

# **FEMALE PARTICIPATION IN LABOUR FORCE IN GREATER NAIROBI.**

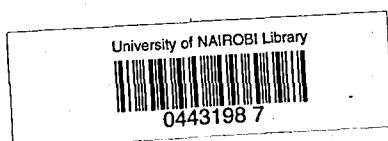
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EAST AFRICANA COLLECTION

Research paper submitted to the Department of Economics, University of Nairobi in partial fulfillment for the award of the Degree of Master of Arts in Economics.

September, 2001.

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for a degree in any other university.



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Nguli Ndunge.

This Research Paper has been submitted for examination with our  
approval as University Supervisors.



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# TABLE OF CONTENTS

ACKNOWLEDGEMENT.....	i
ABSTRACT.....	ii
TABLE OF CONTENTS.....	iii
LIST OF TABLES.....	iv
CHAPTER ONE.....	1
1.1.Introduction.....	1
1.2.Statement of the Problem.....	4
1.3.Objectives of the Study.....	5
1.4.Justification of the Study.....	5
CHAPTER TWO.....	6
2.0.LITERATURE REVIEW.....	6
2.1.Empirical literature review.....	6
2.1.1Review of Individual Studies.....	6
2.2.Overview of Literature.....	17
CHAPTER 3.....	19
3.0.METHODOLOGY.....	19
3.1Sampling procedure.....	19
3.2.Model specification.....	21
3.3.Estimation technique.....	21
3.4.Theoretical framework.....	23
CHAPTER 4.....	28
4.1. Descriptive Statistics.....	28
4.1.0. Characteristics of the sample.....	33
4.2.Estimated Model Results.....	35
CHAPTER FIVE.....	37
5.0. CONCLUSION AND POLICY IMPLICATIONS.....	37
5.1.Conclusion.....	37
5.2.Policy implications.....	38
REFERENCES.....	39

## LIST OF TABLES

Table 1: Participation and unemployment rates for rural and urban areas...	2
Table 2: Sampling procedure.....	20
Table 3: Distribution of the population by Gender Generation.....	21
Table 4.1: Female Participation in the labour force.....	28
Table 4.2: Female Labour force participation by age .....	29
Table 4.3: Female Labour Force participation and Non-labour income.....	29
Table 4.4: Female Labour Participation and Education.....	30
Table 4.5: Migration Status and Labour Participation.....	30
Table 4.6: Labour Force Participation by religion.....	31
Table 4.7: Labour Participation and Marital Status.....	31
Table 4.8 : Correlation matrix for all the variables.....	33
Table 4.9: Regression results.....	34

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## **ABSTRACT**

*There are several factors that affect the participation of females in the labour force. The paper focused on identification and analysis of factors that determine female labour force participation in Greater Nairobi. A logit model was estimated. The study found that only 34 percent of the women interviewed were in labour force. Factors such as age of the woman, marital status, migration status, education attainment, religion and experience had a significant impact on female labour participation.*

## CHAPTER ONE

### 1.1. Introduction

The labour market has a major role to play in the economies of developing countries. First it is an important channel for the transmission of both external disturbances and adjustment policies. For instance, labour market flexibility is important in reducing unemployment endured in the adjustment process. Secondly, labour markets in developing countries play an important role in determining the level and distribution of income. Individuals with regular wage employment are likely to be in the middle and upper income groups, while those without employment are among the poor. However, our understanding of labour markets in developing countries is still far from adequate (Manda 1997).

In Kenya, there are large differences between the urban participation rates for men and women. The female urban participation rate increased from 38.8 percent in 1977/78 to 56 percent in 1986. Despite this increase, female participation rate was 26 percentage points lower than male urban participation rate (82%) in 1986. In the rural areas, the participation rates for both males and females are very high and the difference between them is small (see Table 1). For instance, in 1989 the male participation rate in the rural areas was 86.9 percent and the female participation rate was 91%.

**Table 1: Participation and unemployment rates for rural and urban areas (percent).**

Year	Urban male		Urban female		Rural male		Rural female	
	1977/8	1986	1977/8	1986	1977/8	1988/9	1977/8	1988/9
Participation	83.9	82.2	38.8	55.8	83.4	87.2	86.9	91.0
Unemployment rates	-	11.6	-	24.1	-	0.4	-	0.1

Source: Republic of Kenya (1988) Labour force Survey Report 1986; Cameron and Wilson (1991) Table 6.

The urban participation rates increase with the level of completed education, particularly for females. Participation rates for University trained women range between 20 and 30 percent higher than the average participation rate for all women (Milne and Neitzert, 1994). However, for other levels of education, the low participation rate may be attributed to low education attainment among women, family obligations and inflexible working time especially in wage employment.

Unemployment is conventionally defined to include persons of working age seeking work at going wages, but unable to find any. Major conceptual and measurement difficulties make the estimates of unemployment in an economy, such as Kenya, to be imprecise. Unemployment figures for the entire economy are very rare, but estimates for rural and urban unemployment based on labour force surveys are available. Unemployment estimates based on the rural labour force survey 1988/89 shows that rural unemployment in Kenya was 0.3 percent, which is very low compared with urban unemployment estimates (37.7 percent).

Urban unemployment seems to have remained the same from the late 1970s to the mid 1980s. For instance, the estimated unemployment rate was 16 percent in

1986, which was about the same as in 1978. This shows that during the nine years, the economy created jobs that absorbed the increasing labour force over the period. However, recent estimates show that the urban unemployment situation in Kenya has deteriorated since then. Unemployment estimates for the early 1990's show that urban unemployment ranged between 7.8 and 23.6 percent (Republic of Kenya, 1994, and World Bank, 1993). The high unemployment in the 1990s can be attributed to the governments restrictive policy on employment in the public sector and the civil service reforms combined with the restructuring programs of many private sector large employers to cope with the emerging competitive business environment.

Evidence by sex, show that unemployment among female members of the labour force was more than double (24.1%) that for males (11.76) in 1986 (Republic of Kenya, 1988 and 1990). Also, unemployment mainly affects the young, with those aged 15 to 30 representing 80 percent of the unemployed. This supports the ILO (1972) conclusion that unemployment burden falls heavily on women and the youth. Milne and Wilson (1991) attribute the high unemployment among young participants to the fact that new entrants to the labour market take time to adjust their expectations to the type of jobs available. Evidence by education attainment shows that unemployment was highest among those with secondary school education. This is consistent with the evidence by Collier and Lal (1986) of long delays between leaving school and starting work for school leavers. Similarly, University graduates have a high unemployment rate partly due to the policies adopted by the

government for example, the civil service downsizing. The government no longer guarantees employment for all University graduates and it is likely that the unemployment rate for University graduates will continue to increase.

## **1.2. Statement of the Problem**

Available literature shows that women have lower labour participation rates and higher unemployment rates than their male counterparts (especially in urban areas). In 1986, just over two thirds of the total urban working age population participated in the labour force, 56 percent of all women and 82 percent of all men (Republic of Kenya 1988). In this spate of gender reverberations, it is imperative to understand the factors that would lead to the decision by Kenyan females to enter the labour market. Like in other developing countries, participation of women in development and in income generating activities is restricted by many constraints such as childcare, household responsibilities, lack of education, lack of experience and so on. Moreover, clear-cut guidelines about integrating women in development process and defining their roles are still lacking. Policy makers generally feel the shortage of reliable information on the current socio- economic and demographic status of women in developing countries. Despite this observation, only a few studies have been done to elucidate the factors responsible for women participation in the labour force so that policy makers can incorporate them in decision making. Some studies like Maglad's (1998), study female labour supply using married women only. This is considered inappropriate for female labour supply studies in developing countries. Furthermore, reconnaissance survey in Nigeria show that a significant percentage of female labour participants are not married (single,

divorced, or separated). This is a sampling bias problem that the current study seeks to address.

### **1.3. Objectives of the Study**

The broad objective of the study is to analyze the determinants of female labour force participation in Greater Nairobi. Specific objectives are: -

- 1) Identify the factors affecting female labour force participation.
- 2) Analyze the factors determining female labour force participation in Greater Nairobi.
- 3) Suggest policies to enhance and improve women's human resource development.

### **1.4. Justification of the Study**

In the recent years, governments of developing countries including the Kenyan government have begun to consider economic development of which women's human resource development is identified as a key priority. However, there is a dearth of systematic studies of determinants of women participation in the labour force, making it difficult for policy makers to come up with policies to promote women participation in nation building. Our study will provide policy makers with indicators that can readily be used to improve women participation in the labour force.

## **CHAPTER TWO**

## **2.0. LITERATURE REVIEW**

### **2.1. Empirical literature review**

The following section reviews empirical studies on the determinants of women participation in the labour force in various parts of the world. An attempt is made to contrast and compare the empirical results with the approach of this study.

#### **2.1.1 Review of Individual Studies**

Demographic and social barriers affect women's participation in the labour force.

Negatu (1993) argues that differences in labour supply behaviour usually arise from disparities in productivity endowments, including demographic variables such as age, sex, and marital status. Maglad (1998) in his study of Sudan attempts to capture the dynamics of female labour supply in the modern sectors. He used a sub sample of married women resident in Urban Sudan as the basis for his analysis. From his findings childcare responsibilities are argued to have negative impact on women's market participation.

Manda (1997) argues that education is more important in influencing female than male participation decisions. Collier (1990) argues that once in the labour market, women earn equal pay to that of men, controlling for their characteristics. Nevertheless women are less likely than men with similar characteristics to enter the labour market but gender differences in participation narrow as education increases. In a study for Indonesia, Deolalikar (1992) argues that males earn significantly more and participate more in the labour market than females at all levels due to average differences in levels of schooling.

Job tenure and experience also influence labour participation and the gender wage gap. Appleton et al (1999) argues that lack of experience and discrimination against married women is a plausible explanation for greater gender differential. Behrman and Wolfe (1984) also argue that experience play substantial roles in determining labour force participation and earnings, as well as in sorting among sectoral labour force participation. Meng and Miller (1995) also find that job tenure has a strong and positive impact on earnings in aggregate while job experience has a moderate positive effect on earnings. Negatu (1993) supports these studies and argues that experience and the nature of the labour market itself leads to differences in labour market participation by gender. Dabalén (2000) shows that in Kenya women with the least skills saw their position worsen relative to men with similar skills, even as women with the most skills were gaining ground on comparable men.

Anker and Knowles (1978) conducted a survey on the determinants of female labour force in Kenya using data from the National Household Survey in 1974. The total sample available for analysis consisted of 3,180 households, 701 of which (22 per cent) were enumerated in urban areas.

Analysis was conducted in two stages:

- (a) On how micro variables affect female labour force participation rates, and
- (b) On how macro-level variables describe labour market conditions in each sample town.

Macro level variables were used together with micro variables. Ordinary least-squares method of estimation was used. The result of their study was as follows: -

The micro-level variables that were found to be significantly affecting female labour force participation were, -Education of female (secondary school level), Income (household income) and marital status.

The micro-level variables that were statistically insignificant were: -Child care related variables and the practice of Islam. They concluded that jobs in Kenya urban areas are most likely to be obtained by women with better education and by women with better connections as reflected by the family income variable.

The Macro-level variables used for the analysis were: - Health, Unemployment rate proxy (percent of adult population not employed in the modern non-agricultural sector), Average modern sector wage in service sector (in thousands of Kshs), and Service (percent of non-agricultural modern sector employment in services.)

Women living in towns with a relatively unfavourable job market tend to have lower labour force participation rates. Women living in towns with a relatively favourable job market in the industrial sector most relevant to them i.e. the service sector, tend to have higher labour participation rates. They concluded that better educated, single women from high-income families were most likely to be in the labour force in urban areas.

Lack of assets not only leads to lower participation by women but also constraint girls access to education. Alderman and King (1998) indicate that the absence of cash earnings in many societies limits the ability of women to realize and remit market returns from their education and thus reduces the signals to girls and parents about the desirability of girl's education. These arguments supports Appleton et al (1990) who argue that asset incomes have a negative impact on work decisions and participation rates. Bigsten and Horton (1997) also argue that biases within the family affect the amount of human capital women acquire and that girls get less education because parents think the benefits accruing to sons will be higher and thus may have pro-son bias. Neitzert (1994) argues that women participation in the paid labour market is curtailed relative to their male counterparts because the labour market provides incentives which tend to reproduce existing sexual division of labour in which women specialize in household and subsistence production and men participate in market production. This structure does not encourage families to take their daughters in school for long as a daughter at home might release her mother for income generating opportunities.

Glick and Sahn (1997) analyze gender differences in earnings in Guinea. Their results indicate that education plays an important role in allocating labour force participants among sectors and that there is heterogeneity in the urban market and wages differences by sector. Women are found to be less likely than men to be wage employees. The results tend to support findings by Meng and Miller (1995), Groshen (1990), Schultz and Mwabu (1998). In a related study for Romania,

Paternostro and Sahn (1999) find increasing returns to education and experience to be significant for both males and females. They also found higher incidents of discrimination in rural areas and at lower levels of education (however, Orazem and Vodopivec (1995, 1999) employ a related approach to show that though women in Estonia and Slovenia were less mobile across jobs, they gained relative to men from changes in structure of wages and employment brought about by transition to market economies).

These results support earlier studies, which argue that education is the most important determinant of differentials in earnings and labour market participation (Bigsten and Horton (1997), Appleton et al (1990), Berhman and Wolfe (1984), Collier (1990), Knight and Sabot (1990), Mwabu and Evenson (1997)). Appleton et al (1990) argue that the gender differential in access to jobs in Cote d' Ivoire is confined to the private sector, which is attributed to low educational levels mapping onto lower wages and therefore on to a lower supply response. The author observes that discrimination in the labour market gives rise to three of the observed gender biases: First, controlling for education, women are less likely to work for wages than men. Second, parents are less likely to invest in the education of girls than in that of boys. Third, women are less educated and hence less likely to be in the labour market. Using a similar approach, Maglad (1998) applies the Mincerian human capital earnings function to estimate age earnings and female labour supply functions for Sudan. Bigsten and Horton (1997) use evidence from Ethiopia,

Uganda and Cote d'Ivoire, to show that there is a low level of female schooling due to discrimination and biases in the education system.

Graft-Johnson (1978) examined factors affecting labour force participation rates in Ghana using data obtained from 1966 and 1970 census. Using data from the 1970 census, a multiple regression model was estimated. The results supported the observation that many women who migrate do so in accompanying their husbands. Their migration is not likely to be directly motivated by economic considerations. The child/woman ratio, a proxy for fertility, had a positive sign. For both sexes persons who have had some formal schooling were found more likely to be in the labour force. Participation rates were higher in the agricultural sector. Peak activity rates occur at quite advanced ages of 50 and 54 (70.0) according to 1970 census and 55 to 59 (70.5) according to the 1960 census. This could be attributed to the fact that by this age women generally have completed their child care responsibilities. The proportion of widows and divorcees in female population also rises in later years.

Standing (1978) carried out a study in Jamaica with the major objective of identifying the behavioural determinants of female participation in urban Jamaica. A stratified sample survey of 540 women was carried out in Kingston metro area. The propensity to participate in the labour force was considered as a function of respective opportunity cost of activity and inactivity.

The independent variables affecting labour supply were age, fertility, human capital and migrant status. All respondents working for one day or more in the past week and all those without work who made an effort to find work were considered economically active. All those not working who expressed willingness to secure jobs were economically active. An index was designed to indicate participation over a more extended period. The number of hours of work per week was also measured.

The results noted that a young job seeker for a given occupation and degree of skill would face greater competition for employment than someone older. Married women may have more income security than single women but are also likely to have greater need for income. Young children reduced female labour force participation, but migrant women had a relatively high probability of participation. Health had a pronounced impact on labour supply while demand for income had a consistently negative coefficient as hypothesized.

Standing (1978) in another study in Sri Lanka conducted a survey on the determinants of female labour force participation. A linear function was tested. The function was based on household decision making behaviour in which the probability of labour force participation was determined by opportunity cost of activity and inactivity. The main proxy variable for income was level of education since education determines the level of income opportunity.

He used ordinary least squares. The sample consisted of women aged 20-49 and living in either rural or urban areas. It was noted that in Sri Lanka, female participation is related to marriage, fertility and education. A decline in the level of fertility may be expected to increase extent of female labour force activity. Rising levels of education could be expected to lead to greater female participation but this does not mean that if all women had the same education as men all women would have a similarly high probability of participation.

Lachaud et al (1994) indicate that for married women the decision to participate in the labour market and not have leisure or do domestic work is positively related to age or the level of schooling. However, that decision is negatively related to the income of other members of the household if leisure is a normal good, due to positive income elasticity. Lachaud et al conducted a comparative study based on a sample of 6 sub Saharan African countries: Burkina Faso, Cameroon, Cote d'Ivoire, Guinea, Madagascar and Mali. They indicate that the mode of employment of the head of the household is an important determinant of the social relationship that shapes the environment of labour, in particular the process of access to employment (p. 203). They conclude that in Africa female labour supply is much lower than that of men, the positive correlation of the labour supply with the development is particularly explained by the differentiated participation of women in the labour market.

Petch (1978) conducted a study on female labour force participation in Latin American countries of Chile, Costa Rica, Ecuador and Venezuela. The results noted that female labour force participation decreases as the number of children rises. A husband's income affects the need for additional income. However, in low-income families, female participation will be higher if they have many children since a large number of children reduces per capita resource available and may force the wife to work. The study also noted that those with higher income have higher levels of education and vice versa.

Pang (1978) examined the determinants of labour supply in Singapore during the period 1957 to 1974 and noted the following findings:

- 1) Education is positively related to female labour force participation,
- 2) The larger the household income, the less likely will be the woman's participation in the labour market,
- 3) The number of children in the household will have a negative effect on the Participation of females but this relationship would be different with the availability of domestic help.

It was noted that between 1957 and 1974 most important changes in labour supply in Singapore resulted from the rise in the female participation rate. The change can be attributed to the unprecedented economic growth in Singapore during the analysed period.

World Bank (1980) offered several reasons for the disparity in employment opportunities in the modern sector between men and women. The major reason cited was that the urban woman's low economic status in labour force is primarily a result of cumulative discrimination over time in both provision of and demand for educational services. The study noted that education significantly increased the probability of a woman obtaining employment in the formal sector. Education by itself did not however guarantee employment. Newman (1984) explained that sex differentials in school enrolment are most pronounced at age 15 years and above, the ages of higher secondary, vocational and secondary education. Sub Saharan Africa must address itself to the latter enrolment differentials if women are to be able to acquire the skills needed for productive employment in the modern economy.

Neo-classical theories emphasize that women participate less than men in labour force because they have lower levels of human capital mainly education, training of all types and on the job experience Anker and Hein (1986).

Anker and Hein (1986) note that women can improve their participation in labour force when their educational level is increased. They base the human capital approach on the following two assumptions:

- 1) Women's labour force participation is of necessity intermittent because of their natural child-rearing role.

2) Men and women have equal access to job opportunities and compete on an equal basis in the labour market.

Kibua (1981) noted that women who have 1-4 years-formal education exhibit highest fertility. High fertility was negatively related to participation of female in the labour force. He emphasized that the pattern of time allocation at a particular time reflects the opportunity cost of time in alternative uses. The opportunity cost of a woman who is not working is greater on the farm and home than in the labour market and an increase in her non-wage income would make her allocate more of her time to that activity. A working woman's wage rate is equal to her opportunity cost of time at home and on the farm. Her pattern of time allocation depends on its effects on the marginal productivity of time in these alternative activities. For instance, if she gains more in terms of value of time on the farm than in wage rate in the market, most of her time will be devoted to farm production. The study also emphasized the fact that educational attainment increases the productivity on the farm thus depressing the demand for children. Education therefore raises the opportunity cost of time so that less time is allocated to home and therefore child production.

Kinyanjui (1981) noted that the crucial forces in the transformation of the position of women in the society is their increased education and the changes occurring in the community. He divided Kenya into different regions using the criterion of educational development. He claimed that educational development is closely

related to the economic and political development achieved by each region. He found a strong positive correlation between educationally advanced regions and the advance of women's education. Note however that his results were too aggregated and could be concealing a lot of information.

## **2.2. Overview of Literature**

Previous studies emphasized such factors as education, fertility, marital status, household income, job experience, number of children, migration, history and age of females as determinants of the participation of women in the labour force. Married women have more income security than single women; and women with children are more likely to have greater need for income. The past studies indicate that migrant women had a relatively high probability of participation. The presence of young children under the age of 5 years reduced the female labour participation. The studies noted a husband's income affects the need for additional income in that the higher the husband's income, the less likely will be the participation of the wife in the labour force. Higher educational levels lead to greater female participation. The probability of female participation in labour force increases with the availability of certain types of work, the pay offered and the working conditions provided. A woman with a good education is more attracted by non-manual options, which offers a high level of remuneration more in keeping with her skills. A substantial increase in participation rates of married women would be possible only if there are improvements in cultural changes in society and a reduction in family size.

Generally speaking, the problem at hand is that of allocation of time to various economic activities.

Anker and Knowles (1978) analysed micro level variables and macro level variables like health, unemployment and average modern sector wage. The macro urban labour market conditions had a significant effect on urban female labour force participation. It should be noted that these studies are mostly interested in the analysis of the supply of labour of the household as a whole or an analysis of the characteristics of supply of married women's labour. Although these studies enable us to define to some extent the object of our work, works that are closer to our interest (women as a whole) are lacking. This research is a contribution towards that direction. It will also contribute to the literature by exploring the Kenyan case, which is under researched.

## CHAPTER 3

### 3.0. METHODOLOGY

#### 3.1 Sampling procedure

In this study, Greater Nairobi has been defined according to the geographical and social limits, using the nearest neighbour criteria rather than by the administrative limit criteria. The procedure used was multi-stage proportional to population size sampling.

The first stage consisted of stratification of the administrative divisions and extra areas drawn from the Greater Nairobi. This was necessary so as to get a representative sample of the diverse population of Greater Nairobi in terms of socio-economic status and density. Administrative area of Nairobi has eight divisions, fifty-one locations and one hundred and ten sub-locations. The additional areas drawn from the environs of Nairobi were treated as one division because they constitute about fifteen percent of the total population of Greater Nairobi hence the total number of administrative divisions were nine. The boundaries of Greater Nairobi were adjusted using the satellite image.

This study is part of a large study. The sub-sample of this study was obtained from the large study. The procedure followed by the large study was as follows:

In order to avoid high clustering effect it was necessary to sample one hundred and fifty enumeration areas (EAS) scattered among the nine administrative divisions.

This number of clusters was arrived at based on the experiences from countries

were similar surveys have been conducted. Given the uneven distribution of households and EAS in the Nairobi administrative areas, the selection of EAS from each division was proportionate to the number of households in each division.

The following table summarizes the sampling procedure followed for Nairobi City.

**Table 2: Sampling procedure**

Division	Number of EAS	Number of households	Percentage households per division	Selected number of EAS
Central	394	68849	10.7	14
Makadara	368	59156	9.1	12
Kasarani	799	108533	16.6	17
Embakasi	1001	134719	20.7	27
Pumwani	346	54458	8.4	11
Westlands	539	62601	9.6	12
Dagoretti	508	73974	11.3	15
Kibera	528	88571	13.6	18
<b>Total</b>	<b>4481</b>	<b>651861</b>	<b>100.0</b>	<b>130</b>

Source: Census 1999

The remaining twenty enumeration areas were selected from the environs outside the administrative boundaries of Nairobi city using a satellite image to draw the limits of greater Nairobi. The second stage was to randomly select the Enumeration Area in each division from the 1999 census list of Enumeration Areas using random number generator from the SPSS program version 9. In the third stage in each Enumeration Area, a sample of fifty households was randomly selected using a systematic sample from the household listing from the central bureau of statistics (CBS). This household listing was updated prior to the survey. The fourth stage was to sample the biographies (individuals) drawn from the sampled households. Generally, in African countries where such surveys have been conducted, as many households as possible were drawn in order to get the necessary number of

individuals in the older generations (45-54 years). This is because the age structure usually forms a pyramid in most African cities. However, the age structure of Nairobi according to previous censuses, (1979 and 1989; results from the 1999 were not available) shows greater disparities. The pyramid is highly skewed implying fewer females compared to males in each generation. In particular, there are unusually fewer women in the age range 45-54. The distribution as per gender and generation is as in the table below:

**Table 3: Distribution of the population by Gender and Generation**

Generation	In percent of the total population	
	Males	Females
45-54	3.5	1.3
35-44	7.5	3.4
25-34	15.2	8.8

Assuming that there are on average 3.28 persons per household, the expected sample population in the households aimed at:

$$150 \text{ (EAS)} \times 50 \text{ households} \times 3.28 \text{ persons} = 24600 \text{ persons.}$$

This formed the entire sample but due to problems of non response, 20999 individuals were interviewed. From those interviewed, 11693 were females and these are the ones used for analysis in this study.

### **3.2. Model Specification and estimation technique.**

The study analyses the determinants of female labour force participation using logit model. Since labour participation is a dichotomous variable, it can be estimated using either a linear or non-linear estimation method. Ordinary least squares (OLS) is the most common linear estimation method. The major problem with it is that the estimated conditional probabilities may not lie within the logical limits of 0 and 1.

Probit or logit model guarantees that the estimated conditional probabilities lie between 0 and 1.

In a dichotomous discrete model, logit gives the same results as probit model (Maddala 1983). Logit model is used because in addition to describing a discrete function such as the one we have investigated in this study, its functional form is also simpler. Moreover, logit is less restrictive compared to the probit model.

Formally, the conditional observable probability ( $P_i$ ) that a woman is in the labour force can be expressed as,

$$P_i = \frac{1}{1 + e^{-z}} \text{ Where } Z = X\beta + \varepsilon$$

Where,

$P_i$  = Probability that a woman is in the labour force.

$Z$  = a logit index

$X$  = A vector of the socio-economic characteristics that the woman has.

$\beta$  = A vector of the parameters to be estimated

$\varepsilon$  = A vector of error terms that follow a logistic distribution.

The variables included in  $X$  are age of the woman, the square of the age of the woman, working status of the spouse, number of children a woman has, previous employment experience, household's non-labour income, education dummy variables, religion dummy, dummy variable for migration status and

marital status dummy variables which includes married, single and widowed women dummy variables.

### **3.3. Theoretical framework**

#### **3.3.1. Definition, measurement and justification of the variables used.**

This section discusses the variables used to explain the decision by women to participate in the labour force, their measurement as well as reasons for their expected relationships.

#### **Marital Status**

A woman's marital history is an important determinant of labour force participation. Married women have many household responsibilities and are therefore expected to participate less in the labour force. Among women, single women are expected to show the strongest attachment to the labour force. This is because these women do not have many responsibilities and thus have abundant time to work. Women who are divorced, widowed or separated are more likely to show a higher degree of participation compared to married women. This is because they are more likely to be primarily responsible for the financial support of a household with dependent children. In the case of a married woman, she may rely on the head of the household for financial support.

#### **Number of children**

Of all possible determinants of female labour supply, the relationship between fertility and family size is probably the most studied. At first glance, it seems that

fertility and family size should be negatively related to female labour force participation.

Taking care of children is a time intensive activity so it is usually assumed that women with young children (less than 5 years) must either find someone to care for the children or not work. Nonetheless, there has been significant criticism lodged against certain assumptions implicit in the arguments concerning the negative fertility-labour force participation relationship, especially in the case of LDC'S. First, the opportunity cost of childcare is said to be low in LDC'S. For many households, there are other household members who can help care for the children when the mother is away. But even in the situation where there are no family members who can help care for the children, there is always the possibility of hiring someone to help. In LDC'S, the wage paid to someone to care for children tends to be quite low, and it is this wage which constitutes the opportunity cost of female labour force participation. This is why it is difficult to hypothesize the expected relationship between childcare burden and female labour force participation. The presence of children less than 5 years of age would be reasonable measure of childcare burden. Labour force participation is influenced by ages of the children in the family as well as their number, so two different measures were used to measure this variable:- presence of children less than 5 years and total number of children a woman has.

### Education

An important reason as to why anyone works is the income received or generated from this work. Educational attainment is directly related to the labour force

participation of women. Generally, the more educated a woman is, the higher the probability of participating in the labour force. The fact that better educated women tend to have a higher labour force participation rate than those with less education probably reflects their ability to locate and retain desirable jobs which are monetarily and psychologically rewarding as well as being relatively stable.

### Husbands working status

Husbands' income, to which his education and job status are closely linked, is another of the factors affecting women's labour force participation. Although wives with a high level of education and who have high-income husbands may work for personal satisfaction rather than for economic reasons, (thereby obscuring the "Income effect") it is generally the case that the higher the husband's income, the less likely is his wife's participation in the labour force. Obviously, there is less financial pressure on her to do so. Wives whose husbands are unemployed are most likely to be in the labour force, while wives with husbands who are employed are least likely to participate in the labour force. This is because the husband's income can support the financial needs of the family and the wife does not therefore have to work.

### Age

Age refers to the number of years a woman has lived up to the time of interview. It is positively related to participation of female labour force up to a certain age group then declines thereafter. In the younger age groups, women will participate less as they may still be attending school and are still dependent on their parents. In the middle ages, they become productive and can now participate fully in the labour

market. In the older age groups, they begin to drop out of the labour force as they retire.

### Non labour income

The present study uses family property that generates income as a measure for permanent income. This constitutes family income that would be available even when the woman was not working. The higher the non-labour income (permanent income) received by the household, the lower is the probability of the female to participate in the labour force. This is because the family's needs can be catered for using this income, hence, there will be less felt need for the woman's income.

Non labour income is measured according to presence or absence of property that generate income. Such property includes residential plots and businesses.

### Religion

In Kenya, among Africans in either rural or urban areas there does not appear to be any stigma attached to women participating in the labour force. However, in many Muslim societies and in certain Indian caste groups, women are culturally restricted from participating in the labour force. It is hypothesized that the Islam religion has a negative influence on the participation of females in labour force. The probability that a Muslim female will participate in the labour force is quite low compared to the participation of a non-Muslim. This is because Muslim culture prohibits their women from working.

## **Previous Employment History**

Previous employment history refers to whether a woman has worked in the past or not. Women who have worked in the past have a higher probability of participating in the labour force compared to those who have not worked in the past (they are more likely to be in the labour force or in search for jobs). In most of the cases, these women drop out of the labour market due to some inconveniences such as childcare, termination of contract, attend school and so on. An exception is when a woman has retired from the labour market. Though the woman will have experience, she is less likely to participate in the labour force but, generally an experienced person will get a job faster than one who is not experienced.

## **Migration Status**

Migrant women refer to those women who were born out of Nairobi but are now living in Nairobi. Most of these people moved to Nairobi at an approximate age of 15 years. The reasons for moving to Nairobi are many but most come to Nairobi to look for employment. Other reasons for the rural urban migration could be to attend school, to join their husbands following marriage, to stay with relatives and so on. Non-migrants are those who have stayed in Nairobi ever since they were born. Migrant women are expected to participate more in the labour force compared to non-migrants. This is because it is believed that the main reason for migration from rural areas to urban centres is search for employment.

## CHAPTER 4

### 4.1. Introduction

This chapter is divided into two sections; section one and section two. In section one, we present the descriptive statistics of the data used. In section two, we present the results of the model.

### 4.2. Descriptive Statistics

This section presents descriptive statistics and cross-tabulations for labour force participation with different characteristics such as age, highest level of education attained, migration status of the woman, marital status, religion, women household heads and non-labour income among others. The major aim is to provide basic information and understanding of the sample data used.

#### 4.2.0. Characteristics of the sample

**Table 4.1: Female Participation in the Labour Force.**

Labour Participation	Frequency	Percent (%)
Not in labour force	7684	65.74
In labour force	4009	34.26
Total	11693	100.00

As evident from Table 4.1 above, 34.26 percent of all women were economically active at the time of the survey. This implies that more than half of the women in the sample were not economically active.

**Table 4.2: Female labour force participation by age( percent)**

Labour participation/Age	25-34	35-44	45-54	Total(%)
Not in labour force	20.52	19.13	26.09	65.74
In labour force	6.07	10.27	17.94	34.26
Total	26.58	29.40	44.03	100

From Table 4.2 above, 26.58 percent of the women were between 25-34 years of age. Those in the age category of 35-44 years were 29.40 percent, while 44.03 percent were between 45-54 years of age. This implies that the majority of those interviewed were in the older generation. The majority of the women in the three age categories do not participate in the labour force. From this table, one can conclude that compared to other age categories, people participate less in the labour force when they are young. This result could be due to the fact that most of them are still attending school or some other training.

**Table 4.3: Female Labour Force Participation and Non-labour Income(percent)**

Labour participation	Those without non-labour income	Those with non-labour income	Total
Not in labour force	58.53	7.21	65.74
In labour force	15.90	18.36	34.26
Total	74.43	25.57	100

Table 4.3 shows that majority of those interviewed did not receive non-labour income (74.43%). A majority of the women not receiving non-labour income were not in the labour force. The majority of women receiving non labour income also participate in the labour force. From these results it is evident that majority of the people did not have non-labour income, and those with non-labour income, majority were in the labour force. The reason for this could be that those not in the labour

market may lack capital to invest in property that generate income. Those working have income which they can save to acquire property.

**Table 4.4: Labour Participation and Education(percent)**

Education level	Labour participation		Total
No education	0	0	0
Primary level	2.96	1.63	4.59
Secondary level	5.99	36.04	42.03
College level	18.27	25.80	44.07
University level	7.04	2.27	9.31
Total	34.26	65.74	100

Table 4.4 shows that majority of the respondents either had secondary school or college education as the highest level of education attained (42.03 percent had secondary education while 44.07 percent had college training as the highest level of education attained). As evident from the table, at least everyone who was interviewed had some formal education. This shows that women in greater Nairobi have a high literacy level. Only 4.59 percent of those interviewed had primary education. Those with university education formed 9.31 percent of the labour force. The table also shows that majority of the people in labour force have college education. Also, there is a high unemployment among secondary school leavers. This may be because new entrants in the labour market take time to adjust their expectations to the type of jobs available.

**Table 4.5. Migration Status and Labour Participation( percent)**

Labour participation/migration status	Non-migrants	Migrants	Total
Not in labour force	39.98	25.76	65.74
In labour force	16.56	17.70	34.26
Total	56.54	43.46	100

From Table 4.5, migrant women form 43.46 percent of the total sample while the rest are non-migrants. The majority of the women are non migrants and are not economically active.

**Table 4.6. Labour Force Participation by religion ( percent)**

Labour participation/religion	Non Christian women	Christian women	Total
Not in labour force	0.31	65.43	65.74
In labour force	0.12	34.14	34.26
<b>Total</b>	<b>0.43</b>	<b>99.57</b>	<b>100</b>

Table 4.6 shows that non-Christian women were very few (forming 0.43 percent of the whole sample). Nearly all women were Christian. This could be because Muslim is more widespread in Mombasa, an area not covered by the study.

**Table 4.7. Labour Force Participation and Marital Status (percent)**

Marital status	Labour participation		Total
	In labour force	Not in labour force	
Single women	8.62	12.92	21.54
married	17.23	52.14	69.37
Separated/divorced/widowed	8.41	0.68	9.09
<b>Total</b>	<b>34.26</b>	<b>65.74</b>	<b>100</b>

Table 4.7 above shows that majority of the women interviewed are married (69.37 percent). Single women form 21.54 percent of those interviewed. Those who are either separated, divorced or widowed constitute 9.09 percent of all interviewed. We conclude that majority of the married women are not in the labour force. This may be because of the household responsibilities such as caring for children and managing the house among others. Also among those divorced, separated or widowed, majority of them are in the labour. This may be because women in this category may be the sole breadwinners since they have no husbands, and must therefore work to sustain a family with dependants as well as for their own upkeep.

Before we make any firm conclusion, it is important to mention that the result of the model are based on all the 11693 sample observations. One may suspect that there is a strong correlation between some of the independent variables. If such a correlation exists, then we would have a multicollinearity problem in our model. The existence of this problem implies that we cannot separate the independent influence of each of the variables on the dependent variable. A correlation matrix for all the variables based on computer results above show that age and age squared are highly correlated. Also, experience and age are also correlated though the correlation is not high. Experience and age squared are also correlated (see correlation matrix below)

**Table 4.8. Correlation matrix for all the variables**

	labpart	age	agesq	single	married	separ	widow
labpart	1.0000						
age	0.1414	1.0000					
age sq.	0.1339	0.9954	1.0000				
single	-0.3005	-0.1472	-0.1440	1.0000			
married	0.2877	0.1363	0.1332	-0.0645	1.0000		
separated	0.0478	0.0145	0.0131	-0.1353	-0.0742	1.0000	
widowed	0.0348	0.0568	0.0577	-0.1049	-0.0575	-0.0081	1.0000
migrant	0.3672	-0.0206	-0.0231	-0.2879	0.2737	0.0513	0.0387
non labour	0.1349	0.0985	0.0982	-0.1145	0.1133	-0.0065	0.0231
pe	-0.3315	-0.0777	-0.0747	0.2528	-0.2431	-0.0363	-0.0282
se	-0.2853	-0.0594	-0.0593	0.2091	-0.2021	-0.0247	-0.0243
ps	-0.1744	-0.0158	-0.0139	0.0505	-0.0452	-0.0160	-0.0150
ue	-0.0954	-0.0109	-0.0122	0.0585	-0.0554	-0.0108	-0.0084
nbchliv	0.3490	0.2461	0.2418	-0.5202	0.4839	0.1057	0.1173
relgn	0.0060	-0.0601	-0.0553	0.0013	-0.0038	0.0154	-0.0046
exper	-0.3276	0.6373	0.6377	0.1968	-0.1820	-0.0576	-0.028
stathh	-0.4781	-0.1093	-0.1031	0.2381	-0.2121	-0.0885	-0.0588

	migrant	nonlab	pe	se	ps	ue	nbchliv
migrant	1.0000						
nonlab	0.0129	1.0000					
pe	-0.2591	-0.0627	1.0000				
se	-0.1746	-0.0547	-0.1093	1.0000			
ps	0.0247	-0.0258	-0.0676	-0.0583	1.0000		
ue	0.0043	-0.0173	-0.0376	-0.0325	-0.0201	1.0000	
nbchliv	0.3073	0.1374	-0.2388	-0.1930	-0.0682	-0.0601	1.0000
relgn	-0.0148	0.0176	0.0100	-0.0025	0.0066	0.0042	-0.0095
exper	-0.3786	-0.0213	0.3111	0.0663	-0.0250	-0.0190	-0.2043
stathh	-0.2737	-0.2268	0.2001	0.1671	0.0656	0.0229	-0.2545

	relgn	exper	stathh
relgn	1.0000		
exper	-0.0473	1.0000	
stathh	-0.0024	0.2437	1.0000

## 4.2. Estimated Model Results.

In this section we present the estimate results of the model presented in chapter three. Regression results of female labour participation are shown in Table 4.8 below.

**Table 4.9. Regression results**

Variable	Coefficient	Standard Error	Z
Age of the woman	0.354	0.035	10.114
Age squared of the woman	-0.003	0.0004	-7.500
Single women dummy	0.1458	0.042	10.904
Married women dummy	-0.197	0.140	-1.407
Widow dummy	0.553	0.024	23.042
Migrant dummy	0.638	0.065	9.815
Non-labour income dummy	0.483	0.224	2.156
Primary education dummy	0.235	0.986	0.238
Secondary education dummy	0.240	0.440	0.545
Post secondary education dummy	0.960	0.531	2.900
Total number of children	-0.061	0.025	-2.440
Presence of children below 5 years	-0.025	0.015	-1.667
Religion dummy	-2.228	0.593	-3.757
Previous employment dummy	0.128	0.007	18.286
Employment status of husband	-0.027	0.105	-0.257
Constant	-6.075	0.723	-8.402

From the table above, age, marital status, migration status, receiving non-labour income, education attainment and experience have positive relationship with female participation in the labour force. All these variables are statistically significant at 5 percent level of significance. The positive age coefficient means that the higher the age of the female, the more likely for her to participate in the labour force. Also women who are single or widowed are more likely to participate in labour force compared to those who are separated or divorced. Married women participate less in the labour force compared to those who are divorced or separated. Considering migration status, migrant women are more likely to participate in the labour force than non-migrant women. The results are as expected.

There is a high probability of women with non-labour income to participate in the labour force than those without. This result does not tally with our hypothesis, which stated that, the higher the non-labour income, the lower is the likelihood of participating in the labour force. Having non-labour income could be a consequence rather than a cause of women being in the labour force. Thus, it could be that once women get employed, they acquire property that generates income. Those who have post secondary training are more likely to participate in the labour force compared to those with university education. Also, there is a high probability of participating in the labour force for women who are experienced compared to those without experience. Except for non-labour income, this result tallies with our expectations.

Just as expected, age squared coefficient was negative and statistically significant at the 1 percent level of significance. This means that labour force participation can be explained by a quadratic function of age. Thus, age is positively related to participation of female labour force up to a certain age group then declines thereafter. The coefficient of total number of children was negative and statistically significant at the 1 percent level. This means that the more the number of children a woman has, the less likely it is for her to participate in the labour force. Religion also has a negative coefficient and is significant again at the 1 percent level. The negative coefficient means that Muslim women are less likely to participate in the labour force compared to non-Muslim women. The result is as expected.

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Whether a woman is married or not, attainment of primary education, attainment of secondary education, presence of children less than 5 years and working status of the household head were found to be non significant. Anker and Knowles results on childcare related variables also found coefficient on presence of young children not statistically significant. It is possible that while some women would prefer to sit back and take care of their children, others would opt for hiring someone to take care of the young ones as they work. Although marriage was expected to impact negatively on women participation in the labour force, it was not found to be an important variable. Also, working status of the husband was also not important according to the results of this study.

## CHAPTER FIVE

### 5.0. CONCLUSION AND POLICY IMPLICATIONS

#### 5.1. Conclusion

The results of the analysis discussed in the previous chapters indicate several factors that help determine female labour force participation. In particular, age, being single, being widowed, migrants, post secondary training, non-labour income, total number of children, religion and experience had a statistically significant effect on female labour force participation.

As expected, we found age, being single, being widowed, migrants, and experience to be positively related to female labour force participation. Contrary to our expectation, non-labour income had a positive rather than a negative influence on female labour force participation.

Of all levels of education, only post-secondary training was found to be statistically significant. Other levels of education were found to be non-significant. This means that small changes on other levels of education were found to be insensitive to female labour force participation. It can, therefore, be concluded that attainment of post secondary training is more important than these other levels like primary and secondary education. Age squared was found to have a negative influence on female labour force participation and it was statistically significant at 95 percent level of significance. Total number of children, and religion were also found to have

negative influence on female labour force participation and were also significant at the same level.

Finally, the study found factors such as marriage, presence of children below 5 years and working status of the head of household to have statistically insignificant influence on female labour force participation. Probably, major changes in these explanatory variables such as radical changes in working status of the head of household (a major rise in his income) as well as presence of many children below 5 years may have significant influence of female labour participation.

## 5.2. Policy implications

Several policy measures to increase female labour force participation are suggested based on the findings of this study. The first major policy implication is on education. Education and especially post-secondary training directly affect the participation of women in the labour force. Education in general improves the probability of participation of a woman in the labour force. The government should encourage women to go to school since education improves the probability of participation of women in the labour force.

Since the number of children a woman has affects her participation in the labour force, it is therefore necessary to control family size. Family planning methods and its significance should be taught to both males and females in order to increase its effectiveness.

## REFERENCES

- Alderman H. and E.M. King (1998), Gender Differences in Parental Investment in Education, Structural Change and Economic Dynamics 9
- Anker, R. and Hein, C. (1986), Sex and Inequalities In Urban Employment in the Third World, Macmillan Press.
- Anker, R. and Knowles, J.C. (1978) "A Micro-Analysis of Female Labour Force Participation in Africa", in Standing G. (ed.) Labour Force Participation and Development : Case Studies. (ILO, Geneva)
- Appleton S. Collier P. and Horsnell P. (1990) Gender, Education and Employment in Cote d'Ivoire SDA Working Paper No. 8 World Bank, Washington D. C.
- Behrman J.R. and Wolfe B.L. (1984) Labour Force Participation and Earnings Determinants for women in the Special Conditions of Developing Countries: Journal of Development Economics.
- Bigsten A. (1984). Education and Income Distribution in Kenya, Grower England.
- Bigsten A. and S. Horton (1997), Labour Markets in Sub-Saharan Africa, University of Goteborg and University of Toronto. Mimeo.
- Collier P. (1990). Gender Aspects of Labour Allocation During Adjustment. University of Oxford. Mimeo.
- Dabalen A. (2000). Wage Trends in Kenya: 1986-1984, Mimeo, The World Bank, Washington D.C.
- Deaton and Muelbauer (1980). Consumer Behaviour. Cambridge: Cambridge University Press.
- Deolalikar, A.B. (1992). Gender Differences in the Returns to Schooling in Enrolment Rates in Indonesia, The Journal of Human Resources Vol. 28 No. 4.
- Fosu A.K (1999) Cost of Living and Labour Force Participation: Married Women in Urban Labour Markets, In Journal of Labour Research vol. XX (2), spring.
- Glick P. and D. Sahn (1997), Gender and Education Impacts on Employment and Earnings from Conakry, Guinea. Economic Development and Cultural Change 45(7)93-824.
- Groshem E L (1990). The Structure of FemaleMale Wage Differential. Is It Who You Are, What You Do, or Where You Work? The Journal of Human Resources vol. 26

Graft-Johnson, K. T. (1978), " Factors Affecting Labour Force Participation Rates in Ghana, 1970 " in Standing G. (ed.) Labour Force Participation and Development: Case Studies. (ILO Geneva)

Gujarati, D. (1978), Basic Econometrics. McGraw-Hill

ILO (1986), Women's Employment Patterns, Discrimination and Promotion of Equality in Africa: The Case of Kenya. Geneva.

Kibua, T. N. (1981), The Impact of Economic Factors on Household Fertility Behaviour in Rural Kenya . Unpublished Ph.D. Thesis, University of Nairobi.

Killick, T. (1981), Papers on The Kenyan Economy. Heinemann Educational Books Ltd, Nairobi.

Killingsworth M.R. (1983). Labour Supply, Cambridge University Press.

Kinyanjui, Kabiru(1981), "Education and Inequality in Kenya: Some Research Experience". Working Paper No. 373. IDS, University of Nairobi.

Knight J.B. and R.H. Sabot (1990), Education Productivity and Inequality: The East African Natural Experiment. Published for the World Bank, New York, Oxford University Press.

Maglad N. A (1998)Female Labour Supply in Sudan. AERC Special Paper No. 30.

Malathy, R. (1989) Labour Supply Behaviour of Married Women In Urban India, Discussion Paper No. 585, New Haven, Cf: Economic Growth Centre, Yale University.

Manda D.K. (1997). Labour Supply, Returns to Education, and the Effect of Firm Size on Wages: The Case of Kenya. Ph.D. Thesis, University of Gothenburg.

Meng X. and Miller P. (1995): Occupational Segregation and Its Impact on Gender Wage Discrimination in China's Rural Industrial Sector. Oxford Economic Papers 47

Mincer, J. (1962) Labour Force Participation of Married Women. In H.G Lewis, ed., Aspects of Labour Economics, National Bureau of Economic Research. Princeton, N.J. Princeton University.

Mwabu G. and R.E. Evenson (1997), A Model of Occupational Choice Applied to Rural Kenya, African Development Review 9.

Negatu M. (1993). "Labour Supply and the Distribution of Economic Wellbeing Case study of Lesotho". Ph.D. Thesis, University of Gothenburg.

Neitzert M. (1994), A Woman's Place: Household labour Allocation in Rural Kenya. Canadian Journal of Development Studies, Vol. 15:3

Orazem P.F. and M. Vodopivec (1995), Winners and Losers in Transition: Returns to Education, Experience, and Gender in Slovenia. The World Bank Economic Review 9

Orazem P.F. and M. Vodopivec (1999), Male-Female Differences in Labour Market Outcomes during Early Transition to Market: The Case for Estonia and Slovenia. World Bank Policy Research Working Paper 2087.

Paternostro S. and D. Sahn (1999), Wage Determination and Gender Discrimination in a Transition Economy: The Case of Romania. World Bank Policy Research Working Paper 2113.

Pang, E. F. (1978), "Labour Force Growth, Utilization and Determinants in Singapore," in Standing G. (ed.) Labour Force Participation and Development: Case Studies. (ILO, Geneva)

Petch, W. (1978), "Participation of Married Women in The Urban Labour Market in Selected Latin American Countries: Chile, Costa Rica, Ecuador and Venezuela", in standing G. (ed.) Labour Force Participation and Development: Case Studies. (ILO, Geneva).

Schultz, T.W. and G. Mwabu(1998), Wage Premia for Education and Location, by Gender and Race in South Africa. Yale University. Economic Growth Center. Discussion Paper (U.S.), No.785.

Standing, G. (1978), "Female labour supply In an Urbanising Economy, Labour Force Participation and Development: Case Studies. (ILO, Geneva).

Standing, G. (1978), Labour Force Participation and Development: Case Studies. ILO, Geneva.

Standing, G. (1978), Labour Force Participation and Development. ILO, Geneva.

Standing, G. (1978), Labour Force Participation in Sri Lanka: Labour Force Participation and Development: Case Studies. ILO, Geneva.

ILO, (1986). Women's Employment Patterns, Discrimination and Promotion of equality in Africa. Addis Ababa.

World Bank (1980), "Women In the Urban Labour Markets of Africa: The Case of Tanzania", Staff Working Paper No. 380, Washington, D.C, U.S.A.

## APPENDIX

**IFRA** - French institute for Research in Africa

**Greater Nairobi** - This refers to the City of Nairobi and its environs. This has been defined using social and geographical limits rather than administrative criterion.

**In labour force** - The survey follow the conventional definition utilized by International Labour Organization (ILO). Those members of the population who are economically active i.e. working or looking for work are in labour force. Economically inactive members of the population include full time housewives, students, children, retirees and the infirm are not in the labour force.

**Labour force participation rate** - the proportion of the total population who are economically active.

**Migrant women** - those women who were born out of Nairobi but have migrated to Nairobi and are now living in Nairobi.