

Urban poverty and labour force participation in Kenya

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Abstract

Recent estimates show that urban poverty in Kenya has increased tremendously. For the urban poor, whose main income generating asset is labour, participation in the labour market is crucial. Employment enables the urban poor to earn income to finance basic needs including food, shelter and other requirements. However, whether participation in the labour market is important for poverty reduction depends on the level of labour income earned. The income in turn depends on the level of education, occupation and the sector of employment.

This paper examines the relationship between urban poverty and labour force participation in Kenya. The issue is whether participation in the labour market is important for poverty. The analysis is based on data from various Welfare Monitoring Survey by the Central Bureau of Statistics (CBS). The results show strong links between poverty and labour force participation inviting immediate policy intervention for poverty reduction through the labour market. Urban poverty and labour force participation are strongly related because labour earning is the main source of income for urban poor. However, participation in the labour market does not keep households out of poverty: the working urban poor in Kenya account for well over half of the total urban poor. The results also show that the probability of being poor in certain occupations and sectors is higher than others..

1.0 Introduction

Kenya like many other developing countries has experienced rapid urbanisation in the last few years. While the natural growth of population has been the major contributor to urbanisation, migration from rural areas to urban centres has been the major factor. Rapid urbanization in Kenya is associated with a number of development challenges. Key among these challenges is the deterioration in urban physical environments and the general living conditions. A large and increasing number of the urban population in Kenya is living in overcrowded and unsanitary slums and squatter settlements which often do not have access to basic infrastructure and services. The rise of squatter settlements and slums in urban centres is a source of great concern.

Poverty in Kenya is largely a rural phenomenon but the proportion of the poor who live in urban areas is rising fast. In 1992, the proportion of urban poor was estimated at 29% compared to 42% in rural areas. In 1997, the figure had risen to 49% compared to 52% in rural areas. Substantial urban poverty not only limits the scope for mobilising the revenue of urban authorities but more importantly also it limits the effective demand for housing and other basic urban services due to low income.

Although urban poverty is receiving increasing attention in development research and policy in Kenya, its association with the labour market has not received much focus. Much of what exists, for example Mwabu *et al* (2000) and Oiro *et al* (2003), Kimalu *et al* (2002) and Manda *et al* (2002), does not explicitly address urban poverty and the labour market in the country. Urban poverty has thus not been discussed in the context of the labour market. This paper therefore seeks to examine the link between urban poverty and labour force participation in Kenya. More specifically, the study seeks to understand the

importance of the labour market in explaining the incidence of urban poverty in Kenya. In doing this we attempt to answer the following questions. Who are the urban poor? In which income earning activities are the poor engaged? What are the odds of being poor given that a particular household is engaged in a given segment in the labour market? Answers to these questions will help in implementing appropriate poverty reduction interventions in urban areas in Kenya.

The study utilises the most recent information from the Welfare Monitoring Surveys (WMS) 1994 and 1997 compiled by the Central Bureau of Statistics (CBS). We also use data from the 1998/99 Integrated Labour Force Survey also from the CBS to assess the linkage. In this paper, we analyse the labour market activities of individuals, both the poor and non-poor households. The rest of the paper is organised as follows. After this section, we examine in section 2 a number of concepts and definitions. This is followed in section 3 with an analysis of urban poverty and labour force participation in Kenya. The conclusions and policy implications are in the last section.

2.0 Urban poverty and employment: concepts and measurement

Urban poverty

Urban poverty is a multidimensional phenomenon. It is generally associated with various deprivations which make the working, living and social environments of the poor extremely insecure. These disparities severely limit the options for improving the lives of the poor. Three important dimensions of poverty have been identified in literature (UNESCAP, 2000): poverty of money, poverty of access, and poverty of power. Poverty of money is a case where the urban poor lack sufficient resources to afford the minimum acceptable quality of shelter and other services. Conventional economic definitions of

poverty use income or expenditure. This involves use of a “headcount” measure, which takes into account the number of persons having incomes below a certain level of income to be considered poor. The poverty profiles presented in this paper use this approach.

From an income perspective, there are two basic “levels” or “types” of poverty in development literature: absolute poverty and relative poverty. Simply put absolute poverty is defined as the cost of the minimum necessities needed to sustain human life. Globally this minimum is estimated at US\$ 1 a day (in 1993 purchasing power parity). Relative poverty is defined as the minimum economic, social, political and economic goods needed to maintain an acceptable way of life in a particular society. Yet a third definition of poverty used in poor countries is hardcore poverty, which refers to the extremely poor.

Poverty of access refers to the inability of the poor to access basic infrastructure and services. The poor in most urban settings live in overcrowded and unsanitary slums and squatter settlements. They lack good health facilities, housing and services. The poor at the same time lack tenure security and are vulnerable to insecurity, diseases and natural and man-made disasters. Because of their vulnerability and inability to influence decision in their settings, the poor also suffer from “poverty of power”. More often than not, the poor lack information to advance their case.

The conceptual definition of poverty has been widening and now includes more subjective definitions such as vulnerability, entitlements and social exclusion (See for example Baker, 1995). These concepts have been useful for analysing what increases the risk of poverty and the reasons why people remain poor. Vulnerability is closely linked to asset ownership. In general, the more assets people have, the less vulnerable they are.

Entitlements refer to the complex ways in which individuals or households command resources which vary between people over time in response to shocks and long term trends. Social exclusion is a state of ill-being and disablement or disempowerment and inability which individuals and groups experience (ILO, 1996).

Urban poverty and labour markets

Poverty and labour markets are strongly related because earnings from labour markets are among the main sources of income for workers. In urban settings, people rely on market exchanges to obtain basic necessities such as food and shelter. Indeed, many of the problems associated with urban poverty are related to lack of income. The ability to earn income thus becomes an important determinant of poverty. This ability depends on the functioning of the urban labour markets, the nature of activities that the poor engage in, and the safety nets and labour protection the markets accord.

Urban labour markets in developing countries are dichotomous. On the one hand, there is the formal labour market segment which traditionally is an important source for employment of the urban population. On the other hand, there is the informal labour segment, which is in many ways a result of failure of the formal segment to create sufficient job opportunities for the urban population. In many African countries, Kenya included, wage employment in the modern sector has fallen in absolute terms over time. This situation has been made worse in the 1980s and 1990s by retrenchment in the public sectors. Since much of the formal sector employment in developing countries is concentrated in and around urban locations, they have had clear repercussions on the urban employment. In Kenya, for instance, the failure of urban employment in the modern private sector has led to a rapid expansion of the informal sector. The share of

urban employment in the informal sector is estimated to be around 75%. Evidence from other countries presented by Sethuraman (1997) confirms that the informal sector plays an important role in urban employment.

In the literature, both unemployment and informal sector employment are considered to be important links between poverty and labour markets. Some analysts, e.g. Agenor (1998), define poverty as the ratio of the combined number of unemployed and those working in the informal sector to the total labour force. The unemployed clearly have no opportunity to earn income and are almost certainly poor. This group of persons includes those who are unable to find jobs due to lack of skills, the physically disabled, including the elderly. Available evidence in Kenya and elsewhere shows that earnings in the informal sector are typically low and not enough to push people out of poverty. There is thus a possibility that some of the people working in the sector may actually be poor. This group is sometimes referred to as the working poor². Also, most of the firms in the sector are small, employing in most cases only one person, and the survival rate of these firms is low. This means that they may not provide sustainable sources of income to their owners.

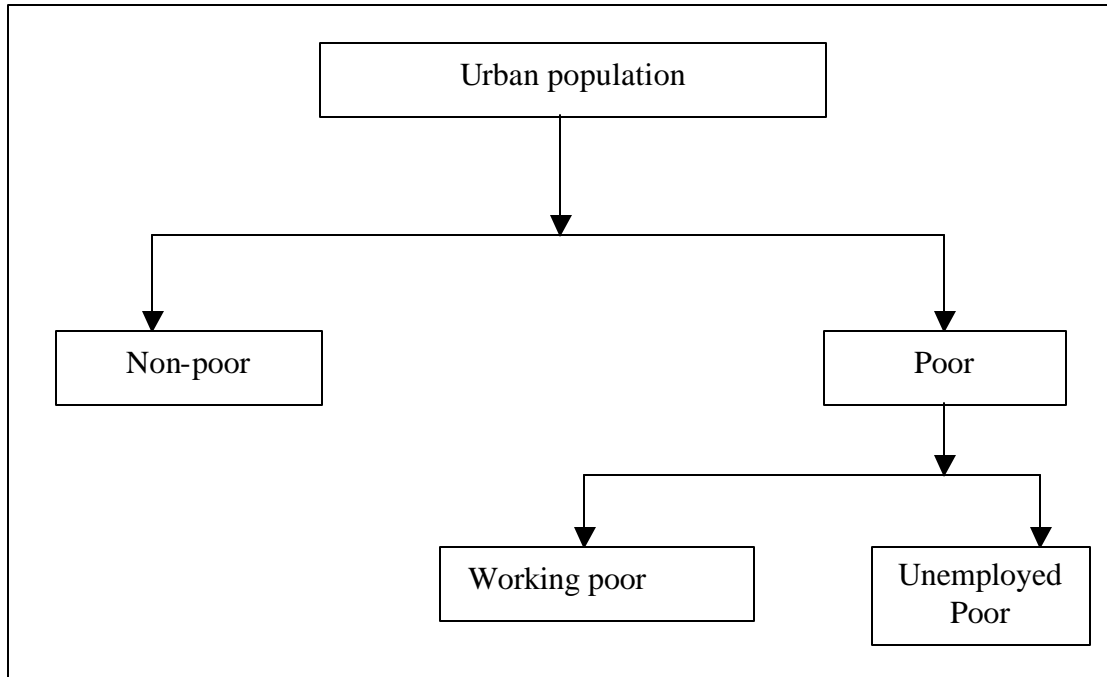
Approach and measurement

To establish the link between urban poverty and employment, it is important as a first step to identify who the poor are. This we do by measuring the level of poverty in the urban areas and classifying the urban population into the two basic categories: the poor and the non-poor. In the second stage, we link poverty to labour force participation

²This group is not confined to the informal sector only. Wages in the formal sector may also be inadequate rendering one poor.

and assess the probability of an employed person being poor. The broad analytical framework is shown in Figure 1.

Figure 1: A nested structure of poverty status



A measure that is widely used in analysis of poverty is the FGT measure developed by Foster, Greer and Thorbecke (1984) to quantify three important aspects of poverty: incidence, depth and severity. The FGT index varies with the social and the household and individuals. The first measure of the FGT is the head count ratio ($P\alpha=0$), which indicates the proportion of individuals (or households) below the poverty line, i.e. the poor expressed as a proportion of the population. The second measure is the poverty gap or the average income shortfall ($P\alpha=1$), which gives the proportional shortfall of the average person from the poverty line. The third measure is the severity measure ($P\alpha=2$), which reflects the degree of inequality among the poor.

Our interest in this paper is to provide poverty profiles for the urban poor conditional to their employment status. This requires a technique that would decompose poverty in Kenya by region and employment. Following from Foster *et al* (1984), Gustafsson and Mekonnen (1994) and Boatang and Kanbur (1994), poverty can be decomposed by employment and region as shown below.

$$C_j = \left[\frac{\left(\frac{n_j}{N} \right) P_{aj}(Y^{(j)})/Z_j}{P_a(Y/Z)} \right] \times 100$$

Where:

C_j = Percentage contribution of sub-group j to total poverty

P_{aj} = Poverty measure for a given value of FGT parameter in sub-group or employment category j , where the values of the FGT parameter, α , range from 0 to 2.

Z_j = Poverty line for subgroup j , which might be the same as the overall poverty line Z

N_j = Total number of households (poor and non-poor) in sub-group j ,

N = Total population

$G_i = z - y_i$ income shortfall in i^{th} household.

Where:

$$P_a(Y/Z) = \frac{1}{n} \sum_{i=1}^q \left(\frac{g_i}{z} \right)^{\alpha}$$

and

$$P_{aj} = \frac{1}{n_j} \sum_{i=1}^q \left(\frac{g_i}{z_j} \right)^{\alpha}$$

The expression above provides an unique way of isolating the persons amongst the poor who are employed (both in the wage and non-wage sectors) and the

unemployed. The poverty rate ($P(Y/Z)$) amongst the employed is a good summary measure of the extent to which employment creation can solve the poverty problem in Kenya.

The technique outlined above returns the proportions represented in different categories of poverty. However, it is important to assess the likelihood of being in each poverty category by using appropriate probability techniques such as the logit model. The model rest on the assumption that the probability of being in a particular poverty category is determined by an underlying response variable. The logit model, which we use in this paper, establishes a given households' odds of being in poverty, given that the head of the household or his/her spouse is not working (other members of the household not working or at least one of the members is not working). The risk of being poor depends on a host of factors such as age, gender, family size, education and the sector of employment.

3.0 Urban poverty and labour force participation: Results

National labour force participation

Before examining the link between poverty and labour force participation in Kenya, a look at the national labour participation is in order. The labour force consists of employed and unemployed economically active persons in the working age between 15 and 65 years. Kenya's labour force is estimated at 11 million people which is about 37% of the total population of the country. Kenya's labour has been expanding fairly fast, largely due to a rapid increase in the country's population and a high rate of school dropouts. For instance, it is estimated that about 500,000 people join the labour force annually. Most of these are unable to secure employment and thus remain unemployed or end up in traditional agriculture and in the informal sector.

Table 1 shows participation and unemployment rates in urban and rural areas in Kenya by gender. It is evident that the urban participation rate for both males and females is increasing in urban areas and declining in rural areas. This is indicative of rural-urban migration. It is notable that female participation was high in rural areas than in urban areas in the 1970s and 1980s. This has however declined dramatically to only about 52% in 1998/99. At the same time, there has been an increase in women participation in urban areas from 39% in the 1970s to 89% in 1998/99. The areas of participation in urban areas are diverse and are shown in the appendix.

Table 1: Participation and unemployment rates for rural and urban areas (%)

Variable	Period	Urban		Rural	
		Males	Female	Male	Female
Participation rate	1977/79	83.9	38.8	83.4	86.9
	1986/87	82.2	55.8	87.2	91.0
	1998/99	92.6	88.7	74.8	51.9
Unemployment rate	1977/79	-	-	-	-
	1986/87	11.6	24.1	0.4	0.1
	1998/99	12.5	38.1	8.3	10.4

Source: Republic of Kenya: Labour force surveys

Unemployment estimates based on labour force surveys indicate that unemployment has increased both in rural and urban areas. The increase is however more pronounced for women in the urban areas where it increased from 24% to about 38%. The data also shows that unemployment rates differ widely with age and sex (Appendix Table 2). They are generally higher for females and for age categories between 20-40.

Labor market characteristics of the poor

The labor market characteristics of poor and the non-poor households based on the 1994 and 1997 Welfare Monitoring Surveys are shown in Table 2. The most outstanding feature is that a large proportion of urban household heads participate in one

way or the other in the labour market. This participation ranges from regular employment to casual labour. The relatively high participation in labour market means therefore that only a small proportion of the urban household heads are unemployed, or do not participate at all in the labour force. It is notable also from Table 2 that some people in urban areas are also poor because they are economically inactive (the old and people with disabilities).

Table 2: Labour market characteristics of the poor

	1994			1997		
	Poor	Non-poor	All	Poor	Non-poor	All
Labour force status			2			
Employed (<i>widely defined</i>)	96.2	97.2	96.9	95.5	96.1	95.9
Unemployed	2.7	1.8	2.1	3.6	1.9	3.1
Student/apprentice	0.7	0.6	0.6	0.1	0.4	0.3
Sick/handicapped/pensioner	0.4	0.4	0.4	0.8	1.6	0.7
Sector of employment						
Public	11.9	32.4	29.5	8.7	43.2	33.4
Private (formal)	24.7	33.5	32.5	23.1	29.2	30.4
Private (informal)	63.4	34.1	38.0	68.2	27.6	36.2
Industry of employment						
Agriculture	3.1	4.8	3.4	2.3	2.2	1.8
Manufacturing	10.5	12.9	10.9	9.2	12.4	11.6
Construction	5.8	9.3	6.2	7.7	6.5	7.1
Transport	7.8	6.05	7.5	6.5	5.5	4.4
Wholesale/Retail trade	19.1	15.8	18.5	23.1	18.7	19.3
Finance, insurance	6.2	4.4	5.9	4.1	6.3	3.1
Social services	9.9	10.1	9.9	7.5	10.3	9.2
Other	37.5	36.8	37.7	39.6	38.1	43.5

Source: Computed from welfare monitoring surveys (1994, 1997)

Another important result in Table 2 is that employment does not prevent one from being poor in urban areas in Kenya. In the 1994 Welfare Monitoring Survey, 96.2% of the urban poor were employed. This figure fell slightly to 95.5% in 1997. This group, commonly referred to as the employed poor, earn incomes that are inadequate in meeting their needs. It would appear from these results that the challenge in most urban areas is how to increase productivity and the income of the urban population. In other words,

efforts to reduce poverty in urban areas in Kenya must place due emphasis on enhancing incomes and creating employment opportunities that guarantee incomes are high enough.

It is evident from the data that most of the working poor people are in the private sector and disproportionately in the informal sector. It is estimated that over 68% of the urban poor in Kenya are in the informal sector. These findings corroborate findings from other countries which have shown that urban poverty and informal sector employment are closely related. In Latin America, Psacharopoulos *et al* (1993) estimate the proportion of the working urban poor in the informal sector as: Bolivia at 66.2%; Brazil, 66.4%; Costa Rica 63.5%; Guatemala, 93.3%; Honduras 84.9%; Panama 87.1%, Paraguay, 64.7% Uruguay 18.3% and Venezuela 57.4%. It is generally acknowledged that incomes in the informal sector are low and that they are in most cases inadequate.

As earlier indicated, the urban poor engage in a wide range of activities both in the public and private (formal and informal) sectors. Most of the urban poor in Kenya are engaged in are trade, both wholesale and retail, although the latter dominates. Other major activities the poor engage in manufacturing (mainly as employees), provision of social services, and construction. Generally these activities have relatively low incomes, which are insufficient to push household out of poverty.

The status of employment and the industry of engagement differ considerably with gender. This in turn influences the probability of being poor. Table 3 below shows employment by gender, and sector of employment of the household head for the period 1994 and 1997. There is clearly more men than women among the ranks of those employed in the public sector and among regular employees in the private and public sector, and casuals. However, women outnumber men among unpaid family workers and

the unemployed. This shows that gender patterning in Kenya allocates female labour away from the labour markets towards farm and household activities.

Table 3: Gender distribution of economically active population by employment status

Labour force status	Poor (%)				Non-poor (%)			
	1994		1997		1994		1997	
	Male	Female	Male	Female	Male	Female	Male	Female
Unemployed	35.2	64.8	37.7	62.3	32.6	67.4	38.2	61.8
Public sector	88.3	11.7	84.1	15.9	80.2	19.8	79.8	20.2
Formal sector- employee/regular employee	86.1	13.9	69.9	30.1	90.4	9.6	72.8	27.2
Informal sector-own business	66.5	33.4	-	-	61.9	38.1	-	-
Informal sector employee	82.7	17.1	-	-	79.4	20.6	-	-
Casual employee (unskilled)	85.7	14.3	94.6	5.4	86.4	17.4	58.5	41.5
Casual employee (skilled)	87.4	12.6	42.8	57.2	-	-	77.6	22.4
Unpaid family worker	1.2	98.8	9.5	90.5	0.1	99.9	10.8	89.2
Student/apprentice			50.5	49.5	-	-	57.1	42.9

Source: Computed from the Welfare Monitoring Surveys (1994, 1997)

Education is considered an important determinant of poverty. Education not only influences the productivity of the worker but also the sector of engagement. Table 4 below shows the type of employment by level of education in urban areas in Kenya. It is evident that respondents in urban areas who have secondary and post secondary education are more likely employed in the sales/services sector than any other sector. It is also evident that the proportion engaged in the services sector increases with the level of education. Agriculture, however, shows the reverse. It can thus be concluded that education increases the prospect of employment in the non-agricultural sector.

Table 4: Type of employment by level of education in urban areas

Level of education	None	Agri-culture	Forestry	Fishing	Trade	Manu-facturing	Mining	Transport	Con-struction
None	42.1	13.4	0.1	0.2	37	3.2	0.4	1.4	2.2
Primary	34.6	10.7	0.2	0.6	42.9	2.2	0.4	2.5	5.9
Secondary	28.9	11.1	0.2	0.1	48.5	5.8	0.0	3.4	2.1
Higher	23.6	7.4	0.2	0.0	64.8	3.1	0.0	0.0	1.1
Other	39.5	9.5	1.4	0.0	33.5	2.4	0.0	1.6	12.0

Source: Welfare monitoring survey, 1997

Regression results

This section examines the relative importance of labour force participation in determining household poverty. The relationship between the labour status of household heads and poverty is summarized in Table 5 below. The table shows the logit estimates of the probability that a household head is poor. Model 1 includes occupational variables as explanatory variables but excludes sector dummies. Model 2 on the other hand includes sector dummy variables but excludes the occupational dummy variables. The two sets of dummy variables could not be used in the same model because they were found to be highly correlated. These variables were used separately to avoid the problem of multicollinearity.

Starting with our variables of interest, it emerges from the regression results that the risk of poverty critically hinges on labour force status of the family head. Generally, households with heads who are unemployed are more likely to be poor. As shown in Table 6, the coefficient for household heads who are unemployed is positive and statistically significant. At the same time, the results show that household heads who are unskilled both in the private sector are more likely to be poor than household heads who are not or in business. The results also show that household heads who are skilled public sector employees are less likely to be poor compared to those in trade although this relationship is not statistically significant.

The sector in which one is employed is also an important determinant of poverty. Generally, workers in the informal sector have a higher probability of being poor compared to their counterparts in the formal sector. Those in the formal sector both in the private and public sector are thus less likely to be poor.. This does not however mean that employment is a guarantee of not being poor. As earlier indicated, a large proportion of the poor who participate in the labour market are also poor.

Table 6: Logit estimates of the impact of labour force participation on poverty³

Variable	Model 1		Model 2	
	Coefficient	Std. Error	Coefficient	Std. Error
Unemployed	0.5579207	0.2425657	0.5601215	0.194585
Age	-0.228705	0.0094059	-0.0208139	0.0093099
Preschool	0.4148984	1.201515	0.2842026	1.190505
Incomplete primary	0.4797863	0.5169276	0.4213659	0.5132265
Completed primary	0.3147664	0.5307796	0.2658852	0.5273157
Uncompleted secondary	0.2600987	0.5366301	0.2688932	0.5326396
Completed secondary	-0.4552676	0.538454	-0.4023372	0.5353078
Technical	-0.5230875	0.7963892	-0.4119679	0.7952796
Post secondary	-0.5515694	0.6559881	-0.4751389	0.6549826
University	-1.791092	0.8931896	-1.719965	0.8925475
Male	0.0945242	0.2354349	0.0864998	0.2362601
Household-size	0.305452	0.0334572	0.3136083	0.0335617
Skilled public employee			0.250596	0.2726065
Unskilled public employee			0.5688145	0.3127316
Unskilled private employee			1.098986	0.2326819
Skilled private employee			0.340755	0.2553055
Public sector employee	-1.013719	0.3612103		
Private sector employee	-0.0734653	0.3539801		
Informal business sector	-1.351951	0.3295304		
Informal sector employee	-1.107623	0.4863716		
Literate	-1.135200	0.5165561	-1.053008	0.5126741
Married	0.1455204	0.2021996	0.1897853	0.2031597
Constant	-0.5597243	0.5400426	-2.159445	0.4795194

³ The unit of analysis is the household head as the data set available only provides limited information on the other household members

Turning now to other factors determining poverty, the coefficient in the Table 6 show that the age of the household head is negative and significant in the two models. This shows that the probability of a household being poor decreases with age. Although a variable to capture old age (age squared) was not included in this model, it is expected that beyond some point, the probability of being poor will increase with age (see Appendix Table 2). As relates to education, the results show that household heads without any formal education are more likely to be poor. The results also show that whether an individual is literate or not matters for poverty.

4.0 Conclusions

This paper has examined the link between urban poverty and labour participation in Kenya. It emerges that all other things equal, families hit by unemployment are more often poor than families that are not. Urban poverty and labour force participation are strongly related because earnings in the labour market are the main source of income for urban poor. However, participation in the labour force is not a guarantee for not being poor. Therefore, the “working poor” account for a substantial proportion of all the urban poor in Kenya. This reflects in part the fact that the poor are employed in low productivity industries, including the informal sector.

The result of this study shows that any strategy to reduce urban poverty should aim at improving the productivity and incomes of the workers, particularly in the informal sector where the majority of the urban poor are engaged. This should however be complimentary to other efforts such as service provision and improving urban

governance. As there are wide gender disparities in labour force participation and by implication on poverty, there is a case for special attention on women.

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Appendices

Table 1: Distribution of employed persons by industry and sex in urban areas

Sector	Males	Females
Agriculture and hunting	4.9	8.4
Fishing	0.2	0.3
Mining & Quarrying	0.4	0.3
Manufacturing	11.6	2.4
Electricity, gas, steam & water	1.2	0.1
Construction	5.2	0.2
Trade, wholesale & retail, repair of motors and household goods	11.9	7.8
Hotels & restaurants	4.8	4.2
Transport, storage & communication	11.6	0.9
Financial intermediation	8.0	5.8
Public administration and defence	5.5	4.4
Education	4.3	5.2
Health	4.4	4.6
Other community, social & personal services	12.1	12.0
Private households with employed persons	0.1	0.3
Extra-territorial organizations	0.0	0.0
Not Stated	13.6	42.8
Total	100.0	100.0

Source: Republic of Kenya, 1998/99 Integrated Labour Force Survey, 2002

Table 2: Unemployment rates by age group and sex

	Males	Females	Total
15-19	56.2	42.8	47
20-24	27.2	58.7	47.3
25-29	9	38.8	25.1
30-34	4.8	27.5	14.3
35-39	4.7	21.2	12
40-44	6.1	18.8	11.2
45-49	8.4	30.7	14.7
50-54	9.6	30.6	18.9
55-59	35.2	52	40.6
60-64	31.2	59.1	45.2

Source: Republic of Kenya, 1998/99 Integrated Labour Force Survey, 2002