

TRENDS OF OCCUPATIONAL PATTERN IN INDIA: AN ANALYSIS NSSO

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Abstract

This paper explains the trends of occupational distribution in India. The occupation has been divided into primary activities, secondary activities and tertiary activities. Occupational distribution of labour force analysis that share of primary sector is declining and on the other side, service sector is increasing. Growth of workforce in non-agriculture is higher than that of agriculture. Growth of female workers engaged in non-agriculture is higher than their male counterparts. There has been a minor shift in employment away from agriculture to non-agriculture sector in the case of both rural female and urban female. Therefore, in secondary and tertiary sector, the share of employment is slowly increasing. The main findings of the study reveal structural change with decline in agriculture employment for both male and female employment. The paper is based on secondary data as used NSSO survey since 1993-9 to 2011-12.

Keywords- Occupation, Employment and Workforce

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Introduction

Occupational distribution plays a crucial role in Indian economy. In this paper we précis the trends in the extent of economy-wide sex discrimination by occupation during the period 1993-94 to 2009-10. In particular, we seek to determine the relative importance of shifts in the occupational structure of the economy and of changes in sex composition within occupational categories in producing the observed changes in the overall degree of segregation. Empowerment of women can accelerate the economic development and discrimination against them can hinder the same, as there is a bidirectional relationship between empowerment of women and economic development.¹ Empowerment of women improves their ability to access health, education, livelihood opportunities along with rights along with political participation and thus play major role in driving down gender inequality. It has been witnessed during and after Industrial Revolution and also in recent times in East and South-East Asia that the process of development is associated with two types of transitions; (a) the movement of workforce from agriculture to manufacturing and services, and (b) migration from rural to urban areas, i.e., urbanization. However, these transitions and mobility are associated with increased education, improving health and falling fertility rates along with other socio-economic drivers and, hence, participation of women in work forces along with their role in society would play a critical role in the development process. According to McKinsey Global Institute (MGI) report, India has the highest economic value at stake from advancing gender equality than any other region as it has lower gender equality than warranted by its stage of economic development. The report further identifies high level of gender inequality in India on three dimensions-work/employment, legal protection and political voice, and physical security and autonomy-and medium to high level on the fourth dimension and that is essential services and enablers of economic opportunity. Low rate of women workforce participation in India is can be seen as a specific form of gender inequality.

Female labour force participation is a driver of growth and therefore, participation rates indicate the potential for a country to grow more rapidly. Longer term trends suggest that female labour force participation rates in India have been puzzling. Female participation rates declined from 34.1 per cent in 1999-00 to 27.2 per cent in 2011-12, and wide gender differences

in participation rate also persists. Between 2005 and 2012, nearly 25 million women—roughly the total population of Australia—withdrawed from the Indian wage-labor market. This decline in Indian women’s labor force participation rate—which counts women who are employed in regular or casual wage work, self-employed or working in family-owned businesses, plus those who are seeking work, as a percentage of all working-age women—is part of a longer-term trend. The labor force participation rate for rural women declined from 42.5% in 1988 to 18% in 2012 and for urban women from 24.5% to 13.4% over the same span. However, for a better understanding of this trend and phenomenon in context of Indian labor force and market it would be better to understand the concept of occupational distribution/occupational structure along with its historical overview. A detailed overview of trends in occupational distribution, especially in context of women workforce participation would be discussed afterwards.

Review of Literature- After study a lot of research articles and papers which is similarly related to occupation distribution then reached to point and found some valuable review are followed by (Abbott, 1910; Pinchbeck, 1968; Butler, 1969; Holcombe, 1973; Tentler, 1979), finds the historical evidence from nineteenth century suggests that women's involvement in wage work exerted a negative effect on men's wages Alternatively, Armstrong and Armstrong (1978) suggest that any negative relationship between men's wages and women's presence in the labor market. That is, the Armstrongs argue that relatively low wages precede women's entry into the labor market, and are not a consequence of it. The two studies (Treiman and Terrell, 1975; Snyder and Hudis, 1976) that bring longitudinal data to bear on the relationship between sex composition and wages employ Both studies conclude that female labor-force participation exerts a downward influence on men's wages; the evidence for differential recruitment of women into relatively low-paid occupations is weaker. The cultural characteristics that affect female labor supply (Contreras & Plaza, 2010). In a recent study in Chile, Montenegro (2001) found that men and women in the top quintiles who have more years of education have higher incomes.

Occupational structure or Occupational distribution:

The encyclopedia.com defines the occupational structure in following words; “This refers to the aggregate distribution of occupations in society, classified according to skill level, economic function, or social status. The occupational structure is shaped by various factors: the structure of

the economy (the relative weight of different industries); technology and bureaucracy (the distribution of technological skills and administrative responsibility); the labour-market (which determines the pay and conditions attached to occupations); and by status and prestige (influenced by occupational closure, life-style, and social values).” Broadly speaking, both the terms, i.e., occupational structure and the occupational distribution indicate towards the same concept which is reflects the degree of the development and diversification achieved in any economy. It refers to the distribution of working population among the different sectors in the economy. These sectors are broad categories of different types and nature of occupations in an economy. These broad sectors are, (1) Primary sector, which includes occupations like agriculture, mining, fishing, animal husbandry and forestry, (2) Secondary sector, which consists of manufacturing, construction, electricity, etc., (3) Tertiary sector, which consists of trade, transportation, communications, banking, insurance, personal services, government and non-government jobs, and other activities related to services.

Major sized of population in underdeveloped countries depends on agriculture and other primary sector activities. However, fishing which is a primary sector activities are still an important occupation in many developed economies, e.g., Japan, Norway, England, etc. History of economic development suggests that primary occupation gradually declines with Industrialization and the growth of service sector and other tertiary activities. However, large scale industries do not provide much employment opportunities as they are capital intensive. Small scale industries, on the other hand are labor-intensive and play crucial role in employment generation and transition of economy towards secondary sector. Similarly, tertiary sector occupations are crucial as they provide huge employment opportunities for skilled people and this is why the absorption capacity of this sector is very high. According to World Development Report, 1983, around 45 to 66 percent of the work force of developed countries are engaged in tertiary sector occupations.

Trends in Occupational distribution/workforce participation rates in India:

Occupational structure of India clearly reflects a high degree of backwardness prevailing in Indian economy. Historical data suggest that occupational distribution in Indian economy was tilted towards primary sector, primarily agriculture and allied sector, till the turn of the present

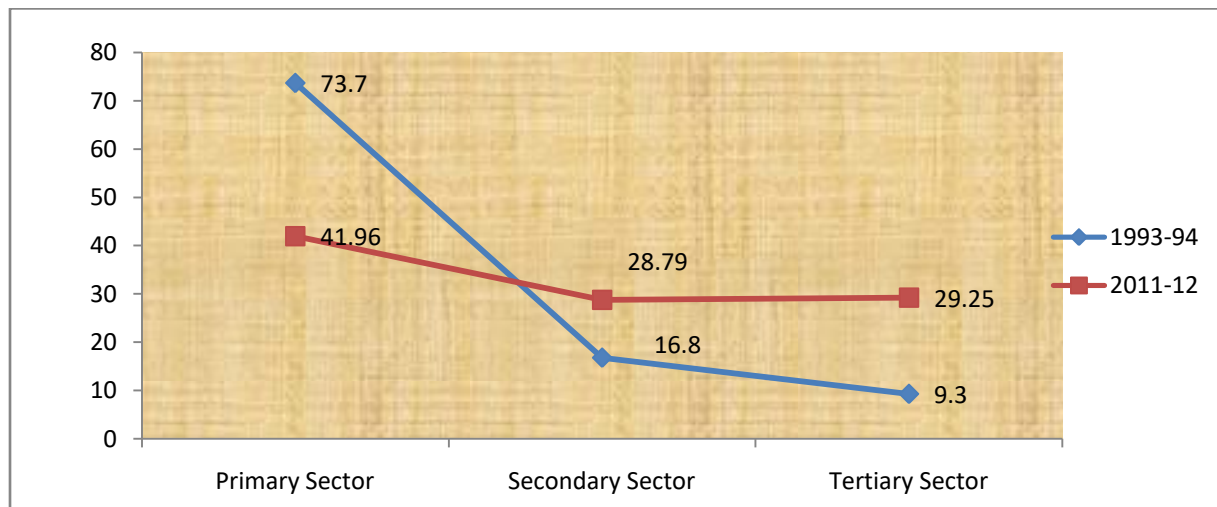
century. Table 3.4 shows that the share of rural male in primary sector is gradually declining from 1993-94 to 2011-12. At the national level in 1993-94 was 73.7 per cent and became low 59.36 in 2011-12. During this period change of decline was -14.34 per cent point change. In the case of Goa there was the highest decline -33.79, -24.02 in Kerala and -23.90 in Jammu and Kashmir per cent point change between 1993-94 and 2011-12. Gujarat is one of the state which has the lowest change in rural male in primary sector is -1.28 per cent point change. When we analyse the secondary sector Delhi is the only state which has the highest declined and reached at -46.72 per cent point change. One the other side, Punjab shows the positive upward change and reached 16.07 percent point change in 2011-12. In tertiary sector the share of rural male gradually increasing. Delhi and Goa have the highest positive upward of percentage point change in all states except Haryana, 1.64 is the lowest change between 1993-94 and 2011-12.

Table 1: Occupational distribution in India (in %)

Sectors	1993-94	2011-12
Primary Sector	73.7	41.96
Secondary Sector	16.8	28.79
Tertiary Sector	9.3	29.25

Source-Employment-Unemployment NSSO Rounds 1993-94 and 2011-12

Figure 1: Occupational distribution in India (in %)



Source-Employment-Unemployment NSSO Rounds 1993-94 and 2011-12

It can be observed in table 1 that secondary and tertiary sector crossed the 30 percent mark of the total work force engagement in 1981 and rose up to 33 percent in 1991 and then over 41 percent in 2001. Over 10% shift in total workforce engagement can be observed from primary to secondary and tertiary sector from 1981 to 2000 in the table 1. Although both secondary and tertiary sector reflected their expanded absorption capacity of workforce from 1980s to 2000, however, the rate of increase in employment opportunities fell far short of the rate of increase in labour force.

Trends in Women workforce participation in India

It has been a common understanding regarding the rate of women's workforce participation that it follows the "U" shaped curve which indicates high rate for the countries with low or very low level of development and low for countries at middle levels of development. However the women's workforce participation rates again goes high in context of developed countries. The reason behind the U-shaped curve lies in the fact that at low level of economic development, countries are more likely to be labor-intensive agrarian economies with corresponding low level of technologies and capital. Wide spread poverty in these economies force women to contribute into household income, preferably by wage earning through primary sector informal occupation leading to a high women's workforce participation rate. However, with the development of industries primary sector occupations such as agriculture begins to employ more advance technologies which reduces the demand for labour, especially the women labour, causing contraction in the women's workforce participation rate. With further economic development as in developed countries, women population is generally empowered by good health, education, skill levels and this process accompanies with the increased demand for highly skilled labour force which enables educated and skilled women to get employed on increased level resulting in the corresponding increase in the women's participation rate in workforce.

India has one of the lowest female labor force participation (FLFP) rates— typically measured as the share of women that are employed or seeking work as a share of the working-age female population — among emerging markets and developing countries.² In spite of impressive growth rate during 2000s, the Indian labour market reflects very low rates of women labour force

participation. However, what is more intriguing is the fact that with the increase in the growth rate of the country the women labour force participation has been showing a decline. Nearly 25 million women, which is almost the size of the population of Australia, withdrew from the Indian wage-labour market, between 2005 and 2012.³ This decline in women labour force participation rate-which includes women employed in regular or casual work, self-employed and those who are seeking for work, as a percentage of all working-age women-is a reflection of a long term declining trend. Longer-term trends based on various rounds of NSS survey show that female labour force participation declined from approximately 40 per cent in the 1990s to 29.4 per cent in 2004–05. 68th round of the NSS survey indicated towards further slump in the female labour force participation rate in 2009-10 with the estimation of a meager 22.5 percent. This trend is witnessed in both rural and urban women workforce participation rate as various rounds of NSS data show that same rate for rural women declined from 42.5% in 1988 to 18% in 2012, almost 25% decline. Similarly, in context of urban women it declined from 24.5% to 13.4% over the same period. This decreasing trend in India's women's workforce participation rate coupled with the increase in countries per capita income indicates either towards the fact that it is in conformity with the U-shaped curve theory or it is reflecting an inverse U-shaped curve which needs to be further analyzed.

Women work force distribution/occupational structure India:

Women consist of around one-third of India's workforce however there has been a significant difference in their workforce distribution related trends as compared to men workforce. As table 2 suggest that around 67 percent of women's workforce is engaged in primary sector occupations, i.e., agriculture and allied, etc., whereas only around 45 percent of men's workforce is engaged in primary sector.

³ Women's Participation in the Indian Labor Market: Explaining the Decline, Sirisha C. Naidu, August, 2015, www.triplecrisis.com

Table 2: Work force distribution in India

Sectors	Male				Female			
	1993-94	1999-00	2004-05	2009-10	1993-94	1999-00	2004-05	2009-10
Primary sector	57.43	53.53	48.64	45.27	77.52	75.36	72.26	66.99
Secondary sector	16.76	18.16	21.09	24.02	11.24	12.00	13.96	16.82
Tertiary sector	25.81	28.31	30.27	30.71	22.48	24.64	27.74	33.01
Total	100	100	100	100	100	100	100	100

Source: Various rounds of NSS data

However, if we compare the primary sector workforce engagement data of both the genders, we can observe that only around 8 percent men workforce was shifted from primary to secondary or tertiary sector, whereas 11 percent of the total women workforce shifted from primary sector to other two sectors. This roughly indicates towards the fact that women workforce transformation is taking place with accelerated speed than that of men workforce. Another striking difference in the men and women workforce distribution lies in the fact that women workers are significantly less engaged in secondary sector than men. Only 16.82 percent of total women workforce was engaged in secondary sector occupations in 2009-10 whereas 24.02 percent of total workforce was engaged in these occupations during the same year.

Table 3: Work force distribution in India (sub-sectors) in percentage

Sub-Sectors	Male				Female			
	1993-94	1999-00	2004-05	2009-10	1993-94	1999-00	2004-05	2009-10
All non-agriculture	42.57	46.47	51.36	54.73	22.48	24.64	27.74	33.19
Mining & Quarrying	0.85	0.68	0.69	0.77	0.34	0.31	0.28	0.30

Manufacturing	11.22	11.46	12.51	11.51	9.41	10.01	11.75	11.34
Utilities	0.53	0.37	0.38	0.35	0.13	0.03	0.03	0.08
Construction	4.15	5.66	7.51	11.33	1.35	1.64	1.89	5.11
Trade, hotel, etc.,	9.70	13.02	14.13	14.00	3.22	4.19	4.14	4.55
Transport & communication, etc.,	4.12	5.11	5.84	6.04	0.27	0.35	0.40	0.43
Finance, Insurance, real estate business services	1.27	1.60	2.24	2.71	0.35	0.45	0.63	1.05
Community, social and personal services	10.72	8.57	8.07	7.96	7.41	7.65	8.61	10.16

Source: Various rounds of NSS data

Other significant sectors in which major portion of women workforce of India was engaged in 2009-10 include manufacturing (11.34%) community and social and personal services (10.16%) construction (5.11%) and trade and hotel (4.55%) related occupations (see table 3). Although percentage of total women workforce engaged in all non-agricultural occupation (33.19% in 2009-10) is comparatively lower than that of percentage of men workforce (54.73% in 2009-10), however, we can observe in table 3 that there is a growing trend from 1993-94 (22.48%) to 2009-10 (33.19%). Sub-sector which gained significantly over this period included construction (1.35% to 5.11) and community, social and personal services (7.41% to 10.16%).

Female workforce participation rate in Rural and Urban areas

There has been a considerable variation between workforce participation in urban and rural areas. 66th round of NSS survey shows that women workforce participation rate in rural sector was around 26.1% in 2009-10 while it was 13.8% in urban areas. However, the participation rate of rural women decreased from 26.1% in 2009-10 to 25.3% in 2011-12, while participation rate of urban women increased from 13.8% to 15.5% over the same period. There is a significant difference between the structure of female workforce in rural and urban areas (table 4). We can

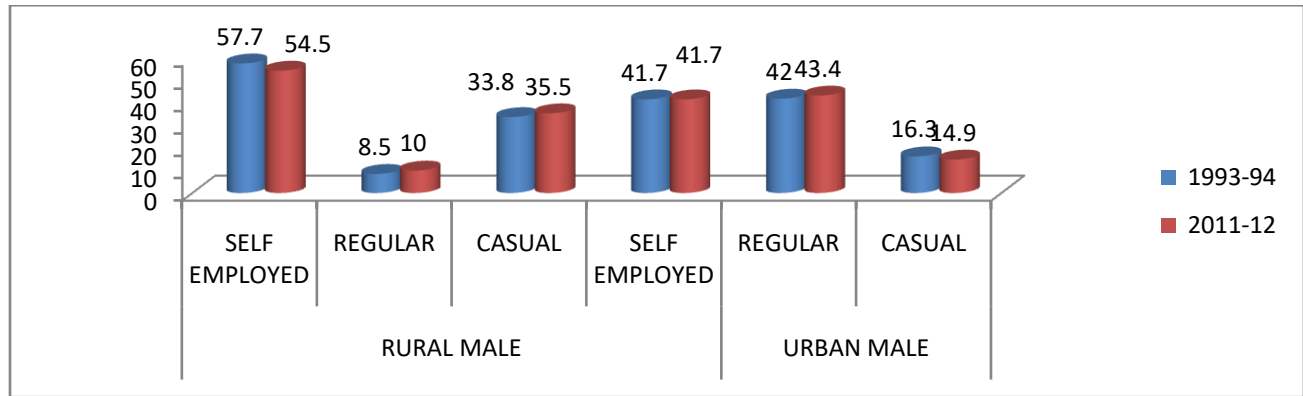
observe in table 4 that 79.4% rural women workforce is still engaged in agriculture, whereas in urban areas this rate is 13.9%. We can also observe in the same table that manufacturing (7.5%) and construction (5.2) are other sub-sectors in which rural women workforce are substantially engaged after agriculture. However, for urban women workforce services (39.3%) and manufacturing sectors (27.9) were most engaging.

Table 4: Percentage of Female workforce participation in rural and urban areas in India

Sectors	Rural	Urban
Agriculture	79.4	13.9
Mining & Quarrying	0.3	0.3
Manufacturing	7.5	27.9
Electricity, Water etc.	0	0.4
Construction	5.2	4.7
Trade, Hotels, Restaurants, etc.,	2.8	12.1
Transport, storage & communication, etc.,	0.2	1.4
Services	4.6	39.3
Total	100	100

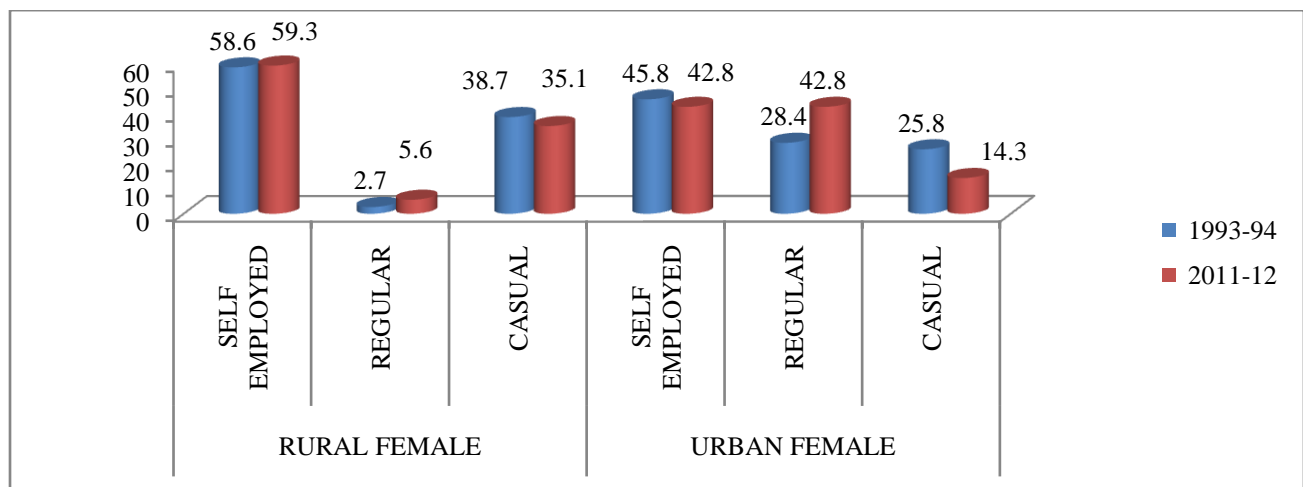
Source: NSSO Unit level Data, 66th round (2009-10)

As we see table-6 the estimates of self-employed was 57.7 per cent in 1993-94 and 54.5 in 2011-12. During this period 1993-94 to 2011-12 has declined 3.2 per cent. The period of 2004-05 was significance due to self-employed reached high at 58.1 which is the highest figure during the rounds from 1993-94 to 2011-12. In the case of regular-employed, it has been slightly increased from 8.5 per cent in 1993-94 to 9 per cent in 2004-05 and then declined in 2009-10 and again it reached at a high level 10 per cent in 2011-12. After seeing the table, we watch that there are many variations in casual-employed, increased from 33.8 per cent in 1993-94 to 36.2 per cent in 1999-00 and then declined 32.9 per cent in 2004-05. Again casual-employed reached high 38 per cent in 2009-10. Finally, the casual employed slow downed 35.5 per cent in 2011-12. The data shows that mostly casual workers engaged in public works so period from 2004-05 to 2009-10 raised high due to MANREGA.

Table-6 Category of Employed by gender and rural and urban

Source-Employment-Unemployment NSSO Rounds 1993-94 and 2011-12

As the table -6 tells that self-employed is gradually increasing from 1993 to 2011-12. There is a minor fluctuation in self-employed workers. It has increased from 41.5 per cent to 44.8 per cent in 2004-05 and then begun to decline and reached at 41.7 per cent in 2011-12. Rural women entered the agricultural labour force because they need to more incomes to help their families. During the period 2004-05 to 2009-10 rural female self-employed declined from 63.7 to 55.7 per cent. It seen shift toward to regular-employed and casual-employed for the same period. This withdrawal was higher by the rural female. They moved out due to low paying. They decided either to pursue education or engaged in domestic chores. Casual- employed declined 32.6 per cent in 2004-05 and 35.1 per cent in 2011-12. Casual-employed increased in 2009-10 because of MGNREGA and during this period growth of real wage has been upward.

Table-6 a. Category of Employed by gender and rural and urban

Source-Employment-Unemployment NSSO Rounds 1993-94 and 2011-12

Table 6.a shows that self-employment decline from 45.8 per cent in 1993-94 to 42.8 per cent in 2011-12. In this period, the share of female employed in the self-employed category declined of which rest two category improved. The reason was that they shift out due to of low paying job. They want to desire either to get education or occupied in domestic activities.

Conclusion:

Occupational structure in India suggests that the economy is still dominated by primary sector activities, though their percentage in total workforce engagement is reducing, especially after reforms of 1991. Although, urban women workforce is least dependent on primary sector activities, however, major portion of women workforce participation, especially in rural areas are still involved in agriculture and allied sector activities. Services and manufacturing related activities play major role in employing women in urban areas. Informal sector play dominant role in employing women as there is no requirement of formal education, certification and skill level. Trends' emerging after various rounds of NSS suggest that women workforce participation as a whole is declining, especially during post reform period. The above analysis of Census data brings new aspect to continuing debate on the decline in the growth of employment from the last two decade. The census 2011 result gives better picture when compared with NSSO estimation of work force participation and change in the pattern of work force. It has found that there is fast decelerating rate of growth in workforce particularly that of females, between 2001 and 2011. But the work participation rate has not declined, if not increased. One third of the female workforce is working as a marginal worker. Occupational distribution of workforce shows that labor inclusion in self-cultivation is soaked and declining. But the increase in the size of agricultural labourers is more than the size decline in cultivators indicating farmers those who are leaving farming activity and those who enter newly in to agriculture are becoming agricultural laborers. This decelerating but a high rate of growth in workforce engaged in non-agriculture compared to that of agriculture could not bring any radical change in the structure of workforce –a small change in workforce shifting towards non-agriculture.

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