

# Inequality in Educational attainment in India

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## Importance of problem and Objectives

- Education has been a long known important factor for human development, contributing to the betterment of individuals significantly by ameliorating the level of remuneration and living standard through raising skills and self-determination.
- According to Census of India 2011, younger population aged 0-14 years contribute around 39.5% of the total population, while population aged 0-4 years share 9.7% of the total population. Considering this large population, providing equitable access to education is a big task for any policy maker especially when most of the population belongs to middle-income and poor family.
- Sluggish improvement in the educational attainment have been long known issue for the country. For instance, in the year 2001, the number of illiterates in the country was quite higher compared to total population at the time of independence. Roughly 350 million of such population was the direct result of poor performance of the polices and funding patterns persisting since second Five-Year Plan.
- Previous studies have documented that there is significant progress in educational enrolment. Noteworthy universal educational enrolment among the children aged 6-10 years is detected, but at the same time illiteracy levels is moderately higher, particularly in rural India and female children which may be associated with unabated dropout rates.
- Present study discusses about the level of educational inequality in India. Moreover, the contribution of social indicators on overall educational inequality have been estimated for different periods of time. It helps in understanding the status of inequality over time and change in the contribution of social factors in educational inequality.

## Data Source and Methodology

- Three rounds of NSSO data have been used 64<sup>th</sup> round (2007-08), 71<sup>st</sup> round (2014), and 75<sup>th</sup> round (2017-18).
- To calculate education inequality for different rounds, the education Gini method suggested by Thomas et al., 2001 is adopted.
- The education Gini uses years of education to estimate overall educational inequality. The education Gini varies between 0 (indicating perfect educational equality), and 1 (indicating perfect educational inequality).
- Then, the education Gini is decomposed for gender, place of residence, caste groups and religious groups. The decomposition is done for all three rounds.

## Results

- As evident in figure – 1, the educational Gini coefficient for India has abated (23.52%) and reached to 0.387. It means, currently in India educational inequality concentrates around 38%.
- Compared to education Gini, the AYS has increased drastically. In 2007-08, it was 5.53 years, but in 2014 it has reached to 7.77 years.
- Figure – 2 depicts that education distribution has improved over the time period. Further, this Lorenz curve estimates that bottom 27% of the population has roughly 2% of the total accumulated years of schooling, though, top 3% of the population has nearly 7% of the of the total accumulated years of schooling in 2018. Comparatively in 2007, bottom one third of the population has no education whatsoever.
- The results revealed in table – 1 outlines that there is substantial education inequality between male and female which has not been eradicated, even though, AYS ameliorated noticeably, and educational disparity has declined moderately in the recent years.
- considering educational attainment in rural and urban sectors, the average years of schooling in 2018 accounts to be 6.44 years and 9.57 years respectively. However, gaps in terms of inequality between these two sectors are still prevailing over the decade.

Table-1: Gini coefficient and average years of schooling (AYS) by social indicators

Indicators	64 <sup>th</sup> (2007-08)		71 <sup>st</sup> (2014)		75 <sup>th</sup> (2017-18)	
	GINI	AYS	GINI	AYS	GINI	AYS
<b>Sex</b>						
Male	0.425	6.56	0.343	7.14	0.321	8.71
Female	0.589	4.47	0.489	5.07	0.456	6.78
<b>Sector</b>						
Rural	0.569	4.26	0.475	5.03	0.448	6.44
Urban	0.381	7.70	0.330	8.42	0.292	9.57
<b>Caste Groups</b>						
Scheduled tribe	0.532	4.69	0.447	5.39	0.430	6.73
Scheduled caste	0.606	3.93	0.500	5.03	0.453	6.50
Other backward class	0.528	5.00	0.435	5.76	0.401	7.42
Others	0.406	7.34	0.330	7.47	0.308	9.32
<b>Religious groups</b>						
Hindu	0.510	5.56	0.415	6.24	0.386	7.86
Muslim	0.565	4.41	0.481	4.91	0.443	6.64
Christian	0.470	6.24	0.294	7.10	0.308	8.61
Others	0.395	6.65	0.372	6.76	0.352	8.29

Figure-1: Education Gini and Average Years of Schooling

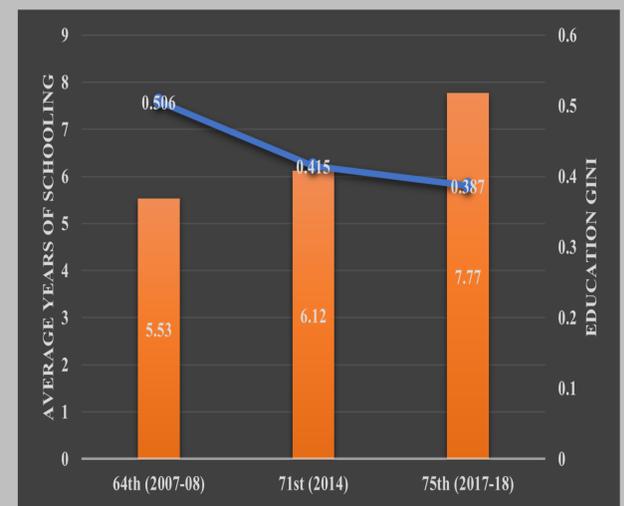
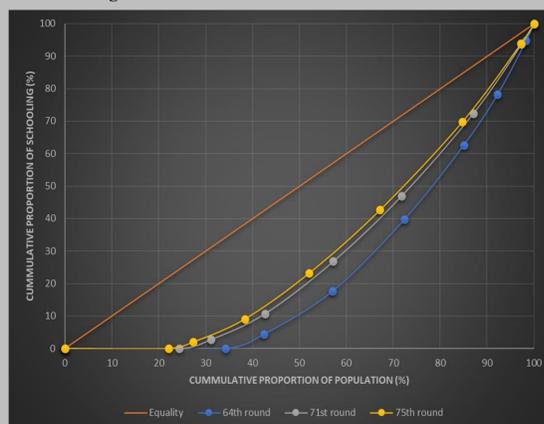


Table-2: Decomposition of Gini by subgroups

Indicators	Relative contribution			Within Contribution			Between Contribution		
	64 <sup>th</sup> round	71 <sup>st</sup> round	75 <sup>th</sup> round	64 <sup>th</sup> round	71 <sup>st</sup> round	75 <sup>th</sup> round	64 <sup>th</sup> round	71 <sup>st</sup> round	75 <sup>th</sup> round
<b>Sex</b>									
Male	0.2545	0.2434	0.2441						
Female	0.2300	0.2436	0.2441	0.4845	0.4870	0.4882	0.1868	0.1705	0.1609
<b>Sector</b>									
Rural	0.3450	0.2925	0.3174						
Urban	0.1424	0.1907	0.1679	0.4874	0.4832	0.4853	0.2853	0.2356	0.2550
<b>Caste Group</b>									
Scheduled tribe	0.0164	0.0162	0.0176						
Scheduled caste	0.0244	0.0232	0.0250						
OBCs	0.1316	0.1464	0.1563	0.2821	0.2899	0.2893	0.2440	0.2070	0.1927
Others	0.1098	0.1041	0.0904						
<b>Religion</b>									
Hindu	0.6018	0.5955	0.5736						
Muslim	0.0131	0.0169	0.0173						
Christian	0.0040	0.0032	0.0038	0.6206	0.6169	0.5968	0.0793	0.0819	0.0675
Others	0.0018	0.0014	0.0021						

Figure-2: Lorenz curve for educational attainment



- Further, more striking disparity can be seen between the caste groups, there is a reduction in AYS gap and education Gini coefficient at the same time, but overall, the education inequality between these groups is quite high.
- Noteworthy disparities in the attainment of Muslim and other religious groups have been detected over the past 11 years. In the current survey, the calculated number for Muslim community turns out to be 6.64 years and 44.3% (Gini) respectively.

- Apparently from decomposition results in (table-2), it can be observed that around 50% of the total education inequality is due to within group component and the main contributor seems to be religious groups (59.6%) followed by sex and sector.
- Nearly one-third of the inequality is concentrated within the caste groups and among them, other backward class holds the major share in contribution.
- Concerning between group contribution in overall inequalities, the proportion is relatively smaller than that of within group component. The key contributors in escalating between group disparities are sector, caste groups and sex, which is same in all the rounds.

## Discussion and conclusion

- Over the time period, Indian education system has achieved a remarkable improvement in dropping the level of illiteracy/no education and escalating primary education.
- In these 11 years, AYS have amplified drastically from 5.53 years to 7.77 years, which suggest, majority of the population have achieved universal level of primary education.

- Further, more striking disparity can be seen between the caste groups, there is a reduction in AYS gap and education Gini coefficient at the same time, but overall, the education inequality between these groups is quite high.
- The caste and religious mechanism have a negative repercussion on educational outcomes, however the difference in year of education has narrowed to a certain extent.
- Being a girl child has a serious implication on their educational attainment. Even though the years of education among females have upsurge over the past decade by 50%, still their educational disparity concentrated around 45%. This reflects huge gender difference in terms of educational outcomes instigated by prevailing social norm of son preference which is widely known in a developing nation like India. The impact of gender preference has built the context of parental biasness against daughters, as it is considered that daughters provide low educational returns compared to sons.
- Further, there are multiple reasons which underline daughters at greater educational disadvantage viz. early marriage, poor school infrastructure, poor social and economic circumstances and lastly mother's education.
- Educational disparity has recovered over the recent times, as indicated by education Gini which is nearly 38% compared to 50% in 2008. Nevertheless, high intensity of educational inequality can be observed among within group component, especially in rural sector, Other Backward Class (OBC) and Hindu community. The high within group contribution indicates the existence of serious education disparity within the rural area, OBC and Hindu population.
- Factors like physical infrastructure, teacher student ratio, and teacher absenteeism are still a matter of concern which is substantially contributing to educational inequality. Besides, the access to education is yet very problematic as there is great variation between and within states, and large differences in participation between distinguishable sub-populations (e.g., Scheduled Caste, Scheduled Tribe, females, and Muslim population).
- Growing income inequality has imprinted stark disparity in widening the educational gaps. Prominently income inequality triggers gender and caste discrimination which in return affects the educational attainment. Consequently, designing equitable and affordable mechanism can lessen the income inequality and would help the population in attaining desired education. Furthermore, the policies and programs should promote awareness regarding importance of education among parents and their children to reduce the marked gaps