparation training of masters provided in evening hours. 	<ul style="list-style-type: none"> KYEP: Providing scholarships for trainees/interns and allowances for informal sector masters to provide training places. 	<ul style="list-style-type: none"> ACWICT: Preemployment, but including informal sector employment. Combined technical with entrepreneurial and life skills. 	<ul style="list-style-type: none"> KYEP: Attachments in informal sector are preceded by training master craftspersons in entrepreneurship, production, marketing, human resources development, and coaching/training methodologies. 	<ul style="list-style-type: none"> TVVP (pilot research voucher program): Established and addressed information failures. However, this was targeting youth, not informal sector operators. 	<ul style="list-style-type: none"> All formal (recognized) TVET programs in Kenya include business management and self-employment modules. However, because of lack of appropriate instruction skills, this training is not perceived to be very relevant. 	<ul style="list-style-type: none"> All programs providing subsidized access.
<ul style="list-style-type: none"> SITE (1990s): Scheduling of training of master craftspersons during times and hours not interrupting the business work schedule. 	<ul style="list-style-type: none"> World Bank Informal Sector Voucher Program: Providing informal sector operators with vouchers to partially cover training costs. 		<ul style="list-style-type: none"> SITE (during the 1990s): Technical assistance support offering additional training to master craftspersons. 		<ul style="list-style-type: none"> World Bank Informal Sector Voucher Program: Stimulated demand, which was met by a newly emerging type of training providers (within the informal sector). Facilitated the emergence of a specialized informal sector training provider system (unintended effect). 	

table continues next page

Table 6B.1 Training Schemes and Approaches in Kenya for Informal Sector Relative to Informal Sector Skills Training (continued)

<i>High opportunity cost</i>	<i>Low cash flow of firms and workers</i>	<i>Multiskilling needs</i>	<i>Lack of skills for training</i>	<i>Information failures on benefits of training</i>	<i>Little supply catering to informal skills needs</i>	<i>Absence of economies of scale for training driving up cost</i>
	<ul style="list-style-type: none"> • ISBI: Linking training to micro venture-capital scheme. 					<ul style="list-style-type: none"> • ACWICT and ISBI: Inclusion of life skills alongside technical and entrepreneurial training trade testing: scheme to recognize informally acquired skills, including skills developed in informal sector work. This is complemented by upgrading and trade test preparation training offered by DIT. • Most microcredit schemes in Kenya (which are widespread) require some sort of short entrepreneurship or business management training for borrowers. • Training provided as part of value chain and subsector development programs.

Source: Franz 2011.

Table 6B.2 What Makes TVET and Youth Employment Programs Successful?

<i>Factor</i>	<i>Sources/Evidence</i>
Job placement efforts by training providers	ACWICT, Samsung Real Dreams Follow-up Survey Results; Salesian Church/Don Bosco
Internships	ACWICT, Samsung Real Dreams Follow-up Survey Results; results of KYEP will add further evidence
Cooperation with industry in training	Formal apprenticeship system; results of KYEP to add further evidence
Appropriately comprehensive technical skills training in line with labor market requirements (avoid too short skills training programs)	ACWICT evaluation of Reaching the Unreached program; KYEP/ Internships and Training Program (feedback from Jua Kali master craftspersons)
Life-skills training, counseling, and follow-up	ACWICT evaluation, evidence from NYS program; CfBT Education Trust 2009
Specific targeting; provision of tailor-made programs	CfBT Education Trust 2009; own observation; ISBI
Management commitment and capacities of training provider	Survey of government and nongovernmental training providers in Kenya, CfBT Education Trust 2009; own observations in visited training institutions
Appropriately competent instructors	Experience from other countries, own observations in training institutions; TVVP evaluations expected to provide more insight because relevant baseline data were collected
Appropriate resources	Experience from other countries, own observations in training institutions; TVVP evaluations expected to provide more insight because relevant baseline data were collected

Source: Franz 2011.

Notes

1. This chapter is largely based on Onsomu and Wambugu (2012) and Franz (2011).
2. Although median earnings are higher for women in the formal sector than for men, mean earnings are higher for men than for women in both formal and informal sectors.
3. Both ordinary least squares and Heckman corrected regressions, controlling for selection bias, give this result.

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