

## **Female Labour Force Participation Rates in Rural Pakistan: Some Fundamental Explanations and Policy Implications**

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Labour supply is a key element in socio-economic development, and although the size, growth and composition of population have a strong bearing on its supply in an economy, the actual labour supply is a function of the labour force participation rate defined as the ratio of the population engaged in or seeking gainful employment to the working-age population. In Pakistan gainful employment means not only work for pay or profit but also unpaid help from family members, and the working-age population refers to the group of those aged 10 years or more.

Although the use of labour force for computing participation rates has been criticised on the ground that it lays undue emphasis on market activities which have little relevance to the less developed countries, particularly to the rural sector, (Standing 1978), it is nonetheless useful in studying household decisions regarding allocation of available time between productive and non-productive activities (Rees 1973). It is basically this division of labour between productive and non-productive activities that sheds light on the degree of development of an economy and, therefore, on the organization of factors of production (Yotopoulos 1986). The significance of rural participation rates, especially those of females, is noteworthy in this regard as there is a positive association between female productive work and the level of development achieved (Denti 1968). Female participation rates are also important for a proper understanding of the productive and reproductive roles of the population. As more than 70 percent of rural population depends on agriculture for its livelihood and rural females are nearly half of the total, their participation rates may be of critical importance in determining the rates of saving, investment and productivity in agriculture. It may also be noted that availability of labour in agriculture is also a function of the ready availability of female labour, especially for such operations as are performed exclusively by females, e.g. cotton picking.

The present paper attempts to analyse participation rates of rural females in Pakistan. Section 2 is an empirical investigation of the level and trend of rural

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females participation rates. In Sections 3 and 4, emphasis is placed on the factors responsible for the low and falling activity rates. Section 5 discusses the economic implications of our findings for the agricultural sector in terms of farm productivity and labour availability in agriculture. The section also presents our major conclusions and policy recommendations.

## RURAL FEMALE PARTICIPATION RATES

A study of labour force participation rates can be based on a variety of data sources. The most common among them are population censuses, labour force surveys and special-purpose surveys. Over the last twenty seven years, the years covered by this study, a vast body of data in the form of three population censuses [Government of Pakistan (GOP: n.d. *a* and *b* and 1984 *d*)] six labour force surveys [GOP: 1973 *a* and *b*; n.d. *c*; 1982; and *a*; and 1986] and four special-purpose surveys [Irfan, 1983; and Population Planning Council of Pakistan (PPCP), n.d. and 1976] has accumulated in Pakistan and could profitably be used for the purpose of this study, subject, of course, to the obvious limitations of each source. While we shall discuss the limitations of each source later, we present the rural participation rates by sex, as reported in the above-mentioned sources in Table 1.

It will be noted from Table 1 that although the results of the censuses and various Surveys show widely differing (from 3.0 percent to 22.3 percent) participation rates for rural females, these rates are in all cases quite low both absolutely and in relation to the activity rates of rural males. Compared with the participation rates of rural males, those of rural females were less than one-twenty fifth as great according to the 1981 Population Census and less than one-sixth as great according to the Labour Force Survey of 1978-79. Thus while the activity rates of rural males compare favourably with those of most countries of the world, Pakistan, in respect of rural female participation rates ranks very low in the international community, (Denti 1968).

Overall, there seems to be no obvious time trend in the participation rates of rural females, mainly because of the noncomparability of data from various sources due to the differences in the selection of respondents, populations and periods. For example, the special-purpose surveys focused on female respondents only, the Population Censuses and the Labour Force Surveys collected data from only male respondents, and, by contrast, the censuses dealt with total population. Similarly, the reference period in the case of the censuses never exceeded more than two weeks or as in the case of the 1973 census, more than a few months. The surveys, on the other hand usually involved a reference period of one year and only in some exceptional cases did they involve a shorter period of a little more than 6 months. On the basis of these differences it has been argued that certain sources, compared with other sources, would consistently underestimate the female participation rates. For

Table 1

*Rural Labour Force Participation Rates by Sex for Selected Periods*

Source and Years	Reference Period	Rural Participation Rates for		
		Females	Males	Both Sexes
<b>A. Population Census</b>				
1961	January 1961	10.9	83.9 ✓	49.9 ✓
1973 <sup>a</sup>	Aug-Nov., 1973	9.3	80.4	48.2
1981	March 1981	3.0	76.4	41.8
<b>B. Special-purpose Surveys</b>				
NIS 1968-69 <sup>b</sup>	Nov.-Aug. 1968-69	22.3	—	—
PFS 1974-75 <sup>c</sup>	May-Dec., 1975	17.8	—	—
PLM (LFS) 1979 <sup>d</sup>	July-Dec., 1979	17.8	—	—
PLM (Fertility) 1979 <sup>d</sup>	July-Dec., 1979	12.6	—	—
<b>C. Labour Force Surveys</b>				
1968-69	Full Years	7.5	82.2 ✓	46.4 ✓
1971-72	Full Years	9.5	81.6	47.1 ✓
1974-75	Full Years	7.6	79.8	45.9
1978-79	Full Years	14.3	80.1	48.7
1982-83	Full Years	13.4	78.2	47.2
1984-85	Full Years	10.7	79.8	46.5

Source: (GOP: n.d. b; 1986; and 1984b).

Notes: <sup>a</sup>Household Economic and Demographic Survey in Lieu of the Population Census of 1973.

<sup>b</sup>Rates for currently married women who were working at the time of the National Impact Survey (NIS).

<sup>c</sup>Rates for ever-married women who were working at the time of Pakistan Fertility Survey (PFS).

<sup>d</sup>Rates for currently married females at the time of the Population, Labour Force and Migration Survey (PLM).

example, Shah (1975; 1985) believes that, in the particular social set-up of Pakistan in which female work receives a negative rating, male respondents are likely to under-state female participation rates. Similarly, as pointed out in ILO (1973), female participation rates at both the 1961 and 1981 Population Censuses are quite likely to be underestimated as these censuses were conducted during the slack labour-demand period of January and February whereas rural women are more

active at the time of the sowing and harvesting of crops the former in the months of May and June and the latter during October and November.

If the data in Table 1 are, however, disaggregated by sources, some trend in the participation rates of rural females begins to emerge. For example, censuses suggest a consistent decline in female participation rates which fell from 10.9 percent in 1961 to 3.0 percent in 1981. Similar trend is indicated by the special-purpose surveys: the rates declined from 22.3 percent according to the National Impact Survey in 1968-69 to 12.6 percent according to the Population, Labour Force and Migration Survey (Fertility) in 1979. Data from Labour Force Surveys for various years on the other hand, reveal a conflicting trend. While the underlying reasons for such a trend are not immediately clear, it may very well be that this trend is the result of the particular manner in which data are collected. Although the Labour Force Surveys are conducted over all the four quarters of the year, they involve a stop-go operation, depending on the convenience of field staff. This, in combination with the seasonality of female work in rural areas, may result in considerable year-to-year fluctuations in the participation rates estimated by Labour Force Surveys.

### FACTORS AFFECTING FEMALE PARTICIPATION RATES

The low and falling participation rates of rural females, apart from being the result of statistical biases, may also be associated with a large number of interdependent factors, which may be discussed under three major heads: (i) custom and tradition, (ii) need for and limitations to work, and (iii) level of education.

#### Custom and Tradition

As should be clear, it is customary to define participation rates as a ratio of the civilian labour force to potential work force in the age group of ten years and over. As the denominator includes housewives, students and persons unable to work because of old age or physical handicaps, the low participation rates of females must be attributed to the customary practice of social division of labour within a household. It is a common practice in Pakistan for an average male to assume the role of a bread winner and for a female to accept the social responsibility of child-care and house-keeping. While house-keeping and child-care are no easy tasks, their assumed non-productive nature causes a large number of females to be counted out from the civilian labour force and thus leads to low female participation rates. For example, more than 95 percent of the rural females in the age group of ten years or more were not included in the civilian labour force in 1981 because they were engaged in house-keeping activity [GOP (1984d)]. Female participation rates in Pakistan may also be low due to the large-scale observance of the Islamic practice of *purdah* (Seclusion of

Woman). This trends to restrict women's free movement outside their immediate homestead, especially for productive work requiring them to face male strangers, (Cain 1979).

However, the restrictive effect of customs on labour force participation rates is considerably reduced by women's need to work because of a number of economic and demographic factors. These factors include demand for female labour, social status of the household, time at the disposal of the male members of the household, availability of responsible male members, and urgency of female work for household and child-care.

### **Need for and Limitations to Work**

If the demand for female labour is high, female wages are likely to be high and the motivation to work would be greatly increased. This contention has considerable theoretical appeal and is supported by the fact that participation rates of rural females in Pakistan are usually much higher in the peak labour-demand periods. It has been observed that the average participation rates of rural females during peak-demand period are 3–6 times the rates during the slack-demand period in Pakistan, (ILO 1973).

The activity rates of rural females depend to a large extent on the social status of the household concerned. For example, females of poor landless households make every effort to earn wages with a view to raising the meager income of the household. Females of the landowning class, on the other hand, are averse to doing any physical work for others and even if they do some work for others, they consider it beneath their dignity to receive any payment for their help. Thus whereas the participation rate of rural females of the landless households was as high as 21 percent in 1979-80, the corresponding rate of the rural females belonging to the landowners class was only 5.6 percent (Irfan 1983). Landlessness and landownership are generally indicative of the poverty and richness, respectively, of a household, and available data show that household incomes are inversely related to female activity rates. For example, it has been found that a rural household with a per capita monthly income of Rs 70 has a female participation rate of more than 25 percent whereas a rural household enjoying a per capita monthly income of Rs 150 has a corresponding rate of only 8.8 percent (Khan and Bilquees 1976). This relationship is also supported by provincial data. Rural female participation rates tend to be the highest in Baluchistan, where low per capita incomes prevail and the lowest in the Punjab which has the highest per capita rural income among Pakistan's provinces. The provinces of Sind and the NWFP take intermediate positions because their per capita incomes are close to the average income in Pakistan (GOP: 1984*b*; 1984*c*; 1984*e*; 1984*f*). The increasing attention now being paid to child and family-care and the rising frequency of social visits are the inevitable result of the recent rise in income and have

tended to cause a reduction in the productive work of rural females. It is basically because of this income effect that an increasingly small fraction of rural females belonging to the households some of whose members are working abroad is now participating in productive work. Our empirical investigation based on district data indicates that rural females belonging to those districts which have the highest rates of international migration have the least tendency to participate in productive work.

The presence in the family of a responsible male member and the abundance of time at his disposal tend to reduce female participation rates in his family. The observed higher participation rates of divorced and widowed women relative to those of single and married women are reflective of the work effort of the former group for economic support for themselves and their families. Members of the latter group have lower participation rates, for they can depend on their male relatives for economic support. Males with heavy work load are more likely to be assisted by female members than those with lower work load. Irrespective of the work load or availability of males, females with new-born children are neither physically able to undertake hard productive work nor free to do so because of the whole time care they must devote to their infants.

### **Level of Education**

Level of education influences labour force participation rates in two major ways. The greater the educational attainment of a person, the greater the time he/she has spent in academic institutions and correspondingly the smaller his/her participation in productive activities. On the other hand, the higher the educational level of a person, the lower the social barriers he/she has to cross and, therefore, the higher the prospects of securing well-paid productive work. This is especially true in the case of females, for education puts them on a par with equally educated males in terms of wage payment. These two factors together point to a curvilinear relationship between activity rates and level of education. The studies undertaken in Pakistan seem to confirm that age-specific participation rates for rural females first fall and then rise as one moves across various age-profiles (Shah: 1975; 1985). Thus Shah (1975; 1985) found that participation rates were as high as 25 percent for matriculates, 13 percent for the illiterates and only 4 percent for those with primary (i.e. low) education.

### **EXPLAINING THE TREND IN FEMALE PARTICIPATION RATES**

The trend in female participation rates is shaped by the interaction of factors promoting or suppressing female activity in the rural labour market. Although the factors with positive contribution are also important the factors with negative impact on activity rates of rural females have tended to dominate the rural scene. The impact of these latter factors is discussed below. In the first instance, the falling

participation rates of rural females are the result of the growing emphasis on formal education in rural areas. There was a doubling of rural enrolments of students between 1961 and 1981: the number of rural students went up from 1.21 million in 1961 to 2.56 million 1981. The corresponding figures for rural female students were 221,000 and 490,000 (GOP: n.d. *a*; 1984*d*). Although a doubling of female student enrolment should imply a doubling of teaching jobs for rural females and consequently a rise in their participation rates, such results may not necessarily follow, for increased enrolment of rural females also means a correspondingly increased exclusion of rural females from the labour force and, therefore, a proportionate decline in their participation rates. An increase in student numbers may cause a reduction in the productive work of rural females also because women have to spend extra time preparing their children for school and doing many petty household chores which their children, had they not been enrolled, would have performed otherwise.

Secondly, the female participation rates fell because of the phenomenal increases in rural incomes since the early Sixties, springing mainly from the introduction of various Green Revolution technologies, the rising demand for labour (and the consequent increases in rural wages) and the very substantial amounts of money sent home by household members working abroad (Chaudhry 1981). The increases in incomes had the important effects of releasing a large number of rural persons (particularly women) from having to do productive work for their sustenance and of affording them sufficient leisure for meeting their increased social obligations and maintaining their houses and family members in a style commensurate with their improved financial status. The net result was a decline in the activity rates of rural females.

Thirdly, in recent years, increased mechanization of agriculture in Pakistan has also tended to contribute to a decline in rural female participation rate. For mechanized cultivation enables farmers to perform farm operations not only easily but also quickly. In the time thus saved, rural males take on some of their women folk's productive work and thus enable rural females to give more attention and time to household work instead. The result of this rearrangement of responsibilities is to reduce the participation rates of women in agriculture.

### CONCLUSIONS AND POLICY IMPLICATIONS

The purpose of this paper was to investigate the magnitude and trend of the participation rates of rural females in Pakistan. We find that these rates in Pakistan have been low and falling with the passage of time. We have also discussed the main factors responsible for the low participation rates and explained their present trend. Our conclusions have important economic and policy implications for the agricultural sector in Pakistan.

Firstly, it should be remembered that nearly 70 percent of Pakistan's population has a direct or indirect dependence on agriculture. The pitifully low and falling participation rates of rural females imply high and rising dependency ratios of the population engaged in agriculture. This trend, in turn, leads to a perpetuation of low saving and investment rates. As a consequence, productivities in agriculture remain low. The rising dependency ratios add a special dimension to the problems of agriculture in the sense that it becomes increasingly difficult to raise agricultural productivity without large expenditures on input subsidies, price supports, institutional credit and education of the masses for work.

Secondly, the falling activity rates of rural females, at least in part, have been responsible for the growing shortages of labour in Pakistan in the face of the rising demand for agricultural labour (Chaudhry 1982). These scarcities, on the one hand have resulted in rapid increases in rural wages and, on the other, have induced rapid spurts in mechanization of various agricultural operations (Chaudhry 1986). In view of these rapid increases, it would seem that labour shortages in agriculture are more severe than those reflected in the participation rates of rural females. Taking these conclusions at their face value, one can question the strategy of development planning based on the assumption of labour surplus in Pakistan's economy. In view of the tentativeness of these conclusions, there seems to be a serious need for a detailed study investigating the availability of labour *vis-à-vis* the demand for it in terms of hours for a proper and clear-cut response to policy issues.

Finally, it needs to be investigated if the falling female participation rates are socially desirable in terms of the welfare of the rural females, children and the rural population at large. As the falling female participation rates may generally be associated with some loss of income to the family, welfare losses seem to be inevitable. However, if the rise in income is itself the reason for a fall in the participation rates of rural females, the point of welfare loss is considerably blunted. In fact, the falling female participation rates under rising incomes may be the only alternative to raise the welfare of rural females and children, for it is commonly asserted that rural females are responsible for performing a number of household and farm activities and are thus overburdened with long hours of work (Khan and Bilquees 1976). The falling activity rates would relieve rural females of some of their duties and allow them to pay greater attention to child-care than has hitherto been possible.

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## **Comments on "Female Labour Force Participation Rates in Rural Pakistan: Some Fundamental Explanations and Policy Implications"**

It seems quite clear that the main issue here is a statistical one. How far are the Census data on female participation rates (LFP) in accord with reality? Since LFP rates are notoriously sensitive to seasonal differences and the reference periods chosen, and since the next paper deals with such statistical questions, I will confine my comments to the analysis and conclusions drawn by Dr Ghaffar Chaudhry and Ms. Zubeda Khan.

From the facts provided by the authors, it would seem that LFP rates of females is not impervious to economic influence. They pointed out that the LFP rate of females in rural areas is as high as 21 percent among the "landless". Could it be that aside from statistical under-reporting, the low LFP rates of females is also due to the, generally, low opportunities for labour absorption in agriculture? It may be useful to look into the differences in female LFP rates, not only between the landed and the landless, but also according to the size of landholding, since we all know that family labour tends to be employed more fully in smaller-sized farm holdings.

Research in the direction of finding the effect of policy instruments on female LFP rates should be a prime consideration. The authors have, in fact, looked at the effect of education which is, no doubt, an important and policy-sensitive variable. I would also suggest that the authors look at other factors such as the impact of expenditures for public health. We would expect that reduction in infant mortality should free women from family-raising pre-occupations in a society that has expressed high preference for male offsprings.

The authors have concluded, from the low and the falling female LFP rates, that there would be a substantial income loss and therefore the actual savings rates would be smaller than the potential ones. I myself would hesitate to draw such conclusions. The factors influencing output in agriculture are many and the shortage of labour is not, demonstrably, the most important one in Pakistan.

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