LABOR MARKET, URBAN POVERTY AND PROPOOR EMPLOYMENT POLICIES

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I-Introduction

1.1 Introduction on Poverty

Poverty is usually thought of as a lack of income, because it is income that is largely assumed to determine one's material standard of well- being. But "income poverty is only part of the picture. Just as human development encompasses much broader aspects of life than income, so poverty should be seen as having many dimensions.
Poverty is seen as a relative concept, according to the perception of an acceptable minimum level of consumption. This means that what is a luxury in one country may be a necessity in another, these differences sometimes existing within countries as well. Traditionally, poverty is defined as a situation where a population, or a section of it, cannot meet its essential needs in terms of food, clothing and shelter to maintain minimum standards of living. This is, however, only one dimension; poverty is not solely related to a lack of income. Poverty cannot be objectively defined through the use of minimum level of income or consumption, but also involves attention to people's access to income and resources and self-perceptions of their economic situation and position in society. Therefore, the broader concept of poverty accounts for, not only low levels of income and consumption and low levels of human development in terms of education health and nutritional status, but also other aspects such as security and safety nets. For a given society, poverty exists if an individual (or household) is unable to attain a certain standard of living, or well-being, that is deemed the minimum acceptable by the standards of that society. The issue is which factors or indicators constitute well-being or welfare? Factors differ in terms of the importance of material idea of " standard of living" versus less tangible but possibly no less important concept such as " rights", (Ravallion, 1992). Amartya Sen considers poverty as deprivation of basic capabilities rather than merely as low income. Thinking about poverty therefore entails attention to both income and non-income needs. EHDR 1996, attempted to supplement the income poverty approach with participatory approach. The latter approach provided additional information which directly reflect the actual experience of the poor, their perceptions of poverty and their own self- determined concepts and measures of poverty. Most people tended to perceive poverty as a situation characterized by low standard of living, insufficient income and high propensity to borrow or beg. Other possible characterizations of poverty such as having too many children, being unable to obtain proper education or child labor attracted only a minority of respondents. The great majority of respondents perceived of poverty in economic terms and adopted an income-based definition of poverty. They associated poverty primarily with inadequacy of income, which led to low level of living on the one hand, and gave rise to frequent borrowing and begging on the other hand. They signaled out three poverty correlates, namely low level of living, low income, high propensity to borrow and beg, and considered them major characteristics of poor people.

It has been argued that poverty, by definition, is a complex composite concept and cannot therefore be represented by a single indicator but rather it requires the combination of a number of indicators. Constructing a poverty index that reflects most aspects of poverty involves two problems. Firstly, there is difficulties surrounding the selection of variables that will be included in the index, and secondly, there are particular problems involved in combining these variables.

In Egypt, several poverty or deprivation indicators were constructed, that takes into account the multidimensional concept of poverty, for instance Fergany 1995 and Kheir El-Din 1997. These indicators were basically formulated for public policy purposes, in particular targeting of resources within local authority areas. This type of approach form a convenient way of allocating resources between areas and reflects the assumption that deprivation is, in part, spatially determined and cannot be tackled with individually oriented policies [such as welfare benefits) alone.

Internationally, the Human Development Report, UNDP 1997 introduced the Human Poverty Index which is a combined index of percentage of people expected to die before age of forty, adult illiteracy rate, percentage of individuals with no access to health services and with no potable water and percentage of children who are severely under weight. The World Bank adopts the concept of income and consumption poverty and combines it to other welfare indicators such as health, life expectancy, nutrition, mortality rates and education, to devise poverty profiles as a way of quantifying poverty (World Bank, 1993).

However, the above indices tried to measure poverty based on country or area levels rather than individuals or households. Employing deprivation indices based on geographical areas has the limitation that it assumes that just because particular people live in 'the-deprived areas' it does not necessarily means that people are deprived. In this case the social homogeneity of geographical units is falsely assumed. In this paper, we are using the individual as the unit of analysis.

1.2 Relationship between Poverty and the Labour Market

A complicated relationship exists between labor market mechanisms and poverty. Poverty might arise from labor market mechanisms, as much as from other more obvious factors such as overall living standards, low levels of production and productivity as well as socioeconomic conditions that lead to inequalities in the labor market. Inequality in access to labor markets has been considered by several writers

as part of a process of social and economic stratification leading to poverty at its end. Disparities are found in the labor market as well as among its institutions, such as disparities between public and private sector, disparities by educational characteristics, disparities in social securities.

Hence, the structure of the labor market is one of the underlying causes to poverty. Differences in the overall levels in labor productivity, in jobs and rewards, unequal access to work of any sort, limited possibilities for labor supply may lead to poverty.

From another perspective employment characteristics may be a significant determinant of poverty. Lack of skills or assets required for job access, lack of protection through legal regulations or collective organization, irregularity and insecurity in work may lead to poverty as well (Berry, Albert and Sabot,Richard H., 1984).

The two sided relationship between poverty and labour market indicates that the following work status are usually considered the vulnerable groups in the labor market: unprotected wage labor including casual labor, domestic service, irregular wage workers, self employment in micro business, workers in marginal activities- mainly low productivity work- such as street sellers, family worker (unpaid work) and unemployed. These categories enter easily into the poverty trap through their status in the labor market.

1.3 Objectives of the Paper

The main objectives of this paper are:

- to study the relationship between urban poverty and the labor market by constructing a poverty index using factor analysis on the data of the Survey" Socioeconomic conditions of Work in Greater Cairo". The survey was conducted by the Social Research Center in 1998.The sample of the survey totals 3294 households in Cairo as well as urban areas in Kalyoubia and Giza. The survey includes four modules: the household module, the individual module, the self employed module and the children module.
- to study the work characteristics of the poor versus non poor using the data of the field survey.
- to study the relative importance of different factors in determining the welfare status of the different categories using logistic regression.
- to propose propoor employment policies.

II- Urban Poverty and the Labor Market

2.1 Urbanization, Segmentation of the Labor Market and Urban Poverty (Metropolization of Poverty)

The rapid pace of urbanization in developing countries, and in particular that of the large cities, has become a considerable concern for public policy due to many problems such as congestion, pollution and the problems of infrastructure as well as human resource problems. Meanwhile the structure and mechanisms of the labor market in large cities are becoming an important subject in labor economics (Bromley, Ray and Gerry, Chris 1979).

In the large metropolis, extended families do not exist, family ties become loose and in kind payments are rare. These conditions usually lead to negative attitudes towards kin and friend relations, solidarity and might lead to criminality and other forms of illegal activities as well as poverty. This kind of poverty is labelled under what so called (metropolisation of poverty).

Inspite of relatively higher productivity and growth rates in metropolitans the incidence of poverty in these cities is high. The existence of poverty in urban areas is related to labour-market segmentation so that both unemployment and poverty will stem from the weak labour-absorption capacity of the modern sector. Unskilled labour force are less productive and face more difficulties in labor market entrance, leaving them in underemployment and poverty (Squire, Lyn.1981).

This statement can be explained in two ways (Formal/informal dichotomy and access to the labor market):

A: Formal /Informal dichotomy:

Due to rural urban differences capital cities attract rural citizens to migrate and live in them. In accordance to the Lewis model of the unlimited labour supply it was assumed that unskilled workers will be transferred from low productive rural jobs into high productive urban industrial jobs directly. However, Todaro (1969) emphasized a two-stage migration process: in the first stage the migrants are absorbed in the informal sector and after obtaining new skills they will be transferred –in the second stage-to the formal sector. This implies free entry of labour from the urban informal traditional sector into the urban formal modern sector and a felxibility in the labor market. Both theories were criticized on the ground that there free entry to the modern sector for unskilled rural labour migrants does not exist. Moreover the absorptive capacity of this sector is limited because of its relatively small size and the relatively high capital-intensive technology. Consequently, they will continue to work in the informal sector of the urban labour market, which is characterized by excess labour,

low productivity and low wages. This must lead to dualism and poverty inspite of existing exchange channels between both sectors(Berry, Albert and Sabot,Richard H., 1984).

The formal sector is generally characterized by protected wage work, advanced technology and high labour productivity. The informal sector is characterized by unprotected wage work, low capital-labour ratio as well as low labour productivity, dominance of self-employment and easy entry. It is a "labor sponge sector". Supply and demand forces determine the size of this sector and the wages of the people in it, while wages are dominated by labour regulations. It has been indicated that employment in the formal sector is mainly "demand-determined" in accordance to production and technological needs, while employment in the informal sector is "supply driven" in accordance to the number of workers who could not enter the formal sector (S.V.Sethuraman,1981).

It is important to note that many studies stated that urban poverty is not related only to the informal sector-though higher in this sector- but occurs in many parts of the formal sector as well. Poverty and low levels of education of parents are associated with high drop-out rates from school and the earlier entry of children in the labor market. This leads to the existence of child work and unskilled labour force. Hence the poor are not necessarily those who have most recently migrated but also other residents in low socioeconomic status.

Taken all previous aspects into consideration it has been noted that labor markets in mega cities -such as Cairo - respond to increasing excess supply by reducing the imbalances between demand and supply through the following devices: "a reduction in rural-urban migration, a rise in open unemployment, a decline or stagnation in formal sector employment, a fall in formal sector wages, an expansion of informal sector employment often accompanied by a decline in wages and earnings" (Oberai,A.S.1983)

All these measures must intensify poverty if not accompanied by antipoverty programmes.

B-Fragmented urban labour markets and access of the poor to employment opportunities:

In addition to the difficulty in the movement between the informal sector to the formal sector it was indicated that poverty represents the implications of the fragmented urban labour market on the accessibility of the poor to employment opportunities. Migrants may be discriminated against because of lower educational characteristics, different work attitudes, relatively less contacts if compared with natives, which may reduce their chances of finding suitable employment. Entrance in the labour market will be through low-income points of entry for migrants and it will include horizontal shifts rather than vertical movement on the occupational ladder (Oberai,1983).

Interpersonal networks in terms of kin, community, formal education in particular secondary school and above, skills and experience acquired through apprenticeship or on-the- job training; access to finance, good personality are all characteristics appealing in the labour market which the poor and the migrants do not acquire and hence are kept in low occupations.

Finally it is controversial if open urban unemployment is the main cause of urban poverty. On the contrary it was stated in several writings that most urban poor cannot afford to remain without some form of employment, since they do not have any alternative source of subsistence. Open unemployment is more concentrated among the educated younger members of the urban middle income groups. According to this view, most open unemployment is voluntary and the main problem then is not unemployment but low productivity and low earnings.

2.2 The Poverty Index for Greater Cairo Region Survey

It has been shown that there is no simple dimension along which poverty can be measured in a simple additive scale. Even if such index exists, it may at best, be difficult to interpret and at worse may be misleading. Thus, though it would be possible to allocate each person a score on a number of different dimensions, here we wish to create a composite index that addresses poverty in its multidimensional aspects and assign one score for each household that reflects most aspects of household deprivation or poverty.

Constructing poverty index requires; (1) identifying the underlying dimensions of poverty and investigating the interrelationships between its different aspects. If the variables are highly intercorrelated, then it may be appropriate to measure deprivation on a simple single dimension; (2) choosing the most relevant indicators or variables that reflect those dimensions of poverty; and (3) combining those variables in smaller number composite indices- one is preferable. However, some subjectivity is always found in this type of analysis. Subjectivity is involved in the selection of the dimensions of poverty, in the variables that measure each dimension and in the way that those variables are combined.

Statistical methods can, however, are used, but not eliminate subjectivity in the measurement of poverty. Multivariate statistical techniques such as factor analysis can be used to determine the weights of a small number of linear combinations of the candidate variables. factors are determined such that each component explains

successively smaller amounts of the original variability. If the original variables are highly interrelated as expected in poverty index, the first few factors will account for a very high portion of total variability.

Use of multivariate representations and techniques of analysis serves the dual purpose of good identification of poverty, being a multidimensional phenomenon, and safeguarding biases that result from data deficiencies in a single variable. In other words, having decided on the set of variables deemed to adequately represent the standard of living, the multivariate measurement question is how to combine the selected variables into one or more indices. That is, if Y_i denotes a poverty index and X_k's are variables that present all aspects of poverty, the problem is how to choose the functional form that combines Y_i's with X_k's , thus :

$$Y_i = F_i(X_1, X_2, \ldots, X_n), \cdot$$
$$i = 1, 2, \ldots, p$$

Naturally, the smaller p is, the more parsimonious the resulting summary description of poverty. Ideally p is equal to one. Values of p >2 are clearly undesirable.

The most popular functional form is the linear. In which case Yi is expressed as a linear combination of the X_k's and the methodological problem is reduced to determining the weights assigned to the X_k's to form the linear combination. Factor analysis is used in this respect. In the appendix, factor analysis results are summarized.

The variables, included in the analysis, are grouped into four groups to reflect four aspects or dimensions of poverty; income, human capital, housing conditions and demographic dimensions. We started with 60 variables and preliminary experimentation with principal component analysis produced the elimination of some variables. The demographic variables include household size, dependency ratio, and age of household head, sex of household head, the second group involve some education characteristics; percentage of household members with secondary education and above and the educational status of household head, the housing conditions variables are: persons per room, availability of safe water and sanitation, separate toilet and separate kitchen, and finally the fourth group includes the possession of some durable goods, means of transportation, per capita expenditure, per capita income, the sufficiency of income, had to borrow to satisfy the household basic needs, had to sell any belongings. Variables are defined and coded such that low standard of living has low value of the variable and vise versa. Variables of per capita income and expenditure were further excluded as they were inaccurate, involve several outliers and there were about 200 missing records.

Analysis ended up with choosing 17 variables to be included in factor analysis. These variables are:

Household size, Persons per room, percent of household members with less than secondary level of education, Highest educational level of the head of household, Have separate kitchen

Kind of toilet facilities, Durable goods possessions,Transportation facilities, Sufficiency of household income, Faced a problem in expenditure on food, Faced a problem in expenditure on clothing, Faced a problem in expenditure on health, Faced a problem in expenditure on education, Faced a problem in expenditure on rent, Faced other problem expenditure problems, Received any financial assistance, Had to sell any belongings.

The first factor accounts for 53.4 percent of total variability in the chosen 17 indicators. We used principle component analysis for factor extraction since the objective is to summarize most of the original information in a minimum number of factors for prediction purposes. The coefficients of the first factor were used to construct the poverty index. Accordingly, each household has a value representing its welfare level, depending on its levels of the 17 indicators. Households were grouped into three equal groups; low (poor), middle and high, according to their welfare scores

In order to assess the differential of the 17 variables across the three welfare groups; poor, middle and high classes, according to their standard of living measured by their poverty index, estimated above, and whether differences in these variables interact together in the right direction (low for the deprived people and high for the rich), the mean value of the 17 variables were calculated for the three groups. As table (1) shows, there are significant differences between the three groups, where differences between the richest and the other two groups are substantial. Poor households have larger sizes. They have more percentage of individuals with less than secondary level of education (85 percent compared to 57 percent for the rich group). The figures for the housing conditions for the poor are about 8 times those for the non-poor, indicating that the poor are more deprived in their housing conditions. All the poor do not have sufficient income to satisfy their basic needs, compared to 33 percent for the middle class and only 0.36 percent for high group. The poor are more likely to face difficulties in satisfying their basic needs, specifically, 82 percent faced difficulties in satisfying their basic food needs. Less than ten percent of the middle class households and none of the rich households faced some expenditure problems.

2.3 Characteristics of different Welfare Groups (Socio Economic Classes) in Greater Cairo Region

There are two sets of major socio-economic variables directly correlated to poverty: the status variables and the input and process variables. Status indicators reflect the income earning and survival opportunities of the poor. Typically, these relate to the socio-demographic profile of the poor, such as age and household composition, educational attainment and employment status, and are therefore referred to as the *characteristics* of the poor. Input and process indicators, on the other hand, are used to identify the major factors contributing to poverty, or the sources of poverty. As an example, if we should want to investigate the health conditions among the poor, child mortality would be the health status indicator, government health expenditure per capita the input indicator, and the number of visits to a maternal and child health care the process indicator.

In this section we developed a poverty profile in terms of different characteristics of households with different welfare status. Characteristics include; location; age, household size, education status; child labor and level of income.

Location

Welfare groups are almost evenly distributed in Cairo and Giza, as indicated by column and row percentages of table (3), with slightly higher representation in the rich groups. On the other hand, 43.8 percent of households living in Qualybia are considered relatively poor and only 16.44 percent are relatively rich. If we look at the distribution of the poor across governorates, we find that 66.48 percent of the poor live in Cairo but this is due to the large representation of Cairo in the sample. Actually the representation of poor households in Cairo is lower than the household representation overall. Besides, while households in Qualybia represent 8.97 percent of total sample, 11.79 of the poor can be found in this governorate, indicating again the fact that households in Qualybia are more deprived than the other two governorates.

Age and Household Size

In Egypt, like in other countries, larger families are more likely to be poorer than smaller ones. Even though some goods may be shared among household members, in absolute terms larger families have fewer resources per capita. The poor also tend to support a proportionally higher number of the young population than the non-poor.

Tables 3 and 4 provide basic information on the household size by welfare status and for the sample as a whole. It is evident that a poor person typically lives in a bigger household than the overall average, but the differences are not very large. As table (4) indicates that more than 77 percent of poor households have more than 4 members. Average household size is about six persons for the poor, compared to 4.58 for the high class. Moreover, poor households have relatively larger number of children (52.67 percent) and fewer members in the working age (43.27 percent) compared to relatively rich households (41.11 percent and 51.47 percent, respectively). An important implication of the age structure is its effect on the dependency ratio. Poor households have larger dependency ratios than the non-poor. Large numbers of children and small numbers of working household members may provide at least a partial explanation of why particular households are poor. Higher dependency is a cause of poverty in as much as it implies a high consumer/earner ratio. On the other hand, a high proportion of children may also imply high replacement fertility behavior, as infant mortality rate is higher among poor households. In addition, poor children are considered an extra source of income to the household.

Education

Educational status is strongly correlated with poverty. Table (5) presents the column and row percentages of individuals in three welfare groups according their educational status. Half of the poor are either illiterate or can only read and write, while only 2 percent of individuals living in poor households have university degree. At the other extreme, higher educational levels are more represented in the rich group; 33.07 percent for secondary and above levels and 16.73 percent for university levels. On the other hand, among illiterates, 48 percent are poor and only 12 percent are rich. Conversely, 12 percent of university graduates live in poor households and 67 percent live in rich families. Generally, Poor individuals are more represented in the lower educational categories compared to their representation in the sample and less represented in higher educational categories, indicating that poor individuals are less likely to go to school or they drop our very early from school.

Income

As expected, poverty correlates significantly with income levels. Poor households have lower per capita annual income compared to middle class and rich households. Table (8) indicates that 42.54 percent of poor households have annual income less than 250 pounds per capita, while the corresponding figures are 20.23 percent for the middle class and only 9.86 percent of the upper middle and rich class. On the other hand, only 2.4 percent of the poor have an annual income of 1000 pounds and more, and 25.68 percent of the rich households have this income level. The percentage of the rich in the lower income brackets can be explained by the fact that we adopted the multidimensional concept of poverty and it is not low income levels only. Households

in the relatively rich group with income less than 250 pounds must live in better housing conditions, be better educated, have low household size,...etc.

Comparing average per capita income and expenditure for each welfare group revealed very interesting observations. Expenditure exceeded income for the poor group reflecting the fact that this group can not obtain sufficient income to meet their expenditure on basic needs. On the other hand, middle class earned income which just covered their expenditure, while high class had excess income of about 12 percent.

III-Poverty and the Labor Market in Greater Cairo Region

The existence of the poor in urban areas in general raises several aspects. The first considers the efficiency and equity of urban labour markets arguing that labour-market segmentation keeps the urban poor locked within a *'poverty trap'*. Due to Formal-informal segmentation of the labor market and the differences in the access to the labor market by socioecomic classes the poor urban labor force will be kept in low remunerated jobs and in particular in the informal sector leading to a poverty trap. The segmentation of productive activity in urban areas between a small number of highly productive firms, the process of capital intensification in these firms rejects the movement of unskilled poor labour towards the higher productive segment.

The second argues that labor market poverty or "vulnerability is one aspect of overall poverty and income". Low socioeconomic conditions must lead to poverty of skills, child abor and vulnerability as a whole even in a metropolitan.

These two aspects will be addressed in this section.

3.1 Accessability of the Poor to the Labor Market in G.C.R.

i-Selectivity of the labor market:

The comparison of the relative distribution of the labour force and the relative distribution of the whole population by welfare groups in table 8 shows that the poor are relatively less among employed workers. This selectivity is more apparent for females rather than males. The main aspect explaining this observation is that the process of entry into the labor market is selective even among the lowest classes. The best among each socioeconomic class will find a job or will be faster recruited.

The welfare status of females in the labor market in general shows that females are relatively better than men as their share in the lowest welfare group is less than the relative share of men to total working men. This cannot be generalized on all females in the labor market. It can be explained in the case of G.C.R. by the fact that working women in the metropolitan are more likely to be engaged in paid jobs (85.6percent to all working women in comparison to 80.8percent for men to all working men) (Nassar,1999). They are relatively more educated than females in general in the labour market and relatively a higher percentage of them work as professionals and they enjoy relatively higher standard of living than women in rural areas. This may be also justified by the fact that men are more concentrated in the category of handicrafts (29.8percent) and self employment (16.4percent for men to all working men versus 7.8percent for females to total working females). A significant proportion of these categories is working in the informal sector with low payment and productivity. Hence the share of men in the labour market in the lower welfare group to total men is higher than the share of females in this category to total females in the labour market in G.C.R.

ii-Poverty,labor market and the educational trap(the educated are not the employed?).

A basic characteristic of the labor market in G.C.R. is high illiteracy rates and a concentration of the educated population in secondary education (Nassar 1999). However the educational status of all labor force is better than those employed, which means that illiteracy is not an obstacle against getting a job. It is easy for illiterates to accept any kind of work, which is not the same for educated people.

It is interesting to compare the educational status of the employed with the educational status of the whole sample in table 9. The data show that the educational status of the employed is lower than the educational status of the sample. The percentage of the poor illiterate employed is relatively higher than the percentage of the sample in this educational status. This proves the results of previous studies indicating that unemployment is mainly concentrated among the educated people and in particular those in secondary education. This is due to the high unemployment rates of the new graduates in secondary and higher education, the categories in which the unemployed are concentrated.

iii-Poverty and unemployment in a metropolitan by gender (the poor are not the uneducated?

In general unemployment rate was estimated at 11.9percent in G.C.R. It reaches its highest level for the age group 15-30years. Moreover, the average duration of unemployment is highest among the youth, reaching 39, 63 and 65 months for the age group 20-25years, 25-30years and 30-40 years, respectively. Finally the relationship between unemployment and educational attainment appears to be negative as the incidence of unemployment is highest among those with intermediate education followed by those in university (Nassar,H.1999)

However the theory stating that unemployment and poverty are negatively related is not true in Greater Cairo Region as the percentage of the unemployed to total labor force is higher for the lowest category of the welfare groups than all other groups as indicated in table 10.

This is true for females as well as for men. As unemployment is less among the uneducated- as previously indicated in table 10- then the poor in G.C.R. are not all the uneducated and many of the poorly educated are in the lowest welfare categories. Some of them are with secondary education, new entrants into the labor market and do not have a job opportunity, which is different from the uneducated case. Women are more vulnerable in the labor market as almost 28percent of them are unemployed in comparison to 9.6percent of the highest welfare group. In addition the unemployment rate of the poor women is almost double the same rate prevailing for men.

iv-Poverty and income differences

It was suggested in several writings that the growth of GDP in recent years, although insufficient to generate the number of new jobs required, has been concentrated mainly in the modern sector of the economy. As previously noted, an unequal distribution of technical progress between modern and traditional sectors has led to highly differentiated rates of productivity growth, having thelabour force in the traditional sector in a permanent situation of underemployment, low productivity and poverty. This leads to a situation in which workers with equal abilities obtain different incomes, depending mainly on the production of the enterprises in which they are employed. Table 11 reveals that the poor in the different educational categories receive lower wages than the other welfare categories. This may be explained by the theory of access and fragmentation of the labour market in accordance to the type of education (private-public), mastering of foreign language, socioeconomic differences, relation with affluent people, type of work (private, public, government..) The differences in the wage level are significant for those who have secondary education and those with university education. This remark is also applicable for the different occupations. The wage level differs by welfare groups for the same occupations and in particular for those in administrative, executive, technical, professional and handicraft occupations. This might lead to social frustration in the labor market.

This proves the theoretical framework of formal/informal dichotomy and the absorption of the poor in a metropolitan, however it proves more the continous low absorptive capacity of

the formal sector in G.C.R and the increasing movement towards the informal sector.

3.2 Characteristics of the Poor in the Labor Market in G.C.R.

With the increase in the rate of internal migration in the sixties significant changes occured in the rate of growth of employment in G.C.R. While the rate of growth of manufacturing employment shows a stagnation because of the high capital intensity and restructuring effects, the rate of growth of employment in the servicesector shows an increase and the rate of growth in construction employment shows a decrease after a significant boom in the last decade. Due to the large governmental sector in social services and the increase in the informal sector the rate of absorption of women in the service sector was higher than the rate of growth of men in this sector. Moreover the shift of employment away from manufacturing to the service sector and in particular to new areas such as IT and finance reflects the shift in the demand for labour from unskilled and semi-skilled to the skilled labour.

Small firms (1-9 workers) were the main employment generating sector. These firms have negative implications for the development of infrastucture of these cities as these enterprises do not have the financial capacity to pay for urban services and are mainly concentrated in the urban slums. Finally there is a significant movement towards self-employment, as self-employment in manufacturing and services grew faster than wage employment.

i-Occupational structure of the poor labor force in GCR:

The occupational structure of the survey in general indicates the concentration of Cairo work force in handicraft occupations (24.5 percent) due to the relatively high percentage of males in these occupations (29.8percent). Almost two thirds of the females are distributed among technical and clerical occupations. Both occupations are the domain of the working women in the formal sector. Services followed by sales and marketing are occupational categories that absorb almost a quarter of the workers in Cairo, mainly men.

Consequently table No.12 shows that the poor are mainly concentrated in handicraft occupations followed by services and production occupations. These are the main occupations of people in self-employment.

ii-The work status of the poor:

The study of the work status of the labor force by the different welfare groups in Figure 5 indicates that the ratio of the poor is higher than the other welfare groups with respect to the work status "unemployed". Unemployment is a main reason leading to poverty due to the absence of any source of income even, if the person is educated, which was shown in previous analysis. Unpaid work status is also a

vulnerable working category where the percentage of the poor to the other socioeconomic classes is at its maximum

*Instability of employment is related to poverty in G.C.R. D*espite the fact that most workers in a metropolitan are working in a permanent job, the ratio of the poor in seasonal, temporary and discrete jobs is relatively higher than the other two welfare groups with exception of the middle class, whose percentage in seasonal jobs is the highest. One third of the poor do not enjoy having a permanent job, which might also indicate the absence of social benefits. This is due to their relatively lower educational characteristics and their limited access to the formal and official job opportunities(Table 13).

The analysis of the self employed in G.C.R shows that women are relatively poorer than self employed men, as 57.1percent of them are considered in poor conditions, while 28.8percent of the self employed men are considered poor. The need for a steady flow of income as a buttress against insecurity of unemployment and inadequate or nonexistent financial support from male partners and kin networks was a major factor pushing women to develop a variety of strategies to increase their incomes. Moreover early motherhood resulted in many women who are compelled to seek income because they have to support their children. Strategies to improve their livelihood were similar among classes even though the resources to facilitate them differed. Strategies ranked from seeking employment, taking an extra job producing home handicrafts for sale and networking among kin and friends to obtain extra money. Poor women in general could not afford to stay at home. Illiterate females are working in domestic services and as street vendors in self employment.

As many of those who are in self employment are working in the informal sector, this sector has become "the poor sponge" in the labor market in G.C.R..

3.3 Labor Market, Poverty and the Informal Sector in GCR (Formal/Informal Dichotomy)

i-Formal sector employment in G.C.R was growing much less rapidly (1percent) than the labor force (4percent) over the period 1990-1998. Accordingly formal sector employment as a proportion of total employment has declined over the last decade by about 4 per cent. The

explanation for the poor performance of formal sector employment can be explained by the retreat of the government from economic activities in the past two decades and the capital intensiveness of economic production in the private sector (Nassar,H.2000).

The relationship between poverty and the absorption of the labor force in the informal sector as well as the expansion of the informal sector are evident from the data of this survey.

For the whole sample we chose the definition working with no contract, no license , no registration to divide the sample by formality. The data show that the percentage of the poor is higher among those who are working with no contract/license or registration, which means that this sector is their main resort, where they suffer from lower wages, absence of social, health security and absence of any labor regulations. 60percent of the poor are working informally or are in the informal sector. This ratio is higher than the average but very next to the similar figure of those in the middle class.

ii-Social and Health Insurance are needed for the informally employed.

In general almost half of the population (similar to the ratio of informal employment in the survey) is not covered by social or health insurance. The poor are more vulnerable as almost 40percent of them are covered by social and health insurance, an expected result from their charcterisitcs as they are mainly engaged in self employment activities. However this last ratio is not very low as we are discussing work in a metropilaton, where paid jobs in the public and the government are dominating. Employees and workers in both areas are to a large extent covered by social and health insurance. This means also that many of those who have a regular job with social and health insurance are considered poor or are in the lowest welfare categories. **This last finding is very important because it refers to the vulnerability and low living standard of the employees and workers in low degrees.**

iii-Informality for self employment and employers means work without registration, license, no proper tax books, no coverage by health or social insurance. An example is also evident for the self employed as the ratio of the poor, who are working in the informal sector reaches 94.5percent of all self employed in the lowest welfare category.

A third of the self employed females and the females employers in the informal sector are considered poor in comparison to 9.5percent of them in the formal sector. Concerning their educational characteristics, while 10percent of the females in the formal sector are with university degree this ratio goes down to 1.6percent for those in the informal sector. These findings will explain many other facts such as differences in the incomes and in the conditions of work.

The age structure of those who have formal and informal business differs. Informal business can easily start in early years as young people are more ready for such kind of activities to help them in entering the labor market This is why a larger percentage of the unmarried women are engaged in this business if compared with formal business where women are relatively elder, married, divorced or widowed. All previous facts prove the easy entry into informal business for women who want to have a source of income.

Informal business is a short term solution for survival,

*Females' w*ork in the informal sector is shorter than work in the formal sector. It is a short solution for poverty and a means for survival. Almost 39.1percent of thew respondents have worked less than 3 years, while 50percent of those working in the formal sector were working as self employed 20 years and above. 100percent of them are working in an establishment, while 36percent of those working in the informal sector are working outside an establishment.This is an expected result as most of those in the informal sector are either street vendors or sellers in the street or handicraft workers working without an establishment(Nassar,H.2000).

Perhaps the most important finding is that paid employment including self employment represents one activity in a continuum of work activities along which women shift according to their situation at different points in their life cycle. Other work includes household chores home based production for both household consumption and sale. Shifts from one work status to another might be due to economic conditions or female's responsibilities in their homes or personal characteristics.The concentration of the poor in the informal sector is obvious in particular in the case of the self employed.

iv- Mobility from formal/ informal sector by welfare groups:

The general analysis of the data indicates a movement from the formal to the informal sector in the last ten years. As the contract, license, registration are basic factors in determining formality in work we tried to examine mobility for those, who are currently working with contract, license or registration and those, who are currently not working with contract, license or registration by their previous work status. The purpose of this part is to study whether workers are shifting from a lower degree of formality to a higher degree of formality or the reverse.

The question is whether this movement is stronger among the poor than among the other welfare groups or no. Table-21- shows that the movement from formal activities to informal activities is much stronger for poorer categories and more prevailing among these categories than among the other welfare groups. 53.1percent of the poor who were working in the formal sector left it to work in the informal sector, whereas this ratio declines to 32.1percent for the middle group and to 28.2percent for the highest category. What is more important is that this percentage is higher than the percentage of those who were working in the formal sector and remained in this sector and higher than the percentage of those who were working in the informal sector and are currently absorbed in the formal sector in comparison to the other welfare groups. This means that more and more workers in the poorest category are moving to informal activities in Greater Cairo Region.

3.4 Households'Poverty and Child Labor

Household's poverty might lead to poverty in the labor market as well. The results of this survey capture working children in Greater Cairo Region, the metropolitan, where this phenomenon should be at its minimum. 4.2percent of the households in this sample had at least one working child and 5.3percent of the children in the age bracket 6-14 years were working with a relatively higher tendency for work among boys (9.1percent of all boys in the age bracket 6-14 years) than among girls (1.4 percent of total girls in the age bracket 6-14 years)(Nassar,1999).

Concerning the analysis of the data by welfare groups, out of the 140 working children in this sample 54 percent are coming from poor families, 43 percent belong to middle class households and 16 percent belong to households in the upper middle high class.

Data reveal that there exists a strong relationship between the welfare level of a household and the percentage of working children. As shown by table -32- 6.3 percent of poor children of age 6-15 years are working, while the corresponding figure for the high class is-0.1percent- It is important to note that capturing the number of working children in a city like Cairo is not an easy task due to the protective nature of families in the metropolitan in comparison to families in rural areas. However despite the fact that these percentages are extremely low at the national level, they are relatively significant taken into consideration that this survey was undertaken in a metropolitan. Obviously, poor households depend partly on their children's earnings on one hand, and they cannot afford the educational costs, on the other hand.

Table (20) indicates that working children in the poorer category , followed by working children from families in the middle and the poor group are in work conditions worser than working children from rich families.

Relatively a lower proportion of the first two categories is going to school next to their work and almost two thirds to three fourths of these categories have ever visited a school before. A relatively higher proportion of them work very long hours per day

(9-12 hours). We do not have an explanation for the fact that a significant proportion of the working children from families in the highest welfare category work seven days per week. In all cases this is a few number and most probably they work in advertisement. However the treatment of the employer as well as their health care is much better than working children in families from the other welfare groups.

The data of the survey indicate that working children contribute an additional sum of about 50percent of the head of the family's income on average. We do not have a sufficient explanation why more than a third of the children in the high welfare group are receiving a wage in kind.

However average wage is higher for working children in the high welfare groups than working children in the low welfare group. We believe that when parents from the high welfare category receive the income of their children, this will be because they save it for their children. However a relatively higher percentage of the working children from families in the high welfare group spend their income themselves and relatively a less percentage of them give all their income to their parents, which indicates the economic importance for child's work in poorer families

3.5 Employment as a Determinant for Poverty

To establish the relative role of the different factors in the configuration of the poverty profile in Egypt, it is necessary to isolate their individual effect. This can be achieved by fitting the probability of an individual being non poor as a function of the various personal characteristics. Since some variables being examined are categorical variables, the way to technically handle their relationship is by fitting a logistic regression.

Using the unit level data of the survey, the performance of several indicators was assessed. The analysis is applied for the demographic, education, employment, economic and housing dimensions. The following variables were used as regressors: dependency ratio and household size, the education level, the main occupation, employment status, type of work, want to change work, location, per capita income and expenditure, the availability of piped water and have health insurance.

At the mean value of each variable, the model estimated the probability of being poor by 34 percent which is very close to the actual figure. The overall percentage of correct classifications attained 72.08 percent, 61 percent the poor were classified by the model as poor while 78.3 percent of the non poor were correctly classified as non poor. The performance of the model in classifying the poor was satisfactory, although the model performs better in identifying the non-poor.

One of the benefits of such analysis is the ability to assess the impact of a change in a particular factor would have, on the probability of an individual being poor, if all other factors are kept constant. The results of the logistic models are given in Table (22), including the estimated coefficients, the odds ratio, and marginal effects for explanatory variables included in the model. The *odds* are the ratio of the probability of being non poor to the probability of being poor. The *odds ratio* gives the change in the odds of being poor as opposed to not being poor, in response to one unit increase in the explanatory variable, or if the expanatory variable exists. Hence, smaller odds ratio than unity implies that higher values of the independent variable are associated with decreasing poverty. Similarly, odds ratio greater than one indicates that an individual with a higher value of the independent variable is more likely to be classified in the poor class. The *logistic coefficient* could be interpreted as the change in log odds associated with one unit change in the explanatory variable. While the *marginal effect* is the percentage change on the probability associated with a unit change in the explanatory variable. The marginal effect for each variable has been calculated at the mean of the independent variables.

- The coefficient for university variable equals to .618, and its odds ratio equals 1.86. This could be interpreted as follows: when the values of all other variables remain unchanged, the ratio between the probability of being non poor to the probability of being poor is about 1.86 times for those of university degree compared to illiterates. Moreover, it is estimated that if the ratio of the probability of being non poor to the probability of being poor is 1.1 times higher for individuals who can read and write relative to illiterate individuals. The largest change in odd ratios is for the university variable. Thus university level is a good indicator for identifying the non poor. Obviously, the risk of an individual being poor diminishes as the level of education rises
- Relative to paid workers, the ratio of the probability of being non poor and the probability of being poor are all less than unity, indicating that individuals who are not paid workers (regardless of his employment status) are less likely to be classified as non poor.
- Marginal effects are negative for all employment status categories compared to paid workers, indicating that joining any employment status, except paid workers decreases the probability of being non poor.
- It is also estimated that an additional unit in the dependency ratio, decreases the probability of a person being non poor by .18 percentage points. Compared to out labor force category, marginal effects are negative for craftsmen and undefined

occupation categories only, pointing to the fact that individuals joining these categories, are less likely to be non poor.

- A more revealing approach is to assign different values to target characteristics and simulate the resulting probability of being poor while maintaining all other variables at the national mean values.
- In this context, it is possible to assess the probability of being poor for given factors, and comparisons can then be made across characteristics. Simulated probabilities of being poor as well as percentage changes in poverty levels are presented in columns 4 and 5.
- The simulation approach is probably most fruitful in analyzing characteristics that allow for high degree of differentiation, such as education or employment. Among the various characteristics considered, education allows for a substantial degree of differentiation with respect to the probability of being non poor. The probability of being poor, while maintaining all other variables at the national mean values, ranges on average from 46.4 percent for illiterates to as high as 76.6 percent for those with university education and above, note that this probability is 66 percent, on average.
- Also. the probability of being non poor is 68.5 for paid worker individuals, dropped to only 35.3 for paid in kind workers and to 15.4 for unpaid workers. The highest probability, of being non poor, is for paid workers and all other employment categories have lower probabilities. Considering type of work, it is estimated that the probability of being non poor for an individual to have pernanent job is 69.8 percent, dropped to 50 percent for temporary workers. Administrative occupation have the highest probability of being non poor among all other occupations.

Moreover, having seasonal, temporary or discerte work decrease the probability of being non poor by more than 10 percentage points.

- Accordingly, individuals classified as poor are more likely to have higher dependency ratio, be illiterate and not paid worker, or working in construction, manufacturing, or with agricultural occupation. They are also less likely to have to have secondary and university levels of education
- The simulation analysis allows us also to assess the impact of two or more characteristics at the same time. By distinguishing the independent effect of each of these factors, the simulation analysis allows a better understanding of their corresponding interaction. For instance, the probability of being non poor for a university graduate, paid work permanently in administrative occupation is estimated to be 85.8 percent, compared to 76.6 percent for university degree holder regardless of his occupation. The interaction of high education levels and administrative occupation increases the probability of being non poor by about 9 percentage points.

IV- Propoor Employment Policies

Fom the analysis of the last three sections one can conclude the following:

- Accessability of the poor to the labor market is limited due to the selectivity of the labor market in G.C.R, hence unemployment has a significant impact on the poor.
- There exist significant wage differences among the different welfare groups accompanied with major differences between the poor, the middle and the high welfare group with respect to characteristics of employment and self employment in particular for females.
- There is a concentration of the poor in the informal sector in particular for women and there exist also an increasing movement towards informalization, where wages are lower and there are no protection or working regulations.
- Finally the existence of child work in G.C.R. is a manifestation of the fact that low socioeconomic conditions might also lead to poverty (Wiken, U.1989).

As urban poverty poses a major challenge to policy-markers because of its repercussions on the country as a whole and due to its obvious negative impact on productivity active implementation of direct anti-poverty employment programmes should be complementing the process of economic growth .

4.1 Propoor Suggested Employment Policies May Be As Follows

General requirements (Macro Level)

The overall assessment of growth during economic policies in the last five years indicates an accelerated growth rate, a reduction in inflation rates and an increasing taxing capacity as well as a decline in the budget deficit. A Social Fund was established as an extra safety net for the society. However the accelerated rate of growth of GDP per capita masks an unemployment rate that is kept at 8percent in official estimates and at 11percent from other surveys, as well as a lack in productive employment opportunities. The safety net was characterized on the ground that it is temporary and does not reach those in ultra poverty while the existing permanent safety net were found still inadequate to cover all poor groups and vulnerable cases in Egypt. Hence informal assistance and informal employment increased in importance and in particular in the metropolitan.

Hence, a propoor employment growth is required to accelerate growth to restore full employment as a high priority of economic policy.

The following are the activities, programs needed to achieve a propoor employment growth:

*1-Periodic identification of the poor and the vulnerable groups in the labour market in metropolitans by s*trengthening the data base for labour market information and poverty monitoring through periodic identification of the poor and the vulnerable in the labour market.

This does not mean only the identification of a poverty line, the poverty gap, the count of the number of the poor and of the ultra poor but it should also describe the relationship between poverty the sources of income of the poor, their living standards, their social indicators by gender and age, their occupational structure, the variability of their income, their accessibility to the credit market, to natural resources, to land and to productive assets as well as their main coping mechanisms over time (World Bank,2000). The relationships between employment and income using a long reference period, taking into account primary and secondary occupations should be studied. Specific statistics should be obtained periodically on children and youth in relation to school attendance and their participation in economic activity. Adequate statistical base on women's participation in economic activities is essential. The collection of data on the informal sector should depend on in-depth, establishment surveys on yearly basis to examine the organizational and characteristics of the informal sector, its production activities and levels of income generation (UNDP,1999)

2- Coordination of the employment propoor programs. Egypt in general and Cairo in specific is characterized by many programs and policies aiming for employment generation and serving the poor. However their administration and implementation are fragmented between different institutions and their coverage and targeting is still limited. A national body should be the institution responsible for this coordination tasks which requires developing a modern informational system as well as a qualified monitoring system for all these activities.

3-Skilling urban labour force. The poor in the labor market in G.C.R. face the problem of inadequate skills and illiteracy and hence they are squezed in the low paid jobs.Therefore skilling of the labour force becomes an important and essential step. Training's relevance needs to be improved by closing the gap between institutional programmes and enterprises' needs, by having employers participate in training decisions and by encouraging enterprises to assume a greater role in financing and providing training. The movement in the wages identify shortages of particular skills and planners can plan training programmes accordingly (UNDP,1999). The training programs in Egypt in general are uncoordinated and fail to adjust with modernization and lack access to poor. Acceasssability of the poor to efficient training systems necessitates the expansion of the training programmes and the modification in their components to upgrade the skills of the poor.

4-The development of an extensive system for employment and income generation schemes in urban and rural areas. Rural/urban employment growth shows that the rural non agricultural sector is the fastest growing sector, growing at a rate higher than the rate of growth of non agricultural urban sector over the period 1990-98.(Asaad,R.1999).The expansion and promotion of farm and non farm activities in rural areas are important steps to eliminate urban rural migration in Egypt and population explosion in G.C.R. The expansion of job opportunities in agricultural areas is important as the rate of growth of rural labor force was faster over the period 1990-1998 than the rate of growth of urban labor force. With the recent changes in the Egyptian economy the agriculture sector lost almost 9564 of its employment over the period 1990-1995 and experienced a negative rate of growth (-3percent).(Nassar,H.2000)

Meanwhile the public sector –concentrated to a large extent in G.C.R-. might be a source of unemployed and displaced entrants to the labor market. To enable them to start a new job following measure may be emphasized:

- Allow the capitalization of job separation benefits giving displaced workers a source of capital for starting a small private business.
- Provide transitional employment through the creation of new temporary jobs (6 months to 1 year) in the same sequence as workers are displaced. The worker receives training in his transitional job to be able to find work in the private sector.
- Provide temporary employment for displaced workers in public work programs concentrated in low income areas.
- Early retirement compensatory payments should be accompanied with business services to enable them to start a business.

4.2 Intermediate Level:

Sectoral Requirements

1-Increasing output and employment in the formal (SME's)

While about 90 per cent of employment opportunities in the last two decades were generated outside the modern formal sector in G.C.R.still employment generation is particularly important in the modern formal sector with better quality and remunerated opportunities.

Rate of growth of employment in the *manufacturing sector* is very low, estimated at 0.5percent, while the *construction* sector, which witnessed a boom in labor absorption in the seventies show also a relatively lower rate of growth in employment estimated at 1.5percent over the period 1990-95, however it is still a potential sector for employment growth in Egypt (Nassar,2000).This can be achieved by shifting the structure of investments and the pattern of modern sector growth to concentrate more heavily than in the past, in more labour absorbing sectors, specifically modern small- and medium-scale enterprises (SMES) in all sectors. In G.C.R. 95percent of the private sector are small and micro enterprises, which account for nearly three-quarters of employment. Small and micro enterprises have very little fixed capital and use unskilled labor and keep low levels of inventory. Products of micro and small enterprises are characterized by low-quality as they use relatively old technology and rely on unskilled labor.(Ministry of Economy,1998)

- A wide range of policies are needed to stimulate and support the expansion of modern small- and medium-scale enterprises. However such policies can be summarized as follows:
- Support entrepreneurship development programmes.
- Improve access to finance for the poor as well as non financial services such as improvement of production methods, introduction of new technologies, skills training, business management training, expansion of marketing channels.
- Encourage linkages between enterprises of different sizes and across different sectors (UNDP,1999).

2- Expansion of productive employment opportunities:

Measures to facilitate the access of the poor to productive employment have to be undertaken through the provision of credits and institutional help. The lack of assets are to a large extent a constraint against productive employment for the poor.

Thus credit for the poor are effective measures to enable them to obtain the needed assets to undertake some economic activities for self support and empowerment.

Mobile credit offices especially in rural areas are efficient means to lower transaction costs. Lack of collateral is a crucial problem for the poor, and particularly for poor women, who have rarely access to assets. Group lending may be a solution in addition to simplified application procedures for obtaining a credit. Hiring staff from client communities facilitate the communication with the borrowing community. Additional effective measurement are short loan terms, the extension of very small loans to meet day to day financial requirements of women' business, full repayment of one loan brings access to another, limitation of time between application and disbursement and the development of a public image that credits are for the poor (World Bank, 1994)

Meanwhile increasing poor women's participation in the formal labour force can be enhanced by providing community childcare projects. Community mothers are also another alternative to help working women. These alternatives aim firstly to improve he living conditions in the homes of the community mothers to reach minimum standards for providing childcare.

3-Upgrading the in formal economy

The informal sector in G. C. R .is the labor and poverty sponge of the city or even the country, taken internal migration into consideration. Accordingly, a strategy for reducing poverty through employment generation in the urban informal economy needs to focus not only on increasing employment opportunities but also on increasing efficiency of the sector.

The following are the main policy framework suggested to improve the status of workers in the informal sector: (a) strengthening the informal information base in G.C.R., (b)providing social protection(health and social) for employees, workers and employers in the informal sector; (c) increasing access to financial services and better marketing opportunities through strengthening the financial intermediaries and microfinance; (d) promoting industrial and manufacturing activities and encouraging the use of improved technologies as informal activities are mainly concentrated in trade and services; (e) increasing the linkages with the formal economy through subcontracting and franchising system, and with the rural economy especially through rural non-farm activities; (f) improving infrastructure in poor areas in Greater Cairo Region to support informal economy (UNDP,1999)

4.3 Micro Level

Vulnerable Groups requirements

Three groups are the most vulnerable in the labor market: the unemployed, women and the children.

1-Unemployment

As seen from the previous analysis the poor are the unemployed.. Following measures may be adopted to eliminate this problem:

- *The provision of unemployment benefits* as a component of an employment promotion program by providing the unemployed with vocational training through the contracting between Ministry of Social Affairs with the Social Fund for Development can be a realistic solution to increase the income of the unemployed in the long run.
- *Support for all kinds of unemployed persons with small and medium* sized enterprises by providing different credits with low interests and by offering technical assistance.
- *Pensions given to injured persons who lost their working capacity* must vary in accordance to the degree of the injury and the extent of the reduction in their income.
- *Income maintenance payment (sickness benefit)* should be given to an employed person who is incapable of working due to illness and whose income is thus reduced.
- *Finally accident insurance system* provides the employee with reliable protection against accidents in work.

2-Promoting poor women's employment and income opportunities

Self employed females are suffering from severe poverty. Widening the employment opportunities available to poor women, improving the returns to their labour, and enhancing the terms and conditions of their employment, requires multi-faceted strategies, emphasizing self employment and microfinance. Possibilities of obtaining credit, management training, and business advisory services could directed at women entrepreneurs. Non-formal education and vocational training represent important avenues for women to acquire better and higher skills. Non governmental organizations can play a role in this respect.

Finally self employed women's association (SEWA) is a successful experience to help and promote poor women in many developing countries like India. SEWA draw its membership from very poor female categories like petty vendors , casual labourer. These organizations aim to enhance women's income earning opportunities as well as their working environment by providing credits, training and appropriate technology.(WDR,1994)

3-Working children:

Work of Children reflects the poverty of families. Raising the socioeconomic standard of families is an important measure to reduce the presence of this phenomena. Several measures can be adopted in this respect:

Children allowance for working children to continue education. Even if the children are working these allowances will be helpful in increasing the educational attainment of these children.

The period suggested for this allowance should be the period of basic education at least. It may be extended to complete vocational education. Handicapped children in poor families should be paid higher allowances as they cannot work. In specific cases where working children have to leave their work for education an extra stipend for them will be needed to compensate the decline in the family's income.

Educational maintenance cards serve as educational promotion for vulnerable children who have finished basic education successfully and want to continue vocational training or general education. These carts serve as financial aid in their further education and training. .

Public maintenance benefits for children in female headed households till the age of completed basic education are also recommended especially if the children do not receive any maintenance payment from the other living parent.

Appendix

Application of Factor Analysis

Factor analysis is a technique particularly suited for analyzing the complex, multidimensional problems. Factor analysis is utilized to examine the underlying patterns or relationship for a large number of variables and determine if the information can be considered or summarized, with minimum loss of information, in a smaller set of factors or components.

Table (1) indicates the factor loading, communality and coefficient for each variable. Factor loading is the correlation between the original variable and the factor. Variables with higher loadings are considered more important. Communalities show the amount of variance in a variable that is accounted for the factor (or factors). Large communalities indicate that a large amount of the variance in a variable has been extracted by the factor solution. Coefficients are the weights given to each variable to construct a factor. As expected, variables of insufficient income and had to borrow have the largest loading, indicating that those variables explain most of the variability in the constructed index. Percentage of members of the household with secondary education and above, durable goods and means of transportation variables are also indicative, but with smaller percentage. The only variable that is negatively correlated with the poverty index is household size. Kind of toilet facilities and having separate kitchen variables have small correlation with the index. This may be explained by the fact that variability of these two variables is very small and households are homogeneous in this respect, as the survey includes Greater Cairo only. However, I preferred to include them in the factor because they reflect very deprived living conditions.

The index has been standardized to be ranged from zero to one. That is;

$$\text{The standardized index} = \frac{\text{original} - \text{minimum}}{\text{maximum} - \text{minimum}}.$$

The mean value of the index for the surveyed household is .558 and the median attained .688.

Having constructed the poverty index, each household is assigned a poverty score; which is a linear combination of the chosen 17 variables weighted by the factor coefficient score presented in table (1). Again low values of the index correspond to low living standards.

Investigating of the differentials in the living standards with its various dimensions and the impact of employment, education and other socio economic indicators on determining different living standards are our major objectives of this study. For this purpose, population can either be divided into poor and non-poor or into three groups with equal number of households. To this point the multidimensions of poverty is expressed into one single index or score and can be used to distinguish between the poor and non poor, for further analysis of poverty. Households are arranged according to their poverty score and a cut off point was chosen to separate between the poor and non poor. We chose the cut off point that produces similar percentages of the poor as those obtained by El-Laithy et al 1999 (which is based on income poverty, and the concept of absolute poverty is used). According to El-Laithy et al 1999, the percentages of the poor were 34.3 percent (33.1 percent, 45.3 percent and 33.6 percent, in Cairo, Urban Qualybia and Urban Giza, respectively), which resulted a cut off point at a value of .418 of the poverty index. Household whose poverty index score is less than or equal to .418 is considered poor household and vise versa.

Another approach for assessing characteristics of not only the poor but also the middle and upper classes, the whole population was divided into three equal groups. Henceforth, two cut off points were derived, .395 and .746. Households with poverty index less than .395 are considered poor, households whose poverty index between .395 and .746 belong to the lower middle class, while households with index above .746 are high class. The distribution of these three groups by governorates under investigation are presented in table (2). It appears that poor class is more represented in Qualybia, where 43.7 percent of its surveyed households are poor, while only 16.4 percent belong to the upper middle and rich class. In Cairo and Giza population is distributed evenly across the three classes with slight higher representation of the upper and rich class. It should be noted that poverty in this respect is relative. Poor individuals are considered poor or deprived because they have the lowest living standards compared to the rest of population.

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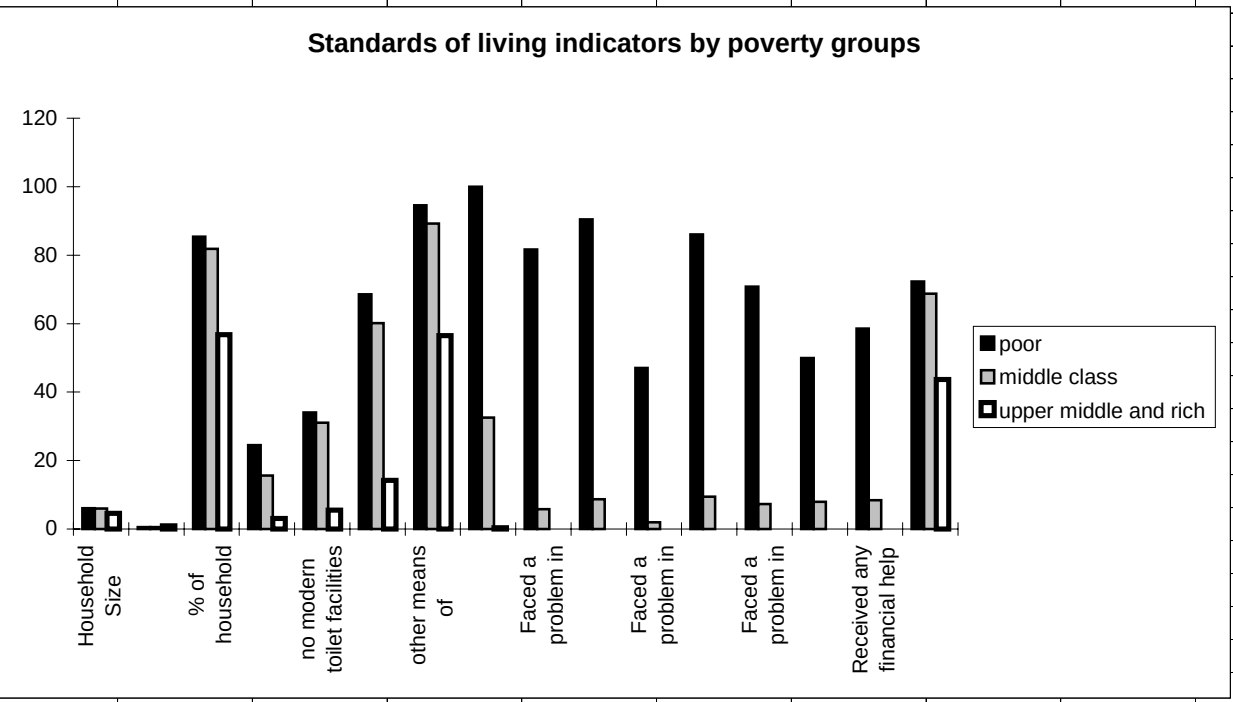
Standards of living indicators by poverty groups
120
100
80
60
40
20
0
poor
middle class
upper middle and rich
Household Size
% of household
no modern toilet facilities
other means of
Faced a problem in
Faced a problem in
Faced a problem in
Received any financial help

Figure 2: Percentage share of Poverty Groups by Income Bracket

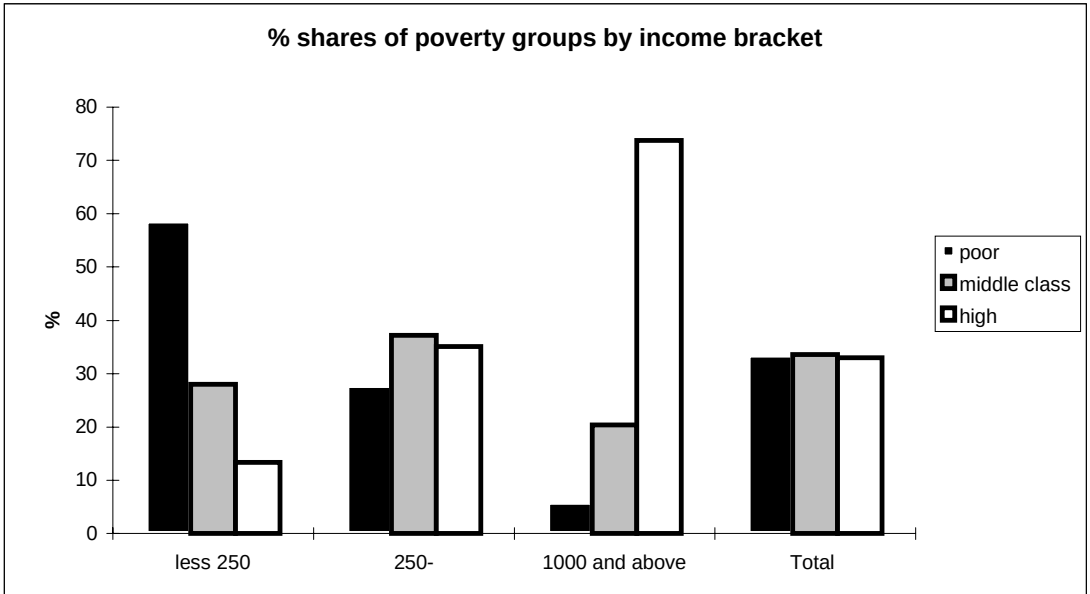

Figure 3: Work Status of the Whole Sample by Welfare Groups (Without Handicapped & Do Not Desire)

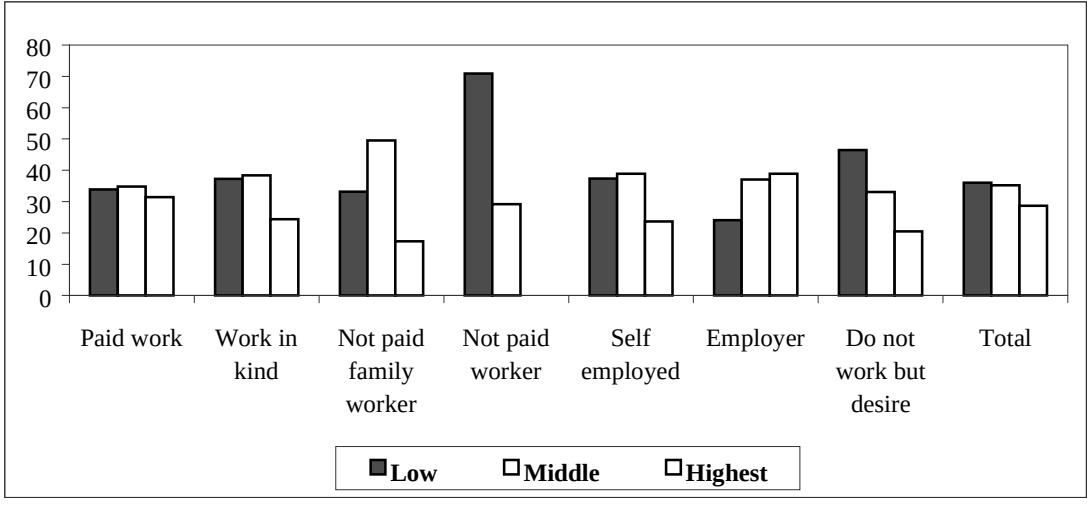

Figure 4: Self-Employed by Welfare Categories

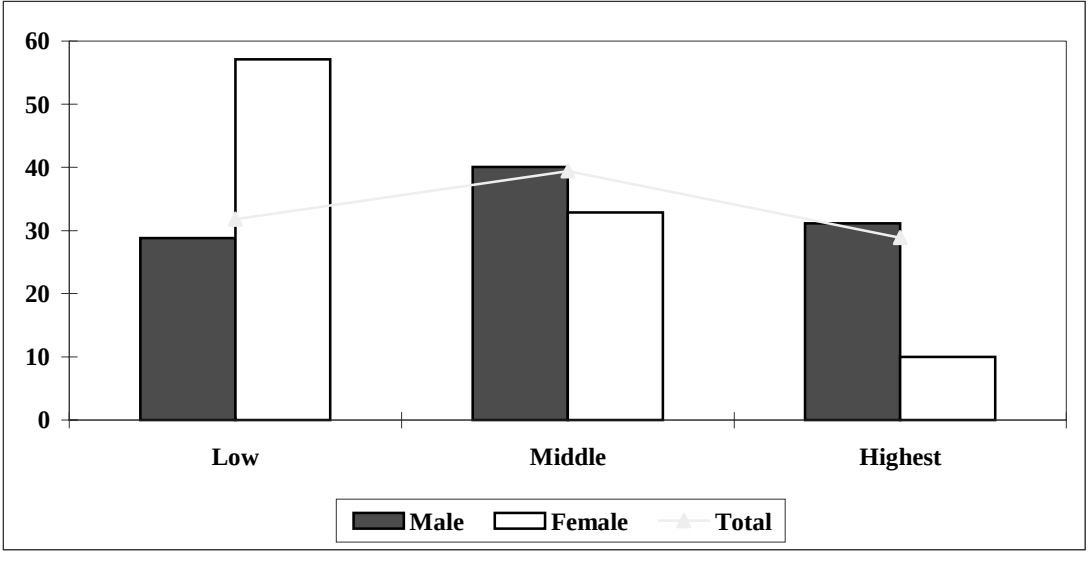

Figure 5:

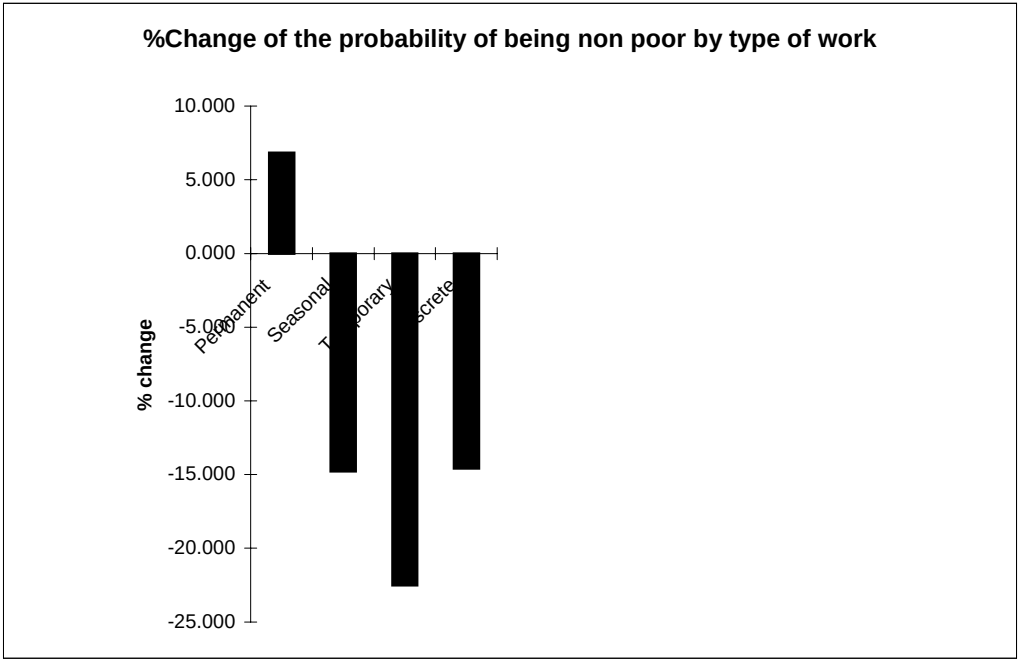
%Change of the probability of being non poor by type of work
% change
10.000
5.000
0.000
-5.000
-10.000
-15.000
-20.000
-25.000
Permanent
Seasonal
Temporary
Discrete

Figure 6: Percent Change in Probability of being Non-Poor by Educational Status

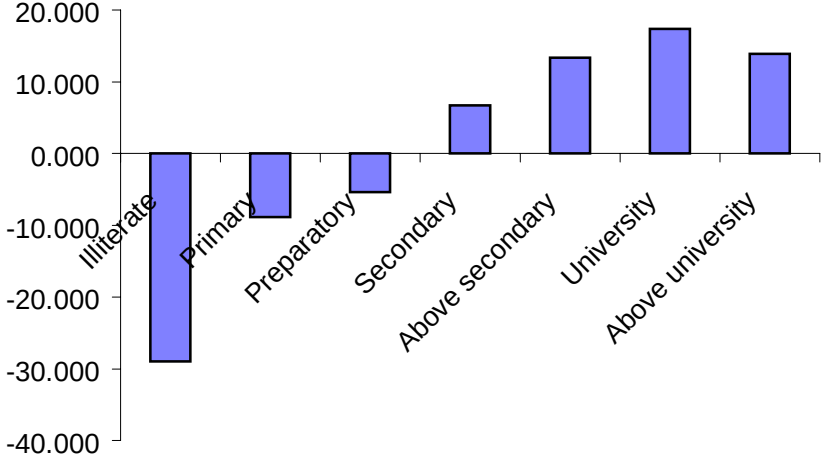

Figure 7: Percent Change in Probability of Being Non-Poor by Occupational Staus

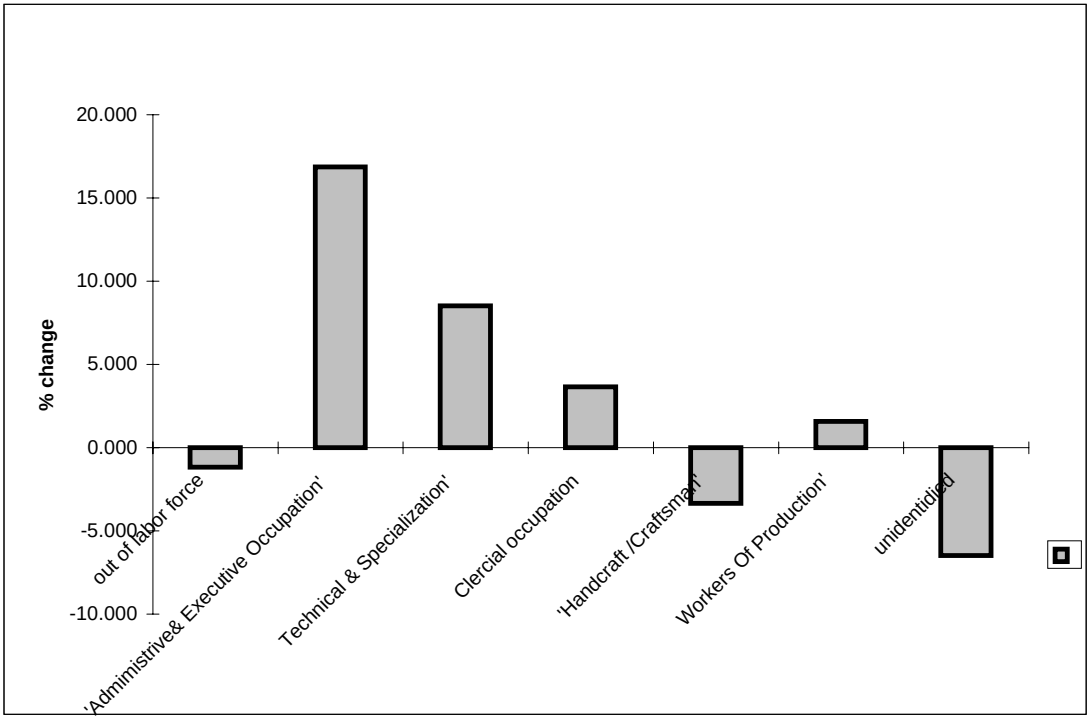

Table 1: Mean of Variables by Welfare Groups

Variable	Low (Poor)	Middle	High
Household Size	6.042	6.015	4.583
Rooms per person	0.5282	0.6072	0.9067
% of household members with less than secondary level of education	85.39	81.85	56.76
Having no separate kitchen	24.47	15.62	3.06
No modern toilet facilities	34.05	31.04	5.54
No ownership of durable goods	68.55	60.17	14.20
Other means of transportation than a car or a taxi	94.58	89.23	56.52
Insufficiency of income	100.00	32.57	0.36
Faced a problem in expenditure on food	81.68	5.84	0
Faced a problem in expenditure on clothes	90.44	8.73	0
Faced a problem in expenditure on rent	47.01	1.95	0
Faced a problem in expenditure on medical care	86.02	9.48	0
Faced a problem in expenditure on education	70.80	7.30	0
Faced a problem in other expenditure	49.99	7.94	0
Received any financial help	58.53	8.46	0
Had to sell assets	72.33	68.74	43.64

Table 2: Welfare Map

Classes	Cairo	Qualybia	Giza	Total
Column percentage				
Low(Poor)	32.07	43.84	33.01	33.34
Middle	32.70	39.73	32.73	33.34
High	35.18	16.44	34.27	33.34
Total	100	100	100	100
Row percentage				
Low (Poor)	66.48	11.79	21.73	100
Middle	67.77	10.68	21.55	100
High	72.93	4.42	22.56	100
Total	69.11	8.97	21.95	100

Table 3: Age Structure of Different Welfare Groups (%)

Age	Low (Poor)	Middle Class	High (Upper Middle & Rich Class)	Total
1-10	23.25	22.89	22.11	22.81
11-20	29.42	26.93	19.00	25.71
21-40	27.23	28.96	32.40	29.25
41-60	16.04	15.87	19.07	16.80
60 and above	4.05	5.35	7.43	5.43
Total	100.00	100.00	100.00	100.00
Average	24.61	25.54	28.47	25.99

Table 4: Welfare Groups by Household Size, (%)

Household Size	Low (Poor)	Middle Class	High (Upper Middle & Rich Class)	Total
1	2.70	3.80	10.00	5.07
2-4	19.06	22.85	39.59	25.97
4-6	45.33	40.25	41.39	42.45
7-10	29.39	28.00	8.12	23.15
10-15	2.88	3.85	0.89	2.69
more than 15	0.65	1.24		0.68
Total	100.00	100.00	100.00	100.00
Average	6.05	6.01	4.58	5.64

Table 5: Distribution of Educational Status by Welfare Groups

	Low (Poor)	Middle Class	High (Upper Middle & Rich Class)	Total
Column Percentage				
Illiterate	26.90	23.18	9.14	20.77
Read and write	23.80	25.10	17.48	22.55
Basic education	32.62	30.48	29.11	29.41
Secondary and above	14.61	17.24	33.07	25.04
University and above	2.10	3.99	16.73	6.73
Total	100.00	100.00	100.00	100 (13357)
Row Percentage				
Illiterate	48.125	39.978	11.896	100
Read and write	39.210	39.874	20.950	100
Basic education	41.217	37.118	26.757	100
Secondary and above	21.681	24.671	35.706	100
University and above	11.568	21.246	67.186	100
Total	37.157	35.816	27.027	100(13357)

Table 6: Distribution of Welfare Groups by Income Brackets

Income Bracket	Low (Poor)	Middle Class	High (Upper Middle & Rich Class)	Total
Column Percentage				
<100	3.46	1.05	0.39	1.64
100-	39.08	19.18	9.47	22.63
250-	43.50	48.99	35.16	42.59
500-	11.55	21.67	29.30	20.80
750-	0.96	4.12	7.32	4.12
1000-	1.25	3.36	9.18	4.57
1500-	0.10	0.86	4.30	1.74
2000-	0.00	0.48	2.73	1.06
3000-	0.10	0.29	2.15	0.84
Total	100.00	100.00	100.00	100.00
Row Percentage				
<100	3.46	1.05	0.39	1.64
100-	39.08	19.18	9.47	22.63
250-	43.50	48.99	35.16	42.59
500-	11.55	21.67	29.30	20.80
750-	0.96	4.12	7.32	4.12
1000-	1.25	3.36	9.18	4.57
1500-	0.10	0.86	4.30	1.74
2000-	0.00	0.48	2.73	1.06
3000-	0.10	0.29	2.15	0.84
Total	100.00	100.00	100.00	100.00

Table 7: Annual per Capita Income and Expenditure by Welfare Groups

	Annual per Capita Income	Annual per Capita Expenditure
Low (Poor)	697.21	838.59
Middle	1014.59	1009.30
High	2137.50	1878.31
All Sample	1200.56	1178.08

Table 8: Relative Distribution of the Sample, Labor Force and the Employed by Welfare Group

Welfare groups	Male Col%	Female Col%	Total Count	Total Col%
All Society				
Low(Poor)	36.2	37.6	4963	36.9
Middle	36.8	34.5	4786	35.7
High	27.0	27.8	3610	27.4
Total %	100	100	13359	100
Count	6794	6565		
Labor Force				
Low(Poor)	35.4	32.7	1658	34.8
Middle	36.9	28.1	1667	35.2
Highest	27.7	39.3	1395	30.0
Total %	100	100	100	100
Count	3771	949	4720	
Employed				
Low(Poor)	34.5	29.3	1492	33.6
Middle	37.3	28.8	1582	35.8
Highest	28.1	41.8	1330	30.7
Total %	100.0	100.0		100.0
Count	3589	815	4404	

Table 9: Relative Distribution of the Sample, Labor Force and the Employed by Welfare Group

Welfare groups	Male Col%	Female Col%	Total Count	Total Col%
All Society				
Low(Poor)	36.2	37.6	4963	36.9
Middle	36.8	34.5	4786	35.7
High	27.0	27.8	3610	27.4
Total %	100.0	100.0	13359	100.0
Count	6794	6565		
Labor Force				
Low(Poor)	35.4	32.7	1658	34.8
Middle	36.9	28.1	1667	35.2
Highest	27.7	39.3	1395	30.0
Total %	100.0	100.0	100	100.0
Count	3771	949	4720	
Employed				
Low(Poor)	34.5	29.3	1492	33.6
Middle	37.3	28.8	1582	35.8
Highest	28.1	41.8	1330	30.7
Total %	100.0	100.0		100.0
Count	3589	815	4404	

Table 10: Unemployment Rate by Gender and Welfare Groups

	Male			Female			Total		
	Welfare Categories			Welfare Categories			Welfare Groups		
	Low (Poor) Col%	Mid. Class Col%	High Class Col%	Low (Poor) Col%	Mid. Class Col%	High Class Col%	Low (Poor) Col%	Mid. Class Col%	High Class Col%
Employed	86.7	88.9	93.5	72.2	83.1	90.4	81.8	89.7	94.0
Unemployed	13.3	11.1	6.5	27.8	16.9	9.6	18.2	10.3	6.0
Total %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Count	1344	1398	1029	314	269	366	-	-	-

Table 11: Mean Income By Education & Welfare Group or Workers and Employees (LE)

Workers and Employees	Welfare Groups			
	Low (Poor)	Middle Class	High (Upper Middle and Rich Class)	Group Total
Educational Category				
Illiterate	201.73	269.65	223.73	225.71
Read only	179.88	247.02	0	206.70
Read & write	228.06	310.33	280.6	278.31
Primary general	201.36	272.40	0	238.47
Primary Azhary	173.60	140	0	167.73
Preparatory general	242.57	209.27	293.89	235.78
Preparatory Azhary	180.0	0	0	90.00
Preparatory Vocational	234.28	0	0	193.37
Secondary general	210.80	288.05	315.8	270.23
Secondary Azhary	262.50	308.33	250.00	286.36
Secondary Vocational	212.39	243.95	305.14	263.88
Intermediate Institute	188.43	379.74	283.83	298.67
University	295.78	349.33	412.12	384.40
Above university	300	349.29	614.68	580.10
Total	219.94	274.48	347.16	280.84
Mean Income for Employed by Occupation				
Administrative & Executive Occ.	535.9	582.58	605.28	590.97
Technical & Professional Occ.	216.45	305.61	374.30	332.48
Clerical Occ.	201.92	290.99	381.75	317.93
Agricultural Occ.	82.0	201.68	0	174.26
Sales & Marketing	200.24	167.21	201.41	187.54
Services	273.66	278.9	333.74	284.34
Handicraft	295.73	282.3	413.77	309.15
Production Workers	337.14	268.05	334.08	305.30
Unidentified	195.00	205.45	204.22	199.82
Total	267.52	274.48	374.06	305.37

Table 12: Occupational Structure by Welfare Groups

Items	Welfare Groups				
	Low (Poor) Col%	Middle Class Col%	High Col %	Total Count	Total Col %
Administrative & Executive Occ.	3.5	6.9	12.1	347	7.3
Technical & Professional Oc.	11.3	13.9	34.8	914	19.2
Clerical Occ.	11.6	12.6	20.0	689	14.4
Agricultural Occ.	0.9	0.8	0.07	30	0.6
Sales & Marketing	10.9	11.0	6.2	456	9.5
Services	17.5	16.9	7.8	629	13.2
Handicraft	30.8	29.2	11.6	1171	24.5
Production Workers	9.6	9.8	6.4	418	8.8
Unidentified	3.8	2.2	1.0	116	2.4
Total %	100	100	100		
Count	1661	1704	1405	4770	100

Table 13: Stability of Work by Welfare Categories

Items	Welfare Categories				
	Low (Poor) Col%	Mid. Class Col%	Highest (Upper Mid. & Rich Class Col%	Total Count	Total Col%
Place of Work					
In the Street	6.1	4.5	1.1	75	3.9
At home	0.6	0.8	0.1	11	0.5
In an enterprise/outside home	93.2	94.7	98.8	2046	95.6
Total	100.0	100.0	100.0	2132	100.0
Nature of Work					
Permanent	76.7	80.9	89.9	1835	82.5
Seasonal	3.8	5.7	2.8	57	4.1
Temporary	7.7	4.7	5.5	100	6.0
Other	11.8	8.6	1.8	139	7.4
Total	100.0	100.0	100.0	2131	100.0

Table 14: Working with Contract/License/Registration by Welfare Group

	Welfare Groups				
	Low (Poor)	Mid. Class	High (Upper Mid. & Rich Class)	Total	
	Col %	Col %	Col %	Count	Col %
Working with a contract/license/ register	40.8	45.6	77.1	2359	53.7
Working without a contract/license/ register	59.2	54.4	22.9	2038	46.3
Total	100.0	100.0	100.0	4397	100.0

Table 15: Coverage by Social and Health Insurance by Welfare Groups for Workers and Employees Only

	Welfare Groups			Total	
	Low (Poor)	Mid. Class	High(Upper Mid. &Rich Class		
	Col %	Col %	Col %	Count	Col %
Do you pay social insurance?					
Yes	43.9	50.7	76.3	1344	57.1
No	56.1	49.3	23.7	785	42.9
Total	100.0	100.0	100.0	2129	100.0
Do you pay health insurance?					
Yes	41.8	45.	72.3	1267	53.3
No	58.2	54.4	27.7	862	46.7
Total	100.0	100.0	100.0	2129	100.0

Table 16: Formality by Welfare Groups for the Self-Employed

	Welfare categories			
	Low (Poor) Col%	Mid.Class Col%	High(Upper Mid. & Rich Class Col%	Total Col%
Formal	5.5	14.7	36.9	18.2
Informal	94.5	85.3	63.1	81.8
Total %	100.0	100.0	100.0	100.0
Count	181	219	163	563

Table 17: Basic Characteristics of the Female Self-Employed by Formality

Items Welfare categories	Formality		Total	
	Formal Col%	Informal Col%	Count	Col%
Low(Poor)	9.5	36.6	181	31.7
Middle	31.6	41.0	219	39.3
Highest	58.9	22.4	163	29.0
Total %	100.0	100.0		100.0
Count	102	461	563	
Categories of Age				
15-	-	1.6	1	1.5
20-	-	3.7	2	3.6
25-	-	4.6	3	4.5
30-	32.0	20.3	14	21.2
40-	15	38.9	23	37.7
50-	53.0	21.1	13	22.0
60+	-	9.5	6	9.5
Total	100	100	62	100.0
Levels of Education				
Illiterate	-	63.1	37	61.1
Read & write	20.0	18.7	13	19.7
Primary general	-	6.6	4	6.4
Preparatory general	13.6	6.4	4	6.2
Secondary general	12.3	1.6	1	1.5
Secondary Vocational	-	2.1	1	2.0
University	55.1	1.6	2	3.1
Total	100.0	100.0	62	100.0
Marital Status				
Never Married	-	8.3	5	8.1
Married with children	52.1	60.9	39	60.6
Divorced- Separated	5.1	6.9	4	6.7
Widowed	46.8	23.9	14	24.7
Total	100.0	100.0	62	100.0

Table 18: Current Formality of Work by Pervious Formality of Work

Item	Formal Col. %	Informal Col. %	Total Count	Total Col. %
Low poor				
Formal	46.9	38.4	58	39.5
Informal	53.1	61.6	80	60.5
Total	100	100	138	100
Middle Class				
Formal	67.9	38.6	70	43.4
Informal	32.1	61.4	76	56.6
Total	100	100	146	100
Highest (Upper Middle &Rich Class)				
Formal	71.8	62.1	109	65.3
Informal	28.2	37.9	57	34.7
Total	100	100	166	100

Table 19: Child Labor by Welfare Groups

Number of Working Children	Low (Poor)	Mid. Class	High (Upper Mid. & Rich Class)	Total
0	1062	1061	1067	3190
1	57	49	16	122
2	6	5	0	11
3	7	0	0	7
Total	1094	1092	1073	3259
% of working children	6.4	4.9	0.15	4.3

Table 20: Work of Children and Education by Welfare Categories

	Low Poor	Mid. Class	Highest (upper Mid. & Rich Class	Total	
	Col%	Col%	Col%		
Do you go to school and work?					
Yes	40.7	54.3	87.6	70	50.1
No	59.3	45.7	12.4	70	49.9
Total	100.0	100.0	100.0	140	100.0
Have you ever gone to school					
Yes	65.8	75.7	100	49	70.8
No	34.2	24.3	-	21	29.2
Total	100	100	100	70	100
How many hours do you work daily?					
1-6 hours	12.4	15.8	62.9	24	17.0
7-8 hours	19.7	16.7	12.4	24	17.8
9-12 hours	55.9	56.2	24.7	76	54.3
More than 12 hours	12.0	11.4	-	16	11.0
Total	100.0	100.0	100.0	140	100.0
How many days a week do you work?					
3-5 Days	2.9	8.7	-	8	5.6
6 Days	69.9	79.1	52.8	102	73.4
7 Days	27.3	12.3	47.2	30	21.0
Total	100.0	100.0	100.0	140	100.0
Does employer treats you badly (beats/shouts at you)?					
Yes	42.4	29.3	24.7	49	34.9
No	57.6	70.7	75.3	91	65.1
Total	100.0	100.0	100.0	140	100.0
Does employer makes health examination each time period?					
Yes	4.2	1.8	16.4	4	3.7
No	95.8	98.2	83.6	110	96.3
Total	100.0	100.0	100.0	114	100.0

Table 21: Income from Child Work by Welfare Groups

Items	Welfare Groups				
	Low Poor	Middle Class	Highest	Total	
	Col%	Col%	Col%		
Do you receive an income from your work?					
Yes for cash	79.4	82.4	61.8	112	79.9
Yes in kind	6.7	5.0	-	7	5.5
No	13.9	12.5	38.2	21	14.6
Total	100.0	100.0	100.0	140	100.0
Wage computed per month in pounds					
Less than 50 LE	49.1	31.5	20.0	39	38.8
50-	30.6	45.5	20.0	44	37.7
100-	16.4	20.8	60.0	25	20.6
200 & above	1.0	2.2	-	4	2.9
Total	100.0	100.0	100.0	112	100.0
How much do you give your family?					
All of it	40.2	34.7	33.3	29	37.2
Most of it	54.9	43.1	33.3	38	48.2
Part of it	4.9	9	33.3	12	14.6
Total	100.0	100.0	100.0	79	100.0

Table 22: Logistic Regression Results

Variable	Coefficient B	Exp. (B)	Avg.	Prob Poor	No% chg.	Marginal Effect
Education						
Illiterate	-	-	-	0.464	-28.954	-
Read & write	0.095	1.100	0.226	0.660	1.119	0.022
Read only	0.009	1.009	0.031	0.641	-1.881	0.002
Primary	-0.184	0.832	0.178	0.595	-8.852	-0.042
Preparatory	-0.089	0.915	0.130	0.618	-5.370	-0.020
Secondary	0.263	1.300	0.154	0.697	6.716	0.060
Above secondary	0.477	1.611	0.022	0.740	13.340	0.108
University	0.618	1.856	0.053	0.766	17.366	0.140
Above university	0.495	1.641	0.004	0.744	13.879	0.112
Employment						
Paid work	-	-	-	0.685	4.895	-
Work in kind	-1.384	0.251	0.001	0.353	-45.989	-0.314
Not paid family worker	-0.029	0.971	0.006	0.679	3.928	-0.007
Not paid worker	-2.481	0.084	0.000	0.154	-76.424	-0.562
Self employed	-0.084	0.920	0.019	0.667	2.091	-0.019
Employer	-0.257	0.773	0.014	0.627	-3.966	-0.058
Do not work but desire	-0.117	0.889	0.072	0.659	0.941	-0.027
Do not work & do not desire	-0.195	0.823	0.659	0.642	-1.750	-0.044
Has a handicap	-0.067	0.935	0.008	0.670	2.654	-0.015
Permanent	-	-	-	0.698	6.828	-
Seasonal	-0.168	0.845	0.015	0.557	-14.776	-0.038
Temporary	-0.372	0.690	0.009	0.506	-22.518	-0.084
Discrete	-0.164	0.849	0.021	0.558	-14.595	-0.037
Search for work or a change of current work	-	-	-	0.559	-14.405	-
Do not Search for work or a change of current work	0.439	1.551	0.905	0.663	1.505	0.099
Household size	-0.018	0.982	5.6	-	-	-0.004
Per capita expenditure	-0.001	0.999	116.87	-	-	0.000
Occupation						
Out of labor force	-	-	-	0.657	-1.164	-
Admin& exec. occup.	0.597	1.817	0.023	0.777	16.864	.133
Technical & Specialization	0.301	1.352	0.060	0.721	8.521	.067
Office Work Occupation	0.145	1.157	0.053	0.689	3.648	.032
Handcraft /Craftsman	-0.064	0.938	0.096	0.642	-3.355	-.014
Production Workers	0.082	1.086	0.033	0.675	1.580	.018
Non-identify	-0.153	0.858	0.010	0.622	-6.480	-.034

Table 22: contd.

Variable	Coefficient B	Exp. (B)	Avg.	Prob Poor	No % chg.	Marginal Effect
Governorate						
Cairo	-	-	-	0.654	0.200	-
Qualyubia	-0.243	0.785	0.122	0.598	-8.485	-0.055
Giza	0.132	1.142	0.179	0.684	4.688	0.030
Availability of kitchen						
Kitchen/spcl area for cooking	-	-	-	0.664	1.717	-
No kitchen/spcl area for cooking	-0.317	0.728	0.157	0.590	-9.615	-0.072
Availability of piped water						
Residence connected	-	-	-	0.659	0.849	
Residence is not connected	-0.475	0.622	0.052	0.545	-16.469	-0.108
Availability of toilet						
Not found	-	-	-	0.467	-28.470	-
Modern	0.896	2.451	0.446	0.682	4.492	0.203
Tradition with flush	0.743	2.101	0.291	0.648	-0.753	0.168
Tradition with bucket flush	0.561	1.753	0.257	0.606	-7.241	0.127
Hole	-0.462	0.630	0.002	0.356	-45.515	-0.105
Have Health Insurance	-	-	-	0.659	0.987	-
Do not have	-0.129	0.879	0.222	0.630	-3.521	-0.029
Dependency ratio	-0.102	0.903	1.8	-	-	-0.023
Per capita income	0.021	1.021	119.96	-	-	0.005
Constant	-1.674	-	-	-	-	-

Appendix

Application of Factor Analysis

Factor analysis is a technique particularly suited for analyzing complex, multidimensional problems. Factor analysis is utilized to examine the underlying patterns or relationship for a large number of variables and determine if the information can be considered or summarized, with minimum loss of information, in a smaller set of factors or components.

Table A1 indicates the factor loading, communality and coefficient for each variable. Factor loading is the correlation between the original variable and the factor. Variables with higher loadings are considered more important. Communalities show the amount of variance in a variable that is accounted for the factor (or factors). Large communalities indicate that a large amount of the variance in a variable has been extracted by the factor solution. Coefficients are the weights given to each variable to construct a factor. As expected, variables of 'insufficient income' and 'had to borrow' have the largest loading, indicating that those variables explain most of the variability in the constructed index. Percentage of members of a household with secondary education and above, durable goods and means of transportation variables, are also indicative, but with smaller percentages. The only variable that is negatively correlated with the poverty index is household size. Kind of toilet facilities and 'having separate kitchen variables' have small correlation with the index. This may be explained by the fact that the variability of these two variables is very small and households are homogeneous in this respect, as the survey includes Greater Cairo only. However, we preferred to include them in the factor analysis because they reflect very deprived living conditions.

The index has been standardized to range from zero to one. That is;

$$\text{The standardized index} = \frac{\text{original-minimum}}{\text{maximum-minimum}}$$

The mean value of the index for the surveyed household is .558 and the median attained .688.

Having constructed the poverty index, each household is assigned a poverty score; which is a linear combination of the chosen 17 variables weighted by the factor coefficient score presented in Appendix Table A1. Again, low values of the index correspond to low living standards.

Investigating of the differentials in the living standards with their various dimensions and the impact of employment, education and other socio economic indicators on determining different living standards are the major objectives of this study. For this purpose, population can either be divided into poor and non-poor or into three groups with equal number of households. To this point the multi-dimensional nature of poverty is expressed in one single index or score and can be used to distinguish between the poor and non-poor for further analysis of poverty. Households are arranged according to their poverty score and a cut-off point was chosen to separate the poor and non-poor. A cut-off point was chosen that produces similar percentages of the poor, as those obtained by El-Laithy, *et al* (1999), which is based on income poverty, and uses the concept of absolute poverty. According to the El-Laithy research, the poor comprised 34.3 percent of the whole sample (33.1 percent, 45.3 percent and 33.6 percent, in Cairo, Urban Qualybia and Urban Giza, respectively), which resulted in a cut off point at a value of .418 of the poverty index. Households whose poverty index score is less than or equal to .418, are considered poor households and vice versa.

As another approach for assessing characteristics of not only the poor, but also of the middle and upper classes, the whole population was divided into three equal groups. Henceforth, two cut-off points were derived, .395 and .746. Households with a poverty index of less than .395 are considered poor, households whose poverty index falls between .395 and .746 belong to the lower middle class, while households with an index above .746 are high class. The distribution of these three groups by the governorates under study are presented in Table 2. It appears that the poor class is more represented in Qualybia, where 43.7 percent of its surveyed households are poor, while only 16.4 percent belong to the high welfare group (comprised of upper-middle and rich). In Cairo and Giza, the population is distributed evenly across the three groups with slightly higher representation of the high welfare. It should be noted that poverty in this respect is relative. Poor individuals are considered poor or deprived because they have the lowest living standards as compared to the rest of population.

Appendix

Table A1: Factor Analysis Results

Variable	Factor Loadings	Communalities	Coefficients
Household Size	-.23357	.05456	-.03746
Rooms per person	.32281	.10421	.05178
% of household members with secondary level of education and above	.37869	.14341	.06074
Educational status of head of household	.34068	.11606	.05464
Having separate kitchen	.25379	.06441	.0.04071
Type of toilet facilities	.20407	.041264	.03273
Durable goods ownership	.38889	.15124	.06238
Means of transportation	.33253	.11058	.05334
Sufficiency of income	.88765	.78792	.14237
Faced a problem in expenditure on food	.82317	.67760	.13203
Faced a problem in expenditure on clothes	.86575	.74952	.13886
Faced a problem in expenditure on rent	.63657	.40522	.10210
Faced a problem in expenditure on medical care	.83617	.69918	.13412
Faced a problem in expenditure on education	.72816	.53022	.11679
Faced a problem in other expenditure	.88789	.78835	.14241
Received any financial help	.61341	.37627	.09839
Had to sell assets	.65902	.43431	.10570