

**Title: Between and Within Social Group Disparities in Higher Education:
An Assessment for India and Major States**

**BETWEEN AND WITHIN SOCIAL GROUP DISPARITIES IN HIGHER EDUCATION:
AN ASSESSMENT FOR INDIA AND MAJOR STATES**

Abstract: *Assessment of social disparity in higher education provides comparative insight about the impact of affirmative policies in India. Affirmative policies in India have been implemented for almost six decades, which are expected to bring the historically backward caste groups representation in higher education in par with the forward caste group. In this paper, we use theil index of disparity to measure between and within group disparities among the social groups. Results reveal that between social groups disparities are significant and within groups disparities are almost negligible in higher education. Analysis within social group disparities indicates evidence of only female being under represented for all the states of India. Analysis by region also reveals between social group disparities are significant and within group disparities are almost negligible in higher education. Results reveal that backward caste group of India still lag far behind compared to forward caste group in terms of higher educational attainment.*

Introduction

Education is universally recognized as a critical investment for human capital. While the importance of education as a determinant of earning was recognized by Adam Smith, the implication of this approach has been spelt out more clearly by Becker (1969) in his famous ‘human capital’ approach. The major problem with the human capital approach to earning differentials is that education explains only part of the dispersion of individual earnings (Atkinson, 1975). It leaves out the influence of important elements as individual abilities and family background (Friedman and Kuznets, 1945)

Within education higher education is considered as an important aspect of one’s social and economic well-being. Recently there has been a considerable demand for expansion and enhancement of the higher education due to growth of industries and the corresponding need of

skilled manpower. As well, liberalization of the economy led demand for new knowledge, technology and better employability directing to manpower development activities provided by higher education (Becker, 1964).

The world conference on Higher education, convened by the UNESCO in 2001, laid down the fundamental principles for the in-depth reform of higher education systems in the world. The conference resolved that “higher education shall be equally accessible to all on the basis of merit in keeping with article 26.1 of the universal declaration on human rights. No discrimination can be accepted in granting access to higher education on grounds of race, gender, language, religion or economic, cultural or social distinctions or physical disabilities”(UNESCO, 2001).The expert report to the World Bank, higher Education in developing Countries: peril and promises sounded the timely warning that the developing countries can ignore higher education only at the cost of its peril (World Bank, 2000).

However, In India, the hierarchical system of **caste** historically denied education and access to high income yielding occupation to backward caste that were kept in the lower strata of which are now called as Scheduled Caste (SC) and Scheduled tribe (ST) of India. The marginalized sections were not only devoid of any education and decent employment, but were systematically and skillfully made dysfunctional through fear, inferiority complex, servility, hopelessness, and despair compelled to depend on the oppression for dues as to how they should view and value themselves, it is but natural for their children who constantly face a rejection, doubt that whether their families and the community really merit any more respects (**Sam, 1999**). To overcome this historical bias and discrimination the policy of protective discrimination (reservation) has been in operation for more then six decades in India. In the past and more so in the recent years the upper strata of the society have expressed strong resentment against the provision of protective discrimination on grounds of equality, merit and secularism. However, lack of reliable official statistics and comprehensive knowledge of social groups disparity in higher education has drawn general population and policy makers into intricacy. Consequently, it remains an imperative need to asses the disparity among different social groups in higher education, which is crucial aspect of development of the country.

II. Data Source and Methodology

To analyze the present scenario in higher education by various social groups and among states in India, we use the NSSO (National sample survey organization) 55th round unit data on literacy and level of education. Data is extracted from NSSO 55th round on employment and unemployment survey, 1999-2000. The main file of all India was further refined to the state level and the age group 18-25 is considered by completed level of education.

We used Theil index to explore the between and within group disparity in higher education among social groups of India. The estimation is based on the completed level in higher education for ST, SC, OBC and OTHERS, by their selected background characteristics.

Let us consider the total number of individuals i in the age group 18-25 are grouped into four social groups namely ST, SC, OBC and OTHERS. Let R_i be the ratio of the total number of population with an educational level from higher secondary and above to graduate and above to the total number of population in the age group 18-25, and let P_i be the population share of the group 'i' of the total population in the age group 18-25. Then overall inequality can be represented as follows:

$$T = \sum_i P_i R_i \log R_i + \sum_i P_i T_i$$

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

Where $j \in S_i$ indicates that T_i is generated by summing over all persons comprising group i , and r_j is the ratio of individual with higher educational level to the total number of population in the age group 18-25 for each of the social groups. And n_i is the population share of the group 'i' in the total population. The first term in the value of T gives the extent of between group disparity across all the four groups and the second term is the extent of within group inequality across all the four groups.

The results given below are the Theil index calculated for different social groups with higher educational level concentrating in the age group 18-25. Both between group disparity and within group disparity were measured by background characteristics as well.

III. Social stratification in India

Historically and still today the Indian social system continues to suffer from the inflexibility of a rigid caste system. For centuries caste has been a determining factor and is still quite evident in education and work distribution for various sections of the society. Hence in India caste has been the determinant of class position, resulting in acute inequality in the distribution of wealth and income (Mehta and Kapoor, 1994).

The traditional deprivation kept SCs (Scheduled Caste) and STs (Scheduled Tribes) at the lower rung of the caste hierarchy and denied access to any form of education; with the demands of a knowledge-driven society under globalization left them out of the mainstream as social misfits and the disposable people of society because of their lack of education.(Thorat, 2008)

Report from National commission for Scheduled Caste and Scheduled Tribes reported that the poverty level among the SC and ST cultivators is 30 and 40 per cent respectively, which is much higher compared with non-scheduled cultivators (18 per cent). In 2000, about 61 per cent of rural and urban SC households and about half of ST households were wage labourers, and poverty levels among them were about 46 per cent for SC and 61 per cent for ST households respectively. The poverty levels among casual labourers' households were as high as 58 per cent and 64 per cent in urban areas for SC and ST respectively thus indicating that major chunk of SC/ST were still living in poverty.

An Act of Parliament which came into force in early January 2007 reserves an additional quota of 27 percent of intake in institutions of higher education maintained by the federal government to marginalized social groups listed in the Constitution as “Backward Castes”. This is an additional allocation to a quota of 22.5% already in existence in all educational institutions for marginalized social groups included in the Constitution in the list of “scheduled castes” and “scheduled tribes”

Thus, there will now be 49.5% of the total seats in the institutions maintained by the federal government reserved for marginalized social groups. Some of the states have already legislated reservation of such a large quota for marginalized social groups in higher education institutions

under their legislative and administrative domain. The new Act of Parliament has generated a debate. Is the quota-based reservation the best way of affirmative action? Aren't the benefits of quota system being monopolized by the more affluent and privileged among the targeted social groups?

(This, relatively better off segment among the marginalized social groups, is termed as '*creamy layer*') are the major beneficiaries of the scheme due to their accessibility, networking and dissemination of information.

Consequent to unequal access in higher education attainment, the 11th Five year plan recognizes the need for education and focuses specifically on expansion with inclusion. Inclusion education essentially requires an increased access to higher education to those whose access is lower than that of the others. The plan identifies multiple groups with lower access to higher education. While considering such groups multiple levels of disparities exist by state, place of residence, religion, caste and gender. However, Inter- caste/tribe disparities are the most prominent as it predicts the economic status too.

Accordingly, question arises whether between social groups disparity is more relevant or within social group disparity is more relevant or both are relevant? Does a higher level of intergroup inequality necessarily produces higher levels of overall inequality, or is the higher levels of inequality is due to the within group inequality? There is general lack of a comprehensive empirical evidence and critical mechanism to explain distribution pattern of higher education and employment drained policy makers into intricacy.

Hence, an imperative need is to examine current status of deprived social groups in terms of their educational status

IV. Result

i) Literacy rates among various social groups in India

In 2004-05, the GER (Gross Enrolment Rate) was about 10.8 per cent at overall levels, the GER among the SC's (6.3 per cent) followed by the ST's (6.3 per cent), and the OBC (16.6 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 (Thorat, 2008). However, 36 per cent of SC persons in rural areas and 39 per cent in urban areas are still below the poverty line. Going by the Census 2001, the overall share of Graduates in the 20-24 age-group population in India is about 8 percent. Of the six categories into which the Census 2001 has classified the Indian population, the degree holders in the 20-24 age group account for only 2.3% of the total population in this age group among the Scheduled Tribes, 3.6% among the Scheduled Castes.

ii) Analysis for between and within group inequality

Many previous studies highlighted the inter-groups disparities, However, for policy prospective both intra and inter groups disparities are very important. Among the eighteen to twenty five age group, 8.6% of ST, 19.6% of SC, 35.2 % and 36.6 % per cent of population were OBC and Others respectively. Among these age groups the Largest percent of population were in U.P (16.2%) followed by Maharashtra (9.7%) and then Bihar (9%). Within the ST's largest percent of the population were in Madhya Pradesh (22.6%), Maharashtra (11.4%) and Orissa (9.1%) respectively.

When we consider the population in the age group 18-25 with educational level higher secondary and above to graduate and above in others, Out of the total population in the age group 18-25 with higher education (58.2%) is represented by Others followed by OBC (26.6%), S.C (10.4%) and (4.8%) respectively. The states with higher representation in general education in this age group 18-25 were Uttar Pradesh (15.8%), followed by Maharashtra (12.5%) and Tamil Nadu (8.2%) respectively.

The states which are highly represented in the age group 18-25 are also represented in the general education with the same age group with the exception of the state Bihar which is not represented in general education in any of the social groups. Whereas the state Tamil nadu which were not highly represented in the age group 18-25 has its representation in general education for the same age group.

Figure below shows the distribution of states with and without educational level in the age group 18-25. The states have been divided into 4 regions viz: North, South, East and West. Almost in

all the states the distribution changes from all population in the age group 18-25 to population with educational level in the same age group. With the others group percent increases when it comes to percent population with educational level.

Table 3 gives the Theil index for each social group and by states of India. The sum of all the social groups for between inequality is given in the column sixth of the table. Whereas the seventh column in the table gives the sum of within group inequality and between group inequality i.e the sixth column. The negative value for each social groups in columns two, three, four and five implies that the group is lagging behind the mean value of the total population in terms of completed level of higher education. Hence the logarithm value comes out to be negative. Whereas value of zero indicates that the social group has population in higher education exactly equal to the mean total population with higher education. Positive value indicates, the group has mean value in higher education greater than that of the mean value of the total population. Hence the logarithm value comes out to be positive.

Within group inequality is measured by taking the sum of the product of the proportion of the population in higher education to the total population in that particular age group of the social group and its logarithmic value. The seventh column in the above table gives the combined total of within group inequality and between group inequalities given in column six of the above table. As seen from the above table, there is hardly any difference in the value between the seventh and the sixth column, thus indicating that overall within group inequality does not exist or is negligible in terms of level of education for all the states of India. The significance of within group disparity is negligible hence the total value in the seventh column remains unchanged even after adding with the between group inequality value given in the sixth column.

The Theil index value for between group inequality by each social group viz ST, SC and to some extent OBC's are showing negative values whereas the social group Others showing positive value, thus indicating that the Others social group gaining in terms of achievement in higher education in contrast, the social groups ST, SC and OBC are losing in terms of achievement in higher education. Except for the state of Himachal Pradesh where social groups ST, SC, OBC and Others showing positive values. States like Tamil Nadu, Kerala, and Punjab shows positive

values for the social group ST and OBC and States like Maharashtra have positive value for the group OBC. Whereas, Others group shows positive value in the decomposition of the summation of Theil index for all the states of India. There is hardly any difference between and within group inequality indicating that within group inequality hardly contributing to the inequality in the overall sum of between and within group Theil index.

Table 4 gives the values of Theil index between social groups and also by male-female among all the states of India. Here also social groups ST, SC and OBC shows negative value in the decomposition of the total index and the Others group showing positive values. This implies that the Others social group gaining in terms of achievement in higher education in contrast, the social groups ST, SC and OBC are losing in terms of achievement in higher education. Except for both male and female from the social group OBC in states like Tamil Nadu, Punjab, Maharashtra, only female OBC from Kerala and Haryana rest of the states showed negative values for social groups ST, SC, and OBC in both the male and female categories whereas the social group Others shows positive value in the decomposition of the total Theil Index . For the Others social group in West Bengal; the final value obtained after summing between and within group inequality of Theil index is different from the value calculated between group inequalities for the female. Thus it implies that within group inequality between female among all the social groups in West Bengal. Incase of male and female Theil index, the values of the sum of between inequality and within inequality are not the same in most of the states. In many of the states like Rajasthan, Orissa, Kerala, Karnataka, Bihar and Andhra Pradesh after summing up within group inequality the value of Theil index becomes negative, especially for the females. After summing up the scale becoming further negative thus indicating that within group inequality exists in these states and is more prominent for females among all the social groups.

Table 5 gives the Theil index value by urban and rural sectors for different social groups, from the results it is evident that social group ST, SC and OBC are contributing negative values in the decomposition of the total summation of Theil index. Contrastly, Other social group contributes positive values in the decomposition of the total summation of the Theil index. Only social group OBC's in rural area of Tamil Nadu and Himachal Pradesh have contributed positively in the decomposition of summation of the Theil index for between group inequalities. Thus the state of

Tamil Nadu where social group OBC had contributed positively in the decomposition of the summation of the theil index from Table 3 were mainly from 'urban' sectors. Here also there is hardly any difference in the value of Theil index after summing up for between and within group inequality, thus indicating that within group disparity hardly exist between any of the social groups in both rural and urban sectors.

Conclusion

The Theil index value for between group inequality has negative values for ST, SC and to some extent OBC's whereas the social group Others having the positive value in the total decomposition of the theil index, thus indicating that the Others social group gaining in terms of achievement in higher education whereas the social groups ST, SC and OBC are losing the in terms of achievement in higher education. Except for the state of Himachal Pradesh where ST, SC, OBC and Others showing positive values in the decomposition of the total Theil index. Thus it is evident that between social group disparity is negligible in the state of Himachal Pradesh. States like Tamil Nadu, Kerala, and Punjab shows positive values for the social group ST and OBC and States like Maharashtra shows positive value only for group OBC in the decomposition of the total Theil index. There is hardly any difference between and within group inequality indicating that within group hardly contributing to the inequality in Theil index. However for the female categories, in some states like West Bengal, Rajasthan, Orissa, Kerala, Karnataka, Bihar and Andhra Pradesh showed negative values after summing within and between group inequality. Thus indicating in these states the within group inequality for female among all the social groups is prominent. By place of residence both in urban and rural areas showed negative value for social group ST, SC and OBC and positive vale for the group Others in the decomposition of the total Theil Index. Here also, there hardly exist any difference in the final value of the theil index after adding between and within social group inequality values. Thus within group inequality is non existent between and urban and rural sectors. Overall, the soivial group ST, SC and OBC are lagging far behind the Others groups in terms of achievement in higher education for all the states of India, except for the state of Himachal Pradesh. The Others group were lagging behind the OBC group in some states like Tamil Nadu, Karnataka , Kerala, Maharastra in terms of achievement in higher education.

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Table 1: Literacy rates among various social groups of India

Literacy rate (%) for Household social Groups				
SR. No	Social Groups	Literacy	Rural	Urban
1	Scheduled tribe	56	42	70
2	Scheduled caste	56.5	47	66
3	Other Backward Classes	65	55	75
4	Others	77	68	86

Source: NSSO 55th Round Report no 473 Literacy and Levels of Education in India, 1999-2000

Table 2: Top 3 states with and without general education by social groups

Social groups	Total population 18-25			Population with general education 18-25		
	1	2	3	1	2	3
ST	Madhya Pradesh (22.6%)	Maharashtra (11.4%)	Orissa (9.1%)	Madhya Pradesh (34%)	Maharashtra (10.7%)	Gujarat (7.2%)
SC	Uttar Pradesh (19%)	West Bengal (11%)	Bihar (9.3%)	Uttar Pradesh (15.5%)	Tamil Nadu (11.6%)	Maharashtra (10.6%)
OBC	Uttar Pradesh (18.7%)	Bihar (12.8%)	Tamil Nadu (12.2%)	Tamil Nadu (20.1%)	Uttar Pradesh (15.3%)	Maharashtra (10.2%)
Others	Uttar Pradesh (15.5%)	West Bengal (14.2%)	Maharashtra (14%)	Uttar Pradesh (17.1%)	Maharashtra (14%)	West Bengal (7.4%)
Total	Uttar Pradesh (16.2%)	Maharashtra (9.8%)	Bihar (9%)	Uttar Pradesh (15.8%)	Maharashtra (12.5%)	Tamil Nadu (8.2%)

Source: NSSO 55th round, unit data 1999-2000

Table 3: Theil Index by states and social groups of India, 1999-2000

State	ST	SC	OBC	Others	Total(between groups)	Theil Index
Andhra Pradesh	-0.02	-0.07	-0.11	0.40	0.19	0.19
Arunachal Pradesh	-0.25	-	-0.01	-0.08	-	-0.31
Assam	-0.04	-0.01	-0.03	0.08	-0.01	-0.00
Bihar	-0.03	-0.07	-0.15	0.24	-0.01	-0.01
Goa	-	1.08	0.67	-0.22	1.53	1.53
Gujarat	-0.05	-0.01	-0.09	0.57	0.42	0.42
Haryana	-	-0.08	0.00	0.51	0.43	0.43
Himachal Pradesh	0.01	0.03	0.12	0.61	0.76	0.76
Jammu & Kashmir	-	-0.05	0.01	0.09	0.04	0.04
Karnataka	-0.03	-0.04	-0.08	0.38	0.23	0.22
Kerala	0.01	-0.03	0.20	0.79	0.97	0.96
Madhya Pradesh	0.00	-0.05	-0.09	0.39	0.25	0.24
Maharashtra	-0.03	0.00	0.09	0.59	0.65	0.65
Manipur	-0.01	0.01	0.50	0.28	0.79	0.78
Meghalaya	-0.29	0.01	0.00	0.08	-0.20	-0.20
Mizoram	-0.12	-	-0.01	-0.01	-0.13	-0.13
Nagaland	0.69	0.00	-	0.01	0.69	0.68
Orissa	-0.08	-0.06	-0.04	0.31	0.14	0.14
Punjab	0.01	-0.08	0.08	0.91	0.92	0.92
Rajasthan	-0.06	-0.05	-0.09	0.36	0.16	0.16
Sikkim	-0.09	-0.02	-0.12	0.18	-0.06	-0.06
Tamil nadu	0.00	-0.04	0.36	0.33	0.65	0.65
Tripura	-0.03	-0.08	-0.08	-0.02	-0.20	-0.20
Uttar Pradesh	0.00	-0.08	-0.10	0.50	0.33	0.32
West Bengal	-0.02	-0.09	-0.01	-0.02	-0.15	-0.14

Source: values calculated from unit data NSSO 55th round 1999-2000

Column 6 = sum of column 2 to 4; column7 = column 6 and sum of within group

(-) indicates zero number of cases

Table 4: Theil Index by sex for all the states of India

States		ST	SC	OBC	Others	Total(between group)	Theil index
Andhra Pradesh	Male	-0.01	-0.04	-0.07	0.64	0.52	-0.50
	Female	-0.01	-0.03	-0.08	1.10	0.98	-0.46
Arunachal Pradesh	Male	-0.23	-	-0.01	-0.07	-0.31	-0.85
	Female	-0.28	-	-	-0.09	-0.37	-0.48
Assam	Male	-0.03	-0.02	-0.04	0.01	-0.07	-0.11
	Female	-0.02	-0.01	0.01	0.24	0.21	0.70
Bihar	Male	-0.01	-0.03	-0.07	0.59	0.47	-0.55
	Female	-0.01	-0.02	-0.08	0.48	0.37	-1.30
Goa	Male	-	0.00	0.00	1.19	1.18	-0.53
	Female	-	-	-	4.08	4.08	0.79
Gujarat	Male	-0.02	0.00	-0.05	0.57	0.50	0.25
	Female	-0.02	-0.01	-0.04	1.45	1.38	0.60
Haryana	Male	-	-0.04	-0.03	0.56	0.49	-0.28
	Female	-	-0.03	0.07	0.82	0.86	0.52
Himachal Pradesh	Male	0.02	0.02	0.11	0.53	0.68	3.37
	Female	0.00	0.02	0.15	0.90	1.07	6.65
Jammu & Kashmir	Male	-	-0.01	0.06	0.07	0.12	-0.00
	Female	-	-0.02	-0.01	0.13	0.10	-0.96
Karnataka	Male	-0.01	-0.02	-0.06	0.33	0.25	-0.11
	Female	-0.01	-0.03	-0.06	1.22	1.12	-0.40
Kerala	Male	0.00	-0.02	-0.05	0.62	0.55	-0.29
	Female	0.12	-0.01	0.57	2.17	2.84	11.37
Madhya Pradesh	Male	-0.01	-0.03	-0.06	0.54	0.44	0.51
	Female	0.02	-0.02	-0.07	1.29	1.22	0.92
Maharashtra	Male	-0.01	0.00	0.09	0.57	0.65	1.20
	Female	-0.01	0.00	0.04	0.95	0.98	1.74
Manipur	Male	-0.03	0.00	0.59	0.34	0.90	1.80
	Female	0.03	0.18	0.85	0.28	1.34	12.50
Meghalaya	Male	-0.27	0.01	0.06	0.01	-0.20	5.37
	Female	-0.22	0.02	-	0.82	0.62	5.67
Mizoram	Male	-0.12	-	0.00	-0.01	-	-0.47
	Female	-0.12	-	-	0.00	-0.12	0.54
Nagaland	Male	0.31	-	-	-	-	1.07
	Female	1.38	0.01	-	0.10	1.48	6.49
Orissa	Male	-0.03	-0.03	-0.01	0.51	0.44	-0.05
	Female	-0.02	-0.02	-0.06	0.70	0.60	-0.48
Punjab	Male	0.00	-0.06	0.04	0.59	0.57	1.45
	Female	0.01	-0.02	0.15	2.67	2.80	7.42
Rajasthan	Male	-0.03	-0.02	-0.05	0.45	0.34	-0.14
	Female	-0.01	-0.02	-0.05	1.04	0.96	-1.01
Sikkim	Male	-0.06	-0.02	-0.05	0.23	0.11	-1.15
	Female	-0.05	0.00	-0.04	0.52	0.43	0.29
Tamil nadu	Male	0.00	-0.02	0.23	0.61	0.81	1.37

Tripura	Female	0.00	-0.01	0.57	1.06	1.62	6.44
	Male	-0.01	-0.06	-0.05	-0.07	-0.19	-1.26
Uttar Pradesh	Female	-0.01	-0.05	-0.03	0.01	-0.09	0.62
	Male	0.00	-0.04	-0.05	0.61	0.53	0.55
West Bengal	Female	0.00	-0.03	-0.07	1.39	1.30	0.87
	Male	-0.01	-0.05	-0.01	0.01	-0.05	-0.55
	Female	0.00	-0.04	-0.01	-0.11	-0.16	-1.41

Source: values calculated from unit data NSSO 55th round 1999-2000

Column 7 = sum of column 3 to 6; column8 = column 7 and sum of within group

(-) indicates zero number of cases

Table 5: Theil Index by sector for all the states of India, 1999-2000

States		ST	SC	OBC	Others	Total	Theil index
Andhra Pradesh	Rural	-0.03	-0.04	-0.12	0.32	0.13	0.13
	Urban	-0.01	-0.05	-0.09	0.24	0.09	0.09
Arunachal Pradesh	Rural	0.18	-	-0.02	-0.08	0.09	0.09
	Urban	-0.07	-	-	0.19	0.12	-
Assam	Rural	-0.03	-0.02	0.00	0.06	0.01	0.01
	Urban	-0.01	-0.04	-0.03	0.09	0.02	0.02
Bihar	Rural	-0.03	-0.07	-0.10	0.40	0.19	0.19
	Urban	-0.01	-0.04	-0.09	0.22	0.08	0.08
Goa	Rural	-	-0.02	-0.01	0.18	0.15	0.15
	Urban	-	-	-	0.01	0.01	-
Gujarat	Rural	-0.06	0.01	-0.12	0.32	0.15	0.15
	Urban	-0.02	-0.04	-0.07	0.17	0.05	0.05
Haryana	Rural	-	-0.07	-0.02	0.14	0.04	0.04
	Urban	-	-0.05	-0.06	0.28	0.16	0.16
Himachal Pradesh	Rural	-0.01	-0.04	0.03	0.03	0.01	0.01
	Urban	0.02	-0.06	-0.02	0.12	0.05	0.05
Jammu & Kashmir	Rural	-	-0.06	0.07	0.05	0.07	0.07
	Urban	-	-0.04	-0.01	0.09	0.04	-
Karnataka	Rural	-0.04	-0.01	-0.05	0.14	0.04	0.04
	Urban	-0.02	-0.03	-0.10	0.23	0.08	0.08
Kerala	Rural	-0.01	-0.05	-0.12	0.28	0.11	0.11
	Urban	0.00	-0.02	-0.08	0.13	0.03	0.03
Madhya Pradesh	Rural	0.12	-0.05	-0.11	0.13	0.09	0.09
	Urban	-0.03	-0.04	-0.08	0.23	0.08	0.08
Maharashtra	Rural	-0.05	-0.04	0.05	0.09	0.05	0.05
	Urban	-0.01	-0.03	-0.04	0.09	0.02	0.02
Manipur	Rural	-0.08	0.00	0.10	0.01	0.03	0.03
	Urban	-0.03	0.00	0.00	0.04	0.01	0.01
Mehalaya	Rural	-0.15	-	-	0.36	0.21	-
	Urban	0.00	-0.01	0.00	0.01	0.00	0.00
Mizoram	Rural	0.07	-	-	-	0.07	-
	Urban	0.00	-	0.00	0.02	0.02	0.02
Nagaland	Rural	0.02	-	-	0.03	0.05	0.05
	Urban	0.07	-0.02	-	-0.01	0.04	0.04
Orissa	Rural	-0.09	-0.04	-0.02	0.33	0.19	0.19
	Urban	-0.03	-0.06	-0.03	0.21	0.08	0.08

Punjab	Rural	0.01	-0.15	0.00	0.27	0.12	0.12
	Urban	-0.01	-0.11	-0.01	0.20	0.08	0.08
Rajasthan	Rural	-0.06	-0.02	-0.10	0.30	0.12	0.12
	Urban	-0.01	-0.07	-0.06	0.20	0.07	0.07
Sikkim	Rural	-0.09	0.00	-0.14	0.57	0.33	0.33
	Urban	0.00	-0.04	-0.06	0.15	0.06	0.06
Tamil nadu	Rural	-0.01	-0.08	0.06	0.08	0.05	0.05
	Urban	0.00	-0.03	-0.06	0.14	0.04	0.04
Tripura	Rural	-0.03	-0.03	-0.07	0.20	0.07	0.07
	Urban	0.04	-0.09	-0.02	0.15	0.08	0.08
Uttar Pradesh	Rural	0.00	-0.09	-0.11	0.33	0.13	0.13
	Urban	0.00	-0.05	-0.12	0.30	0.13	0.13
West Bengal	Rural	-0.02	-0.04	0.02	0.05	0.02	0.02
	Urban	0.00	-0.08	-0.02	0.18	0.08	0.07

Source: values calculated from unit data NSSO 55th round 1999-2000

Column 7 = sum of column 3 to 6; column 8 = column 7 and sum of within group, (-) indicates zero number of cases