

Social Disparity of Higher Education in India an Analysis of NSSO 55th Round

Abstract:

Disparity, measured in terms of enrolment in higher education by age group gives the representation by social group, not only that it also gives an insight into the result of existing affirmative policies. Again there are intra and inter group disparities which is measured by Theil index. This paper attempts to analyse the disparity across and within in higher education for a specific age group.

Introduction:

Education is universally recognized as an investment in human capital. It is the basic requirement and the most effective instrument of social empowerment and can contribute to socio-economic development by endowing individuals with the means of improving their health, skill, knowledge, and capability for productive work. The knowledge, skill and values acquired through education not only meet the education needs of the society, but they are also permeated with a social content corresponding to the socio-economic and political structure, and consequently social stratification and distribution of power in society.

In education India has experienced much growth, expansion, advance and change in the number of institutions and the stages of education, in the strength and the quality of the teaching, in the magnitude of research works in all the disciplines. India has the largest educational system in the world; this largeness is mainly due to the large population with 12,600 colleges, 70 lakh students, 3 lakh teachers occupying 16 central universities, 39 deemed universities, 221 universities, 156 state universities, 10,555 colleges of which 4,815 have been recognized.

The expansion in the field of education provided great access to all sections of the society. However, owing to a number of constraints, and socioeconomic factors, the benefits of expansion of educational facilities have not fully reach to all the communities specifically among the Scheduled Castes (SC) and Scheduled Tribes (ST). In 2004-05, the GER (Gross Enrolment Rate) was about 10.84 per cent at overall levels, the GER among the SC's (6.30 per cent), the ST's (6.33 per cent), and the OBC (16.60 per cent). Thus the GER for the SC/STs was three times and that of the OBCs was about two times lower as compared with the Others. Between the SC/ST's and the OBC's, however the GER was lower among the former by two per cent points. (Sukhadeo Thorat, 2008).

The present paper is an attempt to present various facets of the educational development of Scheduled Castes and Scheduled Tribes vis-a-vis other sections of the community. The per cent population enrolled at different level of higher education by various social groups is examined by gender, region and household type by both rural and urban. The purpose to examine social group by such categories was to analyze the enrollment for different social groups at various level of higher education, and the extent of disparity if it exists.

Data and Methodology:

For the present study, unit data from National Sample Survey organisation (NSSO) 55th round, on Employment and Unemployment Survey in India, 1999-2000 is used.

Schedule 10 from NSSO 55th round asks questions to the head of the household on the highest level of education achieved by the individual of the household. Higher education will be those from higher secondary and above, means an individual who has at least completed higher secondary and has not completed his or her graduation degree. Similarly graduate and above in various streams like engineering, medicine, agriculture and others means they have at least completed graduation in the respective discipline.

For the present study we considered the age group 18-29, the lower limit being 18, since for a student to complete higher secondary, the minimum age requirement is 18, but this lower limit is raised to 20 in case of graduate and above. Generally 18-23 age- group is considered for higher education but from data of NSSO it was found that there were sizeable population in the age 23-29 which cannot be ignored hence the age group 18-29 were considered for analysis. An analysis by age of the sample population reporting attendance in institutions for graduate (and post-graduate) studies shows that the age-group 18-29 accounts for nearly 90 percent. This would suggest the age-group 18-29 as appropriate for the population with “Graduate and above” level of completed education. Progression at each level in the educational pyramid is conditional on the successful completion of the preceding stage of education. Thus, holding a graduate degree is a must for entry into a post-graduate programme and a Higher Secondary or equivalent qualification is necessary for entry into an under-graduate programme.

Among the four social groups SC, ST, OBC and OTHERS in the NSSO round the OTHERS group was taken as a reference group. OTHERS were taken as a reference group due to larger per cent of the population in the higher education and traditionally and historically they were never deprived for education. Hence while taking the reference the proportion of the population with a educational level in the age group 18-29 to the total population in the age group 18-29 was taken for each of the social groups, which is the gross enrollment ratio.

To explore whether inter group disparity or intra group disparity is more evident we use the Theil index with respect to enrollment in higher education. Here the calculation is based on enrollment in higher education for ST, SC, OBC and OTHERS, by their gender, region and household type.

Let us consider the total number of individuals i ($i = 1$ to 4) in the age group 18-29 are grouped into four groups namely ST, SC, OBC and OTHERS. Let R_i be the ratio of the total number of students with an educational level from higher secondary and above to graduate and above to the total number of population in the age group 18-29, and let p_i be the population share of the group i in the entire population of age group 18-29. Then overall inequality can be represented as follows:

$$T = \sum_{i=1}^4 p_i R_i \log R_i + \sum_{i=1}^4 p_i R_i T_i$$

$$\text{Where } T_i \equiv \frac{1}{n_i} \sum_{j \in S_i} r_j \log r_j$$

Where $j \in S_i$ indicates that T_i is generated by summing over all persons comprising group i , n_i is the total population in the age group 18-29 and r_j is the ratio of individual with that educational level to the total number of population in the age group 18-29. The first term in the value of T gives the extent of between group in equality across all the four groups and the second term is the extent of within group inequality across all the four groups.

Result from Analysis:

Table1 shows the distribution of social groups in the age group 18-29 with and without educational level, the second column gives the per cent distribution of all the population,

Table1: Distribution of population for different Social Groups in the age group 18-29

Social Groups	Percentage of population in the age group 18-29	Percentage of population with higher education in the age group 18-29
ST	11.13	5.8
SC	15.71	8.3
OBC	32.51	25
OTHERS	40.63	60.9
Total Population	92459	19265

Source: Unit data NSSO 55th Round Literacy and level of Education in India

By using the Theil index we try to estimate the intra group disparity among different social groups. The results given below are the Theil index calculated for different social groups at different educational level again concentrating in the age group 18-25. Both

intra group disparity and inter group disparity by using the sum $\sum_{i=1}^4 p_i R_i T_i$, where

$T_i \equiv \frac{1}{n_i} \sum_{j \in S_i} r_j \log r_j$ were calculated, but the value for inter group disparity was found to

be very negligible, hence only the first sum value is given.

At different level of education, the Theil index is approximately equal to zero more in the case of higher secondary and above than other levels of higher education, thus in higher secondary and above the intra group disparity is less and more prominent for graduate and above level of education. The negative values of ST, SC and OBC shows that in terms of extent of inequality ST, SC and OBC are the marginal groups in terms of representation, whereas the group OTHERS are in a better position. The negative values bring down the scale of equality.

Calculated value of Theil Index:

Higher secondary and above:

$$T = \langle -0.035 + -0.049 + -0.052 + 0.20 \rangle = 0.064$$

Graduate and above in agriculture:

$$T = \langle -0.019 + -0.056 + -0.10 + 0.31 \rangle = 0.135$$

Graduate and above engineering:

$$T = \langle -0.04 + -0.05 + -0.08 + 0.30 \rangle = 0.13$$

Graduate and above medicine:

$$T = \langle -0.03 + -0.05 + -0.05 + 0.28 \rangle = 0.15$$

Graduate and above others:

$$T = \langle -0.04 + -0.05 + -0.08 + 0.33 \rangle = 0.16$$

In all the above cases the Theil Index gives negative value for ST, SC and OBC whereas in all the levels of Higher education the value is positive for the social group OTHERS. Thus indicating that ST, SC, OBC are lagging behind the OTHERS in all the levels of higher education. Theil index equal to zero indicates equal distribution. In all the above values the T value is approximately equal to zero, especially in higher secondary and above, whereas in all the other cases the values though higher than higher secondary and above is almost same for graduate and above in different subjects.

Theil index calculated by gender for male and female showed that intra group disparity exist although not that significant, between ST, SC, OBC and Others. Comparatively the intra-group disparity in higher education was slightly more for females than males. The intra group disparity was mote prominent in graduate and above at different level of education and relatively insignificant at higher secondary and above. Again the disparity was much more evident for ST and SC than OBC.

Male:	Female:
Higher secondary and above: $T = \langle -0.03 + -0.04 + -0.04 + 0.17 \rangle$ $= 0.04$	$T = \langle -0.03 + -0.05 + -0.06 + 0.24 \rangle$ $= 0.08$
Graduate and above in agriculture: $T = \langle -0.02 + -0.05 + -0.07 + 0.23 \rangle$ $= 0.08$	$T = \langle -0.01 + -0.05 + -0.11 + 0.44 \rangle$ $= 0.25$
Graduate and above engineering: $T = \langle -0.03 + -0.05 + -0.07 + 0.30 \rangle$ $= 0.13$	$T = \langle -0.03 + -0.05 + -0.10 + 0.31 \rangle$ $= 0.12$
Graduate and above medicine:	

$$T = \langle -0.02 + -0.04 + -0.07 + 0.26 \rangle$$
$$= 0.12$$

Graduate and above others:

$$T = \langle -0.03 + -0.05 + -0.079 + 0.28 \rangle$$
$$= 0.11$$

$$T = \langle -0.04 + -0.04 + -0.02 + 0.29 \rangle$$
$$= 0.17$$

$$T = \langle -0.04 + -0.05 + -0.09 + 0.39 \rangle$$
$$= 0.19$$

Analysis in progress.....