

Formal Vocational Training among Socio-Economic Groups in Rajasthan

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ABSTRACT

This study is an attempt to analyse the level of formal vocational education and training, both stock and flows, in Rajasthan in 15-59 years age group across male-female and rural-urban population among various socio-economic groups. This paper uses NSSO 68th round, Employment Unemployment survey, unit level data 2011-12. The objective is to study how the level, type of training institution, and fields of the training varies across different sections of the population. The analysis is based on cross-tabulation of data for various sections of the population. The study finds that level of formal vocational training is more in urban male followed by the rural male, urban female, and rural female. Level of formal vocational training is highest in Non-ST/SC/OBCs followed by Other Backward Classes, Scheduled Castes, and Scheduled Tribes. Enrollment in formal vocational training is affected by the economic condition of the household. Two-third of enrolled trainees is from higher income groups. Male-female are interested in different fields of training. Rural females are concentrated in health and textile related skills while urban females are in catering and beautician related courses. Privatisation of formal vocational training is taking place.

Key Words : Skill, Vocational Training, Socio-economic groups

INTRODUCTION

Unemployment and under-employment are challenging issues in India. Educational attainment and employability are positively related. However, one may also observe significant mismatch in demand and supply of labour. However this mismatch can be narrowed with the diversification of students in different types of vocational and skill-based education. In this context vocational education and training (VET) can play an important role.

There are two groups of scholars about vocational education, *i.e.* first, “pro-vocational education and training group”¹ (Abbott, 1939; Balogh, 1962; Dumont, 1966; Caillods, 1994; Castro, 1987; Psacharopoulos, 1987; Carnoy, 1994; Abrokwa, 1995; UI-Hq and Haq, 1998; Tilak, 2002; Tushar Agarwal, 2013), second, entirely against it, “anti-vocational education group” (Foster, 1966; Blaug, 1973; Bacchus, 1979; Lillis and Hogan, 1983;

Krueger and Kumar, 2002). The supporters and proponents of the first group believe that vocational education and training is a measure to solve many problems regarding unemployment and overburden in academic courses. On the other hand, opponents are of the view that change in the curriculum would not be able to solve the problems of unemployment and mismatched demand of employment. Benavot (1983, 63-76) outlines three perspectives for the rise of vocational education in the twentieth century. These are as follows First, Technical- Functional Perspective (based on the work of Trow (1961), Becker (1964), Denison (1964) and Machlup (1970); Second Integrationist argument (supported by Kerschensteiner (1911), Taylor (1914) and Cubberly (1934) and Third Neo-Marxist Perspective (supported by Spring (1972), Bowles and Gintis (1976) and Violas (1978).

It has always been a matter of concern that education should be useful in enhancing the productivity of human

resources. According to Abbott (1939), vocational education is helpful in solving the problems of 'educated unemployment' and of making rational use of the natural resources for citizens. The solution of the second problem will be helpful in solving the first problem. Sen (1971) argues that educational attainment has a social gain but if the educated person remains unemployed than individual benefit tends to be zero.

The skilled workforce is a pre-requisite for industrialisation. Every worker has the potential of becoming a skilled worker, and this potential can be realised by providing adequate opportunities for vocational education and training (Jain, 1992, 25). Vocational training does not generate employment, but it enhances the chance to be employed if a job is available (Singh, 2003, 3275). Skilled persons are not born, but they are trained. Human capital is based not only on formal education and labour force participation but also on skills, cognitive functioning, and health (Cuaresma *et al.*, 2014). After 1990's Indian economy has grown at a substantial rate, but job shortage and abundance of unskilled workers are the significant challenges to the Indian economy. The employment generation in the organised sector has been very less and in the public sector growth of employment has been negative (Aggarwal, 2013). Due to technological expansion manufacturing is becoming complicated. As, for example, the introduction of technologically advanced looms in textile firms requires skills of monitoring and troubleshooting of production process. The requirement of skills for a job is different from getting involved in the production process, directly (Chakravarty, 2006).

Vocational training is related to Sen's Human Capability Approach. This approach is very popular to see the returns to schoolings, *i.e.* quality of students. Vocational training institutes are a step further in comparison to schools as these are related to particular work-related training. This economic empowerment will enhance freedom of choice. Vocational training enhances the employability of individuals. So, it will lead to enhancement of capability. Vocational education can be associated with capability approach which believes the peoples' effective ability to do anything that is in their capabilities (Robeyns, 2005). Most of the developed countries of the world first followed the process of industrialisation and later they moved towards 'deindustrialization' with service sector being the major contributor of GDP followed by secondary and primary sectors. Education and skills incorporation enhances the

working quality of labour force. Aggarwal (2004, 5335) argues that high education and skill levels have become essential factors in attracting investment from external sources such as multinational corporations. There is a debate on vocationalisation of education. On the one hand, general or academic education is more flexible because it allows a person to change their job easily whereas vocational education is suitable for a particular type of work. Vocationally trained workers are more efficient in handling old technologies than workers with general education (Agarwal, 2013). Human Development improving programmes should be given priority in any economic development and human development. Enhanced human development is most likely to ensure high economic growth, which would eventually move the state from the vicious to a virtuous cycle of development (Ghosh, 2006, 3328). Although Human Development Index does not use Vocational Education and Training (VET), it may be an indicator affecting the economic condition of the most of informal sector workers. The significant share of Indian economy is from the service sector. For the production of a service economy, human capital is more required rather than natural capital. For economic growth synergies between industry and services would be required. These synergies would be based on high level of knowledge of skilled workers (Singh, 2012, 320).

After the secondary level of education, many students start working in economic activities. These students are without work-related skills. According to 2011 census, the literacy rate in India is 74.04%. In total literate persons, less than 10% are educated up to secondary level. According to Employment Exchange Statistics 2011 in India, 76.5% of total jobseekers, waiting in employment exchange, were educated up to the secondary level of education in 2009, this share increased up to 79.9% in 2011.

At the national level, employment in the primary sector is decreasing, and it is increasing in secondary and tertiary sectors (Aggarwal, 2004, 5335). Employment in the secondary sector requires some necessary skills. The required skills can be acquired from formal vocational training courses. According to NSSO 55th round, 18.73% workers in the primary sector, 33.04% workers in the secondary sector and 42.79% workers in the tertiary sector were educated up to higher secondary level. Workers educated up to higher secondary level constitute the highest proportion in service sector employment. In

secondary sector employment, their role is 33.16% (Aggarwal, 2004, 5335).

Gandhiji's scheme of 'basic education' emphasises on the harmonisation of intellectual and manual work. Vocational education and training has always been part of Indian policy framework, *i.e.* Radhakrishnan Commission 1948, Mudaliar Commission 1952, Kothari Commission on Education 1964, National Policy of Education, 1968, National Education Policy 1986 (modified 1992), National Skill Development Policy 2003, Skill India Mission, Pradhanmantri Kaushal Vikas Karyakram. National Skill Development Policy focuses on enhancing the capacity of the skilled workforce up to 500 million people by 2022 at the national level.

A particular social group is not identical regarding education and employment. Relative to minority men, minority women in India have far more limited access to both educational and employment resources. Certain socioeconomic and demographic characteristics of the population such as age, sex, occupation, and education of the head and standard of living of the household determine educational development (Alam and Raju, 2007, 1619). The provision of educational scholarships, vocational training, loans, credit and child care for scheduled groups women would improve their ability to participate in the economy, and enhance their status relative to men (Dunn, 1993). For improving the condition of females in society, they should be economically empowered. Social restrictions guide this economic backwardness. Lack of education and skill formation compel them to work in the lower level of the job market as casual workers (Kak, 1994, 58). So skills transfer through vocational training should take place. Enrolment of all the weaker sections of society as women, Scheduled Tribes, Scheduled Castes should be increased in the secondary education with a special emphasis in science, commerce and vocational streams (National Education Policy, 1992, 15). Scheduled Caste households earn lower returns to education. They are still in not the good condition to obtain well- paid jobs. Low-income level results in lower consumption expenditure in this group than non-scheduled groups. Making the labour market more active and raising the human and physical capital of the Scheduled Caste households is crucial for reducing the disparities of the living standards between Scheduled Caste and other non- SC/ST households in India (Kijima, 2006, 397). For socially considered lower groups, the threshold level of education to cross poverty is higher

than other social groups (Sengupta *et al.*, 2008). The disparity in literacy is present not only between genders and rural-urban populations but also between non-scheduled and scheduled caste population. The non-scheduled population is in a better position than scheduled caste population; likewise, rural and urban non-scheduled people are educationally more advanced than their scheduled caste counterpart (Khatoon, 2013). Caste disparity is more considerable than gender disparity in urban India in the level of literacy (Raju, 1988, WS63). In British India, all the socio-economic groups did not have equal access to education. During that time, the doors of education were open to only elite class and a selected section of the population. This discrimination resulted in the negligence of mass education and limited access to education of selected sections of society (Khatoon, 2013).

Raja and Ahmad (1990, 472) in a study based on census data argue that Scheduled Tribes have the tendency of clustering and concentrating in historically isolated pockets which has caused lack of effective interaction between the tribal and non- tribal communities within the Indian population. The differences in the living standards between Scheduled Tribe and the non-SC/ST are partly due to geographical differences. Therefore, geographical targeting of the areas with high concentrations of the Scheduled Tribe would be an efficient way of reducing poverty in India. Scheduled Caste households earn lower returns to education and are still disadvantaged in obtaining well-paid jobs, which leads to lower consumption expenditure for SC households as compared to non-SC/ST households (Kijima, 2006). The available employment and required skills differ in rural and urban areas. Social institutions like caste and religion play a significant role in India. All the social groups are not equal in the context of various social development indicators. Scheduled Caste and Scheduled Tribes are backward in most of the social development indicators. Scheduled castes were part of mainstream society, but they were historically kept away from all developmental aspects. They are facing 'inclusive exclusion'. On the other hand, Scheduled Tribes have always been apart from mainstream society. So, social group-wise analysis of vocational training becomes very important. Scheduled tribal communities face the problem of lack of integration with wider social, economic and political system (Beteille, 1996).

Dalits and Muslims have joined the attainment of

formal education later than other social groups, but there are differences between levels of education between both social groups (Jeffery *et al.*, 2004). Locational vicinity or geographical integrity effects literacy behaviour of particular religious groups. In case of rural Bihar Muslims follow the referent Hindu group, this is called the demonstration effect. More developed environment enhances the education opportunity to all (Alam and Raju, 2017, 1617). No, and low education is strongly associated with poverty and vulnerability. The share of unorganised workers in total workers and the incidence of extremely poor and poor is highest among Scheduled Caste/ Scheduled Tribes followed by Muslims, Other Backward Classes and the top layers by others (Sengupta *et al.*, 2008). Muslims have a history of exclusion from mainstream schooling and white-collar work (Jeffery *et al.*, 2004).

The unemployed, as well as the underemployed labour force, in rural India, belongs to the weaker sections of the population (Mishra, 1978). Vocational and technical education can train side-lined and excluded social groups as skilled workforce and engage them in income-generating livelihood. If the marginalised people are residing in remote areas, distance learning can be helpful in providing such education and training (Fozdar and Kumar).

In India significant works on vocational education and training are done by Tilak (1988, 2002), Jain (1992), Agarwal (2013), and Kotamraju (2014). Most of the studies are at institute/ workplace level, *i.e.* study of workers by Fuller (1976), the study of workers trained under Apprenticeship training and Craftsman training by Thakur (1979), the study of the experience of vocationally trained persons under Gram Tarang Employability Training Services Pvt. Ltd by Mishra (2014). Deberoy (2009) studies the level of formal vocational training in Indian youth at the state level using NSSO 55th and 61st round data. He measures the level of vocational training in 15-24 years age group at the state level and national level concentration in different trades using NSSO 61st round data. Indian economy is service sector driven. Differently, from developed economies, the Indian economy has directly moved from agricultural sector to service sector. This transformation has caused the low level of formal vocational education and training.

Policymakers have consistently suggested the expansion of formal vocational training to sort out the problem of lack of skilled labour force and educated

unemployment. In the beginning, vocational training was about engineering skills, but now training in soft skills is an integral part of vocational training. However, due to the low level of industrialisation, expansion of vocational training does not take place. In 2011-12, only 3.1% population in 15-59 years age group has any association with formal vocational training (NSSO 68th round). In India, among secondary level and higher educated population 18.54 % and in Rajasthan 8.35 % have received formal vocational education and training, along with this 7.44% and 5.18% are receiving formal vocational education respectively in India and Rajasthan.

At global level vocational education and training has got the attention of scholars and researchers due to its expansion on a large scale. In the industrialised countries, demand for skilled labour force has led to high level of vocational training. However, in India, agriculture and service are the major sectors of the economy. Agriculture sector workers are majorly either unskilled or informally skilled. In the service sector, persons with general education are engaged. In India, very less research has been done on vocational training. In vocational training, most of the research has been for the particular institutions. The primary focus has been at a micro level. Caste has been an integral part of Indian society. Institutions of caste and religion play a significant role in India. These institutions affect vocational training and employment pattern.

This study is an attempt to analyse the level of vocational training across different socio-economic groups.

In Rajasthan, 13.5% population belongs to Scheduled Tribe and 17.8% population to Scheduled Caste. Scheduled caste's 79.8 % population reside in rural areas. According to 2011 Census, 88.75% population is Hindu followed by Muslims (8.47%) in the state. More than the four-fifth population of the state is Hindu. So, any social indicator is guided by this section. Infact, the state-level scenario resembles Hindu population scenario. Economic conditions are different in each religious group. On the one hand, Hindus are landholding group, mostly residing in rural sector while Muslims are landless and residing mainly in the urban sector. So, the study of the level of vocational training in these religious groups becomes very important.

Objective:

The objective is to analyse level and pattern of

Table 1 : Number of persons surveyed associated with formal vocational training in Rajasthan during NSSO 68th round unit level Employment Unemployment Survey

	STs	SCs	OBCs	Non SC/ST/OBC	Rural	Urban	Male	Female	Total
Enrolled	7	16	35	23	38	43	66	15	81
Trained	18	13	45	63	54	85	109	30	139

Source: NSSO 68th round EUS Unit level survey 2011-12

vocational education and training among male-female and rural-urban sections of different socio-religious and economic groups in Rajasthan.

Data:

The study is based on National Sample Survey Organization’s 68th round, 2011-12 Employment Unemployment Survey data. The NSSO provides data for male-female, rural-urban and different socio-religious groups. The data is available for the level of vocational education and training, the field of training.

- Type of vocational education- trained persons and enrolled trainees.
- Field of training as- electrical and electronic engineering trades, computer trades, agricultural and crop-production related skills and health and paramedical related services related work.
- Type of institution of currently enrolled trainee in 15-29 years age group

In the NSSO 68th round 20172 persons of Rajasthan were surveyed. Among them 10410 were men and 9762 were women. In all the surveyed persons 81 were enrolled in formal vocational training and 139 had completed their formal vocational training. In enrolled trainees 7 are from Scheduled Tribes, 16 from Scheduled Castes, 35 from Other Backward Class and 23 from Non ST/SC/OBC. Among formally trained persons 18 from Scheduled Tribes, 13 from Scheduled Castes, 45 from Other Backward Class and 63 from Non ST/SC/OBC. Among enrolled trainees 38 belong to rural sector and 43 from urban sector. 54 of persons having formal vocational training are from rural sector and 85 from urban sector. 74 of the enrolled trainees follow Hinduism, 5 follow Islam, 1Christianity and 1 Jainism. Among vocationally trained persons 121 are Hindus, 10 Muslims, 2 Christian, 6 Sikhs. Among vocational trainees 66 are male and 15 are female. 109 of vocationally trained persons are male and 30 are females.

METHODOLOGY

The analysis is based on NSSO Employment

Unemployment Survey (unit level) data. The data is converted into statistical tables using SPSS software. The level of vocational training is very low. For this reason, the level is shown per 1000 population. The level of vocational training is computed for rural-urban, male-female population among socio-economic groups. Economic classes are based on Monthly Per Capita Expenditure. For rural and urban population separate economic classes are calculated with quartile method of categorisation. Economic classes are decided using quartile method for total population along with separately for rural and urban population.

- Level of formal vocational training is shown per 1000 population
 - = No. of persons with formal vocational training in 15-59 years age group in particular section of population / Total people in particular section of population in the age group of 15-59 years *1000
- Distribution of vocationally enrolled and trained people in the different fields of training
 - = No. of vocationally enrolled and trained people in the particular field of training/ Total vocationally enrolled and trained people*100.
- Role of vocational training across various income groups is explicit by the distribution of trained persons.
- Role of different institutions in training is measured in percentage distribution.

RESULTS AND DISCUSSION

According to NSSO 68th round in India, 14511872 people have received formal vocational training and 5826905 are receiving formal vocational training in 15-59 years age group.

In Rajasthan, 284355 persons are vocationally trained, and 176340 are enrolled in formal training courses in 2011-12 (Table 2). In Rajasthan, the level of vocational training is lower than the national average. Around tenth part of the total population in age group 15-59 years, has any association with particular skills which are required for a specific kind of work. Institutionalisation of vocational training has not taken place in India on a large

Table 2 : Stock and Flow of Formal Vocational Training in Rajasthan in 15-59 years age group in 2011-12

	Rural		Urban		Total	
	Trainee	Trained	Trainee	Trained	Trainee	Trained
Male	84678	108061	73940	130832	158618	238893
Female	7559	16403	10163	29060	17721	45463
Total	92237	124463	84103	159892	176340	284355

Source: Computed by author from NSSO 68th round 2011-12 Employment Unemployment Survey Unit Level Data

scale. Around three-fourths of vocationally trained persons were comprised of informal training in 2011-12.

Formally Trained Persons:

At the state level, eight persons per 1000 population are formally trained for a vocation in 15-59 years age group, *i.e.* less than 1% population in this age group. This level is lower than the national average (22 persons out of 1000 persons in 15-59 years age group). Level of formally trained persons is lower in Rajasthan in comparison to Kerala (106), Himachal Pradesh (40), Tamil Nadu (37), Punjab (29) and Haryana (28); similar to Uttar Pradesh (8) and higher than Bihar (4), Jharkhand (4). Rajasthan is backward in case of vocational education and training as in general education², it shows the similar pattern in case of formal vocational education and training. Level of formal vocational training is low in India because vocational training is available mostly after secondary level of education (Mehrotra, 2014).

Vocational education and training is considered 'second class education' in India; individuals who are dropouts of academic education opt for vocational training courses (Tilak, 2002). The VET system suffers from poor perception. Students prefer to pursue academic education rather than opting for vocational training courses (Agrawal and Agrawal, 2017, 253). Discrimination against females is prevailing in case of formal vocational training. In 15-59 years age group 3 females per 1000 females have formal vocational training in comparison to 13 males per 1000 males. The fourfold male is formally trained for any specific vocation than their female counterpart. In trained persons, 84 per cents are male, 16% females, 43.8% rural population, 56.2% urban population. Level of formally trained persons is highest in urban males followed respectively by rural males, urban females and rural females. Level of formally trained persons is higher in an urban population in comparison to rural population across all social groups. The male-female gap in formal vocational training is more in comparison to general education³. This gap is wider in case of rural females

than their urban counterpart. The ratio of formally trained female-male is 1:8 in rural Rajasthan in comparison to 1:4 in urban Rajasthan. Vocational training institutions are located in urban areas, so the urban population has a high level of formally trained persons.

At the state level, formally trained persons' level is highest in 25-29 years age group. This pattern is similar for both rural and urban population. This pattern is the result of the expansion of vocational training in recent years⁴. Formally trained persons' pattern across various age groups and different sections of population reflect that rural and female sections take early entry in comparison to the urban and male counterpart.

Level of formally trained persons is lowest in Scheduled Tribes followed by Scheduled Castes and Other Backward Classes, State level and Non-ST/SC/OBC. In formally skilled persons, 7.2% are the member of Scheduled Tribes, 12.5% of Scheduled Caste, 33.1% of Other Backward Classes. Government's reservation policy in government jobs is a significant factor for this high level of formally trained persons. Urban people are more aware of vacancies in public sector and other enterprises. Persons skilled in trades related to electrician, diesel, fitter have chances to get the government job in Indian Railway and state electricity departments. This trend is more popular in urban males than other sections of the population.

Low level of formal training implies late entry of reserved groups in the regime of formal vocational training. In Scheduled Castes, male-female gap in formal vocational training is vast. This gap is prominent in the rural sector in comparison to urban sector. Dalit households are gradually enrolling their children in schools and getting government employment for their sons; this shows gender discrimination (Jeffrey *et al.*, 2004, 962).

Scheduled Castes due to more interaction with main streams, understand job providing limits of the government sector and role of private sector in employment; which to a large extent require formally trained persons. For this reason, enrolment is high in this social group in

comparison to Scheduled Tribes of the state. In government job opportunities scheduled castes have been able to create their space in comparison to scheduled tribes (Xaxa, 2001, 2765). Low level of formal vocational training in scheduled tribes in comparison to scheduled caste is guided by a lower level of education in scheduled tribes in comparison to scheduled caste (Xaxa, 2001, 2768). Scheduled castes are performing better than scheduled tribes in the field of education. This trend is prevalent in formal vocational training. However, some tribal groups are performing than scheduled caste person, *i.e.* minas of state (Xaxa, 2001, 2771). The better condition of minas is the result of the economically better condition and social intermingling with ahirs, jats, and rajputs (Xaxa, 2001, 2771).

Level of formally trained Hindus is highest in 25-29 years age group in both rural and urban population because enrolment in vocational courses increased after the year 2000 onwards.

In Scheduled Caste and Other Backward Class population, level of enrolment in formal vocational training is similar to Non-ST/SC/OBCs, but the level of formally trained persons is less than Non-ST/SC/OBCs. This pattern shows that formal vocational training reached early in Non-ST/SC/OBCs.

Enrolled Trainees:

At the state level, current enrolment in formal vocational training is five persons per 1000 population in 15-59 years age group in 2011-12 which is lower than the national average (9 persons in per 1000 population of 15-59 years age-group). Females' condition is critical where only one female is currently enrolled in formal training institutions per 1000 females in comparison to 9 males per 1000 males. 90 per cent of enrolled trainees are male. Enrolment level is three times more in the urban population in comparison to the rural population in these institutions. In currently enrolled trainees 52.3 % are rural. In rural Rajasthan ratio of female-male enrolment is 1:6, while in urban Rajasthan it is 1:8. In this manner, discrimination against females in the rural sector is decreasing in currently enrolled trainees. However, it implies that rural females are not going for higher education. Formal vocational training is associated with general education (Bowman 1988: 151). The literacy rate of females in Rajasthan is 52.12% (Census, 2011). Sopher (1980) has taken females as 'depressed class' in case of literacy in India.

Enrolment level in vocational training institutions is highest in 15-19 years age group in 2011-12. This pattern is similar for both rural and urban population. Enrolment in vocational training courses is highest in early age group and reduces successively but, in males especially urban males it increases in 45-59 years age group. Enrolment of retired soldiers in vocational training is a significant cause of the increase in high age enrolment⁵. The craftsman training scheme (Industrial Training Institutes) in India was started as a post-war rehabilitation measure for demobilised military personnel (Thakur, 1979). The retired personnel has a reservation of seats in Government jobs. Duration of these training courses is short than other academic courses. The short period motivates them to enrol in these vocational courses.

Rural male's enrolment in formal vocational training starts in 15-19 years age group while in rural females enrolment in formal vocational courses in 15-19 years age group is reported zero. This pattern is because rural females start their schooling late in comparison to males. Rural females' enrolment is highest in 20-24 years age group. In urban Rajasthan, in 15-19 year age group, per 1000 males 32 are currently enrolled in vocational courses. Enrolment in formal vocational courses is highest in 20-24 years age group in Scheduled Tribes while in other social groups it is in 15-19 years age group. This pattern shows the late entry of this social group in vocational training courses. In vocational courses, enrolment level is higher in Scheduled Caste's rural males, rural females, urban males and urban females in comparison to Scheduled Tribes' respective group. Enrolment in formal training courses is lowest in Scheduled Tribes followed by Scheduled Caste, Other Backward Class, and Non-ST/SC/OBCs.

The male-female gap in vocational training is lowest in Scheduled Tribes followed by Scheduled Castes, Other Backward Classes, and Non-ST/SC/OBCs. This pattern is probably due to overall low level of vocational training in Scheduled Tribes and higher income level in these groups in comparison to Scheduled Tribes. However, this reflects egalitarian nature of Scheduled Tribes.

In Rajasthan 88.75% population is Hindu, so their pattern guides state level pattern. However, Muslims, second largest religious community in the state, presents a different picture. Majorly this is a landless community. Likewise low level of education, level of vocational training is very low in this religious group. In vocational training, Muslim females' presence is negligible.

Enrolment in vocational training courses is high in urban Muslim males. Level of formal vocational training, both stock and flow, is reported less than one per 1000 Muslim Females. Due to low education level, their representation in the government job and service sector is deficient. Gender disparity in literacy and education is higher in Muslims in comparison to Hindus (Alam and Raju, 2007, 1615). Muslims have a history of exclusion from mainstream schooling and white-collar work (Jeffery *et al.*, 2004, 962). For these reasons, they are employed in unorganised sector mainly. Level of formal vocational training is higher in Scheduled Tribes and Scheduled Castes population in comparison to the level in Muslims. Returns to education are higher in Scheduled groups in comparison to Muslims because the affirmative action in India has favoured jobs for the Scheduled Tribe - Scheduled Caste population (Unni cited in Unni, 2009, 112).

Vocational Training in Different Economic Groups:

Level of education is affected by the income level of the household. Students from low-income families, help their family in economic activities before completing their education. Middle-income families can provide their children required education. So, household's financial condition is a prominent factor affecting the level of education and vocational training. Training through different means of skills transfer leads to variation in income level. So, type of vocational training affects the economic level of a household. The relationship between the type of vocational training and economic class is twofold. Skills are helpful in getting employment. It leads to increase in income of individual and household. On the other hand, persons of good income level household, meeting their required economic needs, can attend formal training. High-income persons can start their enterprise. In lowest income group, level of vocational training is very low. In a low-income group, vital skills come from the hereditary source and by learning on jobs. As income level increases, enrolment in formal training institutions increases. Fees for these training courses are higher than general academic courses. People in the high-income group can afford fees paid for formal training institutions. Apart from this, they do not need to support their family during their training.

Role of vocational training across various income groups is explicit by the distribution of trained persons. Two-third of enrolled trainees belongs to the high-income

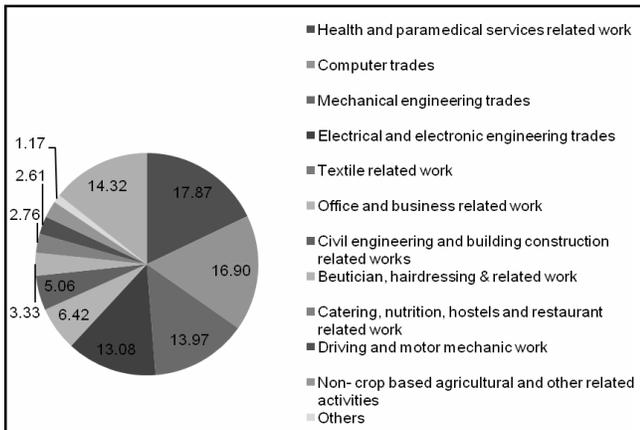
group. This pattern is because these people are easily able to pay the fees; their families do not need their participation in economic activities to support the household. After completing the training, high-income persons will be able to open their enterprises as self-employed. Two-thirds of formally trained persons belong to the middle-income group. The share of formally trained persons is lowest in the high-income group. Oketch (2014) finds that although vocational education is not lucrative to the people who have high salary aspiration, yet it is attractive to the people who want to sure the guaranty of the job. So, it is clear that people opt for vocational training as an assurance of livelihood. This attitude can be continued by bettering vocational education and training. This pattern shows that earlier these training courses were seen as a second grade by high-income group persons. In urban sector, high-income level persons' share is lowest (5.23%) among formally trained persons. While in 2011-12 in total enrolled persons' this higher income group's share is highest and dominating.

Institution and Field of Training:

Data for type of vocational training institution is available for 15-29 years age group in NSSO 68th round Employment Unemployment survey, unit level data. In this age group, 71.74% of formally trained persons have received training from government institutions followed by 20.53% from private aided and 3.03% from private unaided. However, in currently enrolled trainees in 15-29 years age group 47.50% are enrolled in private unaided institutions followed by 39.64 % government and 12.75 % private aided. So privatisation of vocational training is taking place in Rajasthan.

Rural sectors' 89.93% trained persons, in 15-29 years age group, are trained in Government training centres in comparison to urban sectors' 23.53%. In urban sector, 48.28% trained persons are trained in private and aided institutions. At the state level, 85.68% of trained males are trained from government institutions. Government institutions are playing a more critical role for rural men in comparison to urban men. On the other hand, at the state level, 81.33% of trained females are trained from private and aided institutions and 18.67% from private and unaided institutions. This condition is similar for urban women. So, it makes a very significant role of private institutions in female vocational training. The vital role of private training institutions in female training reflects that in government institutions female

desired courses are not available and female are not going to government institutions. In trained person, the role of government institutions is highest in Scheduled tribes followed by the role in Other Backward Classes and Non-ST/SC/OBCs. So, it reflects that role of private training institutions is highest in Non-St/SC/OBCs followed by Other Backward Classes for formally trained persons (Fig. 1).

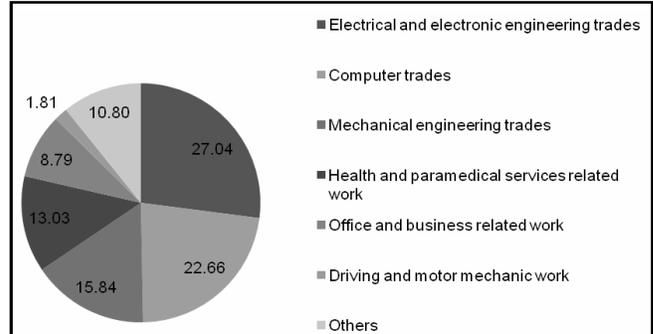


Source: Calculated by author from NSSO 68th round EUS, unit level data, 2011-12

Fig. 1 : Distribution of formally trained persons in different levels of vocational training in Rajasthan in (15-59 years age group) in 2011-12

At the state level, in current male trainees, 48.44% are enrolled in private and unaided institutions, followed by 38.27% in government institutions and 13.19% in private and aided institutions. In enrolled females trainees, 53.46% are in government institutions. So, it reflects that role of government institutions is increasing in female vocational training. Urban males, 47.29% are enrolled in government institutions in comparison to 30.59% of rural males. Rural females trainees’ 86.96% are enrolled in government institutions in comparison to 32.91% of the urban counterpart. In Scheduled tribes enrolled trainees 63.54% are in government institutions, followed by Non-St/SC/OBCs’ 52.63%, Scheduled Castes’ 41.53%, and Other Backward Classes’ 32.37% trainees (Fig. 2).

Government and private institutions are playing an important role together for skill enhancement. This pattern shows that government institutions are not able to meet the demand for formal training, so private training institutions are becoming important and on another hand, many industrial groups and industries have established their training institutes. The number of institutions



Source: Calculated by author from NSSO 68th round EUS, unit level data, 2011-12

Fig. 2 : Distribution of currently enrolled trainees in different fields of vocational training in Rajasthan in (15-59 years age group) in 2011-12

providing soft skills is less and primary focus is in technical training. In private training institutions, a variety of training is available. Private training institutes are providing training in more fields in comparison to Government Institutions.

In Rajasthan, 34% trainees are enrolled in technical courses. In rural Rajasthan, 35.93% trainees are in technical courses in comparison to 31.87% trainees in urban Rajasthan. In trained persons, 58.90% are trained in technical fields. In rural Rajasthan, 52.98% persons are trained in the technical field in comparison to 73.57% in Urban Rajasthan. In Vocationally trained persons 7.1% has graduation degree in vocational courses, remaining of trained persons have certificate/diploma level training. In currently enrolled trainees, only 0.9% is enrolled in graduate-level vocational courses. In currently enrolled trainees, soft skills, office related skills and new vocational courses like beautician, hairdressing, catering and hostel related trades are becoming popular.

In rural Rajasthan, 23.02% of trained persons are in health and paramedical services followed by mechanical engineering (14.89%), office and business related work (11.56%), computer trades (10.73%), electrical and electronic trades (8.50%) and textile related work (8.16%). In urban Rajasthan, 21.71% of trained persons are in computer trades followed by electrical and electronic engineering trades (16.65%), health and paramedical services (13.85%) mechanical engineering trades (13.26%) and civil engineering (5.92%).

Females are skilled in health and paramedical services, textile related work, beautician, hairdressing and related work, and hostel and restaurant related work. Males are majorly trained in computer trades, mechanical

engineering trades, electrical and electronic engineering trades health and paramedical services related work, office and business related work and driving and motor mechanic work. It reflects that male and females are interested in different fields of training. The training pattern reflects segregated approach for females. Rural and urban males are trained in same fields. Rural females are trained in health and paramedical services and textile related work while urban females are trained in textile related work, health and paramedical services related work, beautician and hairdressing related work, and catering, hostel and restaurant related work.

Trained Muslims are concentrated in health and paramedical services (36.62%), computer trades (36.51%), driving and motor mechanic work (5.07%) while Hindus are distributed in computer trade (16.21%), mechanical engineering trades (15.28%), electrical and electronic engineering trades (13.58%), textile related work (6.10%), office and business related work (5.59%) and beautician and hairdressing related work (3.05%). Christians are reported being concentrated only in health and related services. Sikhs are distributed in electrical and electronic engineering trades, textile related work and computer trades.

Among Scheduled tribe's trained persons, 39.99% are in health and paramedical services related work, 10.96% in computer trades and 7.20 in electronic and electrical engineering trades. Among Scheduled Castes' trained persons, 34.21% are trained in mechanical engineering trades, 16.24% in electrical and electronic engineering trades, 12.13% in textile related work and 9.36% in non –crop-based agriculture and other related activities. 25.59% of trained persons, in Other Backward Classes, are in health and paramedical services related work, 21.16% in computer trades, 10.88% in mechanical engineering trades, 7.85% in textile related work. In Non ST/SC/OBCs, trained persons are distributed in diverse fields as electrical and electronic engineering trades (18.46%), followed by computer trades (17.24%), health and paramedical services (13.82%), mechanical engineering trades (12.92%), office and business related work (9.50%), textile and related work (4.90%), and beautician and hairdressing related work (4.54%).

In enrolled trainees 5.5% are of the Scheduled tribe, 20.6% of Scheduled Caste and 48.9% of Other Backward Classes and 25.1% of NON-ST/SC/OBCs. So enrollment has increased than trained persons in Scheduled Caste and Other Backward Classes.

Rural trainees are enrolled in electrical and electronic engineering trades (26.16%), mechanical engineering trades (23.67%), health and paramedical services related work (15.61%), office and, business related work (12.93%), computer trade (10.66%), and driving and motor mechanic work. Urban trainees are enrolled in computer trades (35.82%) followed by electrical and electronic engineering trades (28.01%), health and paramedical services related work (10.21%), mechanical engineering trades (7.27%), office and business related work (4.25%), beautician and related work and textile related work (1.48%). This pattern is driven by the pattern of male trainees.

Male trainees are enrolled in electrical and electronic engineering trades (30.07%), followed by computer trades (24.18%), mechanical engineering trades (17.62%), office and business related work (9.77%), health and paramedical services related work (7.92%) and driving and motor mechanic work (2.01%). Female trainees are concentrated in health and paramedical services related work (58.83%) followed by beautician and related work (9.39%), computer trades (9.09%), work related to childcare, nutrition, pre-schools and crèche (8.70%) and textile related work (7.04%). Rural females are concentrated in health and paramedical services related work (79.60%) and work related to childcare, nutrition, pre-schools and crèche (20.39%) while urban females are distributed in health and paramedical services related work (43.37%) followed by beautician and related work (16.37%), computer trades (15.86%), and textile-related work (12.28%).

Scheduled Tribes' 70.46% trainees are enrolled in health and paramedical services, and 29.54% are in electrical and electronics. Scheduled Castes' 37.02% trainees are in computer trades, 28.37% in electrical and electronics trades, 17.01% in health and paramedical services, and 3.44% in textile related trades. Other Backward Class' 32.21% trainees are in electrical and electronics, 25.12% in computer trades, 23.45% in mechanical trades, 10.26% in health and paramedical services, and 3.71% in driving and motor mechanic work. In non-ST/SC/OBCs 35.09% are enrolled in office and business related work, 17.49% in mechanical trades, 15.33% in electrical and electronics trades, 11.00% in computer trades and 2.65% in health and paramedical services. In reserved groups, the highest number of trainees are enrolled in engineering trades, but in the non-reserved group, the highest number of trainees are

enrolled in office and business related work.

In Hindus, the highest number of trainees are enrolled electrical and electronics trade (23.93%) followed by computer trade (23.81%), mechanical trade (16.06%), health and paramedical services (13.70%), and office and business related work (9.24%). In Muslims, 79.30% enrolled trainees are concentrated in electrical and electronics trade and 20.70% in mechanical trades.

Conclusion:

Level of formal vocational training is very low in Rajasthan. In the level of vocational training, urban-rural and the male-female gap is visible. Level of formal vocational training is three times more in urban Rajasthan in comparison to rural Rajasthan. The male-female gap in formal vocational training is wider than the urban-rural gap in all social groups. However, these gaps vary across different social groups. Rural females are most lacking in case of vocational training. The age-based analysis makes it clear that level of formal vocational skills is higher in the medium and upper age group in comparison to young age group. Scheduled tribe population is at the lowest level, followed by Scheduled Caste, Other Backward Class and Non-ST/SC/OBCs in case of expansion of formal vocational training. From the above analysis, it comes out that Scheduled groups are lacking behind in comparison to non-scheduled groups in formal vocational training, as they lack behind in general education. Earlier formal vocational training was popular in lower income groups, but high enrolment level in upper economic class shows that now people of the upper economic class has shown interest in it. Level of formal training is more in Hindus in comparison to Muslims. Muslim females' condition regarding formal training is worse in comparison to Hindu females.

In 2011-12, in formal training, private unaided institutions play a very important role along with government institutions. Role of government training institutions is more Scheduled Tribes and Scheduled Castes, in comparison to their role in Other Backward Classes and NON-ST/SC/OBCs. Private training institutes have important role in females' training in comparison to the role in males. In vocational training, the focus is on technical courses rather than soft skills. The selection of field of training varies across different sections of population. Urban males are trained in variety of fields, followed by rural males, urban females and rural females. Rural females are interested in health and textile

related skills, while urban females are interested in various soft skills related training *i.e.* beautician, catering and office related skills. In 2011-12 males are enrolled in engineering and computer trades while females are in health and paramedical services. Four-fifths of Muslim trainees are enrolled in electrical and electronic engineering trades.

End notes :

1. This classification is done by Balbir Jain (1992: 25).
2. In 2011, literacy level in Rajasthan was less than the national level. In female literacy, Rajasthan is 12.88% behind to national level (Census Data, RGI 2011 (Provisional)).
3. In 2011-12, in Rajasthan, 11.08% females in comparison to 22.38% males were trained up to secondary level and 3.56% up to graduate level in comparison to 6.44% males (Calculated from NSSO 68th EUS Data, 2011-12).
4. Based on a temporal study of Craftsman Training Scheme in Rajasthan from 2005-06 to 2014-15.
5. Based on discussion with retired army personnel in Sikar district, Rajasthan in May 2018.

Policy implications:

Level of formal vocational training is low in Rajasthan. All sections of population are not homogenous. Females, rural population, scheduled tribes and scheduled caste and Muslims are most backward in case of formal vocational training. To increase level of vocational training in these sections Government should focus on supply side. Industrial units should play an active role with the role of Government to keep the training courses up to date.

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