

# Role of Education in explaining women work participation in two economically contrasting Indian states.

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## Abstract

Female workers play very important role in agriculture based Indian economy.. They participate in farm and non farm activities besides domestic work. Both Punjab and Tamil Nadu had almost same female literacy rate in 2001 but there is a hail and heaven difference in female work force partition between these two states. The present paper has tried to understand the rate of change in levels, type of earning and factor associated with female work force participation in Punjab, having low FWPR and Tamil Nadu, with high FWPR by using three rounds of NFHS data. The study reveals that WPR among ever married women is increasing in Punjab but decreasing in Tamil Nadu. Though the economy of Punjab is highly agricultural based it has failed to attract the female labour force in the primary sector. In both Punjab and Tamil Nadu education and autonomy are playing significant role in increasing FWPR.

## 1. Introduction

Indian economy is basically based on agriculture and female labourers are one of the most major inputs of agricultural production. In India women play an important role in the field of agriculture and are engaged in farm operations as main workers; from sowing to harvesting and storing in bins and bags. They also participate in off- farm activities like processing and marketing of farm products. Women play a significant role in farming and farm management activities, though most are engaged either as cultivators or helpers to cultivators or as agricultural labourers. It has been found that women from weaker sections of the society and possessing small or no land holding participate in larger proportion in agricultural operations than women from middle class socio- economic status. They are actively involved in agricultural development and allied fields including crop-production, livestock production, horticulture, post-harvest operations, agro and social forestry, fishing etc. Regardless of these variations, there is hardly any activity in agricultural production, except ploughing, in which women are not actively involved. They have been attending to field operations like rice transplantations, harvesting, tending of farm animals, collecting and saving of farms refuse for use either as fuel or as farmyard manure on the farms. Besides these, they are involved in sowing, irrigation, manuring, threshing, kitchen gardening, live-stock and poultry raising. Though females play an important role in the production process female employment is visualized as a means for bridging the resource gap in households. In other words, women are not considered primary earning units, but merely as a back-up for emergencies. In India it is widely believed that it is prestigious for a woman to cook and serve food to her family and any guests that may come (Dube, 1988). In rural areas for these women to do domestic work only and nothing else is relatively rare. The tendency of naming a woman as being overall a housewife is popular due to cultural values associated with Sanskritisation, Brahmanical gender norms, and/or the habit of observing purdah (Chakravarti, 1993; George, 2002; Poitevin and Rairkar, 1993).

At a time when the family was the economic unit of production, where goods and services were produced and consumed by members of the family, perhaps questions like who contributes to the family income/expenditure or who decides the number of children a couple should have, may not have warranted answers. Men's "superior" position at home is mainly due

to their position as bread winners of the family. But recent trend reveals that women's are also actively participating in the production of goods and services outside the home and thereby sharing the responsibility of supporting the family. Higher work participation of women in households having lower incomes, indicates greater absorption in wage employment.

One of the most striking phenomena of recent times has been the extent to which women have increased their share of the labour force; the increasing participation of women in paid work has been driving employment trends and the gender gaps in labour force participation rates have been shrinking. Especially in the 1980s and early 1990s, labour force growth was substantially higher for women than for men for every region of the world except Africa.

## **2. Review of Literature**

In the literature on labour-force participation, standard sources begin with the supply of labour (Ellis, 1993) and quickly move on to mention human-capital aspects of labour supply (Mathur, 1994). According to this view, 34 percent of adult Indians participated in the labour market in 1991, and this figure comprised 16 percent among women and 51 percent among men (*ibid*: 470). 30 percent of the women in rural areas were working, as recorded in the National Sample Survey of India using a combination of principal and subsidiary employment status, compared with 53 percent of men (Srivastava, 2003: 130-131). Only 14 percent of urban women were working, by this measure (*ibid.*, 131). Using NSS data the rural percentage in the labour force fell by 10 percent among women and by four percent among men between 1993/4 and 1999 (Jacob, 2001: 6). The urban percentage in the labour force fell 11 percent among women and there was no change among men. (*ibid*: 55).

Women's economic participation is significantly influenced by factors like their age, education, marital status. Employment status of the head of the household (generally a male), presence of male member, and children of ages 0-5 are also important variables that significantly affect women's participation in economic activities (Zareen F. Naqvi and Lubna Shahnaz, 2002). Shah et al. (1976) analyzed the effects of selected demographic and socio economic variables on LFP in the four provinces of Pakistan. The results indicated that work participation is inversely associated with child-women ratio and nuclear family type. Marital status, dependency ratio and literacy rates are found to have positive relation with LFP. In 1986, he again made an attempt to interpret the changes in women role in Pakistan between 1951 and 1981 and its adequacy in relation to national targets. The study concluded that the socio-economic status (ownership of durable goods, husband's education and observance of purdah) of the family has a negative impact on women labor force participation decision.

There exist a number of studies regarding the factors affecting the female work force participation. But in the current study an attempt has been made to see the levels and differentials in the work participation rates among the ever married women in India and it's two major states Punjab and Tamil Nadu which are culturally and geographically different from each other. Punjab shows lower performance by demographic indicators than Tamil Nadu. Again "female work participation rate fluctuated widely in Punjab during the period 1981-2001 when the male work participation rate has by and large remained stable. Female work participation rate in Punjab increased from 6.2 percent in 1981 to 18.7 percent in 2001. As per 1991 Census, Punjab had the lowest female work participation rate in the country i.e. 4.4 percent only"(Gupta S.,

Gupta,2006). Where as Tamil Nadu is one among the states with high female work participation rate. But 'Female work participation in Tamil Nadu has increased only marginally during the decades 1991-2000; work participation is more among rural than urban women, gender disparity in work participation is relatively higher in urban than rural areas and there is no occupational diversification among women. The concentration of women workers in the occupation of 'agricultural labour' is an indicator of women's disadvantaged position, increased economic disparity and poverty. Further, in rural Tamil Nadu, there is increase in unemployment, on one hand, and greater casualisation of labour force on the other.' (Sundari S., 2006).

### **3. Need for the study**

It is seen from the above mentioned two studies that work participation among women are increasing in Punjab but declining in Tamil Nadu. Therefore, to find out the factors responsible for such behaviour of the two states one should look into the current levels and differential in the level in work force participation among the females by some important socio-economic and demographic characteristics. The present study aims to address this issue.

### **4. Objectives of the study**

The present study aims to understand the scenario of work participation among the ever married women in India and two Indian states Punjab and Tamil Nadu. The specific objectives of the study may be outlined as follows:

1. To observe the current level of work participation and changes in the rates of these levels it during 1992-93 to 2005-06 among different categories of women with respect to the basic socio-economic and demographic characteristics.
2. To understand the changing pattern of work participation among ever married women during this period.
3. To understand the impact of demographic, social and economic factors in changing pattern of work participation.

### **5. Materials and methods**

The basic data used for the present study has been extracted from the three rounds of National Family Health Survey (NFHS1, NFHS 2 and NFHS 3). The analysis confine to the ever married women of reproductive age (15-49 years) in India and two states Punjab and Tamil Nadu. Work status of women has been considered as a dichotomous variable and taken as the dependent variable. The variable implies whether a woman was working or not in the last 12 months prior to the survey dates in both the surveys. Age of the women, religion, caste, educational level, household standard of living, autonomy of the women, total member in the household, marital status and number of living children of the women has been considered as the predictor of the work force participation. Age of women has been categorized in five years age groups. To measure autonomy of the women, an autonomy index has been constructed on the basis of the decisions taken by the women in three important dimensions viz. *freedom of movement, control over resources and participation in household decisions*. A women having involvement in making decision on three or four indicators has been considered as women with high autonomy. Those who are not involved in any decision making or decide only on one/two indicators are defined as women with low autonomy. To see the shift of work force into different sectors a

variable called economic sector has been formed by combining 96 occupation categories (as provided in the dataset) into three major sectors – primary, secondary and tertiary. Another two variables have been considered to examine whether the employment is gainful or not and the duration or continuity of employment. Work participation rate among ever married women has been defined as the number of participant in a category per 100 ever married female population of the same category.

$$\text{i.e. WPR}_{\text{category x}} = \frac{\text{Number of ever married participant from category x}}{\text{Total number of ever married women in category x}} * 100$$

Bi-variate and multivariate statistical techniques have been used for fulfilling the specific objectives of the study. In bi-variate analysis, Chi-square test has been done to examine the significance level in the relationship between predictor and the dependent variable. In the whole study the words work participation rate, labour force participation rate and employment rate have been used interchangeably.

## 6. Findings

### ***a) Levels and trends in work participation among ever married women in India and two states Punjab and Tamil Nadu.***

Table 1 presents the work participation rate of the ever married women in India, Punjab and Tamil Nadu during 1992-93 to 2005-06 according to age and various socio-economic characteristics. The table shows increase in female work participation in India during 1992-93 to 1998-99. It has increased in almost all the age groups during this period but has decreased in 15-29 years age group during 1998-99 to 2005-06. Work participation is highest in the 35-44 years age group and lowest in the 15-19 years age group. In Punjab, female work participation rate was decreased for almost all the age groups but there was a marginal increase in 40-44 years age group. Though only one fifth of the state's ever married females in the 15-49 years age group are currently working the rate has increased more than 2.5 times in 20-24 years age group. Work participation is tremendously low among the women in the lower reproductive age groups. Over time, female work participation rate has increased among all the age groups but highest increase is observed in the 30-34 years age group. Female work participation rate is comparatively higher in Tamil Nadu. Almost half the ever married females in the reproductive age group are engaged in work. Work participation rate among the females in Tamil Nadu was increased by six percent during the second phase of the survey but has declined by seven percent during the third phase. In Tamil Nadu 56 percent of the women in the 35-39 years age group were working during the last 12 months. FWPR has declined much among females in the age group 15-24 and 40-49 years age groups.

In India over the time work participation among the Muslim women are increasing but a marginal decline has been noticed among the Hindu women. During 1992-93 WPR among the women in Punjab declined but it has increased more than double for women in all religion categories during the latest survey. In Tamil Nadu, FWPR increased during 1992-93 to 1998-99 but has declined during 1998-99 to 2005-06. The rate has declined much among the women in Muslim and other category.

In India, during NFHS 2 work participation rate among women in SC/ST category increased by seven percent but decreased by nine percent among the women in other category. But during NFHS3 work participation among women in all caste has declined. In Punjab, FWPR was declined among women irrespective of caste but during the third round survey WPR has

increased by 1.8 times among the SC/ST women and almost double among women in other caste. During 1992-93 to 1998-99 WPR increased by three percent among SC/ST women but declined by 23 percent among other women. WPR has decreased substantially during 1998-99 to 2005-06.

It is well accepted that to improve the status of women one has to consider carefully the educational attainment of the girls. A working woman is likely to have more control over the resources in her family as well as respect in the society. But work participation is highest among the illiterates. In India, 47 percent of the ever married illiterate women are currently working where as the rate is 26 percent and 70 percent in Punjab and Tamil Nadu respectively. The female work participation rate has remained quite the same among illiterate women in India from 1998-99 to 2005-06 but it has increased by 18 percent in Punjab and declined by two percent in Tamil Nadu. Female work participation rate is lowest among the women who have completed their secondary education. Female work participation rate is very low in Punjab but is increasing over time irrespective of educational attainment. In Tamil Nadu as the employment level is relatively higher further employment is hardly possible among the illiterates and employment is increasing among the educated women. In India as well as in Tamil Nadu illiterate women are very much involved in work. But in Punjab higher educated women are more involved in labour force. Over the time WPR has increased among the educated women in India, Punjab and Tamil Nadu. In Tamil Nadu, WPR among the higher educated women has declined by three percent.

The present study shows that higher work participation is observed among the women with low and medium standard of living. Among the women with low SLI, 48 percent, 34 percent and 64 percent are currently working in India, Punjab and Tamil Nadu respectively. Both in India and Tamil Nadu work participation rate among women with low SLI has declined but it has increased in Punjab. In India and in Punjab, work participation rate has increased considerably among the women with medium SLI where as it is high among the women with high SLI in Tamil Nadu.

The autonomy index reflects the status of women in the family as well as in the society. Women with high autonomy are likely to have more participation in work force. The present study shows that two fifth of the women with high autonomy and one third with low autonomy are in the work force at present. Work participation has declined for both women with high and low autonomy but the magnitude of decline is higher for the former. In Punjab 23 percent of women with high autonomy and only 13 percent among those with low autonomy are currently working. Work participation rate has increased by 13 percent and six percent among the women with high and low autonomy respectively. 48 percent of the women with high autonomy and 37 percent among them with low autonomy are in the work force in Tamil Nadu. Work participation has declined over time for women with both social statuses in Tamil Nadu.

The mode of changes in work participation rate in different household structures and the present marital status of the ever married women. Women from a household with three or less members are economically more active than their counterparts with four to six members or seven or more members in the family. In India, 44 percent, 39 percent and 32 percent of the ever married women from household with three or less, four to six and seven or more members respectively are currently working. The work participation has declined for both the first and second categories but has increased slightly for the last category over the time. In Punjab, work

participation has increased for all the three categories but highest increase is observed in the second category though the level is highest for the first category. On the contrary, in Tamil Nadu, though more than half of the women from the first category are currently working the highest decline in work participation rate has also occurred in the same. As work participation rate is quite high in Tamil Nadu the level of involvement in work from all the three family type is also relatively higher than Punjab.

Among the ever married women, work participation rate is lower among the currently marrieds' than others consists of widowed, divorced, separated, deserted and those who are married but gauna not performed. In India, 36 percent of the currently married women and 60 percent of the others among the ever marrieds' are working. The rate has declined by 2 percent among the others whereas it is almost same among the currently marrieds'. In Punjab and Tamil Nadu also the work participation rate is higher among the others. In Punjab only 19 percent of the currently married women are working whereas this figure is 45 percent in Tamil Nadu. More than 70 percent of the others are currently working in Tamil Nadu.

The study shows that work participation rate is highest among the women with more than four living children. In India, among the women with three or more children, 43 percent are working. Among the childless women only 31 percent are working. Work participation rate has declined marginally among the women having less than three children. In Punjab, one third among the women having more than four children is involved in work. On the other hand, only 14 percent of the childless women are currently working. Work participation rate has increased by 25 percent among the women having more than four children. In Tamil Nadu, among the ever married working women 55 percent are having three to four children. Work participation rate has declined considerably among those having more than four children.

Work participation rate has increased at around three percent among the ever married women of all religions in urban India (Table 3). 10 percent improve in work participation has been noticed among the Hindu women in Punjab and the same percentage decline among the other women in Tamil Nadu. Work participation is higher among Muslim women than Hindus in Urban Punjab. In Tamil Nadu, work participation has declined by four percent among the Muslims.

S.C./S.T. women are comparatively more active in economic activity. Though in urban India work participation rate among the O.B.C. is almost constant it has in both Punjab and Tamil Nadu during this period. Work participation rate has declined by 14 percent among the women in Tamil Nadu over the time.

The work participation rate has increased among the women of different educational levels though the rate is highest among the illiterates. Over the time participation rate has increased much among the women with higher education residing in urban areas. Among urban illiterate women in Punjab the rate has increased by 15 percent. Work participation rate has declined marginally among the women in Urban Tamil Nadu.

In Urban India work participation has increased for all the levels of SLI though it has declined by three percent among low SLI groups in all India level. Work participation has increased by 13 percent in urban areas of both Punjab and Tamil Nadu. Work participation has increased by 12 percent in among the women with high autonomy in urban Punjab but increased marginally in the rest two. It has declined among the lower autonomy groups over time. The rate of decline is highest in Tamil Nadu in this group.

In urban areas in India work participation among the ever married women has increased much in those families with three or less members. In Punjab, female work participation has

increased much in the families with more than three members. It has increased a very less amount among the women from the family with less members though the level of work participation is highest among them. In Tamil Nadu work participation rate has increased only among the women from the family with 4-6 members. Work participation has increased among both the categories of the ever married women but it has declined by nine percent among the widowed/ divorced/separated/deserted women in the urban areas of Punjab. In urban areas also Work participation is higher among the women with more than two children. The rate has increased by 18 percent among the women with more than four children. Work participation rate has remained almost same among the women with one or two children.

Though work participation is high among the Hindu women in rural India it has declined by four percent over time (Table 4). It has increased among the women of all religion in Punjab but has declined in Tamil Nadu. Work participation is higher among the Muslim women than Hindus in Punjab. In the rural area of both India and Tamil Nadu work participation has declined. It has increased among the women of all social castes in Punjab. There was a 18 percent increase in work participation among the S.C./S.T. women in Punjab. Work participation has increased much among the women with higher education in rural India, Punjab and Tamil Nadu. It has declined among the illiterate women and women with secondary education in Tamil Nadu. In rural India and Tamil Nadu work participation has increased among the women with high SLI but in Punjab it has increased among them with medium and low SLI. Among the women with low SLI work participation has declined by four and two percent respectively in India and Tamil Nadu.

Alike overall India, rural India has also experienced a decline in work participation among the women from a household with member less than seven. It has declined for all the three family sizes in Tamil Nadu. Work participation has remained almost same among currently married rural women. It has declined among the widowed/divorced/separated women in India and Tamil Nadu. In Tamil Nadu work participation has also declined for rural currently married women. In India work participation has increased among the women with more than two living children and declined among those with less than three children. Work participation has increased much (27 percent) among the women having more than four children and less among the childless women in rural Punjab. In rural Tamil Nadu more decline is observed among the women with more than four children and then among the childless women.

### ***b) Changes in type of employment among the ever married women in India and its two states during 1992-93 to 2005-06.***

The levels of work force participation among ever married women and the change in the rate during 1992-93 to 2005-06 has been discussed above. Table 4 seeks to see the changes in the type of work among the currently working women during this period. Type of work has been defined according to the economic sectors, continuation of the work and the type of earning. In India, female work participation is highest in the primary sector and lowest in the secondary sector. The work participation rate has declined by seven percent in the primary sector but has increased by six percent in the tertiary sector. In urban areas work participation rate is highest in the tertiary sector and lowest in the primary sector. Again work participation rate has increased in the tertiary sector but has declined in primary and the secondary sector during this period. The trend is same in the rural India as in the overall level. In both urban and rural areas of Punjab work participation is highest in tertiary sector but it has decline significantly during this period.

A very less proportion of women work in the primary sector in urban Punjab. In Tamil Nadu, work participation is highest in the primary sector in rural areas but in the tertiary sector in urban areas. During 1998-99 and 2005-06 female work participation has reduced in the primary sector in rural areas but has increased in the tertiary sector in urban area.

Among the currently working women 84 percent in the urban area and 62 percent in the rural area are working all over year. Over the period employment of women through out the year has increased by five percent in urban area but has declined by three percent in rural area. The share of seasonal workers has increased in the rural area but has reduced in the urban area during this period. In Punjab, one third among the currently working women get employment through out the year. The participation is around 86 percent in urban area and 68 percent in rural area in Tamil Nadu. There is a significant proportion of female in the rural area who works seasonally. In both rural and urban Tamil Nadu share of women working all over the year has increased. Share of seasonal worker has declined in both rural and urban area but yet it is higher in rural area. Among the currently working women 69 percent in India, 82 percent in Punjab and 91 percent in Tamil Nadu are working against cash. The share of workers earning cash has increased in urban India and in both rural and urban Tamil Nadu. It has reduced substantially in rural Punjab.

***c) Predictors of work participation among ever married women in India, Punjab and Tamil Nadu (Table 6).***

**i. Life cycle factors: age, education and autonomy.**

The exponential beta co-efficient of the variable 'age' implies that female work participation rate increases as age of the women increases but at the same time the exponential beta co-efficient of 'age square' implies that the rate increases at a decreasing rate. In India and Punjab higher educated ever married women had 26 percent and 66 percent higher chance of having a job respectively than the illiterates during 1998-99. Women with secondary education are less likely to involve in work than those with primary education with reference to the illiterates in India and Tamil Nadu. But in Punjab, women with secondary education have more chance of involve in work than those with primary education with reference to illiterates. In Tamil Nadu higher educated women are having 28 percent less chance of involve in work than illiterates. Again women with high autonomy in India are having 25 percent more chance of getting involved in work force then the women with low autonomy. The chance is 76 percent higher in Punjab and 36 percent higher in Tamil Nadu.

**ii. Demographic structure of household: total member of the household and number of living children.**

The possibility of entering into labour force inversely depends upon the total members in the household. Women from a family with four to six members are more likely to participate in work than those from a family with more than six members with reference to the women with less than four children in India. Women with 1-2 children, 3-4 children and those with more than four children are having 18 percent, 17 percent and 19 percent less chances of involve in the work force respectively than the childless women. In Tamil Nadu, we find an inverse relationship between female work force participation and family size.

**iii. Socio-economic structure of household: religion, caste, type of place of residence and household SLI.**

The result does not show uniformity in the relationship between 'religion' of the respondent and her involvement in work force in India and two selected states. In India as well as in Tamil Nadu 'Hindu' women are having more likelihood in entering into the work force than 'Muslims'. In national level women from 'Other' religion category are having more chance of working than 'Hindus' where as in Punjab 'Hindu' women are more likely than the 'others'. Again, women from 'O.B.C.' or 'Other' castes are having less chance of involve in labour force than the 'SC./ST.'s. Again 'Others' are more likely to engage in work than 'O.B.C.'s with reference to 'S.C./S.T.'s. In India, rural women are more likely to involve in work force than their counterparts in the urban areas. It is obvious from the table that as household standard of living increases chances of work participation among the ever married women decreases. The tendency of lower work participation with higher SLI, suggests a negative employment elasticity of SLI. Higher SLI arguably increase the value of leisure at the expense of effort and reduce work participation. This negative elasticity, throws light on the ineffectiveness of higher household SLI in creating additional employment opportunities.

## **7. Discussion and Conclusion**

It is clear from the study that in India work participation among the ever married women has a marginal change during 1992-93 to 2005-06. It shows a significant improve in the urban area but stagnation in rural area. Work participation rate has increased substantially in Punjab but has declined in Tamil Nadu. Female work force participation is lower in Punjab compared to Tamil Nadu. Though the economy of Punjab is highly agricultural based it has failed to attract the female labour force in the primary sector. Highly commercialization of agriculture may be a possible reason for this. Share of women in the tertiary sector has declined during this period but has increased in the primary sector. In Tamil Nadu, the share in the primary sector has declined but that of tertiary has increased. Though in the urban areas, among women currently working about 85 percent are working all over the year but this share is not satisfactory in rural areas. A large proportion of working women are involved in paid work.

From the results of logistic regression it has been seen that work participation is more likely among the women with high education than the illiterates and is less likely among the women with large family size. Therefore to increase the work participation rate emphasis should be given on increase in educational attainment and control family size.

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## 9. Appendix

### A. *List of variables*

Dependent Variable	Independent Variable
Work status of women Not working : 0 Currently working : 1	Age of the women Religion Caste Educational level Household standard of living (SLI) Autonomy of women Total member in the household Marital status Number of living children of women

To see the changes in the type of employment over time, the variables used are economic sectors, employment continuation and type of earning. During logistic regression, in stead of marital status the autonomy variable has been used.

#### **List of abbreviations used**

WPR	Work Participation Rate
FWPR	Female Work Participation Rate
NFHS	National Family Health Survey
SLI	Standard of Living
O.B.C.	Other Backward Castes
S.C.	Scheduled Caste
S.T.	Scheduled Tribe.

**B. List of tables**

**Table 1: Rate of Change in percentage of ever married women working in India, Punjab and Tamil Nadu by different age groups and different background characteristics, NFHS 1, NFHS 2 and NFHS 3**

	India					Punjab					Tamil Nadu				
	N1	N2	N3	(N2-N1)/N1*100	(N3-N2)/N2*100	N1	N2	N3	(N2-N1)/N1*100	(N3-N2)/N2*100	N1	N2	N3	(N2-N1)/N1*100	(N3-N2)/N2*100
<b>Age group (years)</b>															
15-19	25.7	28.7	24.3	11.7	-15.3	7.6	--	8.1	--	--	30.8	32	22.2	3.9	-30.6
20-24	26.9	29	25.7	7.8	-11.4	5.9	3.5	12.3	-40.7	251.4	34.6	35.1	26.5	1.4	-24.5
25-29	32.2	36.2	35.5	12.4	-1.9	10.3	7.3	16.3	-29.1	123.3	45.1	44.6	43.9	-1.1	-1.6
30-34	36.5	41.1	42.8	12.6	4.1	11.6	8.8	24.8	-24.1	181.8	48.3	55.9	51.6	15.7	-7.7
35-39	38	44.2	45.6	16.3	3.2	17	12	22.6	-29.4	88.3	56.6	59.1	56.1	4.4	-5.1
40-44	38.6	43.5	45	12.7	3.4	13.4	13.6	26.5	1.5	94.9	62.4	61	54.2	-2.2	-11.1
45-49	37.5	39.5	41.4	5.3	4.8	14.5	11.9	17.5	-17.9	47.1	53.3	60.6	50.1	13.7	-17.3
<b>Religion</b>															
Hindu	35.5	40.3	40	13.52	-0.7	11.7	11.2	24.2	-4.3	116.1	50.1	52.5	49.2	4.8	-6.3
Muslim	17.1	19.6	23.4	14.62	19.4	25	12.1	30.3	-51.6	150.4	18.5	23.8	17.4	28.6	-26.9
Others	33	34.4	36.9	4.24	7.3	11.3	7.4	16	-34.5	116.2	42	49	37	16.7	-24.5
<b>Caste</b>															
SC/ST	46.7	49.9	47	6.85	-5.8	13.3	9.2	25.8	-30.8	180.4	62.3	64.2	54.7	3.0	-14.8
Others	29.5	26.7	26.3	-9.49	-1.5	11	8.3	16.2	-24.5	95.2	44.3	34.2	21.6	-22.8	-36.8
<b>Education</b>															
Illiterate	39.9	46.9	47.3	17.54	0.9	13.8	7.9	25.8	-42.8	226.6	64.3	71.9	70	11.8	-2.6
Primary	24.8	33.4	36.6	34.68	9.6	9	6.4	15.6	-28.9	143.8	36.7	50.9	53.9	38.7	5.9
Secondary	14.5	20.9	24	44.14	14.8	6.3	6.5	14.5	3.2	123.1	20.7	29.1	30.1	40.6	3.4
Higher	20.7	26.4	33.9	27.54	28.4	10.8	21.2	29.6	96.3	39.6	28.3	35.6	37.5	25.8	5.3
<b>Total</b>	<b>33.1</b>	<b>37.4</b>	<b>37.6</b>	<b>13.0</b>	<b>0.5</b>	<b>11.6</b>	<b>9</b>	<b>19.8</b>	<b>-22.4</b>	<b>120.0</b>	<b>47.6</b>	<b>50.6</b>	<b>47.1</b>	<b>6.3</b>	<b>-6.9</b>

**Table 2: Rate of Change in percentage of ever married urban women working in India, Punjab and Tamil Nadu by different age groups and different background characteristics, NFHS 1, NFHS 2 and NFHS 3**

	India					Punjab					Tamil Nadu				
	N1	N2	N3	Rate change from N1 to N2	Rate change from N2 to N3	N1	N2	N3	Rate change from N1 to N2	Rate change from N2 to N3	N1	N2	N3	Rate change from N1 to N2	Rate change from N2 to N3
<b>Age group (years)</b>															
15-19	12.1	11.6	14.5	-4.1	25.0	0	--	--	--	--	11.4	11.3	28.6	-0.9	153.1
20-24	12.9	13.6	13.7	5.4	0.7	3.9	6.1	13.5	56.4	121.3	15.7	22	20.1	40.1	-8.6
25-29	18	21.2	24.8	17.8	17.0	6.7	9.1	20.7	35.8	127.5	26.9	32.2	38.1	19.7	18.3
30-34	24.4	25.8	30.7	5.7	19.0	8.1	15.4	29.8	90.1	93.5	31.5	38.2	40.3	21.3	5.5
35-39	25.1	32.2	34.7	28.3	7.8	11.6	17	32.3	46.6	90.0	33.8	42.5	45.2	25.7	6.4
40-44	29	31.2	32.1	7.6	2.9	13.7	22.2	24	62.0	8.1	52.1	44	43.3	-15.5	-1.6
45-49	27.2	27.6	30	1.5	8.7	20	20.2	15.1	1.0	-25.2	32.6	40	38.2	22.7	-4.5
<b>Religion</b>															
Hindu	22.1	25.4	28.4	14.9	11.8	7.7	14.4	24	87.0	66.7	31.6	35.9	40.2	13.6	12.0
Muslim	14.4	16.7	19.5	16.0	16.8	66.7	--	30.8			17.4	24.2	20	39.1	-17.4
Others	27.3	28.3	31.2	3.7	10.2	11.2	16.1	18.8	43.8	16.8	33	40.6	30.4	23.0	-25.1
<b>Caste</b>															
SC/ST	30.7	31.8	35.6	3.6	11.9	9.8	14.8	25.1	51.0	69.6	35.8	42.3	47.1	18.2	11.3
Others	19.9	19.7	22.2	-1.0	12.7	9.2	16	22.2	73.9	38.8	28.8	33.3	19.5	15.6	-41.4
<b>Education</b>															
Illiterate	27.1	32.4	35.3	19.6	9.0	9.2	11	26.4	19.6	140.0	45.7	58.7	65.8	28.4	12.1
Primary	18.6	25.1	29.9	34.9	19.1	7.5	12	20	60.0	66.7	24.9	39.9	45.8	60.2	14.8
Secondary	11	15.2	19.5	38.2	28.3	8.7	9	18.4	3.4	104.4	14.1	21.4	26.2	51.8	22.4
Higher	20.1	26.6	32.9	32.3	23.7	10.5	24.1	29.2	129.5	21.2	26.4	36.8	35.6	39.4	-3.3
<b>Total</b>	<b>21.2</b>	<b>24.2</b>	<b>27.2</b>	<b>14.2</b>	<b>12.4</b>	<b>9.3</b>	<b>14.8</b>	<b>22.7</b>	<b>59.1</b>	<b>53.4</b>	<b>29.6</b>	<b>35.1</b>	<b>38.1</b>	<b>18.6</b>	<b>8.5</b>

**Table 3: Rate of Change in percentage of ever married rural women working in India, Punjab and Tamil Nadu by different aggroups and different background characteristics, NFHS 1, NFHS 2 and NFHS 3**

	India					Punjab					Tamil Nadu				
	N1	N2	N3	Rate change from N1 to N2	Rate change from N2 to N3	N1	N2	N3	Rate change from N1 to N2	Rate change from N2 to N3	N1	N2	N3	Rate change from N1 to N2	Rate change from N2 to N3
<b>Age group (years)</b>															
15-19	28.1	31.7	26.1	12.8	-17.7	9.5	--	9.4	--	--	37.9	39.3	20	3.7	-49.1
20-24	31.2	33.6	30	7.7	-10.7	6.6	2.9	11.6	-56.1	300.0	44.4	41.4	32.2	-6.8	-22.2
25-29	37.5	41.5	40.5	10.7	-2.4	11.8	6.6	13.7	-44.1	107.6	55.8	51.5	48.7	-7.7	-5.4
30-34	41.5	47.2	48.6	13.7	3.0	13.1	5.5	21.8	-58.0	296.4	59.6	66.3	60.9	11.2	-8.1
35-39	43.5	49.3	51.4	13.3	4.3	19.1	9.5	17.8	-50.3	87.4	68.3	68.8	65.6	0.7	-4.7
40-44	42.6	48.7	51.7	14.3	6.2	13.2	9.4	28.2	-28.8	200.0	67.2	69.8	64.9	3.9	-7.0
45-49	41.4	44.7	47.3	8.0	5.8	12.7	7.3	19.1	-42.5	161.6	63.1	71.3	61.5	13.0	-13.7
<b>Religion</b>															
Hindu	39.7	45.1	44.7	13.6	-0.9	14.8	8.2	24.6	-44.6	200.0	58.4	60	56.4	2.7	-6.0
Muslim	18.7	21.1	25.7	12.8	21.8	21.2	--	32	NA	NA	22.9	22.2	--	-3.1	
Others	36	37.6	40.1	4.4	6.6	11.3	5.4	15.2	-52.2	181.5	48.9	59.8	46.2	22.3	-22.7
<b>Caste</b>															
SC/ST	49.6	53.8	50.3	8.5	-6.5	14.7	8.1	25.9	-44.9	219.8	30.4	71.7	58.7	135.9	-18.1
Others	33.5	30.3	29.3	-9.6	-3.3	11.7	3.9	12	-66.7	207.7	46.4	41.7	41.7	-10.1	0.0
<b>Education</b>															
Illiterate	42.2	49.4	49.8	17.1	0.8	14.8	7.3	25.5	-50.7	249.3	68.8	74.5	71.8	8.3	-3.6
Primary	27.8	36.3	39.1	30.6	7.7	9.4	5	14.2	-46.8	184.0	44.6	56.6	59.1	26.9	4.4
Secondary	17.1	24.9	27.5	45.6	10.4	4.8	4.9	11.6	2.1	136.7	26.9	36.2	35.3	34.6	-2.5
Higher	21.9	25.9	36.9	18.3	42.5	11.1	13.3	31.6	19.8	137.6	32	33.3	43.3	4.1	30.0
<b>Total</b>	<b>37.3</b>	<b>42.1</b>	<b>42.2</b>	<b>12.9</b>	<b>0.2</b>	<b>12.5</b>	<b>6.5</b>	<b>18.2</b>	<b>-48.0</b>	<b>180.0</b>	<b>57.2</b>	<b>58.9</b>	<b>55.1</b>	<b>3.0</b>	<b>-6.5</b>

**Table 4: Changes of type of employment among ever married women of two states Punjab and Tamil Nadu during 1992-93 to 2005-06.**

	Punjab									Tamil Nadu								
	Total			Urban			Rural			Total			Urban			Rural		
	NFHS 1	NFHS 2	NFHS 3	NFHS 1	NFHS 2	NFHS 3	NFHS 1	NFHS 2	NFHS 3	NFHS 1	NFHS 2	NFHS 3	NFHS 1	NFHS 2	NFHS 3	NFHS 1	NFHS 2	NFHS 3
<b>Economic sector</b>																		
Primary	46.1	10.8	25.7	9.0	--	3.6	56.9	22.0	41.3	60.9	58.4	47.7	10.8	16.6	17.7	74.7	71.5	65.7
Secondary	29.1	26.4	21.9	48.7	24.4	35.0	23.4	27.6	12.7	19.4	17.0	16.5	38.9	32.7	26.7	14.0	12.1	10.3
Tertiary	24.8	62.8	52.4	42.3	74.8	61.4	19.7	50.4	46.0	19.7	24.6	35.8	50.2	50.6	55.6	11.2	16.4	24
<b>Employment Continuation</b>																		
All year		74.0	75.1		86.5	85.7		61.0	67.5		66.5	75.9		81.7	86.2		61.8	69.7
Seasonal		24.8	17.8		13.5	7.6		36.6	25.2		32.8	22.1		17.7	12.3		37.5	28
Occasional		1.2	7.1		0.0	6.7		--	7.3		0.7	2.0		--	1.5		0.7	2.3
<b>Type of earning</b>																		
No Cash	65.7	4.4	17.6	12.8	--	4.5	40.5	8.1	26.7	78.3	17.6	8.7	14.3	8.7	3.2	23.8	20.5	12.0
Cash	34.3	95.6	82.4	87.2	96.4	95.5	59.5	91.9	73.3	21.7	82.4	91.3	85.7	91.3	96.8	76.2	79.6	88
<b>Total</b>	<b>3470</b>	<b>250</b>	<b>537</b>	<b>780</b>	<b>127</b>	<b>223</b>	<b>2690</b>	<b>123</b>	<b>314</b>	<b>18710</b>	<b>2360</b>	<b>2165</b>	<b>4060</b>	<b>565</b>	<b>813</b>	<b>14650</b>	<b>1795</b>	<b>1352</b>

‘—’percentages are not shown due to insufficient number of cases in all the above tables.

**Table 5. Odds of current work status of ever married women by different socio-economic and demographic characteristics, NFHS 3.**

<i>Co-variables</i>	<i>India</i>	<i>Punjab</i>	<i>Tamil Nadu</i>
	<b>Exp(B)</b>		
<b>Age of the respondent</b>	1.251***	1.511***	1.442***
<b>Age square</b>	0.997***	0.994***	0.995***
<b>Type of place of residence</b>			
Rural®			
Urban	0.589***	1.119	0.574***
<b>Religion</b>			
Hindu®			
Muslim	0.516***	1.549	0.400***
Others	1.061***	0.646***	0.943
<b>Caste</b>			
S.C./S.T®			
O.B.C.	0.896***	0.835	0.913
Others	0.610***	0.703***	0.720
<b>Education</b>			
No education®			
Primary	0.772***	0.670**	0.587***
Secondary	0.595***	0.696**	0.324***
Higher	1.262***	1.655**	0.723**
<b>Household SLI</b>			
Low®			
Medium	0.980	0.731	0.865
High	0.625***	0.481***	0.526***
<b>Autonomy</b>			
Low®			
High	1.246***	1.711***	1.364***
<b>Total member of the household</b>			
Less than 3®			
4 to 6	0.929**	0.768	1.012
7 or more	0.829***	0.638**	0.823
<b>Total number of living children</b>			
No child®			
1-2 children	0.824***	0.791	0.724**
3-4 children	0.846***	0.783	0.700**
5 or more	0.810***	1.290	0.400***
<i>- 2 Log likelihood</i>	<i>93056.3</i>	<i>2166.6</i>	<i>4841.4</i>

Note: \*\* p < 0.05 and \*\*\* p < 0.01 ® refers to the reference category.