

# THE DEMOGRAPHIC ASPECTS OF WOMEN'S EMPLOYMENT IN THE UNITED ARAB REPUBLIC

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The process of attempting to assess the demographic aspects of women's employment from published statistical data, rather than from actual investigation, is a delicate one under any circumstances and becomes more so when the statistical data available are somewhat scanty. However, there has to be a beginning in this as in everything else-if only to serve as a basis for further constructive effort-and the credit for initiating what in some instances will perhaps be a pioneering work in this field, certainly goes to the Head of our Panel, Professor Tomas Frejka.

For the purpose of my paper I have chosen to study aspects of women's employment in the United Arab Republic and to find the relationship, if any, with their rate of childbearing. The period chosen is the decade of 1957 to 1967. The main reasons which dictated my choice of this period were the following : first, it was during that decade that the effects on the labour structure and employment of the intensive industrialization program started in the early 1950's were beginning to make themselves felt. Secondly, in 1957-58 the first reliable manpower random sample survey was carried out according to adequate procedure, under the supervision of Dr. Abdel Moneim El Shafei and Dr. Hasan Husein, both of whom are eminent members of this Organization. Thanks to their efforts, we obtained for the first time a true picture of the size and components of the labour force. Thirdly, the period under study encompasses the 1960 population census in the U. A. R.

The study would no doubt have been more meaningful if the period covered were longer and went farther back but the results might have been vitiated because the earlier statistical data are not comparable with the present ones. As a matter of fact, it should be mentioned right at the outset that data availability has to some extent affected the methodology.

## ECONOMIC ACTIVITY

The employment statistics were first compiled by type of economic activity and the various groups were consolidated into three, namely : agriculture, industry and services. Comparing the figures of 1967 with those of 1957, it was found that there was a general decline during the decade in the ratio of economically active women to the total labour force : from about 10.6 per cent in 1957, the ratio fell to 9.5 per cent in 1967. In absolute numbers, the increase in female employment was just over 76,000 during the ten-year period, giving a rough yearly average rate of growth of about 1.2 per cent. This is less than half the rate of increase of either the total labour force (2.5 per cent) or the population (2.8 per cent).

Looked at more closely, the statistics reveal some interesting details : the agricultural sector which in 1957 and earlier periods had provided employment to the largest number of women, registered a decline of about 30 per cent during the decade under study, more particularly in the employers' group (this is one of three groups shown, the other two being salaried employees and family workers) although numbers declined in all three. There was also a decline of 13.8 per cent in the total number of women economically active in the industrial (manufacturing) sector, although the salaried employees group slightly increased. The decline in the first two sectors was to some extent compensated by a rise of 233 per cent—or from 84,000 to 280,000—in the services sector — the rate seems spectacular because of the relatively small base to which it is compared. These results are summarized in table 1.

1.—Employment Statistics : 1957 and 1967\*

	1957				1967			
	Agr.	Ind.	Serv.	Total	Agr.	Ind.	Serv.	Total
1. Total								
labor	4.115	766	1.129	6.010	4.403	784	2.281	7.467
2. Female								
labour	481	74	84	639	370	65	280	715
Female %	11.6	9.5	7.4	10.6	8.4	8.2	12.2	9.5

(\*) Sources : International Labour Organization, *Yearbook of Labour Statistics*, 1967, Geneva.

The relative decline in female employment is somewhat-surprising and can be attributed to any of several factors. The first is that there has been during the period under study a tremendous increase in schooling opportunities for all children but more particularly for girls who have been encouraged to join secondary and vocational schools as well as academic studies. Looking at the decline in the agricultural sector, it is considered that the parcelling out of the large estates into smaller holdings realized by means of land reform eliminated some of the opportunities for employment, the assumption being that the women were previously employed in various household jobs on the large estates—it is not customary for women to work as hired wage labourers in the fields in the U. A. R.

In addition to the above mentioned factors, the only explanation that could be offered for the decline of employment in the industrial sector is that the transition from small industries to heavier ones narrowed down the opportunities for females. The present concentration is in the group of «employers and workers on own account» which includes village industries for the most part. As regards services, apart from the recognized tendency for such a sector to grow in a developing economy, in this case there is no doubt that the teaching profession and more particularly pre-medical care and nursing, the civil service and social work, accounted for a very large part of the increase in female employment.

#### EMPLOYMENT VERSUS CHILD-BEARING

Having obtained the trends regarding employment, some method had to be found which would make it possible to compare such trends with those of child-bearing, at the same time as it would provide a countercheck for the results so far obtained. For this purpose index numbers were used to measure the degree and direction of change over the decade ; the Paasche method was selected because given year statistics are more accurate in this case than the earlier ones. It should be kept in mind however that this method has a tendency toward a downward bias and marks the lower limit of the decline in any variable. In this case the data were obtained by age-groups and only those age-groups during which women are fertile were selected ; they also happen to be those during which they are the most active.

As regards childbearing the percentage of live births in each group to the total in all the groups selected constituted the weights. The comparison is between 1956 and 1966 because no data are available for 1967 yet. The results are summarized in table 2 from which it will be seen that the index is 116.

## 2.—CHILD-BEARING INDEX FOR 1966\* (1956 = 100)

		Age Groups			
		15 - 19	20 - 24	25 - 29	30 - 49
(b <sub>1</sub> )	Live births, 1956 (000's)	19	96	157	180
(q <sub>1</sub> )	Percentage of each age-group	4.2	21.2	34.7	40
(b <sub>2</sub> )	Live births, 1966 (000's)	19	100	180	277
(q <sub>2</sub> )	Percentage of each age-group	3.4	18	32.4	50

$$B_{56, 66} = \frac{\sum b_2 \times q_2}{\sum b_1 \times q_2} = 116$$

where B stands for the child-bearing index for 1966 with 1956 as the base year, and the subscripts 1 and 2 base year and current year respectively.

For the employment index, the number of women economically active was first compiled for the same range of age-groups as for child-bearing and related in each case to the total number of women to provide the weights for index calculation. Here, the comparison is between 1957 and 1967 and at least for the base year, the data for the economically active women was obtained from the labour force sample survey. The findings are shown in table 3 from which it will be seen that the index is 78.

(\*) Sources : U.A.R. Statistical Administration, the «1960 Population Census», U. N. Statistical Yearbook 1967.

### 3.—EMPLOYMENT INDEX FOR 1967\* (1957/58 = 100)

		Age Groups			
		15 - 19	20 - 24	25 - 29	30 - 49
(e <sub>1</sub> )	Women economically active, 1957/58 (000's)	68		139	276
(q <sub>1</sub> )	Ratio to total women	7.2		7	10
(e <sub>2</sub> )	Women economically active, 1967 (000's)	89	64	50	134
(q <sub>2</sub> )	Ratio to total women	8.5	7.3	4.8	4.6

$$E_{57, 67} = \frac{\sum e_2 \times q_2}{\sum e_1 \times q_2} = 78$$

where E stands for the employment index for 1967 1957/58 as the base year, and the subscripts 1 and 2 represent the base year and the current year, respectively.

The increase of 16 per cent obtained by the use of the Paasche index indicates that if the given-year rate of childbearing had been in effect with the 1956 number of women in the age-groups chosen, index B would register a rise of 16 per cent in 1966 for women in the same age-groups. On the other hand, the decline of 22 per cent in employment should be read as indicating that if the given-year rate of female employment had existed in 1957 for women in the age-groups chosen, then index E would show a decline of 22 per cent for women in the same age-groups in 1967. This result confirms the decline in the rate of women's employment noted earlier ; it also shows an inverse relationship between child-bearing and employment—that is if we do not take into account any exogenous factors affecting either variable. It will also be noticed that in 1967 the 15-19 age-group is the only one which shows an increase in the number of women economically active, over 1957, while the same age-group is the only one which does not show an increase in 1966 over 1956 in child-bearing. As a matter of fact, if it were not for rounding the figures, it would show a slight decrease. The implication here might be of later marriage and more girls taking jobs before marriage.

(\*) Sources : U.A.R. Statistical Administration, «The Current Labour Force Sample Survey, 1958, Cairo, and the 1960 Population Census.»

## OVERVIEW

Short of direct sampling, this paper has attempted to compare changes in the trends of both child-bearing and female employment. The first aggregative index number used measured the changing number of children with a fixed aggregate number of women of varying age groups. The second aggregative index number measured the changing rate of employment of a fixed aggregate number of women of varying age groups.

The foregoing may seem to be an unusual application of index number technique. That is because although the changes compared are chronological in order the differences in magnitude of the variables measured may be due to outside factors not included in the calculation. This and the fact that there were not enough comparable observations to calculate the correlation coefficient indicated the use of index numbers.

## REFERENCES

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