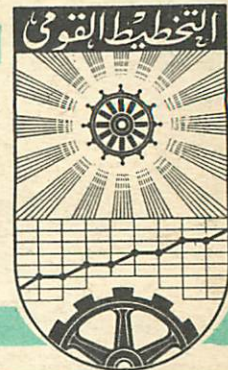


ARAB REPUBLIC OF EGYPT



الإستعداد

THE INSTITUTE OF NATIONAL PLANNING

Memo No. (1393)

Government Policies and the Labour
Market in Egypt

By

Dr. Karima Korayem.

February 1984.

GOVERNMENT POLICIES AND THE LABOUR MARKET IN EGYPT

By : Dr. Karima Korayem *

1- Introduction :

The objective of this paper is twofold. First, to find out the government policies that have had an impact on the labour market ; and second , to examine those impacts by analysing the development in the levels and structures of unemployment, employment and wages in Egypt.

Two points should be made clear. First, the examination of the labour force data available in Egypt shows that the Population Census is, relatively speaking, the most dependable source in this regard. Thus, the bulk of the analysis will be between 1960 and 1976, where the last two Population Censuses were carried out ¹. However, to carry out the analysis as close as possible to the present point of time the second best alternative source of the labour force data - the Labour Force Sample Surveys - will be used only to indicate the trend of the changes in the labour market after 1976 and up to 1980 (the latest data available), whenever the data allow ².

* IBM-Cairo Scientific Center and El-Azhar University.

- (1) There was a Population Census in 1966, but this was just a sample survey of questionable quality.
- (2) It is worth noting that the unemployment and employment data in the Labour Force Sample Surveys are less disaggregative than the comparative data in the Population Census. Consequently, the extension of the analysis to 1980 is not feasible in all cases.

Second, the changes in the unemployment and employment cannot be related explicitly to the government policies that have had impacts on the labour market in Egypt. This is not only because of the nonavailability of a consistent time series data that cover the period under consideration ¹, but also because of the difficulty of ascribing a certain change in unemployment and/or employment to a specific policy. But, since the mentioned policies have direct and indirect effects on the labour market, their combined effects are certainly reflected in the change in the unemployment and employment structures in Egypt. Thus, our analysis of the impact of the government policies on the labour market will be made by analysing the changes that took place in the levels and structures of the unemployment and employment in Egypt during 1960-1976, and up to 1980 whenever the data allow. The same applies to wages as well.

Thus the paper will be divided into four parts besides the introduction. Part two includes the main policies that were adopted since 1960 and are expected to have had impacts on the labour market. Parts three and four analyse the unemployment and employment dimensions of the labour force in Egypt since 1960. Part five discusses the mechanism of wage determination and wage structure in the Egyptian labour market.

(1) Since the data that we shall mainly depend upon- the Population Census data - are available only at two points of time, 1960 and 1976.

2- From Government Policies to Labour Market

We shall differentiate between two types of policies in terms of their impact on the labour market. The first type affects the labour market directly through its impact on the demand or supply sides of the labour market, while the second type affects the labour market (specifically the demand side) indirectly through its impact on the sectoral structure of the economy.

A- Policies with Direct Impacts on the Labour Market:

The main government policies which were applied since 1960 and had a direct impact on the labour market - through affecting the supply side and/or the demand side of the market- are the following :

- (i) Shortening the work week in the public enterprises from 48 to 42 hours in 1961/62⁽¹⁾,
- (ii) extending free education to the university level since 1962⁽²⁾,
- (iii) guaranteeing a job for the graduates of intermediate and university levels since 1962,
- (iv) the lengthening of the military draft period between the 1967 and 1973 Arab-Israeli wars,
- (v) liberalizing regulations for the emigration of the Egyptians after 1973.

- (i) Shortening the work week in the public enterprises from 48 to 42 hours in 1961/62. This had a once-and-for-all effect on the demand side in the labour market.

(1) B. Hansen "Long-Term Trends in Egyptian Labour Market from Labour Surplus to Labour Shortage", a paper prepared for the ILO comprehensive employment strategy mission to the Arab Republic of Egypt, Cairo, 1980, p.15.

(2) Up to that date, free education was prevailing in the primary and secondary school levels only.

It increased the demand for labour in the public sector to make up for the reduction in the working hours. As a result of this policy and the policy of guaranteeing a job for the graduates of intermediate and university level, which has been issued about the same time, there has been a special public employment drive in the early sixties, specifically after the Nationalization Acts of 1961 which ushered in what may be called the "socialization period" in Egypt that lasted during the sixties.

(ii) Insituting free tuition fees for education at the university level.

This was also one component of the "socialization" package. Since 1962, free tuition fees for education has been extended to cover all levels of education and not only the primary and secondary levels as it was before. This policy is supposed to affect the supply side of the labour market. Having free education allows those people who could not afford to continue their high-level education to do that and hence postpone their entrance in the labour market. However, two points should be noted here. First, in a country like Egypt, where the average income is low, free education is a necessary but not a sufficient condition to drive people towards more education and less work at the early age. This is because the private cost of education does not consist only of paying the school or university fees, but also of the opportunity cost of going to this school or university. By the opportunity cost it is meant the income that the children or youth will forego when they go to school instead of going to work. In the poor families, who represent the majority in the Egyptian society, this "opportunity cost" factor weights heavily, we believe, in their decision to let their children continue their education or not.

It is quite understandable that in this case the " low present income " which they will get when they send their children to work will weight more than the " high expected income " that they will get in the future if they allow their children to continue the education path or just part of it. Actually, the main question is how long the family can afford to "wait" before being able to get income from their young members, and not only whether it can afford to pay their education fees or not. Moreover, there are other expenses, besides fees, which the family has to bear if the children continue their education, like paying for school supplies, clothes, transportation, etc. The second point we like to mention is that although, the rescinding of the education fees is still effective, education cannot be considered a free good at present. This is because, with the high ratio of student/teacher prevailing now and the consequent deterioration of the quality of education, taking private lessons has become a must for many students to be able to pass their examinations.

- (iii) Adopting a "guaranteed employment" policy for graduates of intermediate schools and universities. In 1962, when this policy started, it allowed for the old graduates, who were unemployed, to apply for jobs in the public sector and were guaranteed ones. This was discontinued later, and this policy became applicable to the fresh graduates only. According to this policy, the intermediate and high level graduates apply for public sector jobs through the Ministry of Manpower and Vocational Training, which at the same time solicit the requests for graduates from government institutions and public enterprises.

This policy affects both sides in the labour market. On the demand side, guaranteeing a job for the intermediate and high-level graduates makes the government responsible to create jobs for these graduates. The government meets this commitment by hiring them in the public sector - the only place it can allocate them to ⁽¹⁾ - increasing, thus the demand of the public sector for labour in general, and for those with intermediate and university education levels in particular. On the supply side, by making intermediate and high-level education more attractive (since students do not really run the risk of being unemployed after graduation) it is supposed to delay the entering of the children and youth to the labour market. Having free education and being guaranteed a job as well after graduation, makes education worthy, as long as you can afford the opportunity cost of the education period. Consequently, this policy is supposed to affect also the quality of the labour supplied by

(1) However, recently, the public enterprises were no longer obliged to hire the graduates if they have no need for them. This leaves the graduates to be hired in the government institutions only. It has been also announced by President Sadat 1981 that the new graduates will be employed in the government institutions outside Cairo governorate.

increasing the relative share of the educated in general, and those with intermediate and higher education levels in particular, vis-a-vis the non-educated labour ⁽¹⁾ . One may summarize the impact of this policy on the educated labour as follows : it increases the supply of the educated labour with intermediate and high education levels and also it increases the demand for them ⁽²⁾ . However , the impact of this policy on the unemployment of this group - and hence its impact on the educated labour unemployment ⁽³⁾ - is not zero as one might think . This is because the government does not create jobs for the new graduates in the same year of their graduation as it used to be in the sixties. Now they have to wait unemployed for three to four years after graduation until they get a government job ⁽⁴⁾ .

-
- (1) This implies a direct relationship between education and the improvement in the quality of labour, which is supposed to be true. This is because the educated labour as compared to the illiterate one is supposed to be able to learn new skills more easily, be more efficient, broadminded, etc.
 - (2) Since the government is responsible to provide a job for every intermediate and high level graduate.
 - (3) By educated labour we mean all those who have primary and higher levels of education. Therefore, if the impact of this policy is for example, an increase in the unemployment of the intermediate and higher level graduates, this would have led to an increase in the unemployment of the educated as a group, since those with intermediate and high education levels are just a subgroup of the total.
 - (4) For example, the intermediate education level graduates of 1977 and the university graduates of 1978 are offered government jobs in 1981 - see, El Ahram - a daily newspaper, Cairo , 2.6.1981.

Moreover, the gradual lengthening of the lag period between the supply of and the demand of the new graduates - i.e. the gradual lengthening of the waiting period of the new graduates - increases the rate of growth of the unemployment of the educated labour than in the case when this lag period has been kept constant ⁽¹⁾. For example, in the beginning of the application of this policy, the new graduates used to be hired in the same year of their graduation; then a waiting period of one year after graduation developed and this waiting period grew longer gradually until it is now four years for the intermediate education level graduates and three years for the university graduates. The contribution of this policy to unemployment can be seen clearly by the fact that in 1976, for example, the share of the newly unemployed with intermediate and higher education levels in the total newly unemployed is 31.8 % ⁽²⁾.

(1) Since, when the lag period is constant, three years for example, this means that those who graduate in a certain year take the place on the unemployment queue of those who graduated three years ago and now get government jobs. The increase in unemployment in that year will be equal, then, to the difference between the numbers of the two groups (the new group of graduates is probably larger than the old one). But, if the lag period is extended by one year, for example (i.e. it becomes four years), then, the increase in unemployment in the year where the extension takes place, will be equal to the total number of the new graduates.

(2) Calculated from Table 4 in the text.

(iv) Lengthening of the military draft period after the 1967 war and until the 1973 war. The military draft period, was extended to five and six years in some cases. This has probably had contradictory impacts on the supply of labour in the labour market: First, it decreased the supply of the primary workers ⁽¹⁾, since lengthening the draft period means delaying their entrance -or re-entry- in the labour market ⁽²⁾. Second, it increased the supply of the secondary workers in the labour market.⁽³⁾ This is because the low-income families might be obliged to let their female and/or old age member(s) and/or children enter the labour market and look for a job to support the other members of the family as long as the breadwinner of the family is in the army. In other words, some of the female and old age workers and children who have entered the labour market in the late sixties and early seventies have done so mainly because the male workers(s) in the families stay for a long period in the army with nominal salaries ⁽⁴⁾.

-
- (1) Primary workers consist of all male workers in the age group 15 - 60 years.
 - (2) The conscripts are most probably not included in the labour force in the population census of 1960 and 1976 although nothing regarding this issue has been stated openly in the Census. This conclusion has been reached by El-Issawi and Hansen after examining the data; see Hansen op.cit., and El-Issawi, "Employment Inadequacy in Egypt", a paper prepared for the ILO comprehensive employment strategy mission to the Arab Republic of Egypt, Cairo, 1980.
 - (3) The secondary workers as defined in the relevant literature, are children and teenagers, the females, and the old male workers. Although we find it difficult to accept the prevailing concept that the working females in the age group of 15 - 60 years are considered "secondary" and not "primary" workers as the working males in the comparative age group, we continue including them in the "secondary" workers group to ensure comparability with other studies in the literature.
 - (4) The conscripts (educated and non-educated) get nominal salary during their military draft period. Only two categories get salaries comparable to their civilian counterparts after their first year of conscription. These are the conscripts (educated and non-educated) who were employed in the public sector before being drafted, and the intermediate and high level graduates, who were drafted after graduation but were allocated to public sector jobs by the Ministry of Manpower (according to the policy of guaranteeing jobs to the graduates) during their military draft period. All the others, who were working in agriculture and other private sector activities, and who represent the majority, continue on their nominal salary during their drafting period.

This may be considered as an "additional worker" effect although its causes are quite different from the causes creating this phenomenon in the developed countries. While the developed countries experience the additional worker effect in the slack periods when the primary workers could not find a job and, hence, the secondary workers enter the labour market to support the members of the family. Egypt, we think, may have experienced the same phenomenon during the period between the 1967 and 1973 wars, when the primary workers are in the army and the secondary workers have to take a job to support their families. The final outcome of these two impacts on the supply side of the labour market depends on which of these impacts is larger : the decrease in the supply of primary workers or the increase in the supply of the secondary workers. However, this final outcome cannot be measured quantitatively because of the nonavailability of data showing the decrease in primary workers employment due to drafting on one hand, and on the other hand, the implausibility of separating the increase in the employment of the secondary workers due to the lengthening of the drafting period and the increase in their employment due to other reasons (like inflation, the increase in the number of educated females, etc.).

- (v) Opening the door for the Egyptian labour to emigrate. This took place especially after the 1973 war. The majority of emigrants go to the arab oil producing countries. This policy has positive as well as negative effects on the supply side of the labour market. By allowing labour to emigrate, their supply in the economy decreases and, given the prevailing level of the demand for labour, unemployment falls, which is certainly a positive impact. The negative impact is represented by the fact that those who can easily find jobs in the receiving countries are the relatively "highly qualified" labour; the result is creating shortages in the country with respect to some qualifications (like the acute shortages in skilled labour which Egypt is experiencing at present, for example). Thus, one may say that this policy has a positive impact on the quantity of labour domestically supplied (by decreasing it) and a negative impact on the quality of this supply (by deteriorating it).

Another way of examining the impact of the emigration policy on the labour market and reach the same conclusion regarding its impact on unemployment is to look at it from the demand side. This policy, by allowing the Egyptian labour to be demanded by foreign countries, it does increase the total demand - domestic and foreign - for Egyptian labour. Given a certain level of labour supply, the excess supply decreases and hence, unemployment falls.

B- Policies with Impacts on the Sectoral Structure
of the Economy :

The Egyptian economy has undergone structural changes since 1960. These changes should have had impacts on the demand side in the labour market. This is because the demand for labour depends mainly on the sectoral composition of the GDP and the methods of production used in these sectors to produce the output that meets the aggregate final demand for goods and services ; i.e. the demand for labour is a derived demand. We shall be interested in this section in showing the main economic policies that are expected to have had impacts on the structural composition of GDP and the development that took place in this structure since 1960, attempting to find out whether or not those changes have been in favour of more employment in the economy.

The main policy that has affected the economic structure in Egypt in the sixties is the planning policy. The implementation of the first five-year plan during the first half of the sixties together with the application of the Nationalization Acts in 1961 are expected to have had effects on the structure of the Egyptian economy. The first five-year plan (1960/61- 1964/65) transferred the Egyptian economy from a market economy to an economy geared to planning. A main feature of this plan was giving greater emphasis to the manufacturing sector. In 1961- i.e. one year after the beginning of the five-year plan - the Nationalization Acts were announced and, accordingly, a large public sector was created ; the implementation of the plan became mainly the responsibility of the government. The termination of the five -year plan was followed by

"annual" plans and the Egyptian economy continued to be described - at least officially - as a "planned" economy (1).

Another important economic policy that has been announced in the seventies and is having structural impact on the Egyptian economy is the open-door-policy. This policy whose main emphasis is the encouragement of the expansion of the private sector, has started in 1974 and, hence, one cannot expect to see its impact reflected in the economic structure prevailing in 1976. This means that the sectoral composition of GDP in 1976 as compared to 1960 is mainly the product of the planning policy undertaken at the beginning of the sixties and the performance of the economy during the second half of the sixties and the first half of the seventies. This economic performance has been affected by the two Arab-Israeli wars in 1967 and 1973. The 1967 war in particular has had negative impact on the economic growth of the country. After the war the first priority in the allocation of resources was not given to economic development but rather to the rebuilding of the army, which is quite natural. This was reflected in the low rate of growth achieved by the economy between the two wars (i.e. during 1967-1973). In 1975, the economy started to take off again in terms of its rate of growth (2).

One may expect that the impact of the open-door policy on the economic structure has been reflected to some extent in 1980. Thus, the sectoral composition of the GDP in 1960 will be compared with the sectoral structure in 1976, where the latest Population Census (our main source of the labour force data) was carried out, and with the sectoral structure in 1980.

-
- (1) A second five year plan was supposed to start in 1965. But it was postponed for two years to allow- according to the official announcement- for the completion of the projects that had not been finished during the first five year plan. In 1967, the Arab-Israeli war broke out, and the second five year plan never started.
- (2) The rate of growth of GDP (at factor cost) was 9.8% in 1975 as compared to an average annual rate of growth of 2.9% during 1966-71 ; see the World Bank, Economic Management in a Period of Transition, op.cit., vol.6. p.24.

Comparing the structure of the Egyptian economy in terms of the relative share of the different economic activities in GDP in 1960, 1976 and 1980, one finds from Table (1) that the sectors whose relative shares in GDP have fallen in 1976 as compared to 1960 and continued the same trend through 1980 are agriculture and services. The share of the service sector fell from 27.2% in 1960 to 22.7% in 1976 and to 20.9% in 1980. The share of the agriculture sector fell from 29.5% of GDP in 1960 to 28.5% in 1976, and then to 22.5% in 1980. Since the agriculture and services sectors are the two most important sectors in terms of employment (they include more than two-thirds of the employed labour force) ⁽¹⁾, and since the two sectors apply relatively more labour-intensive methods of production as compared to the other sectors in the economy (they have respectively the first and third lowest output/ labour ratio (O/L) in the economy (see Table (1)), one may argue that these structural changes have not been in favour of creating more employment in the economy ⁽²⁾.

(1) See table 5 in the text.

(2) The conclusion that the development of the economy has not been conducive to more employment was almost reached by Hansen. However, his analysis was based on examination of government investment policies rather than the development in the sectoral composition of the economy. He states that government general development and investment policies cannot be given credit for the long-term employment expansion in the economy. Government investment projects are mostly on the capital intensive side and are not particularly employment oriented ; see Hansen, op. cit., p. 14.

Table (1)

The Gross Domestic Product (GDP) and the Output/Labour Ratio (O/L) in 1960, 1976 and 1980

Economic Activities	1960/61			1976			1980		
	GDP (at current prices)		O/L (LE per worker)	GDP(at current prices)		O/L (LE per worker)	GDP (at current factor cost)		O/L (LE per worker)
	LE Mil- lions	%		LE Mil- lions	%		LE Mil- lions	%	
Agriculture	402.7	29.5	91.4	1553.0	28.5	318.3	2668.0	22.5	636.3
Industry, Petroleum and Mining	285.6	20.9	393.9	1302.6	23.9	930.4	3805.0	32.0	2685.3
Electricity	12.2	0.9	338.9	77.5	1.4	1250.0	110.0	0.9	1743.3
Construction	44.2	3.2	279.7	249.0	4.6	587.3	596.0	5.0	834.4
Transport and Communication	102.2	7.5	397.7	355.3	6.5	741.8	1004.0 ¹	8.4	1842.5
Trade and Finance	145.1	10.6	230.3	680.0	12.5	720.3	1212.0	10.2	998.1
Services ²	371.5	27.2	267.8	1237.7	22.7	606.1	2487.0	20.9	854.6
TOTAL	1363.5	100.0	179.5	5455.1	100.0	533.2	11882.0	100.0	1074.6

(1) Including the Suez Canal

(2) It includes housing, public utilities, and other services.

Source : The GDP columns are taken from: the World Bank, Economic Management in a Period of Transition, op. cit., vol. 6, p.23, and the National Bank of Egypt, Economic Bulletin, vol. 35, no. 1, 1982, Table 6/1 (a) in arabic. The O/L columns are calculated by using the GDP data in this Table and the employment data in Tables 6 and 7 in the text for the years 1960/61 and 1976, and the employment data in the National Bank of Egypt, ibid., (Table 6/4 (a) for 1980.

3- Dimensions of Unemployment

A- The Evaluation of the Labour Force Data in Egypt :

There are different sources for the labour force data in Egypt. These sources differ among themselves, not only regarding the size of the estimated labour force but also regarding the trend of unemployment over the same period. The main source of the labour force data in Egypt are : the Population and Housing Census and the Labour Force Sample Survey ¹ . Both are carried out by the Central Agency for Public Mobilization and Statistics (CAPMAS) . The latest two population censuses were carried out in 1960 and 1976 ² . In between there was a Population Sample Census in 1966, which was just the enlarged results of a sample of questionable quality. The Labour Force Sample Survey was carried out on a yearly basis since 1957 with the exception of the years 1965-1967 and 1976. The latest one was in 1980. The Survey sample is drawn from the frame of the latest population census.

This is a major drawback which the Labour Force Sample Survey suffers from, since the further away is the Survey from the census date, the less representative the sample will be of the population it is supposed to represent.

-
- (1) For a survey of the labour force data sources in Egypt, see I.H. El-Issawi, "Employment Inadequacy in Egypt", a paper prepared for the ILO comprehensive employment strategy mission to the Arab Republic of Egypt, Cairo, August 1980, p.44.
 - (2) Egypt's first census in modern times was conducted in 1882. The second census was taken in 1897. Since then and until 1947 the census was carried out once every ten years.

Comparing the labour force data in the two sources - the Population Census and the Labour Force Sample Survey - one finds significant discrepancies between them. The largest discrepancy between the two sources appears in the unemployment data . While the unemployment rate fell from 4.8% in 1960 to 2.8% in 1976 according to the Labour Force Sample Surveys ¹ , it rose from 2.2% in 1960 to 7.7% in 1976 as reported in the corresponding Population Censuses. An attempt was made by El-Issawi to reconcile the unemployment figures in the two sources in 1976 on the basis that the Labour Force Survey is carried out in May - which is a peak period in agriculture - and the Census is carried out in November, which is a slack period ² . According to him, the main discrepancy between the two sources is due to the overestimation of the rural unemployment in the census because of collecting the data in November and not in May. Rural unemployment in the census equals 46% of the total unemployment of 847 thousand. He assumed that if the census data were collected in May, rural unemployment would have been zero instead of about 390 thousand. Thus, the total number of unemployed would come out to 457 thousand only, or 54% only of the level recorded in the 1976 census. According to him, this is the appropriate figure comparable with the Labour Force Sample Survey figure of 265 thousand.

(1) The Labour Force Sample Survey has not been carried out in 1976 : the rate of 2.8% is the simple average of the unemployment rates of 2.5% and 3.1% reported in the Labour Force Sample Surveys of 1975 and 1977 respectively. See, El-Issawi, ibid. , p.123

(2) El-Issawi , ibid.

Although El-Issawi's attempt described above is interesting, we find his assumption of zero rural unemployment rate in May difficult to accept. This is because the Labour Force Sample Survey is already carried out in May, but still shows rural unemployment of about one quarter of total unemployment¹. Thus it is inappropriate to compare unemployment figures containing zero rural unemployment in the Census with unemployment figures containing 25% of rural unemployment in the Survey. Even after this questionable assumption of zero rural unemployment in the census data against 25% in the Survey data, the estimated census figure (457 thousand) is still 73% larger than the Labour Force Survey unemployment figure (265 thousand). We believe that any attempt to reconcile the data in the two sources will be subject to serious criticism.

Thus, given the significant discrepancy between the labour force data in the two mentioned sources, and the impossibility of making reliable reconciliation between them, consistency necessitates that we make a choice regarding which one to use as the main source of data in our analysis of the development of unemployment and employment in Egypt. Since the census, by definition, is supposed to be a more reliable source of data than a sample survey and, also since the Labour Force Sample Surveys are subject

(1) In the Labour Force Sample Survey of May 1975, for example, there are 58.9 thousand rural unemployed out of a total of 223.4 thousand unemployed. See, CAPMAS, The Labour Force Sample Survey, May 1975 ; Cairo, August 1977, Table 1, pp. 17-21 (in Arabic).

to serious sampling defects ¹, we have chosen the census as our primary source of data ². Consequently, the main analysis will cover the quantitative and qualitative development of the unemployment and employment in Egypt during the period 1960-1976 (i.e., between the two census of 1960 and 1976). However, to carry on the analysis as close as possible to the present point of time, we shall use the Labour Force Sample Surveys data to indicate the trend of development in the unemployment and employment in Egypt after 1976 (and up to 1980) whenever the Surveys data allow.

B- The Development of the Unemployment Structure in Egypt :

Given the available data in the two census, three dimensions of unemployment will be discussed in this paper ³.

(i) rural - urban dimension; (ii) age and sex dimension; (iii) the education level dimension.

-
1. For a review of these sampling defects, see El-Issawi, ibid. p.46
 2. It is important to note that, even the 1960 and 1976 Population Census data suffer from some problems. For example, the unemployed labour, when distributed by age, have a total number different than when they are distributed by rural - urban sectors (e.g. compare the total number of unemployed labour in Tables (2) and (3) in the text). The same kind of data inconsistency appears when we deal with the employed labour force (e.g. compare the total number of the employed labour force in Table (5) with Tables (6) & (7) in the text).
 3. There are published data in the census on the distribution of the unemployed by sectors of economic activity (agriculture, manufacturing, etc.), which could have made a fourth important angle in our analysis of unemployment in Egypt. But, by examining the data we found that 85% of the unemployed with previous work experience (34.08 thousand out of a total of 40.0 thousand) are clustered in the "unspecified" category, in the 1976 Census. Basing our analysis on only 15% of the unemployed with previous work experience does not give meaningful results.

(i) Rural - Urban Dimension of Unemployment :

As shown in Table (2), the overall unemployment rate increased from 2.2% in 1960 to 7.7% in 1976. In both years, the majority of the unemployed workers (67.9% and 53.4%) were located in the urban sector, where only one third to two fifths of the labour force is absorbed ⁽¹⁾. The result is a high rate of unemployment in the urban sector as compared to the rural sector. As shown in Table (2), the unemployment rates in the urban and rural sectors were 4.3% and 1.1% in 1960; compared to 9.5% and 6.4% in 1976 respectively. Taking into consideration that the number of the female workers in the rural sector - and , hence, the total rural labour force - is probably underestimated ⁽²⁾, the unemployment rate in the rural sector may even be lower than the rates indicated for the two years. But, on the other hand, and especially in the slack seasons, the number of females in the unemployed labour force may also be underestimated and, hence, the unemployment rate may not be much less than what the data in Table (2) reveal.

(1) The labour force in the urban sector was 35.0% and 43.4% of the total labour force in Egypt in 1960 and 1976, respectively (see Table (2) in the text).

(2) A. Mohie-Eldin, " The Development of the Share of Agriculture Wage Labour in the National Income of Egypt ", in G. Abdel-Khalek and R. Tignor (eds), The Political Economy of Income Distribution in Egypt (New York : Holmes and Meier) 1982, Part II in the paper.

TABLE (2)

./21

**THE UNEMPLOYED LABOUR FORCE AND THE UNEMPLOYMENT
RATE IN THE URBAN & RURAL SECTORS IN EGYPT**

**IN 1960 & 1976
(6 YEARS & OVER)**

UNEMPLOYMENT BY SEX	URBAN		RURAL		TOTAL	
	Number	%	Number	%	Number	%
1960 CENSUS Unemployed (1)						
1. Male	93293	67.0	45856	33.0	139149	100.0
2. Female	25549	71.4	10243	28.6	35791	100.0
3. Total (1+2)	118841	67.9	56099	32.1	174940	100.0
4. Total labour force(2)	2737661	35.0	5081250	65.0	7818911	100.0
5. The unemployment rate (=3/4)%	4.3	-	1.1	-	2.2	-
1976 CENSUS Unemployed with Previous experience						
6. Male	22172	63.2	12918	36.8	35090	100.0
7. Female	3362	58.9	2349	41.1	5711	100.0
8. Sub total (6+7)	25534	62.6	15267	37.4	40801	100.0
Newly unemployed						
9. Male	275104	52.6	247633	47.4	522737	100.0
10. Female	153658	53.6	133236	46.4	286894	100.0
11. Sub total (9+10)	428762	53.0	380869	47.0	809631	100.0
11. Total (8+11)	454296	53.4	396136	46.6	850432	100.0
12. Total labour force (2)	4770225	43.4	6211310	56.6	10981535	100.0
13. The unemployment rate(=11/12) %	9.5	-	6.4	-	7.7	-

(1) Unemployed with previous experience and the newly unemployed were not separated in the 1960 Census.

(2) The labour force consists of the unemployed and the employed labour.

Source : Taken from CAPMAS : the Population Census, 1960, Table (5)
and the Population Census, 1976, Table 4, pp. 97-108.

The large increase in the rural and urban unemployment rates from 1960 to 1976 indicates that the economy failed to create enough jobs to absorb the increase in the supply of labour. However, part of this increase in unemployment can be explained by the discouraged and seasonal unemployment included, probably, in the 1976 unemployment figure and not in the comparable figure of 1960. The discouraged unemployment is the one realized due to the discouraged workers effect. By this it is meant that the secondary workers, who would have not thought of entering the labour market in the economic slack periods, look for a job and hence will be registered as unemployed when the economic situation begins to flourish. The increase in wages and job opportunities that accompany the peak periods of the economy, attract those to the labour market. Thus, the labour force figures that are recorded during periods of economic slacks are considerably smaller than the figures that would have been recorded at the economic peak periods. The recorded level of unemployment is therefore overestimated during such periods.⁽¹⁾ Although

(1) Dernberg and Kenneth Strand, " Hidden Unemployment 1953-62 : A Quantitative Analysis by Age and Sex " , American Economic Review , LVI (1), March 1966, p. 71.

this conventional definition of discouraged workers effect does not apply exactly to our case here, since one cannot say that the Egyptian economy was undergoing an economic slack period in 1960 ⁽¹⁾, but on the other hand one can say that the policies pursued by the government during that period of time - i.e. in the late fifties and in 1960 - was not encouraging for the expansion of the private sector. Although the Nationalization Acts and the transformation of the economy into a planned, government controlled, one did not take place before 1961, the Egyptianization of the foreign enterprises in 1956 and 1957 (which has formed a good portion of the private sector in Egypt), the expectations prevailed among many Egyptians that a second

(1) The average annual growth rate of the GDP (at constant prices) during 1956-61 was 5.3% as compared, for example, to a low growth rate of 2.9% during 1966-71. Even comparing it with the relatively higher average annual growth rate during 1961-66 (6.1%) does not disprove our argument of not having an economic slack period in 1960 since the difference between the growth rates in the two periods (1956-61 and 1961-66) is not large. For the growth rate data, see; the World Bank, Arab Republic of Egypt, Economic Management in a Period of Transition, vol. VI, Statistical Appendix, 1978, p. 24.

Land Reform Act ¹ will take place soon, and the government announced policy of the establishment of social equity, all that did not give green light to the private sector to expand ; and the private sector is usually, the place where jobs of especially high rewards can be found ². Generally speaking, given the Egyptian experience, one may say that the private sector creates relatively few but highly rewarding jobs, while the public sector creates greater volume of work opportunities but not as much rewarding ³. Comparing this 1960 economic conditions with the situation in 1976, which experienced a relatively high growth rate (8.1%) as compared to the previous years ⁴ and an expansion in the private sector (after giving it green light by announcing the open door policy in 1974), one finds reasons to believe that the discouraged worker effect has probably taken place in the second half of the seventies and hence, attributed to some increase in the unemployment figure in 1976 as compared to 1960. In other words, it is suggested that the economic conditions that prevailed in Egypt in 1976 have attracted some of the secondary workers to the labour market while those workers would not have thought of joining the labour force in 1960 simply because of the non-availability of especially rewarding jobs at the time. This discouraged worker effect is probably responsible for some of the

-
1. The first land Reform Act was issued in 1952 and set a maximum limit on the ownership of the agricultural land at 200 feddans for the individual and 300 feddans for the family.
 2. This does not apply to all private enterprises of course. High rewarding jobs can be found specifically in the large private enterprise, and the open-door policy projects; since the latter are subject to tax exemptions and other financial preferential treatments.
 3. For example, the starting salary of the university graduate in some of the private enterprises in Egypt at present is about 2-3 times greater than the salary of his colleague who works in a comparable job in the public sector.
 4. The average annual growth rate of the GDP (at constant prices) was 2.9% during 1966-71 and 4.0% during 1971/72-1974. In 1975, it took off to 9.8%; see : the World Bank, ibid, p.24.

increase in the unemployment in 1976. However, its contribution in that respect is expected to be small, since the open door policy and the consequent expansion in the private sector was still at the beginning.

Another type of unemployment that is probably existent in the rural unemployment estimate in 1976 and not in the corresponding estimate for 1960 is seasonal unemployment. The 1960 Population Census is carried out in September- which is an important seasonal peak in Egyptian agriculture⁽¹⁾- while the 1976 population census is carried out in November, which is a slack agricultural season. Thus, seasonal unemployment is probably included in the 1976 unemployment estimate and not in the comparable 1960 figure.

To sum up, unemployment has increased in the urban and rural sectors during 1960-1976. It is believed that some of the increase in the unemployment in 1976 as compared to 1960 is attributed to the existence of discouraged and seasonal unemployment in the 1976 unemployment figure and not in the comparable 1960 estimate. This rising trend of unemployment seems to continue after 1976. Since, according to the unemployment data in the Labour-Force Sample Surveys in 1977 and 1980 (the latest available) the unemployment rates in the urban and rural sectors increased from 4.8% and 1.8% respectively in 1977 to 7.7% and 3.0% in 1980⁽²⁾. It should be emphasized that what matters here is the change in the unemployment figures during 1977-1980 and not the level of these figures. Since, as shown in the previous section, the Labour Force Sample Surveys are subject to serious criticisms and hence data are not to be compared with census data.

-
- (1) September is an important seasonal peak associated with cotton picking season; see El-Issawi, op. cit. p. 104.
 (2) Calculated from: CAPMAS, The Labour Force Sample Surveys, Rounds of May 1977 and May 1980, Cairo, Table (5).

(ii) Age and Sex Structure of the Unemployed Labour Force:

The second unemployment dimension that will be discussed in this paper is the age and sex structure of the unemployed labour force to find out the development in the relative shares of the primary and secondary unemployed workers. This is because the increase in the unemployment rate to 7.7% in 1976 as compared to 2.2% in 1960 will be more alarming if it is accompanied by an increase in the relative share of the primary workers in total unemployment. In a country like Egypt, where most of the population have low incomes ¹, open unemployment cannot be afforded by the majority of them; they usually prefer to be marginally employed and getting low income than being openly unemployed with zero income. Thus, this high unemployment rate in 1976 will be more alarming, economically and socially, if it consists mainly of primary, and not secondary workers.

Primary workers consist of all male workers in the age group 15 - <60 years. Table (3) shows that although the absolute number of the unemployed primary workers increased from 109 thousand in 1960 to 299 thousand in 1976, their relative share in total unemployment fell from 62.8% in 1960 to 35.3% in 1976. The majority of the primary workers unemployed in 1976 - i.e. , 90.5% of them - are newly unemployed and fall in the age category 15 - <30 years . A large number of those newly unemployed are probably eligible to get a job according to the government policy of guaranteeing a job to the intermediate and

(1) In 1974/75, for example, 69% of the urban households (with an average size of 5.4 members) and 88% of the rural households (with an average size of 5.6 members) in Egypt fall in the expenditure bracket of less than LE 600 a year ; i.e. , less than LE 10 a month per member of household. See, Karima Korayem, Distributing Disposable Income and the Impact of Eliminating Food Subsidies in Egypt, Cairo Papers, the American University of Cairo, vol. 5, monograph 2, April 1982, p. 24.

high education-level graduates and are hence waiting in the queue ¹. It is worth noting that the number of the newly unemployed labour in the age category 15 - <30 years is probably somewhat overestimated. This is because some of the graduates who are working already in non-exciting jobs in the private sector ² do still apply for a job - i.e., register themselves as unemployed - by the Ministry of Manpower and Vocational Training ³ to keep their chances open and be able to choose, then, between the job they already hold and the government job offered them when their turn comes .

The large drop in the primary workers' share in unemployment in 1976 as compared to 1960 implies a large increase in the relative share of the secondary workers. As estimated from Table (3), the secondary unemployed workers - defined as children (in the age group 6 - <15) plus females (15 years of age and over) plus old age males (60 years of age and over) - increased from 64.5 thousand in 1960 to 548 thousand in 1976; i.e., their relative share increased from 37.2% in 1960; to 64.7% in 1976 . This significant increase in unemployment of secondary workers is mainly due to the increase in the number of children entering the labour market in 1976, as shown by the large number of unemployed labour falling in the age

-
1. This "waiting" takes up to four years for the secondary school graduates and up to three years for the university graduates, see, the daily newspaper El-Ahram, Cairo, 2.6.1981.
 2. However, their employment should not be officially reported, because graduates who succeed in getting a job in the private sector are not eligible to get a job in the public sector.
 3. The Ministry of Manpower and Vocational Training is the government authority responsible for allocating the graduates to the public sector's jobs by soliciting requests for employees from government agencies and enterprises.

Table (5)

./28

THE DISTRIBUTION OF THE UNEMPLOYED LABOUR FORCEBY AGE AND SEX IN 1960 AND 1976

UNEMPLOYMENT BY SEX	6 - <15		15 - <30		30 - <60		60 +		T O T A L ⁽¹⁾	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<u>1960 CENSUS</u>										
<u>Unemployed</u> ²										
1. Male	25309	18.3	78320	56.7	30791	22.3	3714	2.7	138134	100.0
2. Female	6106	17.2	17657	49.7	11333	31.9	396	1.1	35496	100.0
3. Total (1 + 2)	31415	18.1	95977	55.3	42124	24.3	4110	2.4	173630	100.0
<u>1976 CENSUS</u>										
<u>Unemployed with pre- vious experience</u>										
4. Male	4118	12.0	1358	3.9	26969	78.3	1973	5.7	34435	100.0
5. Female	1617	28.7	180	3.2	3546	62.8	296	5.2	5643	100.0
6. Sub-total (4+5)	5735	14.3	1538	3.8	30515	76.1	2269	5.2	40078	100.0
<u>Newly unemployed</u>										
7. Male	250049	48.0	271007	52.0	-	-	-	-	521056	100.0
8. Female	181709	63.5	104479	36.5	-	-	-	-	286088	100.0
9. Sub-total (7 + 8)	431758	53.5	375386	46.5	-	-	-	-	807144	100.0
T O T A L (6 + 9)	437493	51.6	376924	44.5	30515	3.6	2269	0.3	847222	100.0

1. Includes the "unspecified".

2. Unemployed with previous experience and the newly unemployed are not separated in the 1960 Population Census.

Source: Population Census, 1960, op.cit., Table 35, pp.220-221; and Population Census, 1976, op.cit., Table 8, pp. 137-138.

bracket of 6 - <15 years. While the number of children represented 18.1% of the total number of unemployed in 1960, their share jumped to 53.5 in 1976 ¹. The majority of them - i.e., 98.7% - are newly unemployed, i.e., they are new comers to the labour market. With the two policies of free education throughout all the education levels and guaranteeing a job for the intermediate and high education - level graduates, one would have expected that the number of children joining the labour market should be falling after 1960, since the two mentioned policies have started in the early sixties (i.e., after 1960) ².

The increase in the number of children joining the labour force ³ - as indicated by the increase in the number and share of the newly unemployed children in total unemployment in 1976- may be attributed, partly, to the increase in the money wages and job opportunities in the rural sector ⁴ - where the majority of the children employment exists ⁵ - due to the rural - urban immigration and emigration to the Arab countries. The high wages and the availability of jobs increase the opportunity cost of education, especially if the family's income is low and the cost of living is rising fast enough. Free education won't help much in substituting "schooling" for "work" in this case.

-
1. It is worth noting that certain types of employment of children under 12 years of age is already prohibited by law since 1959 (Law no.91 issued in April 1959); see B.Hansen and G.Marzouk, Development and Economic Policy in the UAR (Egypt), (Amsterdam : North Holland)
 2. Free education at the primary and secondary school level has started before 1960, though.
 3. The rate of children dropout in primary schools was generally falling until 1976/77, when it took a rising trend; see S.L.Saad The Dropouts on the Primary Education Level from 1956/57 until 1978/79; a Statistical Study, The National Center for Social and Criminological Research in cooperation with the World Bank, Egypt (in arabic).
 4. The increase in the average wage of women and children in agriculture was 29 piasters per day over the period 1970-77 as compared to an increase of 5 piasters during 1963-1970. See A. Mohie-El-Din, op. cit.
 5. Since most of the children employment is in agriculture (see Tables 6 and 7 in the text).

The fast increase in the cost of living in the seventies¹ is, we believe, an important factor behind the increase in the number of secondary workers joining the labour market, as indicated by the significant increase in their share in total unemployment in 1976 as compared to 1960. The big increase in prices has made the work of the wife and may be the children a must in many families to make ends meet. Another important factor for the increase in the secondary workers unemployment during 1960 - 1976 is the increase in the female education and the consequent increase in the female participation rate.

If we exclude the number of children from the unemployed and from the labour force as well - on the grounds that they are not supposed to work at this age but they should go to school and hence their unemployment is not a bad thing to be taken care of by the society² - one finds that the unemployment rate in 1976 becomes 3.9% only instead of 7.7% as shown in Table (2) above, and is 1.8% instead of 2.2% in 1960³. In this case, the relative share of the unemployed primary workers in total unemployment (excluding children) will be 76.7% in 1960 and 73.1% in 1976⁴, which shows just a small decline and not the big drop it recorded in the case when the unemployed children were included.

-
1. The cost of living index in the rural sector (1966/67=100) increased from 117.9 in 1970/71 to 195.9 in 1976, and in the urban sector, it increased from 113.6 in 1970/71 to 171.2 in 1976. Notice that it is higher in the rural as compared to the urban sector. See the National Bank of Egypt, The Economic Report vol.32, No.1,1979, (in arabic) pp. 162-165.
 2. On the contrary, it may be good for them and for the society as a whole to be unemployed to make the school alternative more attractive to them. However, it is not certain that in all cases they have the choice of either taking a job or continuing their education.
 3. Calculated from Tables(2) and (3) in the text.
 4. Calculated from Table (3) in the text

(iii) The Education Levels of the Unemployed Labour Force

Looking at the structure of the unemployed labour by education level, one finds that according to the relevant tables, in the 1960 and 1976 Population Census - which include the population of 10 years of age and over - the share of the illiterates plus those who can just read and write (the semi-illiterates) in the total unemployed labour fell from 75.5% in 1960 to 34.6%; ¹ i.e., their share fell to less than half its 1960 level. If we take the fall in the relative share of this category - defined as the non-educated labour - as an indicator to the improvement in the quality of the supply side in the labour market, one finds that this improvement is overestimated. This is because the relevant Tables in the Census, by including the population of 10 years and more only, exclude thus the unemployed who are falling in the age category of 6 - <10 years. Those when included would fall in the non-educated labour category and hence, will raise the relative share of this category in total unemployment. Also knowing that the share of children in total unemployment is higher in 1976 than in 1960 (see Table 3 in the text), the increase in the relative share of the non-educated labour in 1976 will be greater than the comparative increase in 1960 and, hence, the extent of the fall in the relative share of the non-educated unemployed labour during 1960-1976 will be less than what the relevant Tables in the two Population Census reveal.

(1) Calculated from Table 36, pp 222-223 in the Population Census 1960, op. cit, and Table 11, pp 145-146 in the Population Census, 1976, op. cit

Including the unemployed labour falling in the age group of 6 - <10 years in the non-educated labour category, one finds that the relative share of the non-educated unemployed is 54.4% in 1976 as compared to 76.4% in 1960 (see Table 4)¹. This shows that there is still an improvement in the quality of the unemployed labour - who supply their services in the labour market - but this improvement is not as big as the relevant Tables in the Census show. Consequently, the relative share of the educated labour-defined as those who have primary or higher level of education - has increased from 23.1% of total unemployment in 1960 to 36.6% in 1976, as shown in Table 4. Among those educated unemployed labour, the number of university and post-graduates increased more than ten times during this seventeen-year period; they increased from 5.4 thousand in 1960 to 56.7 thousand in 1976. However, their relative share in total unemployment has not increased as much (only from 3.1% in 1960 to 6.7% in 1976), since the total number of unemployed labour in 1976 has been significantly inflated by the large inflow of children in the labour market as shown above.

The relative share of the unemployed females in each of the non-educated and educated categories has increased during the period under consideration. As estimated from Table 3, the relative share of the unemployed females in the non-educated category increased from 21.1% in 1960 to 32.4% in 1976, and in the educated category from 17.9% in 1960 to 27.4% in 1975.⁽²⁾

(1) It may be worth noting that while the unemployed labour falling in the age category of 6 - <10 years presented 3.7% of the unemployed in 1960, they were 30.4% of the unemployed in 1976 (see Table 4 in the text).

(2) Calculated from the Population Census, 1960, op.cit., Table 36, pp 222 - 223, and the Population Census, 1976 op. cit., Table 11, pp. 145 - 146

Table (4)
THE DISTRIBUTION OF THE UNEMPLOYED LABOUR FORCE
BY EDUCATION LEVEL IN 1960 & 1976
(6 YEARS & OVER)

EDUCATION LEVEL	1960		1 9 7 6					
	NUMBER	%	with previous experience		Newly Unemployed		TOTAL	
			Number	%	Number	%	Number	%
1. Illiterate	76687	44.2	21805	54.4	117192	14.5	138997	16.4
2. Read & Write (1)	49625	28.6	7959	19.9	56904	7.1	64863	7.7
3. 6 - <10 years	6357	3.7	-	-	257403	31.9	257403	30.4
4. Subtotal (1+2+3)	132667	76.4	29764	74.3	431499	53.5	461263	54.4
5. Primary & less than intermediate	5729	3.3	2549	6.4	43825	5.4	46374	5.5
6. Intermediate & less than university	29107	16.7	3824	9.5	202660	25.1	206484	24.4
7. University & post graduate	5405	3.1	2875	7.2	53818	6.7	56693	6.7
8. Unspecified	722	0.4	1066	2.7	75342	9.3	76408	9.0
10. Total (4+5+6+7+8)	173830	100.0	40078	100.0	807144	100.0	847222	100.0

(1) includes, also, those who can read only.

Source : Except for line 3, see: The Population Census, 1960, op.cit , Table 36, pp. 222-223, and the Population Census, 1976, op.cit Table 11, pp. 145-146. The Census Tables include the unemployed of 10 years of age and over.
 line 3 - those in the age group 6 - <10 years - is estimated as the difference between the total unemployed of 6 years of age and over (taken from Table 3 in the text) and the total unemployed of 10 years of age and over (taken from Table 36 in the 1960 Population Census, and Table 11 in the 1976 Population Census).

The foregoing discussion reveals that two types of unemployment - besides "open" unemployment - are experienced by the Egyptian labour force ; the seasonal unemployment which has always been existent in the agricultural activity, and the discouraged unemployment which has appeared - we believe - in the second half of the seventies as a result of the relatively high growth rates realized by the economy starting 1975 together with the application of the open door policy that encourages the expansion of the private sector. Another important type of unemployment prevailing in the Egyptian economy is disguised unemployment. Although we cannot measure it quantitatively, it cannot be left unmentioned.

There is agreement among the Egyptian economists that disguised unemployment exists in some sectors in Egypt, but the scale of its existence is not known. The difficulty of measuring this type of unemployment is well known in the economic literature. Several attempts have been made to provide an " operational" definition of those who are disguisedly unemployed ¹. By " operational" it is meant to have a definition that is quantitatively applicable. The " conventional" definition that disguised unemployment means those whose marginal productivity is near zero does not meet this requirement, since it is difficult to measure and validate empirically the zero marginal productivity concept. One of the " operational" definitions used to identify those who are disguisedly unemployed is the income approach. Those who are "poor" are the ones who are

1. For a review of the different approaches used to measure disguised unemployment, see : A Bhagwati, "Main Features of the Employment Problem in Developing Countries", International Monetary Fund Staff Papers , 20(1) (March 1973), pp.90-97.

disguisedly unemployed. This approach is based on the concept that real income is an indirect measure to labour productivity ; those who have low marginal productivity get low wages. This income approach for the definition of disguised unemployment cannot be accepted in the Egyptian context, since the link between wages and productivity is missing in the public sector which encompasses a good portion of the employed labour force in Egypt. It is quite agreed upon among the students of the Egyptian economy that the public sector - which consists of the government institutions and public enterprises - suffers from surplus labour ¹. Applying the income approach definition means underestimating the existing surplus labour in Egypt, since some public sector's employees do not have much work to do and still get the same salary as their counterparts. This is because the salary in the public sector is determined by the "job level" of the employee in the "job ladder" and not by the employee's productivity. Although it is not possible to prove it quantitatively one can say with reasonable confidence that some employees in some government institutions can be removed without decreasing the total productivity of these institutions. It is not difficult to arrive at this conclusion with such " confidence " when you know that some employees are not asked to provide any work for months ; or when you walk in some ministries and find that male employees are trying to pass time by reading the newspapers and female employees by needle work ; or when you find that some new employees are not

1. See, for example, El-Issawi, op.cit pp 113-117 and Heba Handoussa, " Public Sector Employment and Productivity in the Egyptian Economy", a paper prepared for the ILO comprehensive employment strategy mission to the Arab Republic of Egypt, Cairo, August, 1980.

assigned, for months, a desk to work on it (why bother, if they have nothing to do anyway ?). But on the other hand there are some government institutions which suffer from shortages in the supply of labour as compared to the demand for them; a good example is the ministry of education which suffers from shortages in teachers. Disguised unemployment seems to exist also in public enterprises. For example, according to the Werner report which compared the number of workers employed in the spinning and textile public sector enterprises with comparable enterprises in Western Europe in 1975, taking into consideration the existing age and type of the machinery installed, it has been found that there was surplus labour in the Egyptian enterprises of 400% in spinning, weaving and knitting, 250% in finishing, and 500% in making up.¹ The main reason for this surplus labour prevailing in the public sector is the employment policy applied by the government regarding guaranteeing a job for the intermediate and university-level graduates. However, recently the public enterprises were exempted from the " compulsory " hiring of the new graduates, leaving the government institutions as the only reservoir left to this employment policy².

Another source of the disguised unemployment in Egypt about which there is also concensus is the informal sector. The migrants from the rural sector and the unskilled workers in general who find barriers to enter the formal sector join the informal sector. To earn their living, quite a few of them indulge in low productivity activities - like peddlers, shoe polishing, etc. - and hence get low income. Those are disguisedly unemployed, and the income approach definition of disguised unemployment can fit here well.

-
1. See, H. Handoussa, *ibid.*, p.29. One reservation is due though. The extent of the existent surplus labour is overestimated, we believe, since one should consider the socio-culture factors that affect the productivity of workers in the developing countries in general.
 2. B. Hansen, "Long-Term Trends in Egyptian Labour Market from Labour Surplus to Labour Shortage", a paper prepared for the ILO comprehensive employment strategy mission to the Arab Republic of Egypt, Sept. 6, 1980 (revised draft) p. 17.

The agriculture sector, which has been conventionally looked at as a source of surplus labour and disguised unemployment in Egypt, is not so any more. The more common view held at present regarding this issue is that the agricultural sector suffers from seasonal, and not disguised, unemployment. This view is based on the fact that in the agricultural peak periods all labour is utilized ¹.

Finally, we like to mention three points before concluding this part in the paper.

First, although the unemployment rate is significantly high in 1976 (7.7%), it does not represent the extent of the unemployment prevailing in Egypt, since some types of unemployment do not show up in the recorded unemployment data, like the disguised unemployment. This means that the unemployment problem is greater than what the 7.7% unemployment rate indicates. Also, the unemployment problem seems not to ease off after 1976 as can be seen by comparing the unemployment figures in 1980 with its counterparts in 1977 as included in the Labour Force Sample Surveys.

Second, generally, the private cost of unemployment varies between two extremes ²: the first, where the private cost is overwhelmingly high, is the case where the unemployment period is long and the unemployed gets no unemployment compensation in any form (like unemployment insurance, food stamps, etc.). The second extreme, where the private cost of unemployment is trivial, is the case where the unemployment period is short and the unemployed gets unemployment compensation. Looking at the case of Egypt, where no unemployment compensation of any type

1. See, for example, El-Issawi, op.cit pp 103-110

2. M. Feldstein, "The Private and Social Costs of Unemployment" The American Economic Review, May 1978 pp. 155-156.

is given to the unemployed, and where the unemployment period can be as long as three and four years¹, one can easily see how close we are to the first extreme where the private cost is extremely high.

Third, the social cost of unemployment can be generally defined as the value of output that would have been produced if these persons were employed minus the value of the leisure time that those individuals have enjoyed during their unemployment and the value of the information they have gained while they were seeking a job². The social cost will be greater when the unemployed are young workers and when the unemployment period is long. Since, for the young workers, unemployment means also missed opportunities for on the job training and gaining work experience. Also, the long unemployment period harms the individual, since his technical skills deteriorate due to the lack of practice and he may lose self confidence and even lose the habit of regular work so that when a work opportunity comes he finds himself - as it is put by Pigou - "unemployable". In a poor country like Egypt one expects that the value of the leisure time of the unemployment is small since earning an income means a lot to him. Also in our case, 44.5% of the unemployed (according to the 1976 data) are young³, and the unemployment period is long, which means that the social cost of unemployment - and not only the private cost - seems to be significantly high.

-
1. In the U.S.A., for example, the unemployment period lasts four weeks or less for more than half of the unemployed; also more than half of the unemployed receive unemployment compensation. See, M. Feldstein, ibid. p. 155.
 2. For a discussion of the social cost of unemployment, see: M. Feldstein, ibid., pp 156-158; and A.C. Pigou, The Theory of Unemployment (London: Frank Cass & Co. 1968), 3rd impression, pp.11-16.
 3. By the young unemployed, it is meant those who fall in the age bracket 15 - < 30 years; they present 44.5% of total unemployment in 1976 (see Table 3 in the text).

4- The Employment Dimensions :

Part three in the paper reveals that open unemployment in Egypt during the period 1960-1976 has been characterized by a significant increase in the urban and rural unemployment rates, and by an increase in the relative shares of the secondary workers (vis-a-vis the primary workers) and the educated labour (vis-a-vis the non-educated labour). Given this "structure" of unemployment, we shall discuss the development in the structure of employment in Egypt via the same angles to get one consistent picture of the development of the Egyptian labour market. These three angles are :

(i) the development in the rural - urban employment ; (ii) the development in the primary and secondary workers employment; and (iii) the development of the employment of the educated and non-educated labour.

Moreover, since the cost of education is high to the society, as well as to the individuals of course, special attention will be given to the demand for educated labour. Thus, after getting acquainted with the relative importance of the educated labour in the employment structure in Egypt, an attempt will be made to investigate the prospects of increasing the demand for this type of labour. This will be done by trying to find out what is expected if the development in the demand for educated labour in the past is extended to the future; and also by trying to look for alternative ways to enhance the demand for this type of labour.

A- The Development of the Employment Structure in Egypt:

(i) The Development in the Rural - Urban Employment :

Examining the development in the rural-urban employment distribution in Egypt as shown in Table 5, one finds that

Table 5
THE DISTRIBUTION OF THE EMPLOYED BY ECONOMIC ACTIVITIES
IN 1960 & 1976
(6 YEARS & OVER)

ECONOMIC ACTIVITY	1960						1976					
	URBAN		RURAL		TOTAL		URBAN		RURAL		TOTAL	
	Number (000)	%	Number (000)	%	Number (000)	%	Number (000)	%	Number (000)	%	Number (000)	%
Agriculture	327.0	12.23	4079.4	80.75	4406.4	57.03	454.6	10.36	4426.4	75.39	4881.0	47.58
Mining & Quarrying	15.6	0.01	5.4	0.00	21.1	0.00	21.8	0.00	12.0	0.00	33.8	0.00
Manufactur- ing	525.5	19.65	187.6	3.71	713.1	9.23	1046.8	23.87	322.7	5.50	1369.5	13.35
Electricity, Gas & Water	29.5	1.10	7.3	0.00	36.8	0.00	44.4	1.01	17.4	0.00	61.8	0.01
Construction	107.2	4.01	51.6	1.02	158.9	2.06	301.3	6.87	123.7	2.11	425.1	4.14
Transport & Communication	200.4	7.49	59.8	1.18	260.2	3.37	371.9	8.48	110.3	1.88	482.2	4.70
Trade, Rest. & Hotels	416.4	15.57	225.0	4.45	641.4	8.30	616.4	14.05	244.9	4.17	861.3	8.40
Services	970.7	36.29	398.8	7.89	1369.4	17.72	1420.9 ⁽¹⁾	32.4	535.8 ⁽¹⁾	9.1	1956.7	19.1
Unspecified activities	82.4	3.08	36.9	0.01	119.3	1.54	107.9	2.46	78.5	1.34	186.4	1.82
Total Employment	2674.7	100.00	5051.8	100.00	7726.6	100.00	4386.1	100.00	5871.7	100.00	10257.8	100.00

- 0.00 will be put for the percentage, which (after rounding) is less than 0.01.
 1) Includes finance and insurance

Source: CAPMAS, the Population Census, 1960, op.cit., Table 4; and
 CAPMAS, the Population Census, 1976, op.cit., Table 3, pp.85 - 96.

the share of rural employment in the total employment decreased from 65.4% in 1960 to 57.2% in 1976. This declining trend continued up to 1980 as revealed by the latest data available of the Labour Force Sample Survey ¹. The majority of rural employment is in the agriculture activity; the share of the employed labour force in agriculture in rural employment is 80.8% in 1960 and 75.4% in 1976. The drop in the share of the rural sector in national employment is attributed mainly to the significant drop in the relative share of agriculture employment on the national level. Agricultural employment's share fell from 57.0% of national employment in 1960 to 47.6% in 1976; and the declining trend continued as shown by the Labour Force Sample Survey data during 1977 - 1980 ². This decrease in the relative share of rural employment in the economy is expected, not only because of the rural-urban migration, a phenomenon which exists in many developing countries, but also because of the increasing number of rural migrants to the arab countries. Some of those emigrants continue pursuing the farm works in the arab receiving countries (e.g., like in Iraq and Jordan), while others just work as unskilled labour there, especially in construction. It is worth noting that the emigration of the Egyptian farmers is a very recent phenomenon, and it contradicts the view that has been held for long that the

-
1. According to the employment data in the Labour Force Sample Surveys, the relative share of rural employment fell from 56.1% in 1977 to 54.5% in 1980 (calculated from the Labour Force Sample Survey, Rounds May 1977 and May 1980, op. cit., Table (12))
 2. The agricultural employment in total employment fell from 45.6 in 1977 to 42.4% in 1980 (calculated from the Labour Force Sample Survey, ibid. Table (12))

farmer prefers to be settled in one place ; he hates to travel and leave his father's land even if this means more income to him.

This high concentration of employment in one economic activity is something specific to the rural sector and does not exist in the urban sector. In the urban sector, the leading economic activities in terms of employment are services and manufacture. Both activities together include more than 50% of the urban employed labour force. The drop in the relative employment share of the services activity in urban employment from 36.3% in 1960 to 32.4% in 1976 is compensated for by the increase in the relative share of manufacturing employment from 19.7% in 1960 to 23.9% in 1976. Next to these two activities comes trade and agriculture activities. Although their relative employment shares in total urban employment dropped over the period 1960-1976, trade was still ranking third (with an employment share of 14.1%) and agriculture fourth (with a share of 10.4%) in 1976. The employment share of any of the other economic activities is below 10% of total urban employment. One notices that the relative employment in three out of the four employment leading activities fell in 1976 as compared to its 1960 level. Manufacturing is the only economic activity in this group which has improved its relative employment share during the considered period.

This is not surprising, since the first five year plan, and the investment policy in the sixties and seventies in general, was giving special emphasis to manufacturing ¹. Looking at the development of the employment shares of the four employment leading activities in the urban sector during 1977 - 1980 , one finds that the employment's share in each of them - including manufacturing - fell in 1980 as compared to 1977 ².

Combining the rural and urban sectors and looking at the relative employment shares of the economic activities on the national level, Table 5 shows that agriculture comes first with a relative share of 47.6% in 1976 as compared to 57.0% in 1960, next comes the services activity with a relative employment share of 18.2% in 1976 as compared to 17.7% in 1960. Manufacturing comes third in ranking with a relative share of 9.2% in 1960 and 13.4% in 1976, and fourth comes the trade activity with an almost equal relative employment share in both years

-
1. Manufacturing was taking the largest share of gross fixed investment during 1960/61 - 1979 ; see Ministry of Planning data as cited in El-Issawi, op.cit., p. 90.
 2. The employment's share of services in total urban employment fell to 30.1% in 1980 as compared to 31.3% in 1977 ; and in manufacturing was 24.8% in 1980 as compared to 25.1% in 1977; and in trade and agriculture, the employment's share fell from 15.4% and 10.1% respectively in 1977 to 14.2% and 8.5% in 1980 (calculated from the Labour Force Sample Survey, Rounds May 1977 and May 1980, op.cit., Table (12)).

(8.3% in 1960 and 8.4% in 1976). The same ranking for the four economic activities applies to 1980 ¹. These four economic activities together include 92.2%, 87.6% and 86.3% of total employment in 1960, 1976 and 1980 respectively ². Although the relative employment share of " construction" and " transportation and communication " activities have increased in 1976 as compared to their level in 1960 they still remain below 5%.

(ii) The Development of the Primary and Secondary Workers Employment :

The share of the primary workers - defined as those employed males in the age group 15 - < 60 years - in the employed labour force increased from 76.8% in 1960 to 78.3% in 1976 as estimated from Tables 6 and 7. This implies a decrease in the relative share of the secondary workers over the period.

-
1. See the Labour Force Sample Survey, ibid., Table (12)
 2. For 1980, the relative shares of the four economic activities in total employment are calculated from Table (12) in the Labour Force Sample Surveys, ibid., and are equal to the followings : 42.4% for agriculture, 20.2% for services, 14.7% for manufacturing and 9.0% for trade.

The largest share of the employed primary workers is in agriculture ; however, this share has decreased from 55% in 1960 to 45% in 1976 ⁽¹⁾. The other important economic activities, in terms of the employment of the primary workers are services (which includes 17.5% and 18.3% of the total primary workers in 1960 and 1976), manufacturing (with a relative share of 10.6% and 14.6% in 1960 and 1976) and trade (with a relative share of 8.9% and 9.4%) in the two years respectively ⁽²⁾.

Examining the development in the secondary workers employment over the period under consideration, one finds that the number of the secondary workers in 1960 and 1976 as estimated from Tables 6 and 7 are 1763.1 thousand and 2212.6 thousand ⁽³⁾ i.e. they represent 23.2% and 21.6% of the total employed in the two years respectively. This decrease in the secondary workers share in the employed labour force during 1960-1976 is attributed to the decrease in the relative shares of the children and the male workers of 60 years of age and over. As estimated from Tables 6 and 7, the decrease in these two relative shares (from 11.6% to 9.7% for children and from 6.7% to 6.1% for the old male workers) has exceeded the increase in the relative share of the female workers (15 years of age and over). The female workers' share in total employment increased from 4.9% in 1960 to 5.8% in 1976.

-
1. In 1960, 3208.2 thousand primary workers out of a total of 5835.5 thousand primary workers are working in agriculture (Table 6); while in 1976, 3605.2 thousand out of a total of 8014.7 thousand primary workers are working in the same activity (Table 7).
 2. Calculated from Tables 6 and 7.
 3. The secondary workers consist of the children - those in the age group 6 -<15 years (both sexes) - the females of 15 years of age and over and the males in the age group 60 years and over.

Table 6

The Distribution of the Employed by Age and Sex in
the Different Economic Activities in 1960
(6 years and over)

Economic Activities	6 - < 15		15 - < 60		60 +		Unspecified		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
<u>1-Agriculture</u>	715382	81.5	3332509	54.0	357315	65.5	21	24.7	4405227	58.0
Male	575678		3208191		350741		15		4134625	
Female	139704		124318		6574		6		270602	
<u>2-Mining and Quarrying</u>	391	0.04	19755	0.3	733	0.1	1	1.2	20880	0.3
Male	361		19664		732		1		20758	
Female	30		91		1		-		122	
<u>3-Manufacturing</u>	32892	3.7	637979	10.3	33396	6.1	12	14.1	704279	9.3
Male	29819		617936		31987		11		679753	
Female	3073		20043		1409		1		24526	
<u>4-Electricity, Gas & Water</u>	-	-	34750	0.6	1599	0.3	-	-	36349	0.5
Male	-		34477		1595		-		36022	
Female	-		273		4		-		277	
<u>5-Construction</u>	2396	0.3	144256	2.3	10993	2.0	7	8.2	157652	2.1
Male	2271		143809		10980		7		157067	
Female	125		447		13		-		585	
<u>6-Trade, Finance & Insurance</u>	18459	2.1	547413	8.9	64380	11.8	8	9.4	630260	8.3
Male	15753		517596		59261		6		592616	
Female	2706		29817		5119		2		37644	
<u>7-Transport & Communication</u>	2193	0.2	241183	3.9	13298	2.4	2	2.4	256676	3.4
Male	2074		238843		13283		2		254202	
Female	119		2340		15		-		2474	
<u>8-Services</u>	102880	11.7	1184829	19.2	61028	11.2	29	34.1	1348766	17.8
Male	30424		1023581		54689		23		1108717	
Female	72456		161248		6339		6		240049	
<u>9-Unspecified</u>	3053	0.3	32803	0.5	2058	0.4	5	5.9	37919	0.5
<u>10-Total</u>	877646	100.0	6175477	100.0	545531	100.0	85	100.0	7598008	100.0
Male	658847		5835512		514278		67		7019671	
Female	218799		339965		31253		18		578337	

Source: CAPMAS, Population Census, 1960, op.cit., Table 29, pp.112-123.

Table 7
The Distribution of the Employed by Age and Sex in
the Different Economic Activities in 1976
(6 years and over)

Economic Activities	6 - < 15		15 - < 60		60 +		Unspecified		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
1-Agriculture	789371	79.6	3685595	42.9	403169	62.5	488	18.4	4878623	47.7
Male	719923		3605208		397465		463		4723059	
Female	69448		80387		5704		25		155564	
2-Mining and Quarrying	928	0.0	31616	0.4	829	0.0	29	1.1	33402	0.3
Male	826		30277		817		29		31949	
Female	102		1339		12		-		1453	
3-Manufacturing	69300	7.0	1252851	14.6	44249	6.9	242	9.1	1366642	13.4
Male	63624		1170116		43065		228		1277033	
Female	5676		82735		1184		14		89609	
4-Electricity, Gas & Water	194	0.0	60859	0.7	626	0.0	2	0.1	61681	0.6
Male	176		56285		623		-		57086	
Female	18		4574		3		2		4595	
5-Construction	14879	1.5	391918	4.6	16881	2.6	79	3.0	423757	4.1
Male	14217		385682		16803		75		416777	
Female	662		6236		78		4		6980	
6-Trade, Finance & Insurance(1)	35543	3.6	815212	9.5	93423	14.5	160	6.0	944338	9.2
Male	33268		756911		88783		137		879099	
Female	2275		58301		4640		23		65239	
7-Transport & Communication	6579	0.0	408982	4.8	13776	2.1	36	1.4	479373	4.7
Male	6395		393383		13725		33		463536	
Female	184		15599		51		3		15837	
8-Services	43803	4.4	1770085	20.6	45821	7.1	245	9.3	1859954	18.2
Male	25157		1465797		41540		176		1532660	
Female	18646		304288		4291		69		327294	
9-Unspecified	30969	3.1	123337	1.4	26508	4.1	1365	51.6	182179	1.2
10-Total	991566	100.0	8590455	100.0	645282	100.0	2646	100.0	10229949	100.0
Male	887969		8014716		627579		2227		9532491	
Female	103597		575739		17703		419		697458	

- 0.0 denotes a percentage less than 0.05, which after rounding becomes 0.1.

(1) It includes "trade, restaurants and hotels", and "finance and insurance".

Source: CAPMAS, the Population Census, 1976, op.cit., Table 4, p.p.153-160.

Looking at the development of the share of children - those in the age group of 6 - <15 years (both sexes) - in the secondary workers over the 17 - year period, one finds that it fell from 49.8% in 1960 to 44.8% in 1976. This small decrease in the relative share of children is not encouraging, given that the two government policies of free education through secondary school and university levels, and guaranteeing jobs for the graduates were applied during this period and were supposed to direct the children more toward education and less towards work in this early age. The alarming fact is that more and more children seem to enter the labour market looking for a job. This is indicated by the unemployment data included in part 3 above, which show that the share of the children unemployed in total unemployment has increased from 18.1% in 1960 to 51.6% in 1976, and their share with respect to the unemployed secondary workers increased from 48.7% in 1960 to 79.8% in 1976 ⁽¹⁾.

Looking at the distribution of the secondary workers among the different economic activities as revealed in Tables 6 and 7, one finds that agriculture takes the largest share of the secondary workers. This is mainly because most of the children employment, which formed 49.8% and 44.8% of the secondary employment in 1960 and 1976, is in agriculture. As a matter of fact 81.5% and 79.6% of the employed children in the two years respectively are working in agriculture. Next comes the "services" activity, which includes most of the female employment in 1960 and also in 1976 ⁽²⁾; 46.6% and 52.0% of the employed females of 15 years and over

(1) See Table (3), and the text that follows.

(2) It is worth noting that the female employment in agriculture is probably underestimated as mentioned before. This underestimation may be the reason behind ranking agriculture as second after services with regard to female employment. In other words, if this underestimation does not exist, it might be that agriculture would have ranked first and services second with respect to female employment.

in 1960 and 1976 work in services (calculated from Tables 6 and 7). Next comes manufacturing and then trade with regard to their relative importance in the secondary workers employment in 1976, while in 1960 trade has had large number of secondary workers than manufacturing ¹.

Given the available data, it is not possible to find out whether or not the relative share of the primary (secondary) workers has continued its increasing (decreasing) trend after 1976. This is because the Labour Force Sample Surveys do not include data in the distribution of the employed by age and sex which is needed to calculate the relative shares of the primary and secondary workers. This age and sex disaggregation of data are available for the wage earners only which are just one category out of four categories that formulate the employed labour force according to the difinition applied in the Labour Force Sample Survey.

(iii) The Development of the Employment of the Educated and Non-Educated Labour :

Looking at the relative share of educated labour in the employed labour force and its development over the period 1960-1976, one finds from Tables 8 and 9 that out of a 7310.4 thousand employed in 1960, 575.9 thousand only

(1) See Tables 6 and 7.

have primary and higher education level. Thus only 8.3% of the employed labour force in 1960 was educated labour. In 1976, the relative share of the educated labour in the employed labour force increased to 20.3% (1924.4 thousand out of 9965.7 thousand). The relative share of the university and postgraduates in total educated labour has increased from 21.1% in 1960 to 24.3% in 1976, and the relative share of those who have intermediate and less than university education level decreased from 55.3% in 1960 to 43.2% in 1976. The relative share of those with primary and less than intermediate education in total educated labour increased from 23.6% in 1960 to 32.5% in 1976 ⁽¹⁾.

As estimated from Tables 8 and 9, the share of the non-educated - the illiterates plus those who can just read and write - in employed labour fell from 91.7% in 1960 to 79.7% in 1976. This decrease in the relative share of the non-educated is mainly due to the decrease in the share of the illiterates in the employed labour force, which is quite a healthy sign. The share of the illiterates in employed labour fell from 64.2% in 1960 to 54.0% in 1976 (estimated from Tables 8 and 9). It is worth noting, however, that the number of the non-educated employed labour shown in Tables 8 and 9, and hence their ratio in total employment, are underestimated since, both tables - as taken from the 1960 and 1976 Population Census - include the employed labour of ten years and over , i.e. they exclude the employed children in the age bracket 6 - <10 years.

(1) Calculated from Tables 8 and 9 in the text.

Table (6)

THE DISTRIBUTION OF THE EMPLOYED BY EDUCATION LEVEL IN THE DIFFERENT ECONOMIC ACTIVITIES IN 1960
(10 YEARS AND OVER)

Education Level Economic Activity	(1) Illiterate		(2) Head & Write ⁽¹⁾		(3) The Non-Educated Labour (n1-2)		(4) Primary & less than Intermediate		(5) Intermediate & less than University		(6) University and Post Graduate		(7) The Educated Labour (n4-5-6)		(8) Unspecified		(9) Total (=3+7+8)	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
1-Agriculture	3289694	70.1	810850	40.2	4100544	61.2	14584	10.7	13274	4.2	2496	2.1	30354	5.3	13817	47.8	4144715	56.7
2-Mining and quarrying	13380	0.3	5270	0.3	18650	0.3	343	0.3	1114	0.4	677	0.6	2134	0.3	30	0.1	20814	0.3
3-Manufacturing	334506	7.1	307973	15.3	642420	9.6	19794	14.5	30148	9.5	5891	4.9	55833	9.7	2157	7.5	700469	9.6
4-Electricity, Gas and Water	17343	0.4	13994	0.7	31337	0.5	1142	0.8	3060	1.0	751	0.6	4953	0.9	59	0.2	36349	0.5
5-Construction	97741	2.1	52154	2.6	149895	2.2	2015	1.5	2934	0.9	2002	1.6	6951	1.2	427	1.5	157273	2.2
6-Trade, Finance and Insurance	300245	6.4	261990	13.0	562235	8.4	20705	15.2	31906	10.0	9431	7.8	62042	10.8	1441	5.0	625718	8.6
7-Transport and Communication	104794	2.2	105796	5.2	210590	3.1	19267	14.1	21923	6.9	3965	3.3	43155	7.8	550	1.9	256295	3.5
8-Services	520095	11.1	442371	22.0	962466	14.4	55593	40.8	208391	65.5	94822	78.1	358806	62.3	10011	34.6	1331283	18.2
9-Unspecified Activities	12563	0.3	14855	0.7	27418	0.4	2734	2.0	5517	1.7	1414	1.2	9665	1.7	417	1.4	37500	0.5
10-Total	4690361	100.0	2015253	100.0	6705614	100.0	136177	100.0	318267	100.0	121449	100.0	575893	100.0	28905	100.0	7310416	100.0

0.0 is put for the percentage, which after rounding is less than 0.1%.

(1) It includes those who can read only; they represent small percentage of those who can read and write.

Source: CAPMAS, the Population Census, 1960. op.cit. .. Table 31 130-135.

Table (9)

THE DISTRIBUTION OF THE EMPLOYED BY EDUCATION LEVEL IN THE DIFFERENT ECONOMIC ACTIVITIES IN 1970
(10 YEARS AND OVER)

Education Level Economic Activity	(1)		(2)		(3)		(4)		(5)		(6)		(7)		(8)		(9)	
	Illiterate		Head & Write		The Non-Educated Labour (a1+2)		Primary & less than Intermediate		Intermediate & less than University		University and Post Graduate		The Educated Labour (a4-5-6)		Unspecified		Total (=3+7+8)	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
1-Agriculture	3748937	69.7	743515	29.0	4492452	56.5	49624	7.9	34631	4.2	13310	2.8	97565	5.1	52183	54.4	4642200	46.6
2-Mining and Quarrying	14482	0.0	9308	0.4	23790	0.3	2883	0.5	3387	0.4	2854	0.6	9124	0.5	330	0.3	33244	0.3
3-Manufacturing	554860	10.3	494670	19.3	1049530	13.2	145700	23.3	110337	13.3	45312	9.7	301349	15.7	9310	9.7	1360189	13.6
4-Electricity, Gas and Water	13943	0.0	18654	0.7	32597	0.4	6308	1.0	17391	2.1	5100	1.1	28799	1.5	267	0.3	61663	0.6
5-Construction	223816	4.2	128934	5.0	352750	4.4	29249	4.7	19217	2.3	13004	2.8	61470	3.2	8219	8.6	422439	4.2
6-Trade, Finance and Insurance (1)	201948	3.8	535075	20.9	737023	9.3	72570	11.6	72518	8.7	48163	10.3	193251	10.0	7758	8.1	938032	9.4
7-Transport and Communication	150011	2.8	172251	6.7	322262	4.1	90734	14.5	46507	5.6	16360	3.5	153601	8.0	2451	2.6	478314	4.8
8-Services	390459	7.3	421641	16.4	812100	10.2	212846	34.1	508003	61.1	312290	66.8	1033739	53.7	9930	10.4	1855769	18.6
9-Unspecified	82750	1.5	40197	1.6	122947	1.5	15182	2.4	19186	2.3	11087	2.4	45455	2.4	5465	5.7	173867	1.7
10-Total	5381206	100.0	2564245	100.0	7945451	100.0	625096	100.0	831177	100.0	468080	100.0	1924353	100.0	99913	100.0	9965717	100.0

0.0 is put for the percentage, which after rounding is less than 0.1%.

(1) It includes the two categories "trade, restaurants and hotels", and "finance and insurance".

Source: CAPHAS, the Population Census, 1976, op.cit., Table 17, p.p.174-181.

By adjusting up the number of the non-educated employed labour to include the employed children in the age bracket 6 - <10 years - who amounted to 287.6 thousand and 264.2 thousand child in 1960 and 1976 respectively ⁽¹⁾ - the number of the non-educated employed labour in 1960 and 1976 will jump to 6993.2 thousand and 8209.7 thousand out of a total employed labour force (6 years and over) of 7598.0 thousand and 10229.9 thousand, respectively. Accordingly, the relative share of the non-educated employed labour in the employed labour force will be 92.0% in 1960 and 80.3% in 1976; and hence the relative share of the educated labour becomes 7.6% in 1960 and 18.8% in 1976 ⁽²⁾, which is somewhat lower than the comparable ratios when the employed children in the age bracket 6-10 years were excluded.

As shown in Tables 8 and 9, the economic activities that have the relatively largest demand for educated labour are services, manufacturing, trade and finance, and transport and communication. Although most of the educated labour work in services activity in 1960 and 1976, the services' employment share in the educated labour fell from 62.3% in 1960 to 53.7% in 1976. Next comes manufacturing, which includes 15.7% of the educated labour in 1976, while its employment share in the educated labour in 1960 has been only 9.7% (i.e. in 1960, it comes after the trade activity in this regard). " Trade, finance and insurance" and " transport and communication " include together 18.0% of the educated labour in 1976 as compared to a relative share of 18.6% in 1960. With regard to the non-educated labour,

-
- (1) These are estimated as equal to the difference between the total employed labour of 6 years and over in Tables 6 and 7 (7598008 in 1960 and 10229949 in 1976), and the employed labour force of 10 years and more in Tables 8 and 9 (7310416 in 1960 and 9965717 in 1976).
- (2) These relative shares of the educated labour are estimated by relating the total number of the employed educated labour in Tables 8 and 9 to total employment (6 years and over) in 1960 and 1976.

they are working mainly in agriculture, manufacturing, services and trade activities. The largest share is working in agriculture. Agriculture includes 61.2% of the employed non-educated labour in 1960 and 56.5% in 1976. Next comes manufacturing (with a relative share of non-educated employed labour of 13.2% in 1976 and 9.6% in 1960), services (with a relative share of 10.2% in 1976 and 14.4% in 1960), and trade (with a relative share of non-educated employed labour of 9.3% in 1976 and 8.4% in 1960).

To examine the employment structure with respect to the educated vis-a-vis the non-educated labour in the different economic activities, the relative share of the educated labour in total employment in these activities has been estimated. A certain economic activity might be negligible as compared to the others with respect to the total number of educated labour employed in it, while its job structure - as indicated by its employment structure - favours the demand for educated labour as compared to the job structure in the other economic activities. A good example of that is " electricity, gas and water " in which the educated labour employed represents 46.7% of its employment in 1976, while total employment in this activity represent 0.6% only of the national employment in the same year (see Tables (9) and (10)).

As shown in Table (10), the development in the employment structure in all the economic activities during 1960-1976 has been in favour of hiring more of educated labour. The most important activity in this regard is services; 55.7% of its total employment in 1976 (as compared to 27.0% in 1960) are educated labour. Next to services, comes electricity, gas and water activity, and then transportation and communication with 32.1% of its employment in 1976 are educated labour (compared to 17.6% in 1960). It is worth noting that manufacturing, which is the second most important economic

TABLE 10
THE PROPORTION OF THE EDUCATED LABOUR
TO TOTAL EMPLOYMENT, BY ECONOMIC ACTIVITIES,
IN 1960 AND 1976
(10 YEARS AND OVER)

ECONOMIC ACTIVITY	1960 %	RANKING	1976 %	RANKING
1 - Agriculture	0.7	9	2.1	9
2 - Mining and Quarrying	10.3	4	27.4	4
3 - Manufacturing	8.0	6	22.2	5
4 - Electricity, Gas & Water	13.6	3	46.7	2
5 - Construction	4.4	8	14.6	8
6 - Trade, Finance & Insurance	9.9	5	20.6	6
7 - Transport & Communication	17.6	2	32.1	3
8 - Services	27.0	1	55.7	1
9 - All Activities	7.9	7	19.3	7

Source: Calculated from Tables (8) and (9) in the text.

activity in terms of the size of the educated labour employment as shown above, ranks 5 in 1976, and 6 in 1960, with regard to the relative share of the educated labour in its total employment. It is worth noting also that the employment structure in agriculture is biased heavily towards the non-educated labour. It has the lowest share of educated labour among all the economic activities; it is 2.1% in 1976 as compared to 0.7% in 1960.

Differentiating between public and private sectors, one finds that in 1976 ⁽¹⁾, 79.7% of the educated employed labour of age 15 years and over are working in the public sector (estimated from Table 11) ⁽²⁾, although the public sector's employment represents only 26.9% of the total employment on the national level (see Table 12) ⁽³⁾. This is reflected in the high share of the educated labour in the public sector's employment as compared to a much lower share in the private sector. As shown in Table 11, educated labour represents 55.5% of the total employment in the public sector, and 5.9% only of the total employment in the private sector. The high share of the educated labour in the public sector's employment as compared to the case in the private sector can be explained by the following factors :

-
- (1) In 1960, there was only the small traditional government sector; the large public sector was created after 1960 (see the text).
 - (2) 1526.5 thousand educated out of a total educated labour of 191533 thousand were working in the public sector (see Table 11).
 - (3) Notice that Table 11 shows the private and public sector's employed labour of age 15 years and over, while Table 12 shows the private and public sector's employment of the age 6 years and over.

Table (11)

THE DISTRIBUTION OF THE EMPLOYED LABOUR BY EDUCATION LEVEL
AND BY PUBLIC AND PRIVATE INSTITUTIONS IN 1976
(15 YEARS AND OVER)

EDUCATION LEVEL	PUBLIC SECTOR ⁽¹⁾		PRIVATE SECTOR ⁽²⁾		TOTAL
	Number	%	Number	%	Number
1. Illiterate	475063	17.3	4286833	65.3	4761896
2. Read and write	729204	26.5	1754127	26.7	2483331
3. The Non-Educated (1+2)	1204267	43.8	6040960	92.0	7245227
4. Primary & less than intermediate	406537	14.8	209353	3.2	615890
5. Intermediate & less than university	717552	26.1	113750	1.7	831302
6. University & Post Graduate	402460	14.6	65628	1.0	468083
7. The Educated (4+5+6)	1526549	55.5	388731	5.9	1915280
8. Total (3+7) ⁽³⁾	2750091	100.0	6566168	100.0	9316259

(1) It consists of government and public institutions.

(2) It consists of private , cooperative, foreign and international, and the " unspecified " institutions.

(3) It includes the " unspecified " category

Source : Calculated from : the Population Census, 1976, op.cit.,
Table 12, pp. 239-321.

Table (12)

./58

THE DISTRIBUTION OF THE EMPLOYED BY TYPES OF INSTITUTION IN THE
DIFFERENT ECONOMIC ACTIVITIES IN 1976

(6 YEARS AND OVER)

INSTITUTION ECONOMIC ACTIVITIES	(1)	(2)	(3)		(4)	(5)	(6)	(7)		(8)	(9)	
	GOVERN- MENT	PUBLIC	PUBLIC SECTOR (= 1 + 2)		PRIVATE	COOP- ERATIVE	FOREIGN & INTERNAT- IONAL	PRIVATE SECTOR (= 4 + 5 + 6)		UN- SPECI- FIED	T O T A L (= 3 + 7 + 8)	
	Number	Number	Number	%	Number	Number	Number	Number	%	Number	Number	%
1. Agriculture	61025	26641	87666	1.8	4769408	14533	-	4783941	98.1	7016	4878623	100.0
2. Mining & Quarrying	300	18404	18704	56.0	13790	-	-	13790	41.3	908	33402	100.0
3. Manufacturing	32843	594693	627536	45.9	731922	383	-	732305	53.6	6801	1366642	100.0
4. Electricity, Gas & Water	46726	14909	61635	99.9	-	-	-	-	-	46	61681	100.0
5. Construction	-	96581	96581	22.8	325655	64	-	325719	76.9	1457	423757	100.0
6. Trade, Finance & Insurance (1)	31985	86606	118591	12.6	819715	3287	-	823002	87.2	2745	944338	100.0
7. Transport & Communication	173729	102213	275942	57.6	201650	45	-	201695	42.1	1736	479373	100.0
8. Services	1430011	17733	1447744	77.8	402831	34	4850	407715	21.9	4495	1859954	100.0
9. Unspecified	9445	6803	16248	8.9	90799	125	109	91033	50.0	74898	182179	100.0
10. T O T A L	1786064	964583	2750647	26.9	7355770	18471	4959	7379200	72.1	100102	10229949	100.0

(1) It includes the two categories: "trade, restaurants and hotels", and "finance and insurance."

Source: The Population Census, 1976, op.cit., Table 16, pp.169-173

First, agriculture, which includes alone more than half of the non-educated employed labour on the national level ⁽¹⁾, is mainly a private sector activity. As shown in Table 12, 98.1% of the labour force in agriculture is working in the private sector.

Second, a little more than three quarters of the public sector's employees are working in the services and manufacturing activities; 52.6% in services and 22.8% in manufacturing (calculated from Table 12). These are the two activities, which have the largest numbers of educated labour in 1976 (see Table 9).

Third, the private sector includes what is called the "informal" sector, which includes the marginal jobs that suit the non-educated labour who find barriers to enter the formal sector ⁽²⁾. Also, the types of jobs available in the public sector (more white collar's type) ⁽³⁾ is probably among the factors responsible for the relative high share of the educated labour in the public sector's employment ⁽⁴⁾.

(1) See Table 9 in the text.

(2) For a good discussion of the informal sector vis-a-vis the formal sector, see: Dipac Mazumdar, "The Urban Informal Sector" World Development, vol.4, no.8, August 1976, pp.655-679. It may be worth noting that in two surveys carried out in Brazil and Peru, it has been found that those who have not completed their primary education as well as female workers are disproportionately represented in the informal sector (see, D. Mazumdar), ibid., p.660).

(3) For Example, the public sector has more administrators, managers and clerks per 100 workers than the private sector; see El-Issawi, op.cit p.115

(4) Even in the non-educated groups, the illiterates represent a relatively smaller share in the public sector than in the private sector; it represents 39.4% of the non-educated in the public sector and 71.0% in the private sector (estimated from Table 11). This is probably attributed to the employment policy applied in the public sector, which gives preference to those who can read and write as compared to the illiterates, when choice is possible. Moreover, in some cases "reading and writing" is a necessary requirement for the application to low level jobs in the public sector.

Fourth, government policy of guaranteeing jobs for the intermediate and university levels graduates is one of the important factors responsible for the increase in the educated labour employment in the public sector (since this is the only place where the government can stuff them in) which does also lead to an increase in the total employment in the sector.

Most probably the relative share of the educated in total employment continued its increasing trend after 1976. However, the data available in the Labour Force Sample Survey do not allow us to test this hypothesis. This is because the disaggregation of data by education level is available for the wage earners only, who represent just one segment of the employed labour force according to the definition applied in the Labour Force Sample Surveys.

B- The Prospects of Increasing the Demand for Educated Labour :

What are the prospects of increasing the demand for educated labour in Egypt ? the answer to this question will consist of two parts :

- (i) The prospects of the increase in the demand for educated labour if the previous trend in the development of economic structure and the existing employment policy continues.

- (ii) What measures can be taken to increase the demand for educated labour and to decrease unemployment among the educated.

(i) The Prospects of the Increase in the Demand for Educated Labour, if the Previous Trend Continues:

(a) Taking employment as a proxy to the demand for labour ¹, one finds from section A(iii) above that the demand for educated labour has increased during 1960-1976; their employment has increased from 7.9% of total employment in 1960 to 19.3% in 1976 (calculated from Table 8 and 9 in the text). All economic activities - except agriculture ² - have had a significant increase in the demand for the educated vis-a-vis the non-educated, as reflected in the significant increase in the relative share of the educated labour in total employment in all the non-agricultural activities (see Table 10). But, on the other hand, this increase in demand has not absorbed all the increase in the supply of educated labour over the period under consideration. The result is an increase in the number of the unemployed educated labour in 1976 as compared to 1960.

(1) The number of labour employed in any economy is not identical to the demand for labour in this economy as long as there are job vacancies. These vacancies are actually unsatisfied demand for labour. Since it is almost impossible to find an economy with zero vacancies, no matter how large is its supply of labour, one cannot say that the number of labour employed in a certain year is equal to the demand for labour in the economy in this year.

(2) Agriculture acted very poorly in this regard, see Table 10 in the text.

This excess supply of the educated labour has been increasing at a higher rate than the excess supply of the non-educated labour which has led to an increase in the share of the unemployed educated labour in total unemployment as has been shown in part 3 above. Free education throughout all the education levels and guaranteeing a job for the intermediate and high education level graduates are two policies that are probably largely responsible for the increase in the supply of educated labour during 1960-1976. If this trend of the relative growth in the demand for an supply of educated labour continues, this means that the demand for educated labour and their unemployment are expected to grow side by side during the coming period.

(b) Examining the development in the economic structures - i.e., the development in the relative shares of the economic activities in GDP - over the period 1960-1976, one finds from Table (1) in the text that from the four economic activities that have experienced an increase in their relative GDP shares, only one activity has large demand for educated labour; this is the industry, mining and petroleum activity. The total demand for labour in each of the three other activities as reflected in their employment capacities, is relatively small; these three activities are electricity, construction, and trade and finance. Although the job structure in the electricity activity favours the educated labour, its very small share in national employment (0.6% in 1976) ⁽¹⁾ results in a small demand for educated labour by this activity.

(1) See Table 9 in the text.

But in the case of construction and trade activities, the small demand for educated labour is not attributed only to their relatively small shares in national employment, but also to their employment (or job) structures that do no favour the educated labour vis-a-vis the non-educated ⁽¹⁾. The GDP share of the services activity, which has the largest demand for educated labour (see Table 9), has been falling during 1960-1976 as shown in Table (1).

Examining the development in the relative share of the different economic activities in GDP from 1976 to 1979 (the latest data available) ⁽²⁾ after excluding the petroleum activity from the GDP ⁽³⁾, one finds that among the four activities that have experienced a rising trend in their GDP shares during 1960-1976 ⁽⁴⁾, construction and trade are the only two that have continued this trend. The relative share of construction increased from 4.7% in 1976 to 6.5% in 1979; and the relative share of trade, finance and insurance increased from 16.1% in 1976 to 19.4% in 1979 ⁽⁵⁾. As mentioned above, the demand for

- (1) By ranking all the economic activities in descending order with respect to their relative shares of educated labour employment in 1976, it is found that trade, finance and insurance, and construction come at the bottom, if we exclude agriculture which has a very low ratio (see Table 10 in the text).
- (2) The comparison between 1976 and 1979 are made by using the data in: the World Bank, Arab Republic of Egypt Domestic Resource Mobilization and Growth Prospects for the 1980's (December 1980), p.146. It is worth noting that the national income accounts data have been revised by the Egyptian Authorities to take better account of some of the structural changes that had taken place since 1975. Therefore, one finds that the national accounts data of 1976 included in this 1980 World Bank document are different in magnitudes than the comparative data included in Table (1) in the text and taken from: the World Bank Economic Management in a period of transition, (1978) op.cit., vol.6, p.23.
- (3) The big increase in the petroleum output during 1976-1979 made its share in GDP jump from 4% in 1976 to 16% in 1979, which, if included, will distort the picture regarding the development in the relative shares of all the other economic activities in GDP during 1976-1979 (see; the World Bank, 1980 op.cit p.146).
- (4) These four economic activities are, industry, electricity, construction, and trade (see Table (1) in the text).
- (5) Calculated from the World Bank, 1980, ibid p.146. "Trade, finance and insurance" activity is shown in the source under two separate economic activities. We combined them in one economic activity to make it feasible to compare it with the 1960 figures in Table (1) in the text.

labour in these two economic activities do not favour the educated labour vis-a-vis the non-educated. The GDP share of industry and mining activity, which has been rising during 1960-1976, falls from 16.8% in 1976 to 14.7% in 1979 ⁽¹⁾. As we know, industry and mining is the second most important activity with respect to its employment capacity for the educated labour in Egypt (see Table 9). Looking at the development of the relative share of the services activity, which has the largest demand for educated labour, one finds that it has continued its declining trend to 1979; its relative share fell from 23.5% of GDP (excluding petroleum) in 1976, to 22.3% in 1979. This means that the relative share of one of the two economic activities that have the relatively largest demand for educated labour (i.e., services and industry), has been rising during 1960-1976 (which is the relative share of industry), while the relative GDP shares of both economic activities have been falling during 1976-1979. Thus, one may say that if the development in the economic structure continues along the trend of 1976-1979, it is expected that the derived demand for educated labour will continue to increase ⁽²⁾, but at a slower rate as compared to the 1960-1976 period, other things being constant ⁽³⁾.

-
- (1) Notice that - for accuracy and consistency - when we compare the relative share of this activity in GDP in 1976 with the 1960 figure, we use the data in Table (1) in the text which includes petroleum with industry and mining. But when we compare the 1976 figure with the 1979 figure we exclude petroleum and talk about the growth in the relative share of industry and mining activity. The data which we use for the 1976 and 1979 comparison of "industry and mining" activity, and the other economic activities as well are taken from the World Bank, 1980, ibid., p.146. Petroleum is not included as a separate activity in the 1960 data.
- (2) This is mainly because the size of total employment (educated and non-educated) increase, and the job structure in all the economic activities is changing in favour of the employment of educated vis-a-vis non-educated labour as shown in Table 10 in the text.
- (3) Like the speed of change in the job structure in favour of more educated labour employment in the different economic activities between 1960 and 1976, and the methods of production used in the different economic sectors.

(c) As shown in part 4 in the paper the relative share of the employed educated labour in the public sector is greater than in the private sector. This means that the open door policy, which encourages the private sector is expected to have a contractionary impact on the additional demand for educated labour, unless, of course, the new private sector's enterprises behave differently than what has been going on during 1960-1976 ⁽¹⁾. On the other hand, opening new projects according to the open door policy creates job opportunities and hence increases the demand for labour in general including the increase in the demand for educated labour ⁽²⁾. But, given the employment structure (educated versus non-educated labour) in the public and private sectors, one would wonder whether the increase in the demand for educated labour would not have been greater if the new projects were public and not private enterprises ⁽³⁾.

Consequently, our expectation is a fall in the rate of growth of the demand for educated labour as compared to the 1960-1976 period as the result of the decrease in the relative share of the public sector.

(d) Guaranteeing a job for the intermediate and high education levels graduates is a policy which has a direct impact on the demand for educated labour. The government has to provide jobs for the new graduates who could not find jobs on their own within three or four years after graduation. Although this policy

(1) This depends to a great extent on the kinds of economic activities which the new private enterprises will be working in.

(2) However, so far, the impact of the open-door policy (the *infitah*) on employment seems to be modest. It has been estimated using some controversial assumptions - that the contribution of the open door policy in total employment of 1979 does not exceed 4%, see: El-Issawi, *op.cit.*, p.81.

(3) Notice that, even after excluding agriculture, which has a very large share of non-educated employment and is mainly a private sector activity, the share of the educated labour in the total employment of non-agricultural activities is still greater in the public sector as compared to the private sector, as shown in part 4 in this study.

is still maintained by the government, we believe that it cannot continue for long within the prevailing policy of decreasing the relative share of the public sector, and of freeing the public enterprises from hiring the new graduates and allowing them to enter in joint ventures with the private sector and become completely free from all the public sector's rules in certain cases ¹. Where, then, can the government hire all the new graduates ? We believe that the government sector, the only place left for this purpose, cannot continue for long to take the increasing number of graduates every year ².

One way conclude from the above that within the foreseeable future of expected changes in the economic structure and policies, the demand for educated labour will grow at a lower rate as compared to the 1960-1976 period.

(ii) - Measures to increase the Demand for Educated Labour:
Several points can be raised in this regard.

(a) the most important thing is to increase the employment opportunities in the economy. The non-availability of enough jobs is what makes the graduates wait unemployed for three and four years until they are hired by the government. In the allocation of public investment, the government should give high priority to the projects which are labour intensive. This does not seem to be happening at present, since a good portion of the public investment are directed towards capital intensive project ³.

-
1. These cases are when the share of the public enterprise in the capital of the new project is less than 50% of the total. In this case, the new project, in which the public enterprise is subscribing in with 49% or less of the capital, will be considered as a private enterprise and will not be subject to any public sector's rule.
 2. It is worth noting that, at early 1981, President Sadaat has announced that the new graduates will be allocated only to the government organizations outside Cairo governorate. Decreasing the population pressure in Cairo is not the only reason behind this decision, we believe. The difficulties that the government face at present in creating jobs for the new graduates is an important reason, we believe, behind this act.
 3. See: Hansen, op.cit., pp. 14, 48049.

The objective of creating more jobs in the economy should be given more weight in some economic activities than the growth target ¹. The tightness in the job availability in the economy is reflected by the fact that until 1981, 43% only of the graduates of 1977 (intermediate education level) and 1978 (high education levels) have found a job on their own ². The government should also encourage the private sector to invest more in the projects that hire more labour; e.g. like giving special tax deduction for the new projects that employ more than 20 workers, for example. Creating more jobs in the economy implies an increase in the demand for labour, including an increase in the demand for educated labour.

(b) there is already shortages in some specializations, mainly at the intermediate and above intermediate (i.e., below university) levels of education ³. This implies the existence of unsatisfied demand for labour in some areas. This unsatisfied demand can be met, and the unemployment among the graduates can be decreased, by training the unemployed graduates in other specializations to fill these job vacancies. This means that suitable training programmes can increase the demand for some types of educated labour who are in excess supply. A good example is the training centers, that have been opened to teach some craftsmanship (like plumbing, carpentry, etc.) in four months. It has been found that university graduates

-
1. The growth target is already taken care of by some economic activities, like petroleum production and the Suez Canal; they realize high rate of growth and are by their very nature, capital intensive.
 2. See El-Ahram, op.cit
 3. W. Klatanoff and others, "The Manpower Estimates to Service Education Planning and Training", a paper submitted to the conference of the Egyptian Economists, March 1980 (in arabic) pp.23-25.

are joining it, since, as they said, using this craft will give them much higher income ¹.

Although training after graduation helps in decreasing the unemployment among the educated labour, it implies waste of resources to the society. This is because the society pays the education cost for specializations that are not used afterwards. Moreover, being a plumber or a carpenter, etc. does not need that one spends this long education period in schools and university with all the social and private costs involved. A much better way of doing it, of course, is to be able to direct the students early in their education towards the specialisations that are in demand by the society. This requires that the government will be able to know in advance which specializations will be in short supply ahead of time and make these information available to the students early enough. Manpower and education planning are very important in this regard. But, on the other hand, one should not over-estimate their impacts on the labour market, given the prevailing social values, which still give large weight to the university degree ². As it is put by a commerce graduate, who is learning plumbing in one of these training centers : I can earn now ten times the salary of a university graduate, and marry a girl from a good family without being refused on the basis that I am a plumber, since I have a university degree ³.

-
1. See, the weekly newspaper Akhbar-El-Yom, Cairo, Egypt. 2.5.1981.
 2. It is worth noting, though, that these social values are changing significantly over time, especially regarding the attitude towards manual work. It was only twenty years ago that a survey conducted by the Institute of National Planning revealed that few of the high and intermediate education levels graduates accept to work in a job that needs lower qualification ; also few accept to be involved in manual work. See, the Institute of National Planning (Egypt), Research Project on Employment and Unemployment Among the Educated, Cairo, 1963, pp. 95, 106, 107. Now the university graduates are driving taxis and learning plumbing, carpentry, etc.
 3. Akhbar-El-Yom, op. cit.

In other words, by this way, he can get " the best of both worlds ". This is because being a plumber without having a university degree will disqualify him according to the middle social class values, and, on the other hand, working with the university degree does not enable him to make a good living.

(c) promoting the foreign demand-especially the arab demand - for Egyptian labour, can help in decreasing the unemployment among the educated in Egypt. But free emigration policy without being accompanied by manpower planning, which is happening at present, has created shortages in some skills in the society, raising, thus, their wages and enhancing the inflationary impact in the economy. Another negative aspect of emigration is that the society pays the education cost of the emigrants without getting anything in return. Emigration can be one of the solutions of the unemployment problem in Egypt if it is organized to avoid the two negative aspects mentioned above. Manpower planning can help in avoiding the labour shortages, which the society is suffering from in some areas at present. Projecting the shortages in advance and providing the necessary information to the students to guide them in their education choice and applying appropriate training programmes, can provide the substitutes for the emigrated skills at the right time. Also, serious studies should be made to find a way of getting the education cost of the educated emigrants back to the Egyptian society, whether this will be paid by the receiving countries or by the individuals themselves in the form of taxes. This does not seem infeasible as it may sound to be. At least the cost of education can be paid by the receiving countries for the types of labour which is in relatively scarce supply in the arab region and are subject to inelastic demand for them.

In short the total demand for educated labour can be increased by promoting the foreign demand - especially the arab demand - for them. However, serious studies should be made regarding the conditions in the labour market in the arab countries and how to promote their demand for Egyptian labour, on one hand ; and on the other hand, the present emigration policy should be revised to eliminate its negative impacts on the Egyptian society.

5- Wages :

(A) Wage Determination :

Since the Nationalization Acts of 1961, a relatively large public sector has emerged in Egypt side by side with the private sector. Wages in the public sector, which consists of the government and the public enterprises, are determined differently than in the private sector. While in the private sector wages are mainly determined by the interaction between the demand and supply sides in the labour market, with minimum government intervention, the wages in the public sector are set by means of a grade system relating the grade levels to the levels of the formal education attained by the employees.

The wage scale in the government and public enterprises is divided into grades based mainly on the formal education level of the employees. Each grade has its basic wage level. In Addition to this basic wage level, overtime pay, bonuses and incentives can be given to the employees which may add up to a maximum of 50% of the basic wage in the government and 100% of the basic wage in the public enterprises ¹.

1. International Labour Office, Employment Opportunities and Equity in a Changing Economy; Egypt in the 1980's, a Labour Market Approach.
A draft Report of the ILO/UNDP Strategy Mission, June-October 1980.

The number of grades in the wage system of the public sector (government and private enterprises) has been reduced from 14 grades in the early sixties to 12 grades in 1971 and then to nine grades in 1978, reducing, thus, the gaps between the basic wage levels. For example, in 1964 the ratio between the start salary of the lowest and highest grades was 1:30 ; this ratio has been reduced to 1:11 in 1978 ⁽¹⁾. From the early sixties until the middle of the seventies the wage scales of the government and the public enterprises were very similar. In 1975, general cost of living allowances were given, followed in 1976, 1977 and 1978 by general wage increase differentiating according to wage levels and favouring the lower grades. In 1978 the public enterprises were given more freedom as compared to the government in terms of wage setting. Temporary appointment is a method which has been widely used to give individual high wages ⁽²⁾.

Although wage determination in the private sector is based on market forces, it is not completely free from government influences. One form of this influence is government direct intervention in the labour market since 1962 by setting minimum statutory wages for the industrial and agricultural sectors and legislation has been extended in 1974 to cover all private employment. From 1975, cost of living allowances have been imposed by law on the private sector. Although in principle these laws and legislations should cover all private

(1) ILO Report , ibid., p. 203.

(2) Ibid., p. 79.

enterprises, in practice they are effective in the large enterprises only ⁽¹⁾, which represent a small portion of the private sector. The second important influence is through the impact of the public sector's wage schedule on the wage determination in the private sector. We believe that there is an important relationship between the level of wages determined in the private sector and the wage schedule set in the public sector regarding some types of labour. This relationship may be explained as follows. If the private sector wants to attract certain quality of labour, it should give them wages at least equal to the public sector's (with all the fringe benefits included, of course). Only in the case where there is excess supply of this type of labour as compared to the public sector's demand for them, the private sector can offer them wages less than the prevailing ones in the public sector and still get his needs of labour requirement. However, this situation can exist only in the case of the unskilled and non-educated labour, specifically those below the secondary education level. It does not apply to the case of skilled labour since they are in short supply and the market mechanism raises their wages in the private sector anyway. This situation does not apply also to educated labour because the government guarantees a job for the graduates of the intermediate and higher education levels, and hence there is no need for those to accept permanent jobs at a wage pay below the comparative public sector wages. They may accept such kind of jobs temporarily during their waiting period for the government job, which may extend for three or four years as mentioned before. Moreover, the impact of the public sector's wage schedule on the wage determination in the private sector is not confined to the former sector setting the wage floor for the permanent comparative jobs in the latter for some groups of labour.

(1) ILO Report, ibid., pp. 79-80.

Its impact extends, we believe, to the determination of the wages in the different job levels as well. This is because when the private enterprise puts its wage schedule for the job hierarchy, it puts it having in mind the comparative job schedule in the public sector, what matters mostly in attracting the relatively good quality of labour is the relative level of wages offered in the private sector as compared to the public sector. In other words, when the private sector puts its wage schedule, it puts it on the basis of how many times the wage offered for a certain job is greater than the wage for the comparative job in the public sector. Thus, the determination of wages in the private sector is not simply the outcome of the interaction between the supply and demand sides in the labour market - as it would have been in an exclusively market economy - but it is significantly affected by the level of wages set in the public sector plus work experience abroad, mainly in the Arab countries. Consequently, we believe that, were it not for the public sector's wage determination mechanism, the level of wages would have been higher for relatively scarce specializations and lower for relatively abundant one, compared to wages prevailing at present.

Another point we would like to discuss regarding the wage determination in the private sector, is the extent of wage rigidity in the labour market. The existence of unemployment in the economy may be taken as evidence that wages are rigid downwards in the private sector, since it is the one which can absorb, within the limits of its capacity of course, the quantity of labour in excess of that demanded by the public sector, if the wages are flexible enough downwards. Certainly, this wage rigidity is not due to the unionization, since this is very limited in Egypt.

Hence, one may wonder why wages are rigid in a relatively low income country like Egypt, with unemployment reaching 7.7% in 1976, given that open unemployment is quite a luxury that cannot be afforded by many people in poor societies ? This wonder will disappear if one examines the Egyptian labour market more carefully. It will be found that this high unemployment rate is a misleading indicator to the degree of wage rigidity in the economy. To talk about wage rigidity in the labour market in Egypt, one should differentiate between two subsectors. The first includes those who have secondary or higher levels of education, and the second subsector includes all the rest, i.e. below the secondary level of education and the illiterates. In the first subsector downward wage rigidity is expected to be high because the government guarantees a job for them, and hence it is logical that they may not accept any permanent job with a wage less than the comparative wage level in the public sector's wage system. In the second subsector, which includes the bulk of the labour force in Egypt, wages are not expected to be much rigid downwards, especially among the adults (15 years and over). Among the adults in the second subsector, one expects that the degree of wage rigidity downward is really modest, since generally speaking, not many of the adults in the labour force can afford to be openly unemployed in a low income country like Egypt ; they must support their families financially ⁽¹⁾. To test this hypothesis, we have calculated the rate of unemployment in each of the two subsectors, and for the adults in the second subsector.

(1) Notice that, by definition, the labour force of the first subsector are all adults. This is because people with secondary level of education or higher fall in the age brackets of 15 years and over.

It has been found that the unemployment rate in 1976 in the first subsector - i.e. for the labour force with intermediate and higher level of education - is 16.8%, and for all the second subsector (children + adults) is 6.2% , and for the adults only in the second subsector is 1.7% ⁽¹⁾. Taking unemployment rates as an indicator of the degree of downward wage rigidity ⁽²⁾, one may conclude that the downward wage rigidity is relatively high in the labour market for the intermediate and higher level of education and significantly low for the adult labour with low level of education and the illiterates.

(B) Wage Structure :

Given the available data, the wage structure in Egypt and the development of this structure during the period 1960 - 1976 will be examined via three angles.

-
- (1) The data used for the estimation of the three rates of unemployment in 1976 are derived from Tables (2), (3), (4), (7) and (9) in the text. These data are:
 The number of unemployed with intermediate and higher level of education = 263177.
 The labour force with intermediate and higher level of education = 263177 + 1299257 = 1562434.
 The number of unemployed illiterates and below intermediate level of education = 584045.
 The labour force illiterates and below intermediate education level = 10981535 - 1562434 = 9419101.
 The number of adults unemployed (15 years and over) illiterates and below intermediate education, level = 585045 - 437493 = 146552.
 The adult labour force illiterates and below intermediate education level = 9419101 - 991566 = 8427535.
- (2) Since if wages are flexible enough downward (or wage rigidity downward is low), the labour market would have cleared and unemployment would have been negligible.

First , we shall examine the development of the average wage in the different economic activities over the period. Second, the development of the gap between the average wages of the blue and white collars over the period will be examined. Finally, the average wage differetial between the public and private sectors will be investigated.

To examine the change in wages over the period under consideration, let us look at the development of the average wage of the male worker in establishments with 10 or more workers as shown in Table (13) (1) .

-
- (1) We shall examine the development of the wage of the male workers only to exclude the impact of the change in the sex structure of the labour force on the average wage level, since in most economic activities the average wage of the female workers is lower than the male workers (see Tables I and II in the appendix). Thus, if we take the average of both sexes, a fall in the average wage may not be due to a fall in the absolute level of wages for any of the sexes but only due to the increase in the relative share of the females in the labour force in the economic activity under consideration. It is worth noting that by law there is no sex discrimination in the wage pay for the same job. The relative low average wage for the female workers is probably due to the fact that a large portion of the female workers - as compared to the male workers - are illiterates and have lower level of education and, hence, they are in the jobs closer to the bottom of job ladders.

Table (13)

The Change in the Average Weekly Wages of
the Male Workers in the Establishment of
10 Workers or More, by Economic Activity
(1960 - 76)
(%)

Economic Activities	Blue Collars	1960-1976 White Collars	Total
1- Agriculture	112.4	31.9	84.1
2- Mining & Quarrying	331.5	89.9	99.1
3- Manufacturing	190.8	42.6	152.4
4- Construction	147.0	29.5	108.5
5- Trade, Finance and Insurance	102.9	30.5	54.3
6- Transport, Communic. and Storage	107.3	43.1	88.1
7- Services	201.0	147.4	182.8
8- T O T A L	166.5	42.3	119.9

Source : Calculated from Tables I and II in the appendix.

It is clear from Table (13), that the largest average wage increase has occurred in the services sector ; the average wage of the male worker has increased in 1976 by 182.8% above its level in 1960. Next comes the manufacturing sector with an increase in the average wage of the male worker by 152.4% of its 1960 level. The third sector is construction with a 108.5% increase in average wage.

The next to last sector in terms of the average wage increase is agriculture (84.1% increase over the period). It is worth noting that the increase in the average wages in agriculture and construction as shown in Table 13 seems to be significantly underestimated, probably due to the limited data coverage of the private sector ⁽¹⁾. Moreover, the agricultural sector proper is not covered by Tables I and II in the appendix, which are the source of Table (13) as we know. This is because the agricultural establishment covered are only those engaged in the provision of agricultural services, e.g. packing, spraying, tractor hiring, etc. ⁽²⁾. According to the data of the ministry of agriculture, the average wages of men in agriculture in 1976 is 498.3% of the average wage in 1959/60 ⁽³⁾ ; i.e. there is an increase in average wage by 398.3% over the period and not only by 84.1% as shown in Table (13). In the construction sector, the increase in the average wages of male workers ranged between 328% for the painters to 650% for the excavators during the period 1960-1977 ⁽⁴⁾.

-
- (1) By relating the employment figures in the 1976 bulletin of Employment, Wages and Hours of Work to those in the 1976 Population Census, it has been found that 88.4% of the public sector employment and 2.3% of private sector employment only were covered in the first source, from which Table 13 is calculated. See El-Issawi, op.cit., pp. 76-77.
- (2) Ibid., p. 77.
- (3) Calculated from the ILO Report, op.cit., Table 5, p.91.
- (4) Calculated from the ILO Report, ibid., Table 7, p. 95.

One may wonder whether there is similar underestimation of the actual increase in the average wages in the other sectors as well - besides the agriculture and construction - because of the limited coverage of the private sector in the wage data.

Comparing the increase in average wages with the distribution of additional employment in the different economic activities over the period under consideration, Table (14) shows that the largest share of the increase in employment has been directed to manufacturing, then comes the services and next is agriculture. Trade and construction come fourth and fifth in ranking with respect to the relative shares in the increase in employment. This means that the ranking of the economic activities with respect to the increase in average wages does not coincide with the ranking of these activities in terms of the increase in employment. For example, the services sector, which ranks first in the average wage increase, ranks second with respect to its relative share in the employment increases during the period. Manufacturing, which ranks second with respect to wage increase, ranks first with respect to its employment share, and so on with respect to the other sectors. However, one may say that services and manufacturing are the two leading sectors with respect to the increase in wages and employment during 1960 - 1976.

.../....

Table (14)

The Distribution of the Increase in Employment
to Different Economic Activities during 1960-76

Economic Activities	Increase in Employment	
	Number	(%)
1- Agriculture	473396	18.0
2- Mining & Quarrying	12522	0.5
3- Manufacturing	662363	25.2
4- Electricity, Gas and Water	25332	1.0
5- Construction	266105	10.1
6- Trade, Finance and Insurance	314078	11.9
7- Transport and Communication	222697	8.5
8- Services	511188	19.4
9- Unspecified	144260	5.5
10- Total	2631941	100.0

Source : Calculated from Tables (6) and (7) in the text.

The fact that the ranking of the increase in wages and the distribution of additional employment in the different economic activities do not coincide is not surprising, because, first, we are dealing with a mixed economy with public and private sectors existing side by side, and each has different wage and employment rules to apply ; and second wages, generally speaking, are not the only important factor affecting the demand and supply sides in the labour market.

There are other equally important factors as well, like the credit availability, the government policy of guaranteeing a job for the graduates, the available job opportunities, job securities, fringe benefits, etc. The increase in employment in a certain economic activity is the outcome of the interaction between the demand for and supply of labour, which are affected by several factors and not only by wages.

Looking at the second angle in the development of the size of the gap between the white collars and blue collars, one finds that this gap became narrower in all the economic activities. This is because the increase in the average wage of blue collar male labourer has been much greater than the increase in the average wages of the white collar male labourer in all the economic activities as shown in Table (13). This has its positive implication on income distribution and social equity.

The third angle is the difference between the average wages in the private and public sectors in the different economic activities. As it is shown in Table II in the appendix, in three economic activities (agriculture, manufacturing and trade, finance and insurance) the average wage is higher in the public sector as compared to the private sector, while in the other activities the reverse is true. This result should be taken with great cautions. This is mainly because the coverage of the private sector is limited and hence one cannot take the average private sector's wages shown in Table II in the appendix as a good representative of the average wages in the private sector. One proof to that is the large underestimation of the wages in agriculture and construction activities as explained above.

Another proof is the wage data published by a consultation firm (the Middle East Advisory Group) for a sample of private enterprises as shown in Table (15). However ,these data should be taken with great cautions too since the sample chosen is not a good representative to the private enterprises prevailing in Egypt. But it helps to show how diversified are the wages within the private sector itself, and how large the gap can be between the wages paid in the public and private sectors.

Table (15) shows the minimum and maximum level of monthly earnings (salaries + bonus and profit sharing + overtime + cost of living allowances) of 3653 employees in 24 private enterprises in 1977. It is clear from the Table that the average wage in the private enterprises in the sample ranges from a minimum of LE 82.1 a month to a maximum of LE 317.1 a month in 1977. The minimum level of the average monthly wage (LE 82.1) is more than double the average monthly wage in the entire private sector in 1976 as estimated from Table II in the appendix, which is equal to LE 30.9 ⁽¹⁾.

(1) This is estimated as equal to the average daily wage in the private sector (= average weekly wage divided by 7) multiplied by 30 days. Thus the estimated average monthly wage in the entire private sector = (7.21 /7) X 30 = LE 30.9

Table (15)

Monthly Earning Ranges in Some Private Enterprises
in December 1977 and June 1981 (LE)

	December 1977		June 1981	
	Low Range	High Range	Low Range	High Range
Managers	225	650	506.7	1535.7
Professionals	129	396	256.3	901.0
Skilled Clerical	51	365	196.1	637.3
Semi-Skilled Clerical	46	190	107.0	350.4
Skilled Technical	79	281	196.0	577.8
Semi-Skilled Technical	25	208	101.6	385.0
Unskilled	20	130	51.0	228.0
Average	82.1	317.1	202.1	659.3

Source and Notes : Middle East Advisory Group, The Survey of Personnel Policies and Salary Levels in Egypt, vol. 2, December 1977, Table 16, and vol. 9, June 1981, Table 30.

- It should be noted that the 1981 data included in this Table are estimated by taking the average of each of the lowest and highest range of earnings in each job category in the different enterprises included in Table 30 in vol. 9, June 1981..

In the public sector, the average wage in the government sub-sector in 1976 was LE 35.988 a month (see Table 17), and in the public enterprises with 10 employees or more is LE 32.74 a month ⁽¹⁾.

(1) Calculated from Table II in the appendix as equal to the daily wage in the public enterprises (= LE 7.64/7) multiplied by 30 days.

How did the wages develop in each of the private and public sectors after the application of the open door policy in 1974 ? Looking at the private sector, one finds from Table (15) that the average wage in all the professions and labour categories in the sample involved have more than doubled in 1981 as compared to 1977. This applies to the low and high ranges of the wages. As shown in Table (15) the average of the low wages range increased from LE 82.1 a month in 1977 to LE 202.1 a month in 1981, i.e. by 146.1% ; while the average of the high wages range increased from LE 317.1 in 1977 to LE 659.3 in 1981, i.e. by 107.9%.

Looking at the average wages in the public sector, one finds from Tables (16) and (17) that they have increased significantly in 1979 (the latest data available) as compared to 1974. One may say that the wage schedule set in the public sector is not completely independent of the conditions prevailing in the labour market. Increases in wages have taken place in the public sector to cope with the changing situation in the labour market to reduce the leakage of some qualifications

../...

Table (16)

The Average Monthly Wages in Manufacturing
(Public Enterprises)(1974-1979) (LE)

Type of Industry	1974	1975	1976	1977	1978	1979
1- Spinning, Weaving and Textiles	27.2	31.5	36.0	42.7	48.4	54.8
2- Food Industry	28.7	32.6	36.3	41.4	51.3	56.5
3- Chemical Industry	32.9	39.3	41.1	47.4	55.0	60.0
4- Basic Metals & Products	36.4	41.4	48.1	54.7	61.7	74.6
5- Mining and Metallurgical Ind.	28.1	33.1	44.7	44.5	53.3	69.7
6- Total	29.8	34.5	39.4	45.5	52.4	60.2

Source and Notes : Calculated from : Ministry of Industry and Mineral Wealth, The Report of the Performances and Results in Industry and Mineral Wealth, several issues (in arabic).

- The two sets of data (the number of workers and wages) that are used to calculate the average wages included in the Table are on yearly basis. We have converted the estimated average yearly wages to average monthly wages by dividing it by 12.

.../...

Table (17)
The Average Monthly Wage of Government
Employees (1974 - 1979) (LE)

Year	Average Wage
1974	30.0
1975	32.0
1976	36.0
1977	41.1
1978	44.4
1979	47.8

Source : General Organization for Public Management,
The Development of Wages and Salaries in the Government
and Public Institutes During the Period 1965/66-1979.
Data series no. 17, May 1980 Table (6), p. 34 (in arabic).

from the public to the private sector. Table (16) shows the changes in the average wage in the public enterprises in the manufacturing sector from 1974-1979. It is important to note that this Table (16) covers the wages in all the public enterprises in the manufacturing sector while Table II in the appendix covers the wages in the public enterprises with 10 employees or more in the manufacturing and other economic activities as well. Thus , comparison between the two Tables is not justified.

../...

Looking at Tables (16) and (17), one finds that the average wage in the public enterprises has increased from LE 29.8 a month in 1974 to LE 60.2 a month in 1979, i.e. by 102.0%, while in the government the average wage has increased from LE 30.0 a month in 1974 to LE 47.8 a month in 1979, i.e. by 59.3%. It is clear that the increase in the public enterprises in the manufacturing sector is much greater during the period than in the government subsector. This is expected since the public enterprises subsector got more freedom in wage setting in the second half of the seventies as compared to the government sector to be able to compete with the private sector and prevent some of the labour drain in the relatively scarce skills which took place after the application of the open door policy.

A final point should be mentioned before closing this section on wages to prevent any misunderstanding of the real situation. This significant increase in the money wages in the private and public sectors after 1974 should not be taken to mean that a significant improvement has occurred in the standard of living of the labour force. What matters here is the changes in the real and not the money wages. Looking at the change that took place in the consumer price index, one finds that it has increased significantly in the second half of the seventies as compared to the previous period, meaning thus that the changes in real wages, especially in the public sector, are really modest ⁽¹⁾.

(1) The consumer price index in the urban sector-with the base year 1966/67 - was 148.9 in 1975 and 272.7 in 1980; i.e. it has increased by 123.8 percentage points during the five-year period of 1975-1980 as compared to an increase of 48.9 points only during the eight-year period of 1966-1975. See , the National Bank of Egypt, The Economic Report vol. 34, no. 1&2, p. 123 (in arabic).

Appendix

Table I

Average Weekly Wages for the Blue and White Collars Labour
in the Establishments of 10 Employees or more, by Economic
Activity (in July 1960)
(LE)

Economic Activities	Blue Collars			White Collars			T O T A L		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1. Agriculture	1.93	0.93	1.92	5.64	4.41	5.63	2.89	1.50	2.87
2. Mining and Quarrying	4.51	2.69	4.51	14.99	9.73	14.56	5.78	9.07	5.82
3. Manufacturing	2.28	1.19	2.21	7.60	4.63	7.44	2.92	1.53	2.83
4. Construction	2.53	1.70	2.53	8.44	4.15	8.31	3.52	3.71	3.52
5. Electricity, Gas & Water	3.83	--	3.83	7.99	4.40	7.81	5.10	4.40	5.09
6. Trade, Finance and Insurance	3.11	1.88	3.01	8.76	5.45	8.39	5.82	3.90	5.63
7. Transport, Communic.& Storage	3.29	2.04	3.29	7.56	5.79	7.41	4.28	5.49	4.31
8. Services	1.97	1.73	11.94	5.65	3.54	4.78	3.20	2.97	3.14
9. Total	2.48	1.32	2.41	7.88	4.46	7.46	3.51	2.36	3.42

Source : CAPMAS, Employment, Wages and Hours of Work, July 1960 (in arabic).

Table II
Average Weekly Wages for the Blue and White Collars Labour in the Establishment of 10 Employees
or More, by Economic Activity (in October 1976)
(LE)

./89

Economic Activities	Owner Ship	Blue Collars			White Collars			T O T A L		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
1. Agriculture	Public	4.32	--	4.32	8.54	6.18	8.31	6.03	6.18	6.03
	Private	3.77	4.00	3.77	4.60	3.94	4.54	4.01	3.94	4.01
	Total	4.10	4.00	4.10	7.44	5.58	7.26	5.32	5.55	5.33
2. Mining and Quarrying	Public	9.10	6.65	9.10	17.97	10.63	17.07	10.77	10.37	10.76
	Private	19.46	--	19.46	28.47	21.70	27.94	21.86	21.70	21.86
	Total	9.74	6.65	9.73	18.94	11.27	18.03	11.51	10.99	11.50
3. Manufacturing	Public	6.76	5.13	6.65	10.95	6.84	10.40	7.55	5.69	7.39
	Private	6.03	4.51	5.88	9.86	7.93	9.61	6.45	5.00	6.30
	Total	6.63	4.98	6.51	10.84	6.94	10.32	7.37	5.55	7.21
4. Construction	Public	6.22	4.70	6.21	10.78	8.33	10.43	7.28	8.07	7.31
	Private	6.80	5.00	6.80	13.49	7.34	12.47	8.26	7.33	8.22
	Total	6.25	4.70	6.24	10.93	8.27	10.54	7.34	8.02	7.36
5. Trade, Finance and Insurance (1)	Public	6.30	5.51	6.26	11.19	6.86	10.19	9.06	6.72	8.69
	Private	6.34	5.16	6.25	13.89	9.20	12.94	8.56	7.36	8.42
	Total	6.31	5.38	6.25	11.43	7.06	10.44	8.98	6.80	8.65
6. Transport, Communic. and Storage	Public	6.83	4.78	6.83	9.56	6.79	9.10	7.65	6.74	7.60
	Private	6.62	7.79	6.64	20.87	18.35	20.43	12.52	17.30	12.93
	Total	6.82	5.85	6.82	10.82	8.13	10.37	8.05	8.05	8.05
7. Services	Public	6.76	5.70	6.71	9.63	7.74	8.99	7.58	7.37	7.55
	Private	5.53	3.76	5.22	15.12	7.42	11.08	9.63	6.67	8.53
	Total	5.93	3.95	5.66	13.98	7.45	10.75	9.05	6.74	8.31
8. Total	Public	6.72	5.15	6.63	10.96	7.00	10.29	7.78	6.14	7.64
	Private	6.12	4.48	5.96	13.00	8.15	11.61	7.38	6.16	7.21
	Total	6.61	4.97	6.51	11.21	7.25	10.47	7.72	6.13	7.57

Source : CAPMAS , Employment, Wages, and Hours of Work
October 1976, June 1980 (in arabic).

(1) In the source, this is shown as two separate activities : trade , and finance and insurance.

REFERENCES USED :

Bhagwati A., "Main Features of the Employment Problem in Developing Countries", International Monetary Fund Staff Papers, 20 (1), March 1973.

Blaug M, Education and the Employment Problem in Developing Countries, International Labour Office, Geneva, 1978 (3rd impression).

CAPMAS, The Labour Force Sample Survey, May 1975, Cairo, August 1977.

_____ The Population Census, 1960, Cairo

_____ The Population Census, 1976, Cairo

_____ Employment, Wages and Hours of Work, July 1960 and June 1980
(in arabic)

Dantwala M.L., "Definition of Unemployment and Problems of its Measurement in Developing Countries", in ; the Development Center of the Organization for Economic Co-operation and Development (OECD), The Challenge of Unemployment to Development and the Role of Training and Research Institutes in Development, 1970.

Dernberg and Kenneth Strand, "Hidden Unemployment 1953-62 : A Quantitative Analysis by Age and Sex", American Economic Review, March 1966, pp. 71 - 95.
El-Issawi I.H. "Employment Inadequacy in Egypt", a paper prepared for the ILO comprehensive employment strategy mission to the Arab Republic of Egypt, Cairo, 1980.

Feldstein M., "The Private and Social costs of Unemployment".
The American Economic Review, May 1978.

General Organization for Public Management, The Development of Wages and Salaries in the Government and Public Institutes During the Period 1965/66 - 1979, Data Series no. 17, May 1980 (in arabic).

Goldstein M., "The trade-off between Inflation and Unemployment : A Survey of the Econometric Evidence in Selected Countries", International Monetary Fund Staff Papers, 19 (3), Nov. 1972.

Handoussa H., "Public Sector Employment and Productivity in the Egyptian Economy", a paper prepared for the ILO comprehensive strategy mission to the Arab Republic of Egypt, Cairo, 1980.

Hansen, B. & G. Marzouk, Development and Economic Policy in the UAR (Egypt), (Amsterdam: North Holland Publishing Company) 1965.

Hansen B., "Long-Term Trends in Egyptian Labour Market from Labour Surplus to Labour Shortage", a paper prepared for the ILO comprehensive employment strategy mission to the Arab Republic of Egypt, Cairo, 1980.

International Labour Office, Employment Opportunities and Equity in a Changing Economy; Egypt in the 1980's, a Labour Market Approach. A Draft Report of the ILO/UNDP Strategy Mission, June-October 1980.

Johnson H.G., "Review Article : Disguised Unemployment in a General Theoretical Context" , Economic Development and Cultural Change, Vol.26, No.2, Jan. 1978

Klatanof W and others, "The Manpower Estimates to serve Education Planning and Training ", a paper submitted to the conference of the Egyptian Economists, March 1980 (in arabic).

Korayem, K., Distributing Disposable Income and the Impact of Eliminating Food Subsidies in Egypt, Cairo Papers, the American University of Cairo, vol.5; monograph 2, April 1982.

Lydall H., Unemployment in Developing Countries, International Labour Office, a working paper Feb. 1977.

Mazumdar D., "The Urban Informal Sector", The World Development, vol.4, No.8, August 1976

Middle East Advisory Group, The Survey of Personnel Policies and Salary Levels in Egypt, vol. 2, December 1977, and vol. 9, June 1981.

Ministry of Industry and Mineral Wealth, The Report of the Performances and Results in Industry and Mineral Wealth, several issues (in arabic).

Mohie-Eldin A., "The Development of the Share of Agricultural Wage Labour in the National Income of Egypt", in G. Abdel Khalek and R. Tignor (eds). The Political Economy of Income Distribution in Egypt (New York: Holmes and Meier Publishers, Inc.,) 1982.

Figou A.C., The Theory of Unemployment (London : Frank Case & Co,) 1968, 3rd impression.

Saad, S.L., The Dropouts on the Primary Education Level from 1956/57 Until 1978/79; a Statistical Study, the Center of Social and Criminological Research in cooperation with the World Bank, Egypt (in arabic).

Solow R.M., "On Theories of Unemployment ", The American Economic Review, 70 (1), March 1980.

Strand D. , "Hidden Unemployment 1953-62 ; Quantitative Analysis by Age and Sex", in the American Economic Review, vol. 56 (1). March 1966.

The Institute of National Planning (Egypt), Research Projects on Employment and Unemployment Among the Educated, Cairo, 1963

The National Bank of Egypt, The Economic Report, Cairo, vol. 32, No.1, 1979 (in arabic).

The World Bank, Arab Republic of Egypt, Economic Management in a Period of Transition, vol. vi, 1978

————— Arab Republic of Egypt, Domestic Resource Mobilization and Growth Prospects for the 1980's, 1980.

Turnham D., The Employment Problem in Less Developed Countries, Development Centre of the Organization for Economic Co-operation and Development (OECD), Paris 1971.